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TECHNICAL MEMORANDUM #1

McCall Transportation Master Plan

Existing and Future Conditions Assessment

Updated 8/22/17 to provide formatting changes and include bicycle/pedestrian counts

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Date: January 30, 2017 Project #: 19638.0
To: Nathan Stewart, City of McCall
From: Nick Foster, AICP; Jamie Markosian, EIT; and John Ringert, PE
cc: Bruce Meighen, Logan Simpson

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Attachment C – Turning Movement Count Worksheets

Attachment D – Signal Warrant Analysis Worksheets

Attachment E – Daily Parking Occupancies

Attachment F – Bicycle and Pedestrian Counts

Introduction

As a part of the City of McCall's Comprehensive Plan update, the City is preparing a Transportation Master Plan. The Transportation Master Plan will build upon previous planning efforts in McCall and identify the projects necessary to implement the City's vision for its transportation system, identified through the Comprehensive Plan update.

This memorandum describes the existing multimodal surface transportation system, including an inventory of existing infrastructure, an analysis of existing traffic operations, recent crash history, and parking utilization in the downtown. It also includes an analysis of projected traffic operations and parking demand in future years. A pavement management assessment is being completed as part of a separate process by Horrocks Engineers. This memorandum sets the stage for the next step in the Transportation Master Plan, which involves identifying and evaluating potential projects to be included in the final plan.

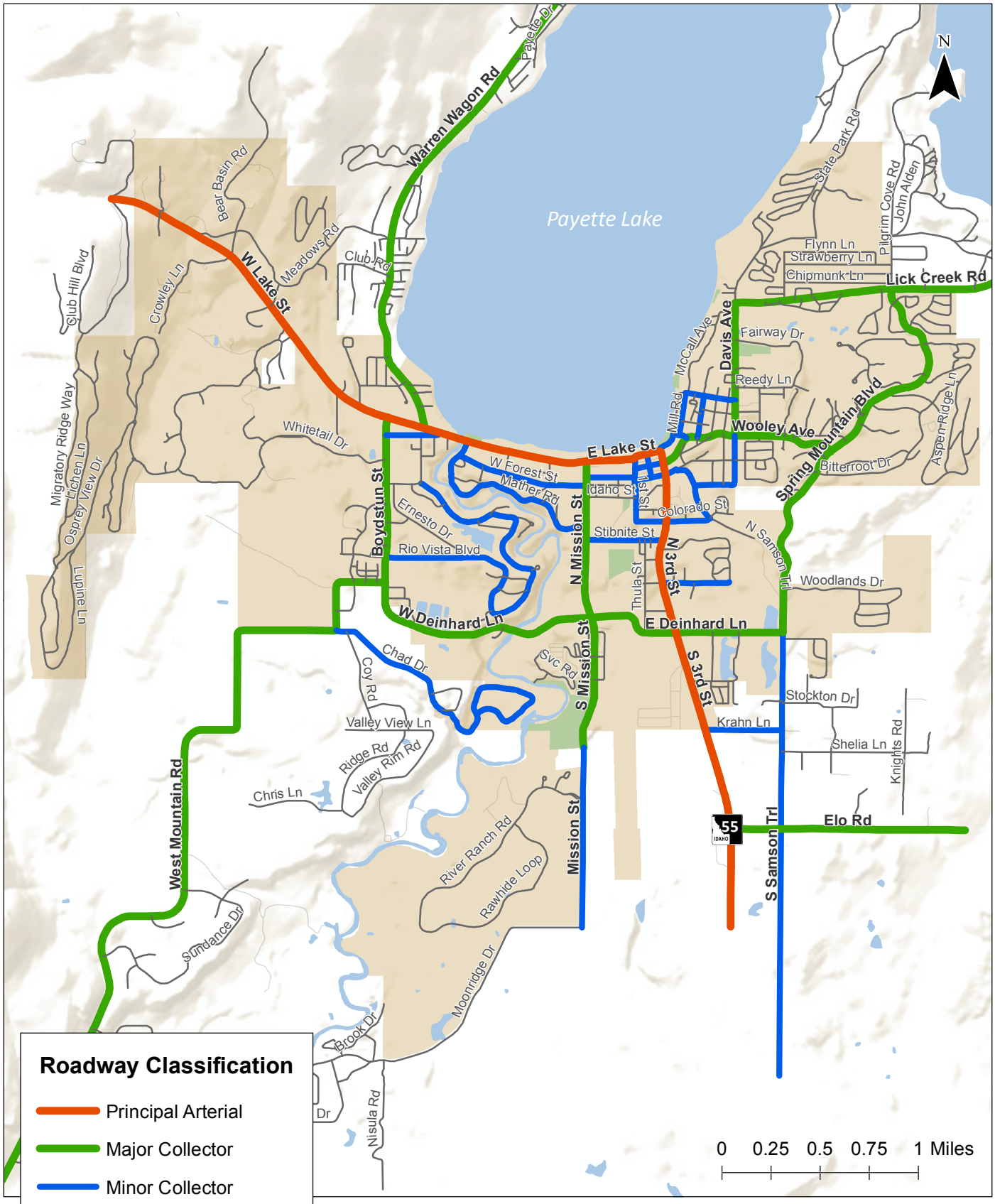
1.0 ROADWAY ASSESSMENT

The following section describes the types of roadways in the City of McCall, including the functional classifications and roadway standards set forth by the City.

1.1 Functional Classification

Functional classification is based on the type of service that a roadway is intended to provide within the context of the transportation system. The functional classification of a roadway determines a number of its characteristics, including how access is provided to surrounding land uses, the desirable amount of right-of-way, and the width and design of the road. Functional classification is also a component of how state and federal funding is allocated. Within McCall, roadways may be classified as Principal Arterials, Major or Minor Collectors, and Local streets, as shown in Figure 1. These classifications are described further below:

- **Arterial** streets typically carry the highest traffic volumes in a city. One of their primary functions is moving people and goods across longer distances. Consequently, access from adjacent properties is limited by the City's Access Management Policy (Reference 1).



Roadway Functional Classifications McCall, Idaho

Figure 1

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- **Collector** streets complement the arterial system and facilitate local circulation and access. Major collectors augment the atrial system to provide access within areas of the City. Minor collectors generally provide access to the local street system within residential and commercial areas. Access to Major Collectors is governed by the City's Access Management Policy.
- **Local** streets provide access to individual land-uses and provide the highest level of access since they typically serve individual homes and businesses. They generally have the lowest traffic volumes and speeds in a city.

1.1.1 Road Cross-Sections

The existing McCall Area Comprehensive Plan (MACP) has several recommended roadway cross sections for different roadways, as well as functional classifications (Reference 2). Included in these diagrams are different options for sections of State Highway (SH) 55 (i.e., 3rd Street and Lake Street), downtown core and central business district (CBD) streets, and rural arterial and collector streets. These cross-sections are included in Attachment "A."

Not all streets match their recommended cross-section; however, the City is actively working to upgrade several streets in the core to better match the recommended configuration. Since the completion of the current comprehensive plan, some street classifications have changed. Therefore, the City may consider revisiting its recommended cross-sections in the next phase of the Transportation Master Plan.

1.2 Existing Traffic Volumes

Traffic volumes were collected on various segments throughout McCall by the ITD, the City, and Valley County. Counts were taken via roadway tube counters and manual turning movement counts. Due to McCall's attractiveness as a seasonal tourist destination, traffic volumes can fluctuate widely from one time of the year to another. For instance, Figure 2 illustrates the monthly change in daily traffic volumes on SH 55, as reported by the automatic traffic recorder (ATR) located in Donnelly. In order to understand both high demand and more typical demand conditions, traffic counts were conducted during peak (i.e., from the 4th of July weekend to late August) and off-peak (i.e., April, May, early June, September, and October) times of the year.

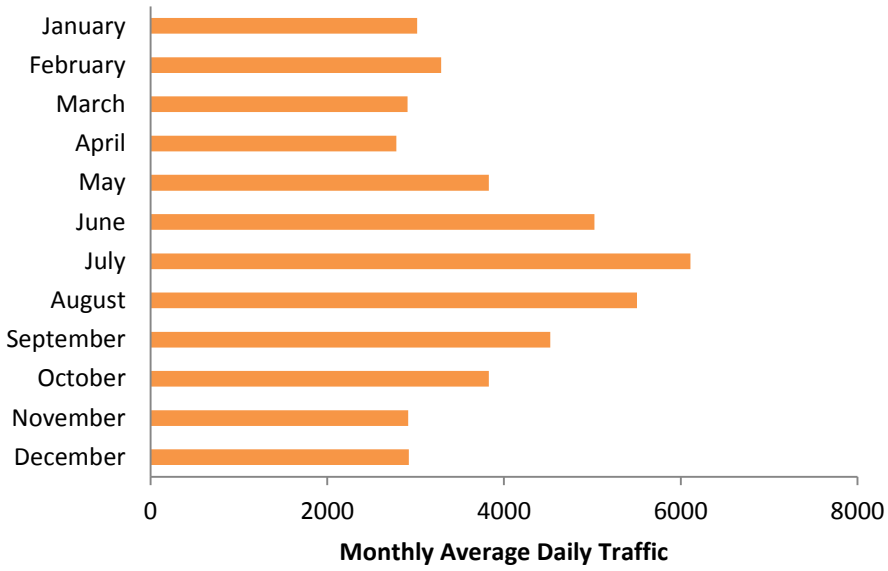
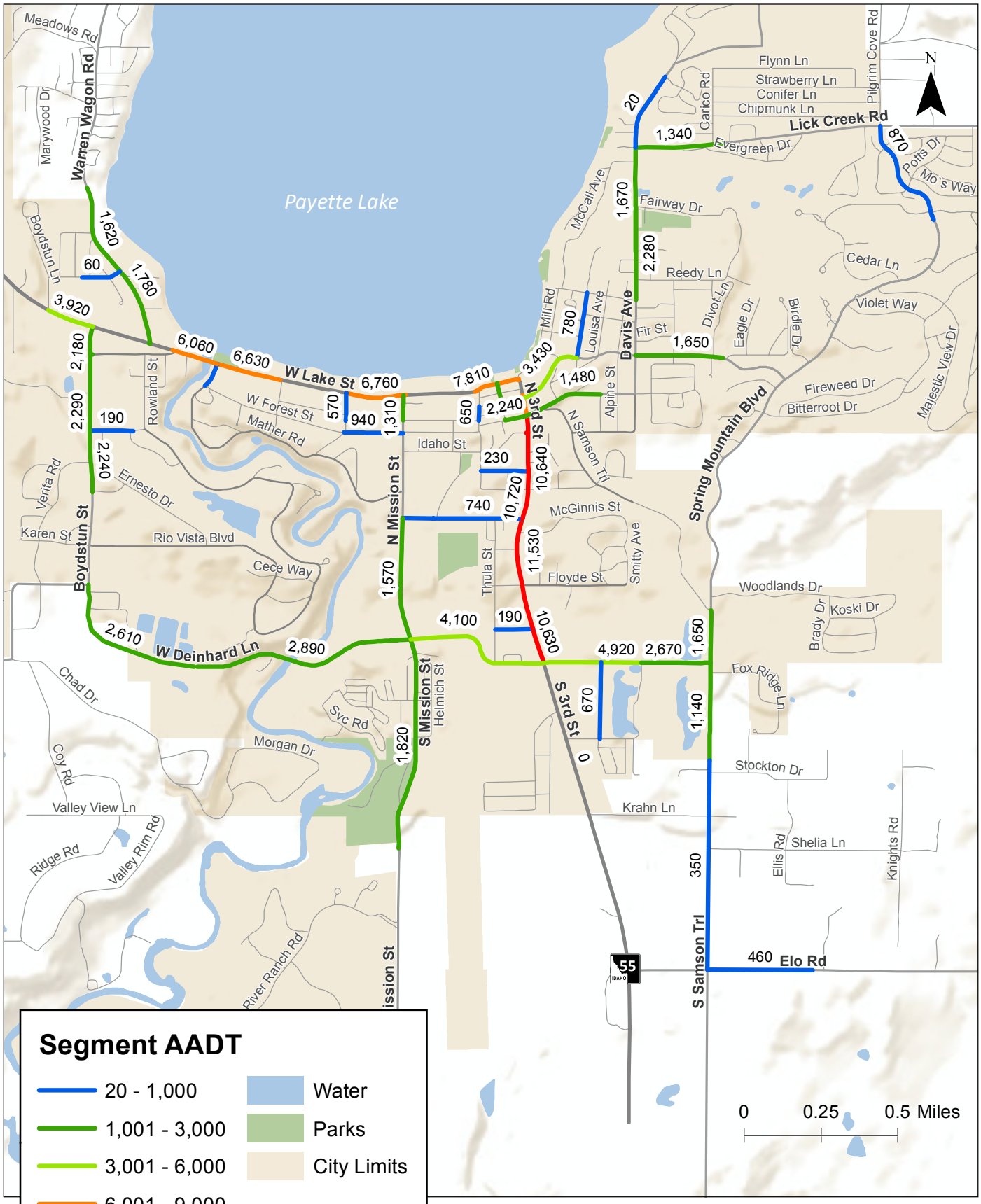


Figure 2 Monthly Average Daily Traffic Volumes in 2015 (ATR #43, Donnelly, Idaho)

Roadway tube counts were generally collected by the City over a period of about five continuous days, usually from Thursday to Monday. Some locations include count data from Tuesday and Wednesday, too (e.g., ITD counts typically include a full Wednesday). This timing ensured that typical weekday, as well as Friday and weekend traffic conditions were observed. For completeness, only data from full 24-hour time periods were used in this analysis.

Average annual daily traffic (AADT) traffic volumes were estimated for the road segments where counts were obtained during at least one period. This was accomplished by multiplying the off-peak weekday counts, where available, by a seasonal factor obtained from ITD. For locations where only a peak period count was available, the off-peak period count was estimated using nearby locations where peak and off-period counts were both available. Figure 3 shows the estimated AADT volumes and Figure 4 shows the percentage of these counts that are heavy vehicles. Attachment "B" includes maps showing the daily counts obtained at all locations during the peak and off-peak periods.



AADT Volumes
McCall, Idaho

Figure
3

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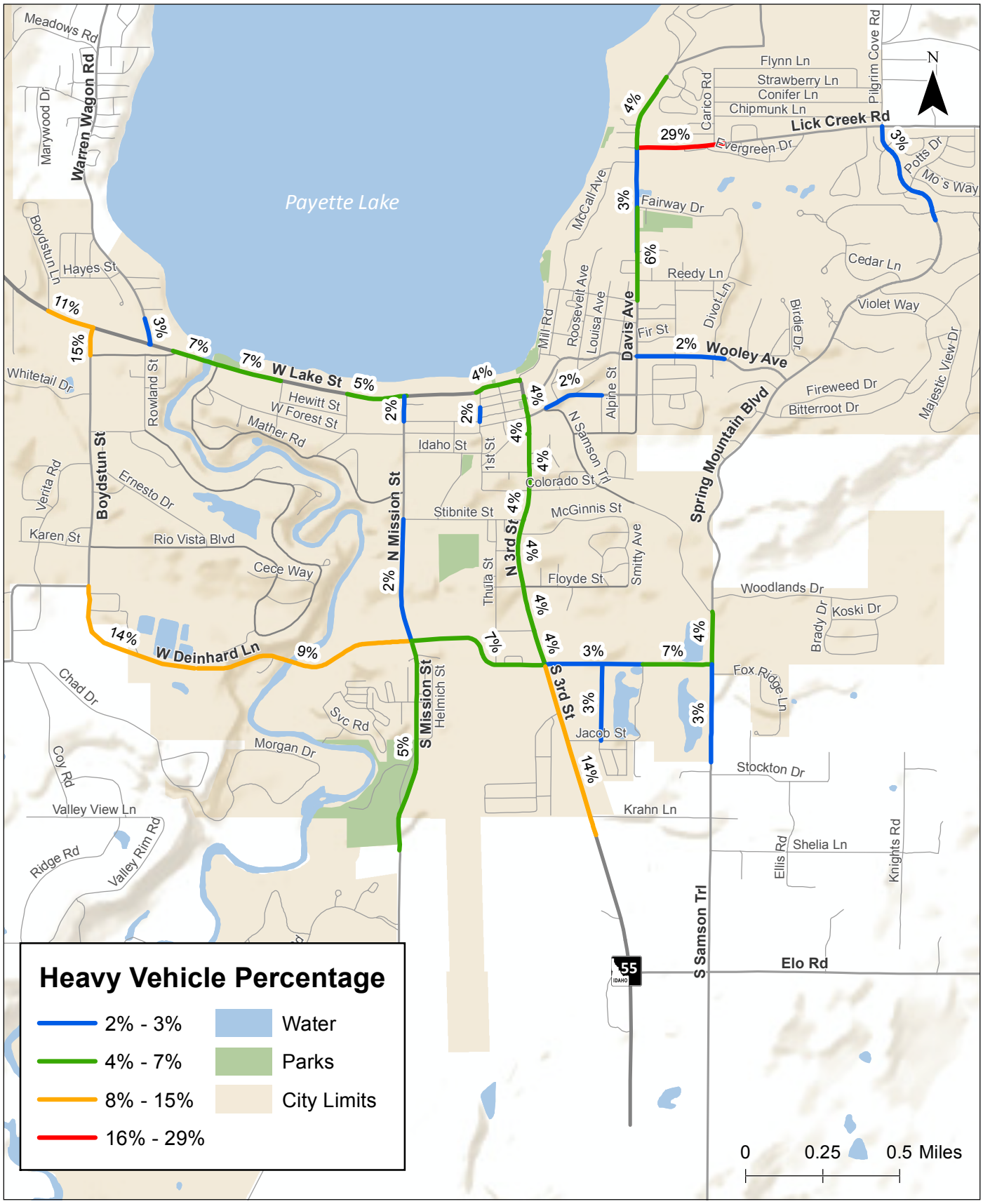

Existing Heavy Vehicle Percentages McCall, Idaho

Figure **4**

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1.2.1 Seasonal Influence on Volumes

As previously noted, McCall sees a significant increase in visitors in the summertime, which influences traffic volumes in the city. Figure 5 compares observed traffic volumes during the peak summertime period and the off-peak spring and fall periods. This figure compares the average daily volume observed at locations that were counted during both periods (i.e. Spring Mountain Boulevard, Deinhard Lane, Davis Avenue, Lake Street, Lick Creek Road, Wooley Avenue, Mission Street, Warren Wagon Road, and Boydstun Street) and is meant to provide a representative sample of trends that occur in McCall. It does not represent the overall average daily volume on all streets in the city. Certain roads may also experience differing levels of seasonality (e.g., traffic counts entering the Ponderosa State Park area have a greater difference between peak and off-peak periods than most roadways).

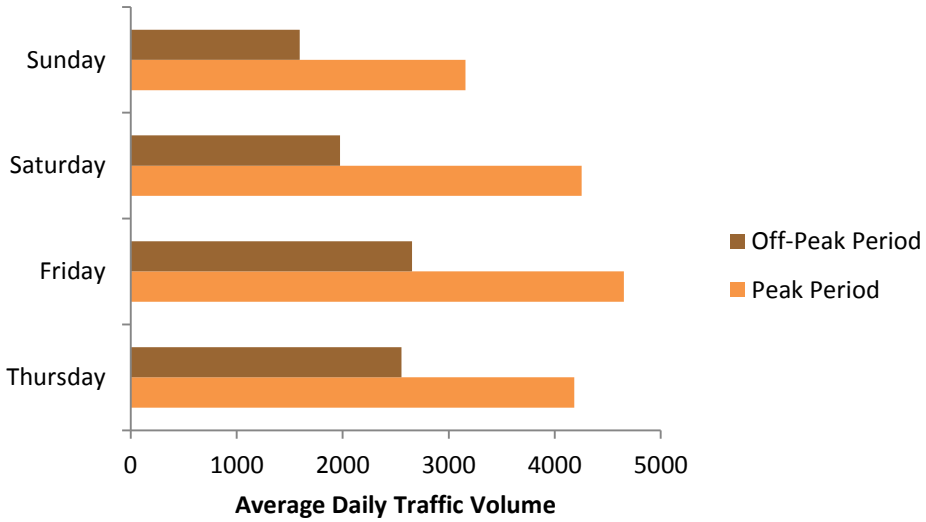


Figure 5 Seasonal Trends in Daily Traffic Volumes

The observed peak summertime traffic volumes in McCall are about 65% to 115% greater than the observed off-peak volumes, depending on the day of the week. The seasonal effect is greatest on the weekend, where traffic volumes were recorded to be about twice as high during the summer.

1.2.2 Volumes by Day of Week

Figure 5 also shows the daily trend in volumes in the City. During the off-peak period, daily volumes are generally highest on Thursday and Friday. However, during the summertime, Saturday volumes are similar to these days, too.

1.2.3 Volumes by Time of Day on SH 55

Figure 6 shows the variation of traffic on SH 55 south of Park Street during a weekday in early June 2016. The traffic profile does not match a typical commuter daily profile with two peaks during the

a.m. and p.m. peak hours. Instead, traffic volumes increase sharply in the morning and plateau through the afternoon into the early evening before they decrease again. As a result the peak hour of traffic on SH 55 does not represent as significant of a portion of the daily volume as it would under a commuter profile. This is also indicates that peak hour conditions may be approximately experienced for multiple hours on a weekday.

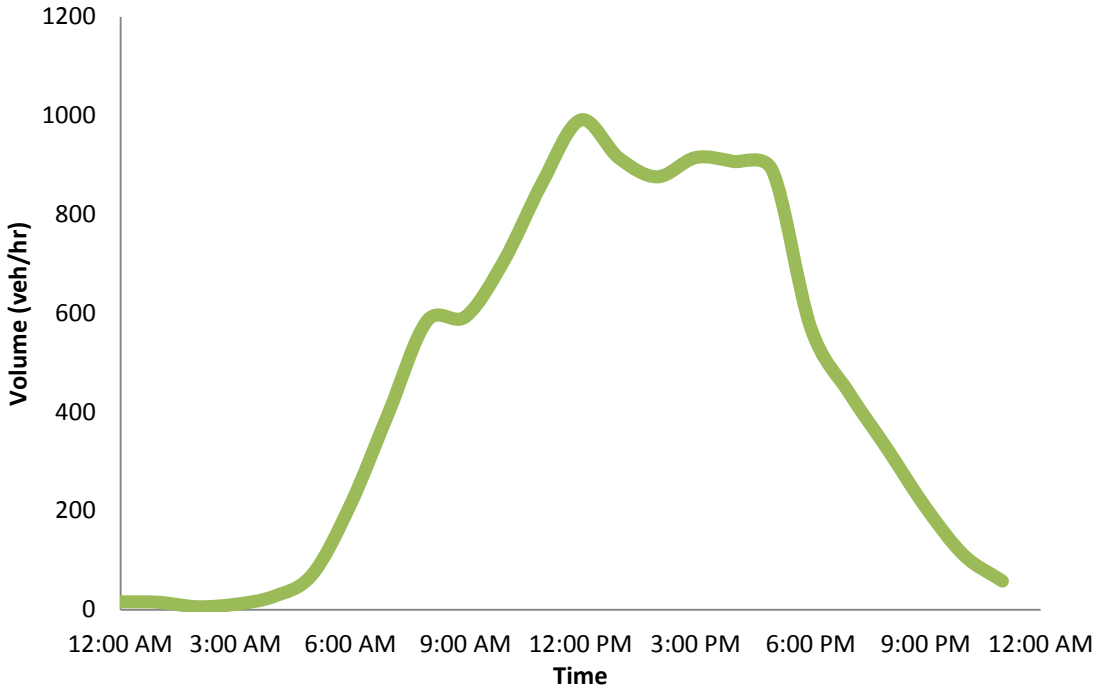


Figure 6 Hourly Traffic Volumes on SH 55 south of Park Street

1.2.4 Intersection Turning Movement Volumes

The City of McCall performed intersection turning movement traffic counts at five intersections along SH 55 on a weekday during the p.m. peak period (i.e., 4:00 to 6:00 p.m.) during the peak and off-peak periods:

- Boydstun Street/E Lake Street (SH 55)
- 2nd Street/E Lake Street (SH 55)
- 3rd Street (SH 55)/Railroad Avenue-Lenora Street[1]
- 3rd Street (SH 55)/Park Street
- 3rd Street (SH 55)/Colorado Street

[1] Peak hour count based on estimate from a 2-hour count

Figure 7 and Figure 8 show the weekday p.m. peak hour traffic volumes at these intersections during the off-peak and peak periods, respectively.

1.3 Existing Traffic Operations

Existing year 2016 traffic conditions were analyzed at the five intersections for which turning movements were provided and along Principal Arterial road segments.

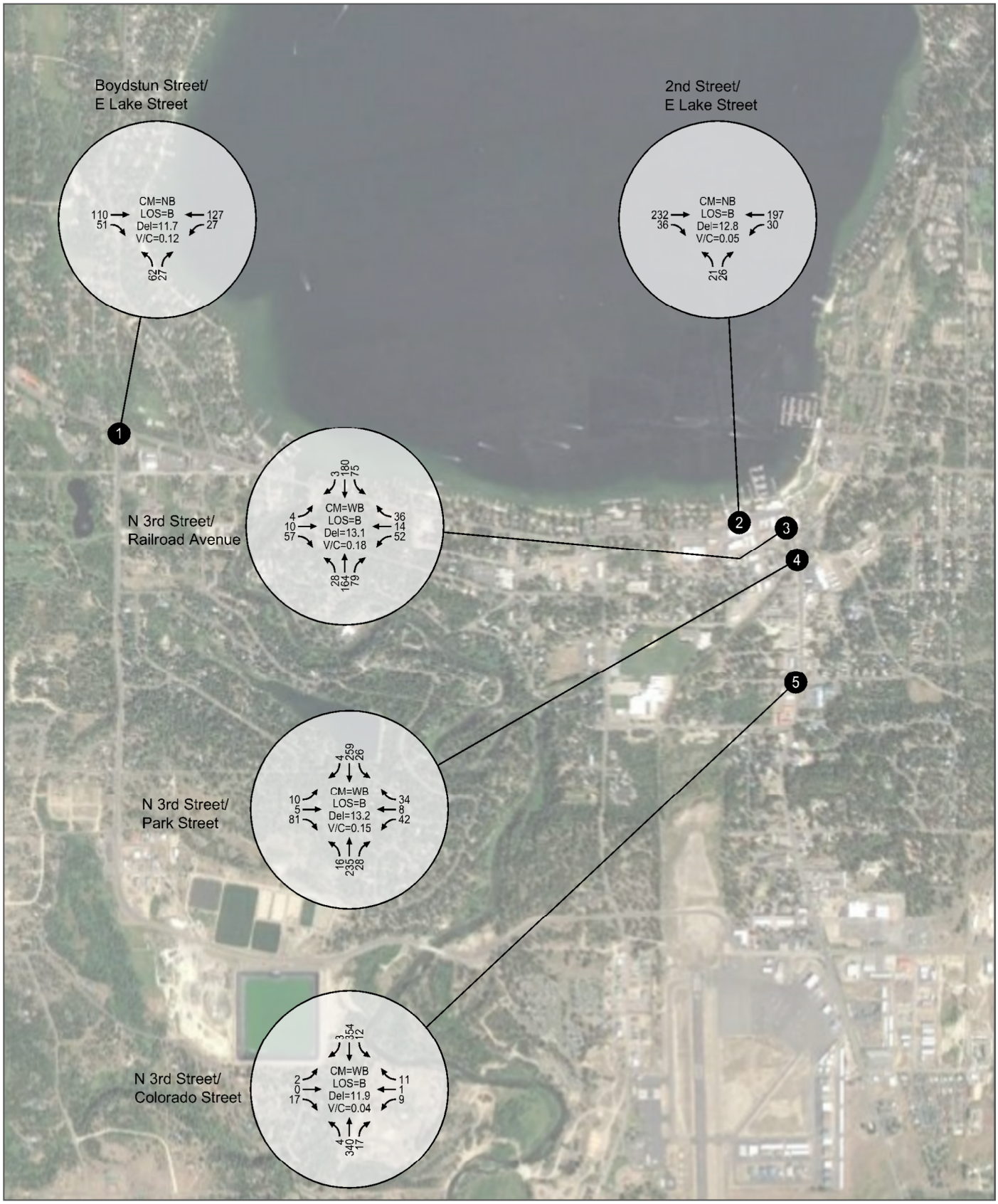
1.3.1 Intersection Operations

Intersection operations analyses were performed using the turning movement volumes shown in Figure 7 and Figure 8. All level-of-service (LOS) analyses described in this report were performed in accordance with the procedures outlined in the Highway Capacity Manual 2010 (Reference 3) using Synchro 9 as the software implementation tool. Figure 7 and Figure 8 show the results of the weekday p.m. peak hour traffic operations analyses during the off-peak and peak periods, respectively. Attachment "C" contains the turning movement counts.

During the off-peak season, the critical movement at each intersection currently operates at LOS "C" or better and with adequate capacity during the weekday p.m. peak hour. However, during peak summertime conditions minor street left-turns operate at LOS "F" at the 3rd Street/Railroad Avenue-Lenora Street and 3rd Street/Park Street intersections during the weekday p.m. peak hour. The eastbound approach on Lenora Street at its intersection of 3rd Street is also at capacity. This increase in delay is due to additional demand for both motor vehicle turning movements and pedestrian crossings.

Friday and Saturday Conditions

Friday and Saturday conditions were not analyzed for this plan; however, as shown in Figure 8, traffic volumes are greater in McCall on these days. Pedestrian crossings are also likely highest during these days. Therefore, traffic operations likely worsen at these intersections during Friday or Saturday conditions. Public and agency outreach efforts have identified concerns with the Park Street and Railroad Avenue-Lenora Street intersections of 3rd Street, both in terms of the ability of motor vehicles to turn onto 3rd Street from the side streets as well as for the safety of people walking across these intersections.



CM = CRITICAL MOVEMENT
LOS = CRITICAL MOVEMENT LEVEL OF SERVICE
Del = CRITICAL MOVEMENT CONTROL DELAY
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

Year 2016 Existing Traffic Conditions
Off-Peak Season, Weekday PM Peak Hour
McCall, Idaho

Figure **7**

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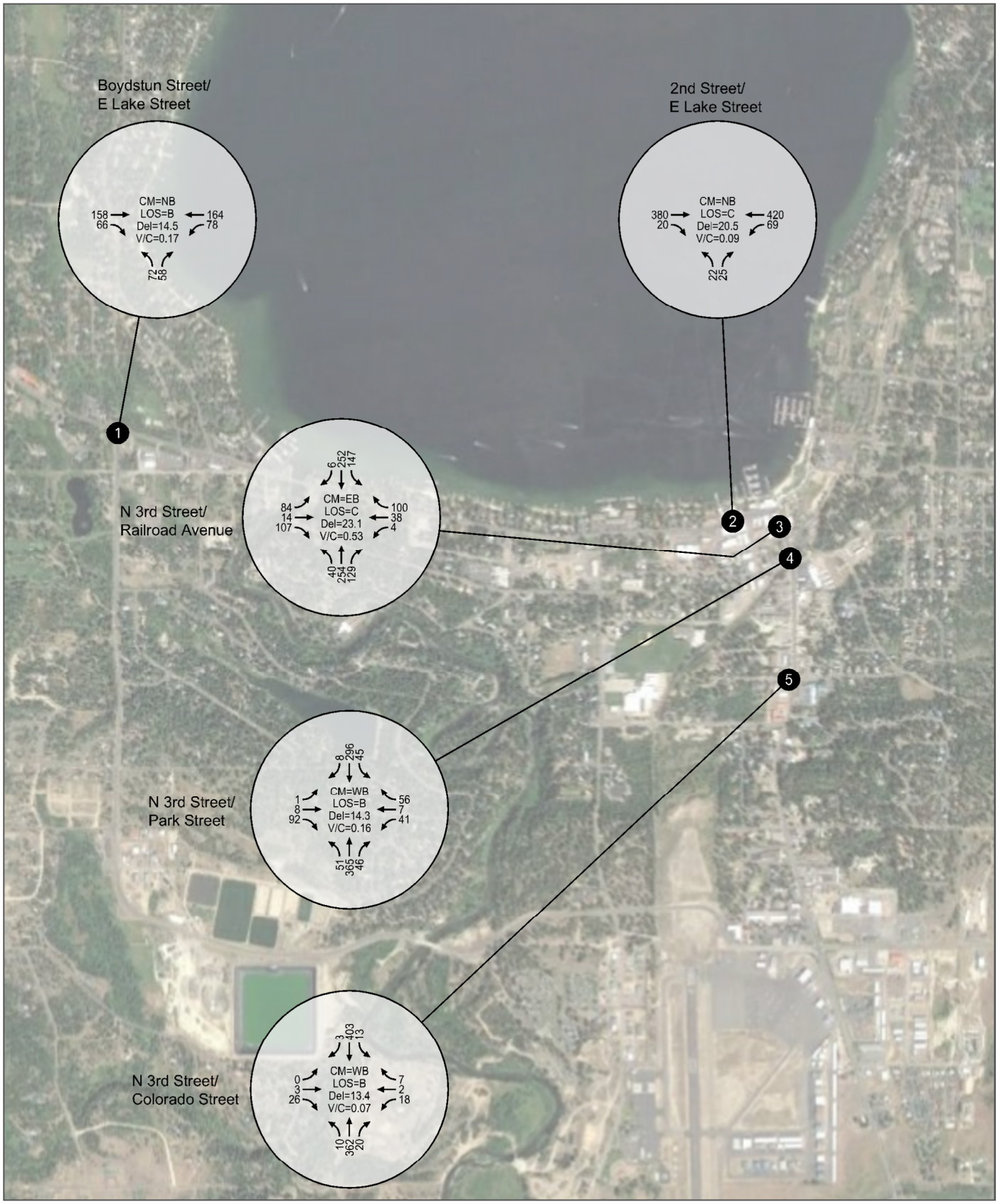

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Year 2016 Existing Traffic Conditions
Peak Season, Weekday PM Peak Hour
McCall, Idaho

Figure
8

1.3.2 Signal Warrant Analysis

Due to the results of the intersection operations analysis and the public feedback received to date, planning-level signal warrant analyses were performed for the intersections of 3rd Street/Railroad Avenue-Lenora Street and 3rd Street/Park Street. The signal warrant analysis worksheets for both intersections can be found in Attachment "D."

3rd Street/Park Street Warrants

The analysis at the 3rd Street/Park Street intersection used hourly traffic volumes collected by ITD over the course of Wednesday, June 1, 2016 on all four intersection approaches. The counts are not separated by direction, so a directional split of 55% in the peak direction (i.e., northbound) was assumed for the 3rd Street volumes. This directional split is based on the turning movement counts conducted by the City. The following vehicular volume signal warrants are met as a result of this analysis:

- Eight-hour vehicular volume;
- Four-hour vehicular volume; and,
- Peak hour.

3rd Street/Railroad Avenue-Lenora Street Warrants

Daily traffic volumes were not available for the 3rd Street/Railroad Avenue-Lenora Street intersection, so the weekday p.m. peak hour turning movements collected by the City were used to estimate hourly approach volumes. Therefore, this analysis is considered planning-level. The results of this signal warrant analysis are summarized below:

- All three vehicular volume signal warrants noted above for the 3rd Street/Park Street intersection are met during the summertime peak season; and,
- None of the vehicular volume signal warrants are met during the off-peak season.

1.3.3. Roadway Segment Operations

A planning-level segment analysis was completed using the look-up tables provided in the Florida Department of Transportation's (FDOT's) Quality/Level of Service Handbook (Reference 4) and the tables used by the Community Planning Association of Southwest Idaho (COMPASS, Reference 5). These tables are based on the Highway Capacity Manual's methods and provide planning-level daily traffic volume level-of-service thresholds for different roadway types in a variety of areas (i.e., rural, transitioning, and urban). This analysis is completed for SH 55 and the Deinhard Lane-Boydstun Street loop on the west side of SH 55. These segments were selected because they have the highest volumes and serve regional, as well as local, traffic.

The FDOT values for a rural city were used along Boydstun Street and Deinhard Lane. However, the FDOT values for a rural city did not seem appropriate for McCall's central business district (CBD), which has on-street parking and high demand for pedestrian crossings. Therefore, the COMPASS values were used for SH 55 through McCall. The LOS threshold values are shown in Table 1.

Table 1 Level of Service ADT Volume Thresholds

Roadway	LOS C	LOS D	LOS E
State Highway 55[1]	11,300	12,700	14,100
Deinhard/Boydstun[2]	16,400	23,100	31,500

[1] ADT volume thresholds used from Reference 5
[2] ADT volume thresholds used from Reference 4

There are two primary challenges with using daily LOS values in McCall, which should be kept in mind when reviewing the results of this analysis:

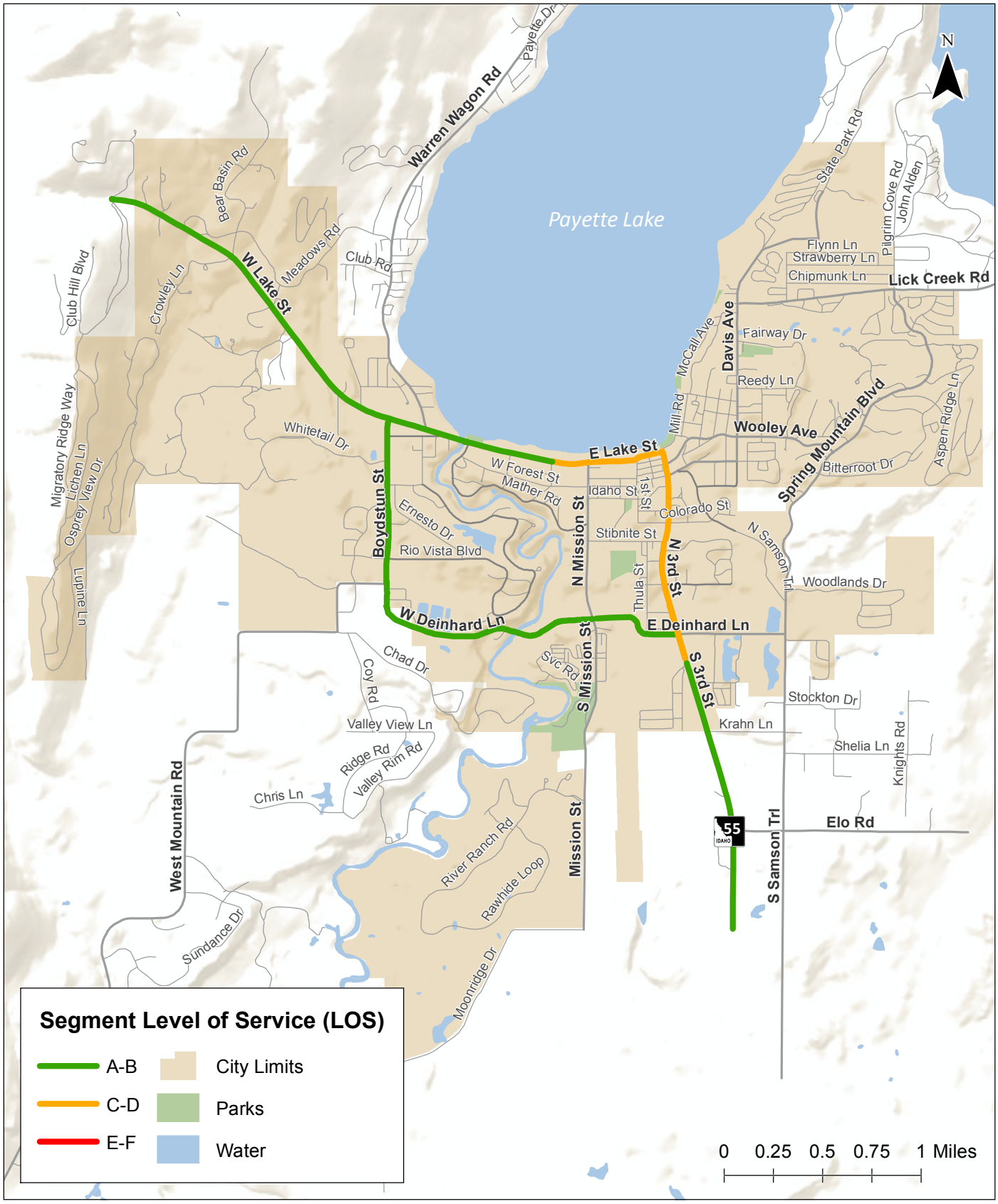
- The published thresholds are based on a typical commuter pattern relationship between weekday p.m. peak hour and the average daily traffic, which, as shown in Figure 6, is not the pattern in McCall
- The SH 55 corridor does not neatly fit into the typical roadway and community size categories.

Figure 9 shows the roadway level-of-service by segment along the Principal Arterials in McCall (i.e., SH 55, Deinhard Lane, and Boydstun Street) using the AADT volumes from Figure 3 and the thresholds in Table 1. According to this analysis, the existing roadways all operate at LOS "C" or better during the off-peak period.

Operations may be worse along certain roadway segments during peak conditions as illustrated in Figure 10, which uses summertime peak period daily volumes. Summertime counts were not conducted on SH 55, so the volumes on 3rd Street and Lake Street are estimated using the growth seen from the off-peak period to the peak period in the turning movement counts on SH 55. During the summertime peak period, 3rd Street operates in the LOS "E"- "F" range.

1.4 Future Traffic Volumes

Year 2040 future traffic volumes were projected based on population growth estimates provided by Logan Simpson staff and recent growth trends on SH 55 provided by ITD staff. Based on this data, a 3 percent annual growth rate was applied to the 2016 volumes to estimate year 2040 traffic volumes. The determination of 3 percent per year came from population projections from Logan Simpson and a 'stock' growth rate of 3 percent per year provided by ITD from historical counts. Figure 11 shows the projected future year 2040 AADT volumes along roadway segments in McCall and Figure 12 and Figure 13 show the projected year 2040 turning movements at the study intersections during the off-peak and peak periods, respectively.



Existing Roadway Segment Operations
AADT Volumes
McCall, Idaho

Figure
9

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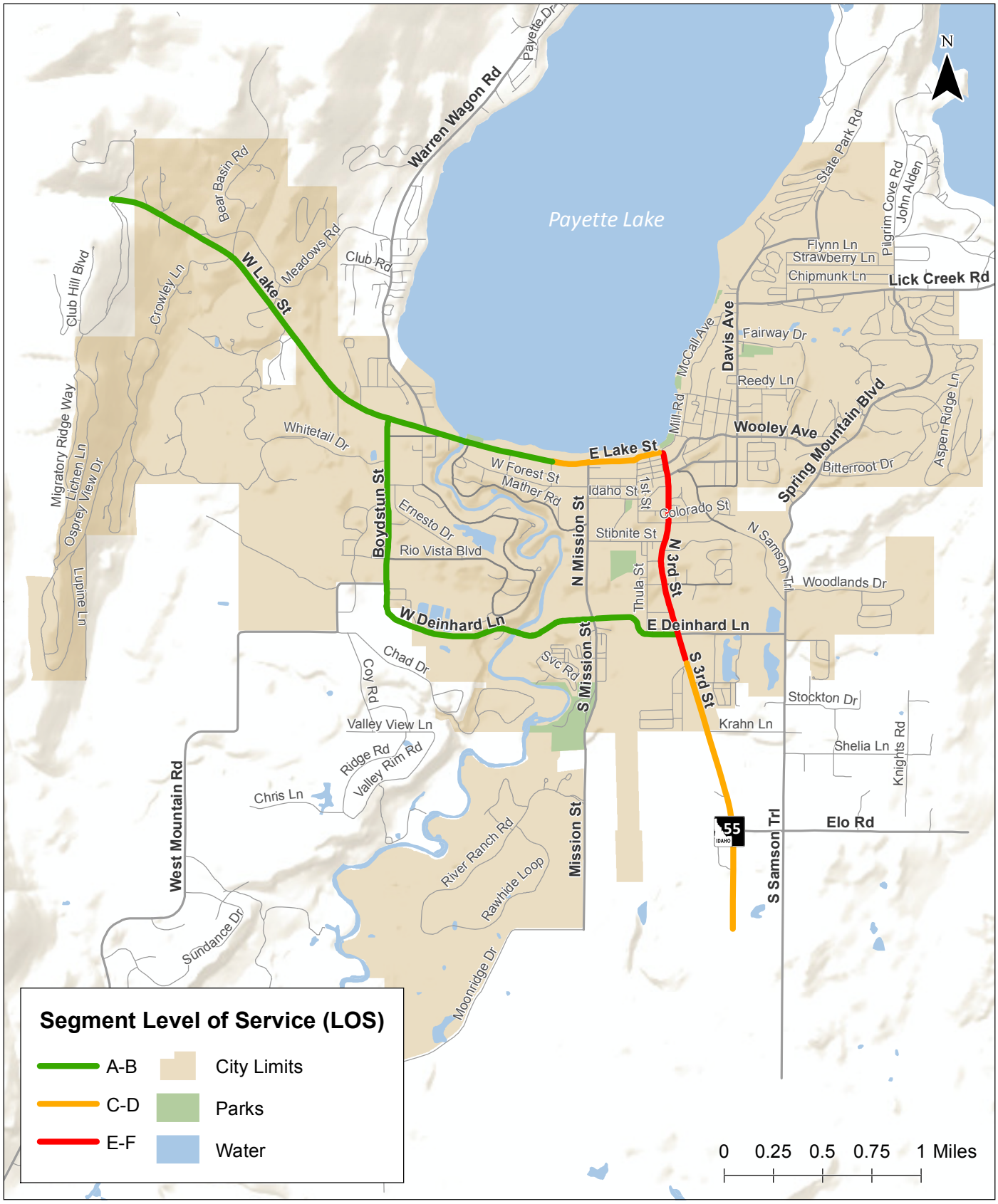

Existing Roadway Segment Operations
Peak Season Volumes
McCall, Idaho

Figure **10**

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Data Source: City of McCall, Topo Data Sources: Esri, USGS, NOAA

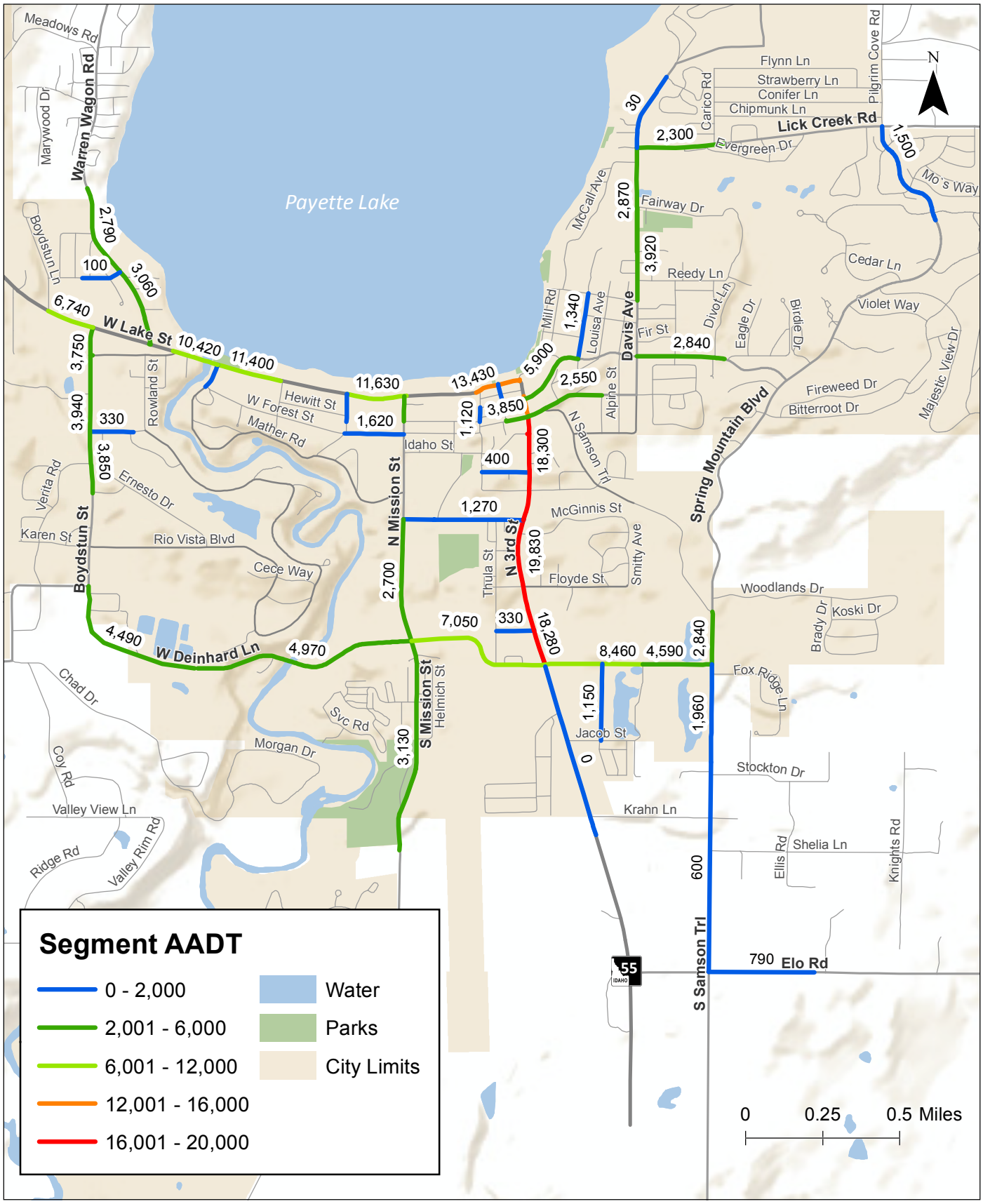
1.5 Future Traffic Operations

Traffic operations analyses were performed on the projected year 2040 volumes for the study intersections and roadway segments. These analyses provide a planning level examination of expected traffic operations if no changes are made to existing intersection or roadway configurations.

1.5.1 Intersection Operations

Intersection operations analyses were performed using the turning movement volumes shown in Figure 12 and Figure 13. The results of these analyses are shown in the same figures. Based on these projected volumes, the critical movement at most intersections is projected at operate at LOS "D" or better and with adequate capacity during the weekday p.m. peak hour during both off-peak and peak periods. The following are exceptions:

- 2nd Street/Lake Street
    - Peak Season – Northbound approach is projected to operate at LOS "E," but with available capacity
- 3rd Street/Railroad Avenue-Lenora Street
    - Off-peak Season - Westbound left-turn/through movement is projected to operate at LOS "F" and without available capacity
    - Peak Season – Both eastbound and westbound left-turn/through movements are projected to operate at LOS "F" and without available capacity
- 3rd Street/Park Street
    - Off-peak Season - Westbound approach is projected to operate at LOS "E," but with available capacity
    - Peak Season – Both eastbound and westbound left-turn/through movements are projected to operate at LOS "F." Adequate capacity is projected to be available for the eastbound movement, but not the westbound movement
- 3rd Street/Colorado Street
    - Peak Season – The westbound approach is projected to operate at LOS "F," but with adequate capacity
- Lake Street/Boydstun Street
    - Peak Season – The northbound approach is projected to operate at LOS "E", but with adequate capacity.
    - Signal Warrants were run at this intersection and warrants were met for the peak season, but not the off-peak season.



Projected Year 2040 AADT Volumes
McCall, Idaho

Figure
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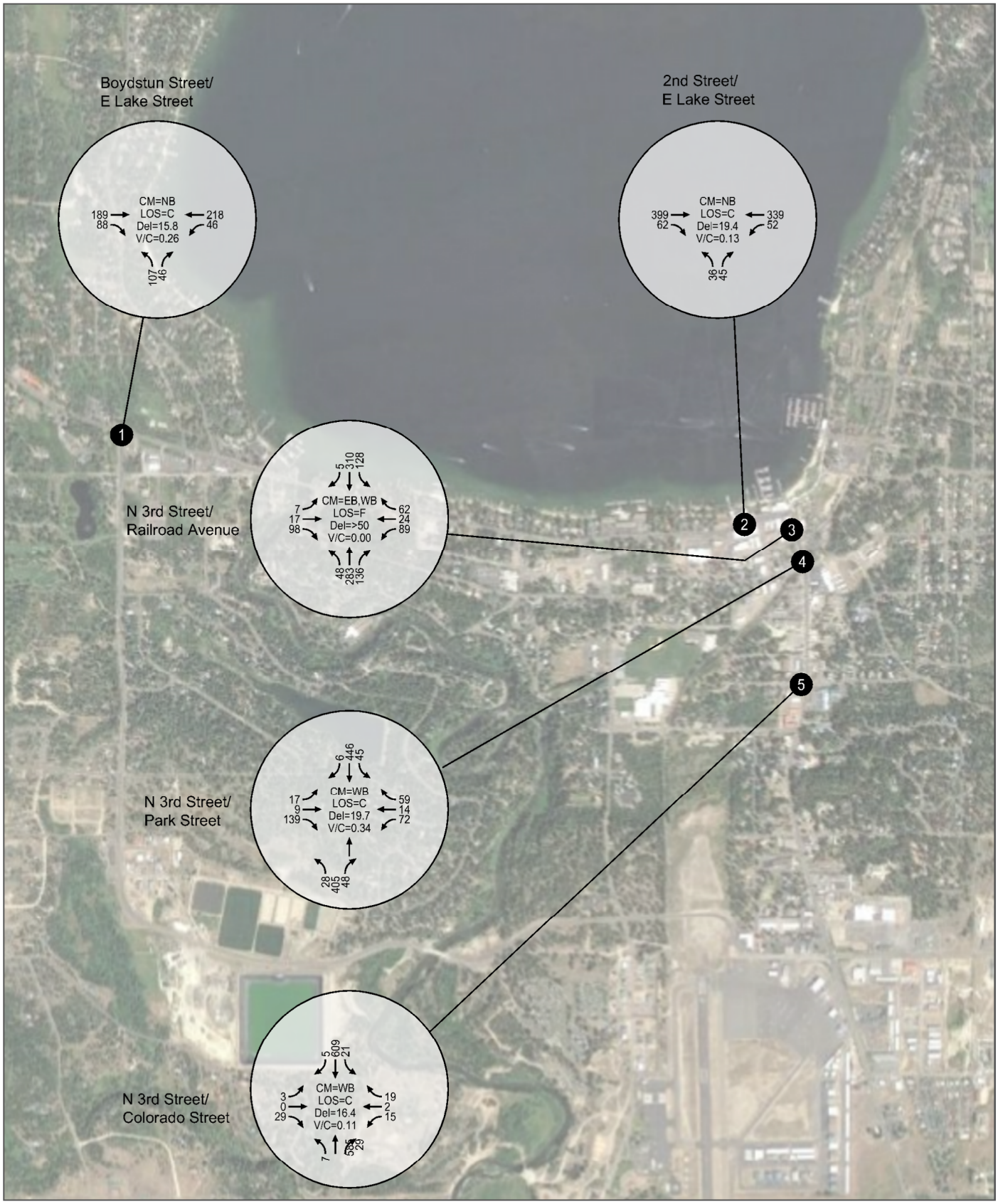

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Year 2040 Future Traffic Conditions
Off-Peak Season, Weekday PM Peak Hour
McCall, Idaho

Figure
12

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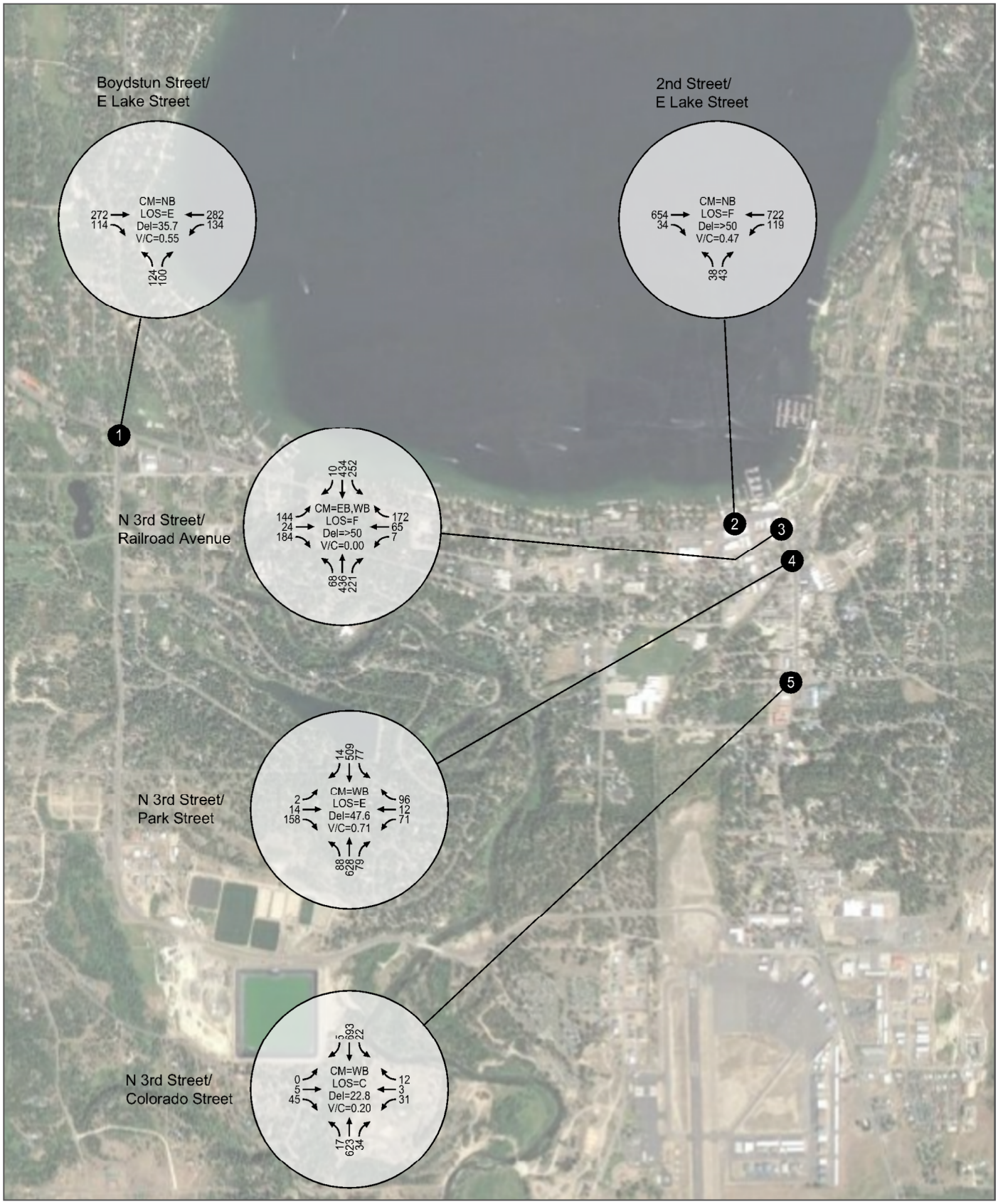

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Year 2040 Future Traffic Conditions
Peak Season, Weekday PM Peak Hour
McCall, Idaho

Figure
13

1.5.2 Roadway Segment Operations

A planning-level segment analysis was completed using the projected year 2040 AADT and peak-period daily volumes. Figure 15 shows the projected year 2040 roadway level-of-service by segment along the Principal Arterials in McCall using the same thresholds as the existing conditions analysis. Based on the results of this analysis, most of the roadways are expected to experience LOS "D" or better using the projected AADT, with the exception of 3rd Street between Lake Street and Deinhard Lane.

In the peak traffic section of 3rd Street, the AADT is projected to approach nearly 20,000 which would normally equate to approximately 2,000 vehicles in the average peak hour. But due to the lower and longer peaks experienced in McCall, the projected 2040 two-way peak hourly volumes are approximately 1,100 and 1,500 for the weekday off-peak season and weekday peak-season, respectively. Therefore, while the AADT analysis indicates poor operation, the actual operation will be better due the lack of a focused peak hour that normally occurs in most cities with a majority of the traffic coming from employment centers.

Figure 16 shows the estimated peak season LOS based on factoring the AADT volumes shown in Figure 9 to represent summer peak weekday conditions. As shown in Figure 16, SH-55 (3rd Street/Lake Street) in McCall is expected to operate at LOS "E-F" during the peak season in the year 2040.

2.0 CRASH DATA

The Idaho Transportation Department (ITD) provided crash data for the most recent five year period (2010-14) for the entire city. During this period there were 299 reported crashes. This section describes trends in this data.

2.1 City-wide Trends

The crash data was reviewed to identify general city-wide trends with respect to the severity of crashes and possible contributing factors.

2.1.1 Severity

Figure 14 summarizes crashes by severity (i.e., resulting in a fatality, injury, or property damage only).

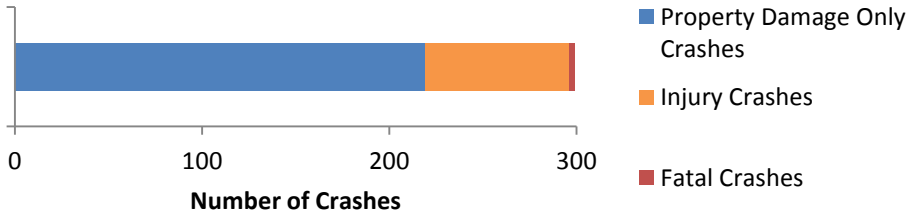
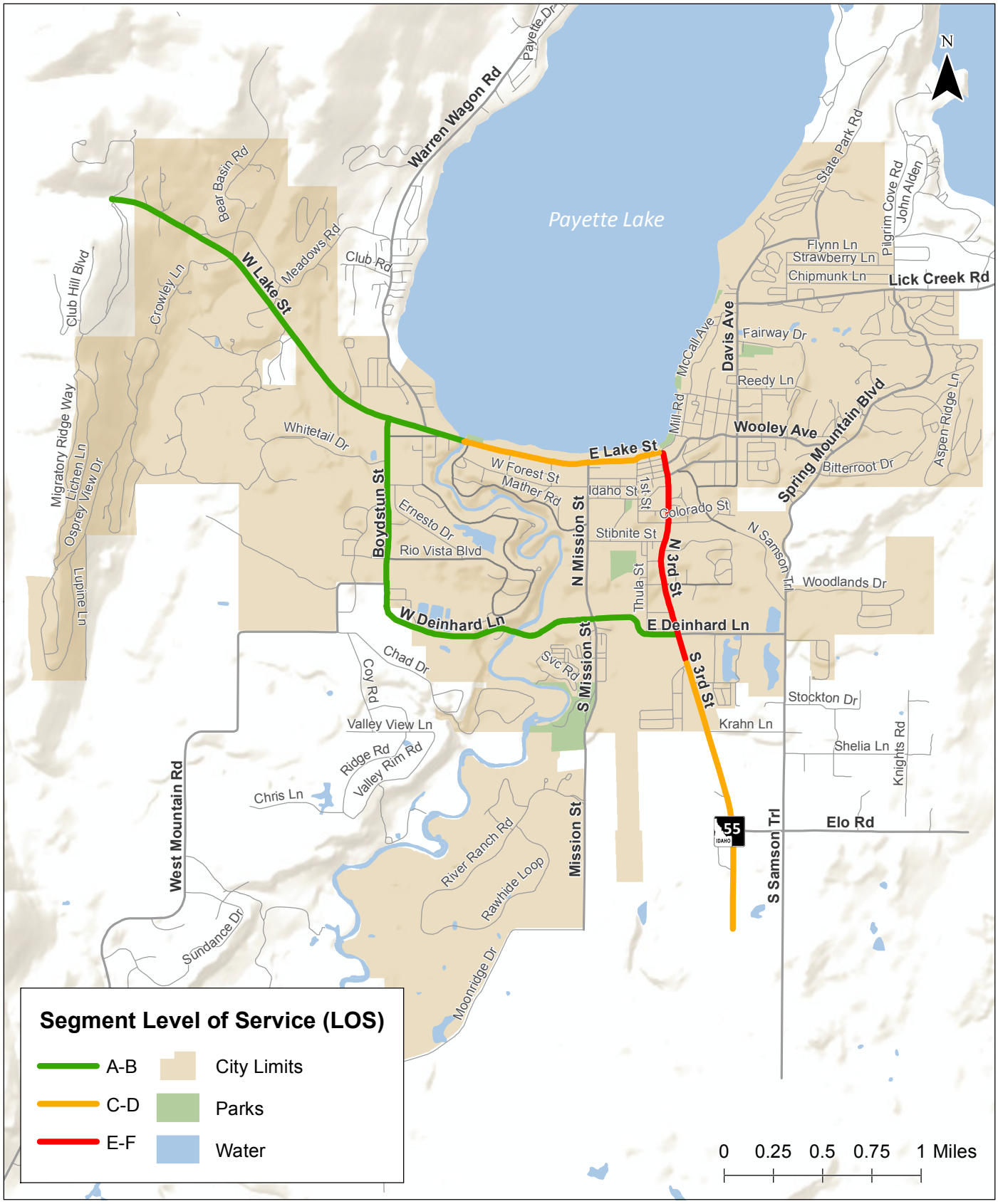


Figure 14 Reported Severity of Crashes in McCall (2010-14)

Approximately 73% of all crashes in McCall were reported to have resulted in property damage only, while about 26% resulted in an injury to at least one person and around 1% resulted in a fatality. These proportions are roughly equivalent to those reported for other like-sized cities in Idaho (i.e., population of 2,000 – 4,999 people) during the period 2012 – 2014 (Reference 6).



Projected Year 2040 Roadway Segment Operations
Projected AADT Volumes
McCall, Idaho

Figure **15**

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Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
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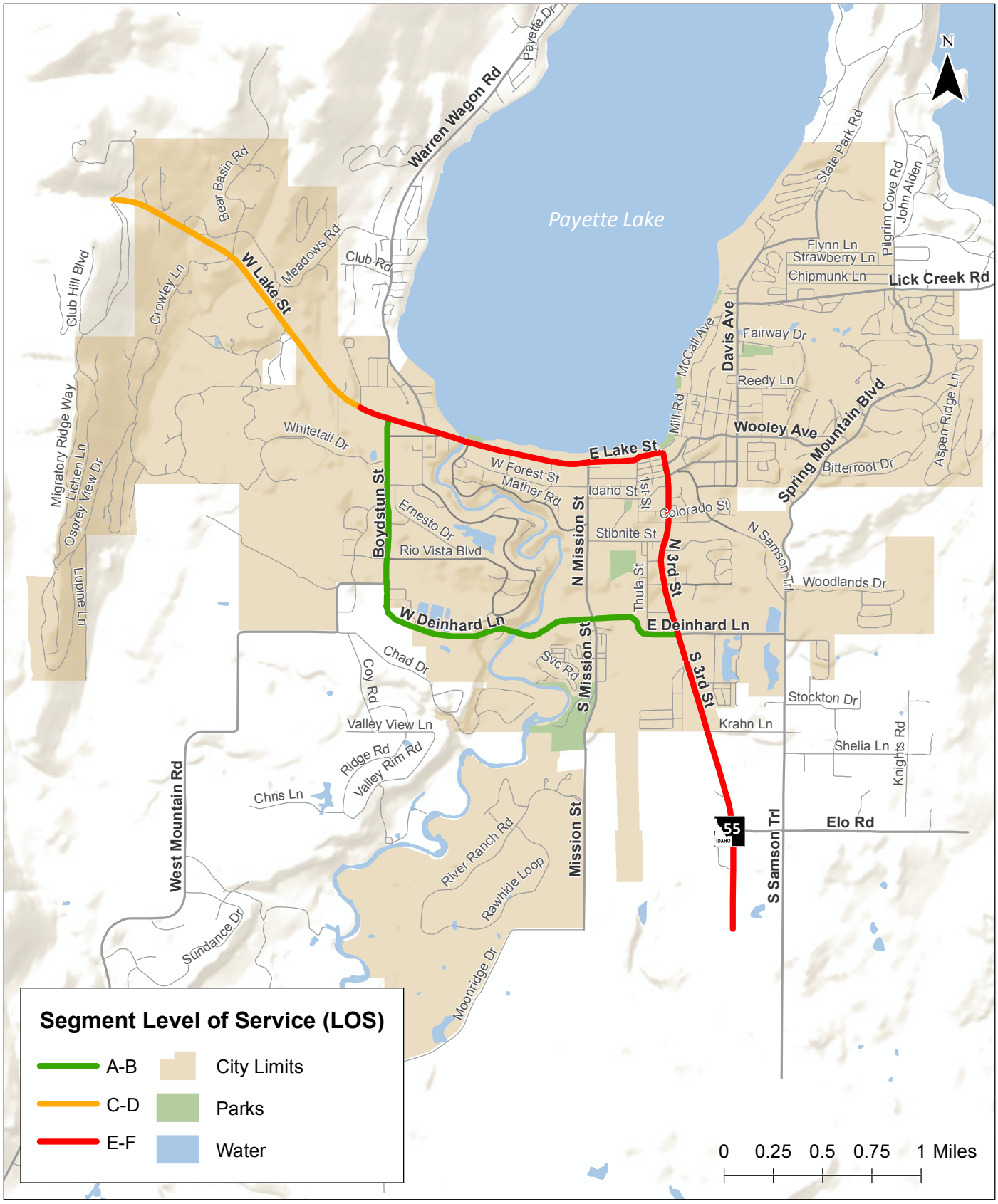


Projected Year 2040 Roadway Segment Operations
Projected Peak Season Volumes
McCall, Idaho

Figure **16**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Segment LOS_Future Peak Season.mxd - jmarkosian - 3:18 PM 1/5/2017

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, Topo Data Sources: Esri, USGS, NOAA

2.1.2 Crash Type

Figure 17 summarizes crashes by type.

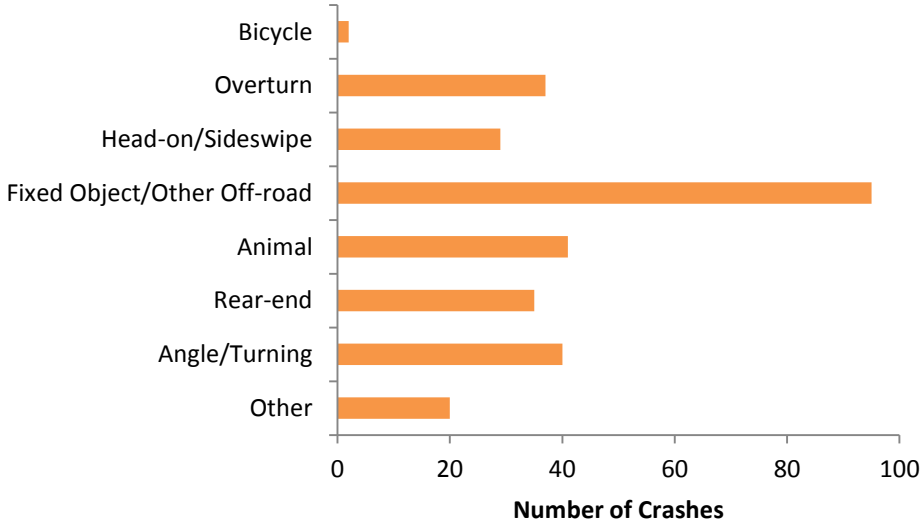


Figure 17 Reported Crash Types in McCall (2010-14)

Fixed object and other run-off-the-road crashes are the most common crash type, with nearly one-third of all reported crashes falling into this category. Most of the other crash types, except the bicycle and other categories, represent between 10% and 14% of reported crashes. There were two reported crashes involving a person bicycling and no reported crashes involving a person walking during the study time period.

2.2 Crash Locations

Figure 18 shows the location of all reported crashes in the McCall area from 2010 to 2014. Generally, crashes tend to be concentrated on roads with higher volumes, including the SH 55 corridor and Deinhard Lane. The crash data was further analyzed with respect to crash rates at select intersections and roadway segments.

2.2.1 Intersection Crashes

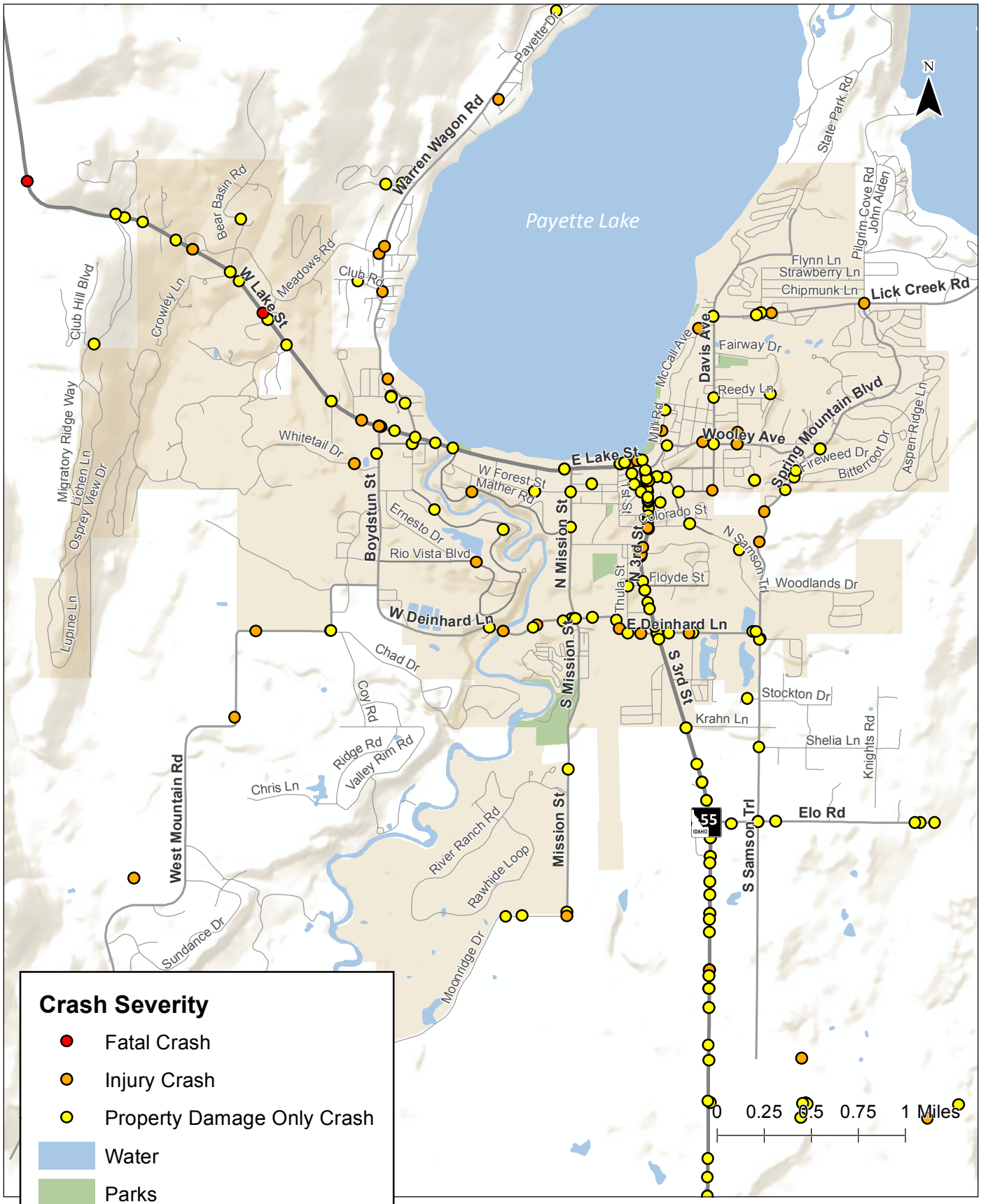
Table 2 summarizes the observed crash rates at intersections for which traffic counts are available for all approaches. This analysis only includes crashes related to the intersection (e.g., it excludes crashes related to nearby driveways and nearby run-off-the-road crashes).

Table 2 Intersection Crash Rates

Intersection	Number of Crashes	Crash Rate[1]
2nd Street/Lake Street	0	0.00
3rd Street/Colorado Street	3	0.16
3rd Street/Deinhard Lane	3	0.13
3rd Street/McBride Street	0	0.00
3rd Street/Park Street	4	0.20
3rd Street/Railroad Avenue-Lenora Street	4	0.22
3rd Street/Stibnite Street	0	0.00
3rd Street/Washington Street	0	0.00
Boydstun Street/Lake Street	3	0.36
Mission Street/Deinhard Lane	2	0.21
Spring Mountain Blvd/Deinhard Lane	1	0.20
Mather Street/Lake Street	0	0.00
Mission Street/Lake Street	0	0.00
Warren Wagon Road/Lake Street	0	0.00

[1]Crash rate is crashes per million entering vehicles

The Park Street and Railroad Avenue intersections of 3rd Street (SH 55) had the highest number of reported crashes, while the Boydstun Street/Lake Street intersection had the highest crash rate. No intersection is reported to have had more than one crash per year. Given the number of reported crashes at each intersection, it is difficult to identify any patterns at a specific location.



Reported Crash Locations 2010 - 2014 McCall, Idaho

Figure 18

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Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA

2.2.2 Road Segment Crashes

Table 3 summarizes the observed crash rates on select roadway segments in McCall. These segments include all collector-level and above roadways for which volume data was available.

Table 3 Roadway Segment Crash Rates

Roadway	From	To	Number of Crashes	Crash Rate[1]
3rd Street	Krahn Lane	Deinhard Lane	0	0.00
3rd Street	Deinhard Lane	Colorado Street	12	1.14
3rd Street	Colorado Street	Pine Street	9	0.93
Lake Street	Pine Street	Mission Street	5	1.00
Lake Street	Mission Street	Boydstun Street	5	0.39
Lake Street	Boydstun Street	City Limits	14	1.05
Deinhard Lane	Spring Mountain Blvd	3rd Street	3	0.79
Deinhard Lane	3rd Street	Mission Street	5	1.39
Deinhard Lane	Mission Street	Boydstun Street	7	1.19
Boydstun Street	Deinhard Lane	Lake Street	1	0.29
Davis Avenue	Wooley Avenue	Lick Creek Road	0	0.00
Lick Creek Road	Spring Mountain Blvd	Davis Avenue	1	0.51
Mission Street	Deinhard Lane	Lake Street	0	0.00
Railroad Avenue	3rd Street	Roosevelt Avenue	0	0.00
Railroad Avenue	Roosevelt Avenue	Davis Avenue	1	0.96
Spring Mountain Blvd	Deinhard Lane	Wooley Avenue	3	1.01
Spring Mountain Blvd	Wooley Avenue	Lick Creek Road	0	0.00
Wooley Avenue	Spring Mountain Blvd	Davis Avenue	1	0.65
Warren Wagon Road	Lake Street	Meadows Road	2	0.90

[1]Crash rate is crashes per million vehicle miles traveled (MVMT)

As previously noted, the highest numbers of crashes are reported to have occurred on the 3rd Street (SH 55) corridor and Deinhard Lane. These streets also generally have the highest crash rates; though there are segments of Spring Mountain Boulevard and Railroad Avenue that have rates near 1.0 crashes/MVMT. However, the number of crashes on these two segments is lower than on SH 55 or Deinhard Lane.

The most common crash type on 3rd Street is rear-end (8 crashes), followed by angle and turning related crashes (6 crashes), and single vehicle crashes with objects (5 crashes). The first two crash types involve multiple vehicles and are typically related to accesses (public streets and private driveways) along the highway. This pattern generally continues on Lake Street to 1st Street. As Lake Street leaves the core, single vehicle crashes become more common (19 crashes), including animal crashes (9 crashes). Single-vehicle crashes are also the most common crash type on Deinhard Lane west of 3rd Street (7 out of 12 crashes).

3.0 PARKING

Parking in McCall consists of public on-street parking, a parking structure, public surface parking lots, and private surface parking lots. There are currently two hour time limits on all street spaces to encourage turnover. There are currently no fees associated with parking within any of the surveyed lots or street spaces. A parking demand analysis was completed based on observations of current conditions during the peak and off-peak periods, as well as for forecasted future conditions.

3.1 Existing Conditions

Parking data for the summertime peak season was collected on a Wednesday and Saturday in July 2016. Off-peak season parking data was collected on a Wednesday and Saturday in October 2016. Parking occupancy counts were made three times on each of these days at 10:00 a.m., 1:00 p.m., and 4:00 p.m. by City staff and volunteers.

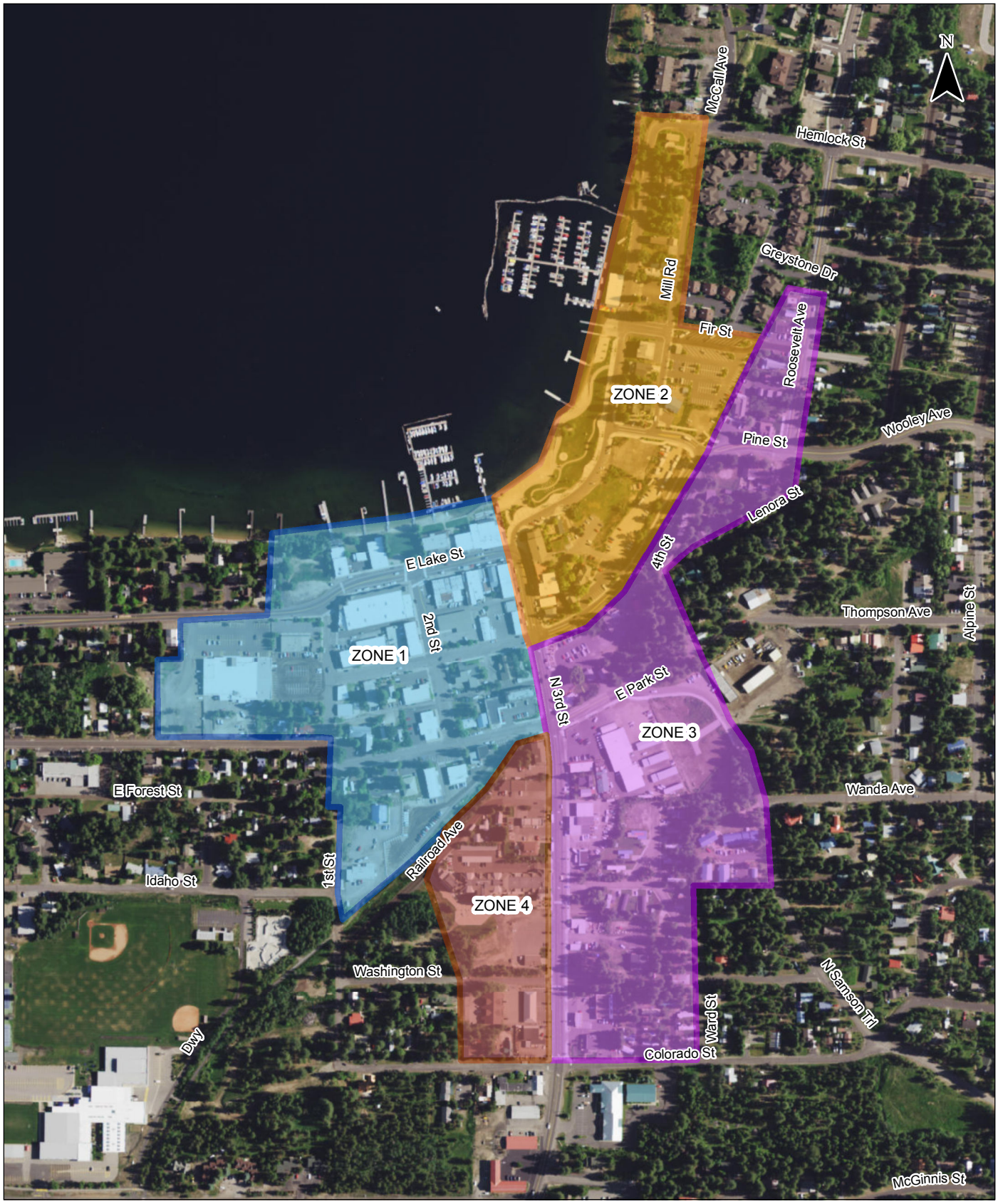
A total of 1,772 parking spaces were surveyed for this effort. Approximately 82% of the surveyed parking spaces are off-street, either in private surface lots, public surface lots, or the parking structure. The remaining 18% of spaces are on-street.

The parking survey was broken into four zones, similar to the 2009 parking study prepared for the City (Reference 7), as shown in Figure 19. Table 4 summarizes the observed parking occupancies during the off-peak and peak seasons. Maps showing the occupancy by lot are included in Attachment "E."

Table 4 Peak Period Zonal Parking Occupancies

Zone	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Zone 1	848	20%	31%	31%	23%	24%	29%
Zone 2	386	13%	22%	19%	20%	34%	48%
Zone 3	294	26%	34%	32%	23%	42%	30%
Zone 4	244	19%	23%	18%	15%	23%	16%
Total/Average	**1,772**	**19%**	**27%**	**25%**	**20%**	**31%**	**31%**
Peak Season Observations							
Zone 1	848	35%	51%	41%	33%	54%	48%
Zone 2	386	48%	75%	70%	*88%*	*93%*	*92%*
Zone 3	294	28%	54%	45%	38%	69%	57%
Zone 4	244	20%	27%	22%	18%	20%	14%
Total/Average	**1,772**	**32%**	**51%**	**44%**	**43%**	**58%**	**51%**

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%



Parking Analysis Zones
McCall, Idaho

Figure
19

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Parking Map.mxd - jmarkosian - 3:21 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall

Parking demand is generally higher during the peak period. This difference is particularly marked in Zone 2, where the majority of public parking for recreational uses exists. Zone 2 reaches occupancies of above 85% (a commonly cited maximum threshold for parking analyses) during all three times observed during the peak period Saturday. Zone 3 and Zone 1 reach higher occupancies than Zone 4 but are below the existing parking capacity. The high parking demand in Zone 2 is likely because of the proximity to the CBD and recreational attractions.

Table 5 summarizes the parking occupancies by parking space type. Attachment "E" contains maps showing the locations of public and private parking.

Table 5 Peak Period Parking Occupancy by Space Type

Type	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Public	706	19%	30%	27%	23%	31%	29%
Private	1,031	19%	27%	27%	20%	28%	24%
On-Street	304	21%	35%	38%	28%	43%	32%
Off-Street	1,433	19%	27%	25%	20%	26%	25%
Peak Season Observations							
Public	703	38%	61%	53%	54%	74%	63%
Private	1,051	32%	46%	40%	34%	49%	46%
On-Street	304	41%	74%	73%	65%	*92%*	*84%*
Off-Street	1,450	33%	48%	39%	38%	52%	46%

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%

As shown in Table 5, occupancy of all parking space types is less than 50% during the off-peak season. On-street parking spaces have the highest level of occupancy, with demand approaching and exceeding 85% during Saturday afternoon during the peak season.

3.2 Future Conditions

Future parking conditions were analyzed by applying the same annual average growth rate of 3% per year that was applied to the traffic volumes. This growth rate was applied to the existing observations of parking demand for 10 and 20 year future periods. Table 6 and Table 7 show the 10 and 20 year projected parking occupancies by zone, respectively, based on this simple growth estimate. Table 8 and Table 9 provide the same information by parking type. Note that all results are based on simple growth assumptions and do not account for spill over across zones or parking types when demand exceeds the ideal 85% utilization threshold.

Table 6 Peak Period Zonal Parking Occupancies – Projected Year 2026 Conditions

Zone	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Zone 1	848	26%	41%	41%	29%	31%	37%
Zone 2	386	17%	28%	25%	26%	45%	62%
Zone 3	294	34%	44%	41%	31%	55%	39%
Zone 4	244	25%	30%	23%	20%	30%	21%
Total/Average	**1,772**	**20%**	**29%**	**32%**	**34%**	**32%**	**32%**
Peak Season Observations							
Zone 1	848	45%	66%	54%	43%	70%	62%
Zone 2	386	59%	*93%*	*87%*	*108%*	*115%*	*114%*
Zone 3	294	37%	70%	58%	49%	*90%*	74%
Zone 4	244	27%	35%	28%	23%	26%	18%
Total/Average	**1,772**	**42%**	**66%**	**57%**	**56%**	**75%**	**67%**

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%

Table 7 Peak Period Zonal Parking Occupancies – Projected Year 2036 Conditions

Zone	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Zone 1	848	32%	50%	50%	36%	38%	46%
Zone 2	386	20%	35%	31%	32%	55%	77%
Zone 3	294	41%	54%	51%	38%	67%	48%
Zone 4	244	31%	37%	28%	24%	37%	26%
Total/Average	**1,772**	**25%**	**35%**	**40%**	**42%**	**39%**	**39%**
Peak Season Observations							
Zone 1	848	56%	81%	66%	53%	*86%*	76%
Zone 2	386	73%	*114%*	*107%*	*133%*	*141%*	*140%*
Zone 3	294	45%	*86%*	72%	60%	*111%*	*91%*
Zone 4	244	33%	43%	35%	28%	32%	22%
Total/Average	**1,772**	**52%**	**81%**	**70%**	**69%**	***93%***	**82%**

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%

Table 8 Peak Period Parking Occupancy by Space Type – Projected Year 2026 Conditions

Type	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Public	706	24%	39%	35%	30%	40%	38%
Private	1031	25%	36%	35%	26%	37%	31%
On-Street	304	27%	45%	50%	37%	56%	42%
Off-Street	1433	24%	36%	32%	26%	34%	32%
Peak Season Observations							
Public	703	49%	79%	69%	70%	*96%*	*82%*
Private	1051	41%	60%	52%	45%	64%	60%
On-Street	304	54%	*97%*	*95%*	*84%*	*120%*	*109%*
Off-Street	1450	42%	62%	51%	49%	67%	60%

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%

Table 9 Peak Period Parking Occupancy by Space Type – Projected Year 2036 Conditions

Type	Total Spaces	Wednesday Occupancy			Saturday Occupancy		
		10:00 AM	1:00 PM	4:00 PM	10:00 AM	1:00 PM	4:00 PM
Off-Peak Season Observations							
Public	706	30%	48%	44%	37%	49%	47%
Private	1031	31%	44%	43%	32%	45%	38%
On-Street	304	34%	55%	62%	45%	68%	52%
Off-Street	1433	30%	44%	40%	31%	42%	40%
Peak Season Observations							
Public	703	61%	*98%*	*85%*	*87%*	*118%*	*101%*
Private	1051	51%	74%	63%	55%	*78%*	74%
On-Street	304	66%	*119%*	*116%*	*104%*	*148%*	*135%*
Off-Street	1450	52%	*76%*	63%	60%	*83%*	74%

Italicized text indicates occupancy greater than 74%, underlined text indicate occupancy greater than 85%

The results from the ten-year projection (year 2026) parking analysis are summarized below:

- During the peak summertime season, demand for parking in Zone 2 is forecast to exceed the number of spaces by the year 2026 in most time periods.
    - An additional 136 parking spaces would need to be provided in Zone 2 to achieve 85% occupancy in the year 2026 during the most heavily used time period on Saturday afternoon. Without additional spaces, the excess demand will likely spill over into the other zones.
- The overall demand is projected to be a maximum of 75% during a peak season Saturday, indicating there is adequate overall parking supply in the study area.

- However, as shown in Table 8, the demand for public parking is projected to near capacity during the peak Saturday afternoon in the year 2026.
    - An additional 90 public spaces would be needed under this scenario to reduce parking utilization to 85% of the public parking supply during this one time period.

The results from the 20-year projection (year 2036) parking analysis are summarized below:

- By the year 2036, peak season demand for parking is expected to exceed 85% in Zone 2 during all observed periods on Saturday and also on Wednesday afternoon, as well as in Zone 3 during Saturday afternoon and midday on Wednesday.
    - An additional 254 spaces would need to be provided in Zone 2 and an additional 90 spaces in Zone 3 to achieve 85% occupancy in 2036 during the most heavily used time periods. Without additional supply in these zones, excess demand will likely spill over into the adjacent zones.
- During the Saturday afternoon in the summertime peak season, an additional 170 spaces are forecast to be needed to bring total parking utilization to 85%.
- During the summertime peak, demand for public parking is also projected to exceed capacity.
    - An additional 272 public parking spaces would need to be provided to reduce public parking utilization to 85%.

Parking utilization is not forecast to exceed 85% during the off-peak period in any of the zones or any of the parking space types. This finding remains even if the First Street parking lot, which is used for snow storage in the winter, is removed from consideration.

3.3 Comparison to 2009 Study

The 2009 Downtown Parking Study (Reference 6) was used as a comparison for this parking study. Generally, similar data collection and analysis methods were used for both studies. However, one notable difference is that the 2009 study's peak season data sample was over Labor Day weekend, while this study was in July. Therefore, we would expect the peak demand for this study to be higher than was seen in the 2009 study, due to the higher traffic activity that occurs in July versus the Labor Day weekend after most schools have been in session. The observed parking occupancies for this study are about 20% greater in the peak period than the results of the 2009 study over Labor Day weekend. The largest differences are in Zone 2, where this study observed occupancies nearly 40% higher. Off-peak observations for this study are generally below the 2009 Labor Day occupancies.

The 2009 study used land use projections for housing and retail to determine the parking demand in the 10- and 20-year future windows. Based on these projections, the 2009 study estimated that there would be sufficient supply for the 10-year period, but that there would be shortage of approximately

114 to 240 spaces, depending on the type of development in downtown, by the end of the 20-year period. This finding is consistent with the results of this updated study, which showed that approximately 170 parking spaces would need to be added to the total system to maintain a utilization of 85% or less during the summertime peak.

4.0 TRANSIT SERVICE

Public transit services in McCall are offered by Treasure Valley Transit (TVT). Services include local circulation, via the Red Line, and city-to-city service between McCall and Cascade, via the Green Line. The Red Line service throughout the City is free to use and operates with a deviated fixed-route system (riders may flag the bus for pick-up anywhere it is safe to do so) from 7:00 a.m. to 7:00 p.m., seven days a week. The Red Line operates on approximately one-hour headways and allows for route deviation within ¾ mile from the Published route. Figure 20 shows the existing Red Line route map and published bus stops. Based on the most recent data available, there are over 31,000 riders of the Red Line annually.

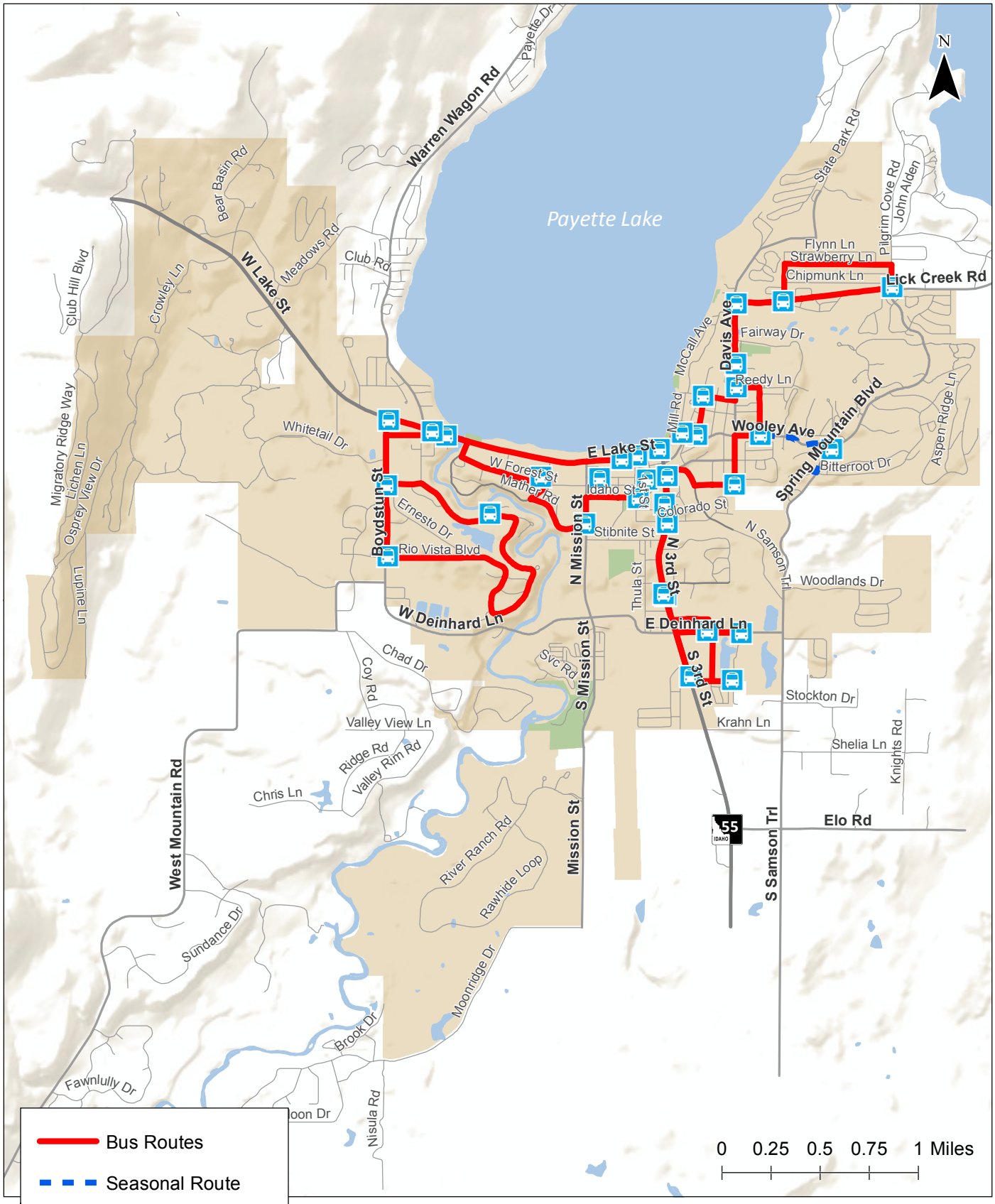
The fee schedule for the Green Line (McCall to Cascade) includes single ride, daily, 10-day, and monthly passes for youth, adult and senior/disabled users. Just over 20,000 riders use the Green Line each year.

Additional city-to-city services are supported by St. Luke's, which has partnered with Salmon River Transit and Connecting U-McCall to provide free weekly bus service between Riggins and McCall. Several private organizations also run local shuttle services between their place of business and other destinations.

5.0 BICYCLE NETWORK

Enhancing the existing bicycle network has been a priority for the City, as evidenced by the McCall Area Pathways Master Plan, adopted in 2012 (Reference 8). The existing bicycle network in McCall consists of shared-use pathways, bike lanes, shoulders, and low-volume roadways, as shown in Figure 21. This figure also includes the recommended bicycle network improvements from the McCall Area Pathways Master Plan.

When the network is built out as shown in Figure 21, it will cover much of the City, including most major roadways. Notably, the SH 55 corridor outside of the CBD will still be missing dedicated bicycling facilities. The pathways plan does note that a cross-section for 3rd Street that includes bike lanes has been approved by ITD. However, some areas are constrained and may require trade-offs to add bike lanes. Similarly, much of Lake Street is constrained by existing development and the provision of bike lanes would require reallocating the existing parking or center turn lane space.



Transit Service Routes and Stops
McCall, Idaho

Figure **20**

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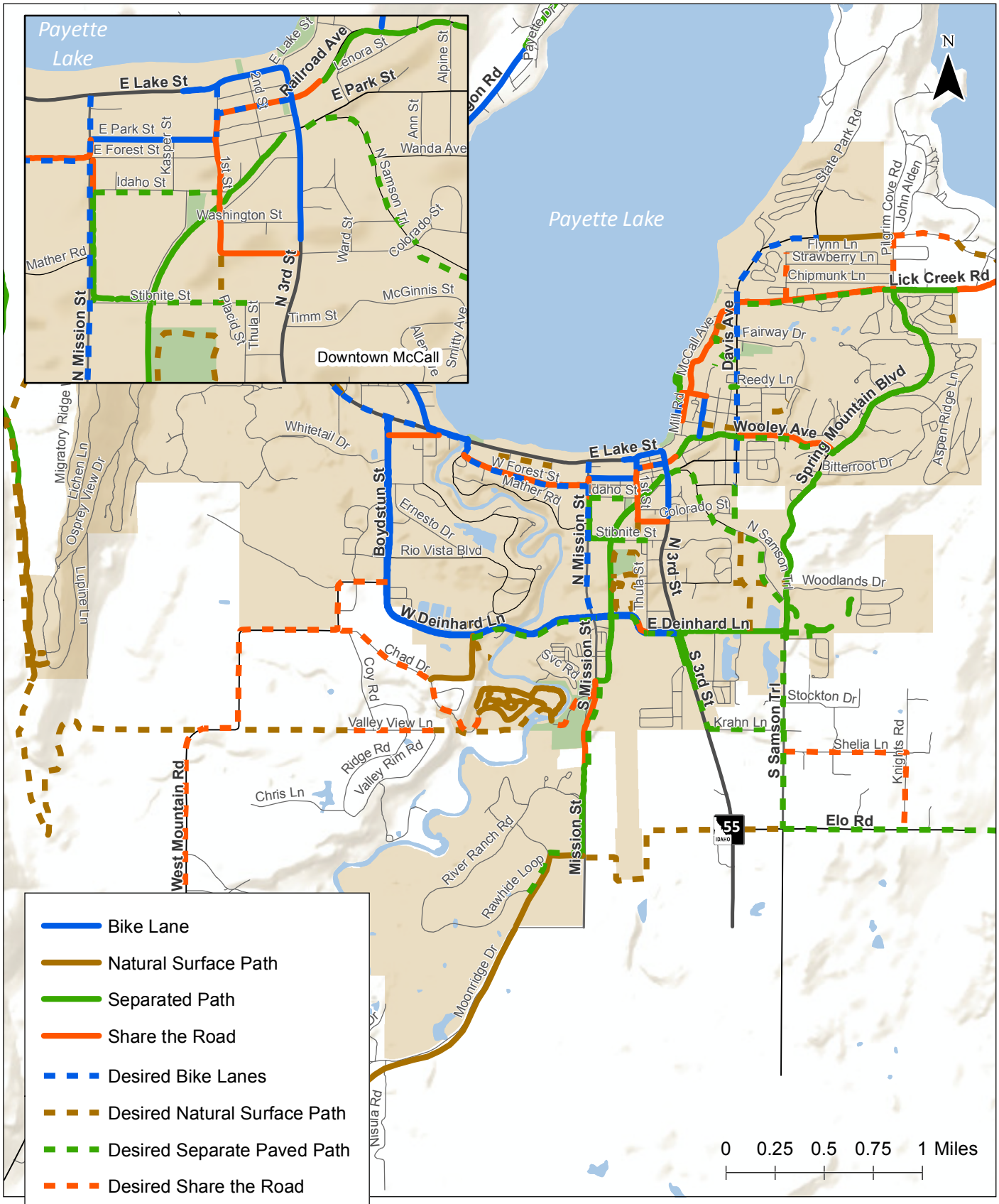
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, Topo Data Sources: Esri, USGS, NOAA



Existing and Planned Future Bicycle Network McCall, Idaho

Figure **21**

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KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, Topo Data Sources: Esri, USGS, NOAA

5.1 Bicycle Counts

The City began collecting bicycle and pedestrian counts in 2013. Since then, the City has annually conducted the counts at 13-18 locations over a 2-hour period on each of a summer weekday and summer weekend day. The most recent counts, conducted in summer 2016, showed the highest bicycle volumes at the following locations:

- Legacy Park/Pine Street
- E Lake Street/Hemlock Street
- Stibnite Street/North Valley Rail Trail
- W Lake Street/Rotary Park
- 1st Street/North Valley Rail Trail

These locations are generally near popular destinations (i.e., downtown McCall, lakefront parks) and two are along a separated multi-use path along an old rail line. More information on the counts can be found in Attachment "F."

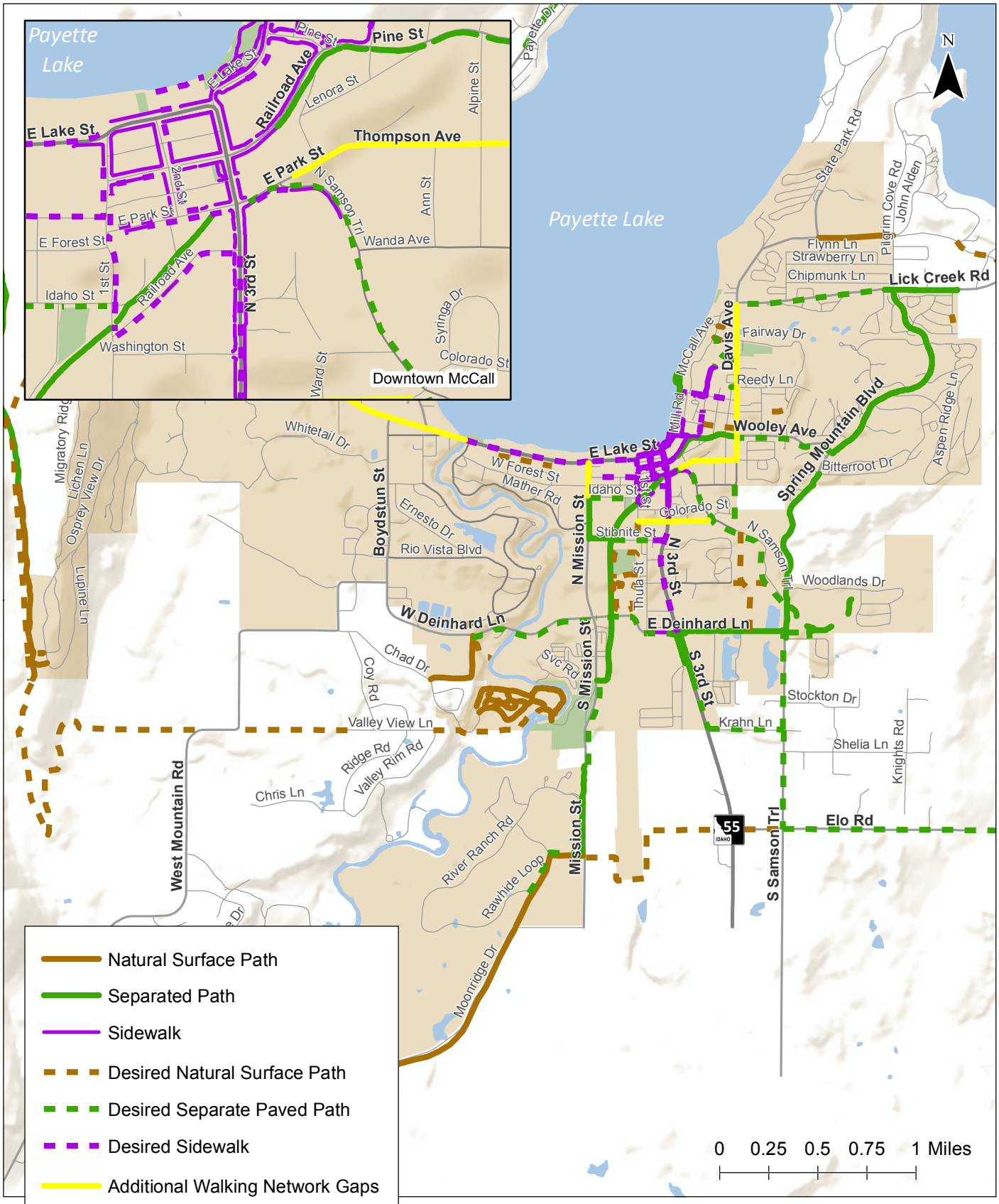
6.0 WALKING NETWORK

Improving walking conditions in McCall, particularly in the CBD is also a core priority for the City. The existing walking network consists of sidewalks and shared-use paths, as shown in Figure 22. The McCall Area Pathways Master Plan also includes future walking projects, which are also shown in the figure.

A focus of the pathways plan is on providing sidewalks in the CBD and along the SH 55 corridor from Deinhard Lane to the Lardo Bridge on Lake Street. The plan also includes separated pathways on roadways further from the downtown core. Notable gaps that will remain after the planned projects on Figure 22 are built include:

- Davis Avenue from Wanda Avenue to Lick Creek Road
- Park Street-Thompson Avenue from Samson Trail to Wooley Avenue
- Colorado Street from 1st Street to Samson Trail
- Mission Street from Idaho Street to Lake Street
- Lake Street from the Lardo Bridge to the Bear Basin Connector Trail

Additionally, an important part of the walking network is crossings of major roads. As noted previously in this memorandum, some concern has been expressed about conflicts between people driving and people walking at the Park Street and Railroad Avenue-Lenora Street intersections of 3rd Street.



Existing Walking Network
McCall, Idaho

Figure **22**

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TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, Topo Data Sources: Esri, USGS, NOAA

6.1 Pedestrian Counts

The City began collecting pedestrian and bicycle counts in 2013. Since then, the City has annually conducted the counts at 13-18 locations over a 2-hour period on each of a summer weekday and summer weekend day. The most recent counts, conducted in summer 2016, showed the highest pedestrian volumes at the following locations:

- E Lake Street/2nd Street-Art Roberts Park
- Legacy Park/Pine Street
- E Lake Street/Hemlock Street
- W Lake Street/Rotary Park
- Davis Avenue/Wooley Avenue

The top four locations are near parks along the lakefront in and around downtown McCall. The fifth location has limited pedestrian facilities and speaks to the previously identified need to provide them along Davis Avenue and Wooley Avenue. More information on the counts can be found in Attachment "F."

7.0 SUMMARY

The following are key issues that should be considered for further examination in the development of the transportations master plan:

- Improving traffic operations and pedestrian crossings at the following intersections:
  - 3rd Street/Park Street
  - 3rd Street/Railroad Avenue-Lenora Street
- Managing travel demand on SH 55 (e.g., promoting use of alternate routes, enhanced multimodal transportation options) to reduce summertime congestion
- Examining options for reducing single-vehicle crashes
- Reviewing and incorporating recommendations from the 2009 parking study
- Incorporating the recommended walking and biking networks from the McCall Area Pathways Master Plan
  - Considering whether additional walking and biking projects should be added beyond those identified in the Pathways plan

These issues are in addition to any other desired improvements that may result from public involvement efforts, as well as the ongoing asset management plan being prepared for the City by Horrocks Engineers.

8.0 REFERENCES

1. City of McCall, Idaho. *Access Management Policy.*

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3. Transportation Research Board of the National Academies. *Highway Capacity Manual 2010.* 2010.

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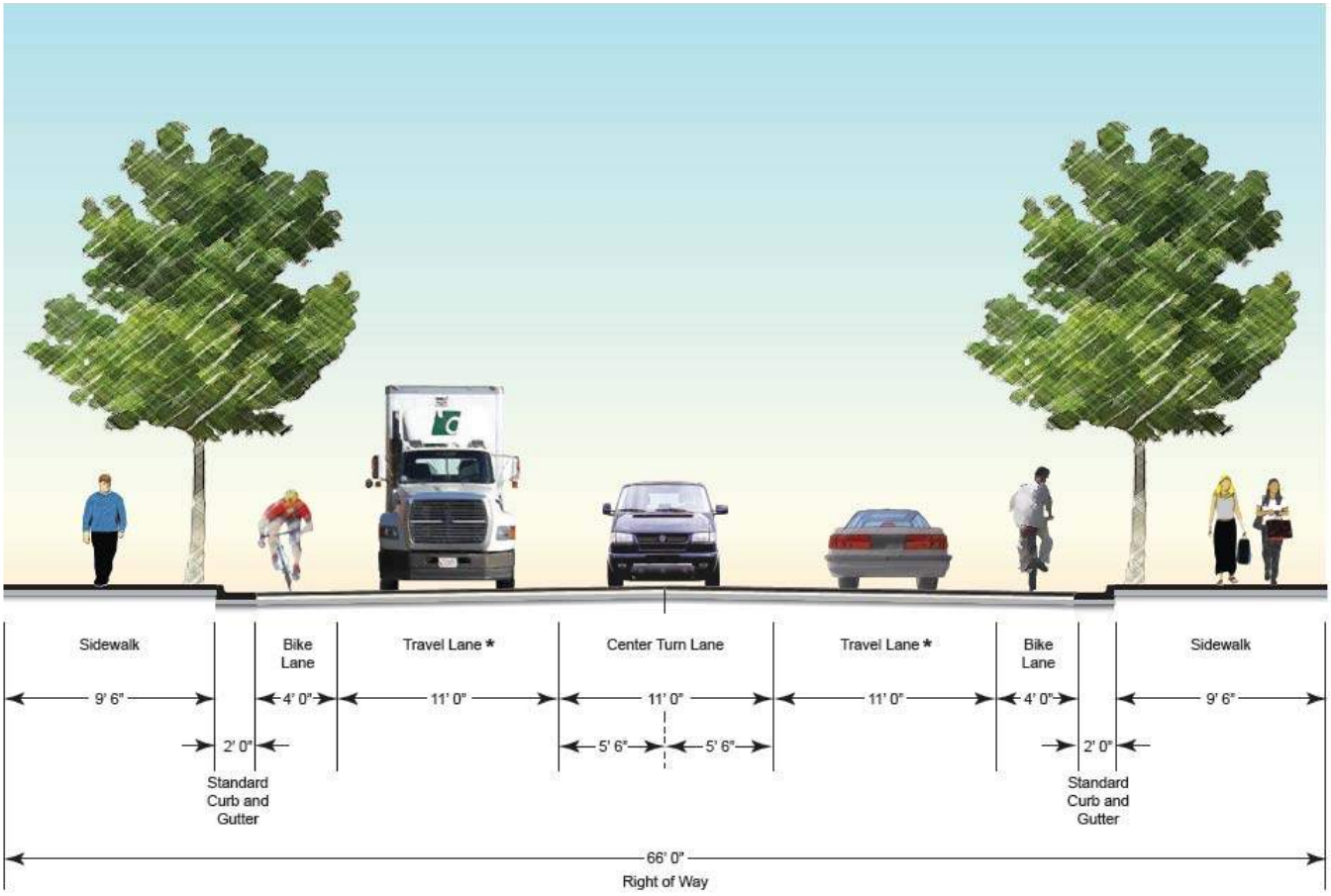
5. Community Planning Association of Southwest Idaho (COMPASS). *2002 Travel Demand Forecast Model Calibration Report for Ada and Canyon Counties.* Adopted June 22, 2006.

6. Idaho Transportation Department, Traffic Safety. *Reported Crashes 2010 – 2014.*

7. DESMAN Associates. *City of McCall Downtown Parking Study & Needs Assessment.* November 2009.

8. Harmony Design & Engineering. *McCall Area Pathways Master Plan.* Adopted May 2012.

Attachment A Standard Roadway Cross-Sections



* Vehicles and bicyclists share travel lanes on CBD streets, unless otherwise required by City of McCall.

Figure 33 - Third Street with No On-Street Parking

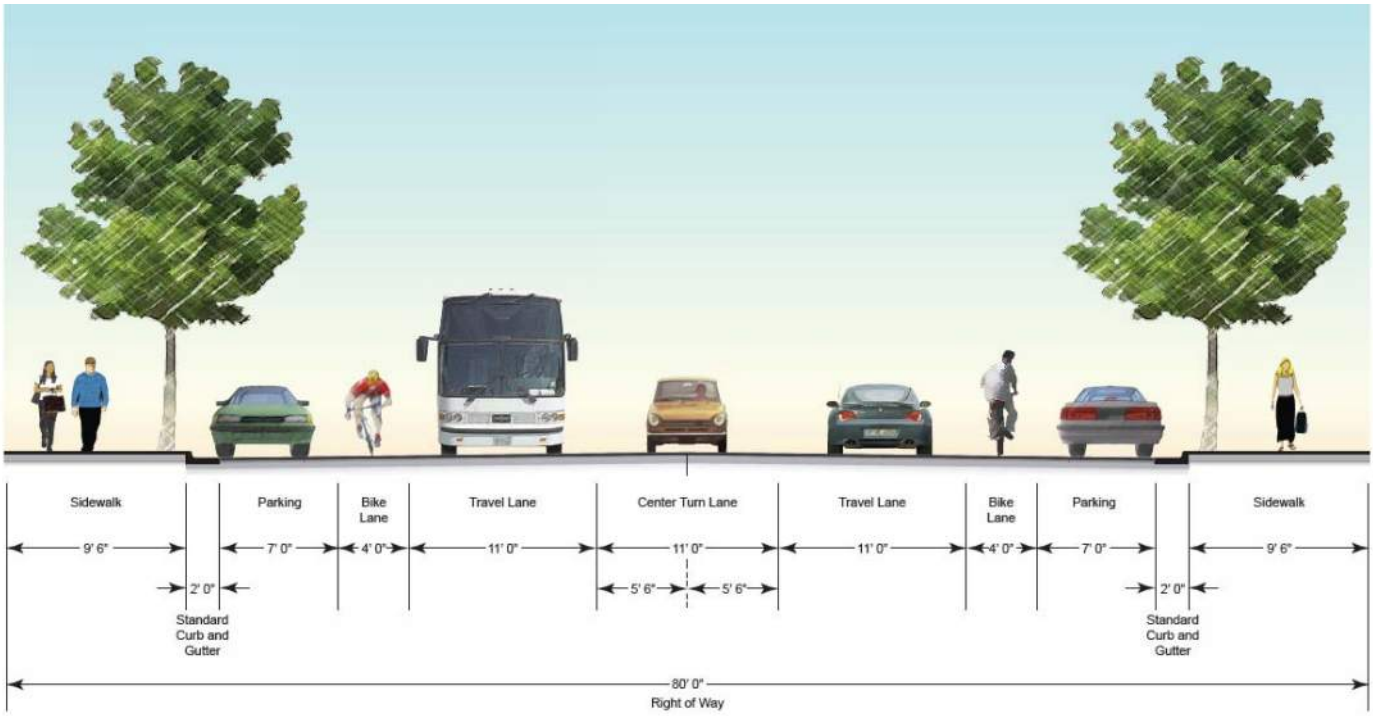


Figure 34 - Third Street with On-Street Parking

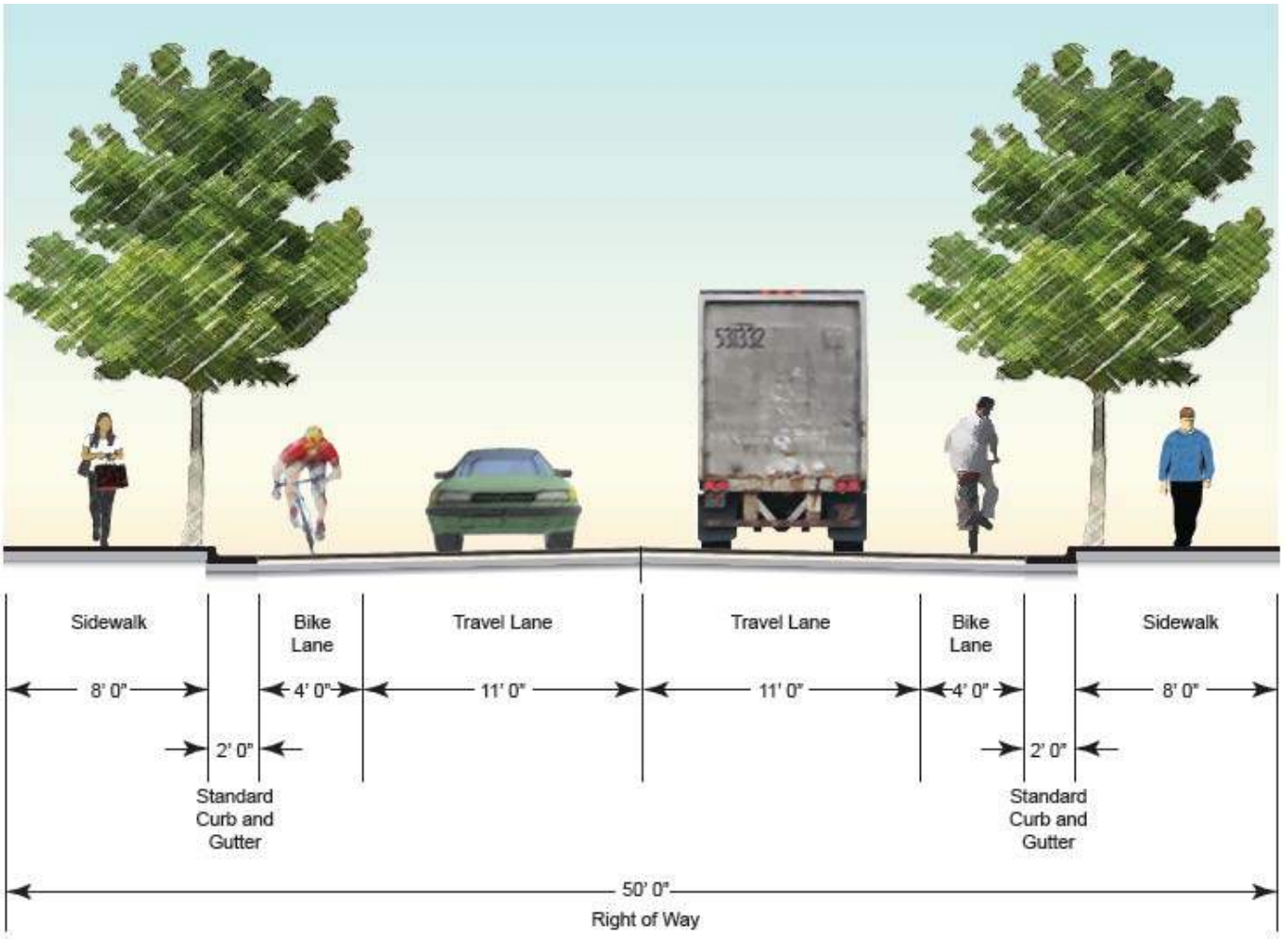


Figure 35 - West Lake Street

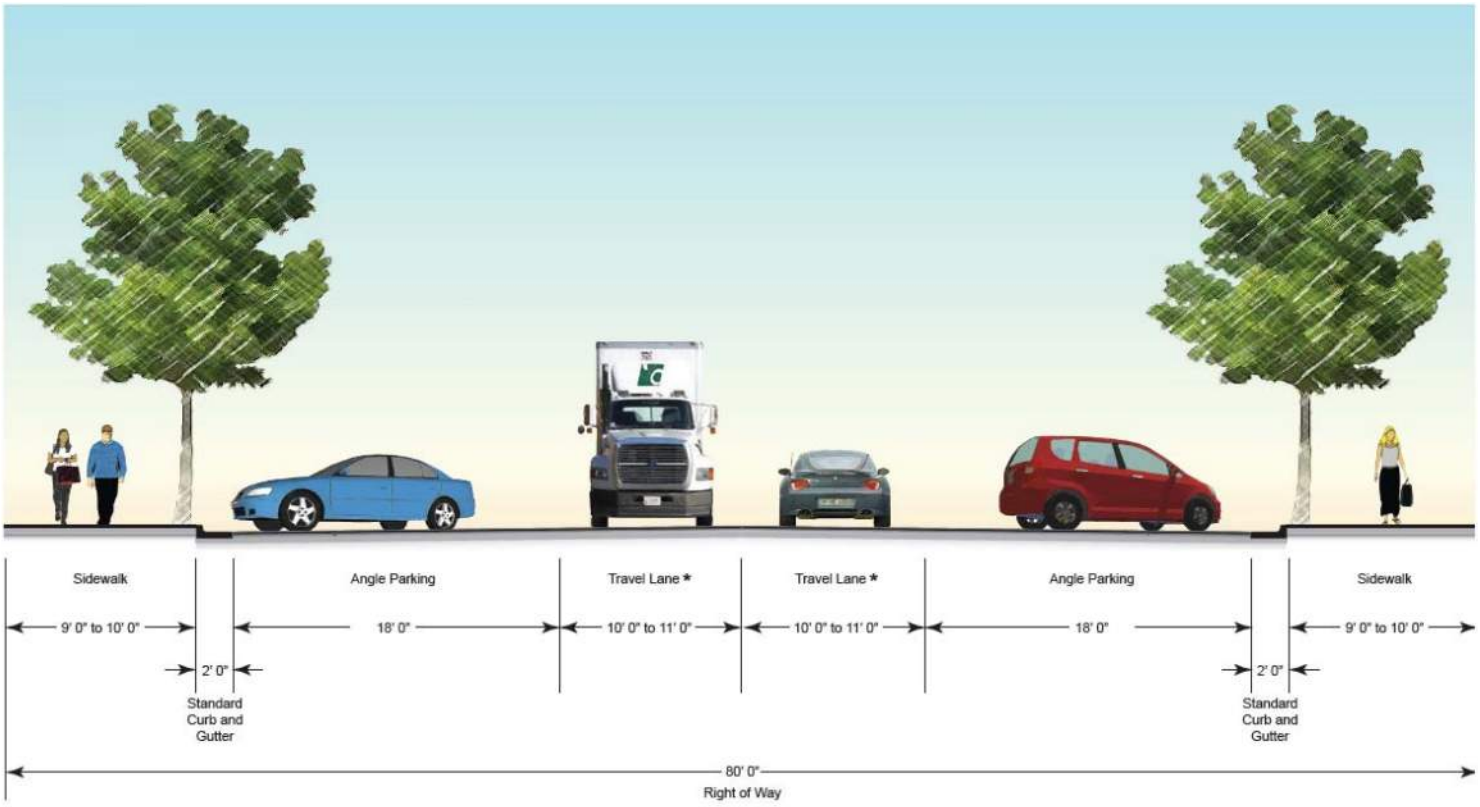
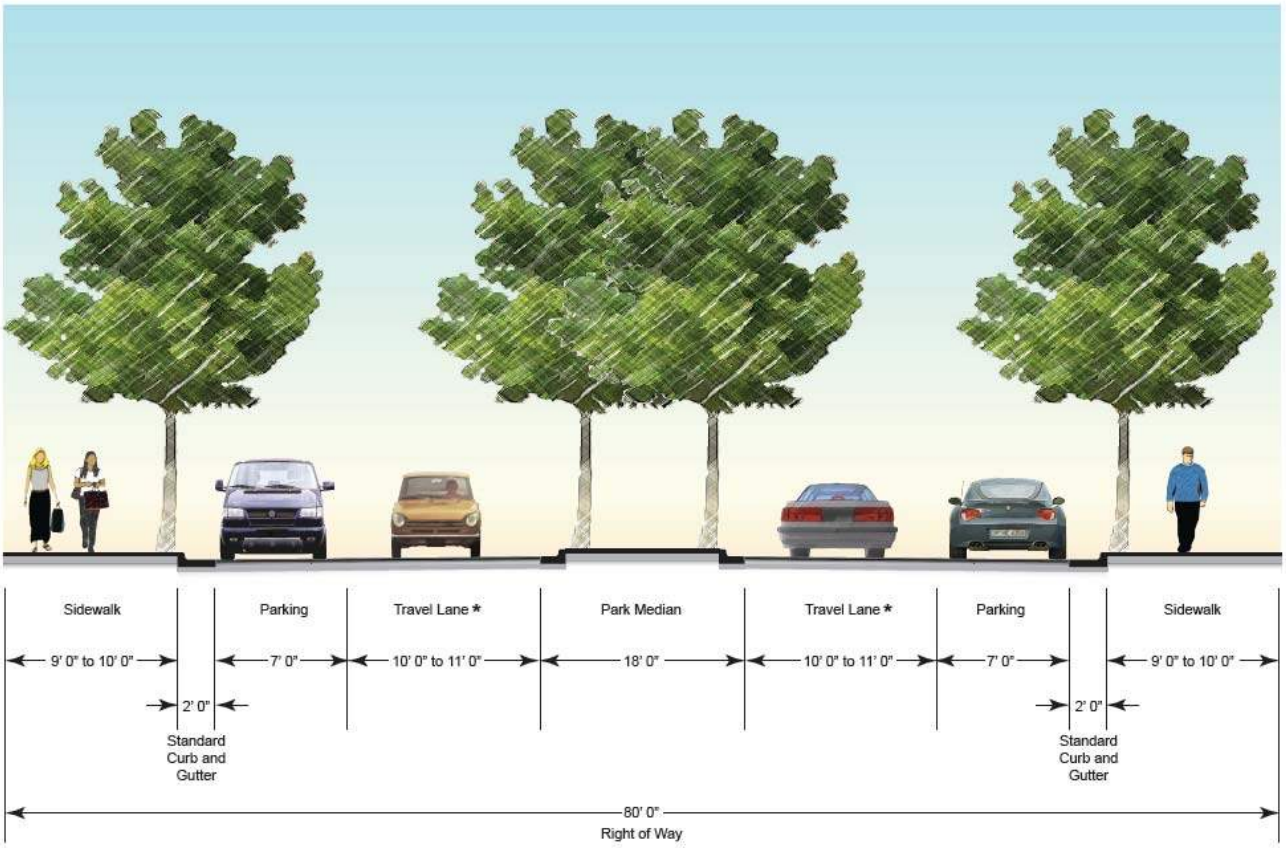


Figure 36 - Core CBD Typical Street Section A



* Vehicles and bicyclists share travel lanes on CBD streets, unless otherwise required by City of McCall.

Figure 37 - Core Typical Street Section B

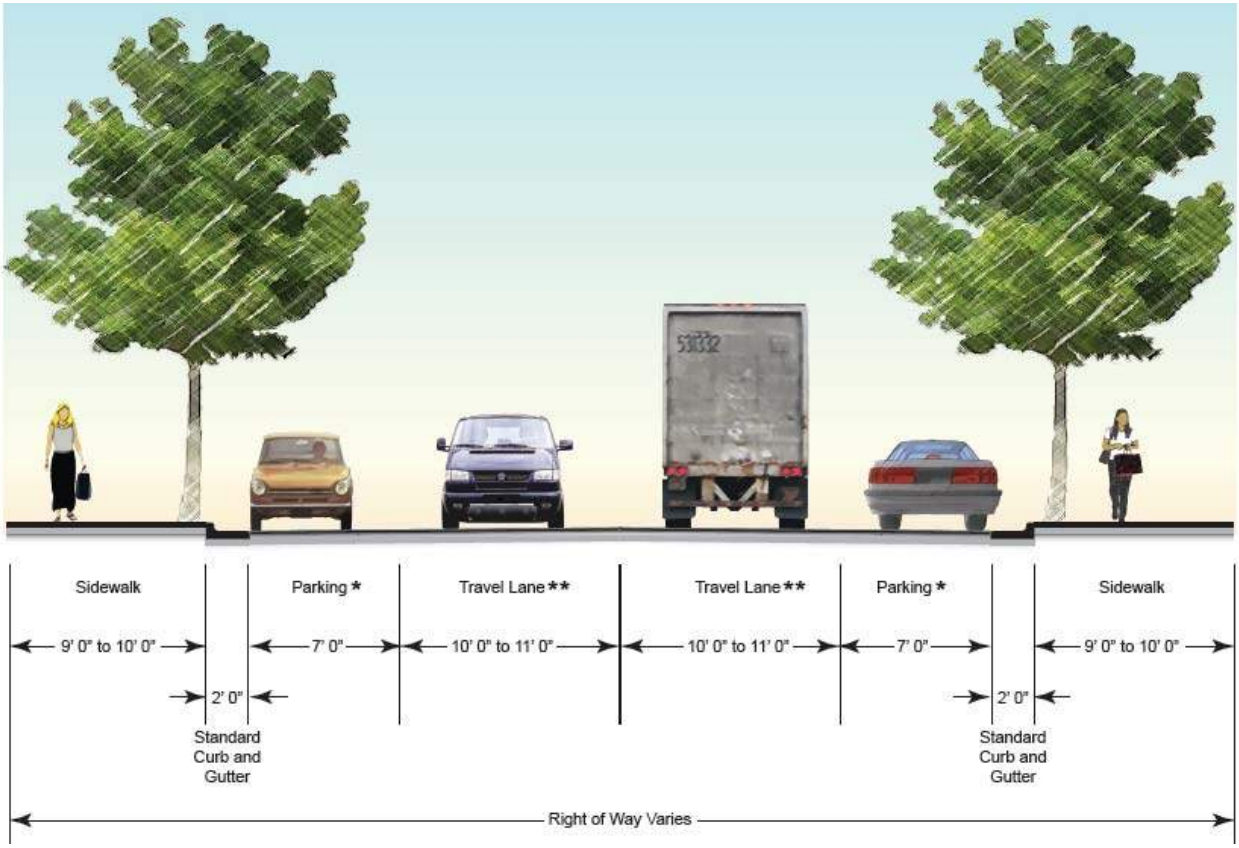
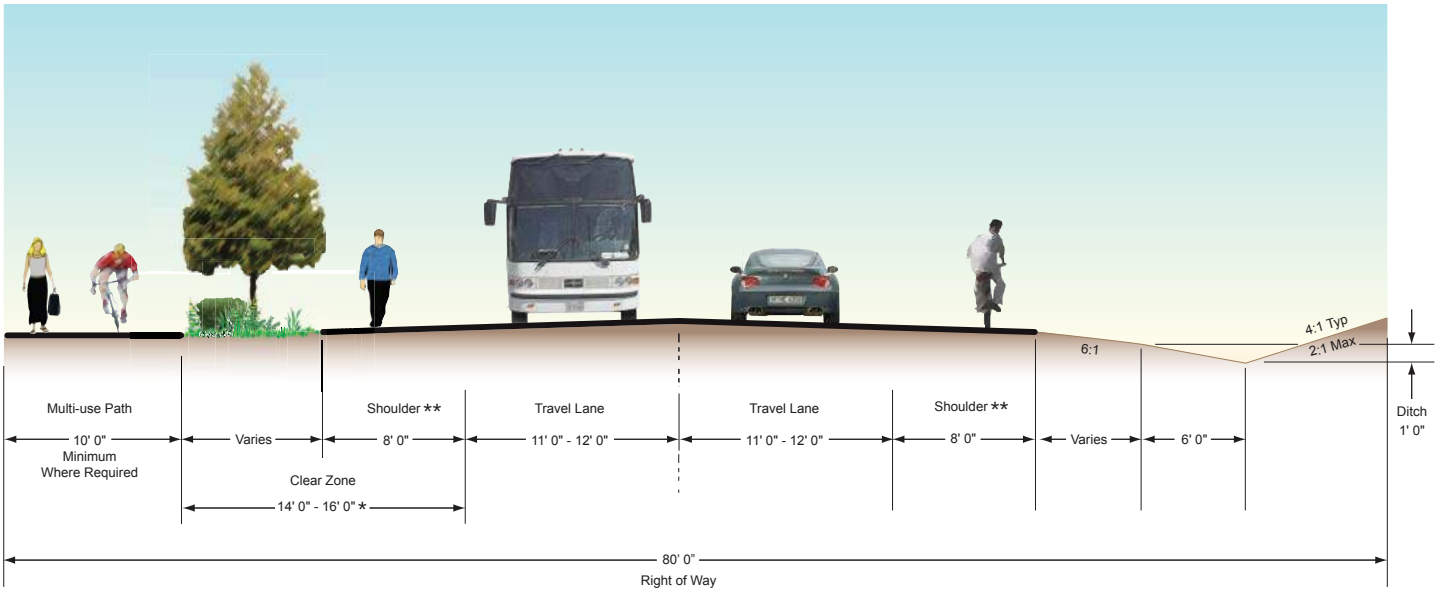


Figure 38 - CBD Core Typical Street Section C

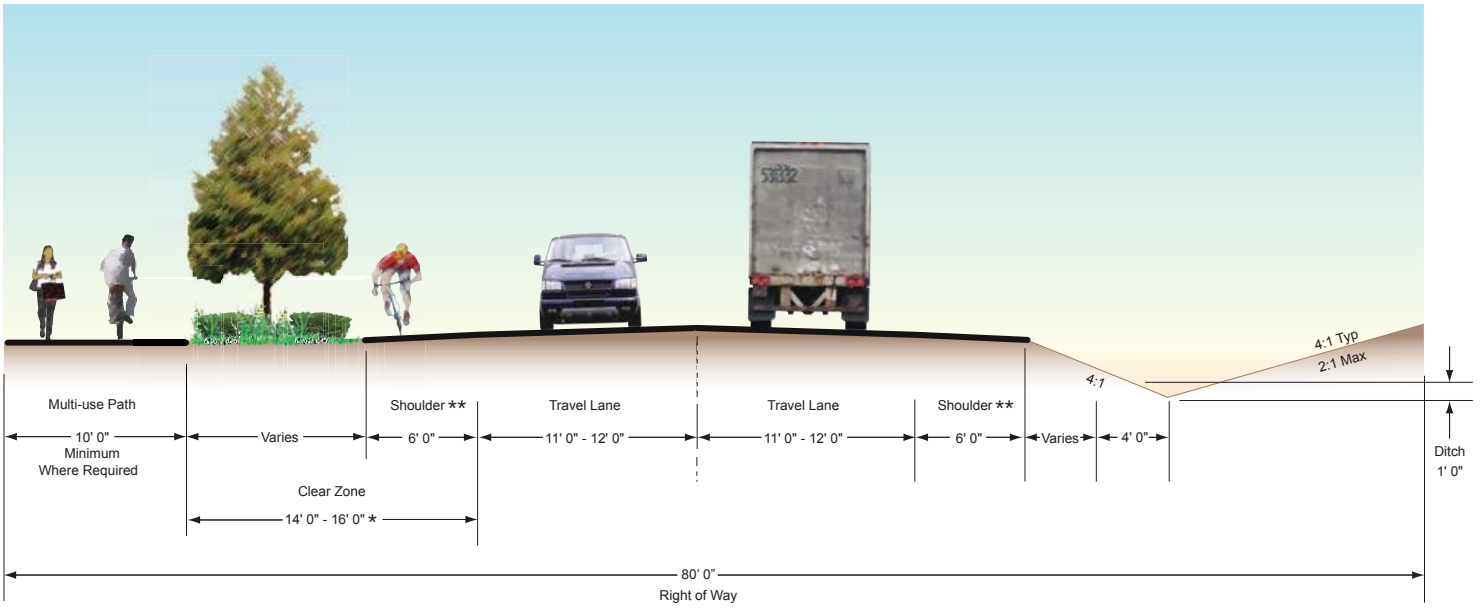


* ≤ 40 MPH
> 6000 ADT

** Check with City of McCall – bike lanes and/or bicycle route signs and sidewalks and/or paths may be required on some rural roadways.

RURAL ARTERIAL

Figure 39 - Rural Arterial



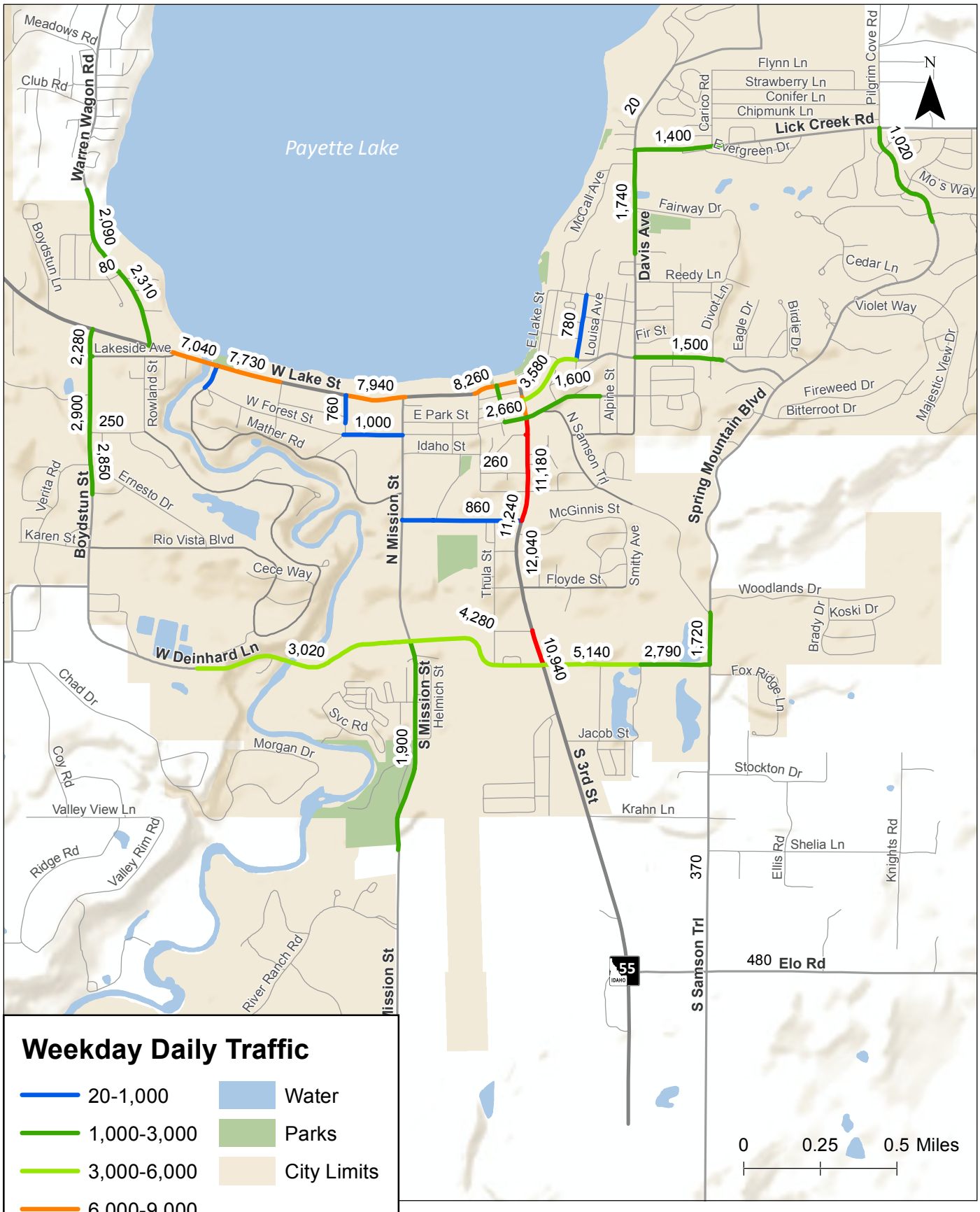
* ≤ 40 MPH
> 6000 ADT

** Check with City of McCall – bike lanes and/or bicycle route signs and sidewalks and/or paths may be required on some rural roadways.

RURAL COLLECTOR

Figure 40 - Rural Collector

Attachment B Daily Traffic Volumes



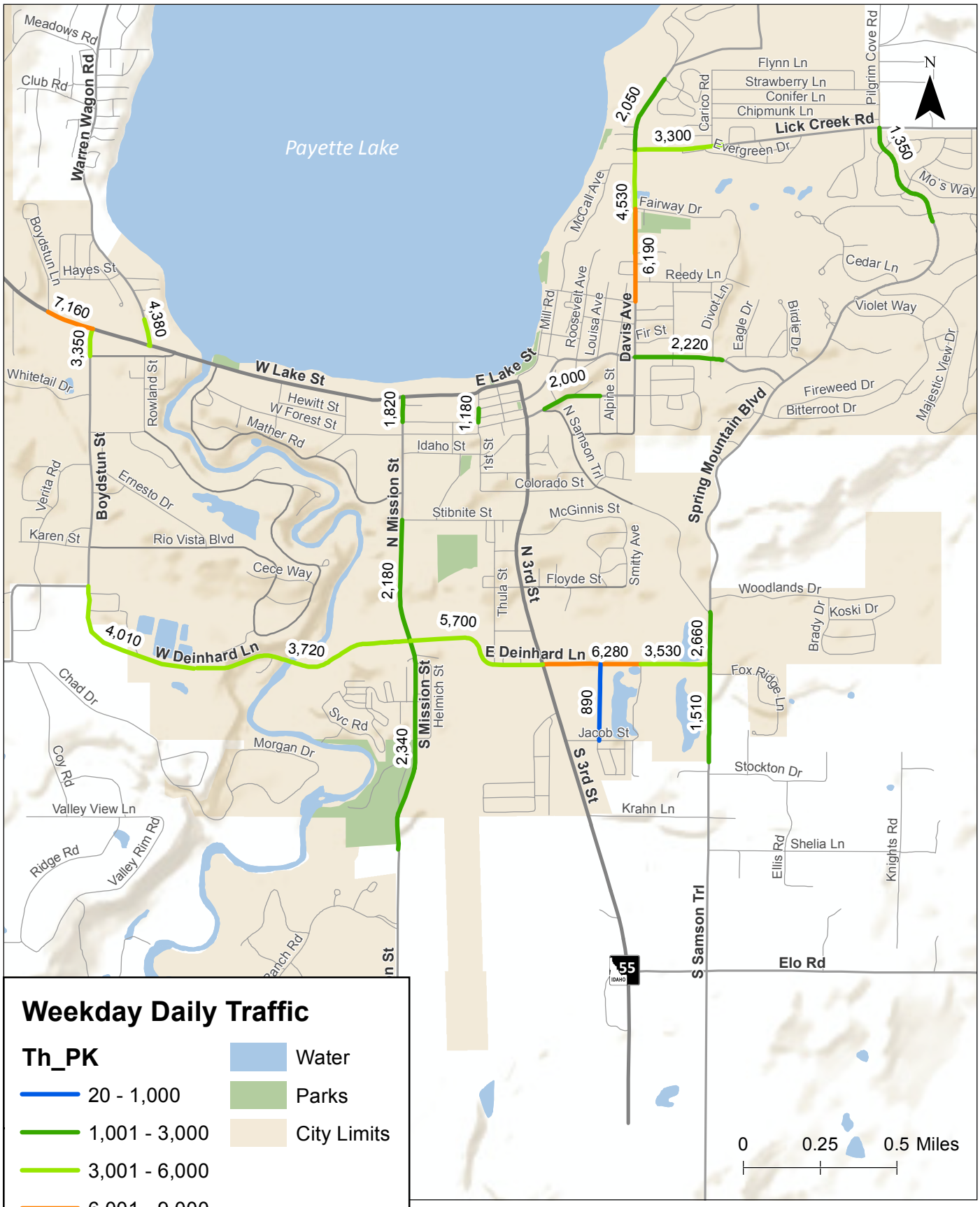
Weekday Off-Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B1**

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_WOP.mxd - jmarkosian - 4:02 PM 1/5/2017

Kittelson & Associates, Inc.
Transportation Engineering/Planning



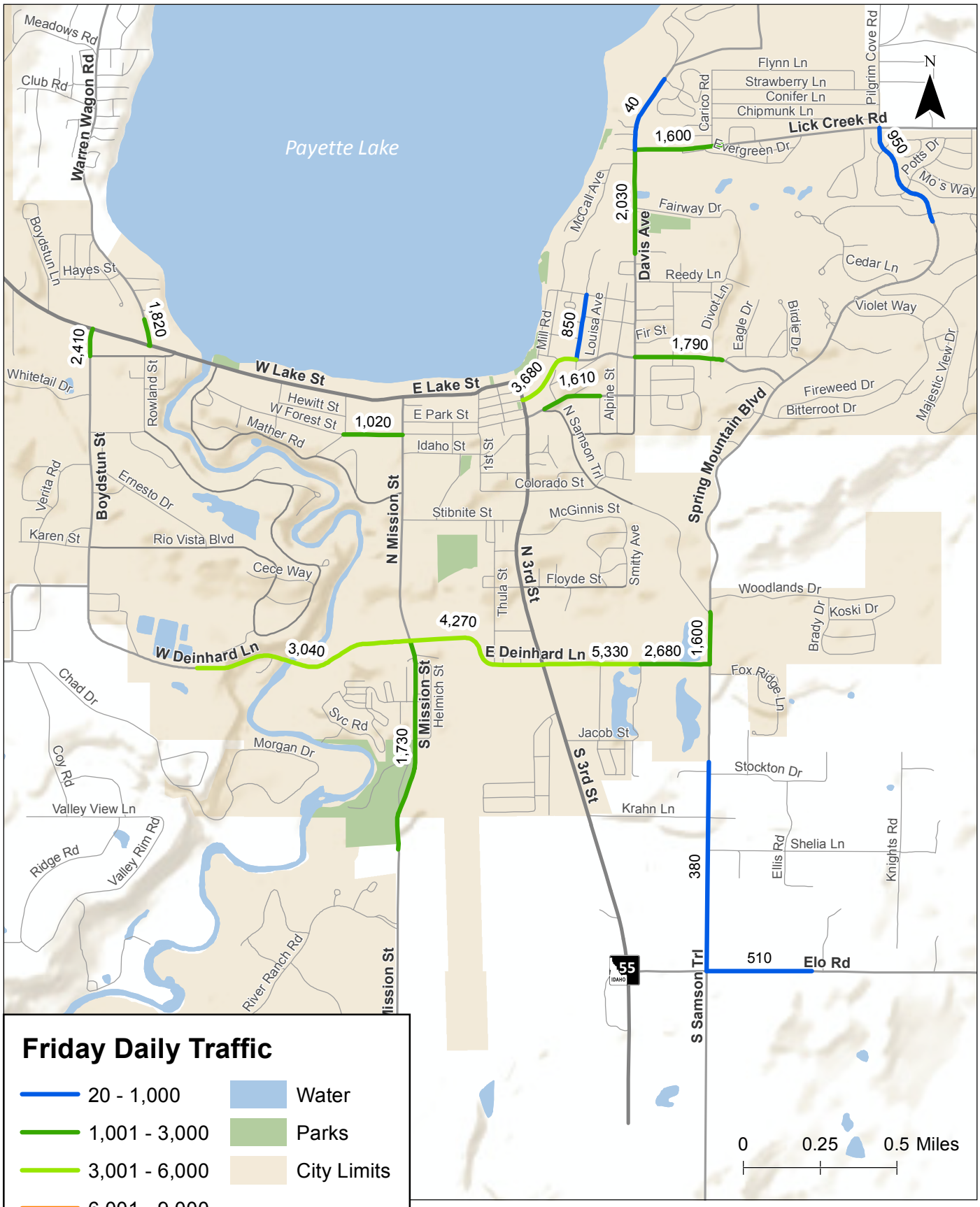
Weekday Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B2**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_WP.mxd - jmarkosian - 4:03 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA



Friday Off-Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B3**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_FOP.mxd - jmarkosian - 4:04 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA

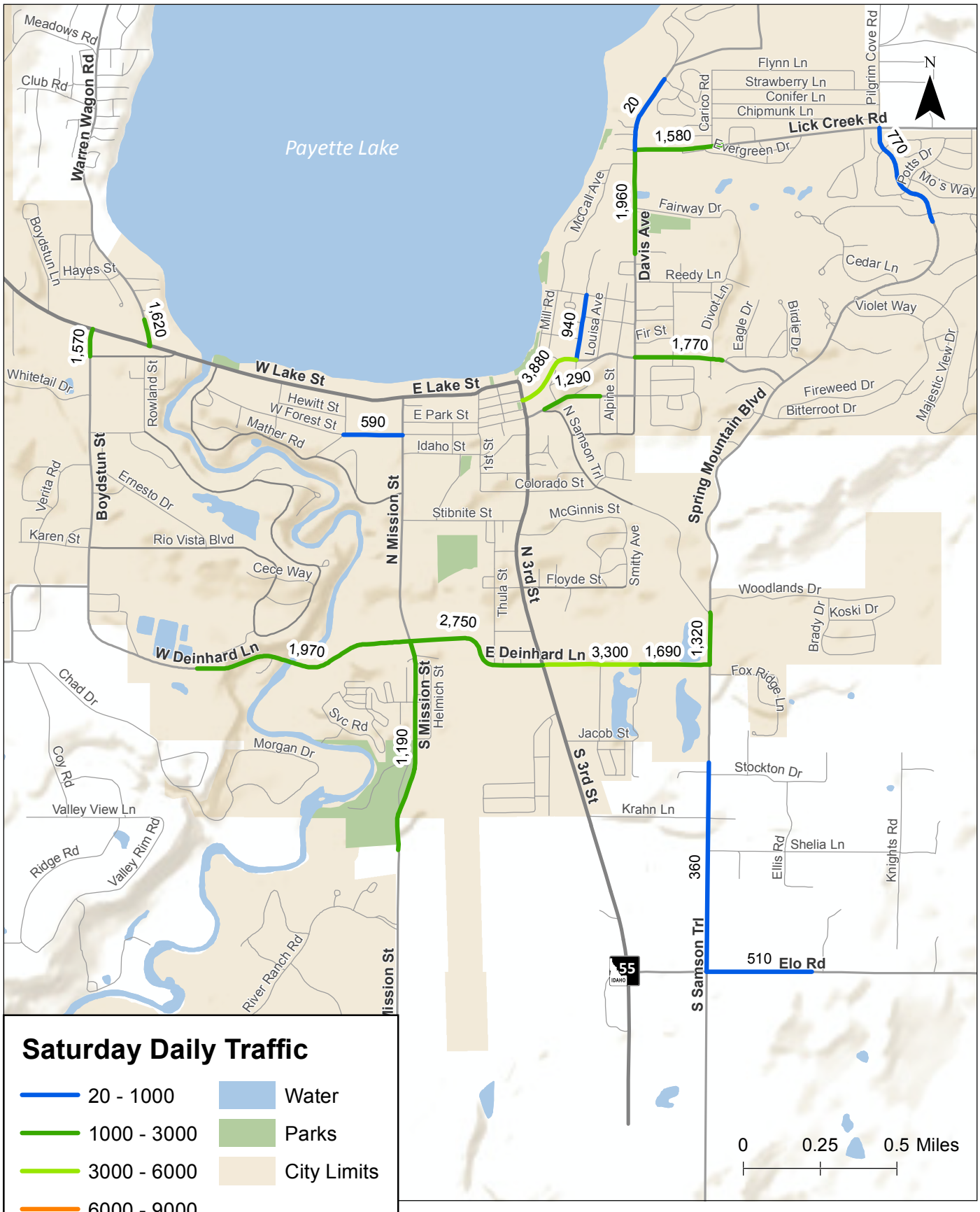
Friday Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B4**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_FP.mxd - jmarkosian - 4:05 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA



Saturday Daily Traffic

- 20 - 1000
- 1000 - 3000
- 3000 - 6000
- 6000 - 9000
- 9000 - 12000

- Water
- Parks
- City Limits

Saturday Off-Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B5**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_SaOP.mxd - jmarkosian - 4:06 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA

Saturday Peak Season Daily Traffic Volumes McCall, Idaho

Figure **B6**

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Daily Volumes_SaP.mxd - jmarkosian - 4:06 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall, ITD, Valley County, Topo Data Sources: Esri, USGS, NOAA

Attachment C Turning Movement Count Worksheets

TURNING MOVEMENT WORKSHEET

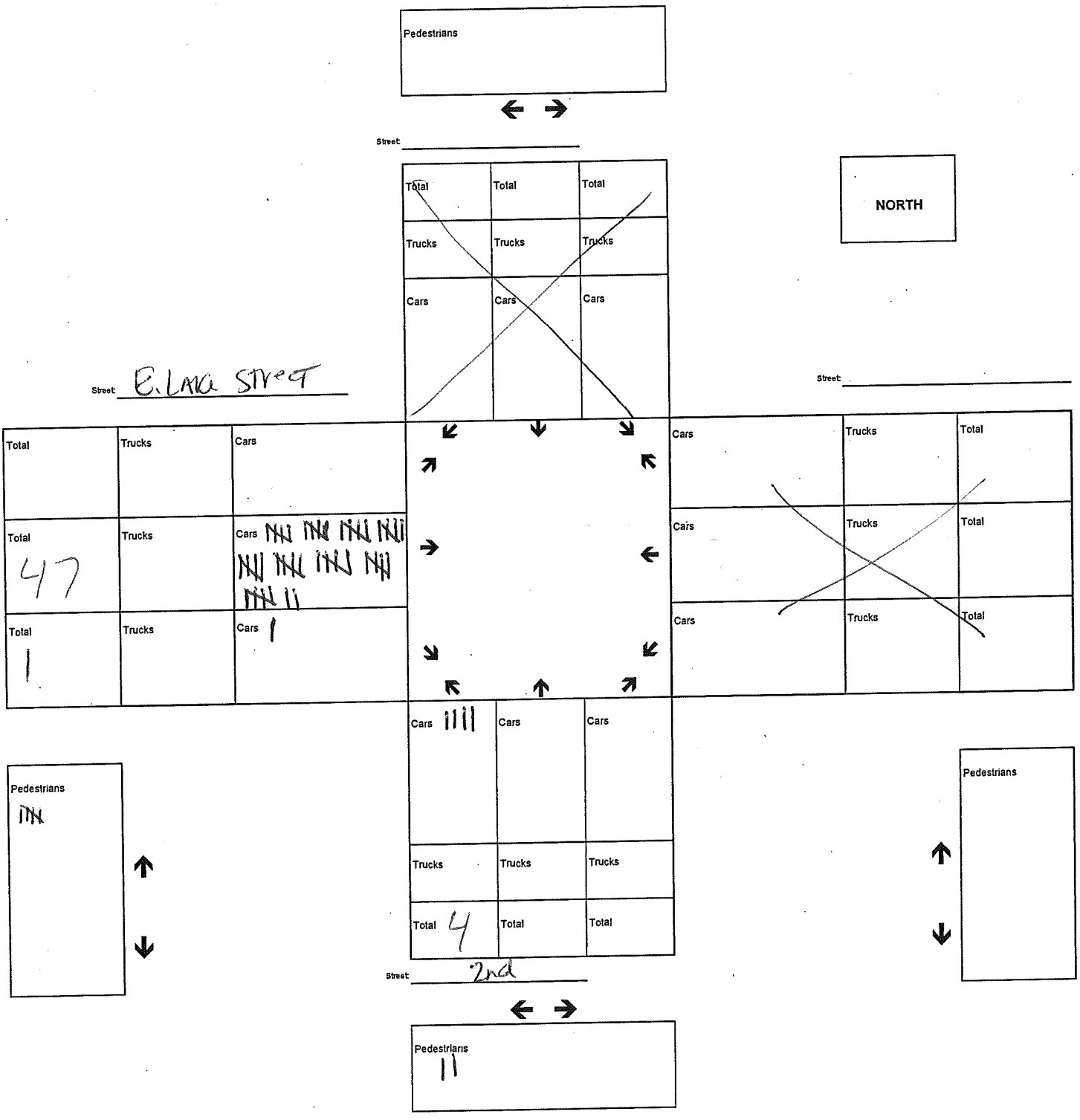
Intersection: 2nd + E. Lake Street

Counter Name: Sissy

Start Time: 4

End Time: 415

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E. Lake Street

Counter Name: Sissy

Start Time: 415

End Time: 430

(15-Minute Increments Only)

NORTH

North approach

Pedestrians (← →):

Street: ______

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

West approach — Street: E. Lake Street

Total	Trucks	Cars
Total	Trucks	Cars
Total 56	Trucks |||	Cars 𝍸 𝍸 ||| 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Total 12	Trucks	Cars 𝍸 𝍸 ||

Pedestrians (↑ ↓): \|\|

East approach — Street: ______

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians (↑ ↓):

South approach — Street: 2nd

Cars 𝍸 |	Cars	Cars
Trucks	Trucks	Trucks
Total 6	Total	Total

Pedestrians (← →):

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E. Lake Street

Counter Name: Sassy

Start Time: 430

End Time: 445

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: E. Lake Street

Total	Trucks	Cars
Total 6	Trucks 1	Cars
Total 6	Trucks	Cars

Street: _____

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians 1

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 3	Total	Total

Street: 2nd

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E. Lake Street

Counter Name: Sissy

Start Time: 4:45

End Time: 5:—

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: E. Lake Street

Street: _____

Total	Trucks	Cars
Total 51	Trucks 1	Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸
Total 10	Trucks	Cars 𝍸 𝍸

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians 𝍸 |

Pedestrians 𝍸 |

Cars 𝍸 𝍸	Cars	Cars
Trucks	Trucks	Trucks
Total 7	Total	Total

Street: 2nd ~~Lake~~ ~~Street~~

Pedestrians

TURNING MOVEMENT WORKSHEET

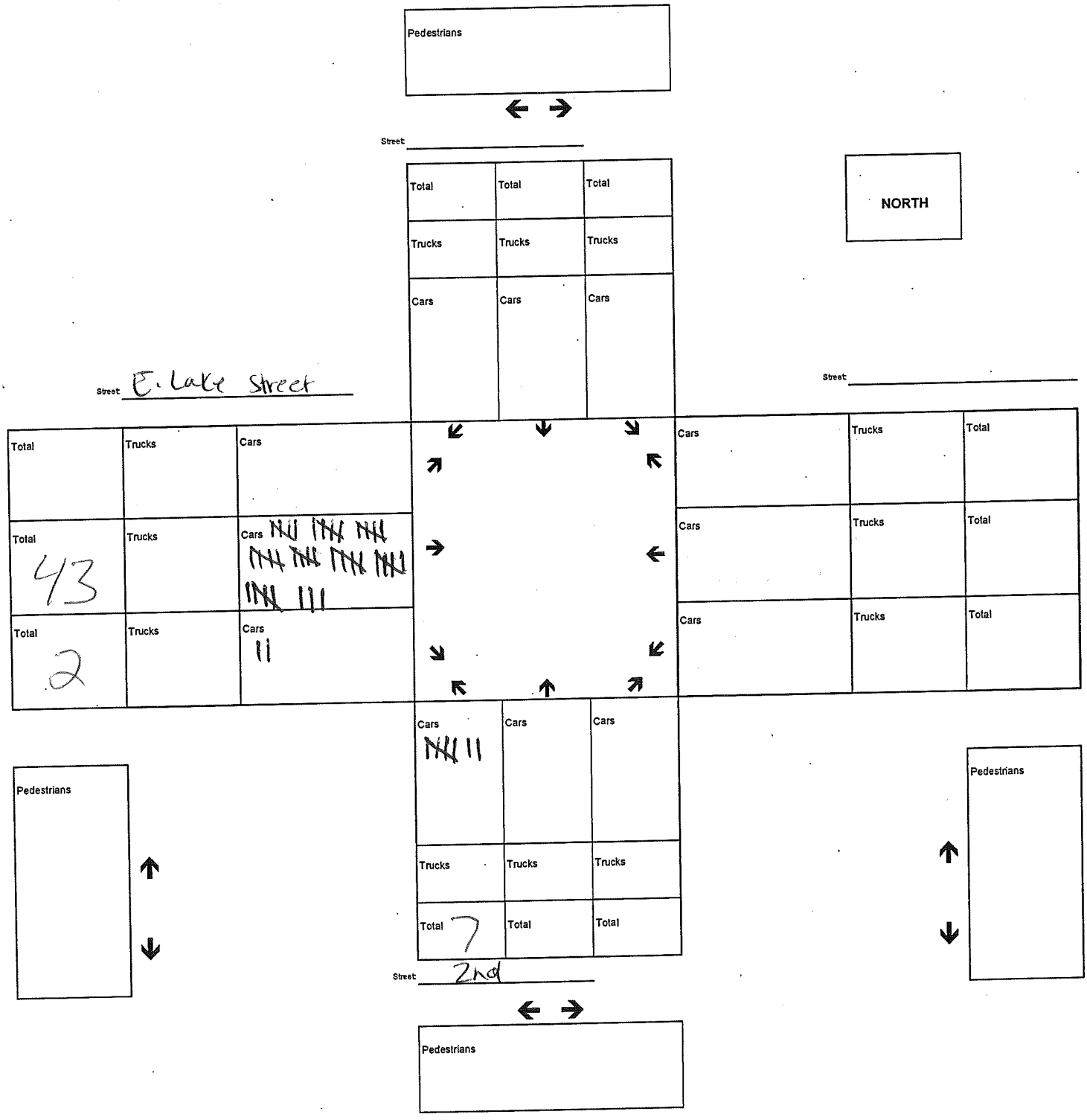
Intersection: 2nd + E. Lake Street

Counter Name: Sissy

Start Time: 515

End Time: 530

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E. Lake Street

Counter Name: Sissy

Start Time: 5

End Time: 515

(15-Minute Increments Only)

NORTH

North approach

Pedestrians ← →

Street ______

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

West approach

Street: E. Lake Street

Total	Trucks	Cars
Total 64	Trucks 1	Cars
Total 8	Trucks	Cars

East approach

Street ______

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

South approach

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 5	Total	Total

Street: 2nd

← →

Pedestrians ||

Side pedestrian boxes

Pedestrians ↑ ↓

Pedestrians ↑ ↓

TURNING MOVEMENT WORKSHEET

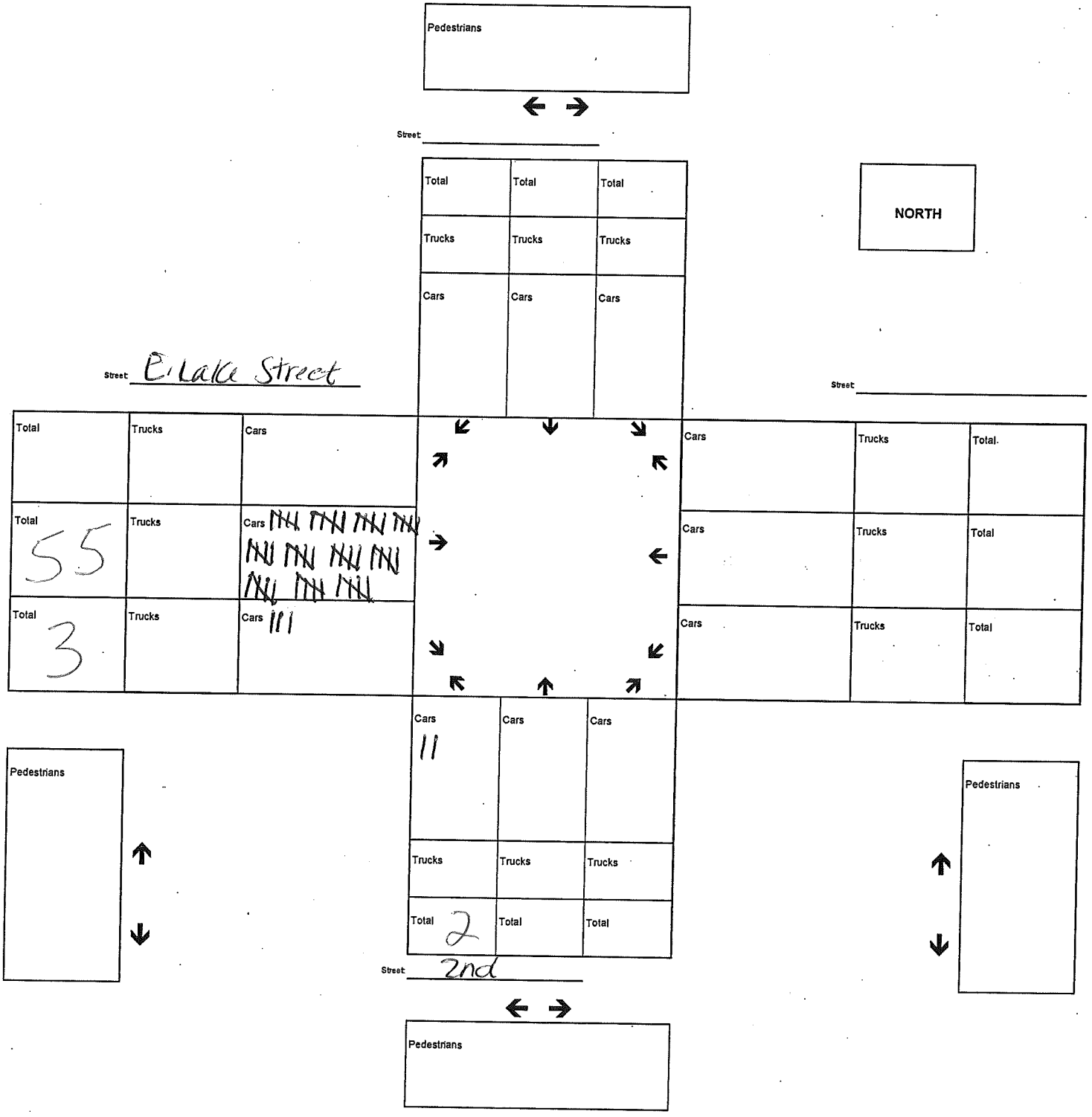
Intersection: 2nd & East Lake Street

Counter Name: Sissy

Start Time: 530

End Time: 545

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

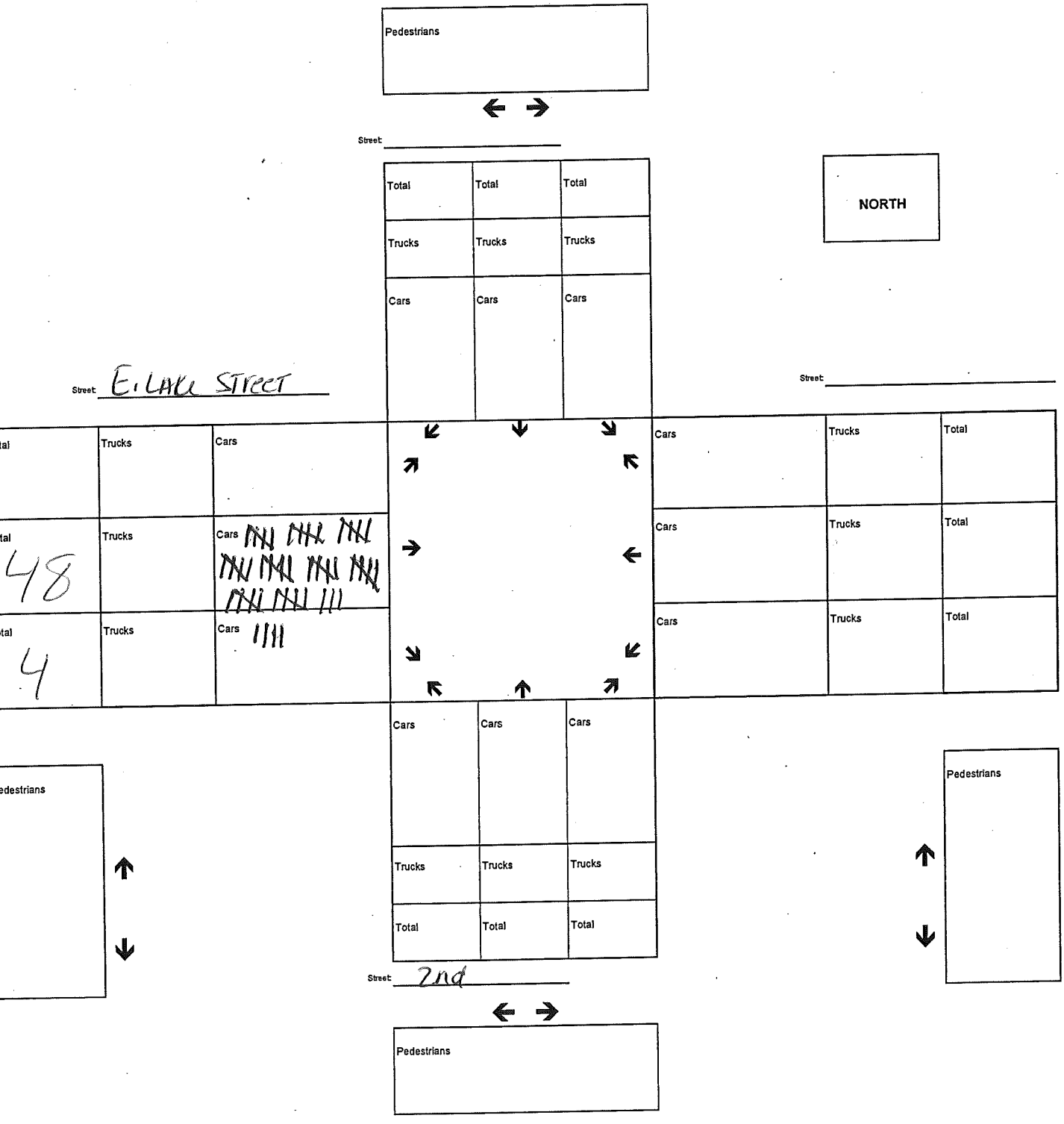
Intersection: 2nd + E. lake Street

Counter Name: Sissy

Start Time: 5:45

End Time: 6

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E Lake St.

Counter Name: Ady Brodbeck

Start Time: 3:45 pm

End Time: 6:00 pm

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: E Lake St.

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Trucks	Total 50
Cars 𝍸	Trucks	Total 3

Cars	Cars	Cars 𝍸
Trucks	Trucks	Trucks
Total	Total	Total 2

Pedestrians

Pedestrians

Street: 2nd St.

Pedestrians

TURNING MOVEMENT WORKSHEET

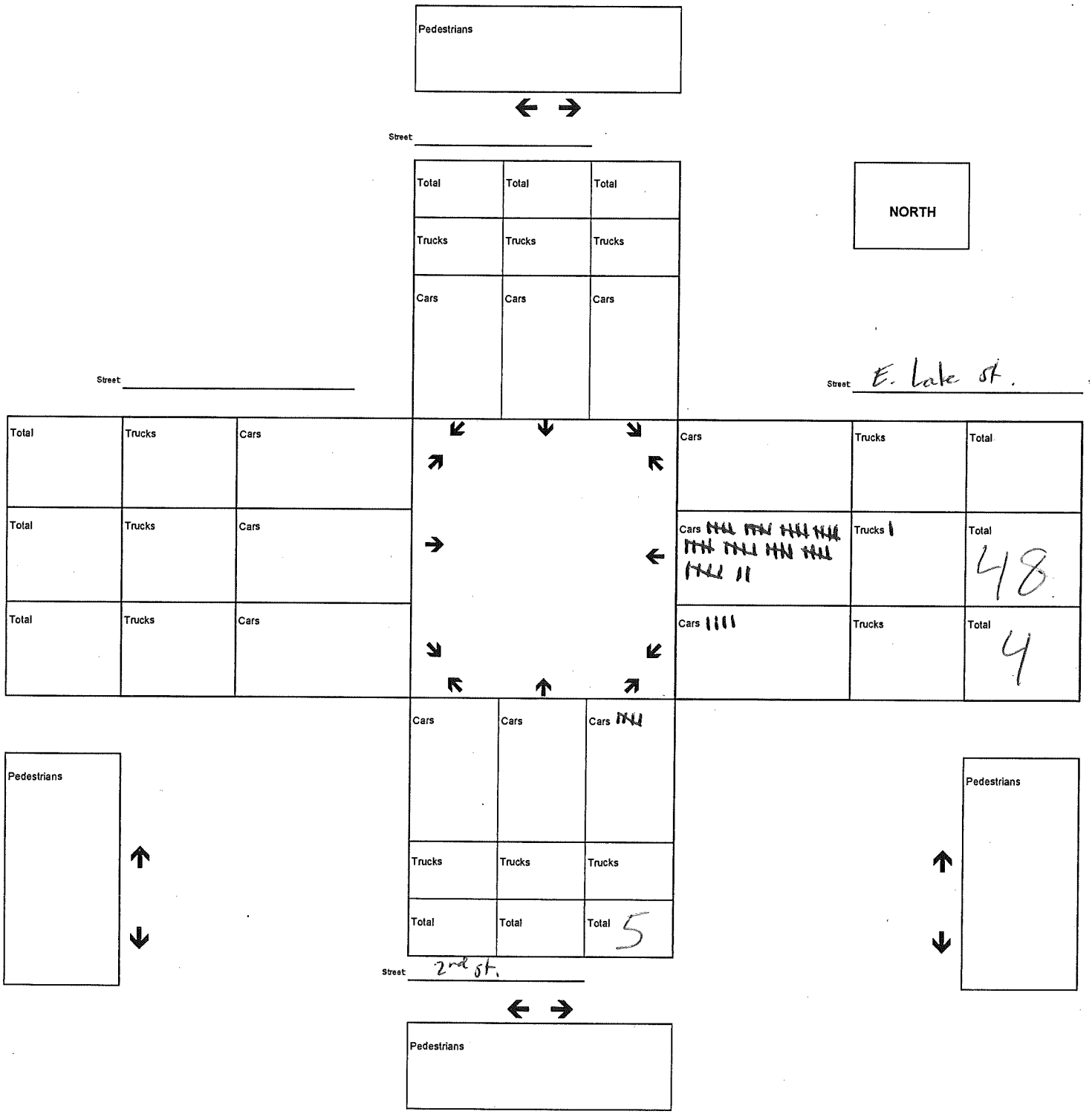
Intersection: 2nd & E. Lake St

Counter Name: Andy Boudwecker

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd & E. Lake St

Counter Name: Andy Ovsthecker

Start Time: 5:00

End Time: 5:15

(15-Minute Increments Only)

North approach

Pedestrians

← →

Street ______

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

West approach

Street ______

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

East approach

Street E. Lake St.

Cars	Trucks	Total
Cars ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ~~||||~~ ||||	Trucks	Total 64
Cars |||	Trucks	Total 3

South approach

Cars	Cars	Cars ~~||||~~
Trucks	Trucks	Trucks
Total	Total	Total 5

Street 2nd St.

← →

Pedestrians

Pedestrians ↑ ↓

Pedestrians ↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: 2nd st + E Lake st

Counter Name: Andy Brodhecker

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)

Pedestrians

Street

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street

Street E. Lake St.

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars (tally: 44)	Trucks (tally: 2)	Total 46
Cars (tally: 15)	Trucks	Total 15

Cars	Cars	Cars (tally: 6)
Trucks	Trucks	Trucks
Total	Total	Total 6

Pedestrians

Pedestrians

Street 2nd St.

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & E Lake st.

Counter Name: Andy Brodhecker

Start Time: 4pm

End Time: 4:15pm

(15-Minute Increments Only)

Pedestrians (north) ← →

Street ______

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street ______

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street E. Lake

Cars	Trucks	Total
Cars	Trucks	Total 58
Cars	Trucks	Total 11

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total 3

Street 2nd

Pedestrians (south) ← →

Pedestrians (west) ↑ ↓

Pedestrians (east) ↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E Lake St

Counter Name: Andy Brodhecker

Start Time: 4:05

End Time: 4:20

(15-Minute Increments Only)

Pedestrians

Street ____________

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street ____________

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street ____________

Cars	Trucks	Total
Cars	Trucks	Total
Cars HHH HHH HHH HHH HHH HHH HHH II	Trucks	Total 37
Cars HHH HHH	Trucks	Total 10

Pedestrians

Cars	Cars	Cars II
Trucks	Trucks	Trucks
Total	Total	Total 2

Pedestrians

Street ____________

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & E Lake st

Counter Name: Andy Brodbecker

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)

Pedestrians

← →

Street

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street E. Lake St

Cars	Trucks	Total
Cars	Trucks	Total
Cars ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ~~~~ ‖	Trucks	Total 52
Cars ~~~~ I	Trucks	Total 6

Street

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Cars	Cars ‖
Trucks	Trucks	Trucks
Total	Total	Total 2

Street 2nd St.

← →

Pedestrians

Pedestrians ↑ ↓

Pedestrians ↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & E Lake St

Counter Name: Andy Brochecher

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: E. Lake St.

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	Trucks	Total 55
Cars 𝍸	Trucks	Total 4

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: 2nd St.

Pedestrians

TURNING MOVEMENT WORKSHEET

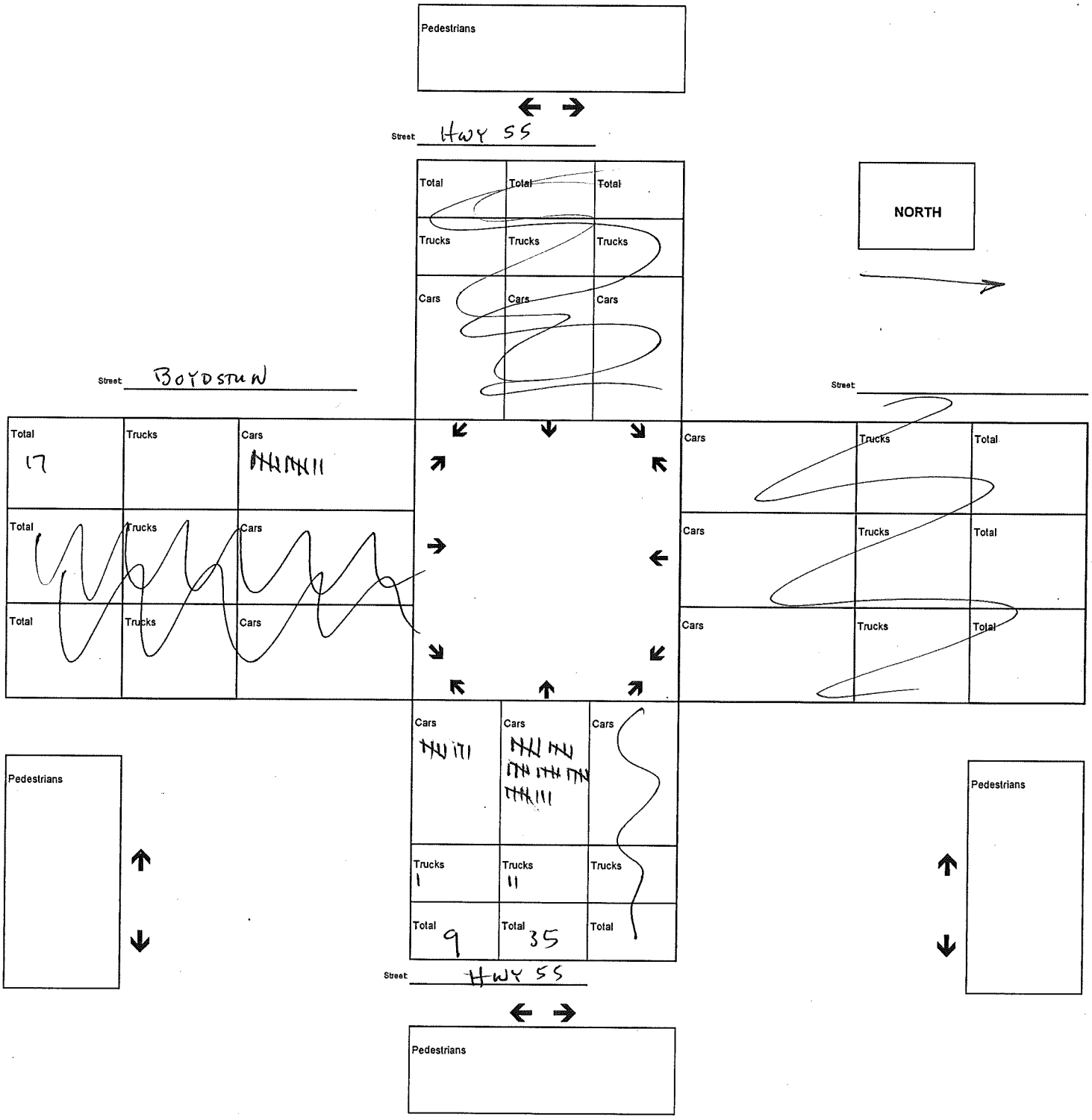
Intersection: BOYDSTUN & HWY 55

Counter Name: JOHN BLAKE

Start Time: 4:00pm - ~~4:15~~

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN & HWY 55

Counter Name: BLAKE

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)

Pedestrians

Street: HWY 55

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: BOYDSTUN

Total 11	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Street:

Cars 4	Cars 30	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: HWY 55

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Boynston & Hwy 55

Counter Name: BLAKE

Start Time: 4:45

End Time: 9:00

(15-Minute Increments Only)

Pedestrians

Street: Hwy 55

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Boynston

Street:

Total 12	Trucks	Cars ||||| ||
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars |||||	Cars ||||| |||	Cars
Trucks 1	Trucks	Trucks
Total 8	Total 23 ~~29~~	Total

Pedestrians

Pedestrians

Street: Hwy 55

Pedestrians

TURNING MOVEMENT WORKSHEET

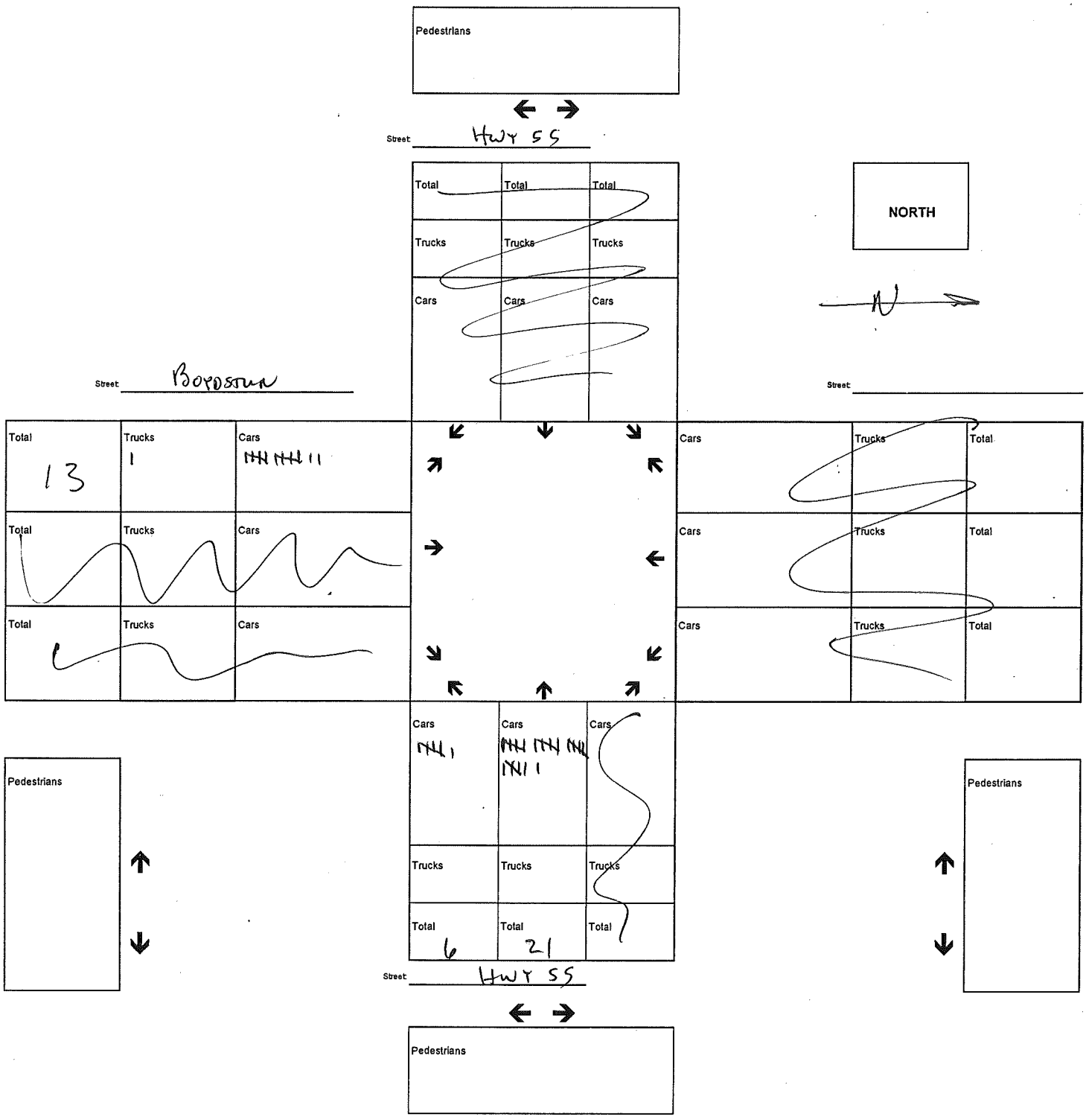
Intersection: Boydstun / Hwy 55

Counter Name: Blake

Start Time: ~~4:15~~ 4:30

End Time: ~~4:30~~ 4:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

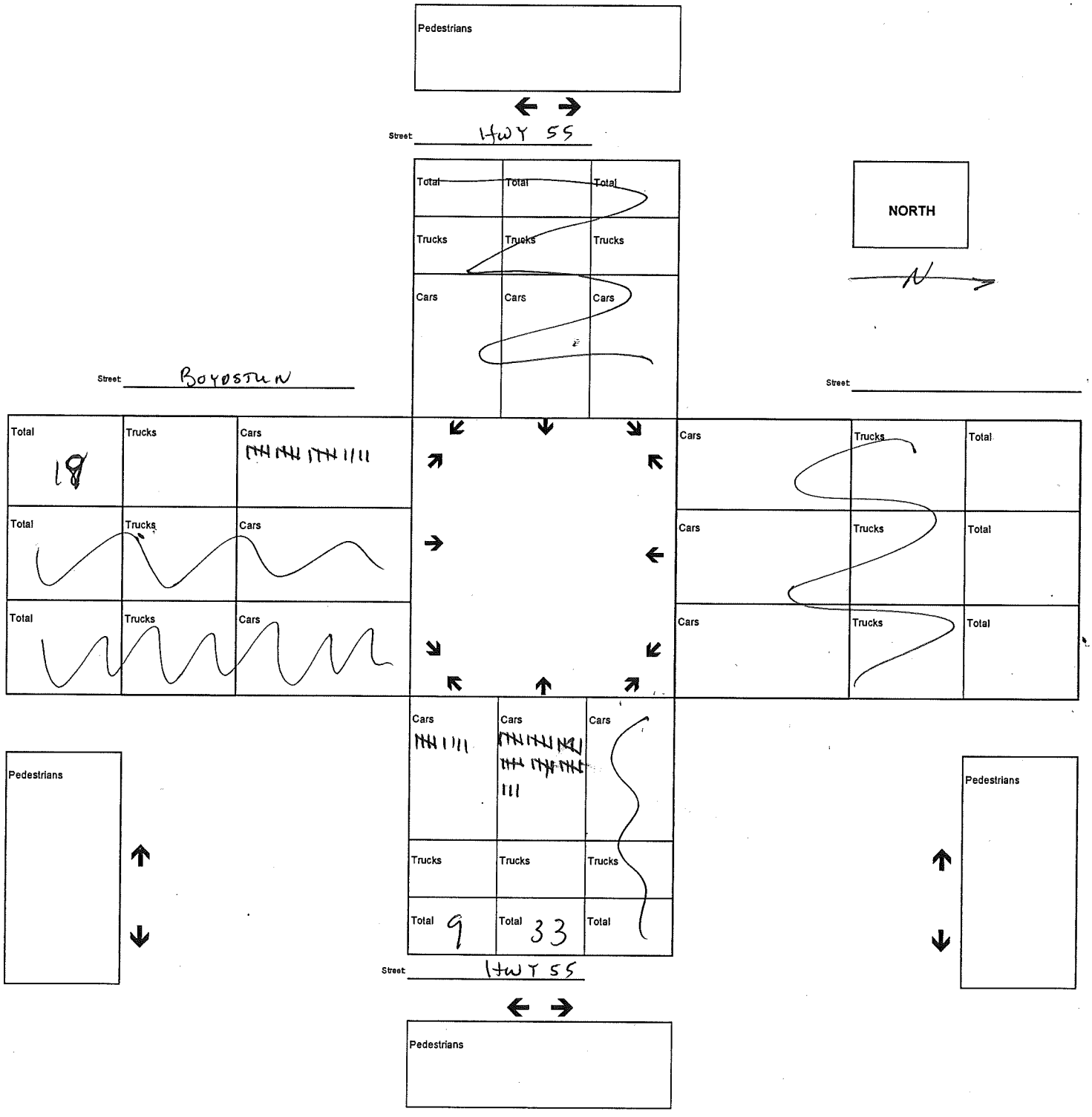
Intersection: BOYDSTUN & HWY 55

Counter Name: BLAKE

Start Time: ~~4:30~~ 5:00

End Time: ~~4:45~~ 5:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN & HWY 55

Counter Name: BLAICE

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

Pedestrians

Street: HWY 55

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: BOYDSTUN

Total 11	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 6	Total 34	Total

Pedestrians

Street: HWY 55

Pedestrians

TURNING MOVEMENT WORKSHEET

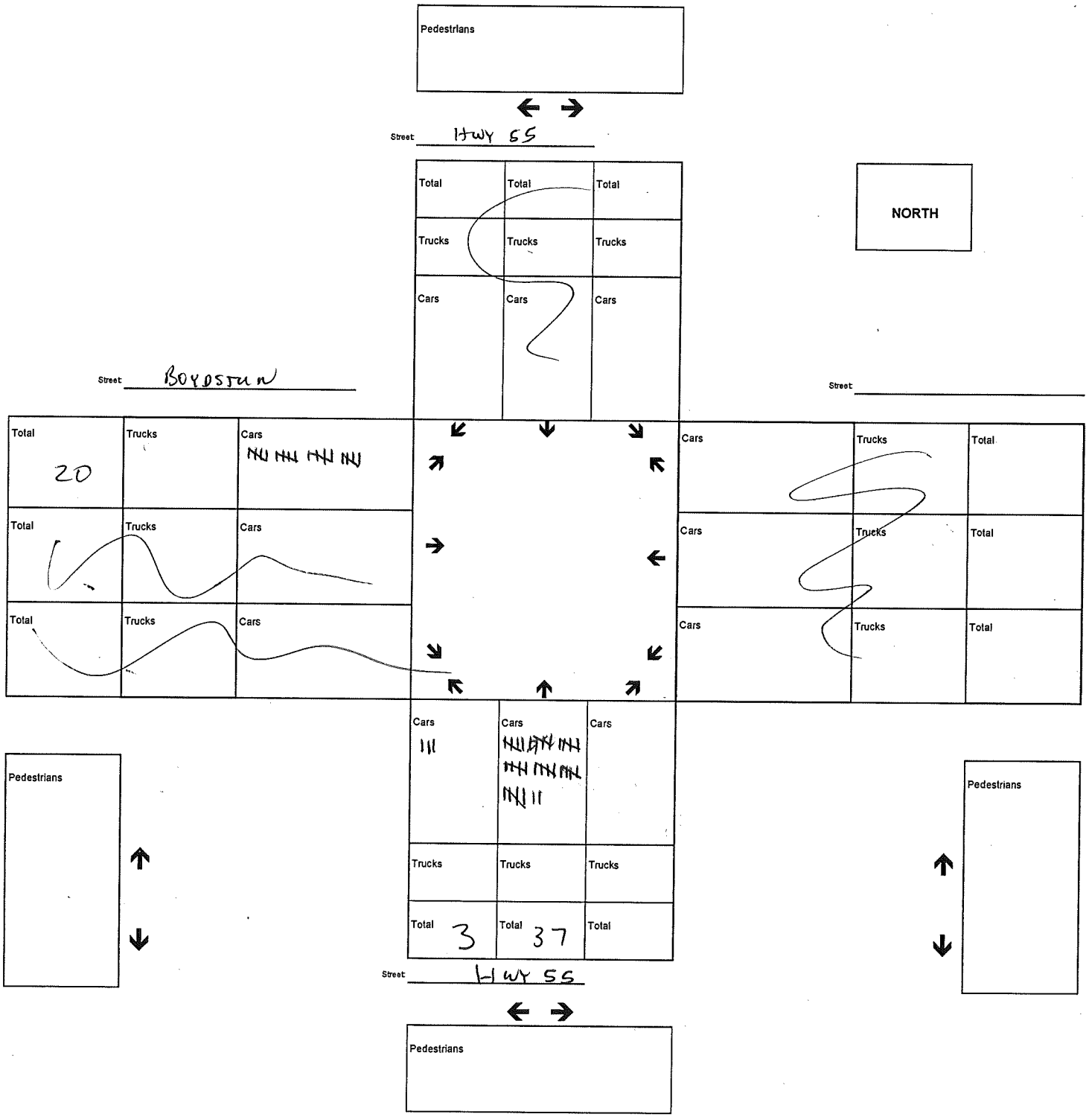
Intersection: BOYDSTUN & HWY 55

Counter Name: BLAICE

Start Time: ~~4:45~~ 5:30

End Time: ~~5:00~~ 5:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN & HWY 55

Counter Name: BLAKE

Start Time: 5:45

End Time: 6:00

(15-Minute Increments Only)

Pedestrians

Street: HWY 55

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: BOYDSTUN

Street:

Total 12	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 10	Total 22	Total

Street: HWY 55

Pedestrians

TURNING MOVEMENT WORKSHEET

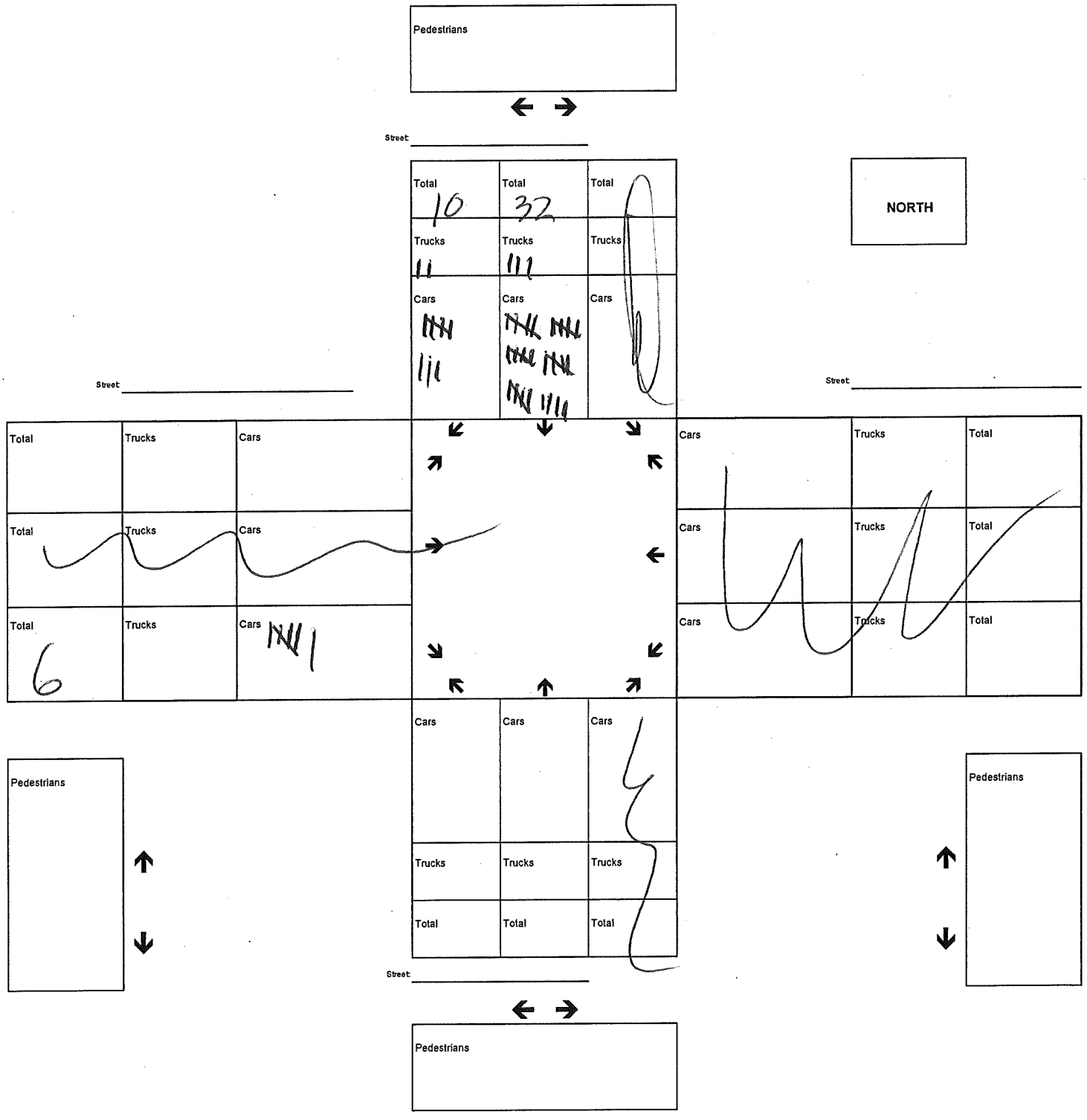
Intersection: Bypass 5 Highway

Counter Name: Leland

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



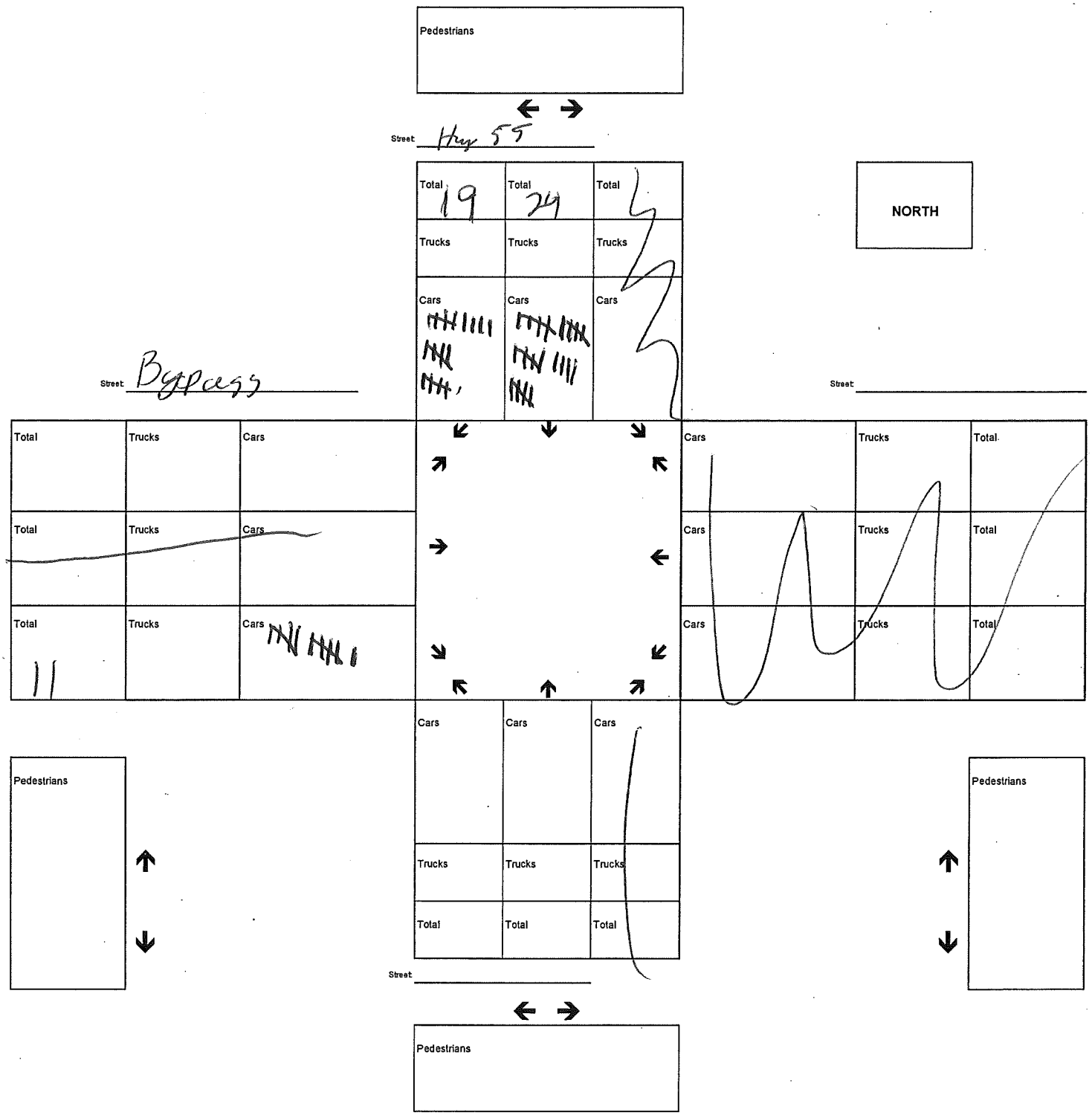
TURNING MOVEMENT WORKSHEET

Intersection: Bypass 3 Highway

Counter Name: Leland

Start Time: 400

End Time: 415
(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

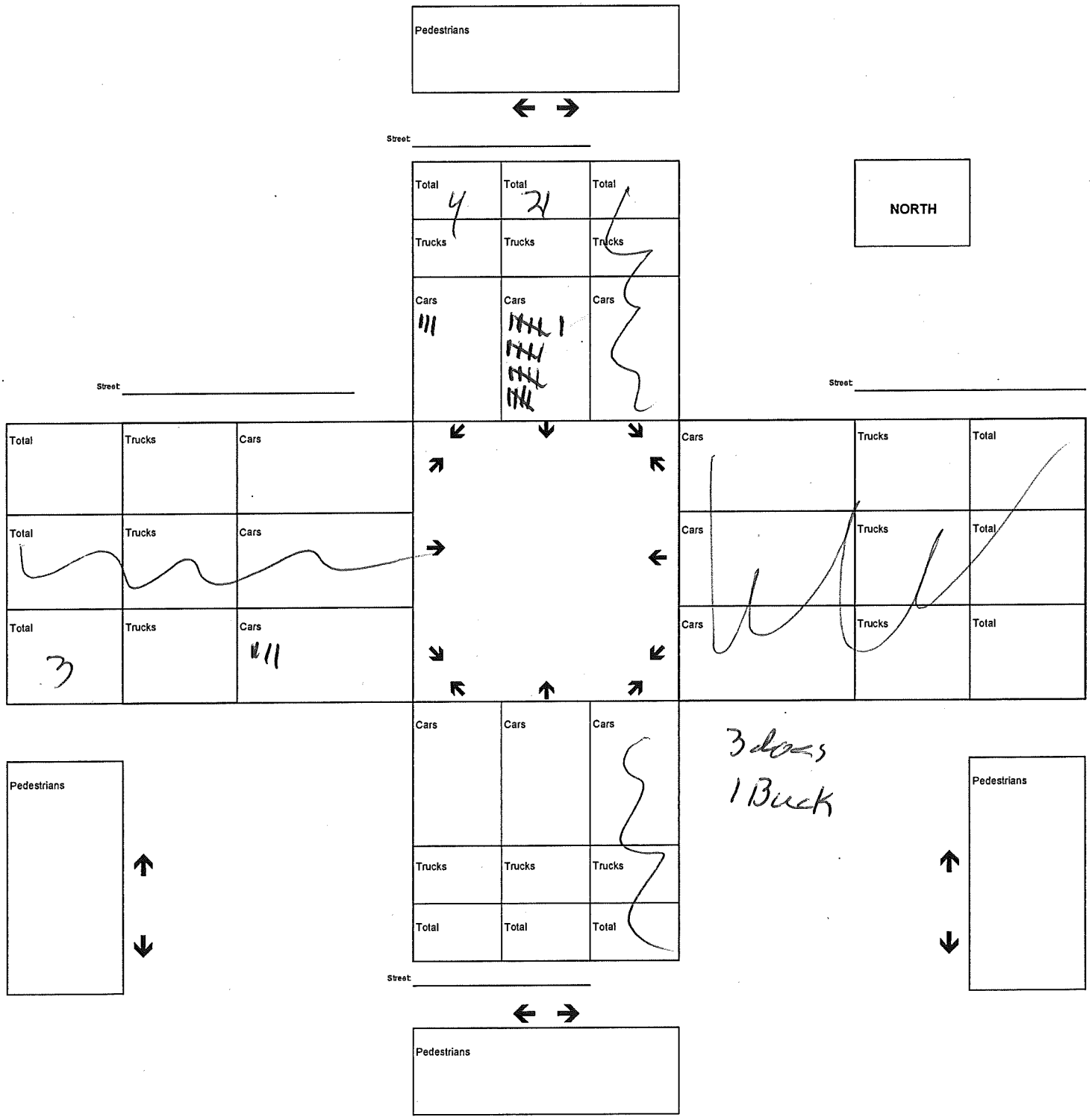
Intersection: Bypass & Highway

Counter Name: Leford

Start Time: 545

End Time: 600

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

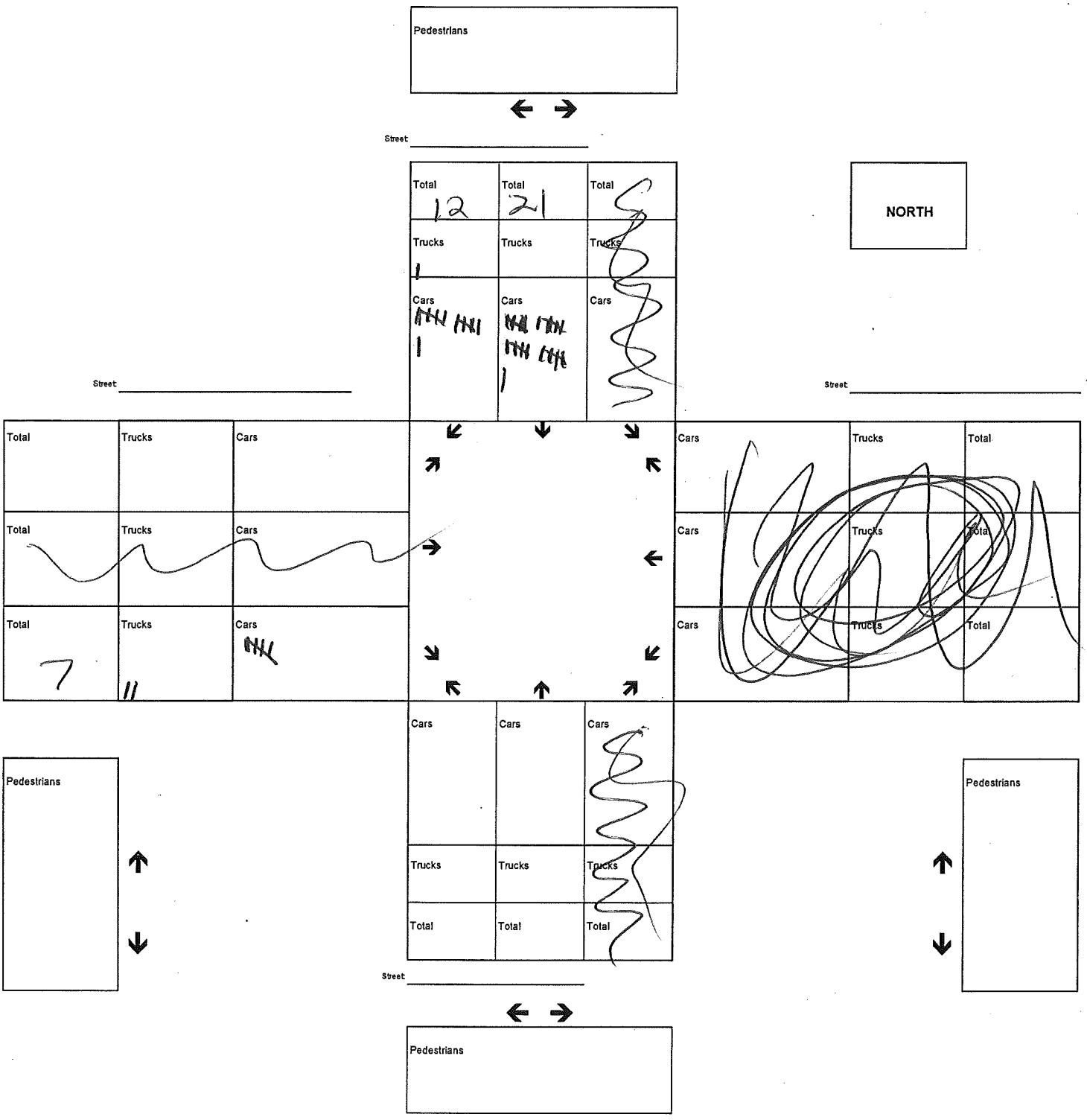
Intersection: Bypass & Highway

Counter Name: Leland

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

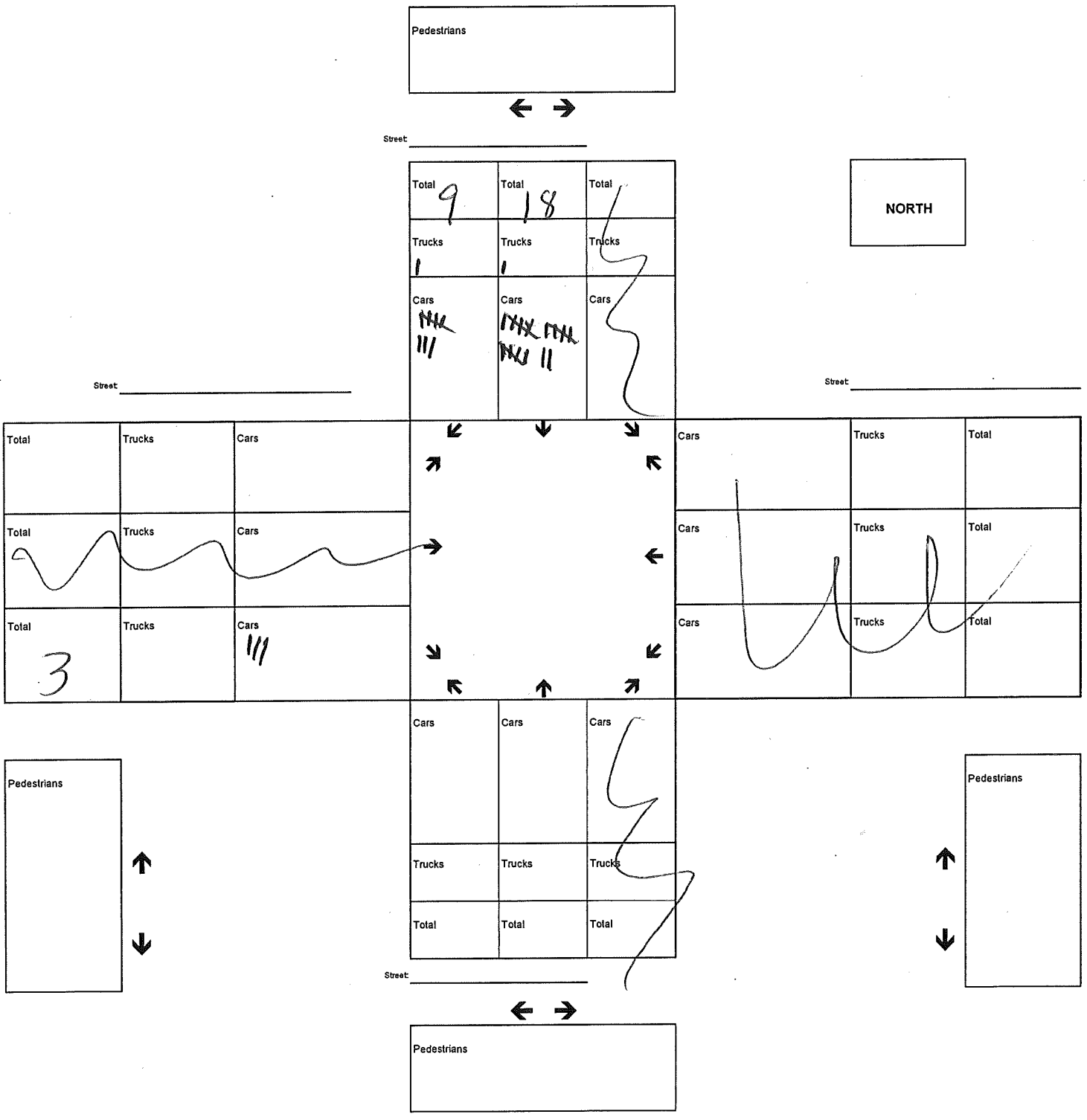
Intersection: Bypass & Highway

Counter Name: Leland

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Bypass & Highway

Counter Name: Leland

Start Time: 500

End Time: 515

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
9	28	
Trucks	Trucks	Trucks
	II	
Cars	Cars	Cars
𝍸 IIII	𝍸 𝍸 𝍸 𝍸 III	

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars
8	I	𝍸 II

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

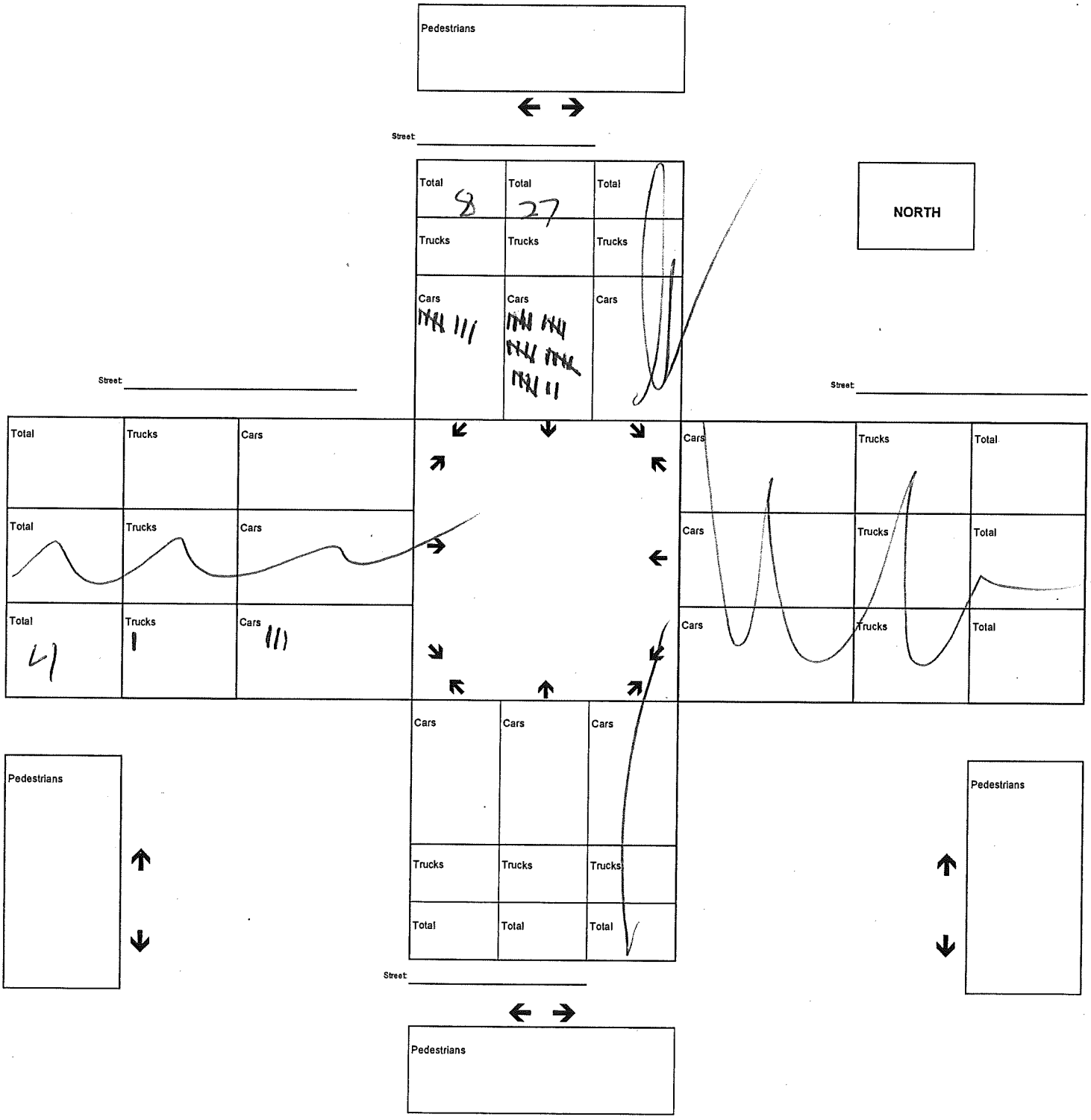
Intersection: Bypass & High way

Counter Name: Ireland

Start Time: 430

End Time: 445

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Highway 5 & Highway
Counter Name: Cedar
Start Time: 4:45
End Time: 5:00
(15-Minute Increments Only)

Pedestrians

Street:

Total 14	Total 27	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total 4	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Lenora + 38th

Counter Name: Danny

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

E

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total 40	Trucks	Cars
Total 129	Trucks IIII	Cars
Total 4	Trucks	Cars IIII

N

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

S

Cars II	Cars	Cars
Trucks	Trucks	Trucks
Total 2	Total 11	Total 47

Pedestrians

Pedestrians

Street: _____

Pedestrians

W

TURNING MOVEMENT WORKSHEET

Intersection: Lenosa & 3rd

Counter Name: Danny

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

E

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____ Street: _____

Total 58	Trucks	Cars
Total 142	Trucks //	Cars
Total 2	Trucks	Cars //

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

N

S

Cars ///	Cars ////	Cars
Trucks	Trucks	Trucks
Total 3	Total 7	Total 47

Pedestrians

Pedestrians

Street: _____

Pedestrians

18

TURNING MOVEMENT WORKSHEET

Intersection: Lenora & 3rd

Counter Name: Danny

Start Time: 4:00 PM

End Time: 6:00 PM

(15-Minute Increments Only)

E

Pedestrians

Street: Lenora

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: 3rd

Total 43	Trucks	Cars
Total 75	Trucks	Cars
Total	Trucks	Cars

N

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

S

Street:

Cars III	Cars I	Cars
Trucks	Trucks	Trucks
Total 3	Total 1	Total 14

Pedestrians

Pedestrians

Street:

Pedestrians

W

TURNING MOVEMENT WORKSHEET

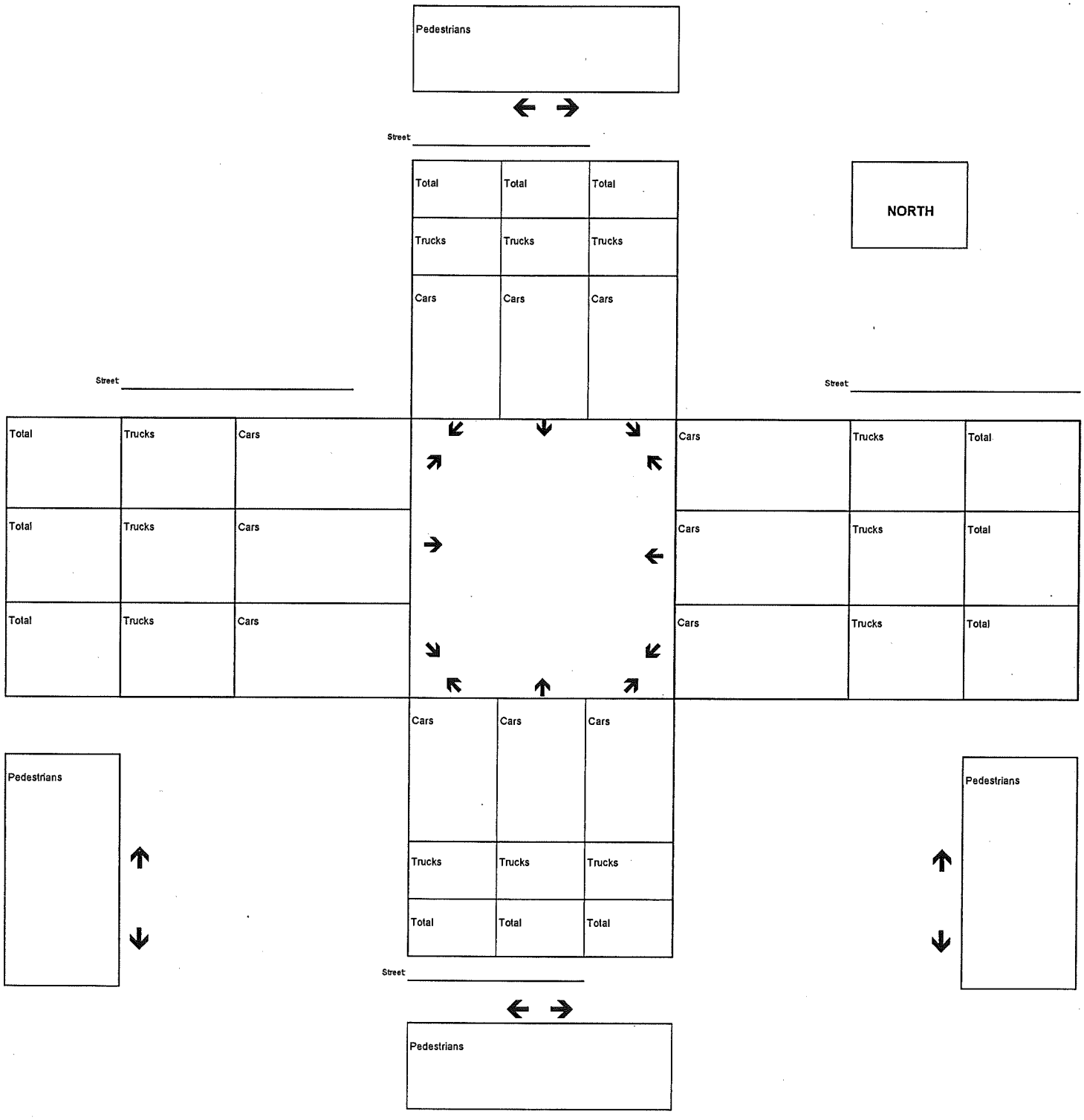
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Lenora & 3rd St.

Counter Name: Cris Malvick

Start Time: 4:00

End Time: 6:00

(15-Minute Increments Only)

E

Pedestrians

Street: _____

N

Total 24	Total 20	Total 33
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

W

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: _____

Cars	Trucks	Total 51
Cars	Trucks 1	Total 121
Cars	Trucks	Total 26

E

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: Lenora & 3rd

Counter Name: Cris Malwick

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

E

Pedestrians

Street:

Total 30	Total 5	Total 48
Trucks 1	Trucks	Trucks
Cars |||||	Cars ||||	Cars |||||			

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

W

Cars ||||| |||||	Trucks 1	Total 62
Cars ||||| ||||| |||||	Trucks 1	Total 121
Cars ||||| |||	Trucks	Total 20

S

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

W

TURNING MOVEMENT WORKSHEET

Intersection: Lenora & 3rd St

Counter Name: Cris Malvich

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

E

Pedestrians

← →

Street

Total 15	Total 1	Total 17
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street

Street

N

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total 37
Cars	Trucks	Total 70
Cars	Trucks	Total 7

S

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

↑ ↓

Pedestrians

↑ ↓

Street

← →

Pedestrians

W

TURNING MOVEMENT WORKSHEET

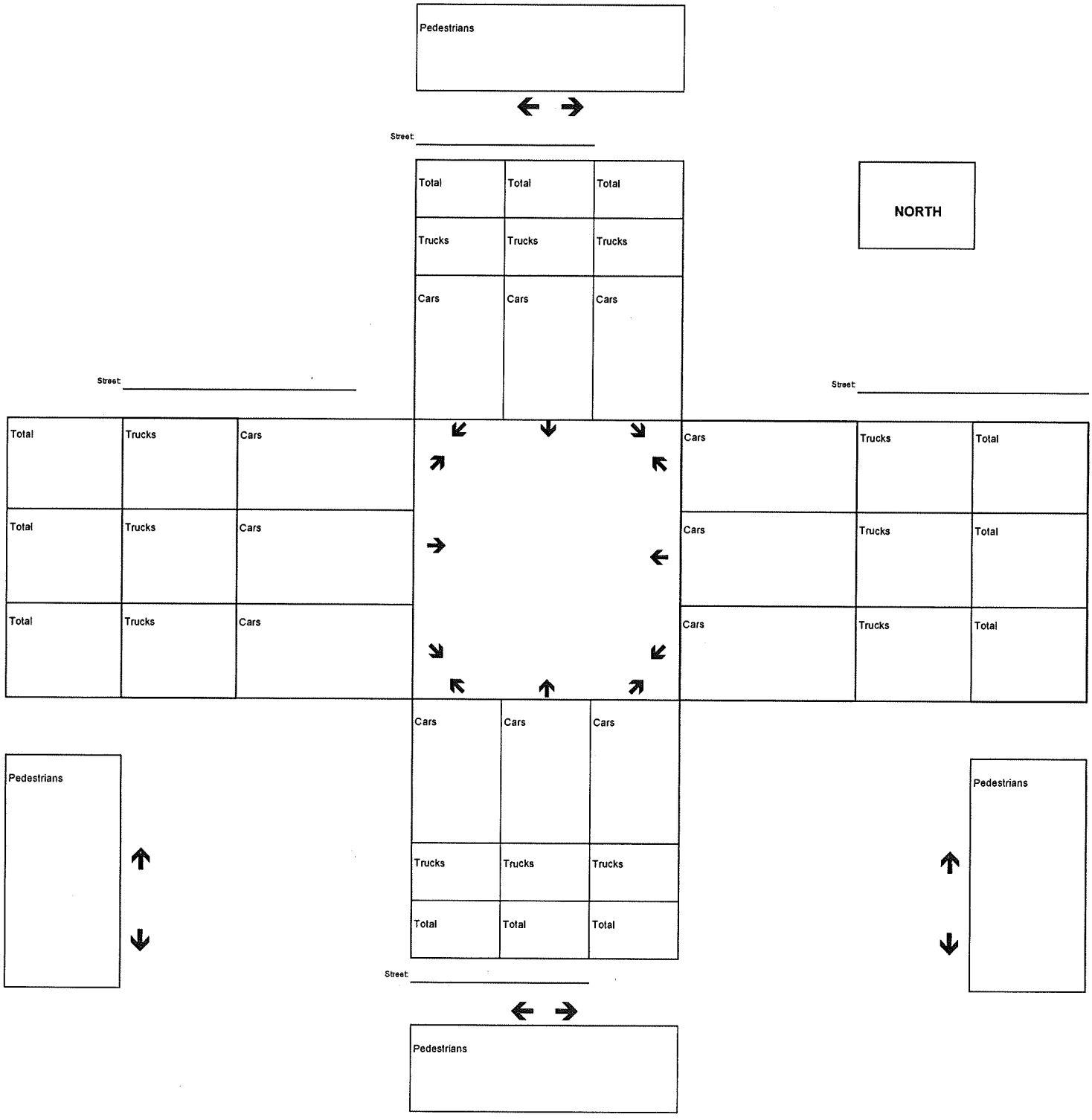
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



4:05 - 4:20

TURNING MOVEMENT WORKSHEET

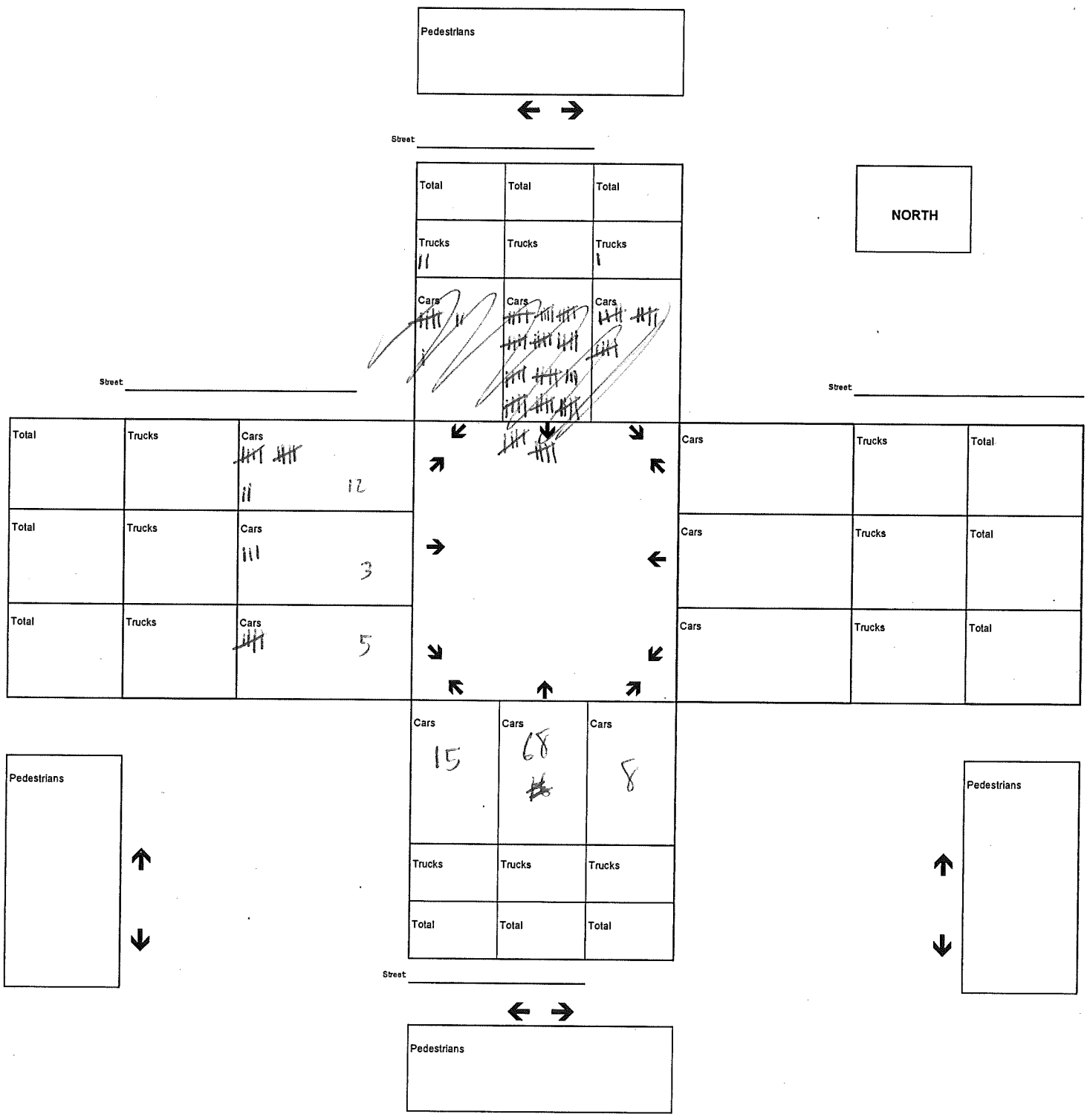
Intersection: Park + 55

Counter Name: Nathan St

Start Time:

End Time:

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

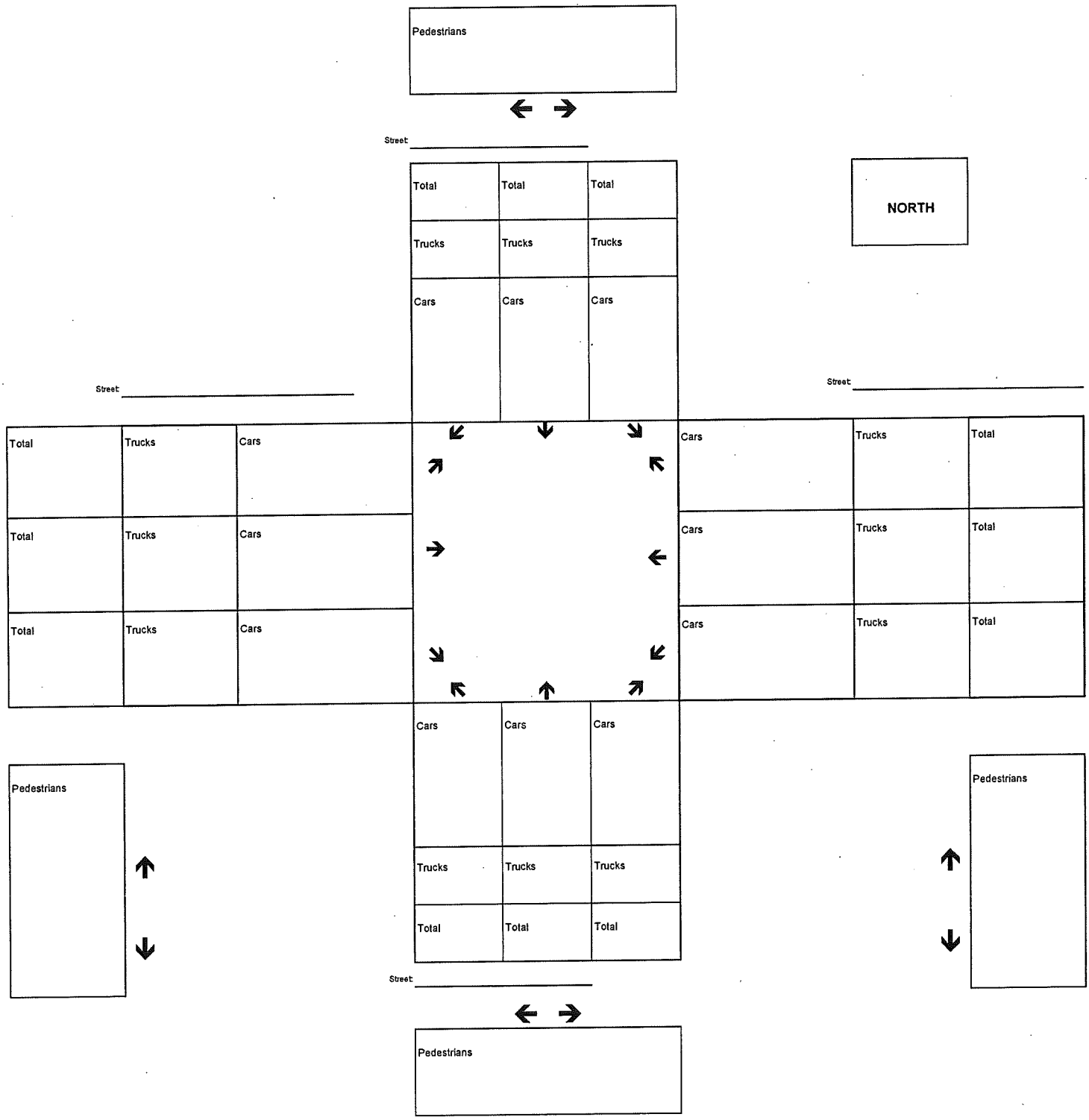
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



4:20-4:35

TURNING MOVEMENT WORKSHEET

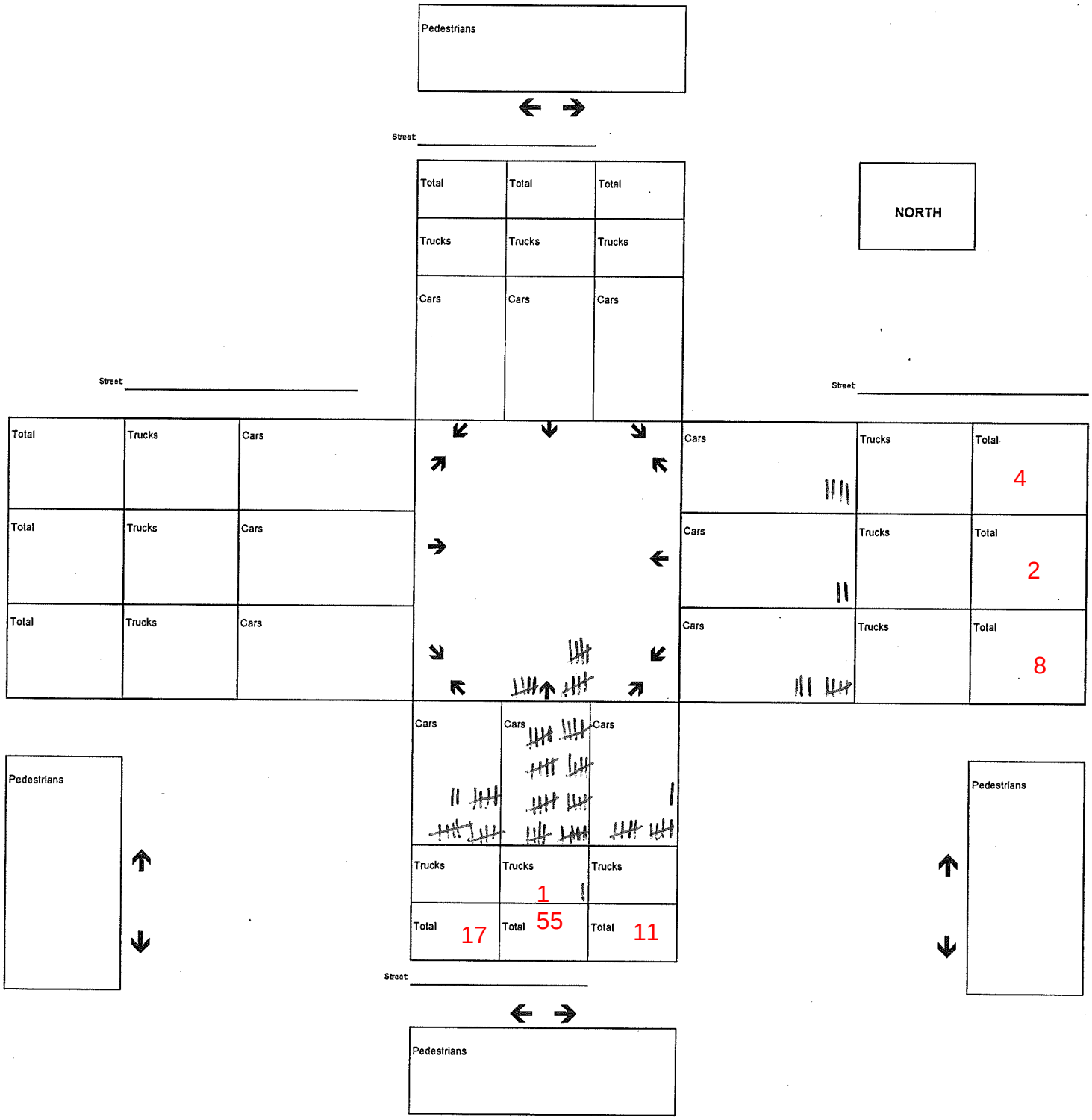
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: _____

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Street: _____

Pedestrians

4:35 - 5:05

TURNING MOVEMENT WORKSHEET

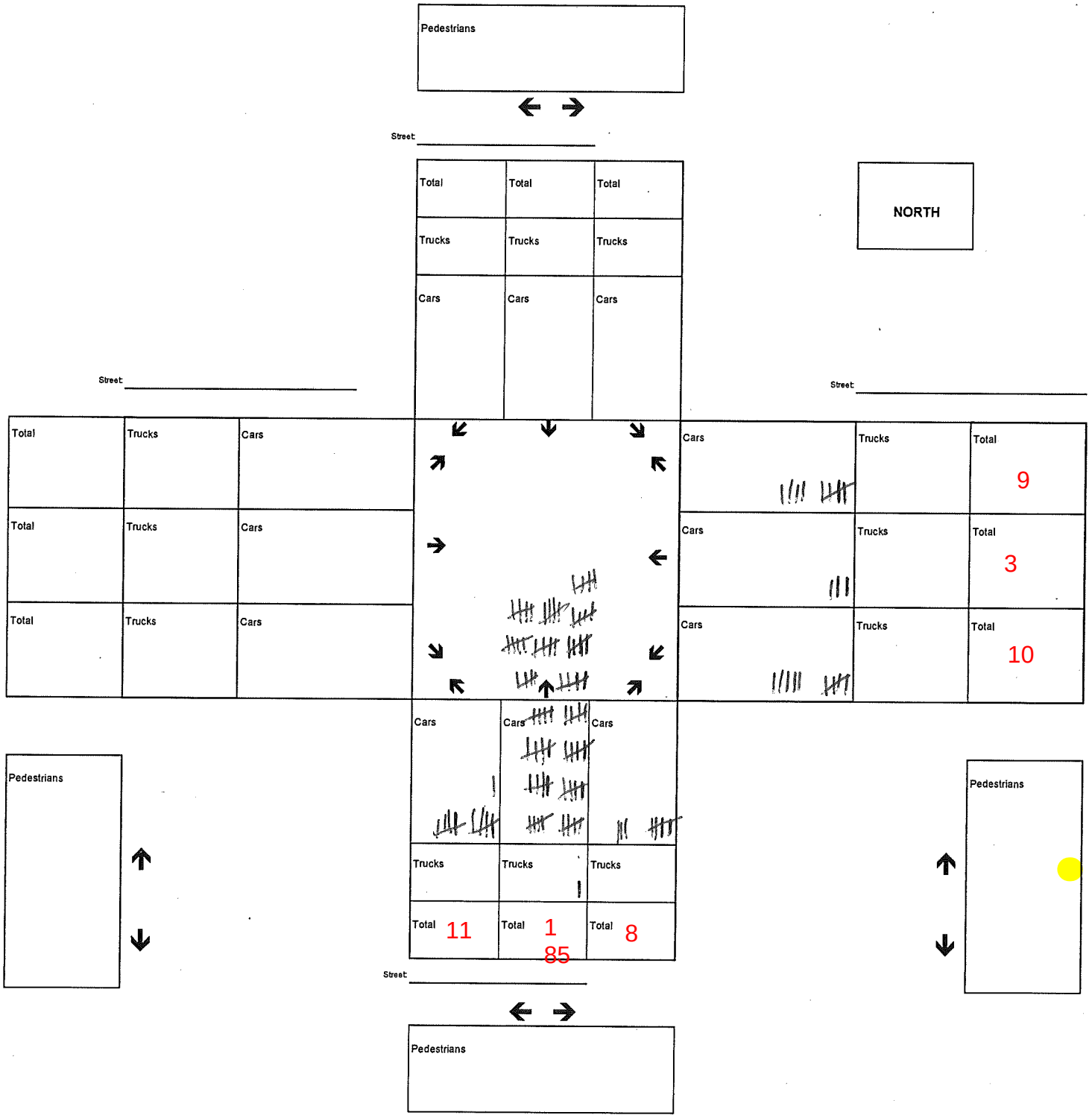
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: _____

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

5:05 - 5:20

TURNING MOVEMENT WORKSHEET

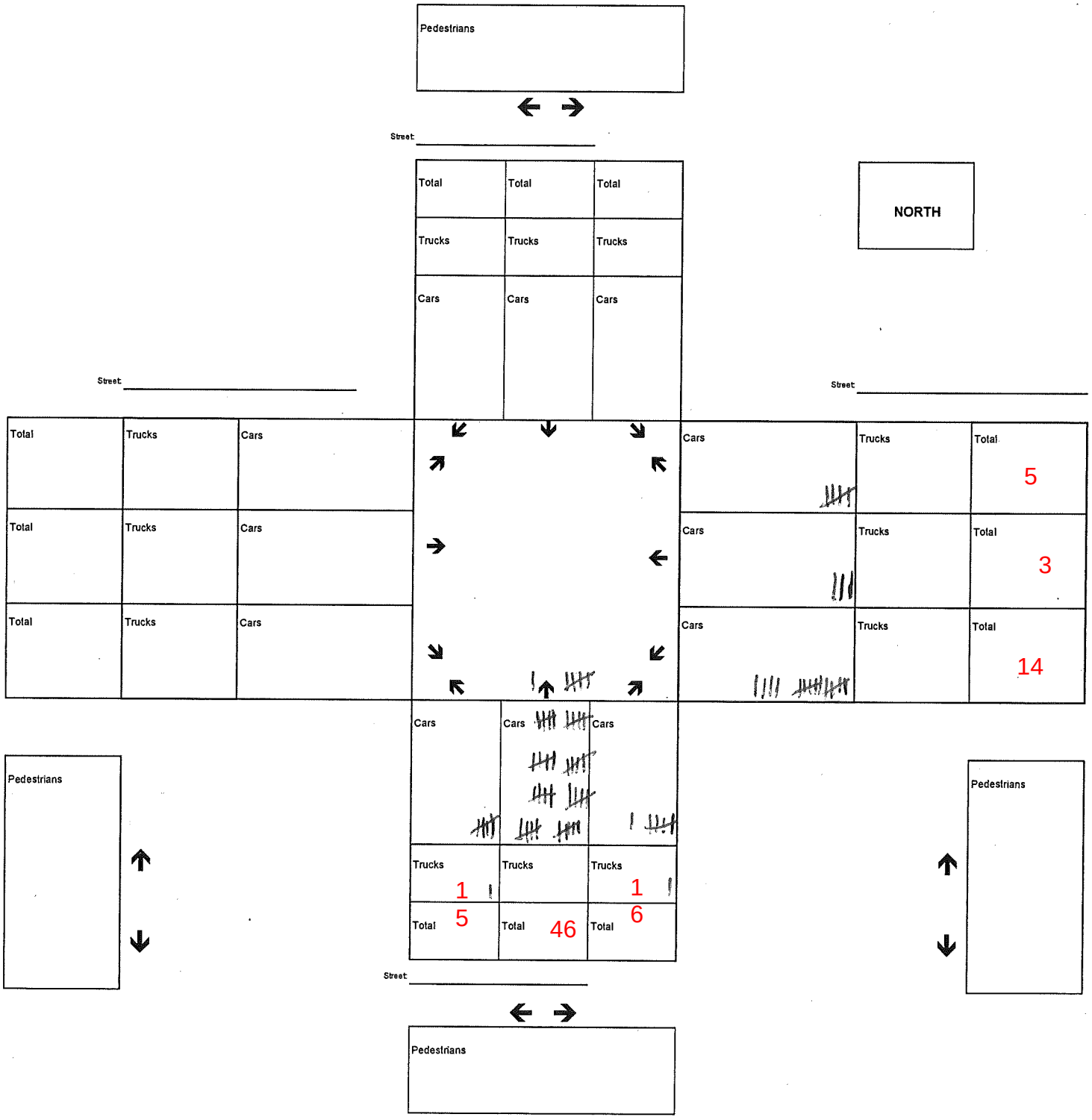
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



5:20 – 5:35

TURNING MOVEMENT WORKSHEET

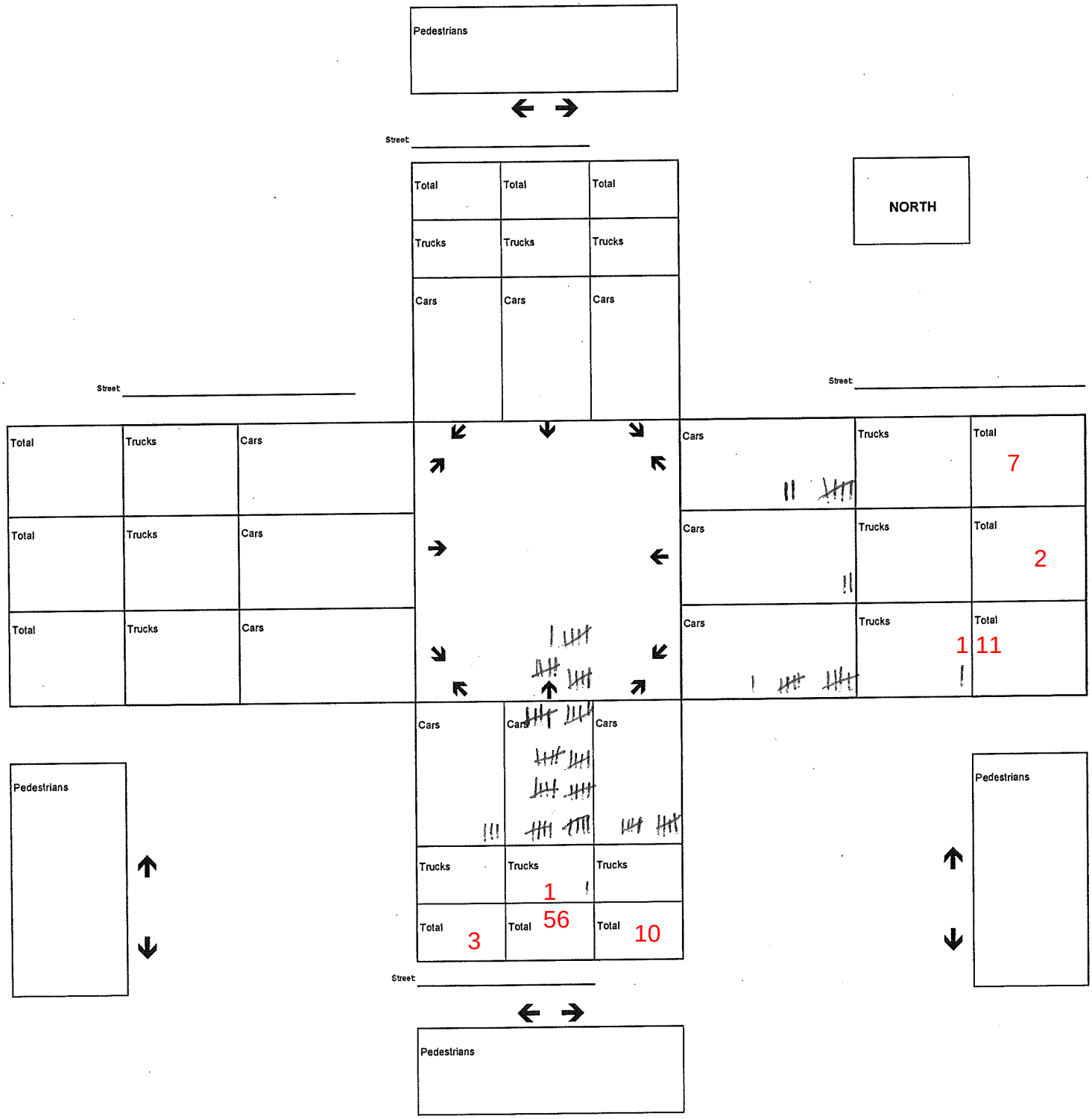
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

5:35-6:08

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestrians

Street _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street _____

Street _____

Total	Trucks	Cars				Cars	Trucks	Total 7
Total	Trucks	Cars				Cars	Trucks	Total 3
Total	Trucks	Cars				Cars	Trucks	Total 17

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 8	Total 88	Total 12

Pedestrians

Pedestrians

Street _____

Pedestrians

TURNING MOVEMENT WORKSHEET

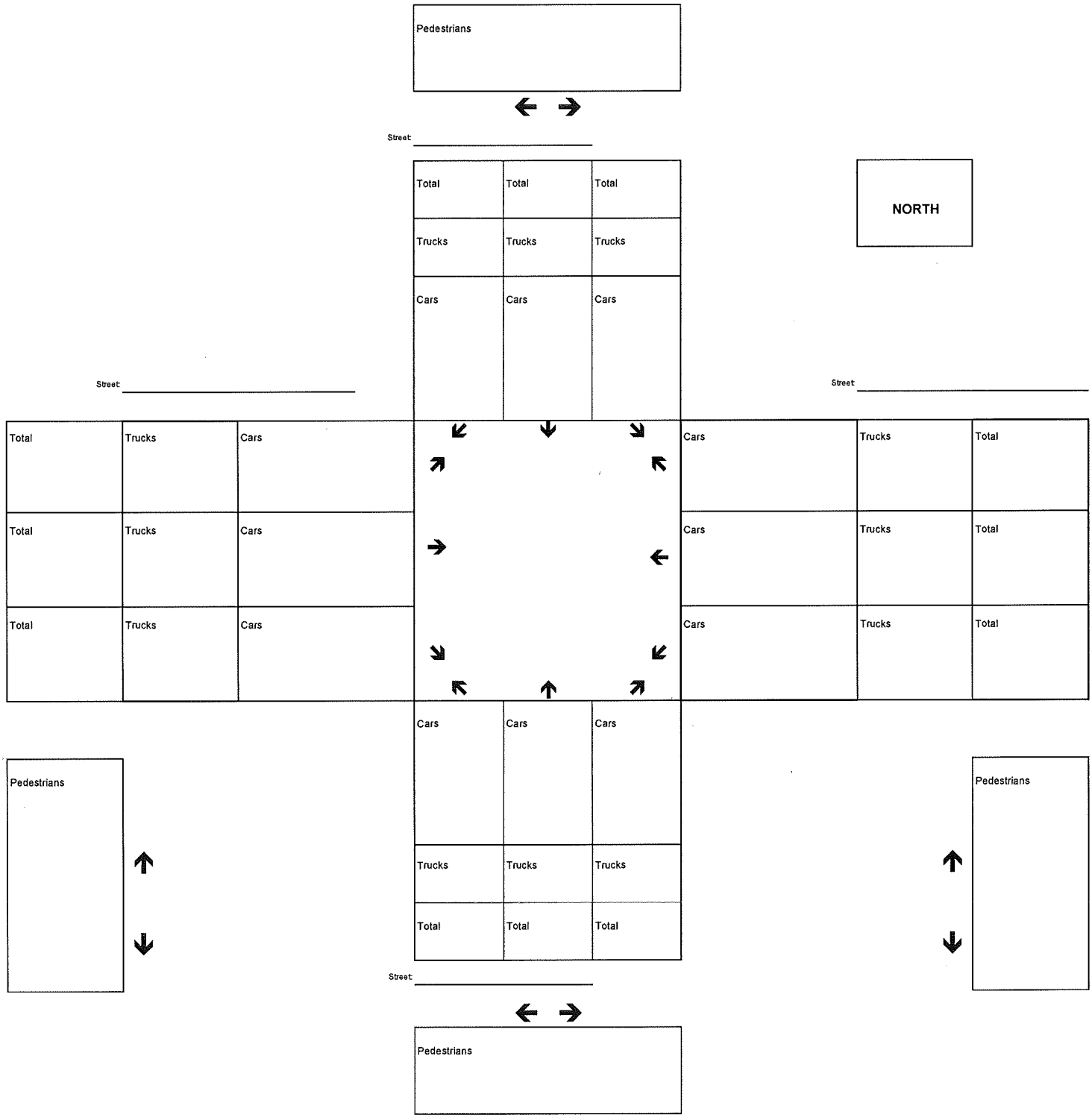
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

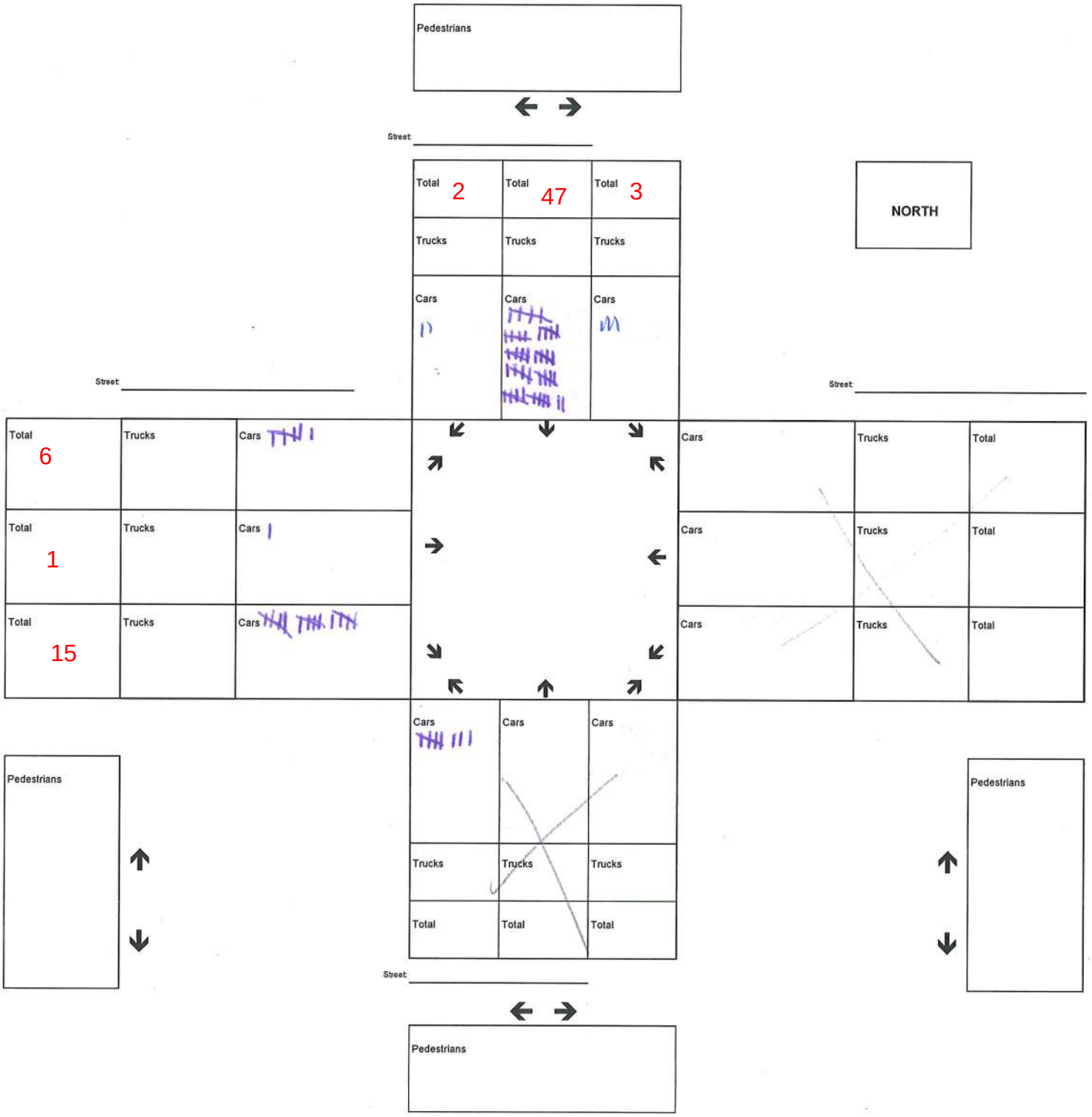
Intersection: 3rd & Park

Counter Name: Nate Coyle

Start Time: 4 PM

End Time: 4:15 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 3rd & Park

Counter Name: Nate Coyle

Start Time: 4:15 PM

End Time: 4:30 PM

(15-Minute Increments Only)

Pedestrians

Street:

Total 4	Total 59	Total 3
Trucks	Trucks	Trucks
Cars 11	Cars 44	Cars 4

NORTH

Street:

Street:

Total 2	Trucks	Cars 11				Cars	Trucks	Total
Total 3	Trucks	Cars 111				Cars	Trucks	Total
Total 19	Trucks	Cars 14 14 14 1111				Cars	Trucks	Total

Cars 14 14 1	Cars	Cars 14 14 111
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

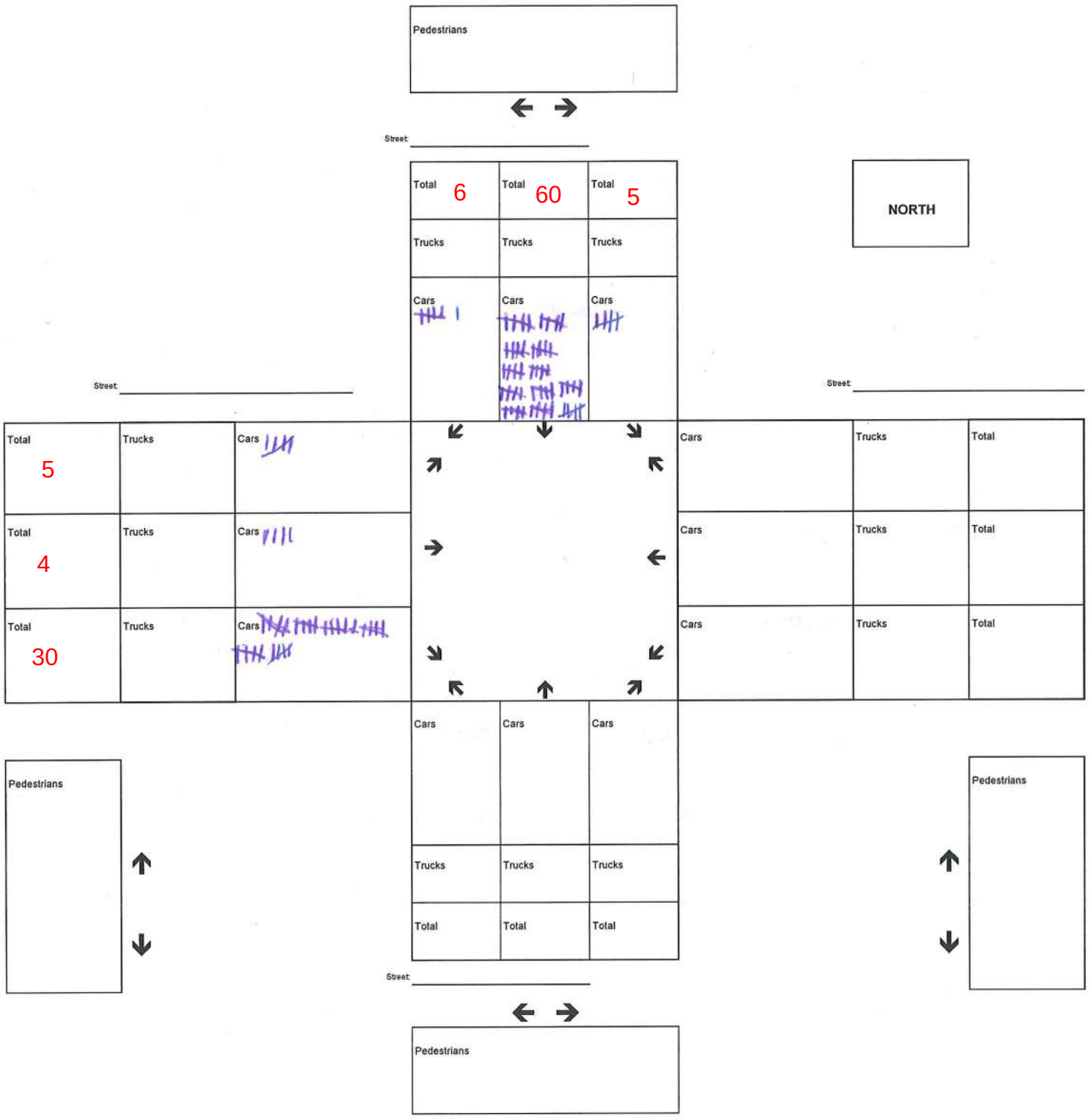
Intersection: 3rd & Park Note: Corrected direction

Counter Name: Nate Coyle

Start Time: 4:20 PM

End Time: 4:55 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

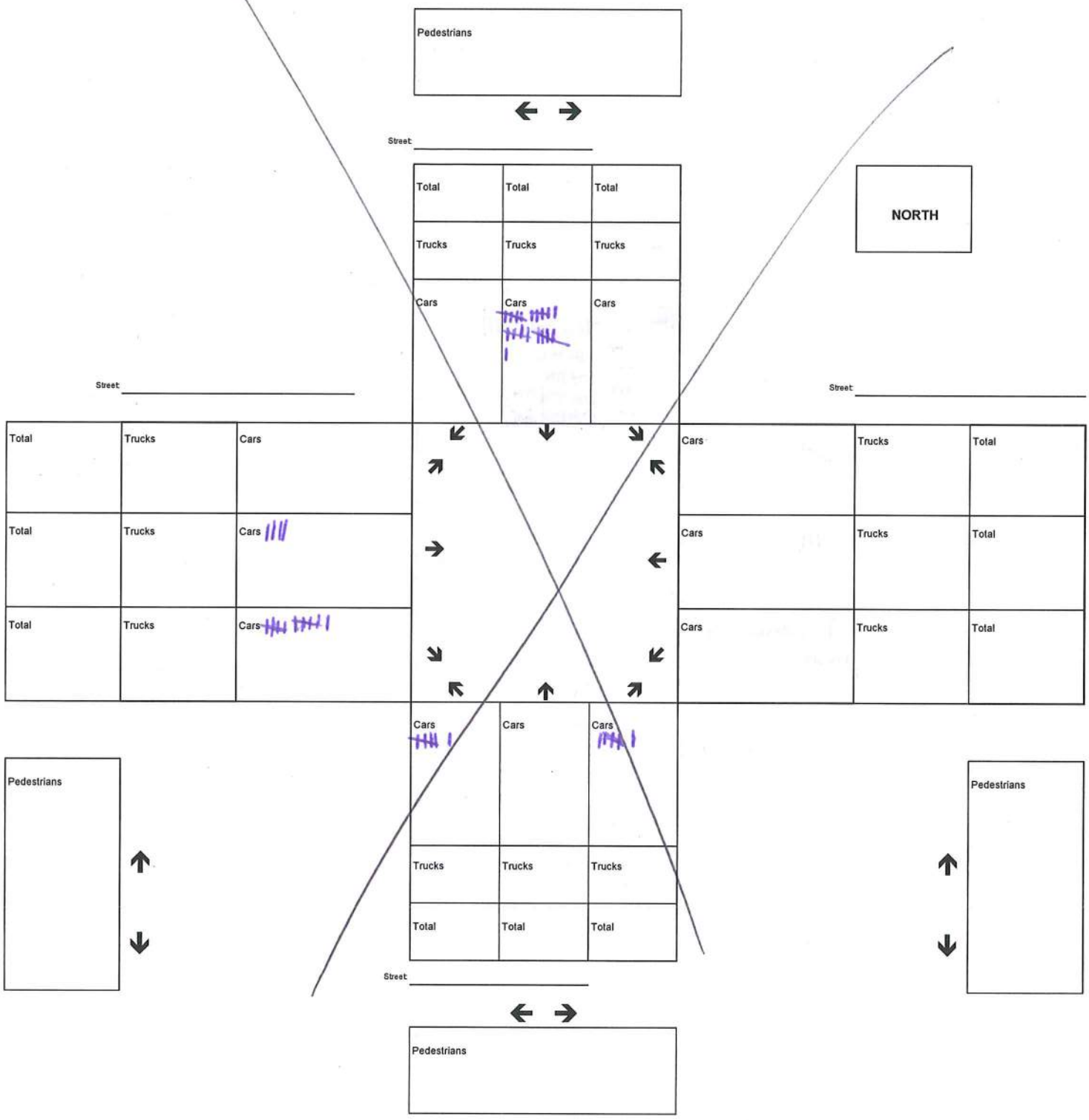
Intersection: 3rd & Park

Counter Name: Nathan Coyle

Start Time: 4:30 PM

End Time: 4:35 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 3rd & Park

Counter Name: Nathan Coyle

Start Time: 4:55 PM

End Time: 5:10 PM

(15-Minute Increments Only)

Pedestrians

Street: ____

Total 1	Total 74	Total 10
Trucks	Trucks	Trucks
Cars I	Cars (tally marks)	Cars (tally marks)

NORTH

Street: ____

Street: ____

Total	Trucks	Cars
Total 4	Trucks	Cars IIII
Total 1	Trucks	Cars I
Total 33	Trucks	Cars (tally marks)

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: ____

Pedestrians

TURNING MOVEMENT WORKSHEET

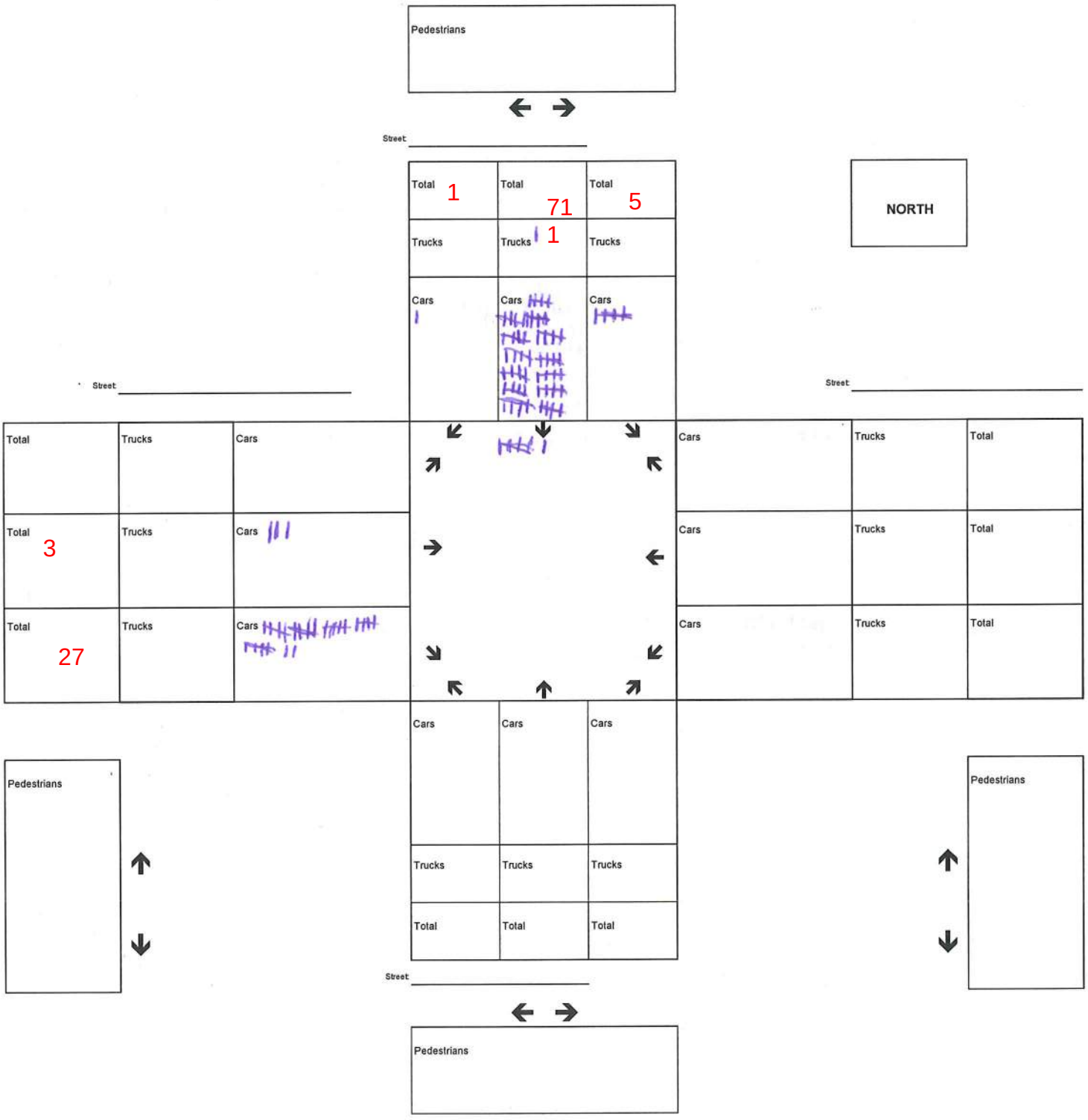
Intersection: 3rd & Park

Counter Name: Nate Coyle

Start Time: 5:10 PM

End Time: 5:30 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

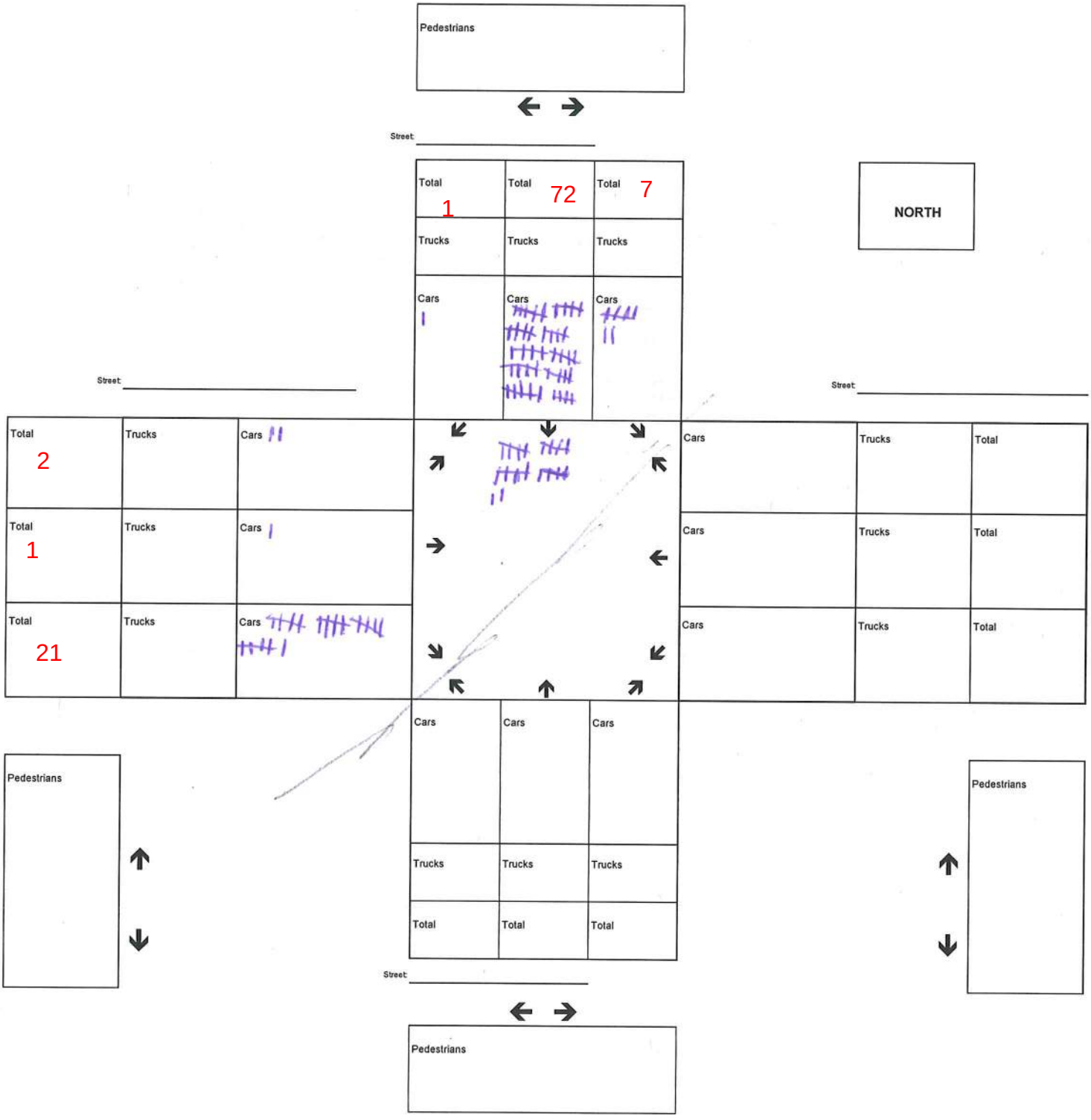
Intersection: 3rd & Park

Counter Name: Nate Coyle

Start Time: 5:30 PM

End Time: 6 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

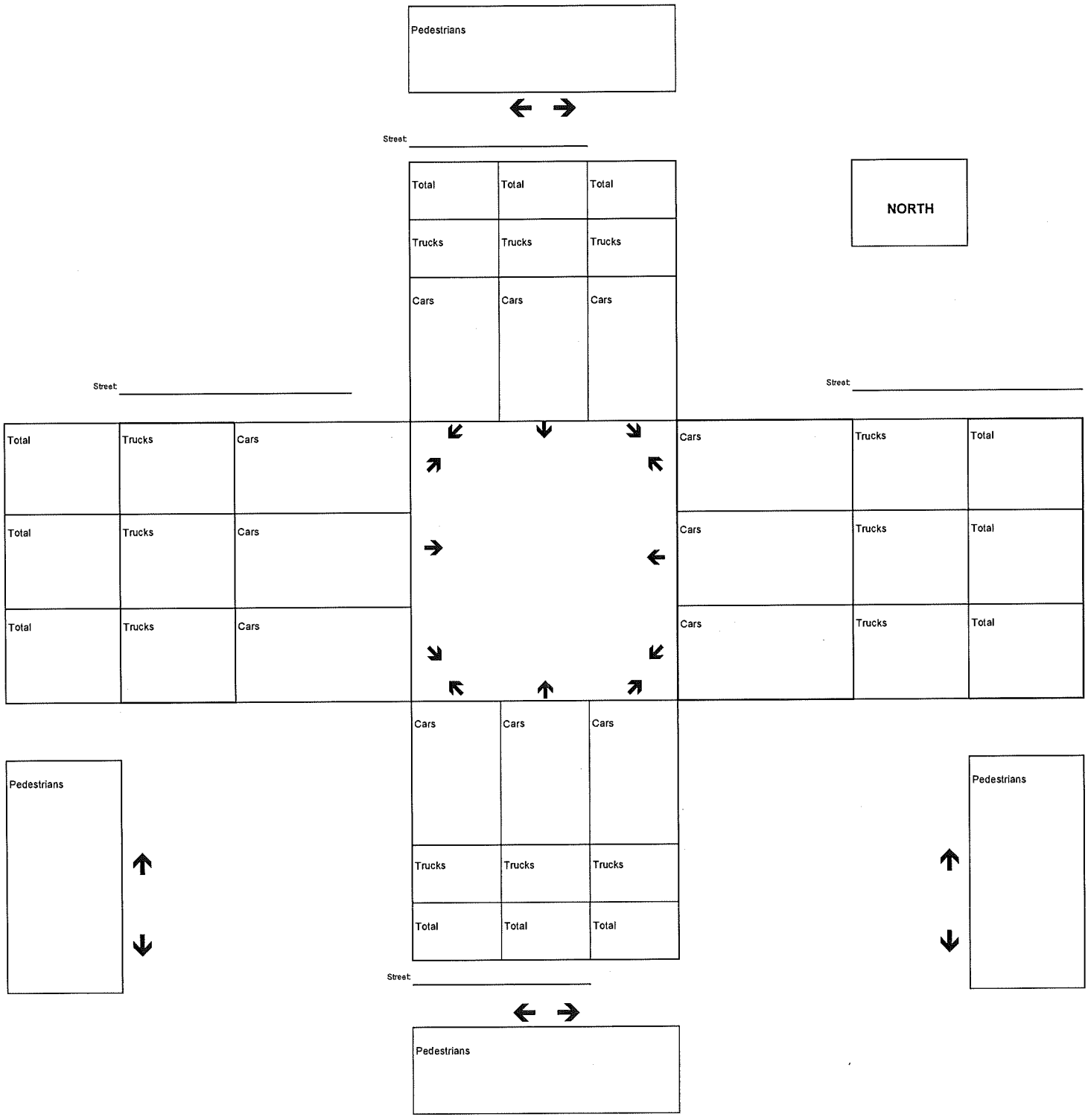
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

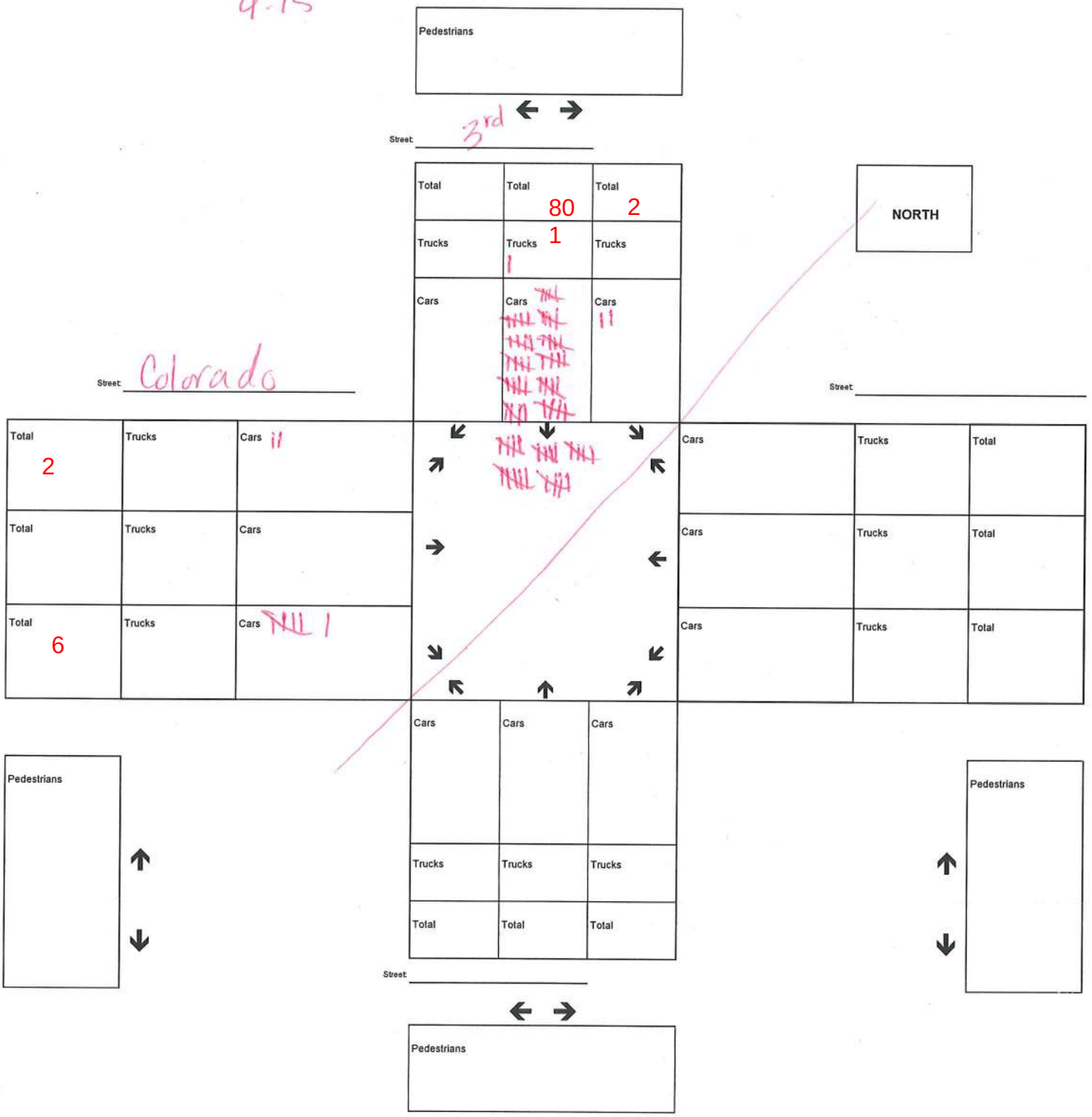
Intersection: Colorado & 3rd

Counter Name: Morgan Bessaw

Start Time: 4 pm

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Morgan Bonar

Counter Name:

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)

Pedestrians 3rd

Street:

Total	Total 92	Total 2
Trucks	Trucks 1	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Street:

Total 3	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street:

Pedestrians

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Morgan

Counter Name:

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)

Pedestrians 3

Street:

Total 1	Total 91	Total 4
Trucks	Trucks 3	Trucks
Cars 1	Cars	Cars

NORTH

Street: Colorado

Street:

Total	Trucks	Cars				Cars	Trucks	Total
Total	Trucks	Cars				Cars	Trucks	Total
Total 1	Trucks	Cars 1				Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

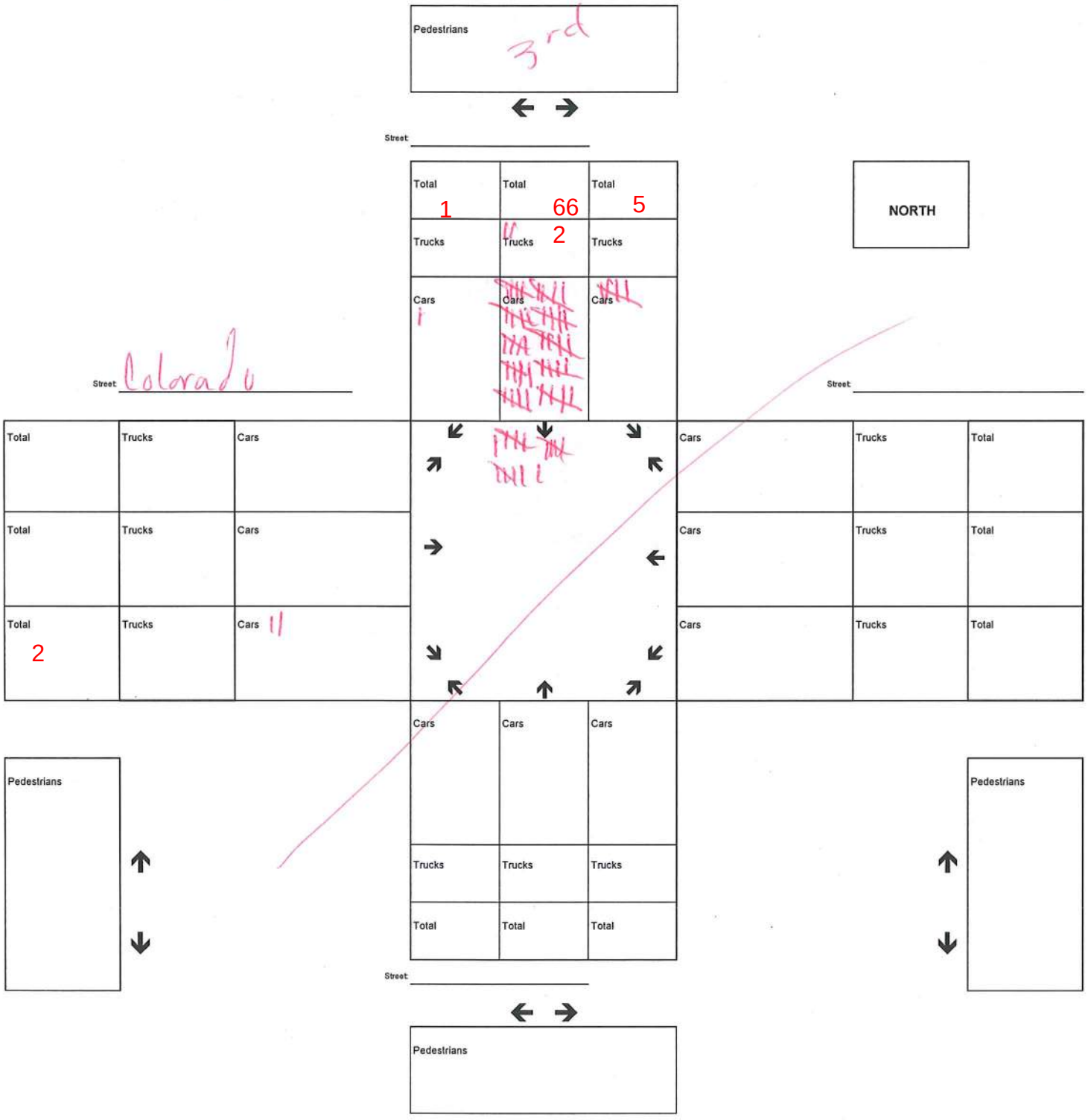
Intersection: _____

Counter Name: Morgan

Start Time: 4:45

End Time: 5pm

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

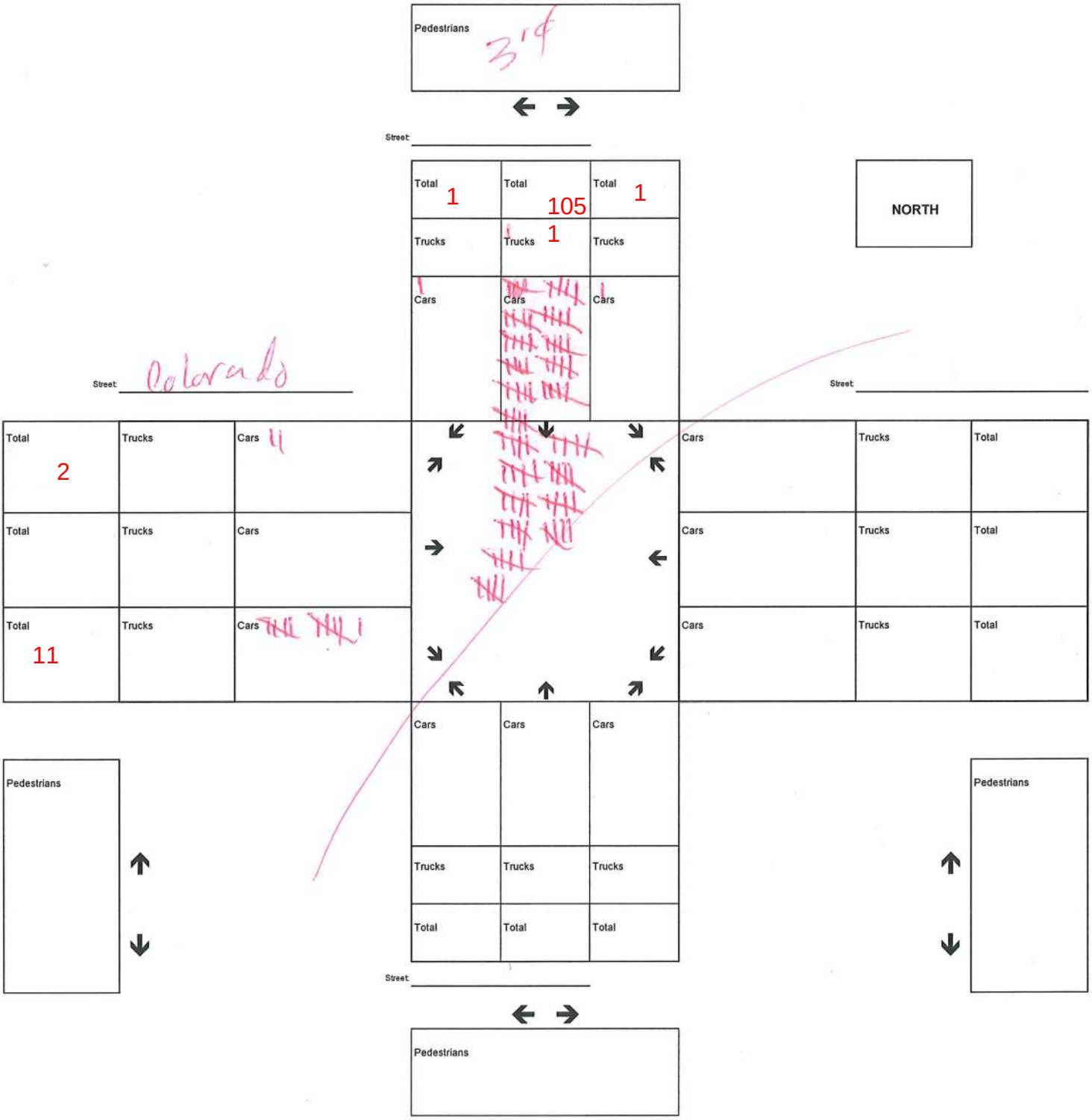
Intersection: Morgan

Counter Name:

Start Time: 5 PM

End Time: 5:15 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

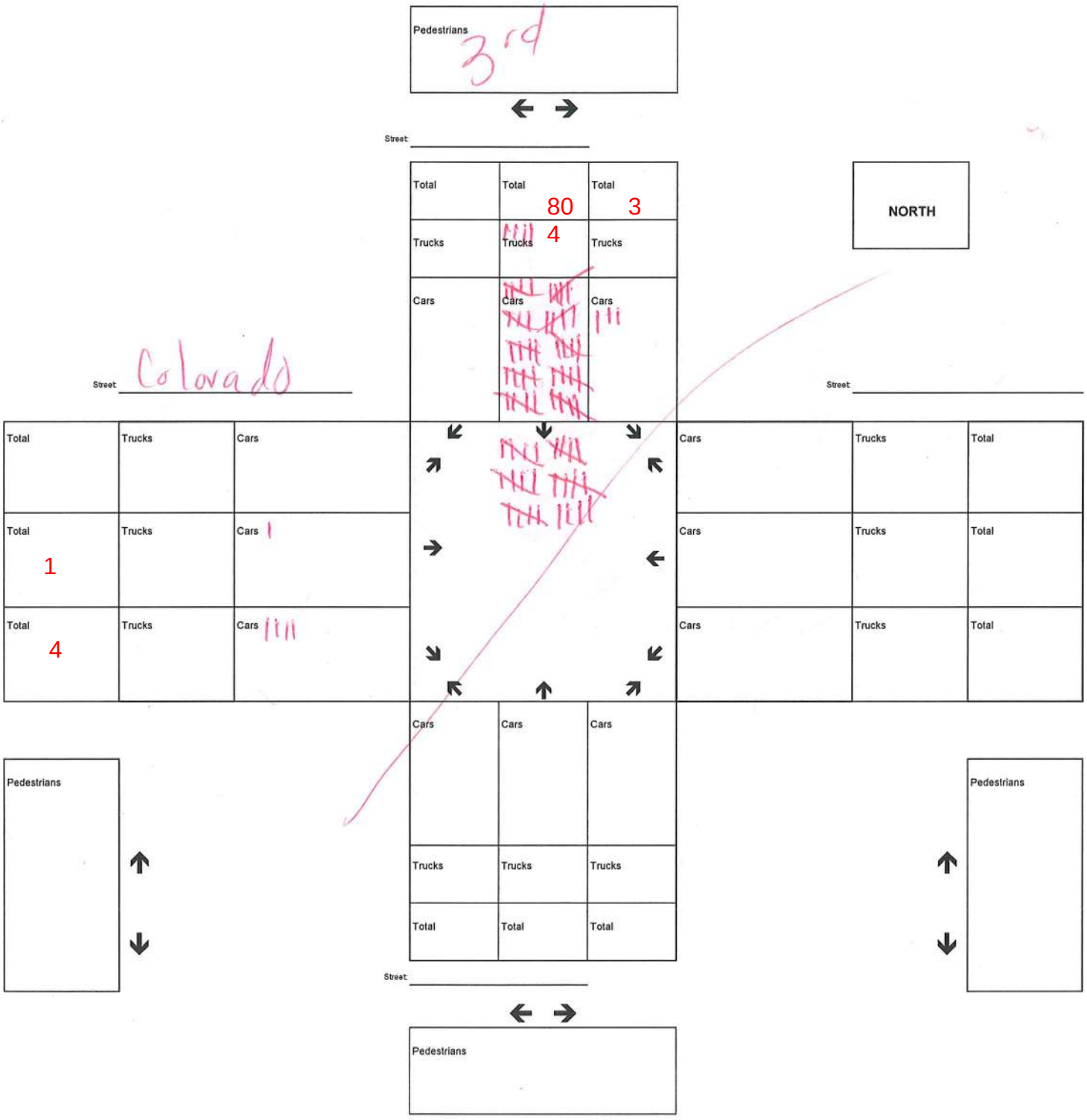
Intersection: _____

Counter Name: 5:15

Start Time: _____

End Time: 5:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

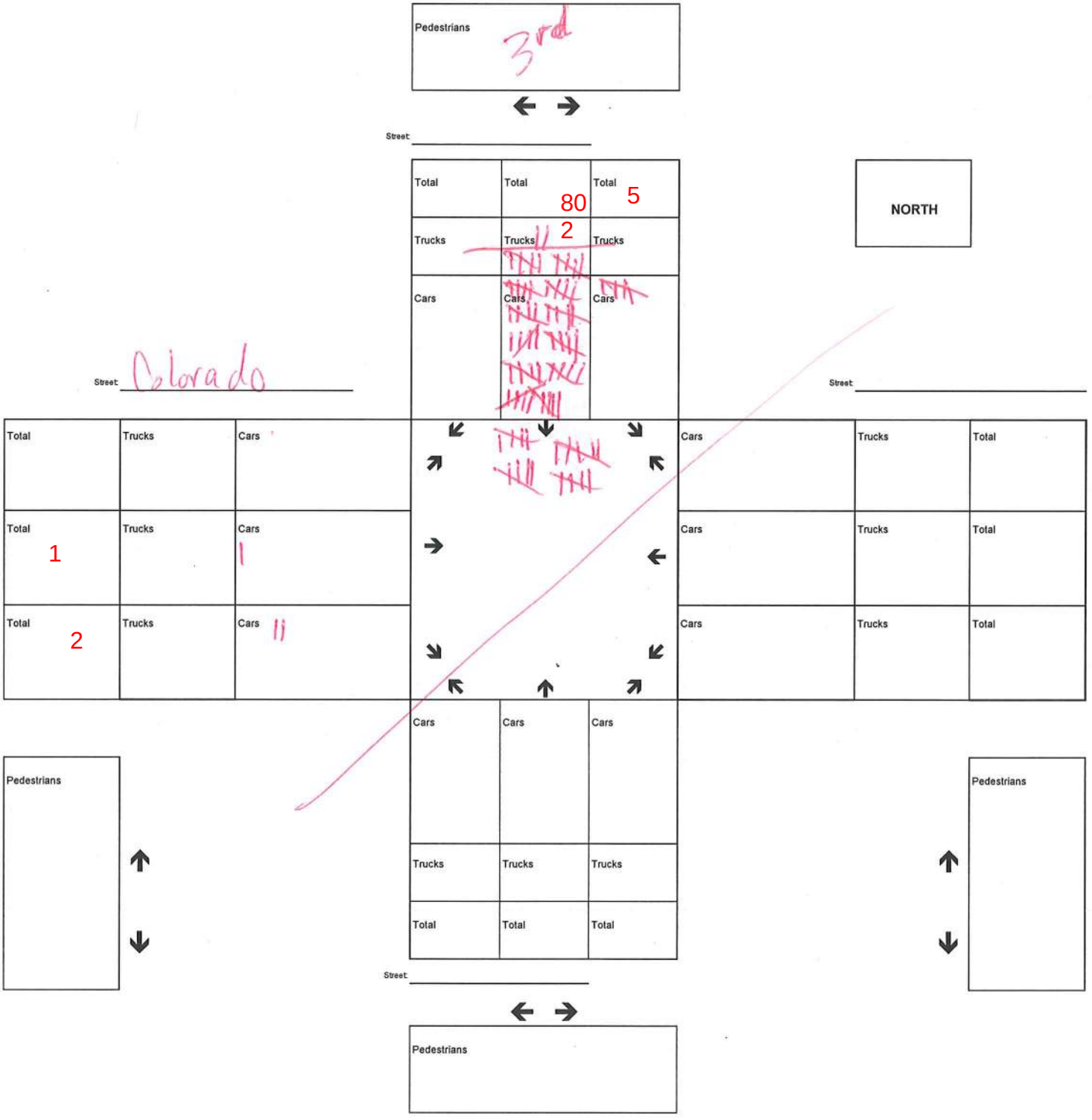
Intersection: _____

Counter Name: Morgan

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)



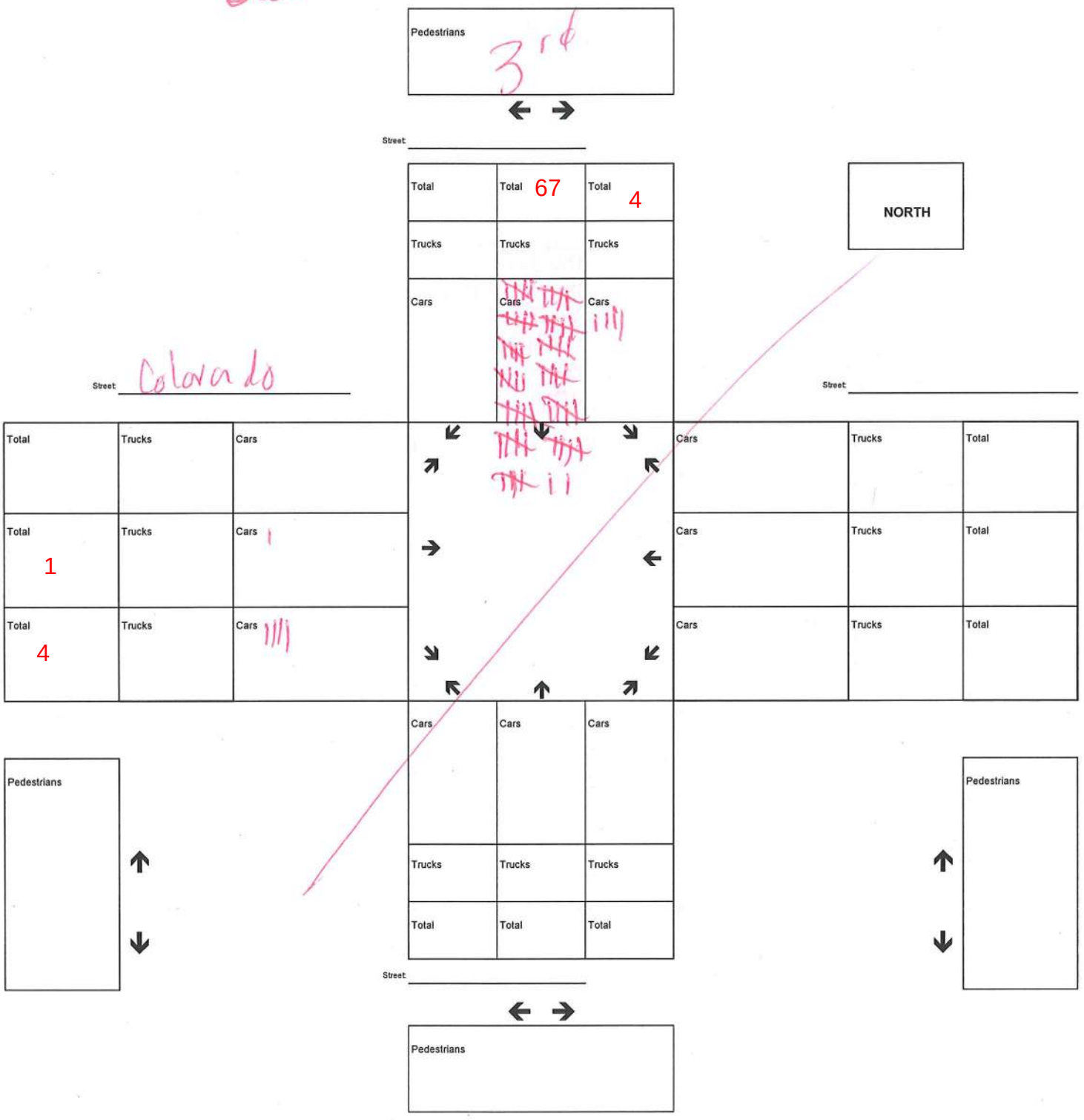
TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: Morgan

Start Time: 5:45

End Time: 6:00
(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

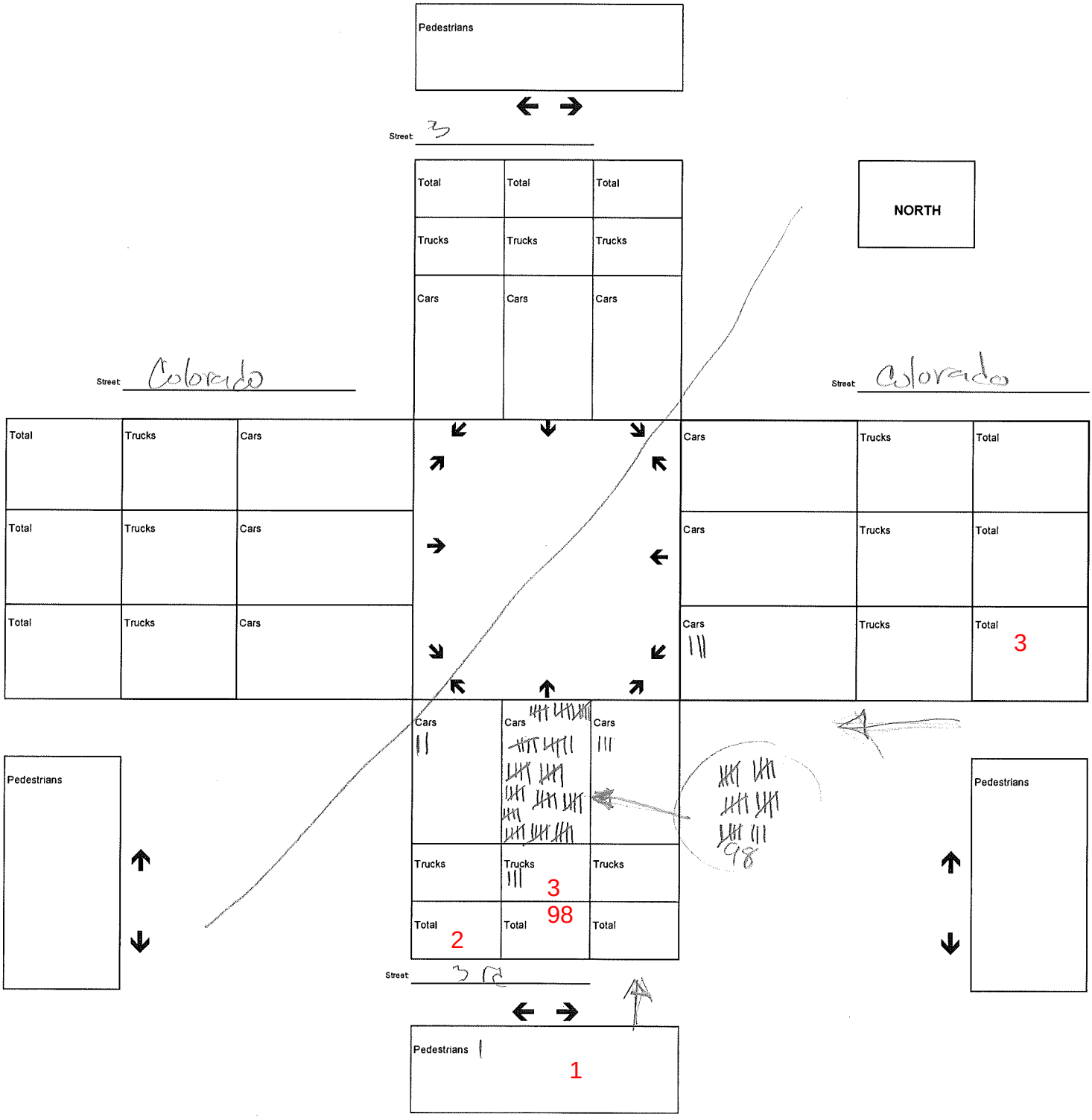
Intersection: Colorado & 3rd

Counter Name: GM

Start Time: 4:00

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

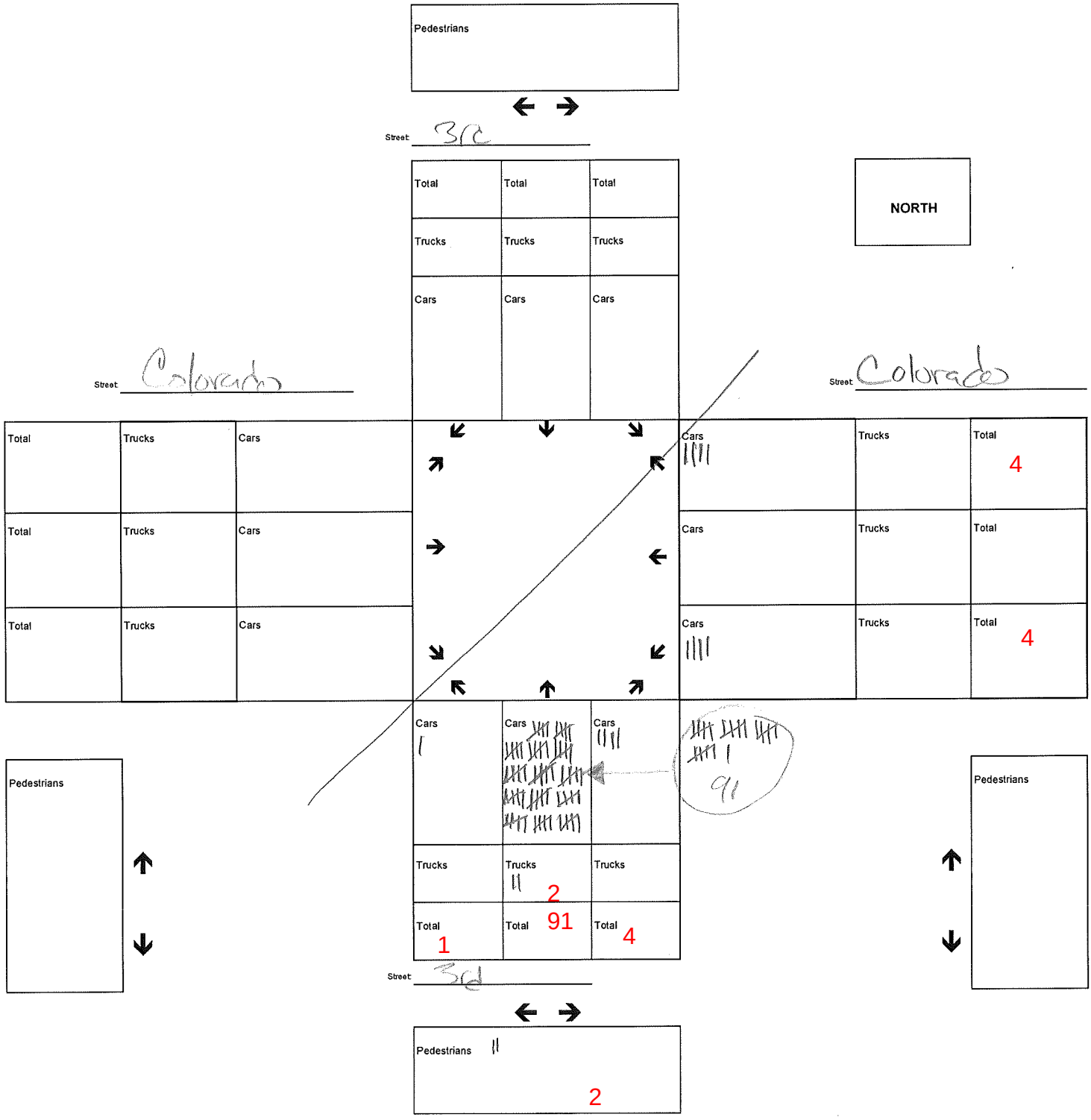
Intersection: Colorado & 3rd

Counter Name: GSM

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

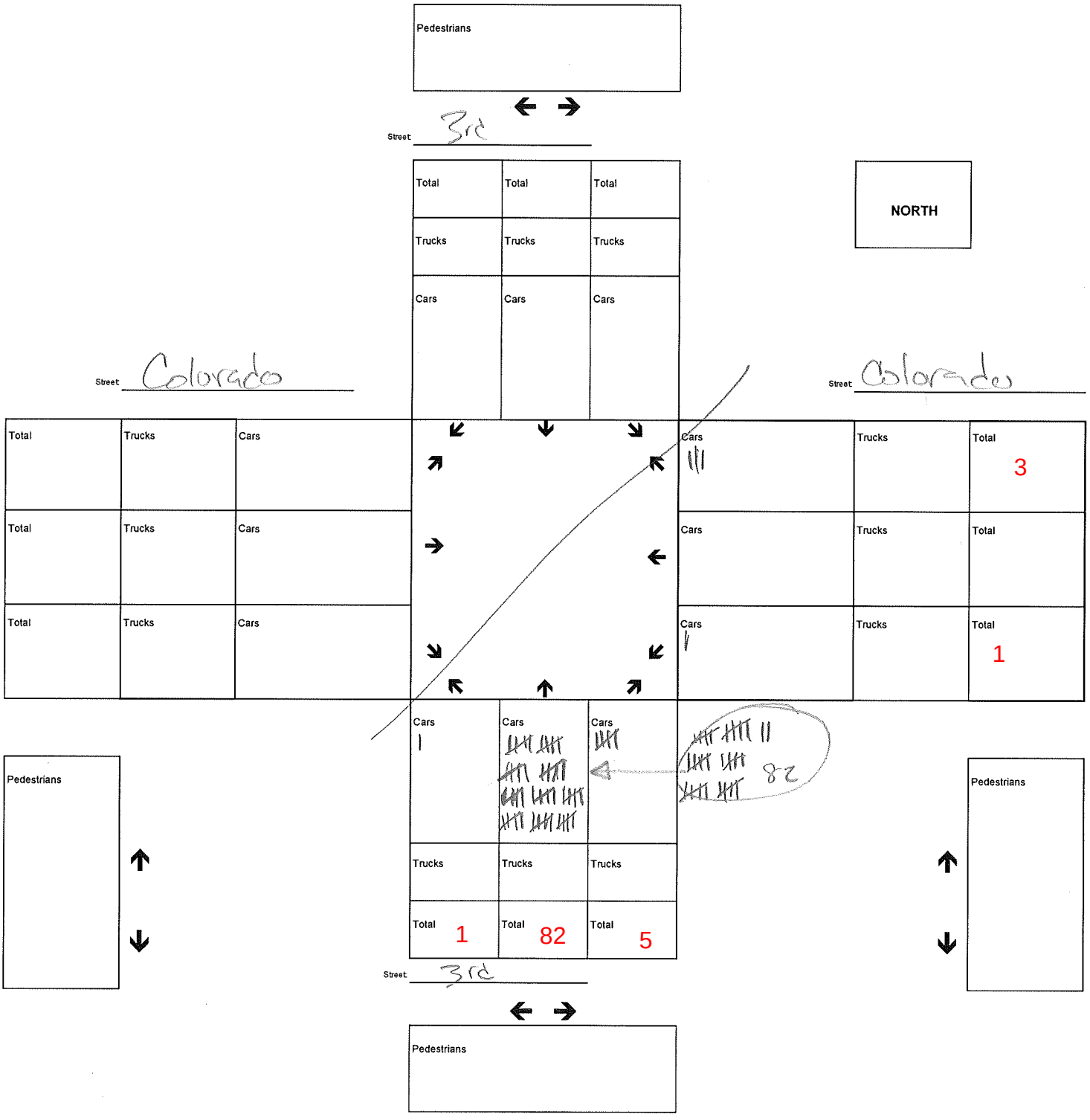
Intersection: Colorado & 3rd

Counter Name: CM

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Colorado + 3rd

Counter Name: GM

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars |||	Trucks	Total 3
Cars	Trucks	Total
Cars		Trucks	Total 1

Cars ||	Cars (tally marks, 76)	Cars ||||
Trucks	Trucks	Trucks
Total 2	Total 76	Total 4

76

Pedestrians

Pedestrians |

1

Street: 3rd

Pedestrians |||

3

TURNING MOVEMENT WORKSHEET

Intersection: Colorado @ 3rd

Counter Name: Gun

Start Time: ~~4:00~~ ~~4:15~~ 5:00

End Time: ~~5:15~~ 5:15

(15-Minute Increments Only)

Pedestrians

Street: ~~Colo~~ 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars 1	Trucks	Total 1
Cars 1	Trucks	Total 1
Cars 111	Trucks	Total 3

Cars	Cars 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111	Cars 1111
Trucks	Trucks 1 1	Trucks
Total	Total 91	Total 4

Pedestrians

Pedestrians

Street:

Pedestrians 11 2

TURNING MOVEMENT WORKSHEET

Intersection: Colorado & 32

Counter Name: GM

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

Pedestrians

Street: 32

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars	Cars 1	Trucks	Total 1
Total	Trucks	Cars	Cars 11	Trucks	Total 2
Total	Trucks	Cars	Cars 111	Trucks	Total 3

Cars 11	Cars 81	Cars
Trucks	Trucks 1	Trucks
Total 2	Total	Total 8

Pedestrians

Pedestrians

Street:

Pedestrians 3

TURNING MOVEMENT WORKSHEET

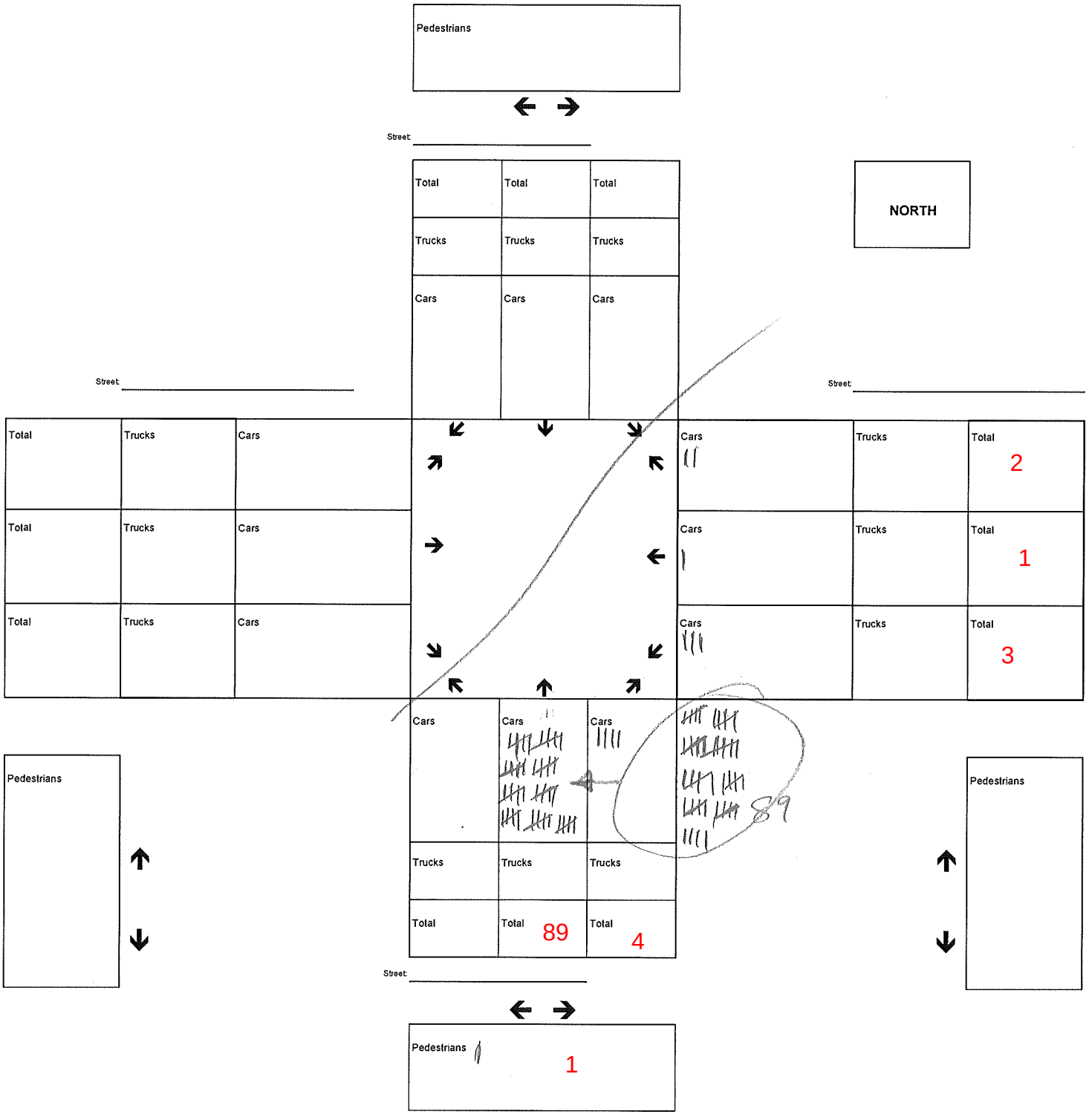
Intersection: Colorado & 31C

Counter Name: GM

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

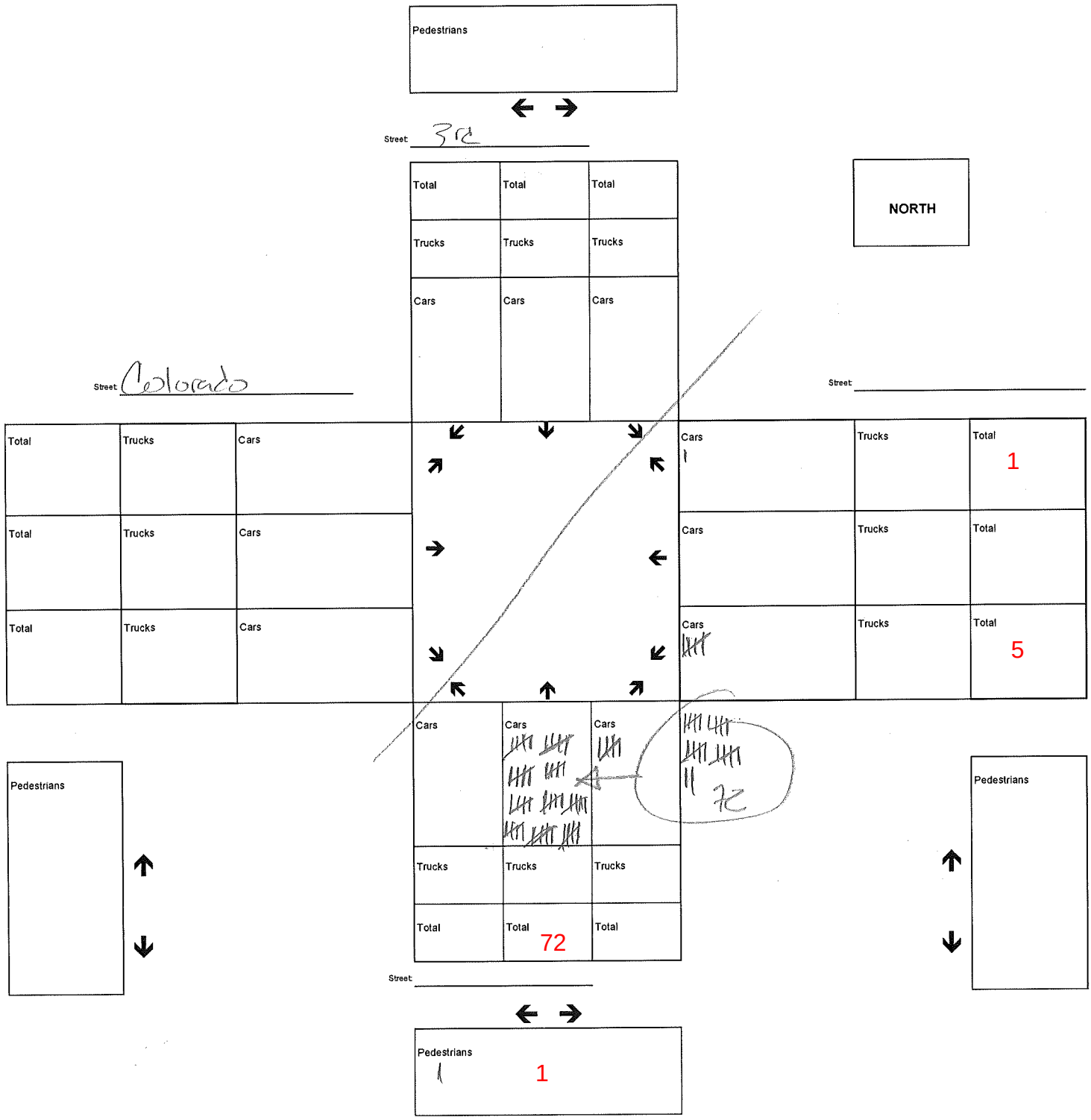
Intersection: Colorado & 3rd

Counter Name: GM

Start Time: 5:45

End Time: 6:00

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + EAST Lake Street

Counter Name: Sissy

Start Time: 4:00

End Time: 4:15

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: EAST Lake

Street: E. Lake

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: 2nd

Padastrians

Padastrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & SS-

Counter Name: Sissy

Start Time: 4:15

End Time: 430

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cers	Cers

NORTH

Street: E. Lake

Street: E Lake ST

Total	Trucks	Cers
Total	Trucks |	Cers ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| BB
Total	Trucks	Cers ||||

Cars	Trucks	Total
Cers	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cers
B |||		
Trucks	Trucks	Trucks
Total	Totel	Total

Pedestrians

Pedestrians

Street: 2nd

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + 55

Counter Name: Sissy

Start Time: 4.31

End Time: 4.45

(15-Minute Increments Only)

Pedestrians

← →

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: E. Lake ST

Street: E. LAKE STREET

Total	Trucks	Cars
Total	Trucks		Cars (tally marks)		
Total	Trucks	Cars ||

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars (tally marks)	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: 2nd.

← →

Pedestrians

↑ ↓

Padastrians

↑ ↓

Padastrians

TURNING MOVEMENT WORKSHEET

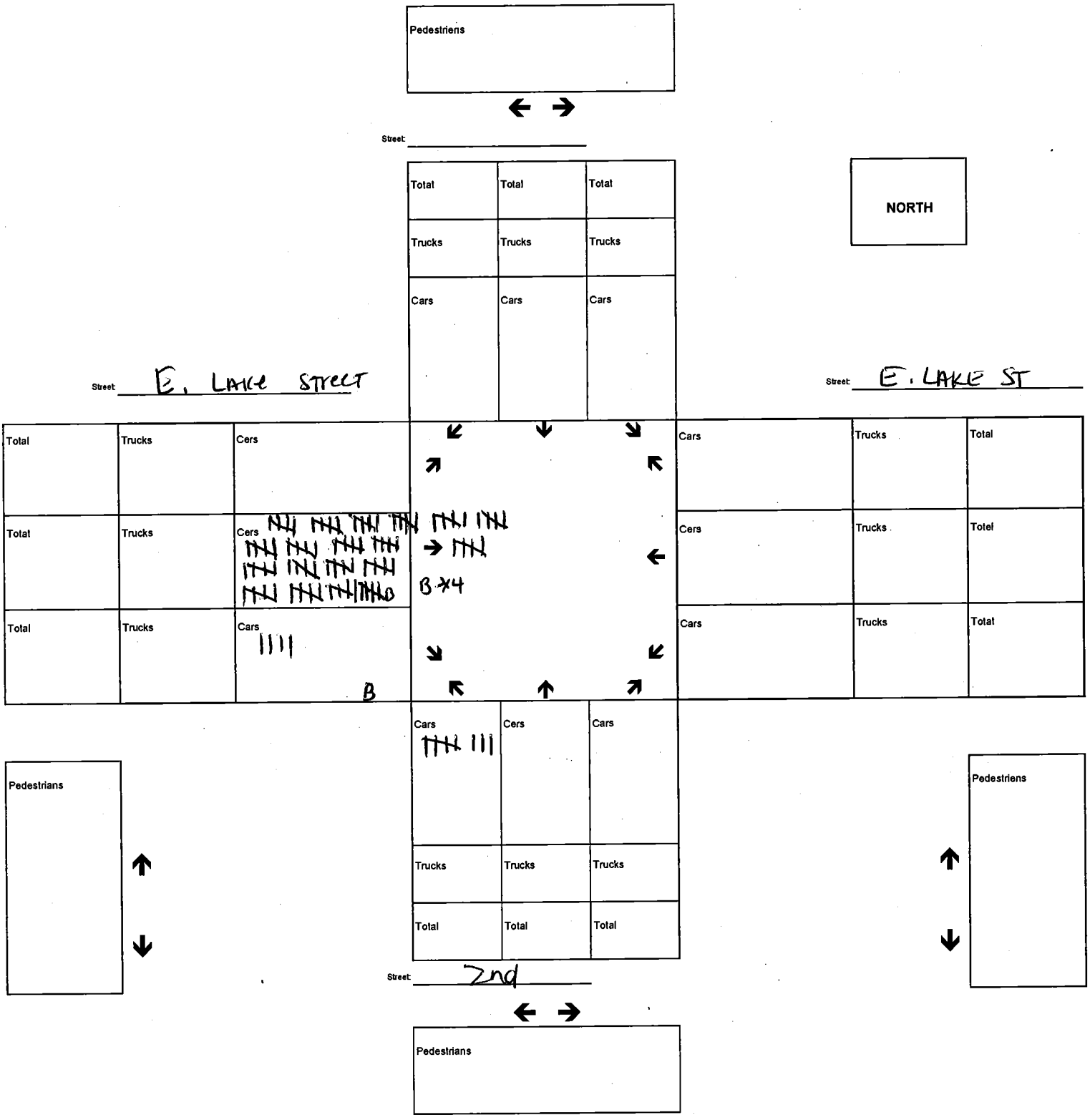
Intersection: ~~Oakley~~ 2nd & SS

Counter Name: 45554

Start Time: 4.45

End Time: 500

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: E. Lake Street + 2nd

Counter Name: Sissy

Start Time: 500

End Time: 5:15

(15-Minute Increments Only)

Pedastrians

← →

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: E. Lake St

Street: SS

Total	Trucks	Cars
Total	Trucks	Cars (tally marks)
Total	Trucks	Cars (tally marks)

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars (tally marks)	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: 2nd

← →

Padastrians

Padastrians

↑ ↓

Pedestrians

↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E Lake Street

Counter Name: Sissy

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

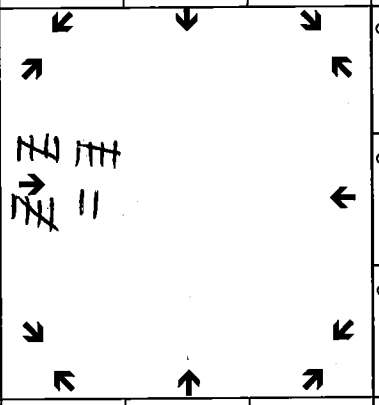
NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total



Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Padestrians

Padastrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + SS

Counter Name: Sissy

Start Time: 5:45

End Time: 6—

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: E LAKE STREET

Street: E LAKE STREET

Total	Trucks	Cars
Total 2-trucks 74 Cars	Trucks 11	Cars
Total 4	Trucks	Cars 1111

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 7	Total	Total

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Pedestrians

Street: 2nd

Pedestrians

TURNING MOVEMENT WORKSHEET

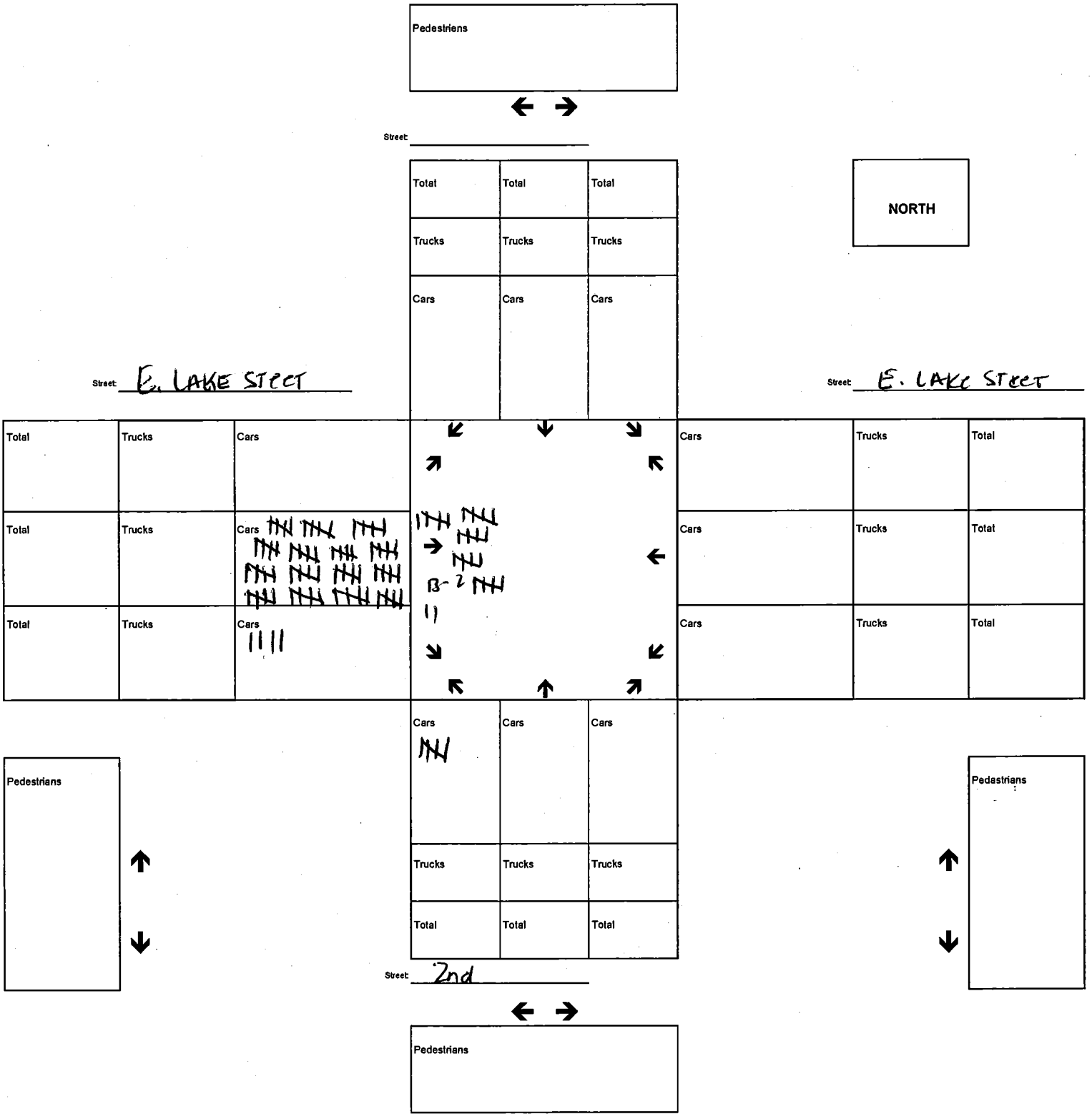
Intersection: 2nd - ELM STREET

Counter Name: Sissy

Start Time: 530

End Time: 545

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + E. Lake

Counter Name:

Start Time: 4:00

End Time: 4:

(15-Minute Increments Only)

2nd

Padastrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Padastrians

Pedestrians

Street:

Pedestrians

1

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestriens

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cers	Cers	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cers
Total	Trucks	Cars
Total	Trucks	Cers

Cars	Trucks	Total
Cers	Trucks	Total
Cers	Trucks	Total

Pedestrians

Cars	Cars	Cers
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & Lake St

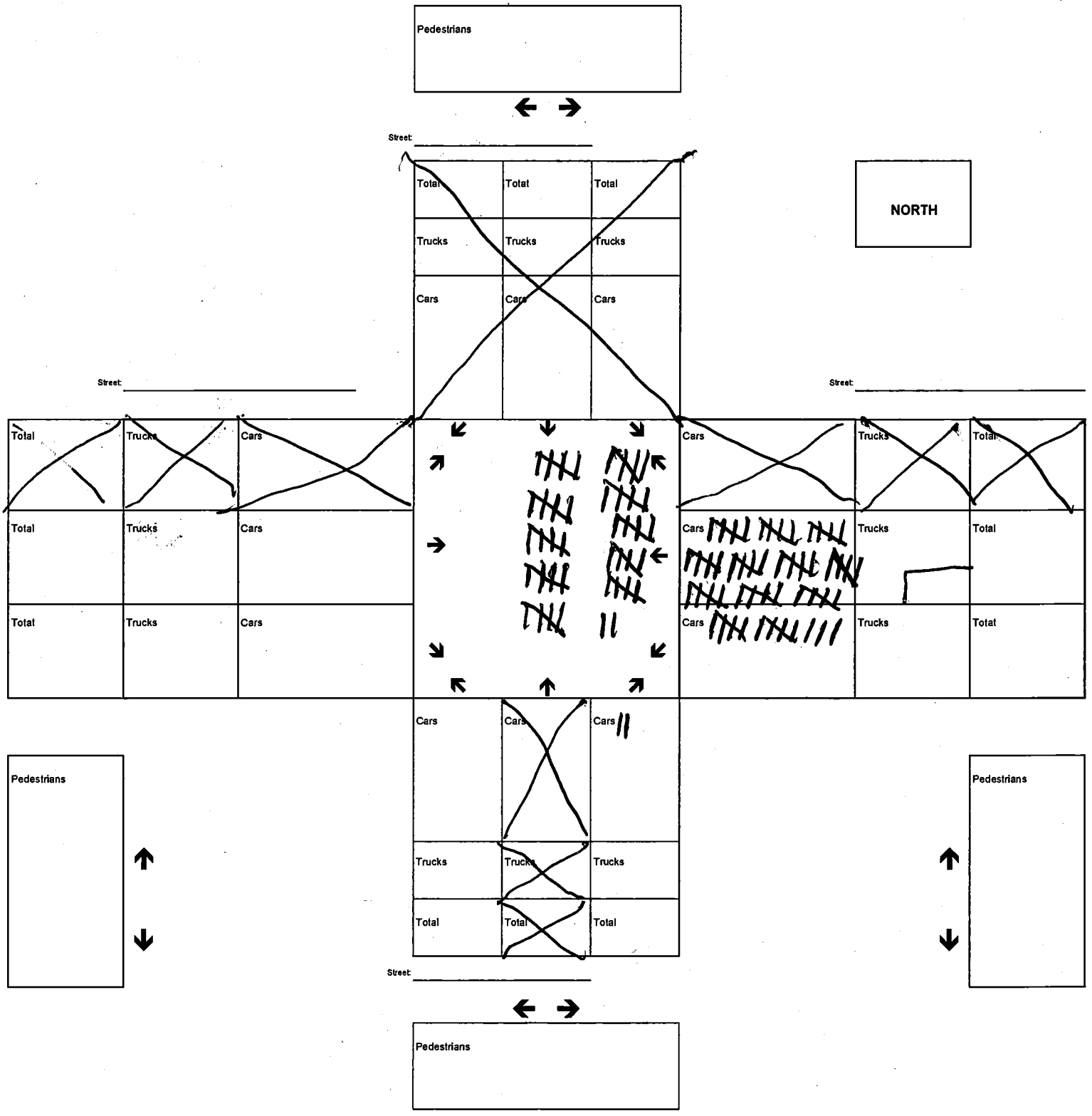
2nd

Counter Name:

Start Time: 4:15

End Time:

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Padastrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars				Cars	Trucks	Total
Total	Trucks	Cars				Cars	Trucks	Total
Total	Trucks	Cars				Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Totat	Tolat

Pedestrians

Pedastrians

Street: _____

Padestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + Lake

Counter Name:

Start Time: 4:30

End Time:

(15-Minute Increments Only)

2nd

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestriens

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cers	Trucks	Totet
Cars	Trucks	Total

Cars	Cers	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd & Lake

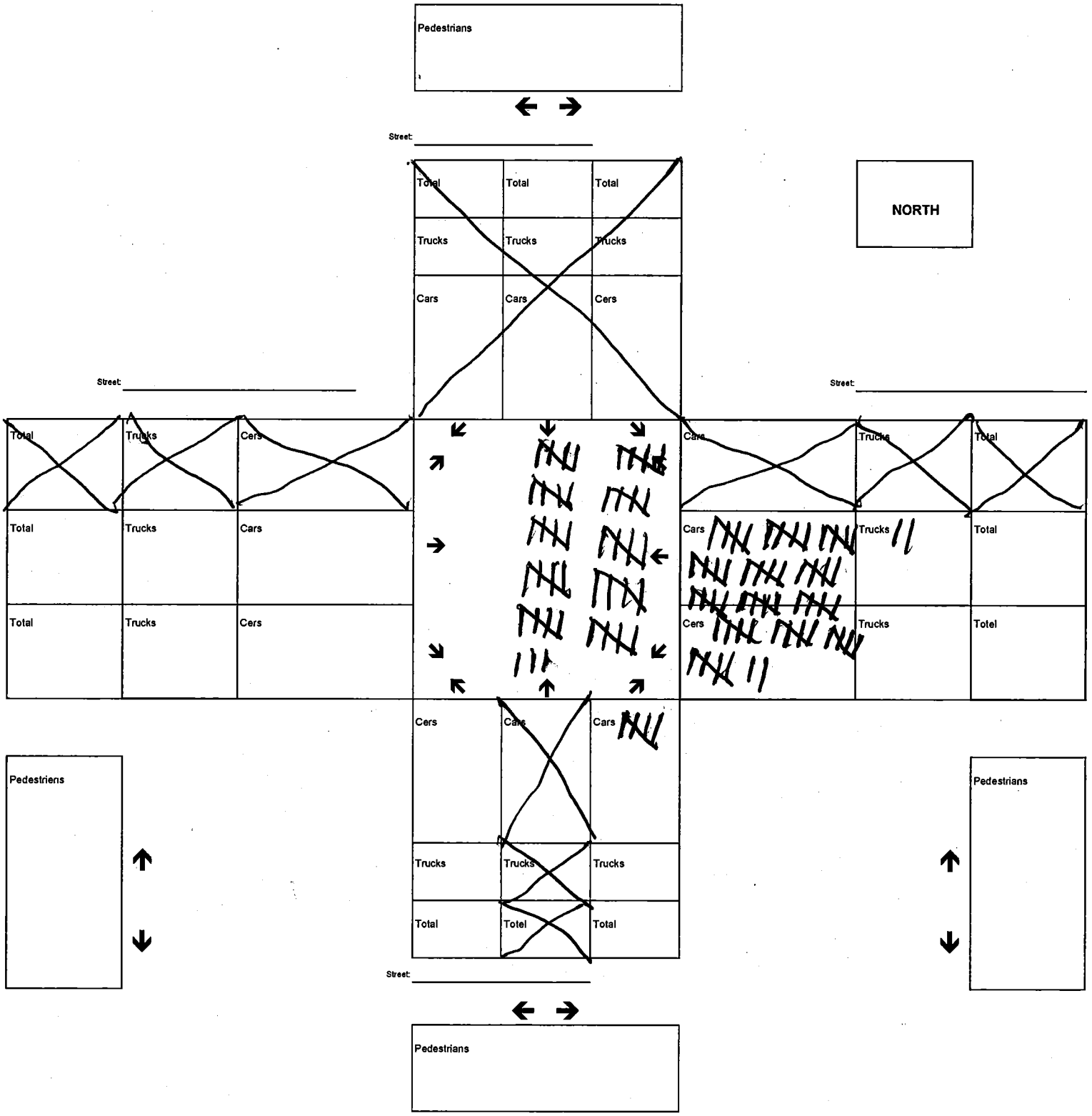
Counter Name:

Start Time:

End Time:

(15-Minute Increments Only)

2nd



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cers
Total	Trucks	Cars

Cers	Trucks	Total
Cars	Trucks	Total
Cers	Trucks	Total

Cars	Cers	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestriens

Pedestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + Lake

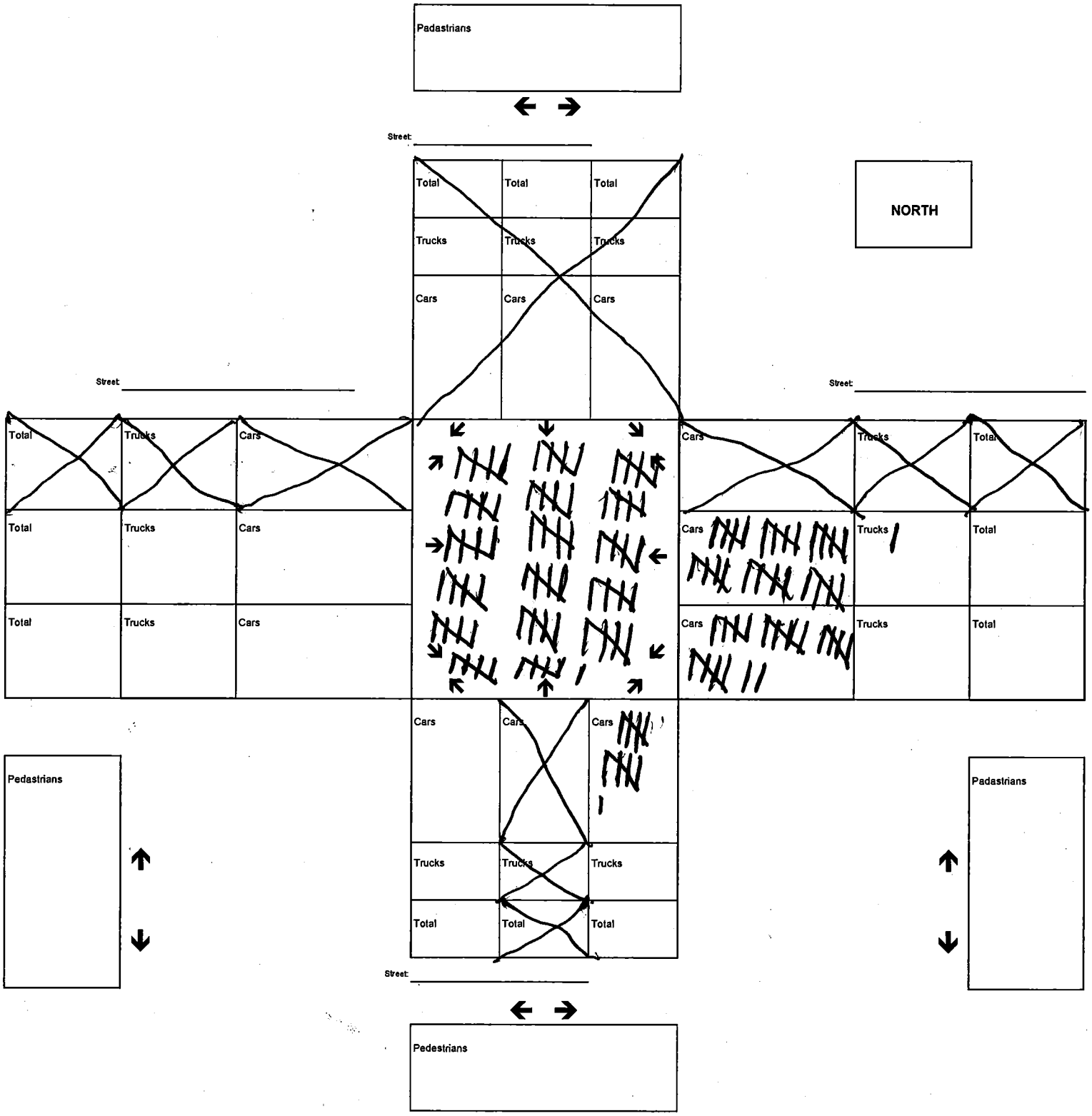
2nd

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Padestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Padestrians

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: 2nd + Lake

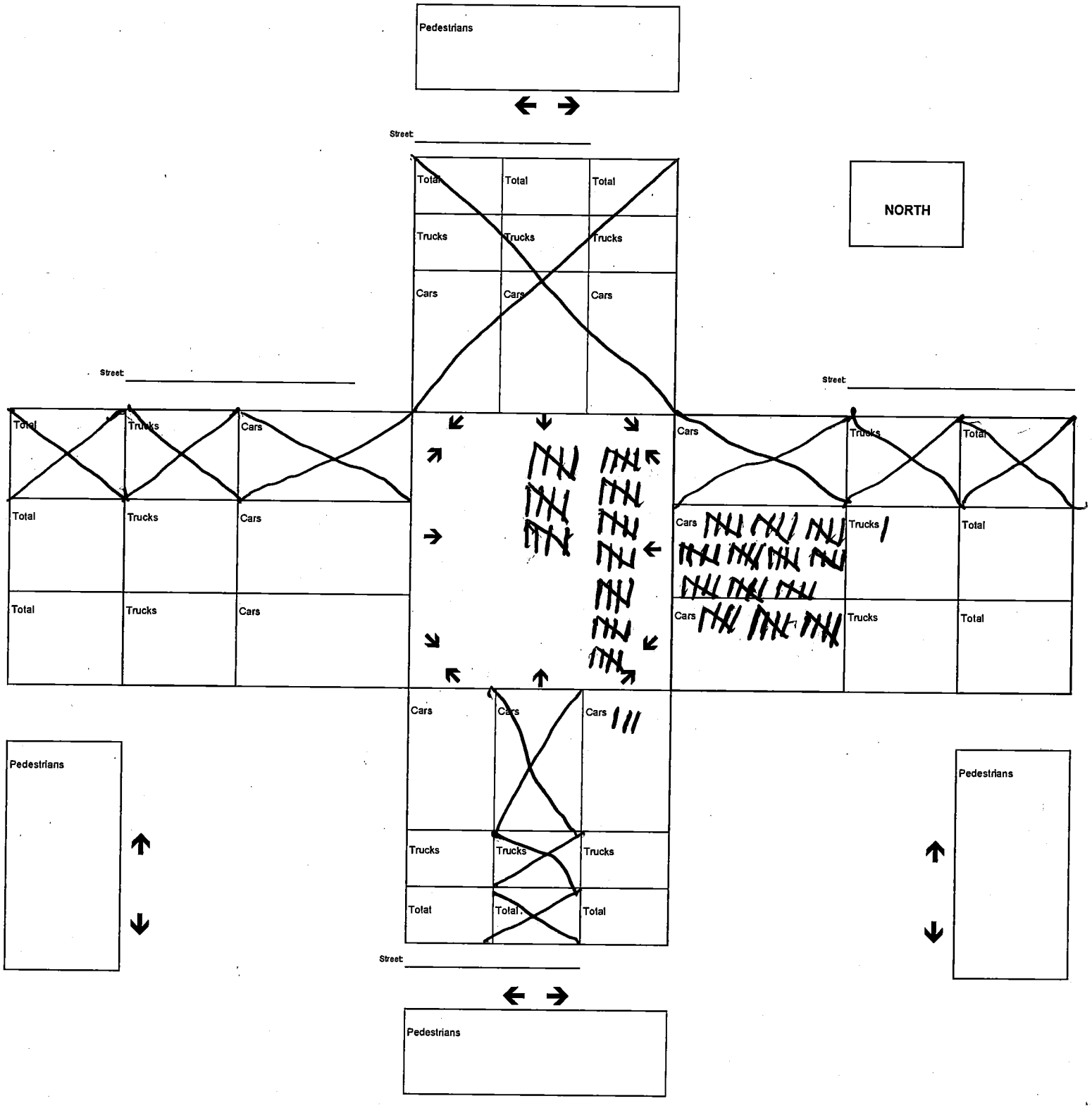
2nd

Counter Name:

Start Time:

End Time:

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: 2nd + Lake

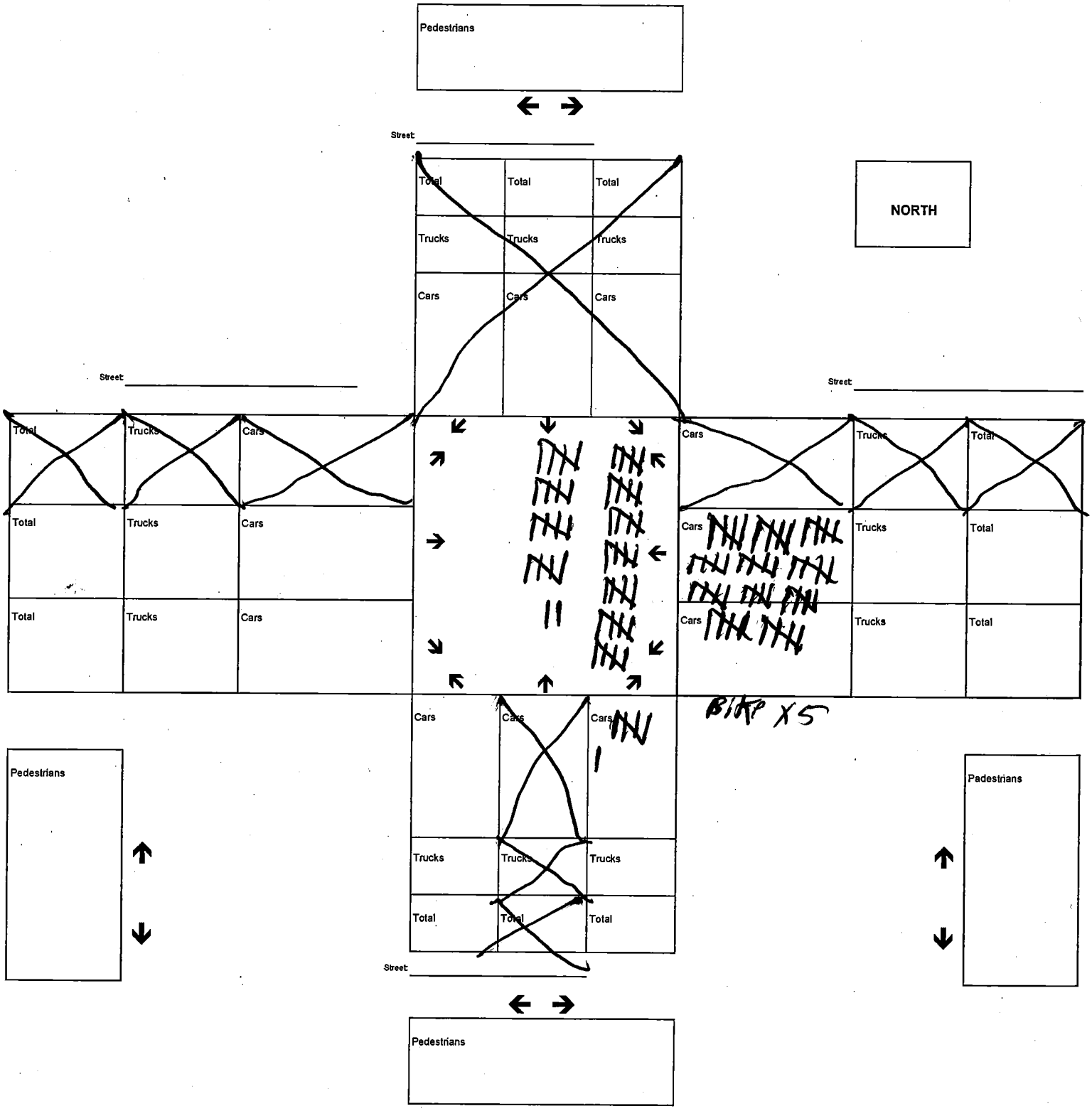
2nd

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

2nd

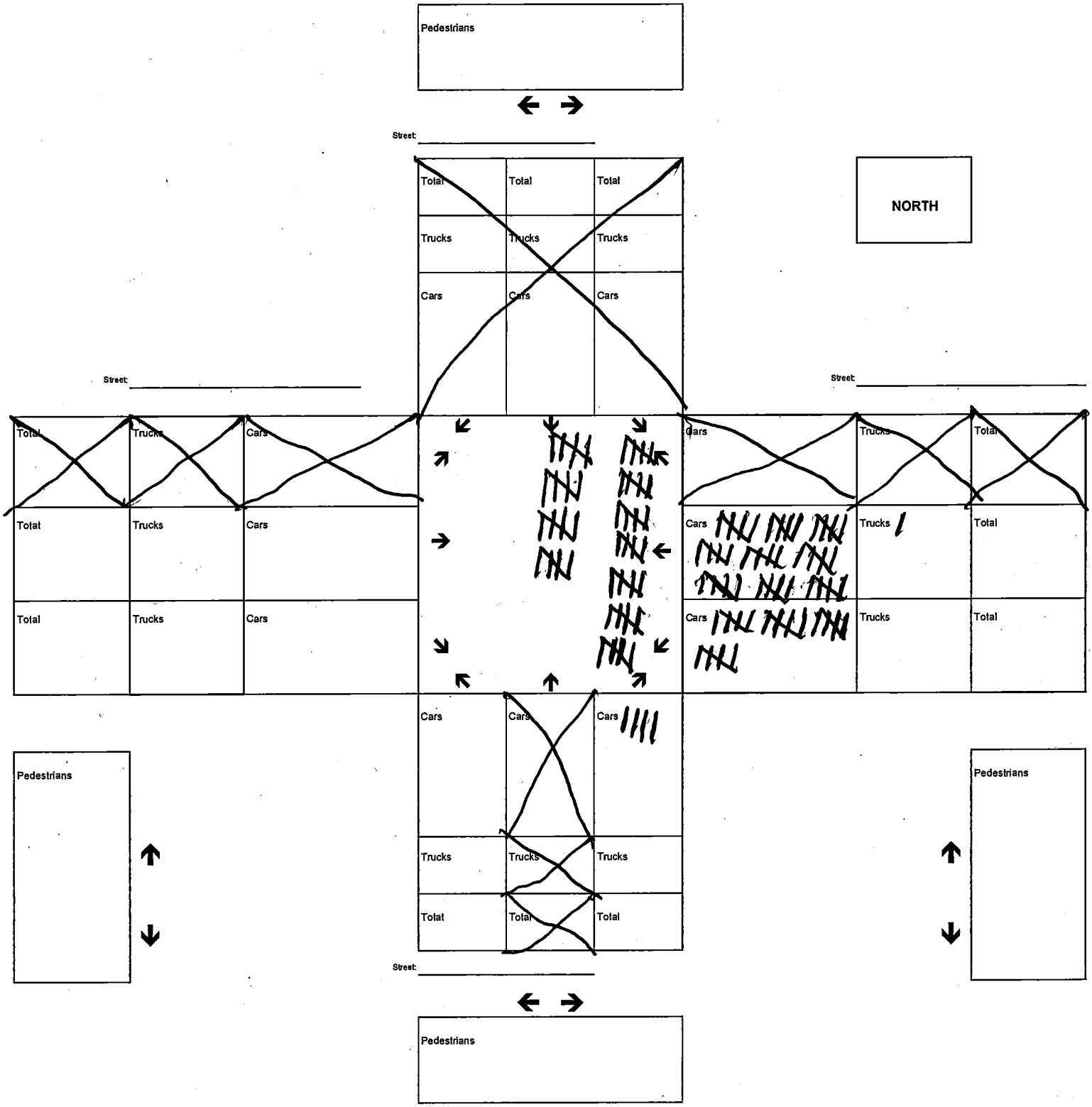
Intersection: 2nd + Lake

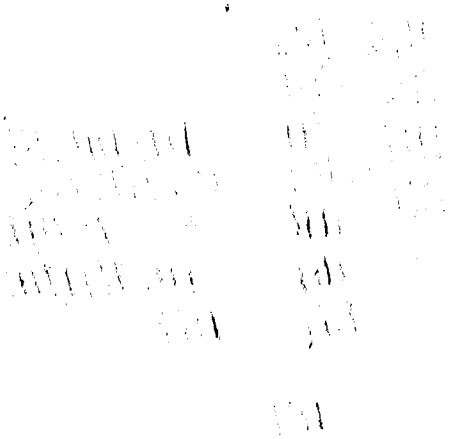
Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)





TURNING MOVEMENT WORKSHEET

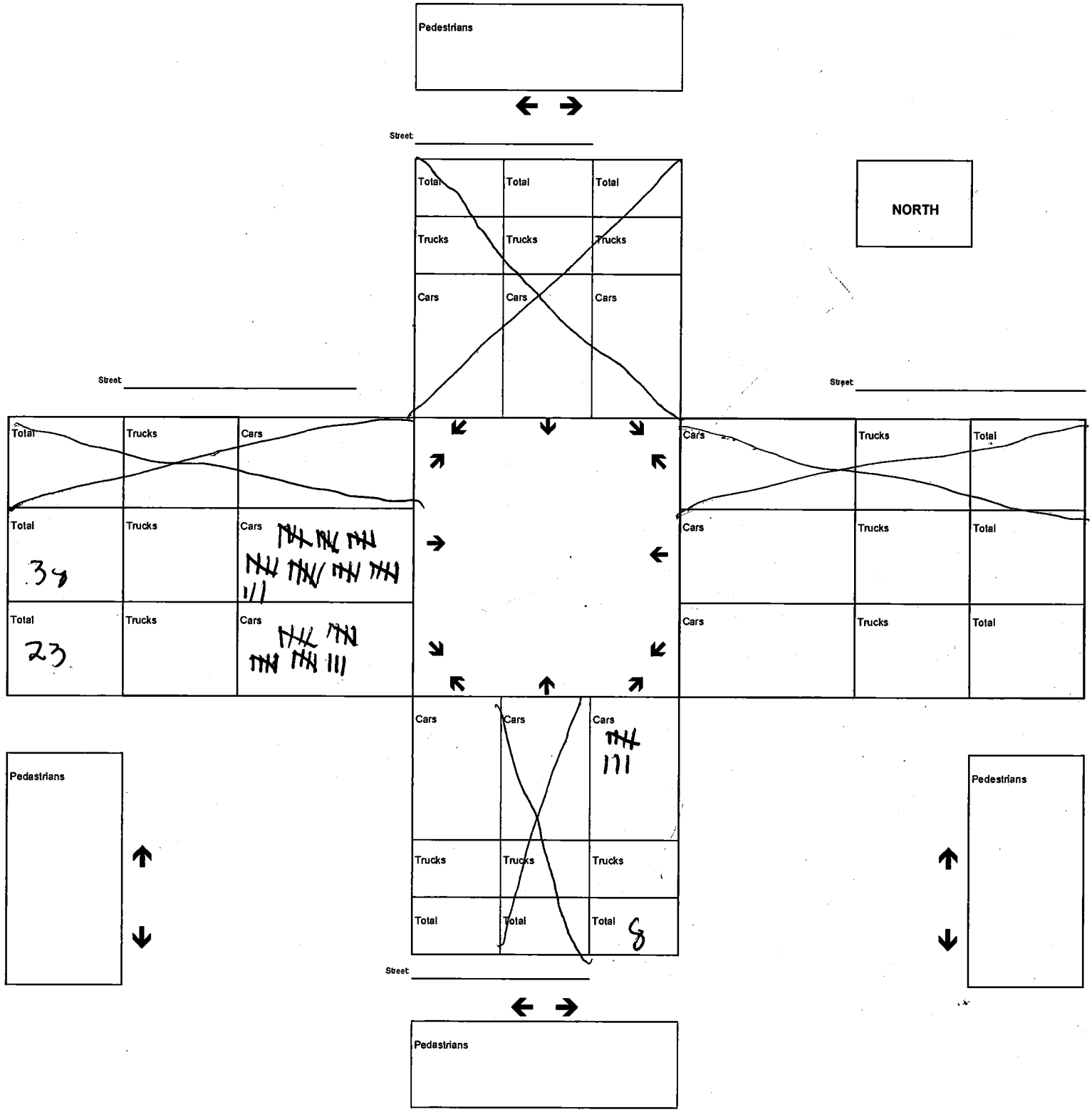
Intersection: Boydston St. Bypass and W Lake

Counter Name: Island

Start Time: 400

End Time: 415

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: ______________________________

Counter Name: ______________________________

Start Time: 415

End Time: 430

(15-Minute Increments Only)

Pedestrians

← →

Street: ____________________

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

↙ ↓ ↘

Street: ____________________

Total	Trucks	Cars
Total 34	Trucks 1	Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 III
Total 24	Trucks III	Cars 𝍸 𝍸 𝍸 𝍸 I

↗ → ↘

↖ ← ↙

Street: ____________________

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

↖ ↑ ↗

Cars	Cars	Cars 𝍸 𝍸
Trucks	Trucks	Trucks
Total	Total	Total 10

Street: ____________________

← →

Pedastrians

Pedestrians

↑ ↓

Pedastrians

↑ ↓

TURNING MOVEMENT WORKSHEET

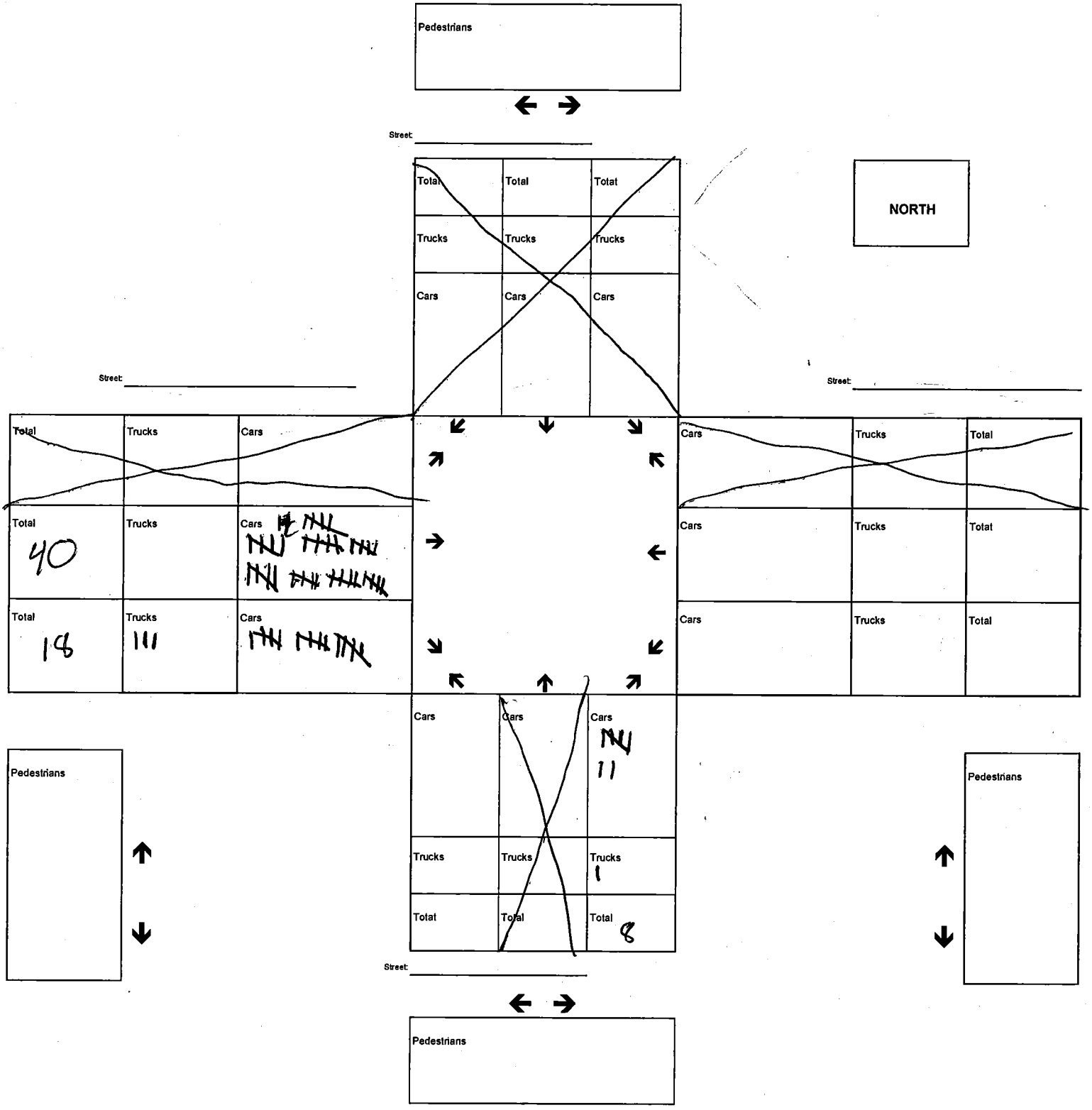
Intersection: _____

Counter Name: Boggstar 3 west lake

Start Time: 430

End Time: 445

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

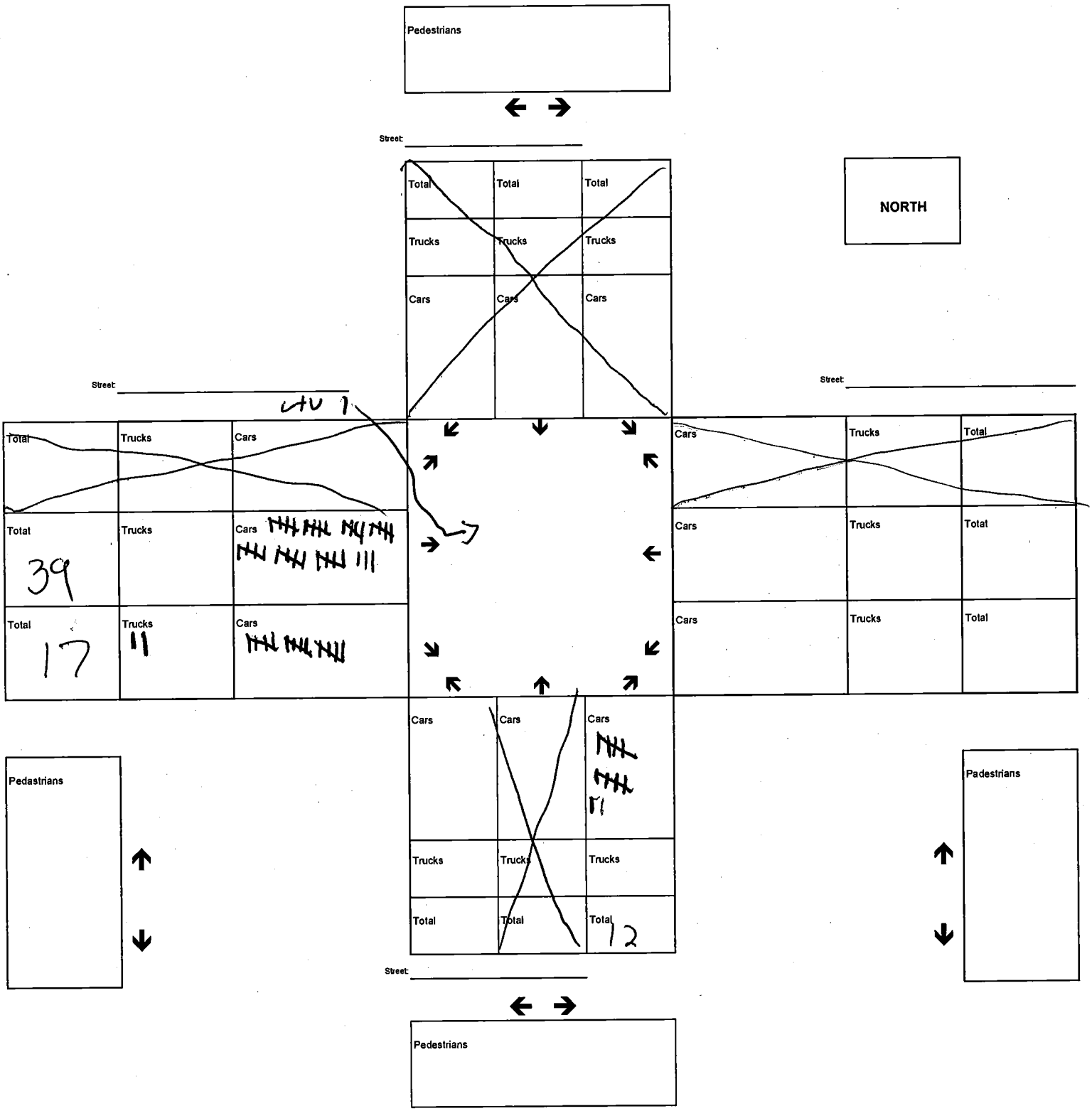
Intersection: _____

Counter Name: Bypass & West Lake

Start Time: 445

End Time: 500

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

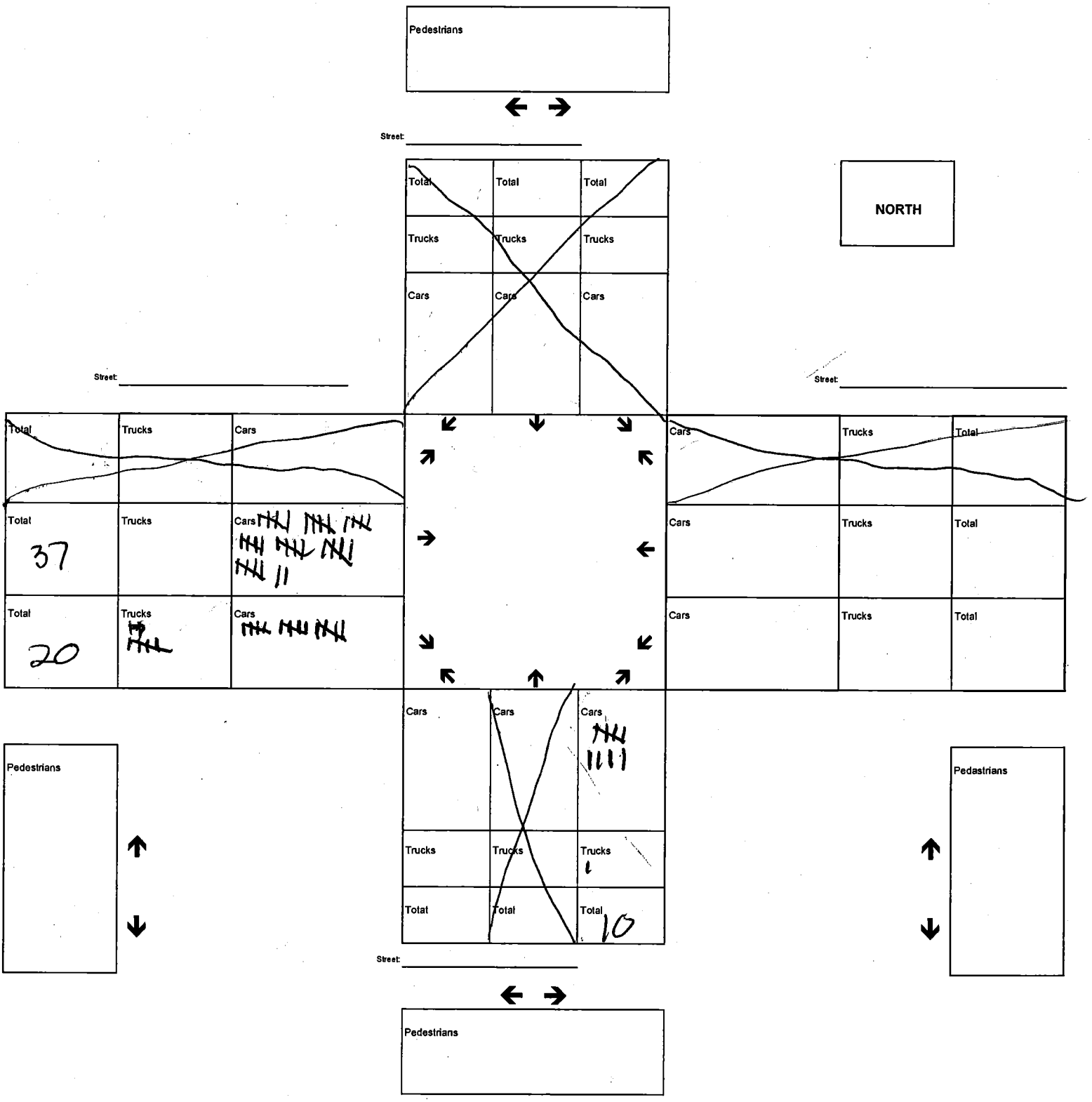
Intersection: _____

Counter Name: Boydston - Bypass west lake

Start Time: 300

End Time: 315

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: ______________________

Counter Name: Bypass & westlake

Start Time: 615

End Time: 630

(15-Minute Increments Only)

Pedestrians

← →

Street: ______________________

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: ______________________

Total	Trucks	Cars
Total 42	Trucks	Cars
Total 14	Trucks II	Cars

Street: ______________________

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks 1
Total	Total	Total 22

Street: ______________________

← →

Pedestrians

Pedestrians

Pedestrians

Bradstun St +

TURNING MOVEMENT WORKSHEET

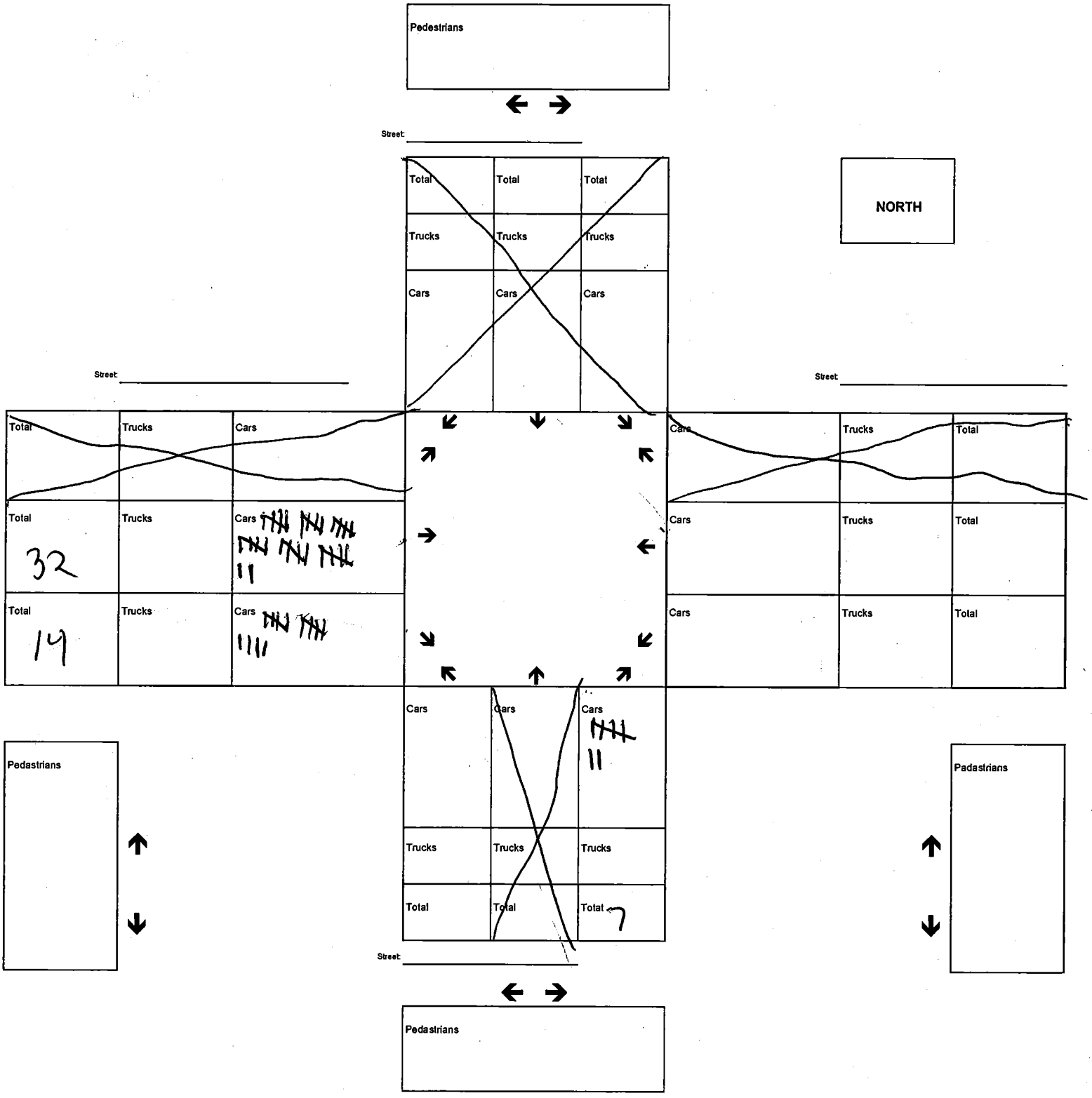
Intersection: ~~Bypass~~ & west lake

Counter Name:

Start Time: ~~5:15~~ 5:30

End Time: 5:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Bypass 3 west lake

Counter Name:

Start Time: 545

End Time: 600

(15-Minute Increments Only)

North approach (crossed out)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

West approach

Street:

Total	Trucks	Cars
(crossed out)	(crossed out)	(crossed out)
Total 47	Trucks 11	Cars [tally marks]
Total 18	Trucks 1	Cars [tally marks] 11

Padestrians

East approach

Street:

Cars	Trucks	Total
(crossed out)	(crossed out)	(crossed out)
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians
[tally marks]

South approach

Cars	Cars	Cars [tally marks] 1
Trucks	Trucks	Trucks 111
Total	Total	Total 18

(middle column crossed out)

Street:

Pedastrians 1

TURNING MOVEMENT WORKSHEET

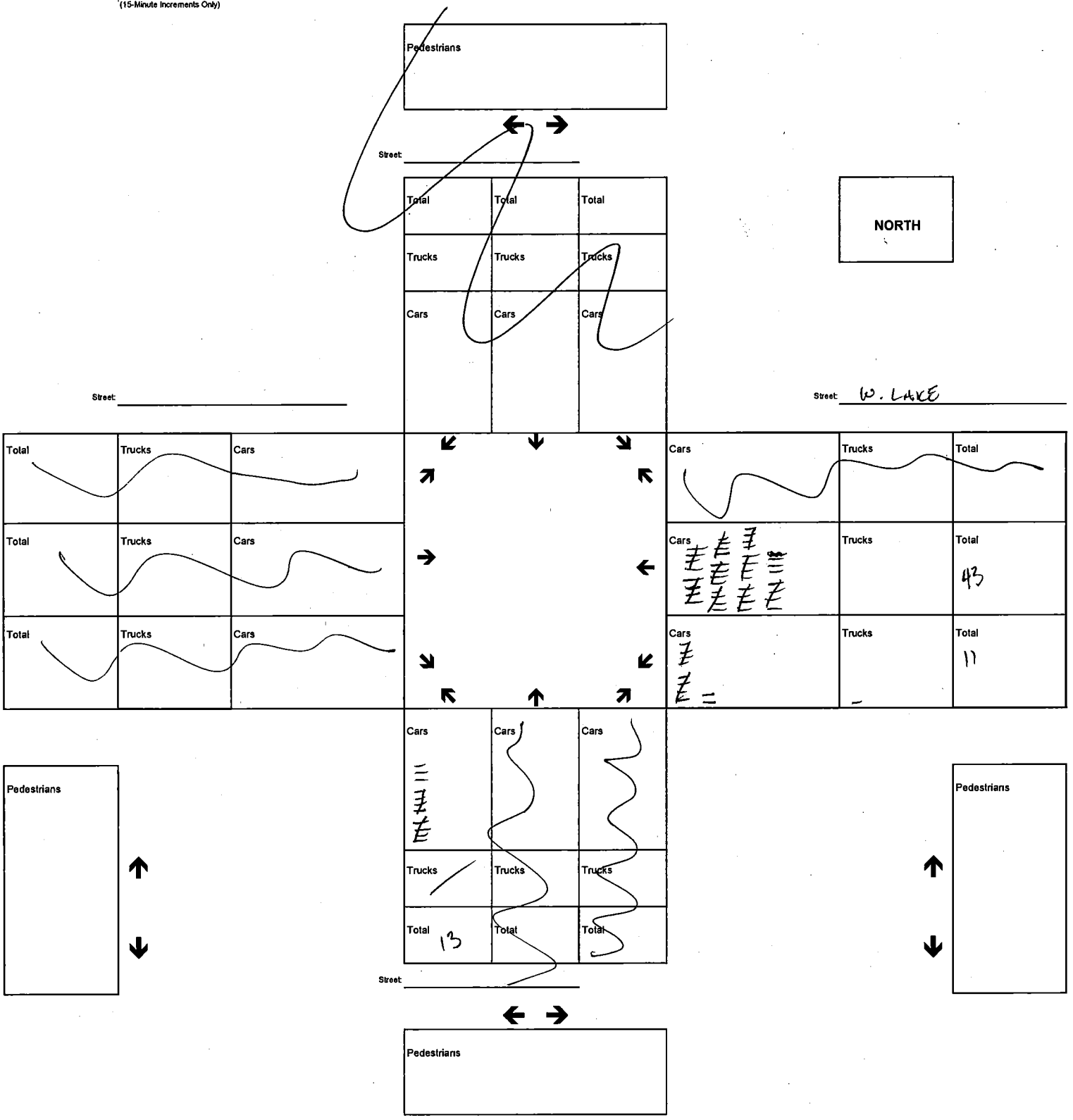
Intersection: HWY 55 (BOTOSTON) & W. LAKE

Counter Name: JOHN BLAKE

Start Time: 4:00

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN & W. LAKE

Counter Name: JOHN BLAKE

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street: W-LAKE

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars 𝍸	Trucks 4	Total 51
Cars 𝍸	Trucks	Total 13

Cars 𝍸	Cars	Cars
Trucks –	Trucks	Trucks
Total 11	Total	Total

Padestrians

Padestrians

Street: BOYDSTUN

Padestrians

TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN ½ W. LAKE

Counter Name: JOHN BLAKE

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street: W. LAKE

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total 36
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 13	Total	Total

Padastrians

Pedestrians

Street: BOYDSTUN

Pedestrians

TURNING MOVEMENT WORKSHEET

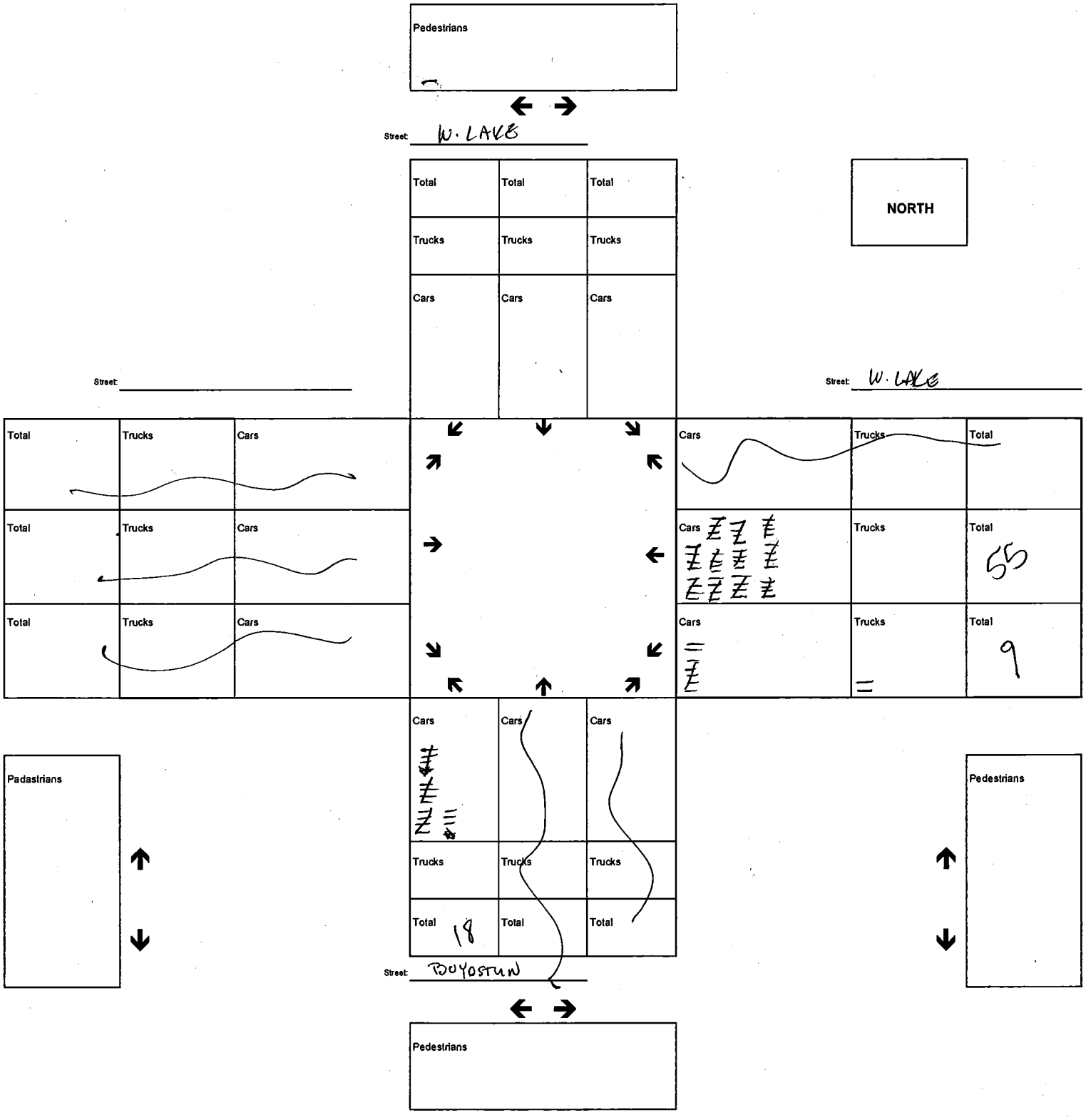
Intersection: BOYDSTUN ! W. LAKE

Counter Name: JOHN BLAKE

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

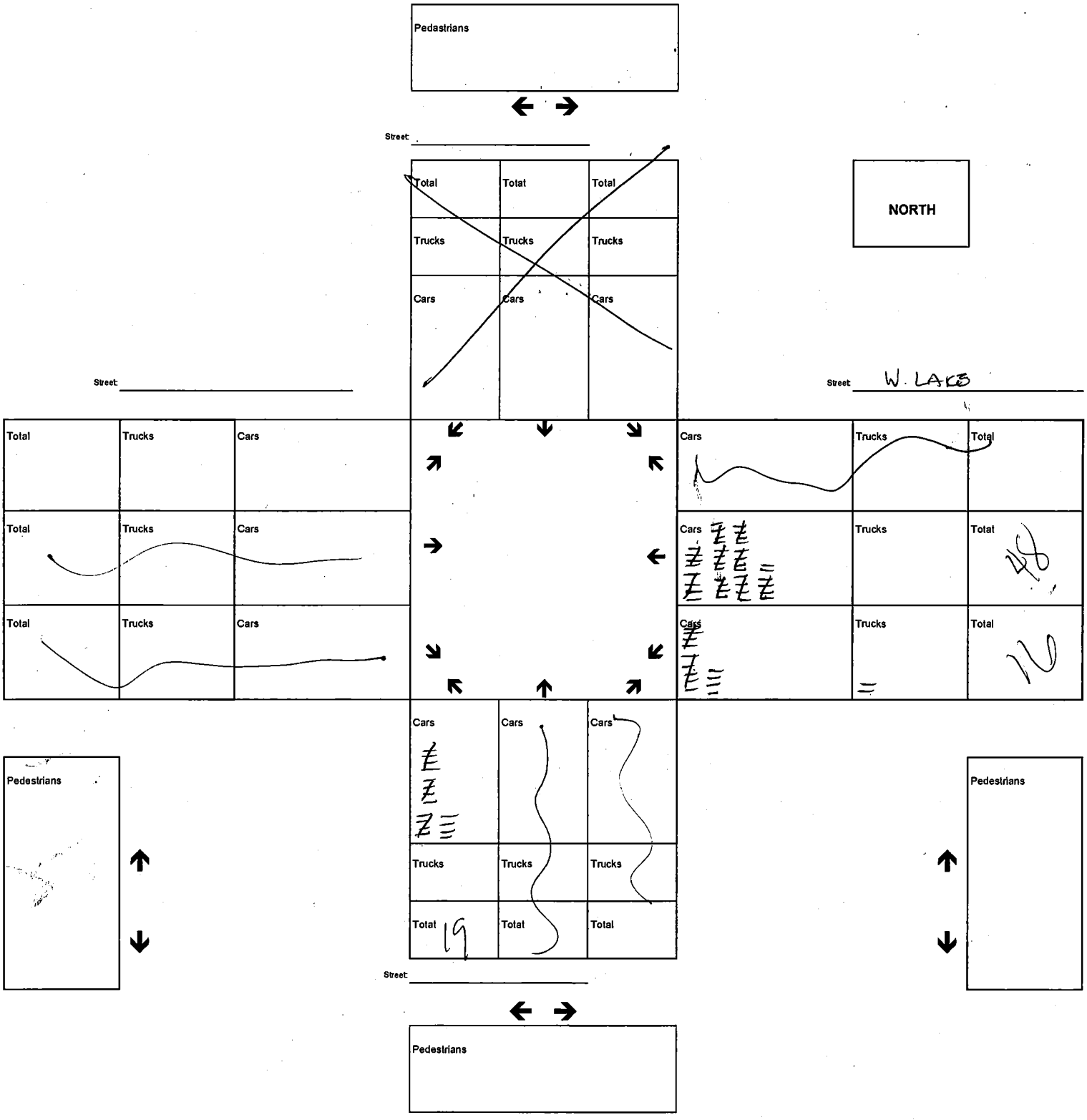
Intersection: BOTSFORD & W. LAKE

Counter Name: JOHN BLAICH

Start Time: 5:00

End Time: 5:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

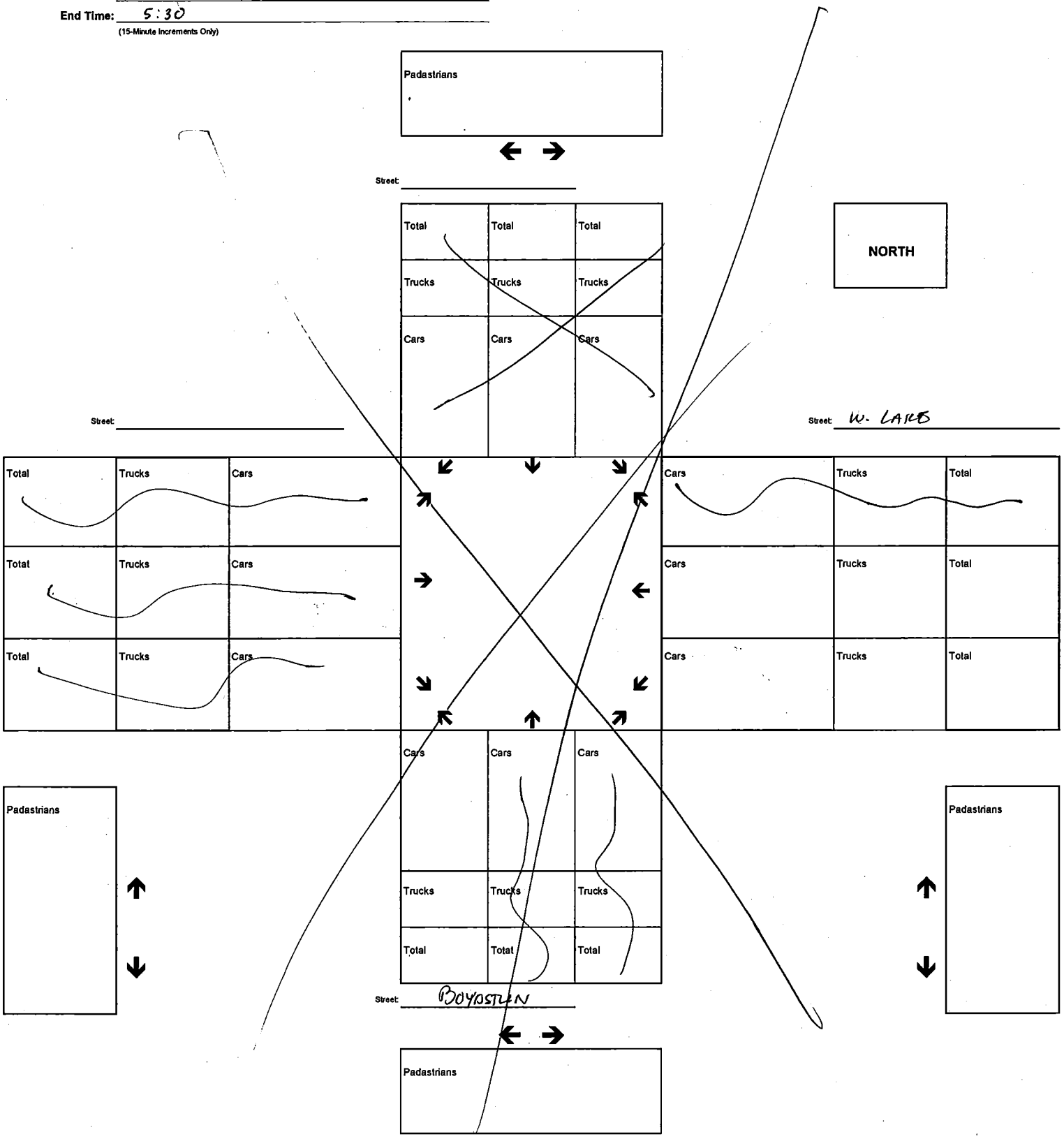
Intersection: BOYDSTUN

Counter Name: JOHN BLAKE

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN & W. LAKE

Counter Name: JOHN BLAICH

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

Padestrians

Street:

Total	Totat	Totat
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street: W LAKE

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total 51
Cars	Trucks	Total 12

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 28	Total	Total

Padestrians

Padastrians

Street: BOYDSTUN

Pedestrians

TURNING MOVEMENT WORKSHEET

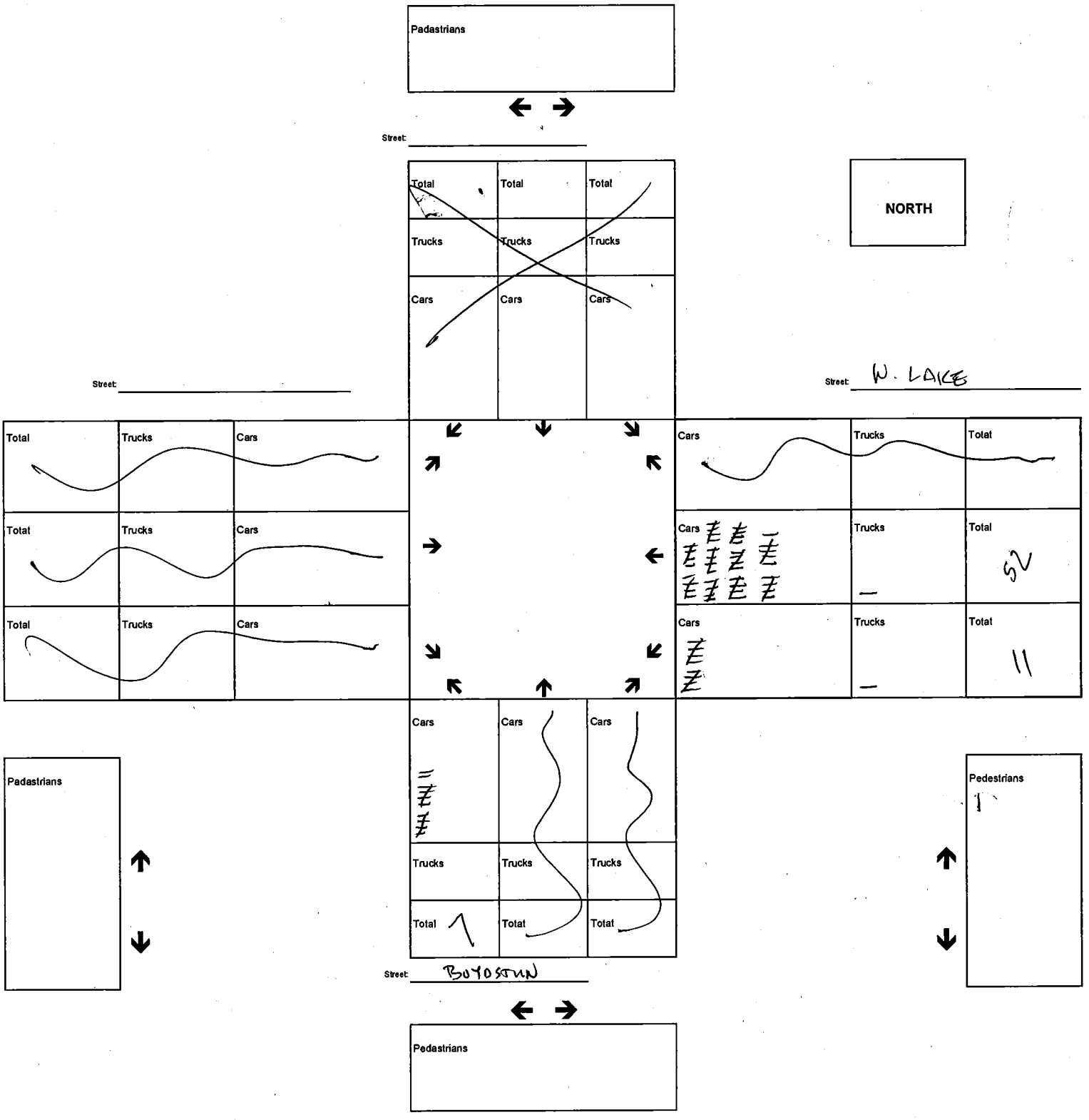
Intersection: BOYDSTUN & W. LAKE

Counter Name: JOHN BLAKE

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: BOYDSTUN

Counter Name: JOHN BLAICE

Start Time: 5:45

End Time: 6:00

(15-Minute Increments Only)

Pedestrians

Street:

NORTH

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

Street:

Street: W. LAKE

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total 45
Cars	Trucks	Total 7

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 18	Total	Total

Pedestrians

Pedestrians

Street:

Padastrians

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Padastrians

Street: _____

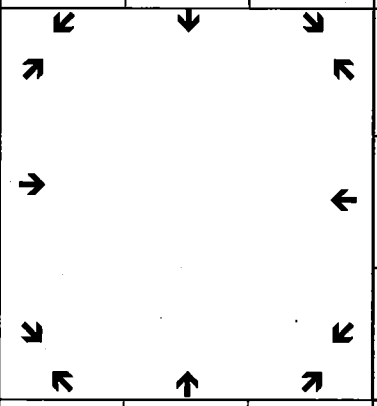
Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars



Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Park + 3rd

Counter Name: Nathan Stewart

Start Time: 4:02

End Time: 4:17

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Totat	Trucks	Cars
Totat	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Park + 3rd

Counter Name:

Start Time: 4:17

End Time: 4:32

(15-Minute Increments Only)

Pedestrians

Street:

Totat	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Totat	Trucks	Cars				Cars	Trucks	Totat 14
Total	Trucks	Cars				Cars	Trucks	Total 2
Total	Trucks	Cars				Cars	Trucks	Total 8
			Cars	Cars	Cars			
			Trucks	Trucks 1	Trucks			
			Total 10	Total 83	Total 10			

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

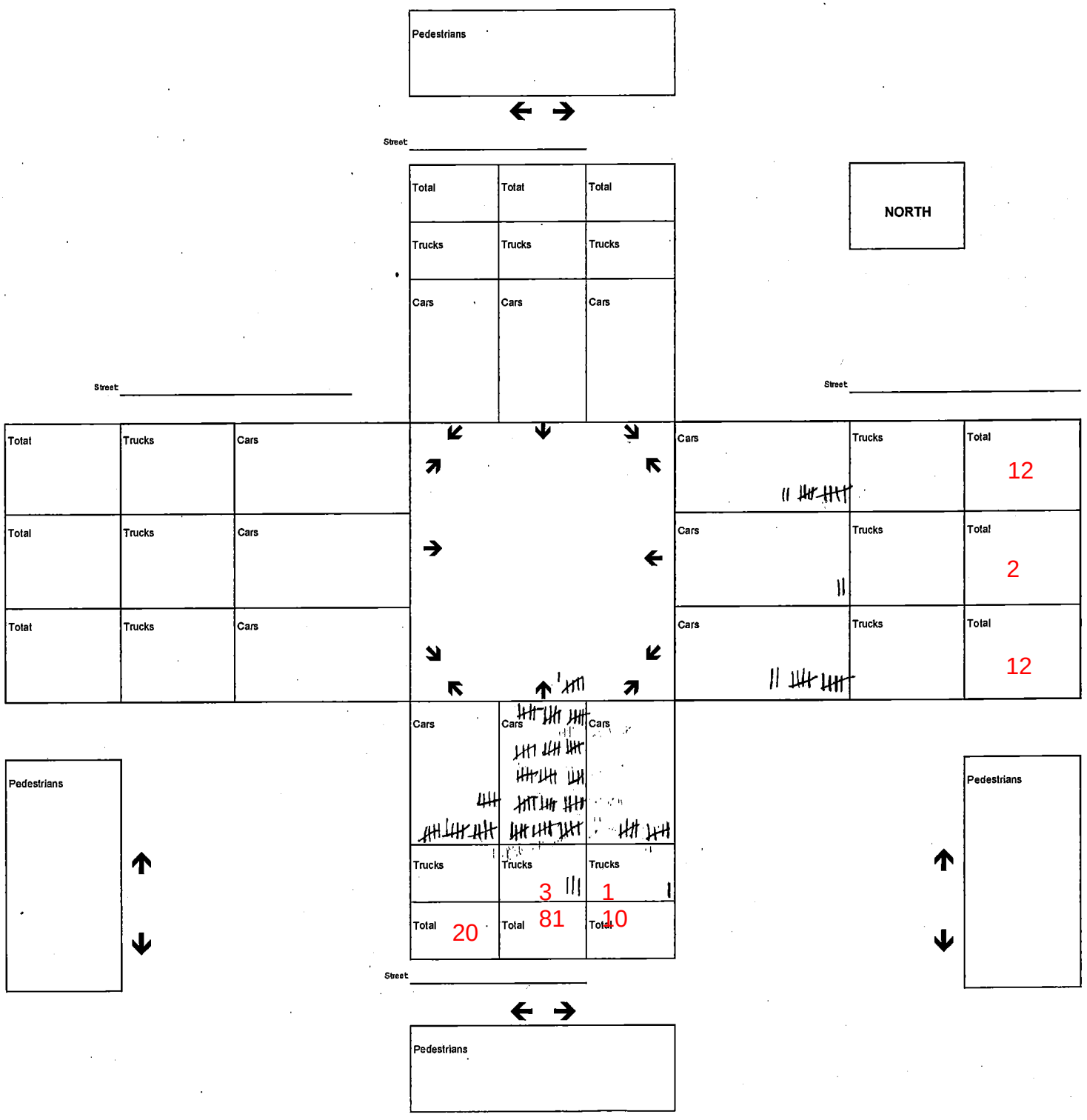
Intersection: Park + 3rd

Counter Name: Nathan Stewart

Start Time: 4:32

End Time: 4:47

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Park & 3rd

Counter Name:

Start Time: 4:47

End Time: 5:02

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total 13
Cars	Trucks	Total
Cars	Trucks 2	Total 8

Cars	Cars	Cars
Trucks	Trucks 2	Trucks
Total 15	Total 90	Total 7

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

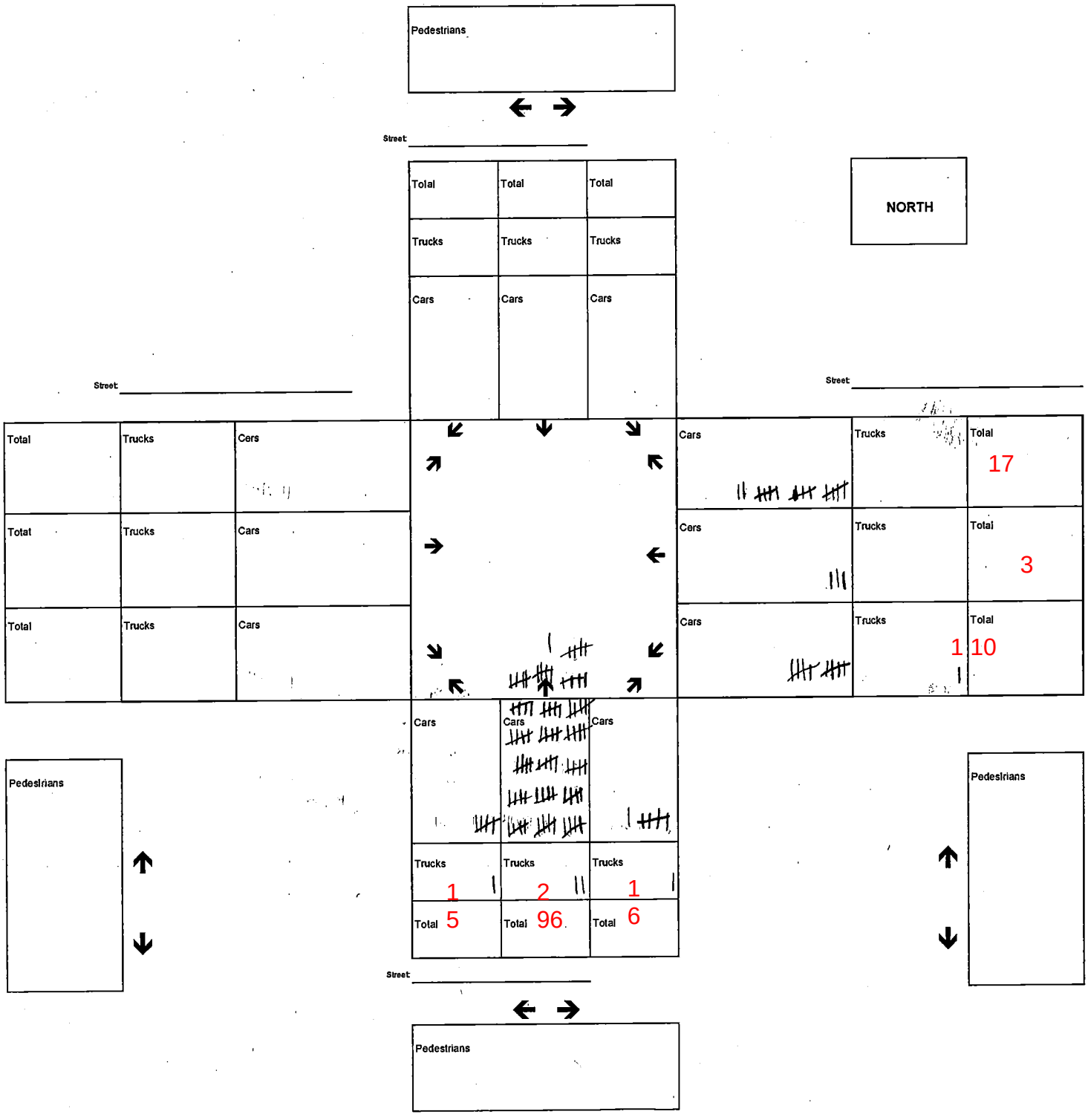
Intersection: Park + 3rd

Counter Name: Nathan Stewart

Start Time: 5:02

End Time: 5:17

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Park + 3rd

Counter Name:

Start Time: 5:17

End Time: 5:32

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars				Cars	Trucks	Total 11
Total	Trucks	Cars				Cars	Trucks	Total 2
Total	Trucks	Cars				Cars	Trucks	Total 7
			Cars	Cars	Cars			
			Trucks	Trucks 1	Trucks			
			Total 9	Total 90	Total 21			

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Park + 3rd

Counter Name: Nathan Stewart

Start Time: 5:32

End Time: 5:47

(15-Minute Increments Only)

Pedestrians

Street: ______

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: ______

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: ______

Cars	Trucks	Total 6
Cars	Trucks	Total 1
Cars	Trucks	Total 15

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 3	Total 75	Total 10

Pedestrians

Pedestrians

Street: ______

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Park + 3rd

Counter Name:

Start Time: 5:47

End Time: 6:02

(15-Minute Increments Only)

Pedestrians

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars				Cars	Trucks	Total 9
Total	Trucks	Cars				Cars	Trucks	Total 2
Total	Trucks	Cars				Cars	Trucks	Total 9

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 2	Total 90	Total 11

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

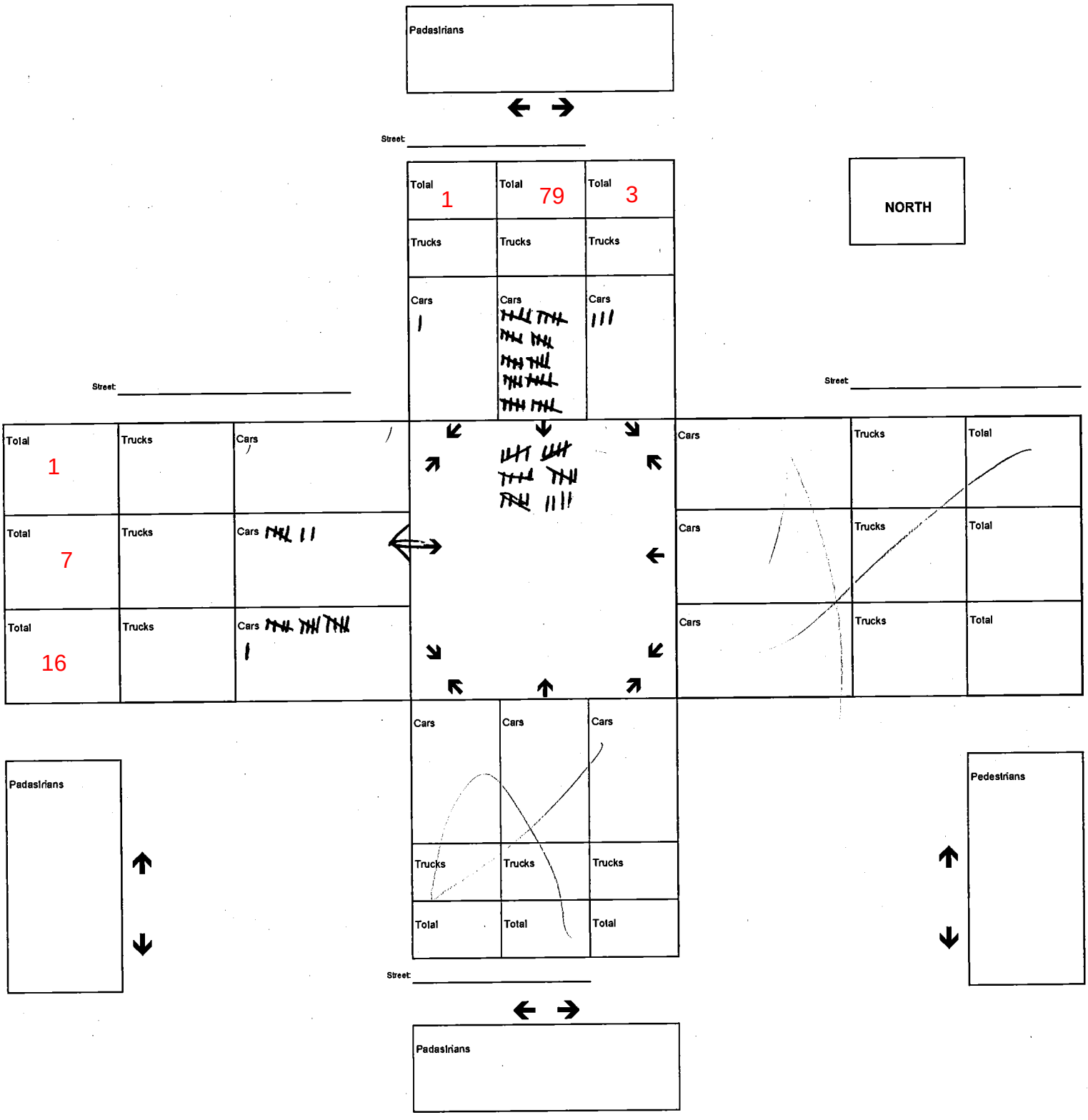
Intersection: Park & 3rd Street

Counter Name: Nate Coyle

Start Time: 4:00 PM

End Time: 4:15 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

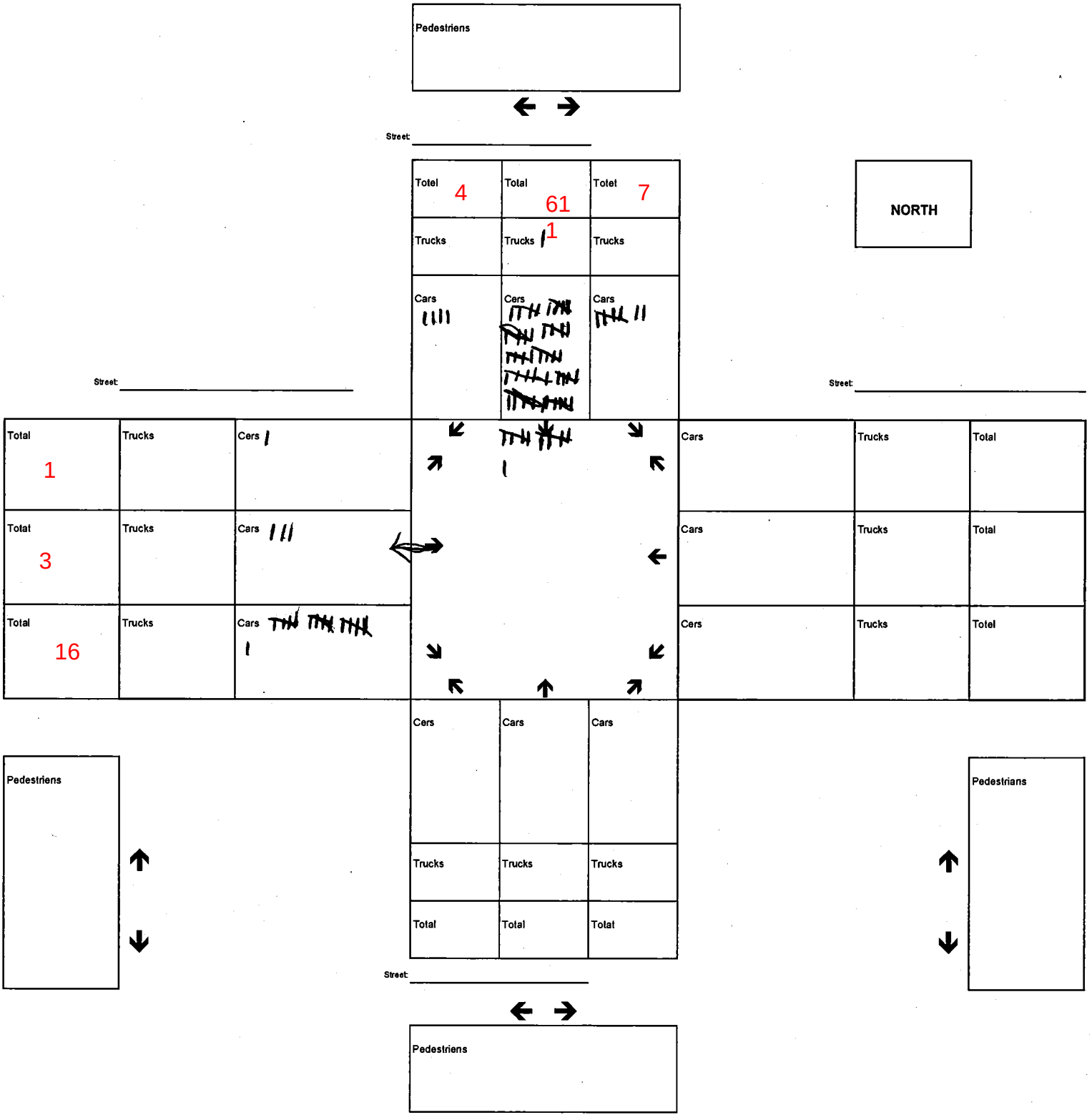
Intersection: Park & 3rd

Counter Name: NCTC Cogle

Start Time: 4:15 PM

End Time: 4:30 PM

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

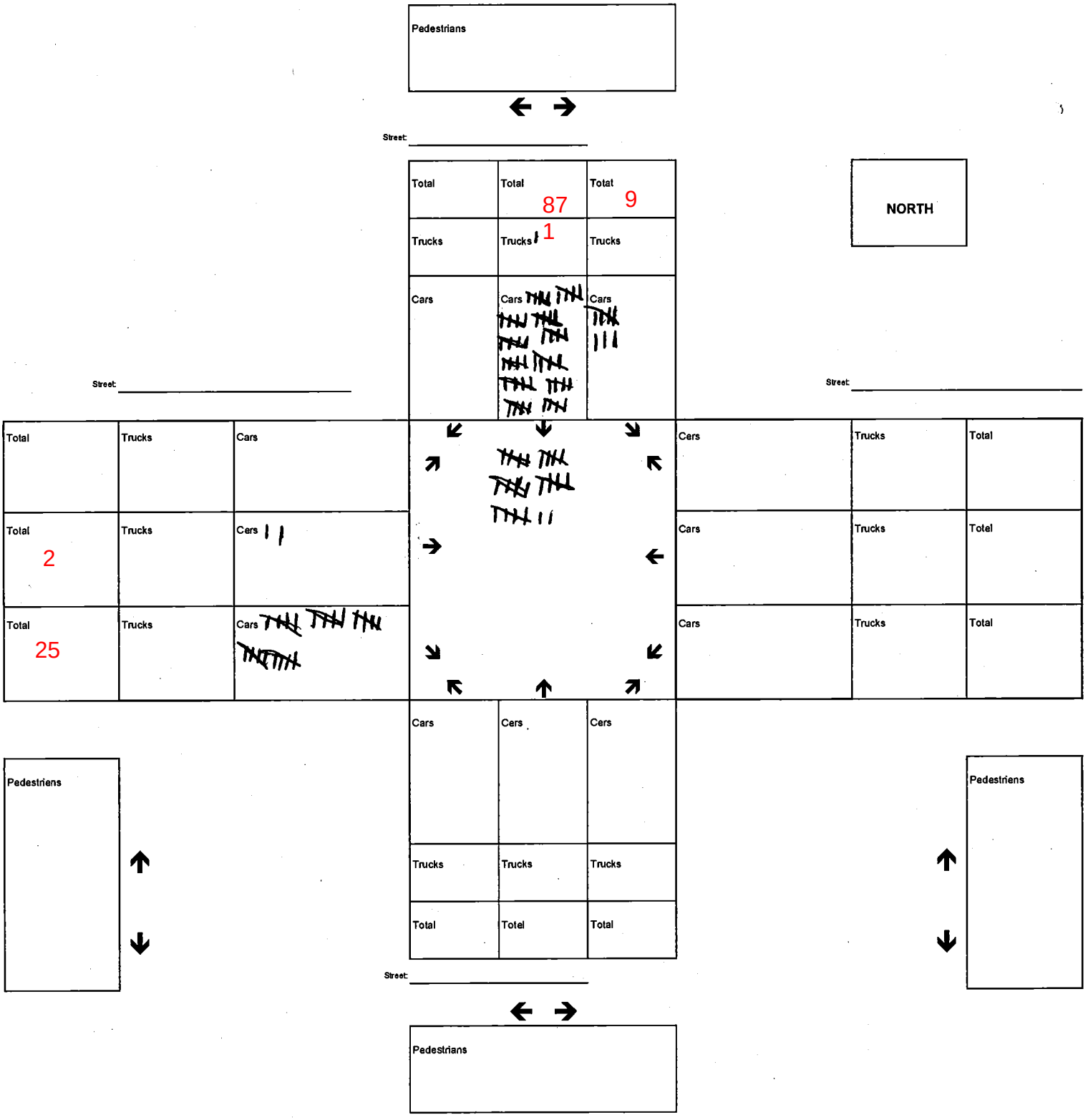
Intersection: Park & 3rd Street

Counter Name: Nate Coyle

Start Time: 4:30 pm

End Time: 4:45 pm

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: Nate Cogle

Start Time: 4:47 PM

End Time: 5:00 PM

(15-Minute Increments Only)

Padestrians

Street: _____

Total	Total 55	Total 19
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total 26	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Padestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Nito Coyle

Counter Name: Park & 3rd Street

Start Time: 5:00PM

End Time: 5:40 PM
(15-Minute Increments Only) 20

Pedastrians

← →

Street:

Total 4	Total 91	Total 10
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars
Total 2	Trucks	Cars
Total 25	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Padastrians

Padastrians

Street:

← →

Padestrians

TURNING MOVEMENT WORKSHEET

L

Intersection: Poole & 3rd

Counter Name:

Start Time: 5:20 PM

End Time: 5:45 PM

(15-Minute Increments Only)

Pedestrians

Street:

Total 1	Total 107	Total 8
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total 1	Trucks	Cars
Total 4	Trucks	Cars
Total 15	Trucks 1	Cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Park & 3rd

Counter Name: NEC

Start Time: 5:45 PM

End Time: 6:00 PM

(15-Minute Increments Only)

Pedestrians

Street:

Total 1	Total 80	Total 6
Trucks	Trucks 3	Trucks
Cars 1	Cars 77	Cars 6

NORTH

Street:

Street:

Total 3	Trucks	Cars 3			Cars	Trucks	Total
Total 2	Trucks	Cars 2			Cars	Trucks	Total
Total 19	Trucks	Cars 19			Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Padastrians

Street:

Padastrians

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

Pedestrians

Street: _____

Totet	Totat	Totet
Trucks	Trucks	Trucks
Cers	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cers				Cars	Trucks	Total
Total	Trucks	Cers				Cers	Trucks	Total
Totel	Trucks	Cars				Cars	Trucks	Totel

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Totel	Total

Pedestrians

Pedestriens

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Railroad & 3rd

Counter Name: Cris Malvick

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

N

Pedestrians

Street:

Total 0	Total 93 cars	Total 39 cars
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total	Trucks	Cars		Cars	Trucks	Total
						21 cars
Total	Trucks	Cars		Cars III	Trucks	Total 3 cars
Total	Trucks	Cars		Cars	Trucks 1	Total 1 Truck 21 cars

W

E

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

N

Pedestrians

Street: _____

Total 3 cars	Total 83 cars 3 Trucks	Total 45 cars
Trucks	Trucks III	Trucks
Cars III	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

W

Cars IIII	Trucks I	Total 1 Truck 24 cars
Cars IIII I	Trucks	Total 6 cars
Cars	Trucks	Total 30 cars

E

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: Railroad & 3rd
Counter Name: Cris Malvich
Start Time: 4:00 pm
End Time: 6:00 pm
(15-Minute Increments Only)

N

Pedestrians
← →

Street: ______

Total	Total	Total
1 Car	1 Truck 80 Cars	1 Truck 55 cars
Trucks	Trucks	Trucks
Cars 1	Cars (tally marks)	Cars (tally marks)

NORTH

Street: ______ (West)

Street: ______ (East)

W

Total	Trucks	Cars

E

Cars	Trucks	Total
Cars (tally marks)	Trucks	Total 27 cars
Cars 11	Trucks	Total 2 cars
Cars (tally marks)	Trucks	Total 19 cars

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians ↑ ↓

Pedestrians ↑ ↓

Street: ______

Pedestrians
← →

S

TURNING MOVEMENT WORKSHEET

Intersection: ______________________

Counter Name: ______________________

Start Time: ______________________

End Time: ______________________

(15-Minute Increments Only)

N

Pedastrians

Street ______________

Total 4 cars	1 Truck Total 76 cars	Total 54 cars
Trucks	Trucks |	Trucks
Cars ||||	Cars (tally)	Cars (tally)

NORTH

Street ______________

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

N

Cars (tally)	Trucks	Total 35 cars
Cars |||	Trucks	Total 3 cars
Cars (tally)	Trucks	Total 24 cars

E

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedastrians

Pedastrians

Street ______________

Padestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: Railroad & 3rd

Counter Name: Cris Malvich

Start Time: 4:00 pm

End Time: 6:00 pm

(15-Minute Increments Only)

N

Pedestrians

← →

Street:

North approach

Total	Total	Total
1 car	90 cars	58 cars
Trucks	Trucks	Trucks
Cars |	Cars	Cars

NORTH

Street:

Street:

West approach

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

East approach

Cars	Trucks	Total
Cars	Trucks |	Total 1 Truck 33 cars
Cars |||	Trucks	Total 3 cars
Cars	Trucks	Total 29 cars

N

E

South approach

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street:

← →

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____
(15-Minute Increments Only)

N

Pedestrians

Street: _____

Total 2 cars	Total 58 cars (1 Truck)	Total 36 cars (3 Trucks)
Trucks	Trucks |	Trucks |||
Cars ||	Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |	Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

W

Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||	Trucks |	Total 1 Truck 23 cars
Cars |	Trucks	Total 1 car
Cars 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |	Trucks 2	Total 2 Truck 21 cars

E

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Padestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: Rail Road & 3rd

Counter Name: Dan

Start Time: 4:00

End Time: 6:00

(15-Minute Increments Only)

2

Pedestrians

N

Street:

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street:

Street:

Total 1 car	Trucks	Cars				Cars	Trucks	Total
Total 9 cars	Trucks	Cars				Cars	Trucks	Total W
Total 25 cars	Trucks	Cars				Cars	Trucks	Total

			Cars	Cars	Cars			
			Trucks	Trucks 1	Trucks			
			Total 14 cars	Total 3 Trucks 101 cars	Total 1 Truck 52 cars			

Pedestrians

Pedestrians

Street:

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)

N

Pedestrians

Street: _____

Totat	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
2 cars		
Total 7 cars E	Trucks	Cars IIII
Total 30 cars	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total W
Cars	Trucks	Totat

Pedestrians

Cers	Cars	Cars
Trucks	Trucks	Trucks
Total 20 cars	Total 2 Trucks 82 cars	Total 1 Truck 45 cars

Pedestrians

Street: _____

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: ______________________

Counter Name: ______________________

Start Time: ______________________

End Time: ______________________
(15-Minute Increments Only)

Pedestrians
N

Street: ______________________

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: ______________________

Total	Trucks	Cars
Total 1 car	Trucks	Cars
Total 10 Cars E	Trucks	Cars
Total 28 cars	Trucks	Cars

Street: ______________________

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total W
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks |||	Trucks ||||
Total 19 cars	3 Trucks Total 110 cars	4 Trucks Total 46 cars

Street: ______________________

Pedestrians
S

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Rail Road & 3rd

Counter Name: Dan

Start Time: 4:00

End Time: 6:00

(15-Minute Increments Only)

N

Pedestrians

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

E

12 cars

17 cars

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

W

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total
9 cars	105 cars	59 cars

1 Truck

Pedestrians

Pedestrians

Street: _____

Pedestrians

S

TURNING MOVEMENT WORKSHEET

Intersection: Rail Road & 3rd

Counter Name: Dan

Start Time: 4:00

End Time: 6:00

(15-Minute Increments Only)

Pedestrians N

Street: _____

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: _____ Street: _____

Total	Trucks	Cars			Cars	Trucks	Total
1 car							
Total E 12 cars	Trucks	Cars			Cars	Trucks	Total W
Total 11 cars	Trucks	Cars			Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 11 cars	Total 76 cars	Total 44 cars

Pedestrians

Pedestrians

Street: _____

Pedestrians S

TURNING MOVEMENT WORKSHEET

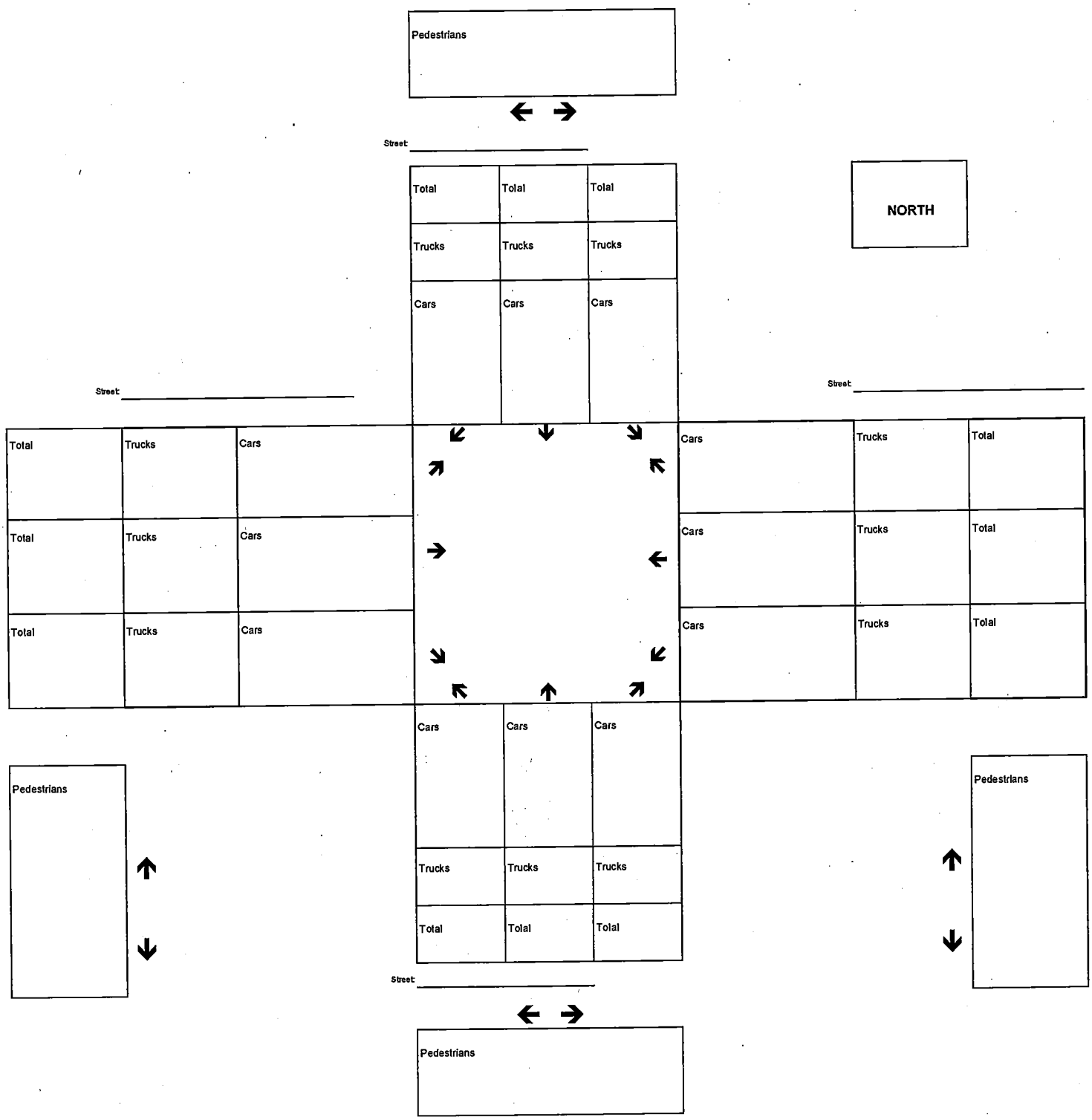
Intersection: _____

Counter Name: _____

Start Time: _____

End Time: _____

(15-Minute Increments Only)



Colorado & 3rd

TURNING MOVEMENT WORKSHEET

Intersection: 3rd & Colorado

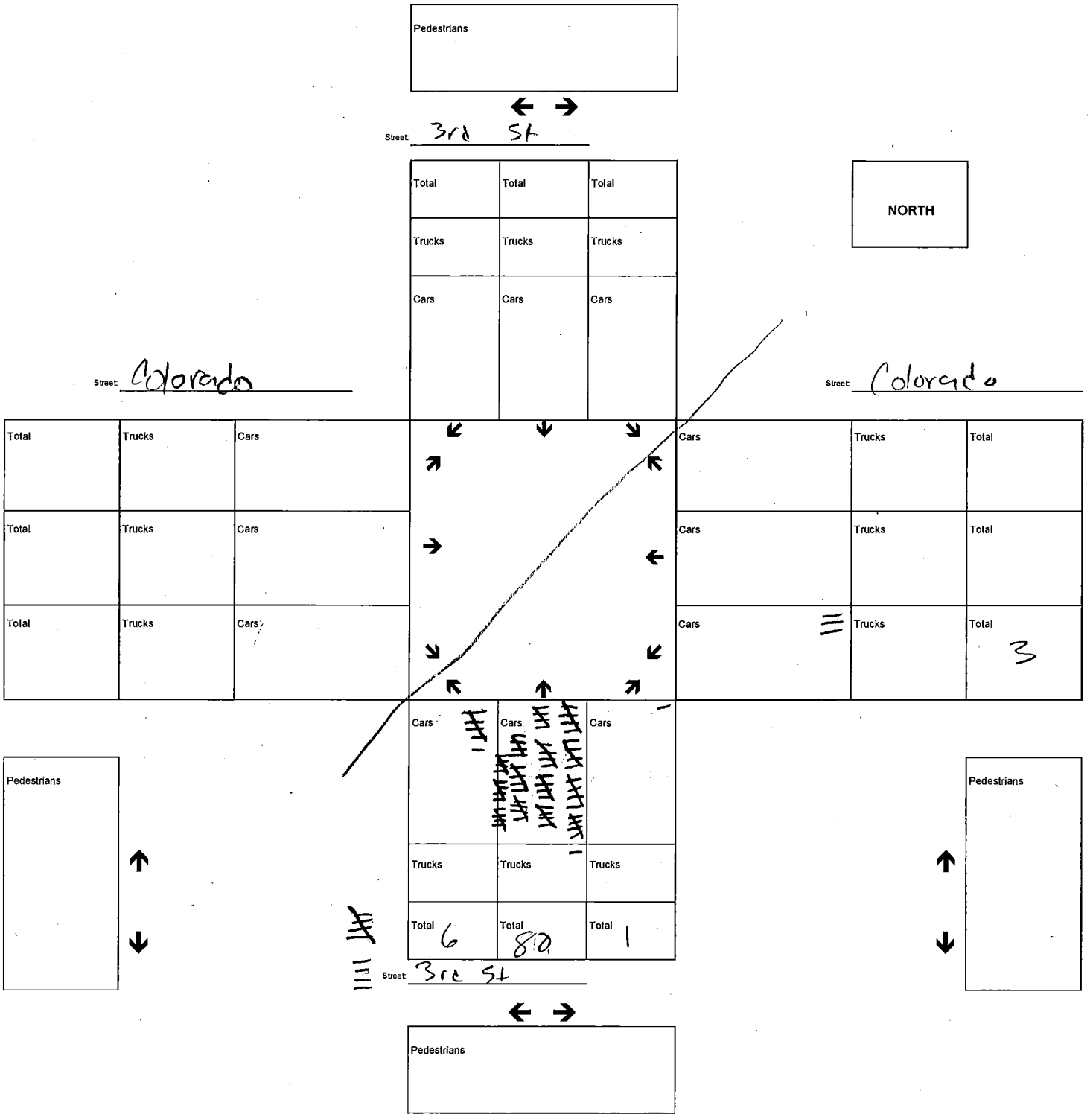
Counter Name: Garrett

Start Time: 4:00 -

End Time: 4:15

(15-Minute Increments Only)

1



TURNING MOVEMENT WORKSHEET

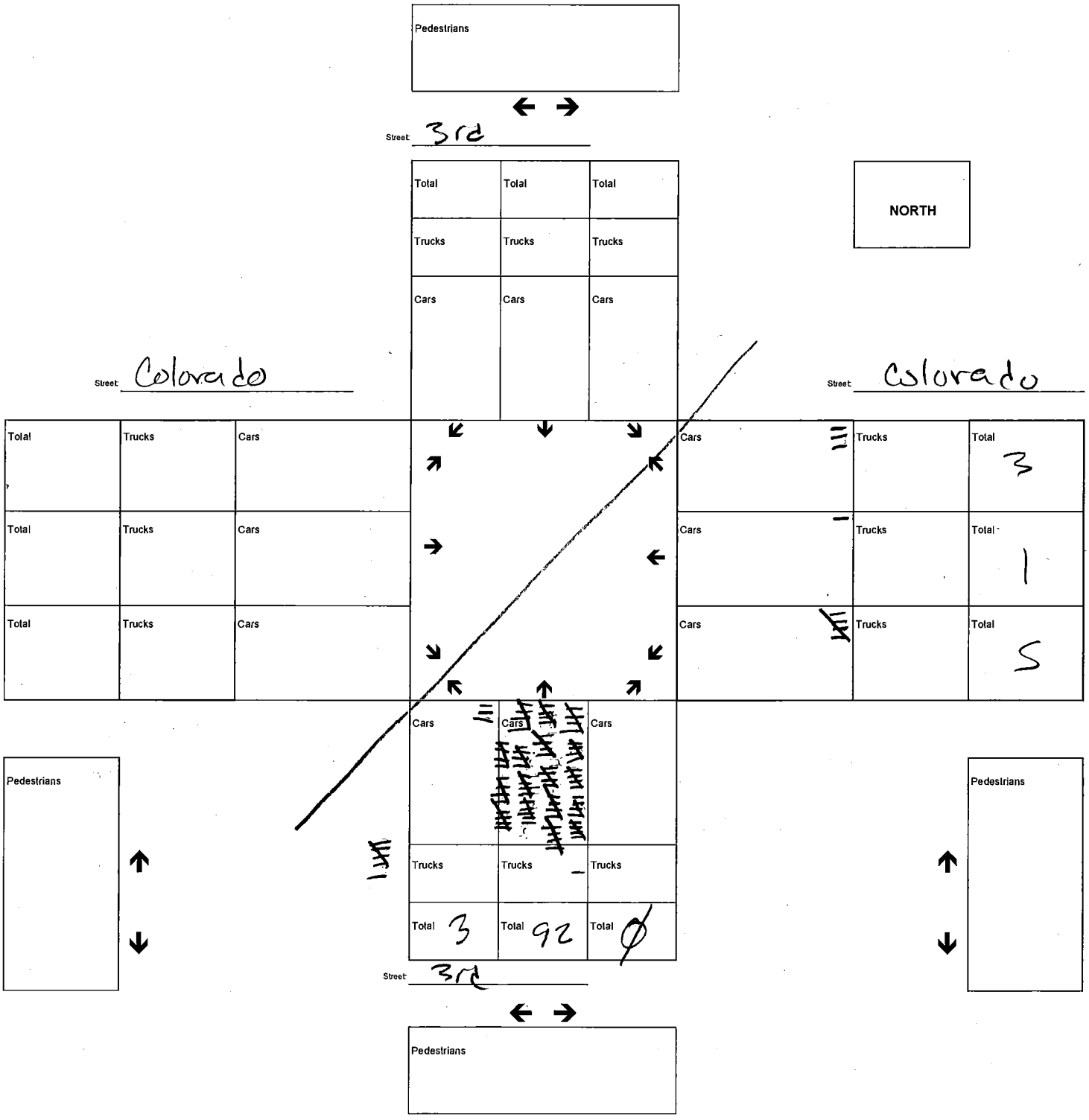
Intersection: Colorado & 3rd

Counter Name: Garrett Mapp

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

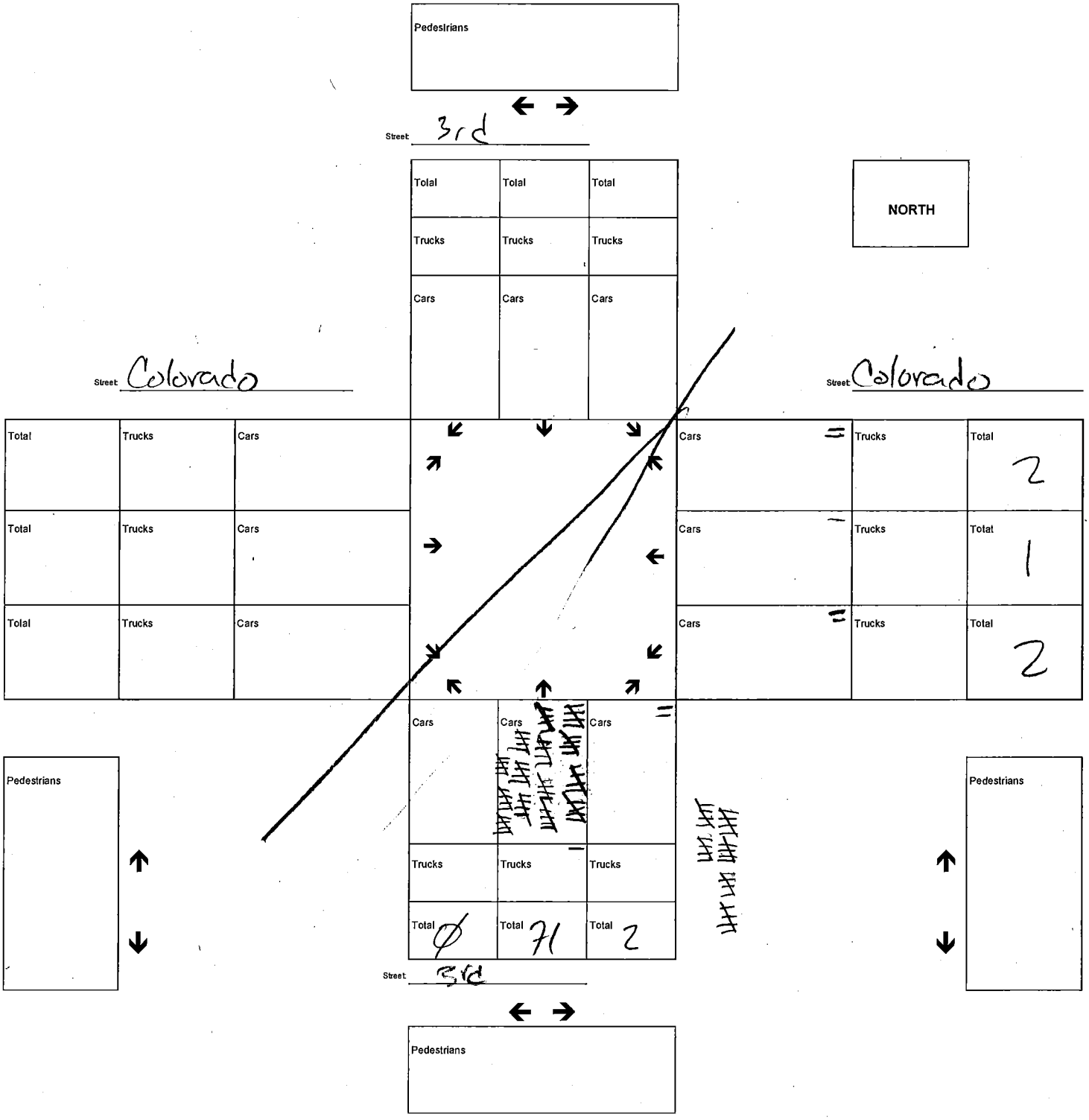
Intersection: Colorado & 3rd

Counter Name: Garrett

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

4

Intersection: Colorado + 3rd

Counter Name: Garrett

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: Colorado

Cars	Trucks	Total 1
Cars	Trucks	Total ∅
Cars	Trucks	Total 7

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 4	Total 91	Total 4

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

5

TURNING MOVEMENT WORKSHEET

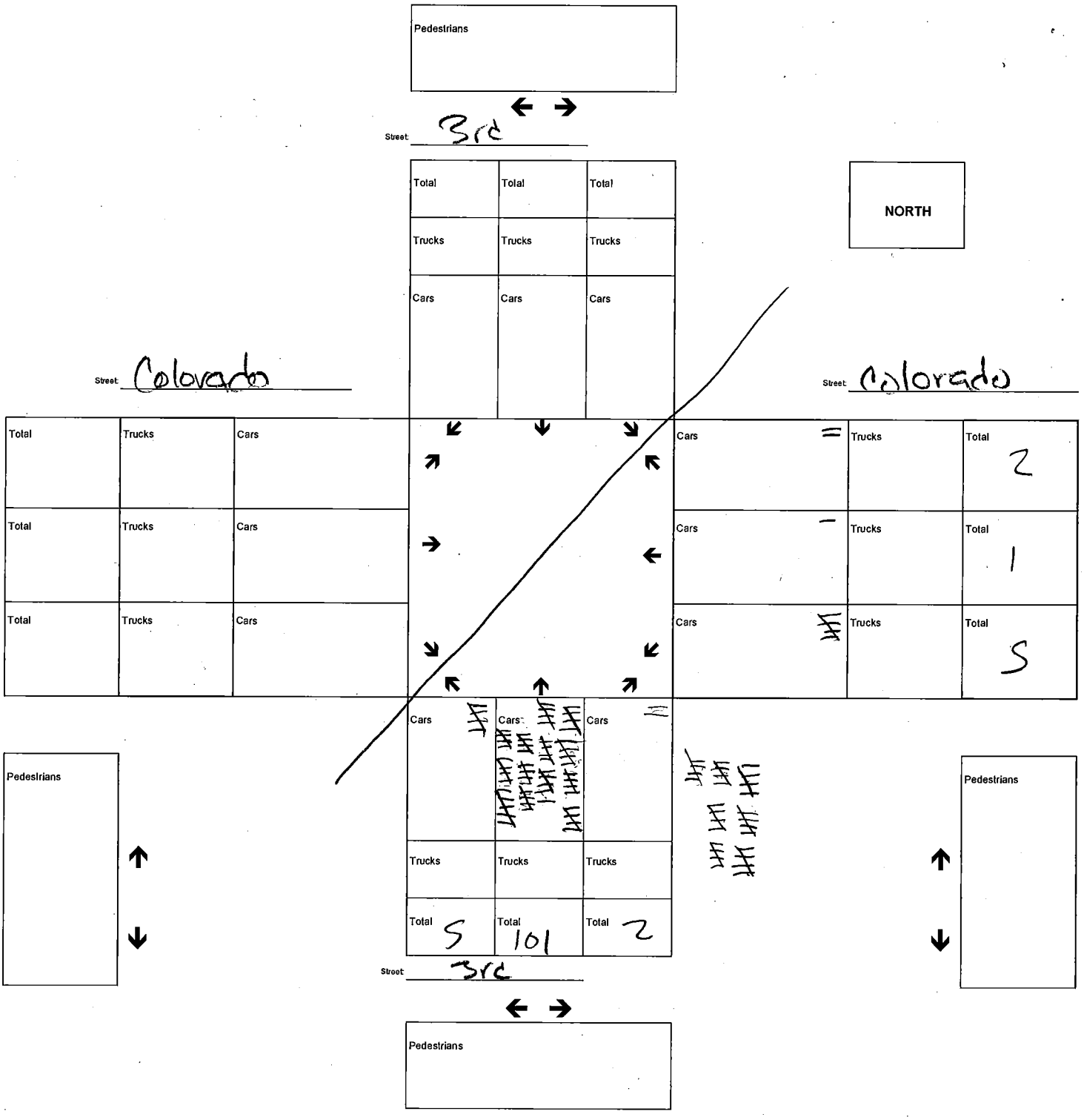
Intersection: Colorado & 3rd

Counter Name: Garrott

Start Time: 5:00

End Time: 5:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: Colorado & 3rd

Counter Name: Garrett

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

6

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total 2
Cars	Trucks	Total 0
Cars	Trucks	Total 4

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 1	Total 102	Total 12

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Colorado & 3rd

Counter Name: Garrett

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)

2

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total 2
Cars	Trucks	Total 0
Cars	Trucks	Total 8

Cars 1	Cars	Cars
Trucks	Trucks	Trucks
Total 1	Total 77	Total 8

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Colorado + 3rd

Counter Name: Garrett

Start Time: 5:45

End Time: 6:00

(15-Minute Increments Only)

8

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Street: Colorado

Total	Trucks	Cars				Cars	Trucks	Total 2
Total	Trucks	Cars				Cars	Trucks	Total 0
Total	Trucks	Cars				Cars	Trucks	Total 3

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 3	Total 88	Total 3

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

Colorado & 3rd

TURNING MOVEMENT WORKSHEET

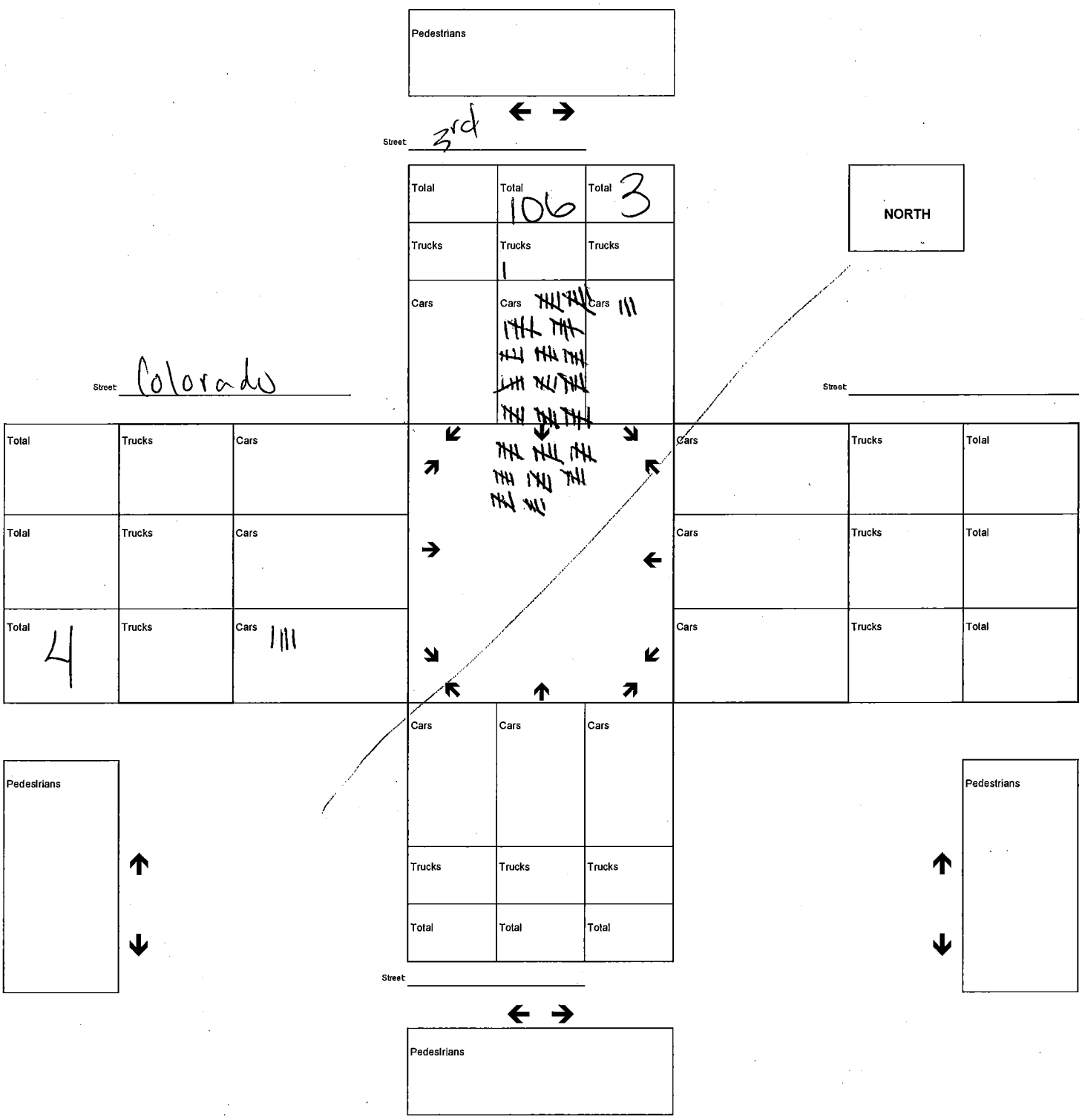
Intersection: Colorado & 3rd

Counter Name: Morgan Ben

Start Time: 4pm

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

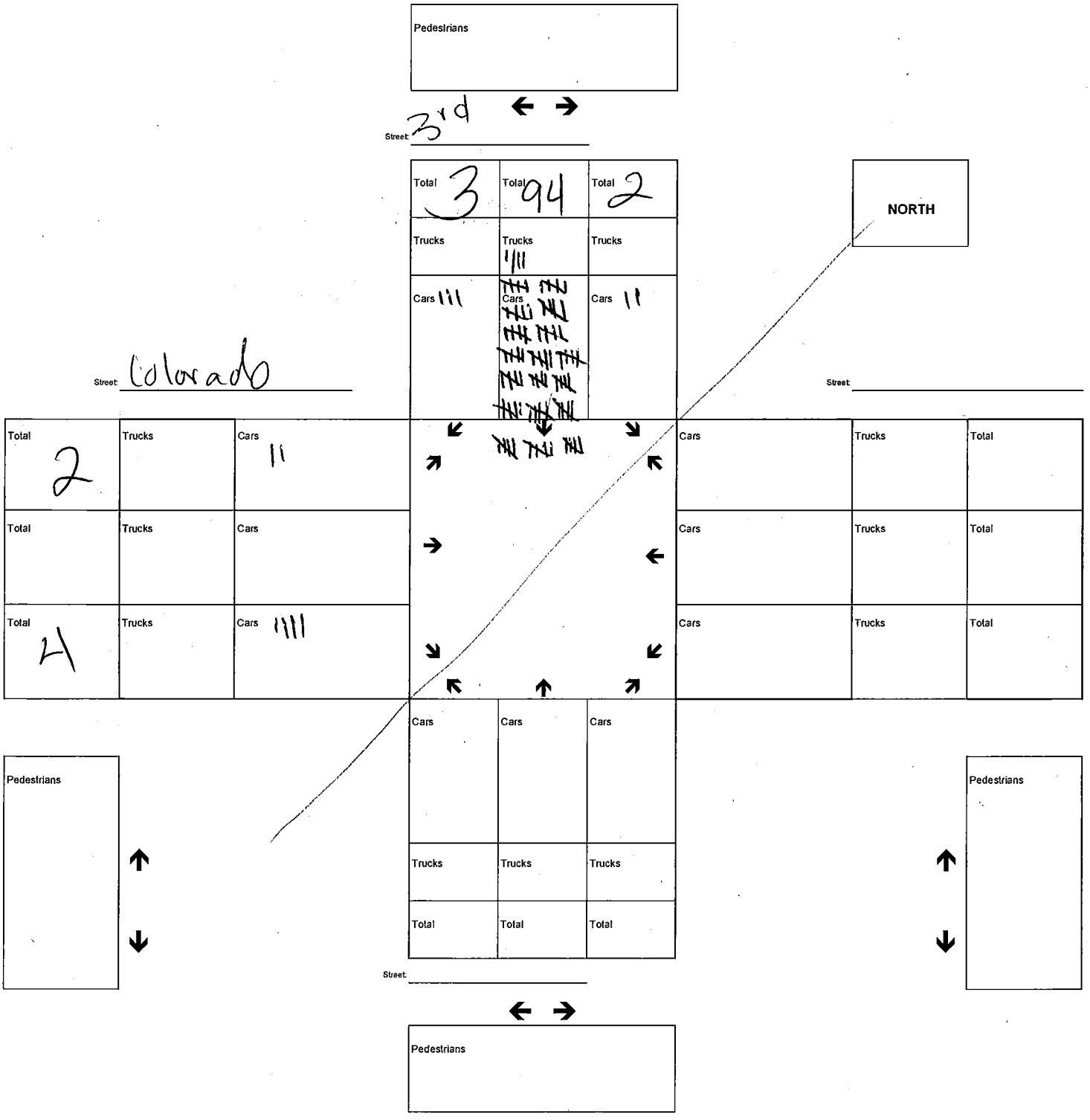
Intersection: B

Counter Name: Morgan

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: Morgen

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)

Pedestrians

Street: 3rd

Total 1	Total 115	Total 6
Trucks	Trucks 1	Trucks
Cars 1	Cars	Cars 1

NORTH

Street: Colorado

Street: _____

Total	Trucks	Cars
Total 1	Trucks	Cars 1
Total 2	Trucks	Cars 11

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

TURNING MOVEMENT WORKSHEET

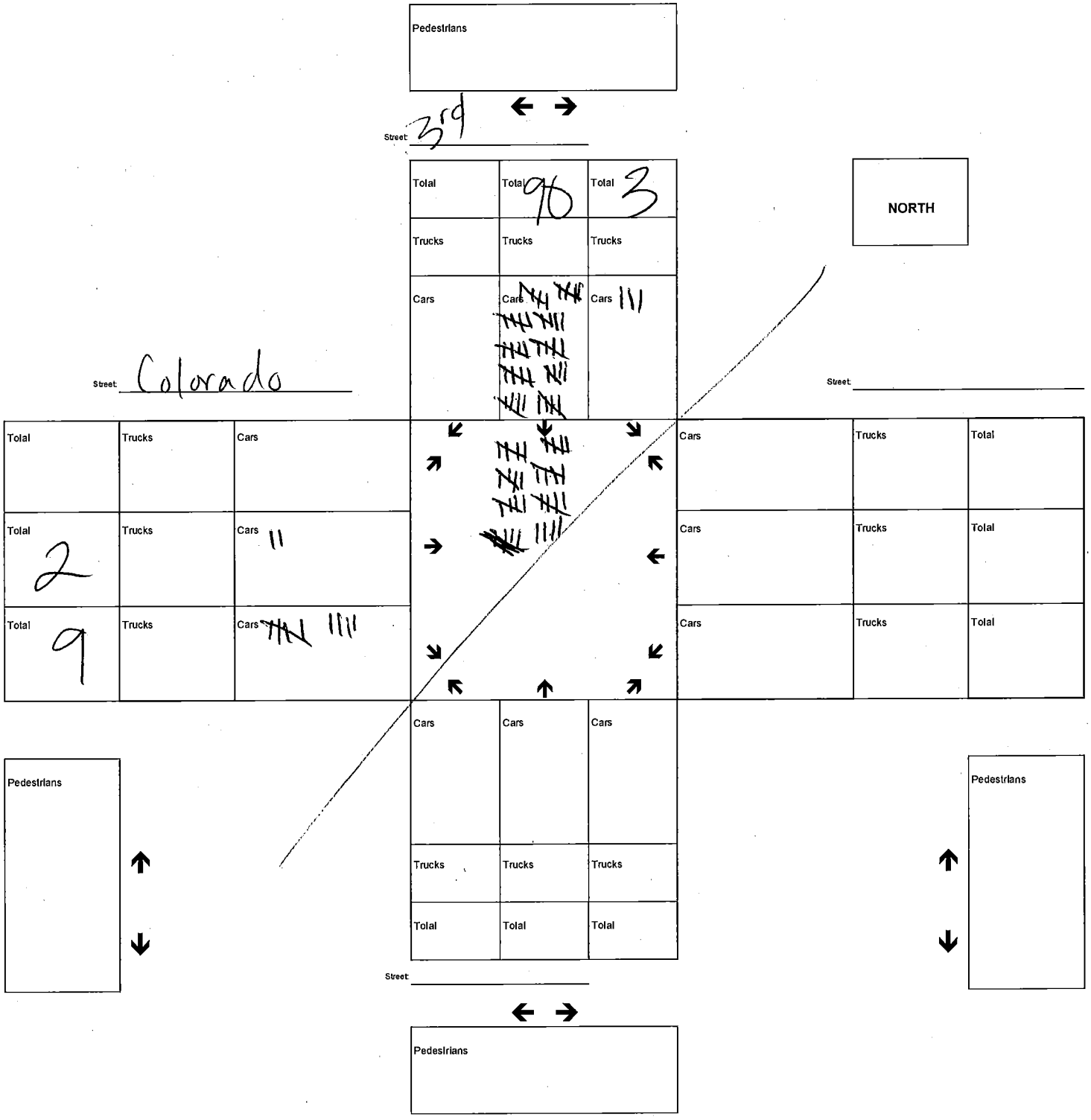
Intersection: _____

Counter Name: Morgan

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection:

Counter Name: Morgan

Start Time: 5-0

End Time: 5:15

(15-Minute Increments Only)

North approach

Pedestrians

← →

Street: 3rd

Total 2	Total 109	Total 2
Trucks	Trucks II	Trucks
Cars II	Cars [tally marks]	Cars II

NORTH

Street: Colorado

Street:

West approach

Total	Trucks	Cars
Total	Trucks	Cars
Total 10	Trucks	Cars [tally marks]

East approach

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

South approach

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street:

← →

Pedestrians

Pedestrians ↑ ↓

Pedestrians ↑ ↓

TURNING MOVEMENT WORKSHEET

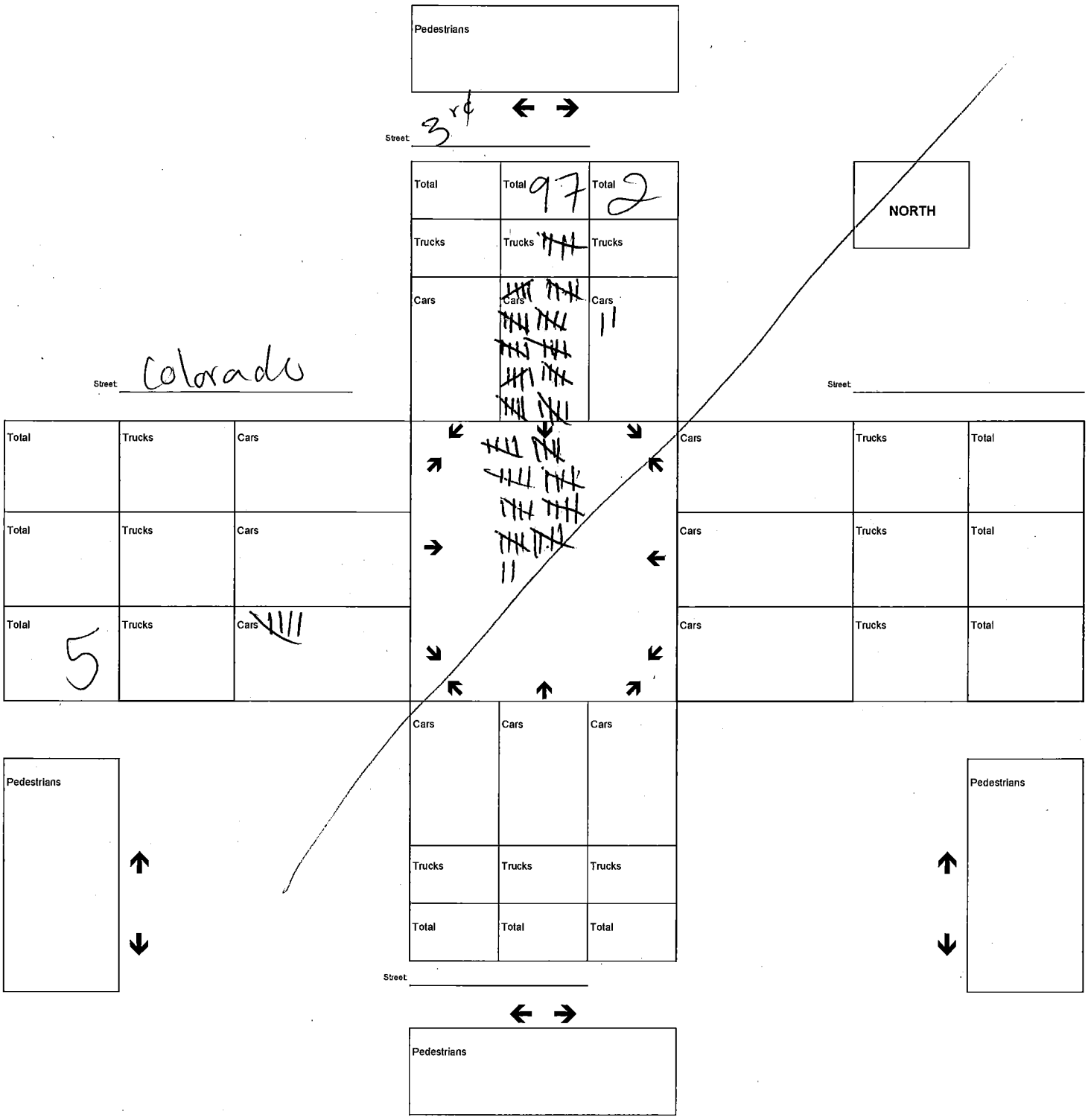
Intersection: _____

Counter Name: Morgan B.

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection: ______

Counter Name: Morgan

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)

North approach

Pedestrians: ← →

Street: 3rd

Total 2	Total 82	Total 4
Trucks	Trucks	Trucks
Cars 11	Cars 𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸𝍸 11	Cars 1111

NORTH

West approach

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total 2	Trucks	Cars 11

East approach

Street: ______

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

South approach

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: ______

← →

Pedestrians

Pedestrians ↑ ↓

Pedestrians ↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: _____

Counter Name: Morgan

Start Time: 5:45

End Time: 6 —

(15-Minute Increments Only)

Pedestrians

Street: 35th

Total	Total 86	Total 4
Trucks	Trucks III	Trucks
Cars	Cars	Cars IIII

NORTH

Street: Colorado

Street: _____

Total	Trucks	Cars
Total	Trucks	Cars
Total 5	Trucks	Cars IIII

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Pedestrians

Pedestrians

Street: _____

Pedestrians

Colorado & 3rd

TURNING MOVEMENT WORKSHEET

Intersection: 3rd & Colorado

Counter Name: Garrett

Start Time: 4:00 -

End Time: 4:15

(15-Minute Increments Only)

1

Pedestrians

Street: 3rd St

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: Colorado

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total 3

Pedestrians

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 6	Total 8	Total 1

Street: 3rd St

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

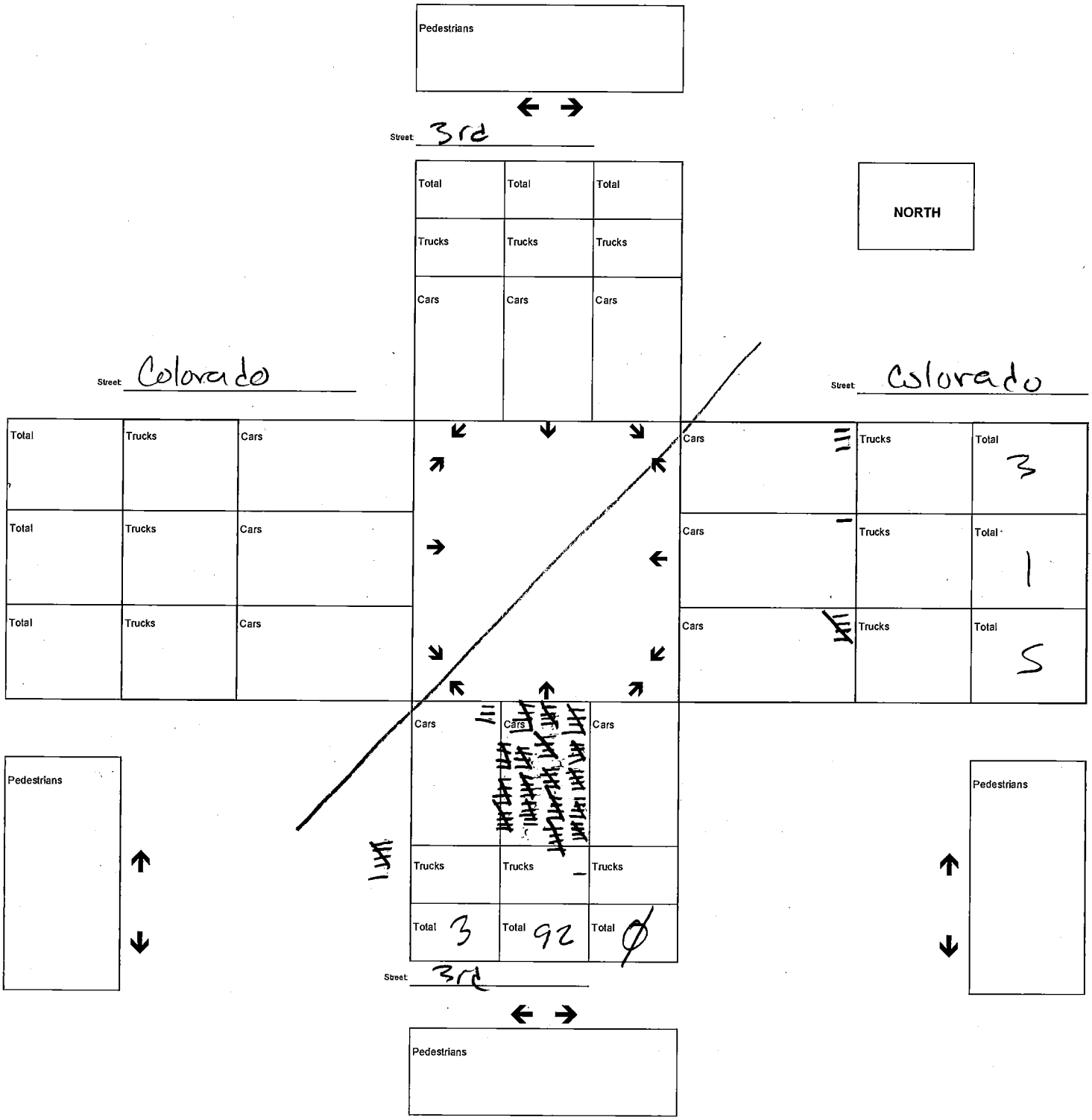
Intersection: Colorado & 3rd

Counter Name: Garrett Mapp

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

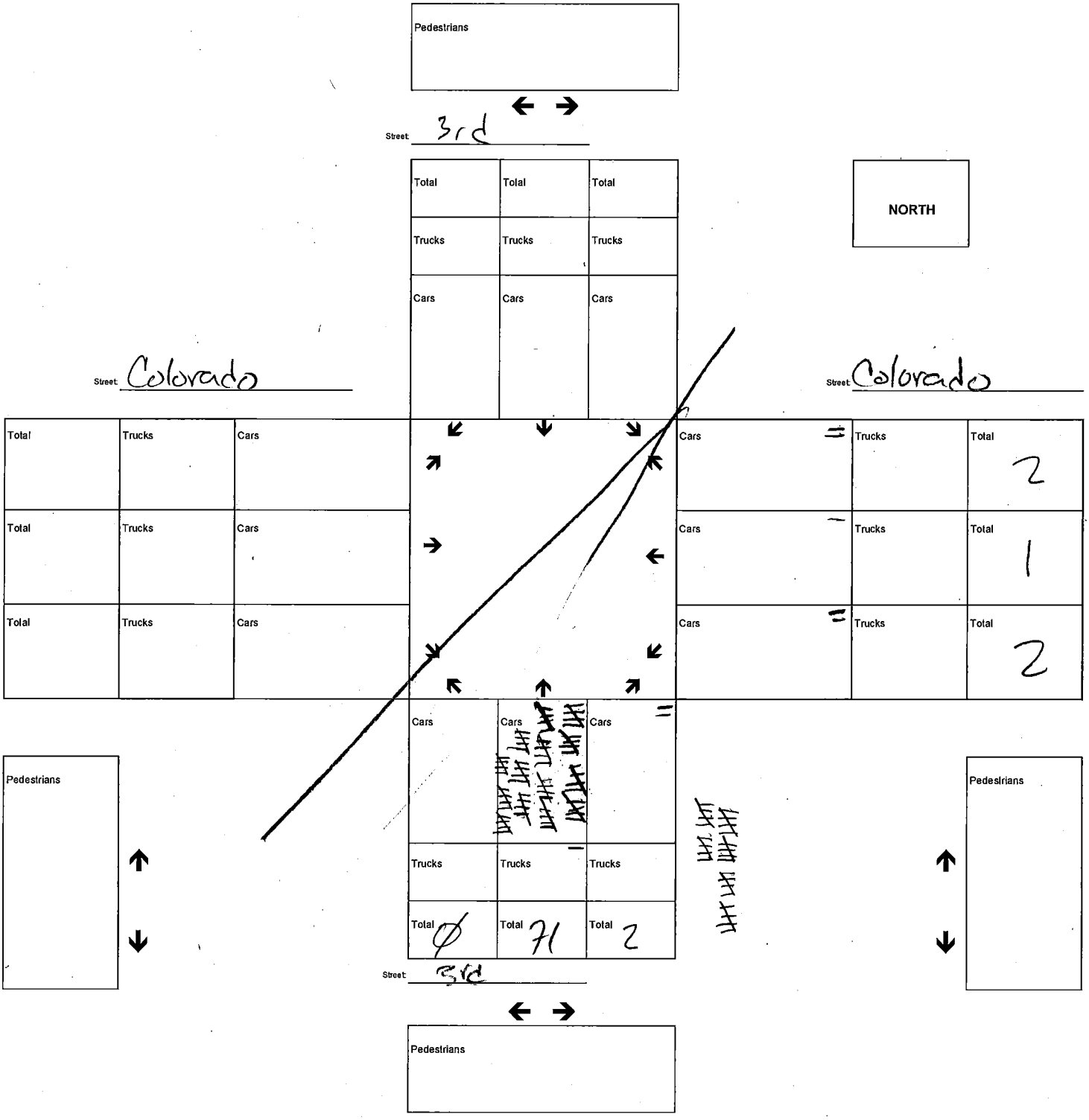
Intersection: Colorado & 3rd

Counter Name: Garrett

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

4

Intersection: Colorado + 3rd

Counter Name: Garrett

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: Colorado

Cars	Trucks	Total 1
Cars	Trucks	Total ∅
Cars	Trucks	Total 7

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 4	Total 91	Total 4

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

5

TURNING MOVEMENT WORKSHEET

Intersection: Colorado + 3rd

Counter Name: Garrott

Start Time: 5:00

End Time: 5:15

(15-Minute Increments Only)

Pedestrians

← →

Street 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street Colorado

Cars	Trucks	Total
Cars	Trucks	Total 2
Cars	Trucks	Total 1
Cars	Trucks	Total 5

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 5	Total 101	Total 2

Street 3rd

← →

Pedestrians

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Colorado & 3rd

Counter Name: Garrold

Start Time: 5:15

End Time: 5:30

(15-Minute Increments Only)

6

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Cars	Trucks	Total
Cars	Trucks	Total 2
Cars	Trucks	Total ϕ
Cars	Trucks	Total 4

Street: Colorado

Cars 1	Cars	Cars
Trucks	Trucks 1	Trucks
Total 1	Total 102	Total 12

Street: 3rd

Pedestrians

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Colorado & 3rd

Counter Name: Garrett

Start Time: 5:30

End Time: 5:45

(15-Minute Increments Only)

2

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total	Trucks	Cars

Street: Colorado

Cars	Trucks	Total 2
Cars	Trucks	Total 0
Cars	Trucks	Total 8

Pedestrians

Cars 1	Cars	Cars
Trucks	Trucks	Trucks
Total 1	Total 77	Total 8

Street: 3rd

Pedestrians

Pedestrians

TURNING MOVEMENT WORKSHEET

Intersection: Colorado + 3rd

Counter Name: Garrett

Start Time: 5:45

End Time: 6:00

(15-Minute Increments Only)

8

Pedestrians

Street: 3rd

Total	Total	Total
Trucks	Trucks	Trucks
Cars	Cars	Cars

NORTH

Street: Colorado

Street: Colorado

Total	Trucks	Cars				Cars	Trucks	Total 2
Total	Trucks	Cars				Cars	Trucks	Total 0
Total	Trucks	Cars				Cars	Trucks	Total 3

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total 3	Total 88	Total 3

Pedestrians

Pedestrians

Street: 3rd

Pedestrians

Colorado & 3rd

TURNING MOVEMENT WORKSHEET

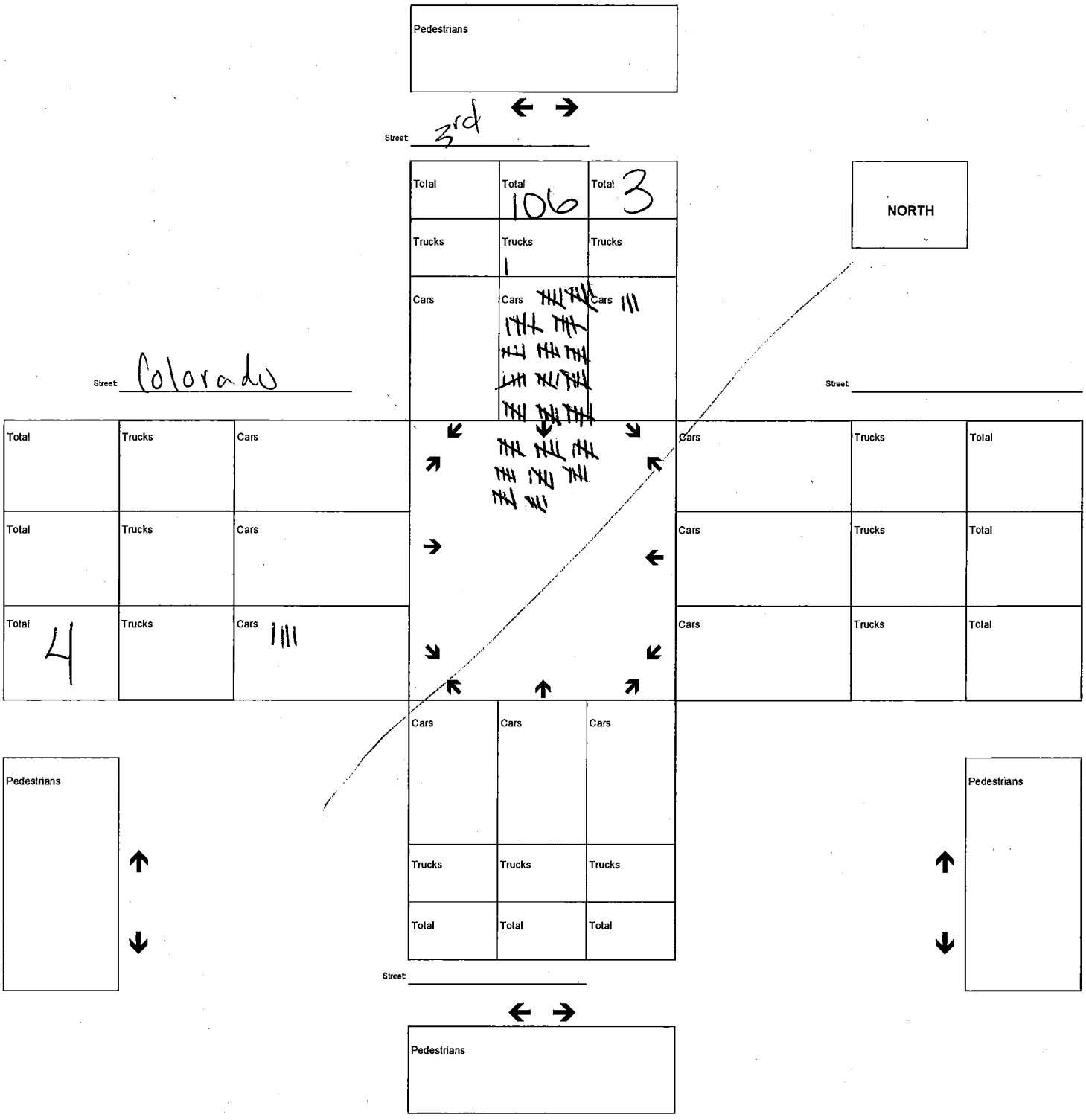
Intersection: Colorado & 3rd

Counter Name: Morgan Bem

Start Time: 4PM

End Time: 4:15

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

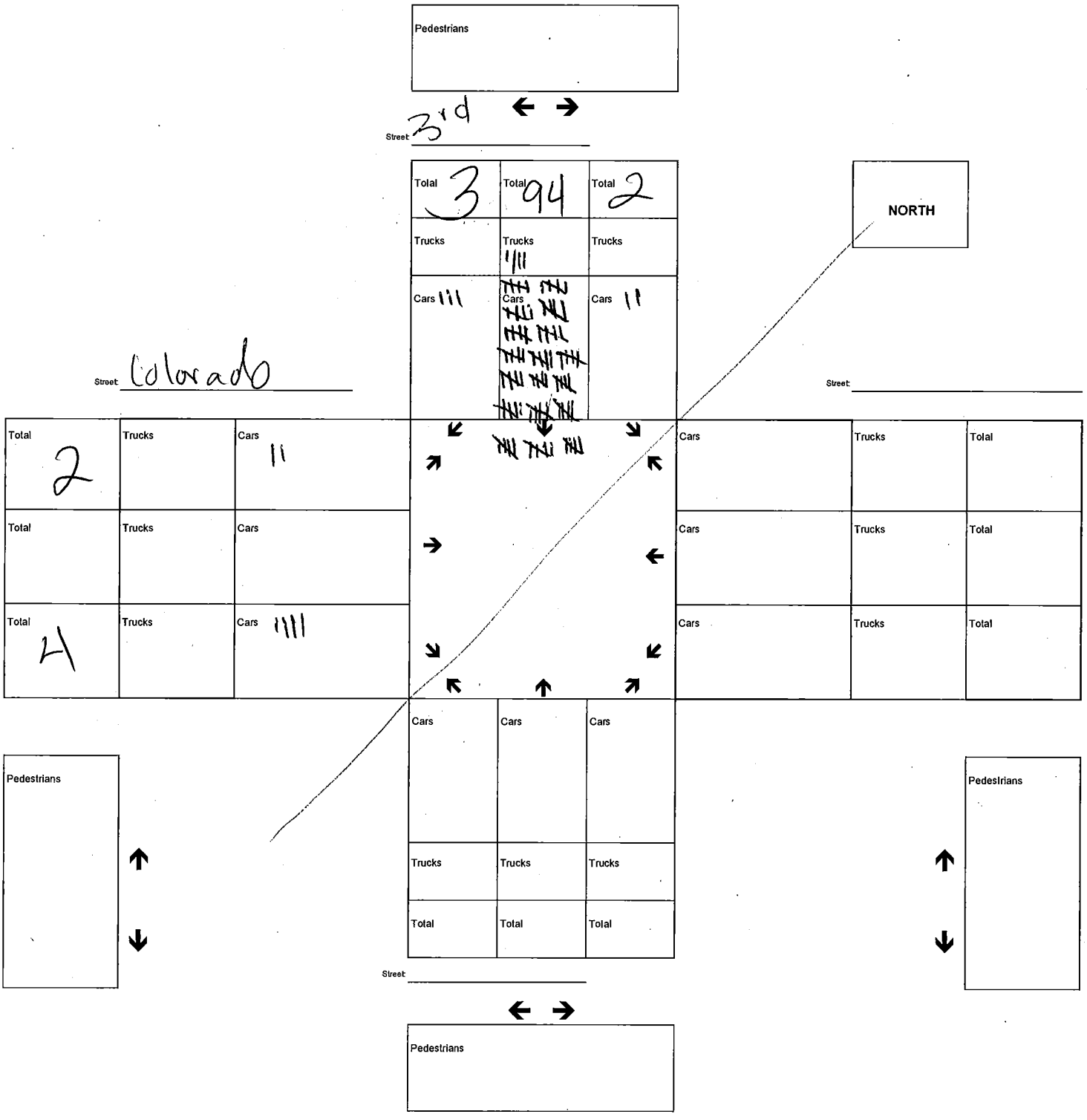
Intersection: B

Counter Name: Morgan

Start Time: 4:15

End Time: 4:30

(15-Minute Increments Only)



TURNING MOVEMENT WORKSHEET

Intersection:

Counter Name: Morgan

Start Time: 4:30

End Time: 4:45

(15-Minute Increments Only)

Pedestrians

← →

Street 3rd

Total 1	Total 115	Total 6
Trucks	Trucks 1	Trucks
Cars 1	Cars	Cars 1

NORTH

Street Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total 1	Trucks	Cars 1
Total 2	Trucks	Cars 11

Street

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street

← →

Pedestrians

Pedestrians

↑ ↓

Pedestrians

↑ ↓

TURNING MOVEMENT WORKSHEET

Intersection: ______________________________

Counter Name: Morgan

Start Time: 4:45

End Time: 5:00

(15-Minute Increments Only)

Pedestrians

← →

Street: 3rd

Total	Total 96	Total 3
Trucks	Trucks	Trucks
Cars	Cars	Cars |||

NORTH

Street: Colorado

Total	Trucks	Cars
Total	Trucks	Cars
Total 2	Trucks	Cars ||
Total 9	Trucks	Cars ||||| ||||

Street: ______________________________

Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total
Cars	Trucks	Total

Pedestrians

↑ ↓

Pedestrians

↑ ↓

Cars	Cars	Cars
Trucks	Trucks	Trucks
Total	Total	Total

Street: ______________________________

← →

Pedestrians

Attachment D Signal Warrant Analysis Worksheets

KITTELSON & ASSOCIATES, INC.
101 South Capitol Blvd, Suite 301
Boise, Idaho 83702
(208) 338-2683
Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 12/8/2016
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_SWA_Park&3rd_Peak Season Peak Hour.xls]War #3 - Peak HR
Intersection: N 3rd Street (SH-55)/Park Street
Scenario: 2016 Off-Peak Season p.m. Peak Hour Volumes

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

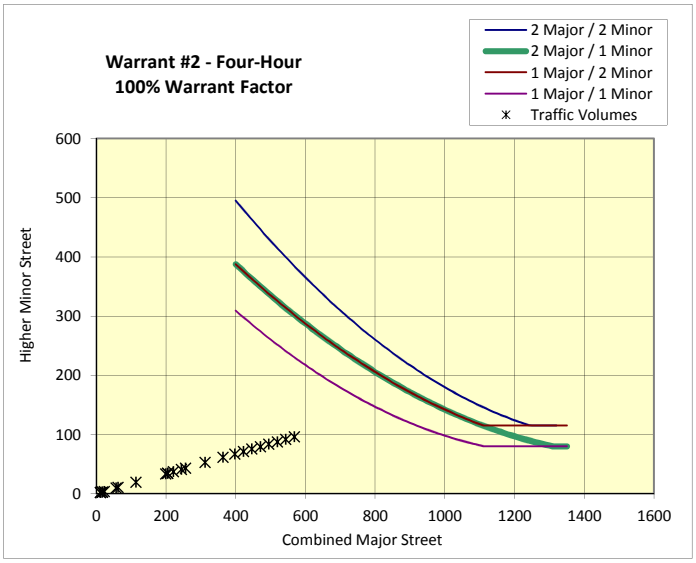
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	279	289	96	84
2nd	Highest Hour	267	277	92	80
3rd	Highest Hour	255	264	88	77
4th	Highest Hour	243	252	84	73
5th	Highest Hour	231	239	80	70
6th	Highest Hour	219	227	75	66
7th	Highest Hour	207	215	71	62
8th	Highest Hour	195	202	67	59
9th	Highest Hour	179	185	61	54
10th	Highest Hour	153	159	53	46
11th	Highest Hour	126	130	43	38
12th	Highest Hour	120	124	41	36
13th	Highest Hour	109	113	37	33
14th	Highest Hour	100	104	35	30
15th	Highest Hour	100	104	35	30
16th	Highest Hour	98	101	34	29
17th	Highest Hour	56	58	19	17
18th	Highest Hour	31	32	11	9
19th	Highest Hour	28	29	10	8
20th	Highest Hour	11	12	4	3
21st	Highest Hour	8	9	3	3
22nd	Highest Hour	8	9	3	3
23rd	Highest Hour	6	6	2	2
24th	Highest Hour	6	6	2	2

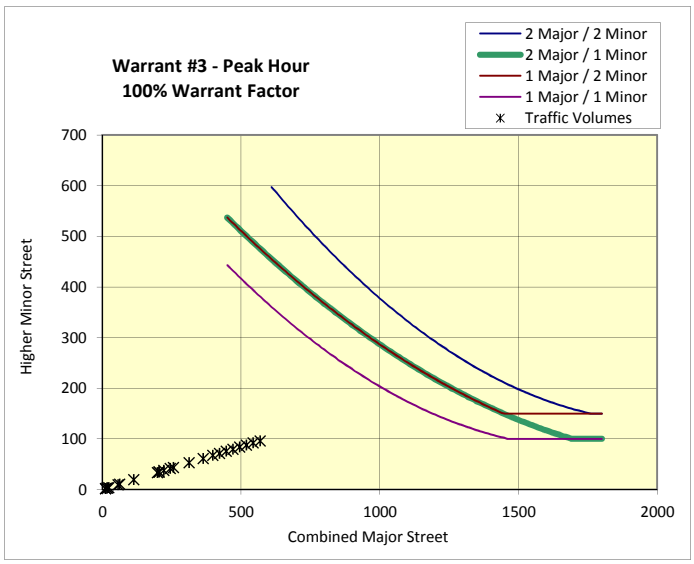
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	0	No	**No**
	B	750	75	0	No	
80%	A	400	120	0	No	**No**
	B	600	60	0	No	
70%	A	350	105	0	No	**No**
	B	525	53	2	No	





Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	279	289	96	84
2nd	Highest Hour	267	277	92	80
3rd	Highest Hour	255	264	88	77
4th	Highest Hour	243	252	84	73
5th	Highest Hour	231	239	80	70
6th	Highest Hour	219	227	75	66
7th	Highest Hour	207	215	71	62
8th	Highest Hour	195	202	67	59
9th	Highest Hour	179	185	61	54
10th	Highest Hour	153	159	53	46
11th	Highest Hour	126	130	43	38
12th	Highest Hour	120	124	41	36
13th	Highest Hour	109	113	37	33
14th	Highest Hour	100	104	35	30
15th	Highest Hour	100	104	35	30
16th	Highest Hour	98	101	34	29
17th	Highest Hour	56	58	19	17
18th	Highest Hour	31	32	11	9
19th	Highest Hour	28	29	10	8
20th	Highest Hour	11	12	4	3
21st	Highest Hour	8	9	3	3
22nd	Highest Hour	8	9	3	3
23rd	Highest Hour	6	6	2	2
24th	Highest Hour	6	6	2	2

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
568	96	187	No
544	92	197	No
519	88	208	No
495	84	219	No
471	80	230	No
446	75	242	No
422	71	254	No
398	67	266	No
364	61	284	No
312	53	313	No
256	43	347	No
244	41	354	No
222	37	369	No
204	35	380	No
204	35	380	No
199	34	384	No
114	19	443	No
62	11	481	No
57	10	485	No
23	4	511	No
17	3	516	No
17	3	516	No
11	2	520	No
11	2	520	No
			0

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	100% Factor
2	2 or more	1	1760	0.00015	0.67328	809.779	100	
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	70% Factor
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	

Is Warrant #3 met based on the applicable warrant factor? **No**

Condition A Criteria

	EB	WB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	11.3	13.2
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	0.30	0.31
	No	No
Volume on Minor Street Approach During Same Hour	96	84
	No	No
Total Entering Volume On All Approaches During Same Hour	748	
Number of Approaches to Intersection	4	
	No	

Is Warrant #3 met based on Condition A criteria? **No**

KITTELSON & ASSOCIATES, INC.
101 South Capitol Blvd, Suite 301
Boise, Idaho 83702
(208) 338-2683
Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 12/8/2016
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_Signal Warrant Analysis_3rd_Park.xls]War #3 - Peak HR
Intersection: N 3rd Street (SH-55)/Park Street
Scenario: 2016 Peak Season p.m. Peak Hour Volumes

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	Yes
#2	Four-Hour Vehicular volume	Yes	Yes
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

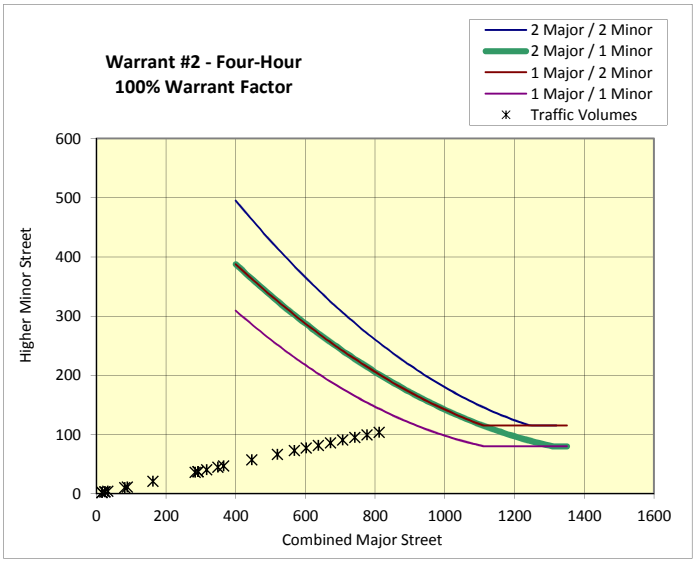
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	462	349	101	104
2nd	Highest Hour	442	334	97	100
3rd	Highest Hour	422	319	92	95
4th	Highest Hour	403	304	88	91
5th	Highest Hour	383	289	84	86
6th	Highest Hour	363	274	79	82
7th	Highest Hour	343	259	75	77
8th	Highest Hour	323	244	71	73
9th	Highest Hour	296	223	65	67
10th	Highest Hour	254	192	56	57
11th	Highest Hour	208	157	45	47
12th	Highest Hour	199	150	43	45
13th	Highest Hour	180	136	39	41
14th	Highest Hour	166	126	36	37
15th	Highest Hour	166	126	36	37
16th	Highest Hour	162	122	35	36
17th	Highest Hour	92	70	20	21
18th	Highest Hour	51	38	11	11
19th	Highest Hour	46	35	10	10
20th	Highest Hour	18	14	4	4
21st	Highest Hour	14	10	3	3
22nd	Highest Hour	14	10	3	3
23rd	Highest Hour	9	7	2	2
24th	Highest Hour	9	7	2	2

Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	0	No	**No**
	B	750	75	2	No	
80%	A	400	120	0	No	**No**
	B	600	60	7	No	
70%	A	350	105	0	No	**Yes**
	B	525	53	8	Yes	



Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	462	349	101	104
2nd	Highest Hour	442	334	97	100
3rd	Highest Hour	422	319	92	95
4th	Highest Hour	403	304	88	91
5th	Highest Hour	383	289	84	86
6th	Highest Hour	363	274	79	82
7th	Highest Hour	343	259	75	77
8th	Highest Hour	323	244	71	73
9th	Highest Hour	296	223	65	67
10th	Highest Hour	254	192	56	57
11th	Highest Hour	208	157	45	47
12th	Highest Hour	199	150	43	45
13th	Highest Hour	180	136	39	41
14th	Highest Hour	166	126	36	37
15th	Highest Hour	166	126	36	37
16th	Highest Hour	162	122	35	36
17th	Highest Hour	92	70	20	21
18th	Highest Hour	51	38	11	11
19th	Highest Hour	46	35	10	10
20th	Highest Hour	18	14	4	4
21st	Highest Hour	14	10	3	3
22nd	Highest Hour	14	10	3	3
23rd	Highest Hour	9	7	2	2
24th	Highest Hour	9	7	2	2

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
811	104	110	No
776	100	118	No
741	95	128	No
707	91	138	No
672	86	149	No
637	82	161	No
602	77	174	No
568	73	187	No
519	67	208	No
446	57	242	No
365	47	284	No
349	45	292	No
316	41	311	No
292	37	325	No
292	37	325	No
284	36	330	No
162	21	409	No
89	11	461	No
81	10	467	No
32	4	504	No
24	3	510	No
24	3	510	No
16	2	516	No
16	2	516	No
			0

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	100% Factor
2	2 or more	1	1760	0.00015	0.67328	809.779	100	
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	70% Factor
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	

Is Warrant #3 met based on the applicable warrant factor? **No**

Condition A Criteria

	EB	WB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	16.9	22.2
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	0.47	0.64
	No	No
Volume on Minor Street Approach During Same Hour	101	104
	Yes	Yes
Total Entering Volume On All Approaches During Same Hour	1016	
Number of Approaches to Intersection	4	
	Yes	

Is Warrant #3 met based on Condition A criteria? **No**

KITTELSON & ASSOCIATES, INC.
101 South Capitol Blvd, Suite 301
Boise, Idaho 83702
(208) 338-2683
Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 12/8/2016
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_SWA_Park&3rd_Peak Season Peak Hour.xls]War #3 - Peak HR
Intersection: N 3rd Street (SH-55)/Park Street
Scenario: 2016 Off-Peak Season p.m. Peak Hour Volumes

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

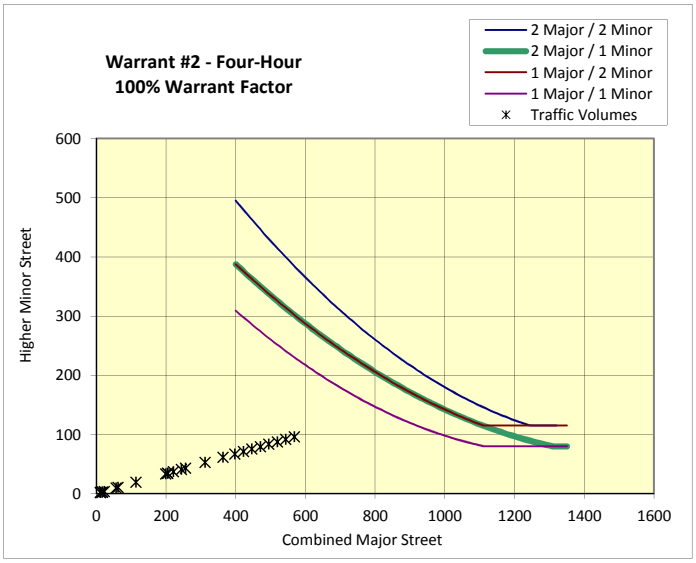
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	279	289	96	84
2nd	Highest Hour	267	277	92	80
3rd	Highest Hour	255	264	88	77
4th	Highest Hour	243	252	84	73
5th	Highest Hour	231	239	80	70
6th	Highest Hour	219	227	75	66
7th	Highest Hour	207	215	71	62
8th	Highest Hour	195	202	67	59
9th	Highest Hour	179	185	61	54
10th	Highest Hour	153	159	53	46
11th	Highest Hour	126	130	43	38
12th	Highest Hour	120	124	41	36
13th	Highest Hour	109	113	37	33
14th	Highest Hour	100	104	35	30
15th	Highest Hour	100	104	35	30
16th	Highest Hour	98	101	34	29
17th	Highest Hour	56	58	19	17
18th	Highest Hour	31	32	11	9
19th	Highest Hour	28	29	10	8
20th	Highest Hour	11	12	4	3
21st	Highest Hour	8	9	3	3
22nd	Highest Hour	8	9	3	3
23rd	Highest Hour	6	6	2	2
24th	Highest Hour	6	6	2	2

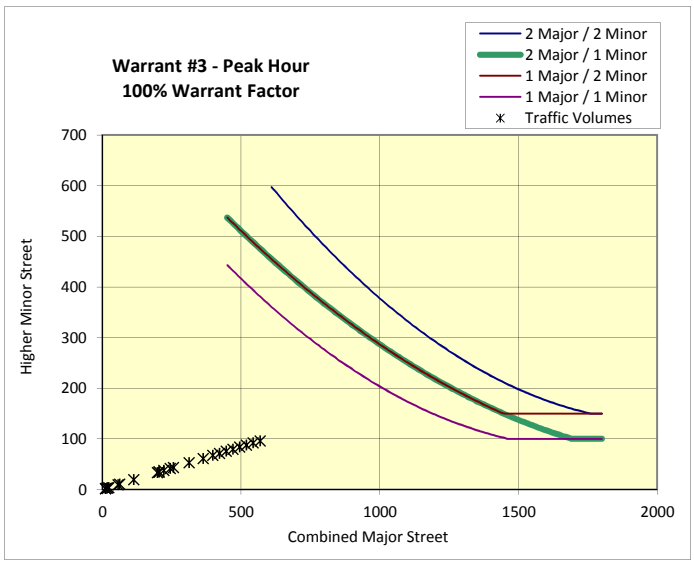
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	0	No	**No**
	B	750	75	0	No	
80%	A	400	120	0	No	**No**
	B	600	60	0	No	
70%	A	350	105	0	No	**No**
	B	525	53	2	No	





Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:30 PM	5:30 PM	279	289	96	84
2nd	Highest Hour	267	277	92	80
3rd	Highest Hour	255	264	88	77
4th	Highest Hour	243	252	84	73
5th	Highest Hour	231	239	80	70
6th	Highest Hour	219	227	75	66
7th	Highest Hour	207	215	71	62
8th	Highest Hour	195	202	67	59
9th	Highest Hour	179	185	61	54
10th	Highest Hour	153	159	53	46
11th	Highest Hour	126	130	43	38
12th	Highest Hour	120	124	41	36
13th	Highest Hour	109	113	37	33
14th	Highest Hour	100	104	35	30
15th	Highest Hour	100	104	35	30
16th	Highest Hour	98	101	34	29
17th	Highest Hour	56	58	19	17
18th	Highest Hour	31	32	11	9
19th	Highest Hour	28	29	10	8
20th	Highest Hour	11	12	4	3
21st	Highest Hour	8	9	3	3
22nd	Highest Hour	8	9	3	3
23rd	Highest Hour	6	6	2	2
24th	Highest Hour	6	6	2	2

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
568	96	187	No
544	92	197	No
519	88	208	No
495	84	219	No
471	80	230	No
446	75	242	No
422	71	254	No
398	67	266	No
364	61	284	No
312	53	313	No
256	43	347	No
244	41	354	No
222	37	369	No
204	35	380	No
204	35	380	No
199	34	384	No
114	19	443	No
62	11	481	No
57	10	485	No
23	4	511	No
17	3	516	No
17	3	516	No
11	2	520	No
11	2	520	No
			0

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	100% Factor
2	2 or more	1	1760	0.00015	0.67328	809.779	100	
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	70% Factor
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	

Is Warrant #3 met based on the applicable warrant factor? **No**

Condition A Criteria

	EB	WB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	11.3	13.2
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	0.30	0.31
	No	No
Volume on Minor Street Approach During Same Hour	96	84
	No	No
Total Entering Volume On All Approaches During Same Hour	748	
Number of Approaches to Intersection	4	
	No	

Is Warrant #3 met based on Condition A criteria? **No**

KITTELSON & ASSOCIATES, INC.
101 South Capitol Blvd, Suite 301
Boise, Idaho 83702
(208) 338-2683
Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 12/8/2016
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_SWA_railroad&3rd_Peak Season Peak Hour.xls]War #3 - Peak HR
Intersection: N 3rd Street (SH-55)/Railroad Avenue
Scenario: 2016 Off-Peak Season p.m. Peak Hour Volumes

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

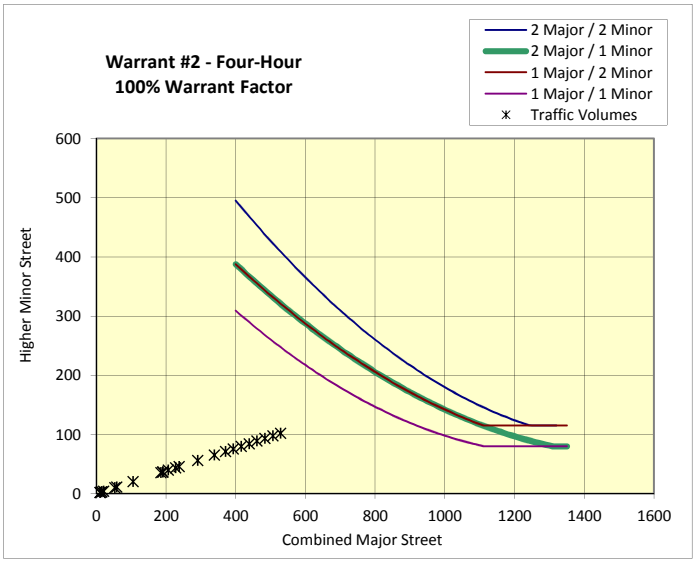
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:00 PM	5:00 PM	271	258	71	102
2nd	Highest Hour	259	247	68	98
3rd	Highest Hour	248	236	65	93
4th	Highest Hour	236	225	62	89
5th	Highest Hour	225	214	59	85
6th	Highest Hour	213	203	56	80
7th	Highest Hour	201	192	53	76
8th	Highest Hour	190	181	50	71
9th	Highest Hour	173	165	45	65
10th	Highest Hour	149	142	39	56
11th	Highest Hour	122	116	32	46
12th	Highest Hour	117	111	31	44
13th	Highest Hour	106	101	28	40
14th	Highest Hour	98	93	26	37
15th	Highest Hour	98	93	26	37
16th	Highest Hour	95	90	25	36
17th	Highest Hour	54	52	14	20
18th	Highest Hour	30	28	8	11
19th	Highest Hour	27	26	7	10
20th	Highest Hour	11	10	3	4
21st	Highest Hour	8	8	2	3
22nd	Highest Hour	8	8	2	3
23rd	Highest Hour	5	5	1	2
24th	Highest Hour	5	5	1	2

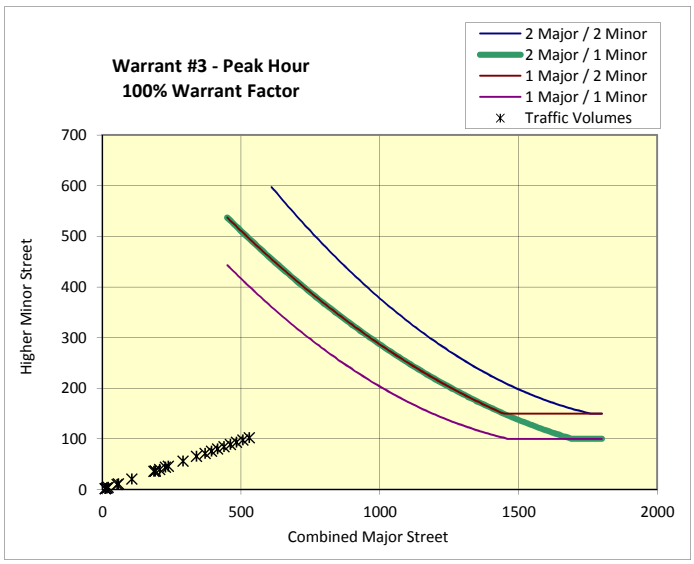
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	0	No	**No**
	B	750	75	0	No	
80%	A	400	120	0	No	**No**
	B	600	60	0	No	
70%	A	350	105	0	No	**No**
	B	525	53	1	No	





Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:00 PM	5:00 PM	271	258	71	102
2nd	Highest Hour	259	247	68	98
3rd	Highest Hour	248	236	65	93
4th	Highest Hour	236	225	62	89
5th	Highest Hour	225	214	59	85
6th	Highest Hour	213	203	56	80
7th	Highest Hour	201	192	53	76
8th	Highest Hour	190	181	50	71
9th	Highest Hour	173	165	45	65
10th	Highest Hour	149	142	39	56
11th	Highest Hour	122	116	32	46
12th	Highest Hour	117	111	31	44
13th	Highest Hour	106	101	28	40
14th	Highest Hour	98	93	26	37
15th	Highest Hour	98	93	26	37
16th	Highest Hour	95	90	25	36
17th	Highest Hour	54	52	14	20
18th	Highest Hour	30	28	8	11
19th	Highest Hour	27	26	7	10
20th	Highest Hour	11	10	3	4
21st	Highest Hour	8	8	2	3
22nd	Highest Hour	8	8	2	3
23rd	Highest Hour	5	5	1	2
24th	Highest Hour	5	5	1	2

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
529	102	204	No
506	98	213	No
484	93	224	No
461	89	234	No
438	85	245	No
416	80	257	No
393	76	269	No
370	71	281	No
339	65	298	No
291	56	326	No
238	46	358	No
227	44	365	No
206	40	379	No
190	37	389	No
190	37	389	No
185	36	393	No
106	20	448	No
58	11	484	No
53	10	488	No
21	4	512	No
16	3	517	No
16	3	517	No
11	2	521	No
11	2	521	No
			0

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	100% Factor
2	2 or more	1	1760	0.00015	0.67328	809.779	100	
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	70% Factor
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	

Is Warrant #3 met based on the applicable warrant factor? **No**

Condition A Criteria

	EB	WB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	10.7	13.2
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	0.21	0.37
	No	No
Volume on Minor Street Approach During Same Hour	71	102
	No	Yes
Total Entering Volume On All Approaches During Same Hour	702	
Number of Approaches to Intersection	4	
	No	

Is Warrant #3 met based on Condition A criteria? **No**

KITTELSON & ASSOCIATES, INC.
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(208) 338-2683
Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 12/8/2016
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_Signal Warrant Analysis_3rd_Railroad.xls]War #3 - Peak HR
Intersection: N 3rd Street (SH-55)/Railroad Avenue
Scenario: 2016 Peak Season p.m. Peak Hour Volumes

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	Yes
#2	Four-Hour Vehicular volume	Yes	Yes
#3	Peak Hour	Yes	Yes*
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

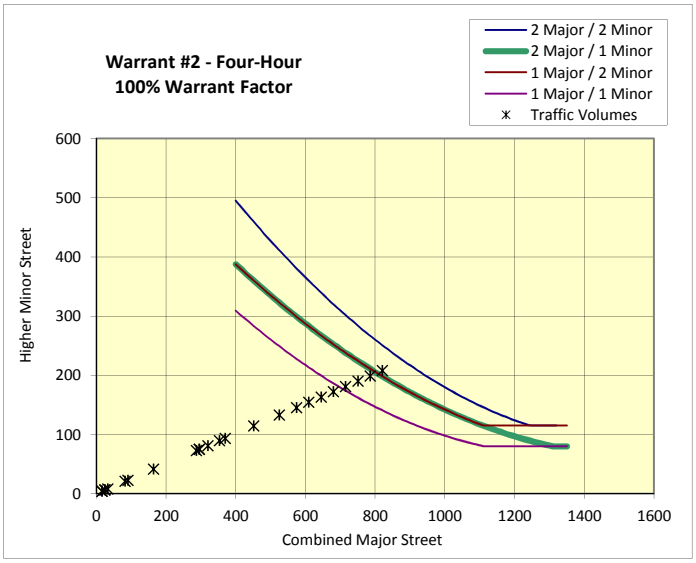
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:00 PM	5:00 PM	423	398	208	142
2nd	Highest Hour	405	381	199	136
3rd	Highest Hour	387	364	190	130
4th	Highest Hour	369	347	181	124
5th	Highest Hour	350	330	172	118
6th	Highest Hour	332	313	163	112
7th	Highest Hour	314	296	155	105
8th	Highest Hour	296	279	146	99
9th	Highest Hour	271	255	133	91
10th	Highest Hour	233	219	114	78
11th	Highest Hour	190	179	94	64
12th	Highest Hour	182	171	89	61
13th	Highest Hour	165	155	81	55
14th	Highest Hour	152	143	75	51
15th	Highest Hour	152	143	75	51
16th	Highest Hour	148	139	73	50
17th	Highest Hour	85	80	42	28
18th	Highest Hour	47	44	23	16
19th	Highest Hour	42	40	21	14
20th	Highest Hour	17	16	8	6
21st	Highest Hour	13	12	6	4
22nd	Highest Hour	13	12	6	4
23rd	Highest Hour	8	8	4	3
24th	Highest Hour	8	8	4	3

Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	7	No	**No**
	B	750	75	3	No	
80%	A	400	120	9	Yes	**Yes**
	B	600	60	7	No	
70%	A	350	105	10	Yes	**Yes**
	B	525	53	9	Yes	



Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
4:00 PM	5:00 PM	423	398	208	142
2nd	Highest Hour	405	381	199	136
3rd	Highest Hour	387	364	190	130
4th	Highest Hour	369	347	181	124
5th	Highest Hour	350	330	172	118
6th	Highest Hour	332	313	163	112
7th	Highest Hour	314	296	155	105
8th	Highest Hour	296	279	146	99
9th	Highest Hour	271	255	133	91
10th	Highest Hour	233	219	114	78
11th	Highest Hour	190	179	94	64
12th	Highest Hour	182	171	89	61
13th	Highest Hour	165	155	81	55
14th	Highest Hour	152	143	75	51
15th	Highest Hour	152	143	75	51
16th	Highest Hour	148	139	73	50
17th	Highest Hour	85	80	42	28
18th	Highest Hour	47	44	23	16
19th	Highest Hour	42	40	21	14
20th	Highest Hour	17	16	8	6
21st	Highest Hour	13	12	6	4
22nd	Highest Hour	13	12	6	4
23rd	Highest Hour	8	8	4	3
24th	Highest Hour	8	8	4	3

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
821	208	108	Yes
786	199	116	Yes
751	190	125	Yes
715	181	135	Yes
680	172	146	Yes
645	163	158	Yes
610	155	171	No
575	146	185	No
525	133	205	No
452	114	239	No
369	94	281	No
353	89	290	No
320	81	309	No
296	75	323	No
296	75	323	No
287	73	328	No
164	42	407	No
90	23	460	No
82	21	466	No
33	8	503	No
25	6	510	No
25	6	510	No
16	4	516	No
16	4	516	No
			6

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	100% Factor
2	2 or more	1	1760	0.00015	0.67328	809.779	100	
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	70% Factor
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	

Is Warrant #3 met based on the applicable warrant factor? **Yes**

Condition A Criteria

	EB	WB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	118.6	19.1
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	6.85	0.75
	Yes	No
Volume on Minor Street Approach During Same Hour	208	142
	Yes	Yes
Total Entering Volume On All Approaches During Same Hour	1171	
Number of Approaches to Intersection	4	
	Yes	

Is Warrant #3 met based on Condition A criteria? **Yes**

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Fax: (208) 338-2685

Project #: 19638
Project Name: McCall Transportation Master Plan
Analyst: JGM
Date: 2/10/2017
File: H:\projfile\19638 - McCall Comprehensive Plan\excel\Signal Warrant\[19638_SWA_RR&3rd_off-peak FUTURE_ADJUSTED.xls]War #3 - Peak HR
Intersection: Boydstun Street/W Lake Street
Scenario: 2040 Peak Future Volumes w BYPASS

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	Yes
#2	Four-Hour Vehicular volume	Yes	Yes
#3	Peak Hour	Yes	Yes*
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

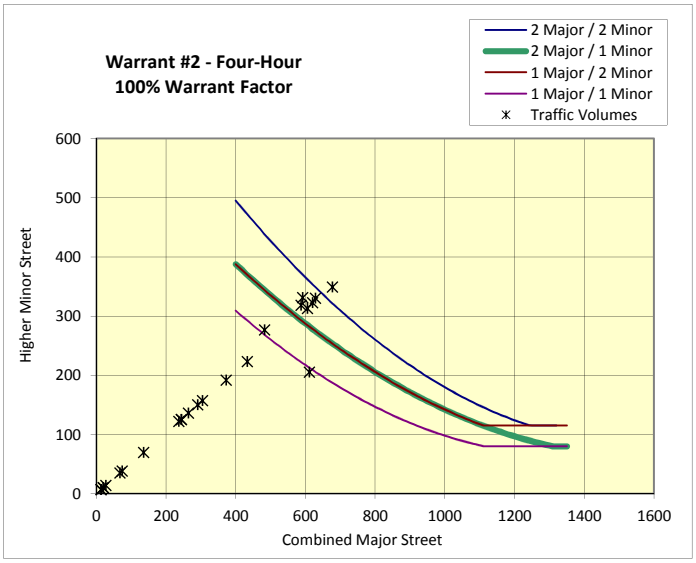
Hour		Major Street		Minor Street	
Begin	End	EB	WB	NB	SB
4:00 PM	5:00 PM	386	291	349	0
2nd	Highest Hour	359	270	330	0
3rd	Highest Hour	354	267	323	0
4th	Highest Hour	338	255	332	0
5th	Highest Hour	345	260	313	0
6th	Highest Hour	335	253	319	0
7th	Highest Hour	349	263	206	0
8th	Highest Hour	275	207	277	0
9th	Highest Hour	247	186	223	0
10th	Highest Hour	212	160	192	0
11th	Highest Hour	174	131	157	0
12th	Highest Hour	166	125	150	0
13th	Highest Hour	151	113	136	0
14th	Highest Hour	139	105	126	0
15th	Highest Hour	139	105	126	0
16th	Highest Hour	135	102	122	0
17th	Highest Hour	77	58	70	0
18th	Highest Hour	42	32	38	0
19th	Highest Hour	39	29	35	0
20th	Highest Hour	15	12	14	0
21st	Highest Hour	12	9	10	0
22nd	Highest Hour	12	9	10	0
23rd	Highest Hour	8	6	7	0
24th	Highest Hour	8	6	7	0

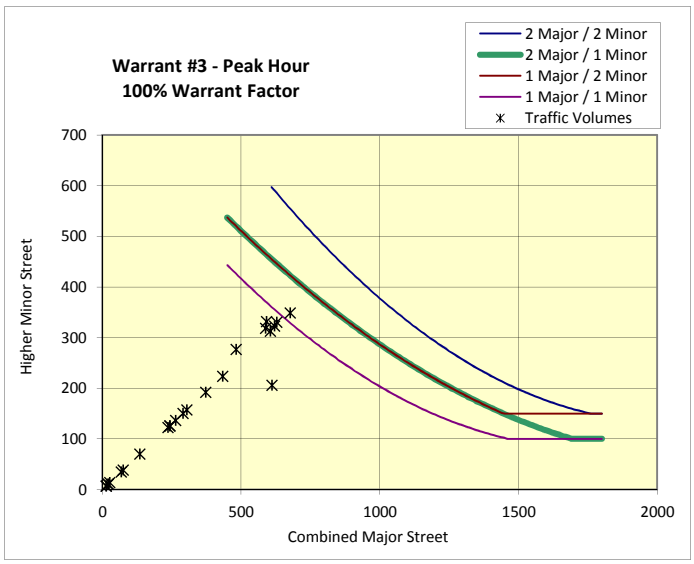
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Minor
East-West Approach =	Major
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	71%
Minor Street: 4th-Highest Hour / Peak Hour	95%
Minor Street: 8th-Highest Hour / Peak Hour	79%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	7	No	**No**
	B	750	75	0	No	
80%	A	400	120	9	Yes	**Yes**
	B	600	60	5	No	
70%	A	350	105	10	Yes	**Yes**
	B	525	53	7	No	





Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	EB	WB	NB	SB
4:00 PM	5:00 PM	386	291	349	0
2nd	Highest Hour	359	270	330	0
3rd	Highest Hour	354	267	323	0
4th	Highest Hour	338	255	332	0
5th	Highest Hour	345	260	313	0
6th	Highest Hour	335	253	319	0
7th	Highest Hour	349	263	206	0
8th	Highest Hour	275	207	277	0
9th	Highest Hour	247	186	223	0
10th	Highest Hour	212	160	192	0
11th	Highest Hour	174	131	157	0
12th	Highest Hour	166	125	150	0
13th	Highest Hour	151	113	136	0
14th	Highest Hour	139	105	126	0
15th	Highest Hour	139	105	126	0
16th	Highest Hour	135	102	122	0
17th	Highest Hour	77	58	70	0
18th	Highest Hour	42	32	38	0
19th	Highest Hour	39	29	35	0
20th	Highest Hour	15	12	14	0
21st	Highest Hour	12	9	10	0
22nd	Highest Hour	12	9	10	0
23rd	Highest Hour	8	6	7	0
24th	Highest Hour	8	6	7	0

Calculations

Combined Major Street	Higher Minor Street	Threshold	Is Threshold Met?
677	349	147	Yes
629	330	164	Yes
620	323	167	Yes
592	332	178	Yes
605	313	173	Yes
588	319	179	Yes
611	206	170	Yes
482	277	224	Yes
433	223	248	No
372	192	280	No
305	157	318	No
291	150	326	No
264	136	342	No
244	126	355	No
244	126	355	No
237	122	359	No
135	70	427	No
74	38	472	No
68	35	477	No
27	14	508	No
20	10	513	No
20	10	513	No
14	7	518	No
14	7	518	No
			8

Number of lanes for moving traffic on each approach (Major Street)	1
Number of lanes for moving traffic on each approach (Minor Street)	1
Warrant Factor	70%
Row Index for VLOOKUP	5

Lookup Table

Index	Major Street	Minor Street	Break Point	x^2	x	c	alt	
1	1	1	1460	0.00021	0.74072	734.125	100	
2	2 or more	1	1760	0.00015	0.67328	809.779	100	100% Factor
3	2 or more	2 or more	1690	0.00023	0.93419	1081.658	150	
4	1	2 or more	1450	0.00015	0.67328	809.779	150	
5	1	1	1040	0.00035	0.80083	529.197	75	
6	2 or more	1	1160	0.00025	0.73111	586.099	75	
7	2 or more	2 or more	1130	0.00033	0.95887	762.050	100	
8	1	2 or more	1020	0.00025	0.73111	586.099	100	70% Factor

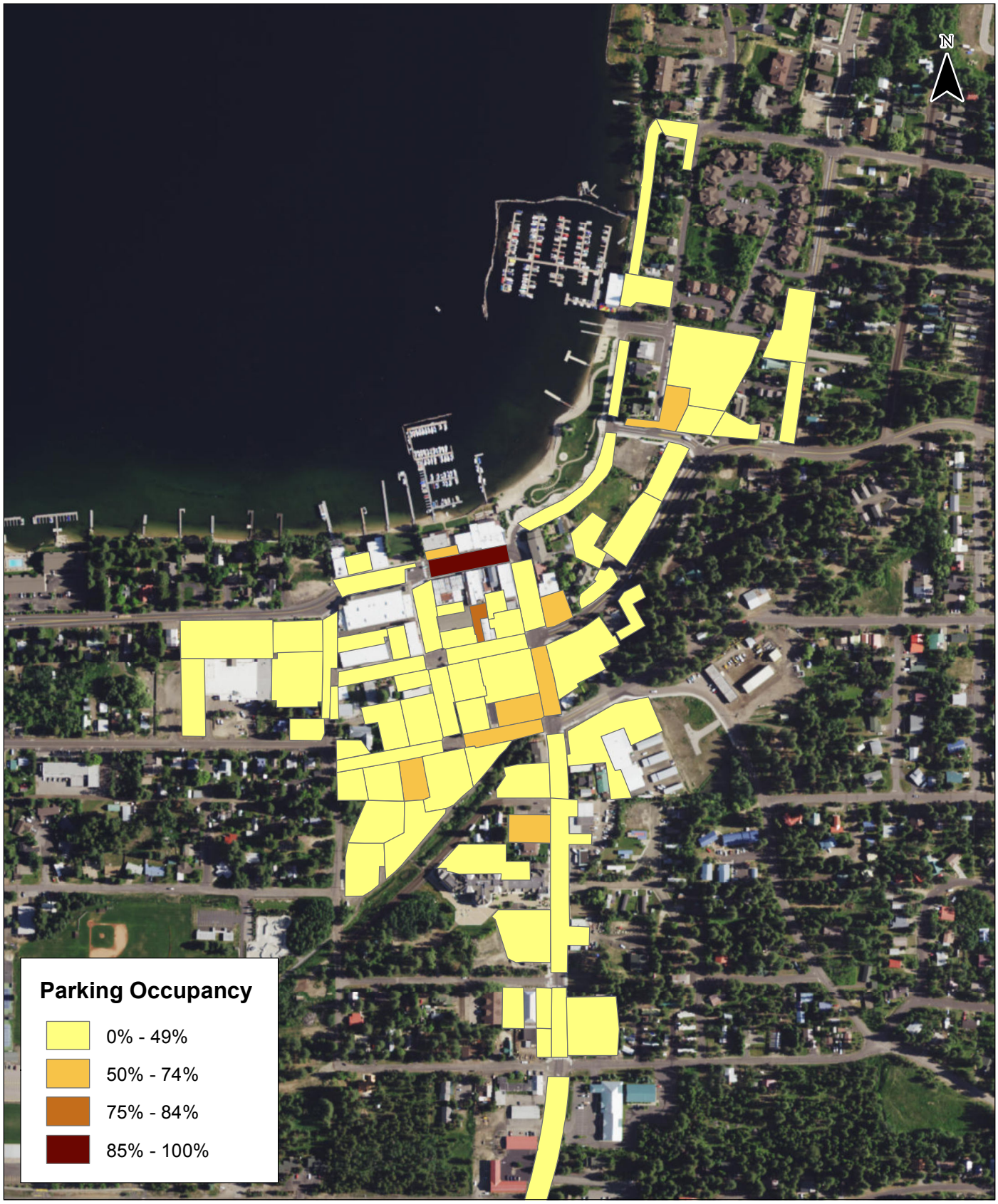
Is Warrant #3 met based on the applicable warrant factor? **Yes**

Condition A Criteria

	NB	SB
Total Stopped Delay Per Vehicle On Minor Approach (sec)	41.1	0.0
Number Of Lanes On Minor Street Approach	1	1
Vehicle-Hours Of Stopped Delay On Minor Approach	3.98	0.00
	No	No
Volume on Minor Street Approach During Same Hour	349	0
	Yes	No
Total Entering Volume On All Approaches During Same Hour	1026	
Number of Approaches to Intersection	4	
	Yes	

Is Warrant #3 met based on Condition A criteria? **No**

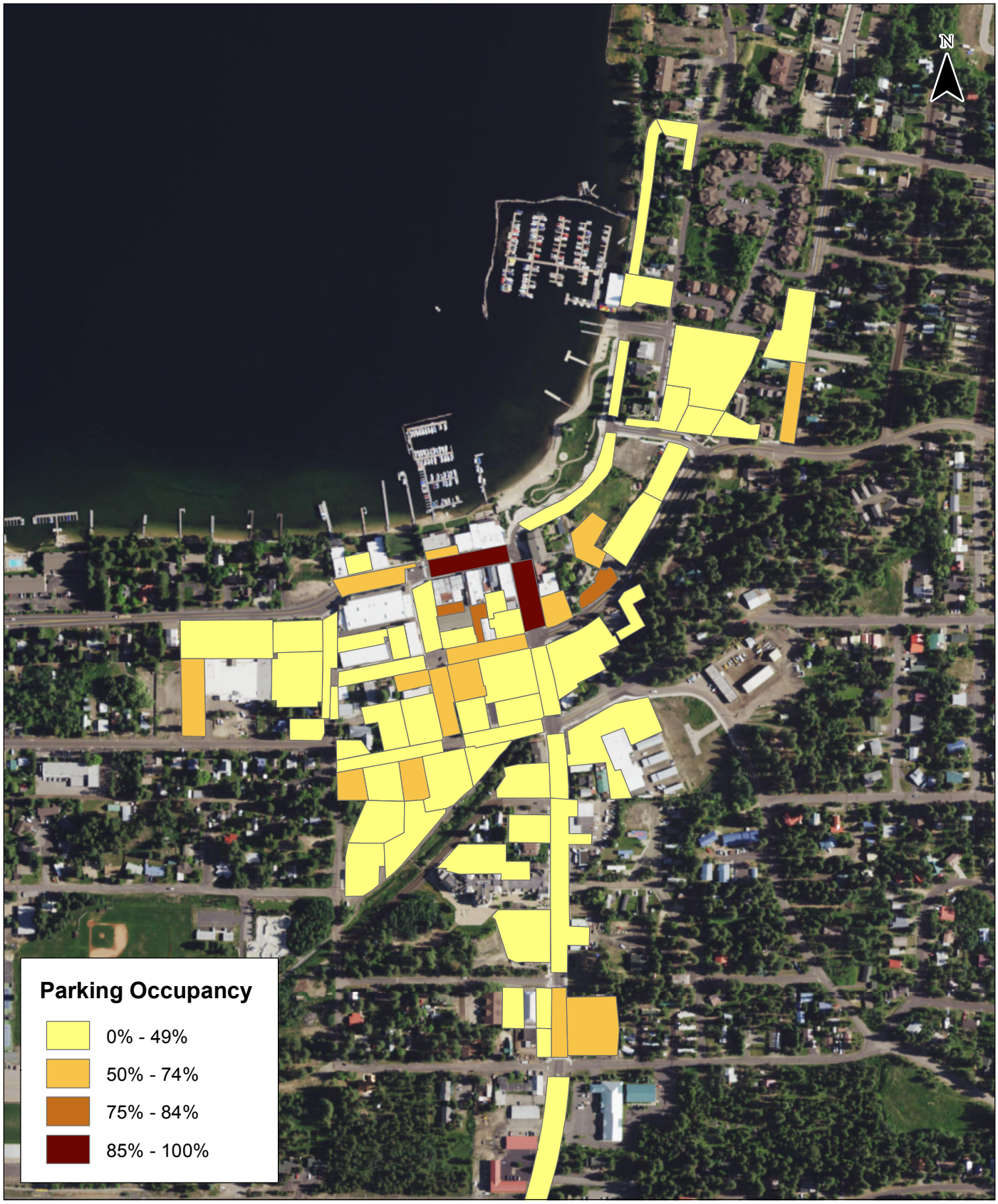
Attachment E Daily Parking Occupancies



Wednesday Off-Peak Season
10:00 a.m. Parking Occupancy
McCall, Idaho

Figure
E1

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



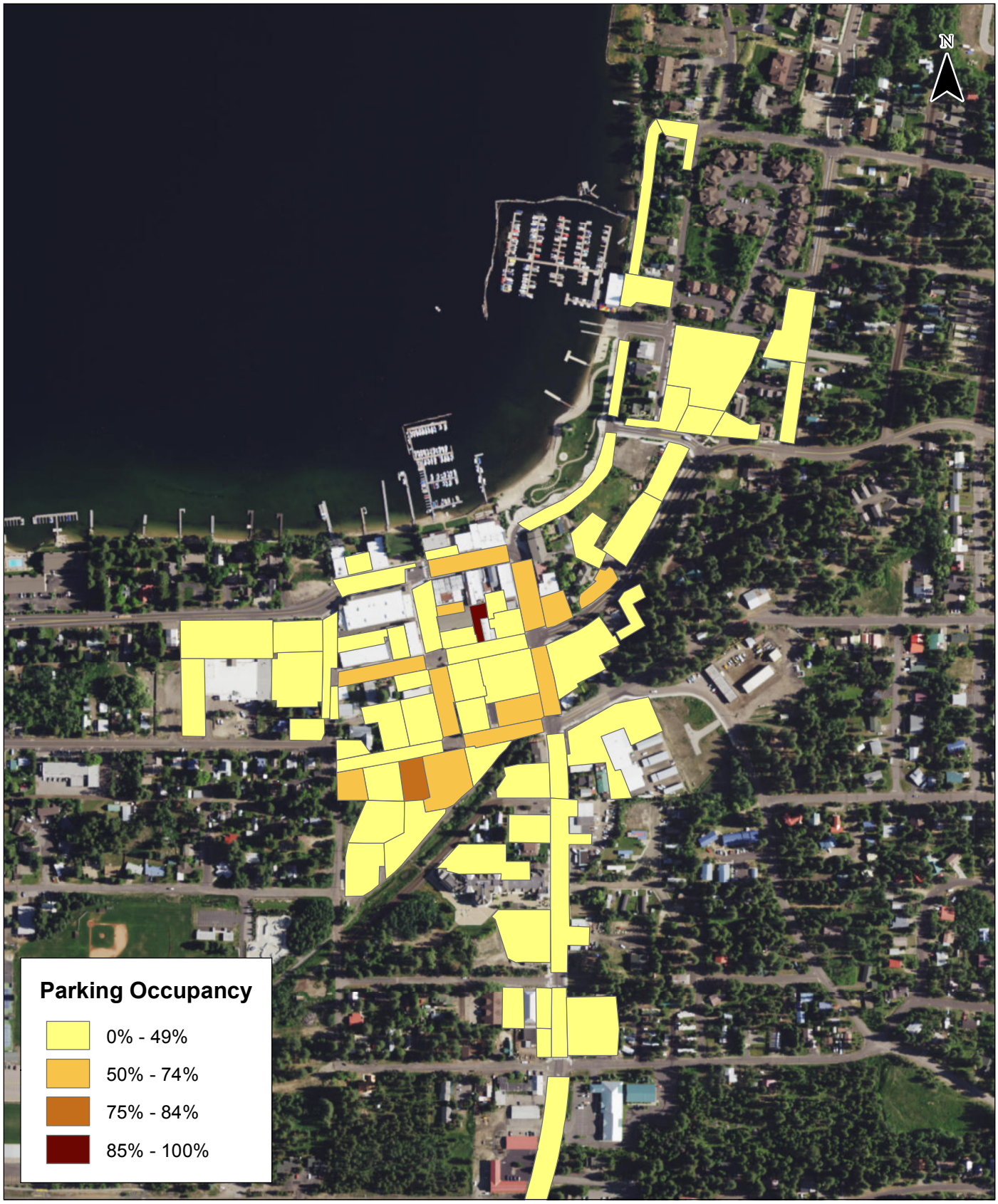
Wednesday Off-Peak Season
1:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E2

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Parking Map_WOPK1.mxd - jmarkosian - 4:09 PM 1/5/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

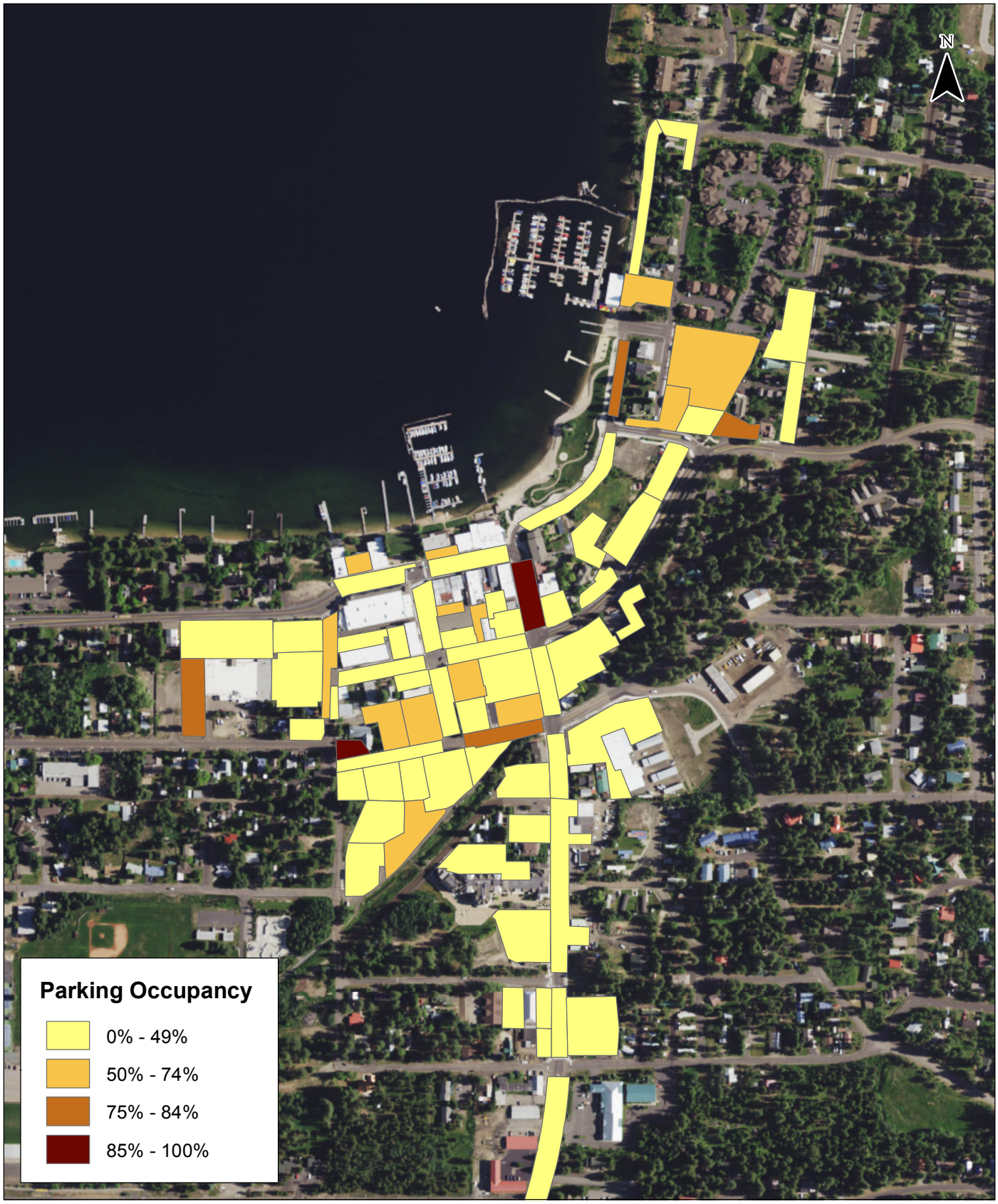
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Wednesday Off-Peak Season
4:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E3

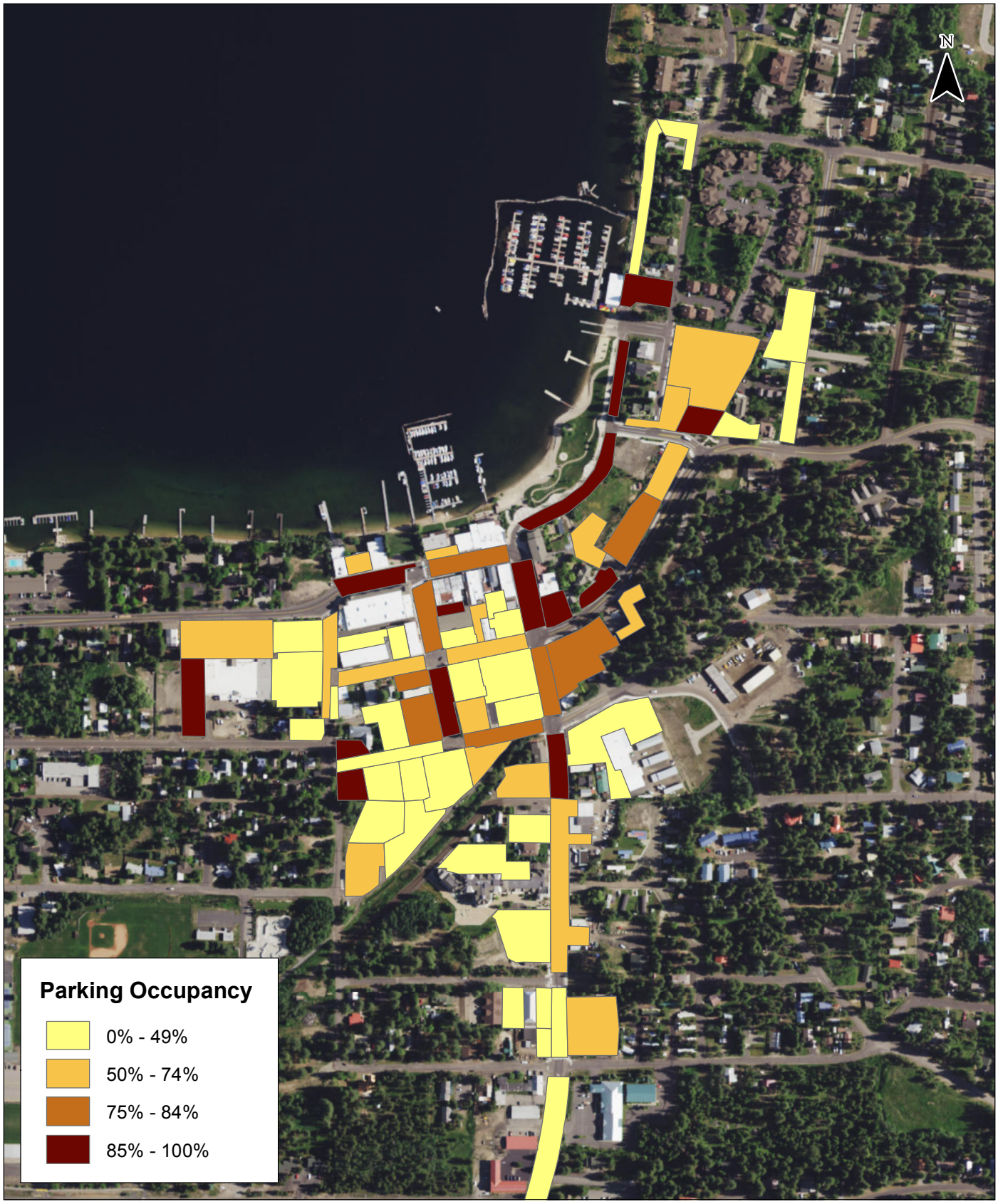
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Wednesday Peak Season
10:00 a.m. Parking Occupancy
McCall, Idaho

Figure
E4

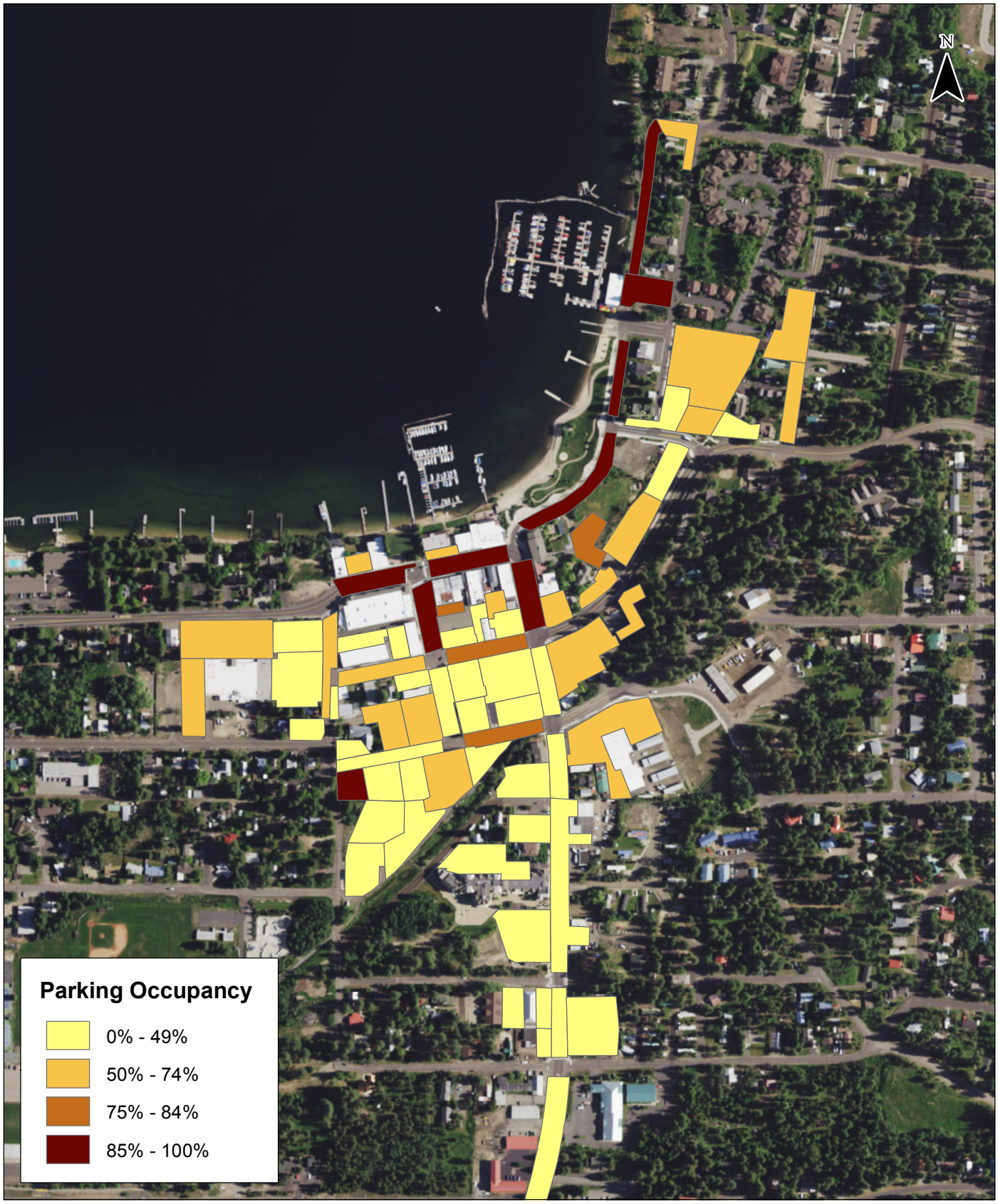
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Wednesday Peak Season
1:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E5

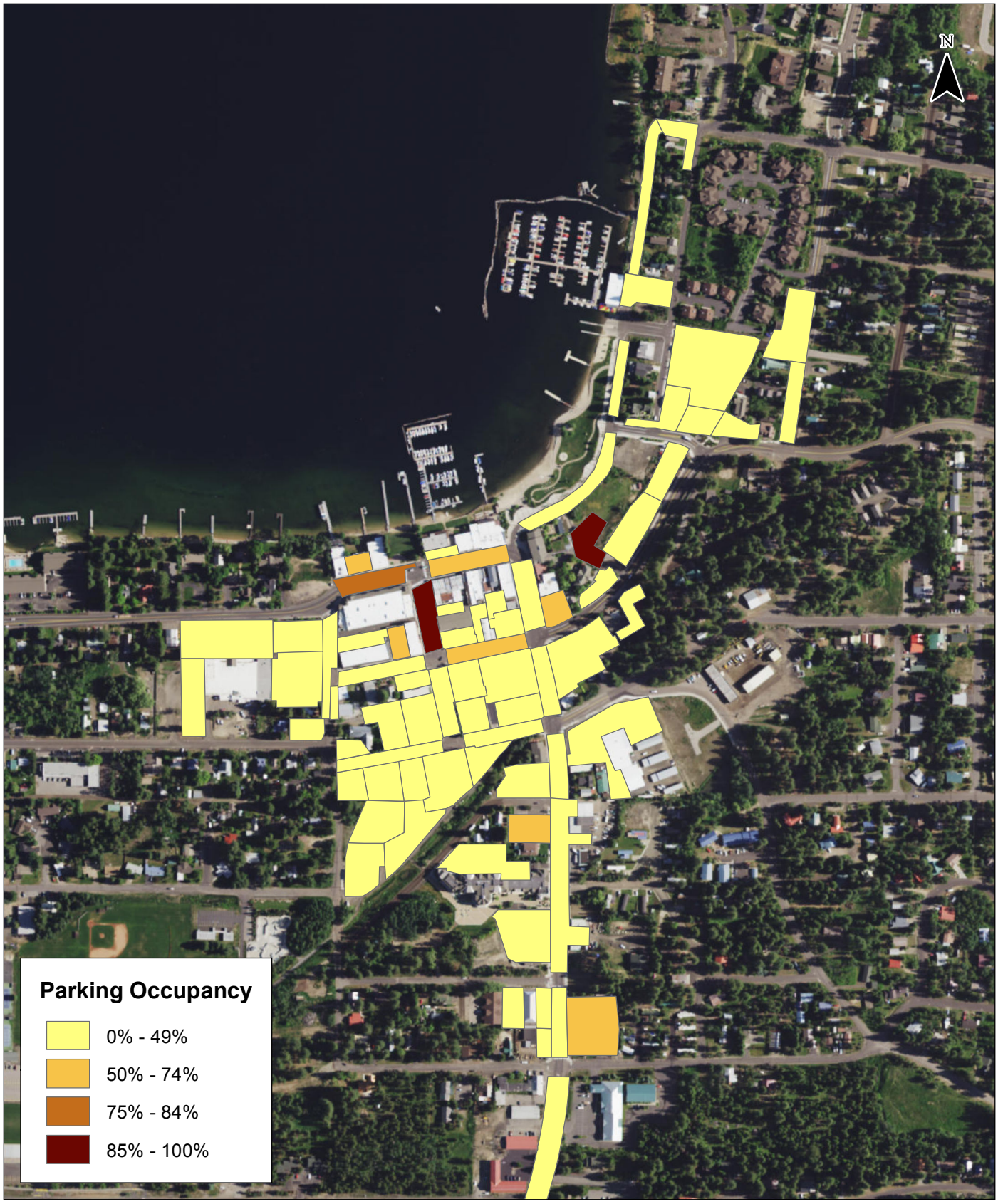
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Wednesday Peak Season
4:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E6

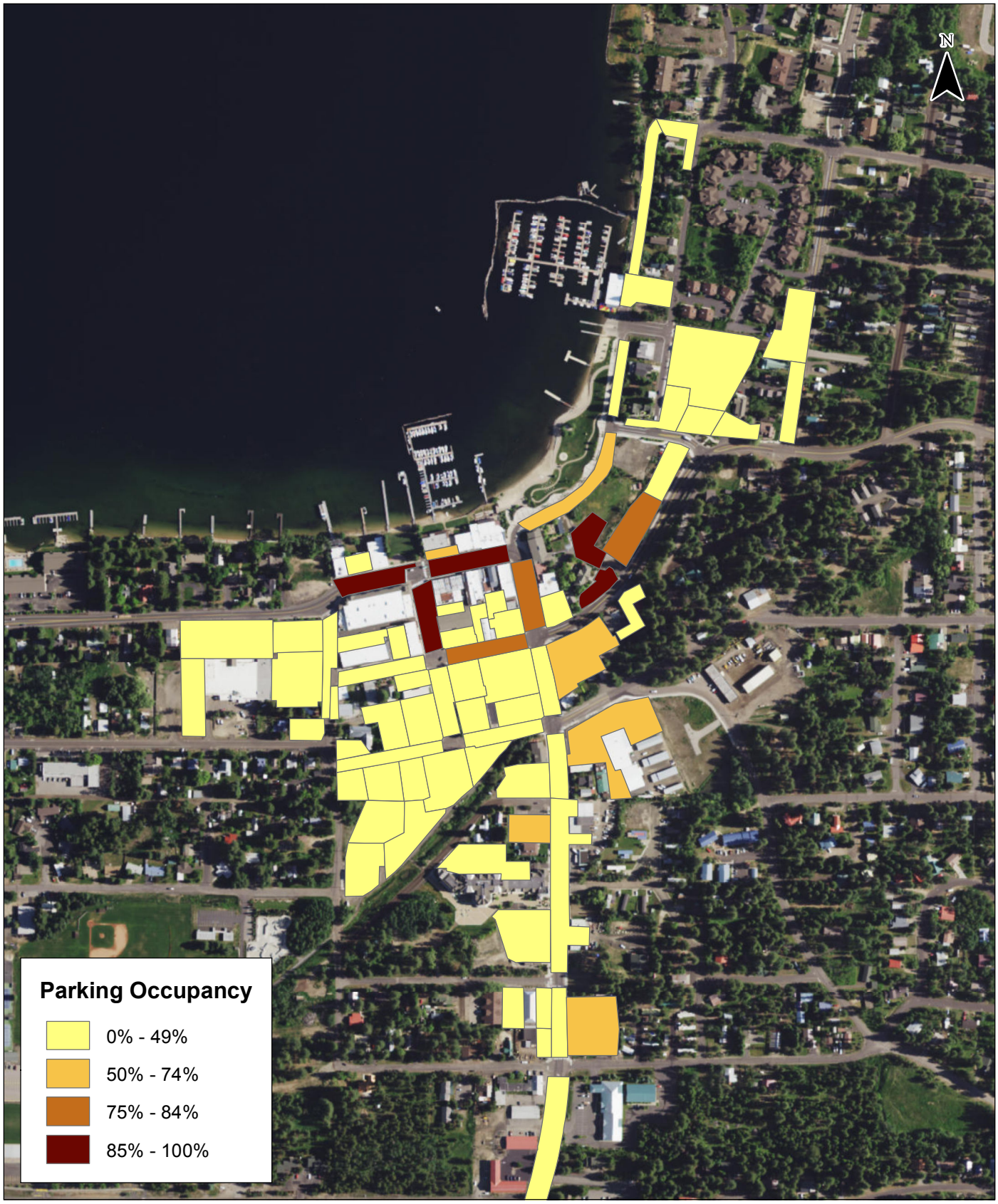
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Off-Peak Season
10:00 a.m. Parking Occupancy
McCall, Idaho

Figure
E7

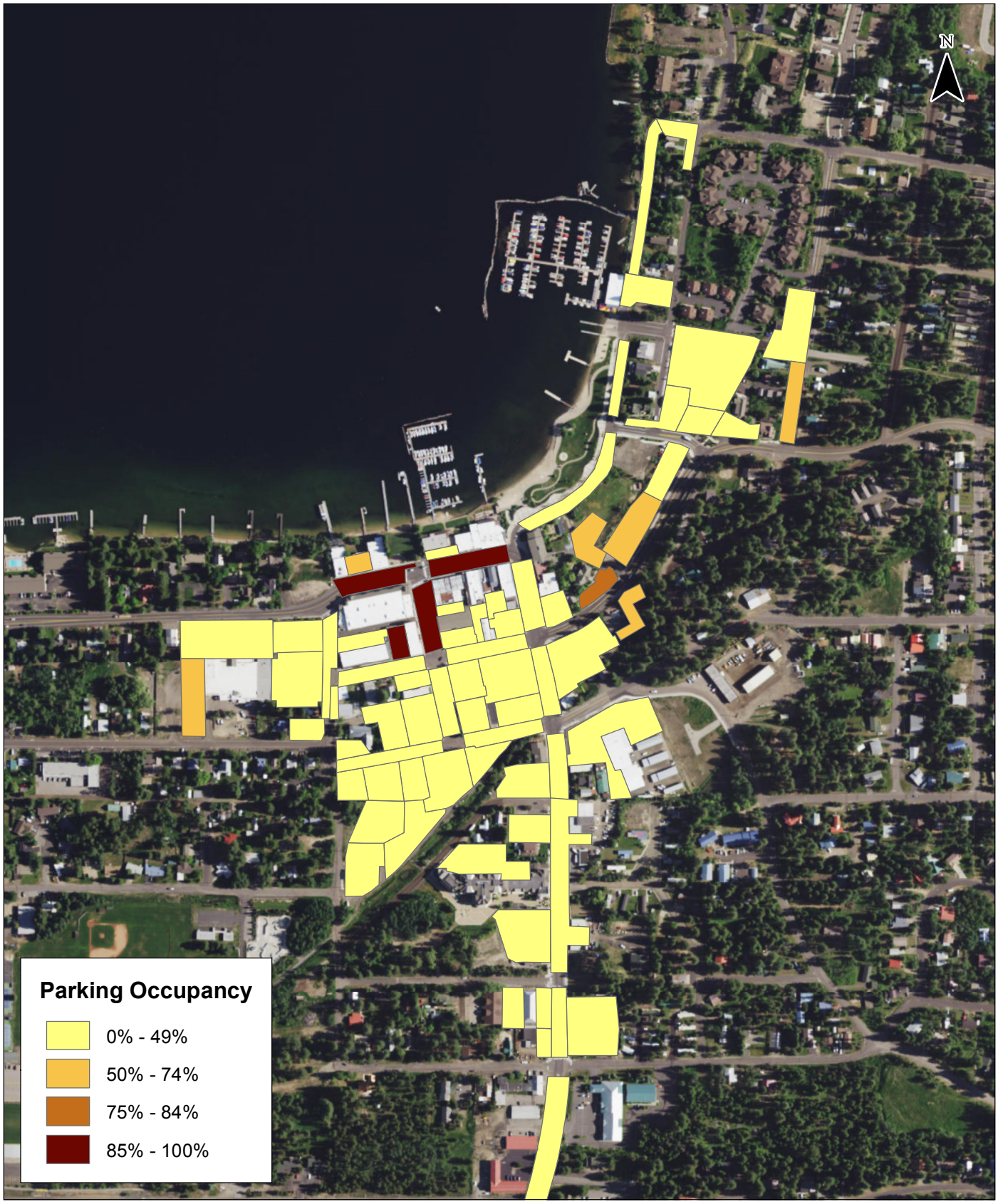
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Off-Peak Season
1:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E8

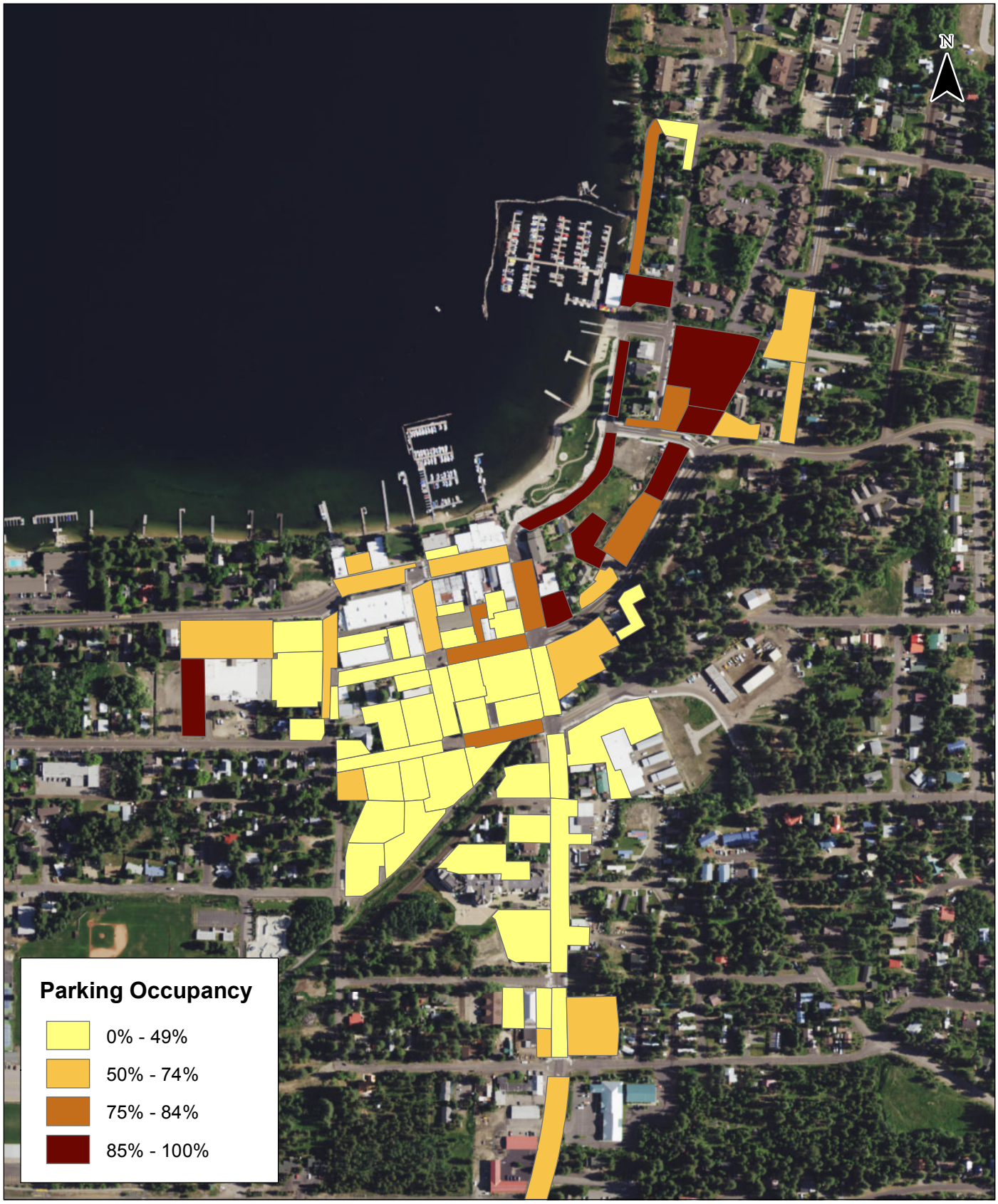
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Off-Peak Season
4:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E9

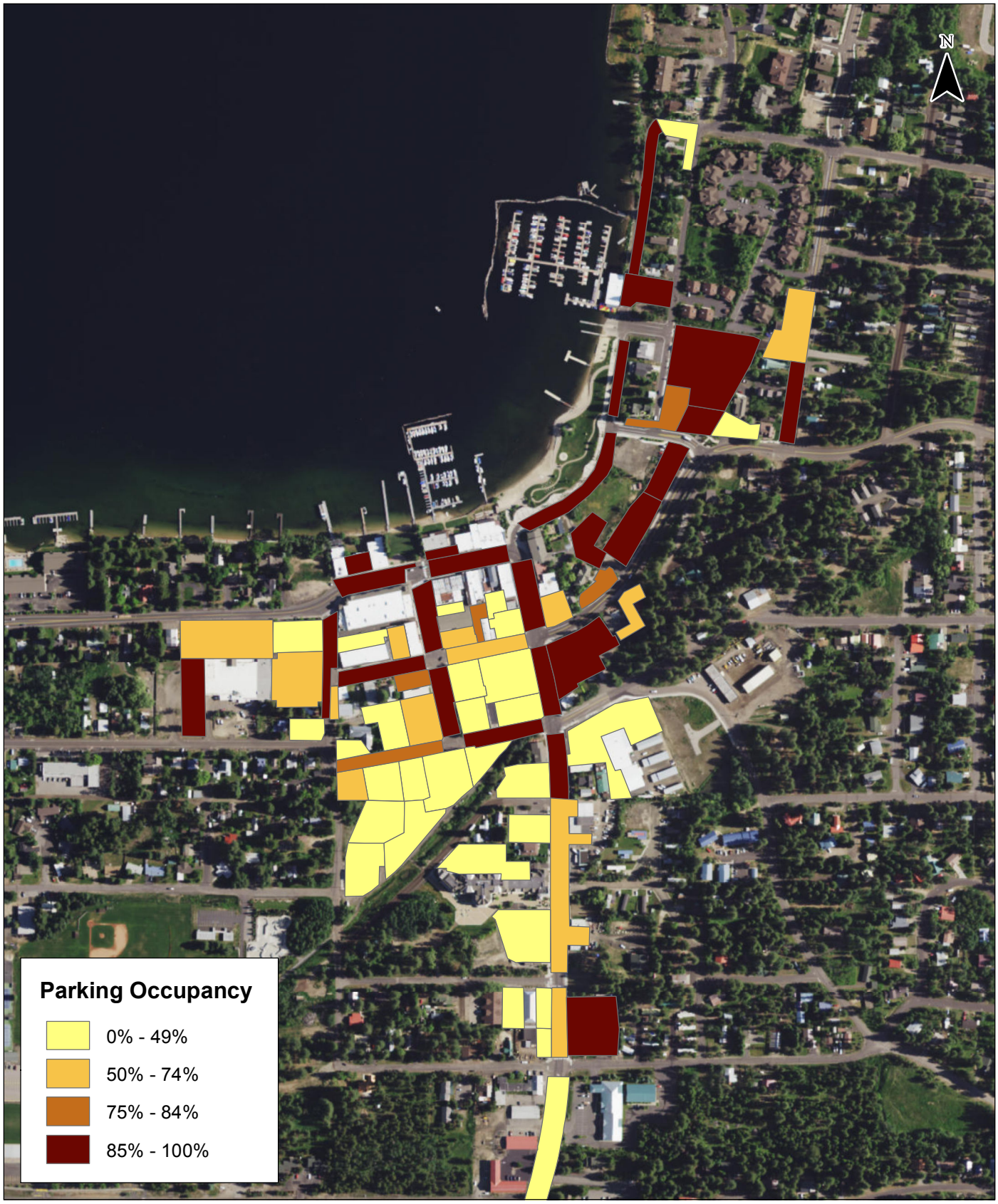
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Peak Season
10:00 a.m. Parking Occupancy
McCall, Idaho

Figure
E10

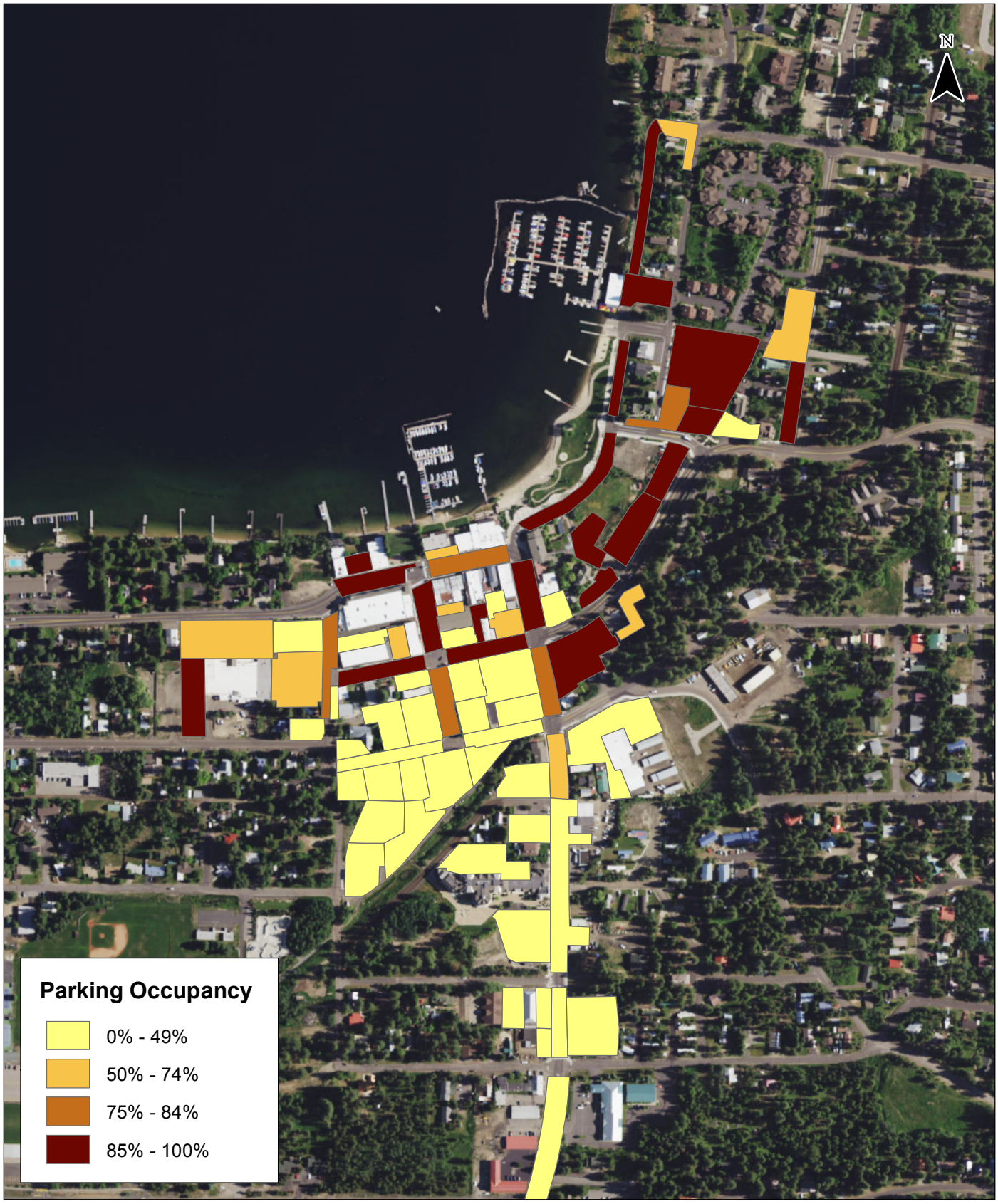
Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Peak Season
1:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E11

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall



Saturday Peak Season
4:00 p.m. Parking Occupancy
McCall, Idaho

Figure
E12

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall

Parking Lot Ownership
McCall, Idaho

Figure
E13

H:\profile\19638 - McCall Comprehensive Plan\gis\XX Parking Ownership.mxd - jmarkosian - 3:05 PM 1/6/2017

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Idaho West FIPS 1103 Feet
Data Source: City of McCall

Attachment F Bicycle and Pedestrian Counts

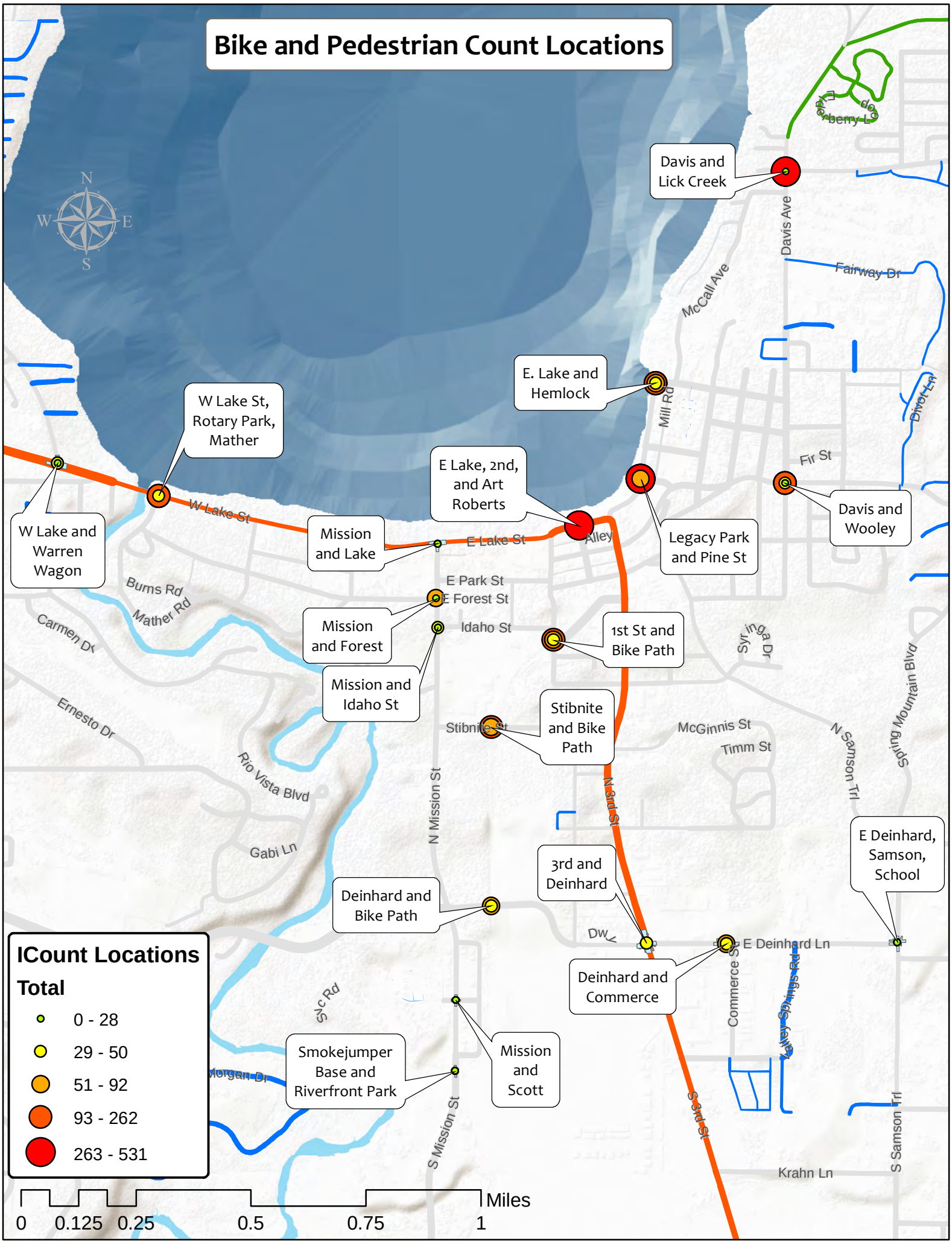
Transportation Master Plan
iCount: Bike and Pedestrian Counts

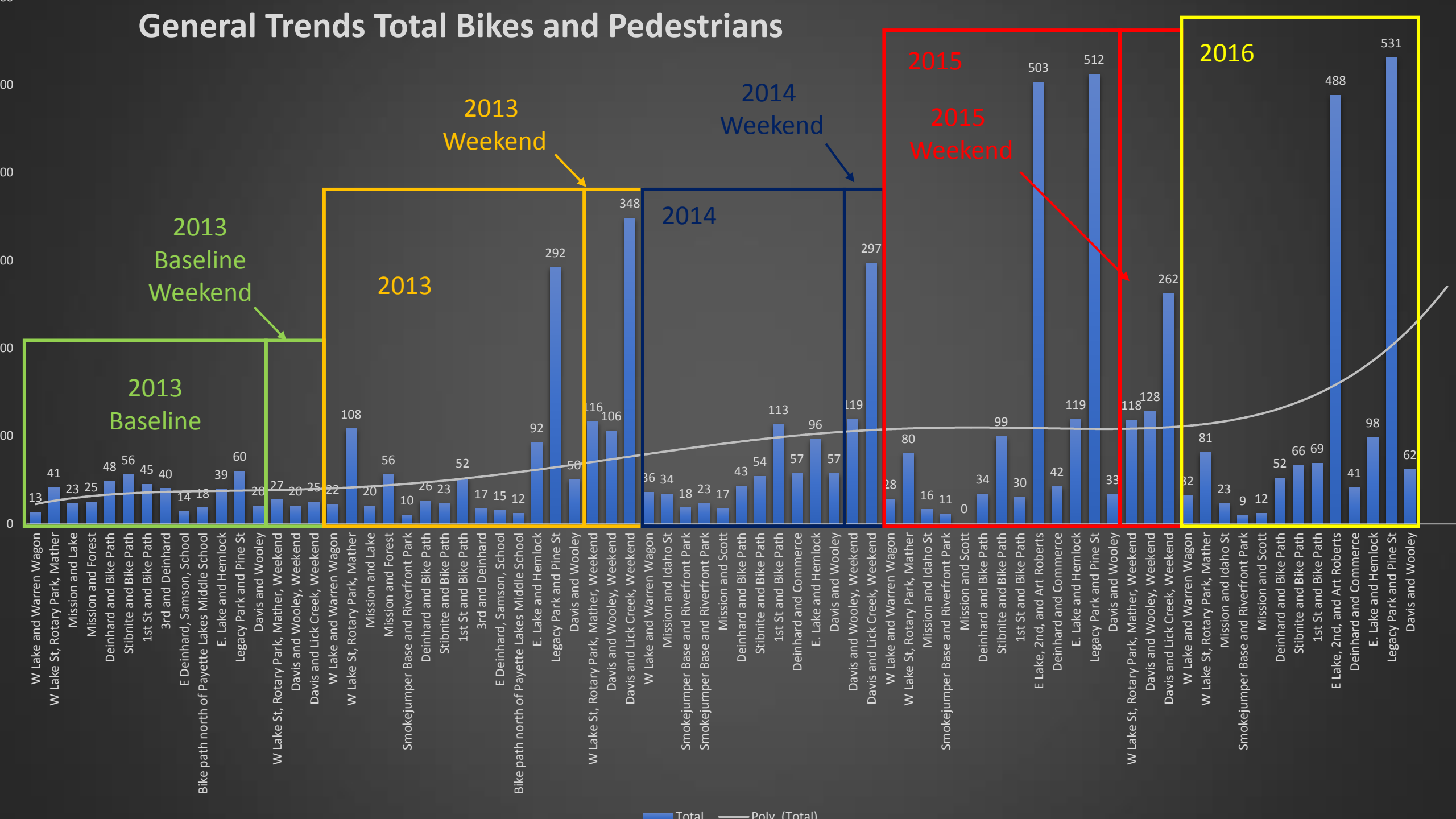
Background/Methodology
In 2013, the City of McCall, with the assistance of Idaho Smart Growth, started annually collecting data on bike and pedestrian activity within the city limits. The program was launched as part of larger initiative called iCount, but has become a localized data collection effort. The program has included 13-18 locations depending on the year and the need. Two days of data collection are performed to capture counts during a typical summer weekday and weekend. The counts are performed with city staff and volunteers that count the number and the turning movements of bicyclist and pedestrian over a 2 hour period.

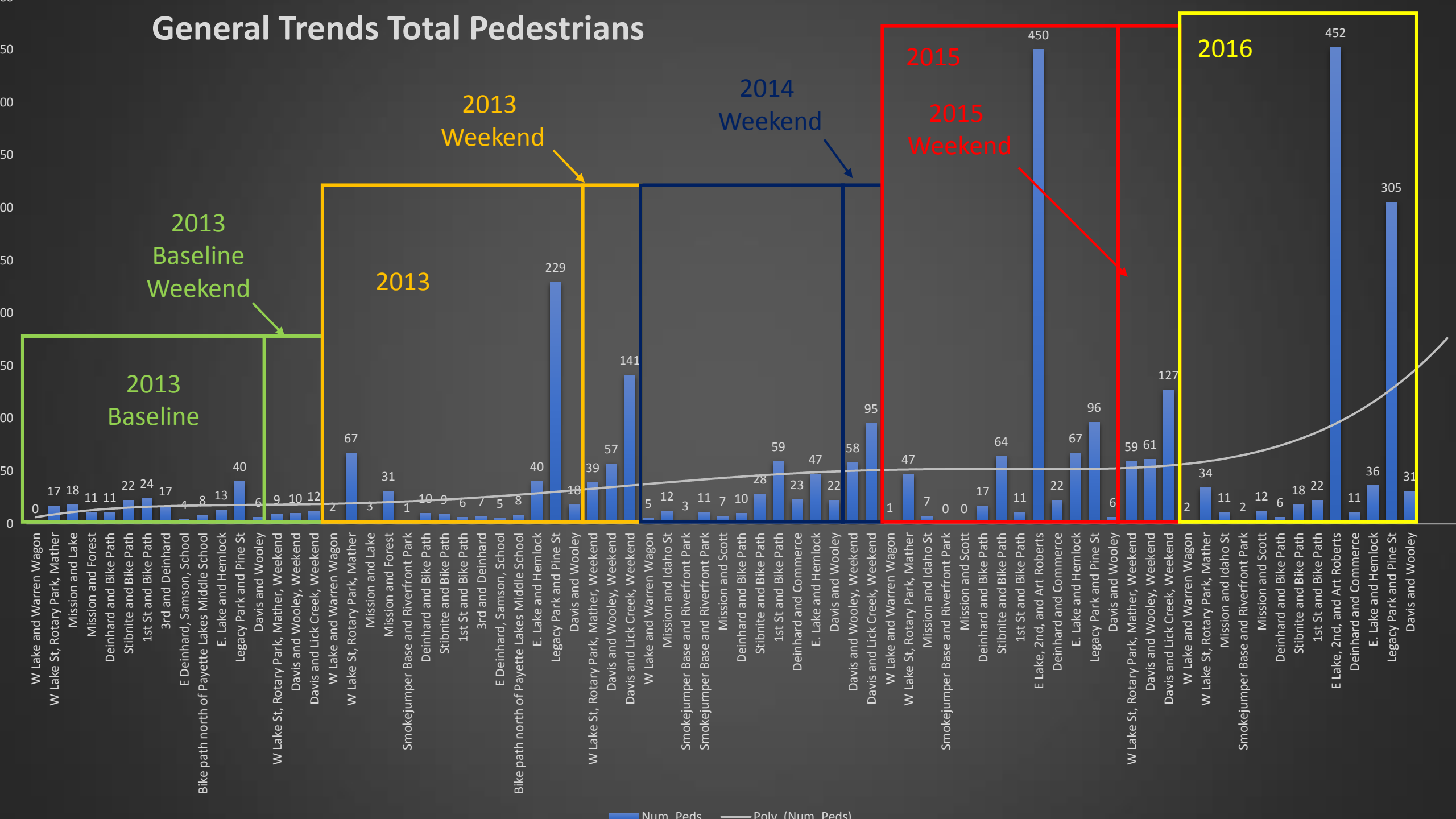
In 2017, the time of the day was changed to from the afternoon to the morning. Also, four of the school locations will be performed in September when school is in session to better understand the number and directions of those traveling to school by bike or foot. The number of locations was also reduced to 10 locations since there were location were high usage was occurring and the infrastructure has been constructed.

Trends
Based on the data collected in 2013-2016, the total number of bicyclist and pedestrians has increased significantly. On average the following location have the top 5 most bike and pedestrian usage:

1. E. Lake Street and Art Roberts Park
2. Legacy Park
3. Davis Avenue and Lick Creek Road
4. Hemlock and McCall Avenue
5. W. Lake Street and Rotary


Bike and Pedestrian Count Locations
Davis and Lick Creek
E. Lake and Hemlock
W Lake St, Rotary Park, Mather
E Lake, 2nd, and Art Roberts
W Lake and Warren Wagon
Mission and Lake
Legacy Park and Pine St
Davis and Wooley
Mission and Forest
1st St and Bike Path
Mission and Idaho St
Stibnite and Bike Path
3rd and Deinhard
E Deinhard, Samson, School
Deinhard and Bike Path
Deinhard and Commerce
Smokejumper Base and Riverfront Park
Mission and Scott
ICount Locations
Total
0 - 28
29 - 50
51 - 92
93 - 262
263 - 531
Miles
0
0.125
0.25
0.5
0.75
1
W Lake St
E Lake St
Alley
E Park St
E Forest St
Idaho St
Stibnite St
McGinnis St
Timm St
E Deinhard Ln
Krahn Ln
Davis Ave
Fairway Dr
McCall Ave
Mill Rd
Fir St
Divot Ln
Burns Rd
Mather Rd
Carmen Dr
Ernesto Dr
Rio Vista Blvd
Gabi Ln
N Mission St
S Mission St
N 3rd St
S 3rd St
Syringa Dr
Spring Mountain Blvd
N Samson Trl
S Samson Trl
Commerce St
Valley Springs Rd


General Trends Total Bikes and Pedestrians
2013 Baseline Weekend
2013 Baseline
2013 Weekend
2013
2014 Weekend
2014
2015
2015 Weekend
2016
W Lake and Warren Wagon
W Lake St, Rotary Park, Mather
Mission and Lake
Mission and Forest
Deinhard and Bike Path
Stibnite and Bike Path
1st St and Bike Path
3rd and Deinhard
E Deinhard, Samson, School
Bike path north of Payette Lakes Middle School
E. Lake and Hemlock
Legacy Park and Pine St
Davis and Wooley
W Lake St, Rotary Park, Mather, Weekend
Davis and Wooley, Weekend
Davis and Lick Creek, Weekend
Mission and Idaho St
Smokejumper Base and Riverfront Park
Mission and Scott
Deinhard and Commerce
E Lake, 2nd, and Art Roberts
Total
Poly. (Total)


General Trends Total Pedestrians
2013 Baseline Weekend
2013 Baseline
2013 Weekend
2013
2014 Weekend
2015
2015 Weekend
2016
0 17 18 11 11 22 24 17 4 8 13 40 6 9 10 12 2 67 3 31 1 10 9 6 7 5 8 40 229 18 39 57 141 5 12 3 11 7 10 28 59 23 47 22 58 95 1 47 7 0 0 17 64 11 450 22 67 96 6 59 61 127 2 34 11 2 12 6 18 22 452 11 36 305 31
W Lake and Warren Wagon
W Lake St, Rotary Park, Mather
Mission and Lake
Mission and Forest
Deinhard and Bike Path
Stibnite and Bike Path
1st St and Bike Path
3rd and Deinhard
E Deinhard, Samson, School
Bike path north of Payette Lakes Middle School
E. Lake and Hemlock
Legacy Park and Pine St
Davis and Wooley
W Lake St, Rotary Park, Mather, Weekend
Davis and Wooley, Weekend
Davis and Lick Creek, Weekend
W Lake and Warren Wagon
W Lake St, Rotary Park, Mather
Mission and Lake
Mission and Forest
Smokejumper Base and Riverfront Park
Deinhard and Bike Path
Stibnite and Bike Path
1st St and Bike Path
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E Deinhard, Samson, School
Bike path north of Payette Lakes Middle School
E. Lake and Hemlock
Legacy Park and Pine St
Davis and Wooley
W Lake St, Rotary Park, Mather, Weekend
Davis and Wooley, Weekend
Davis and Lick Creek, Weekend
W Lake and Warren Wagon
Mission and Idaho St
Smokejumper Base and Riverfront Park
Smokejumper Base and Riverfront Park
Mission and Scott
Deinhard and Bike Path
Stibnite and Bike Path
1st St and Bike Path
Deinhard and Commerce
E. Lake and Hemlock
Davis and Wooley
Davis and Wooley, Weekend
Davis and Lick Creek, Weekend
W Lake and Warren Wagon
W Lake St, Rotary Park, Mather
Mission and Idaho St
Smokejumper Base and Riverfront Park
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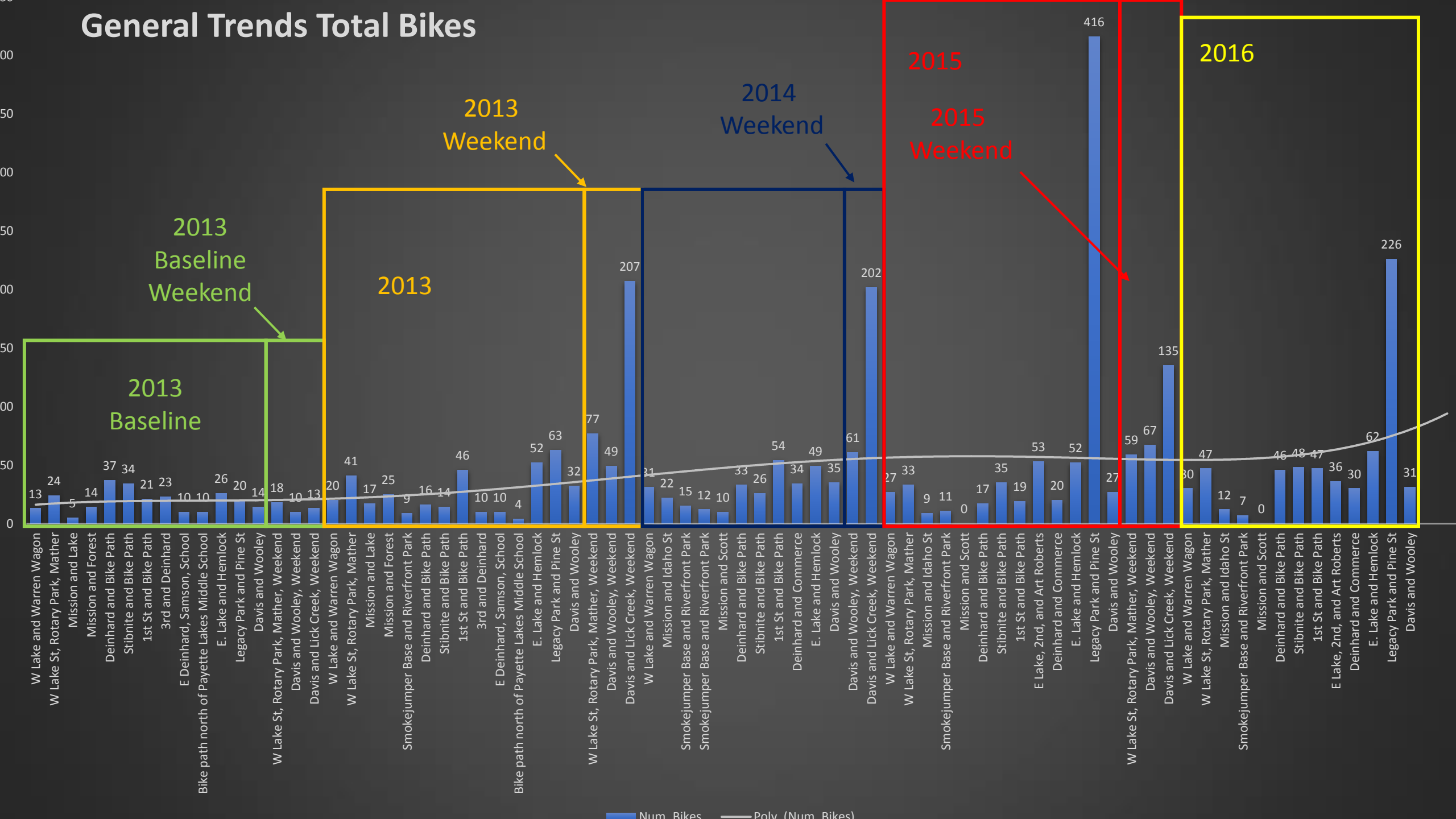
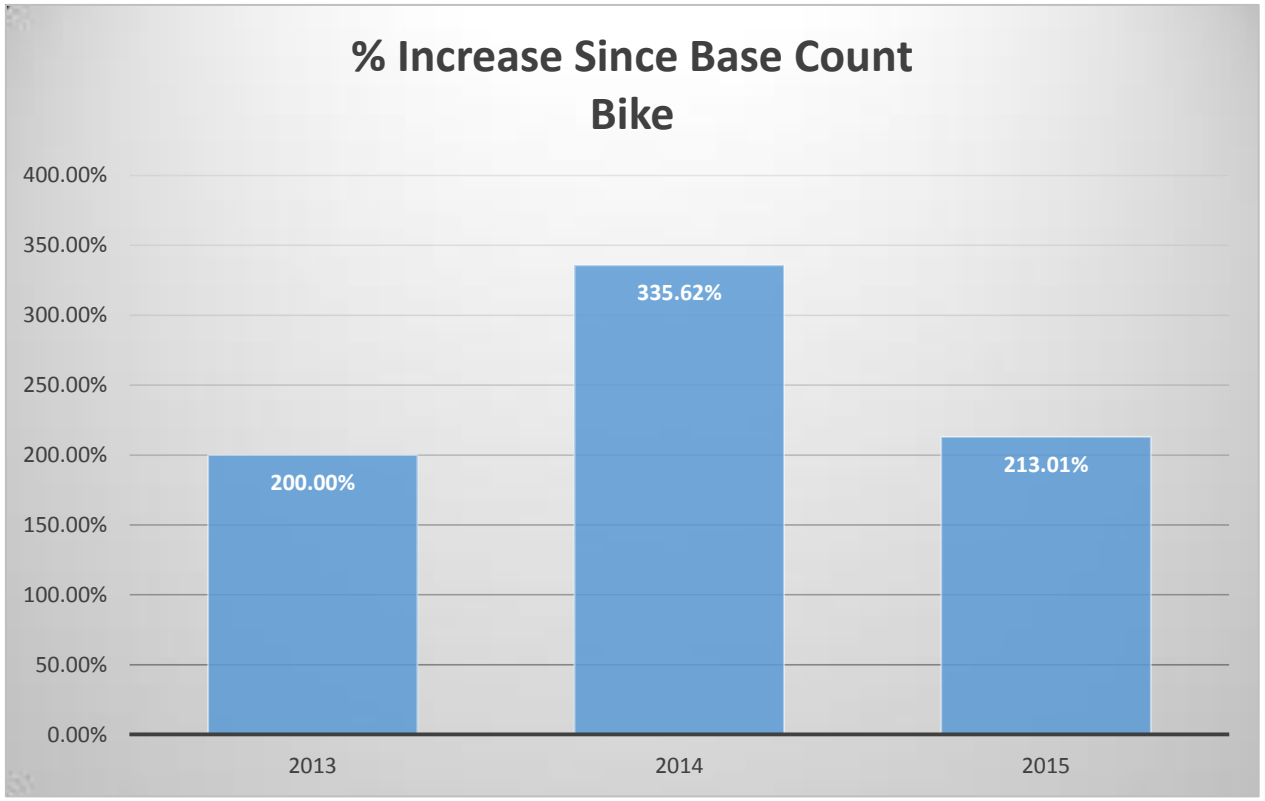
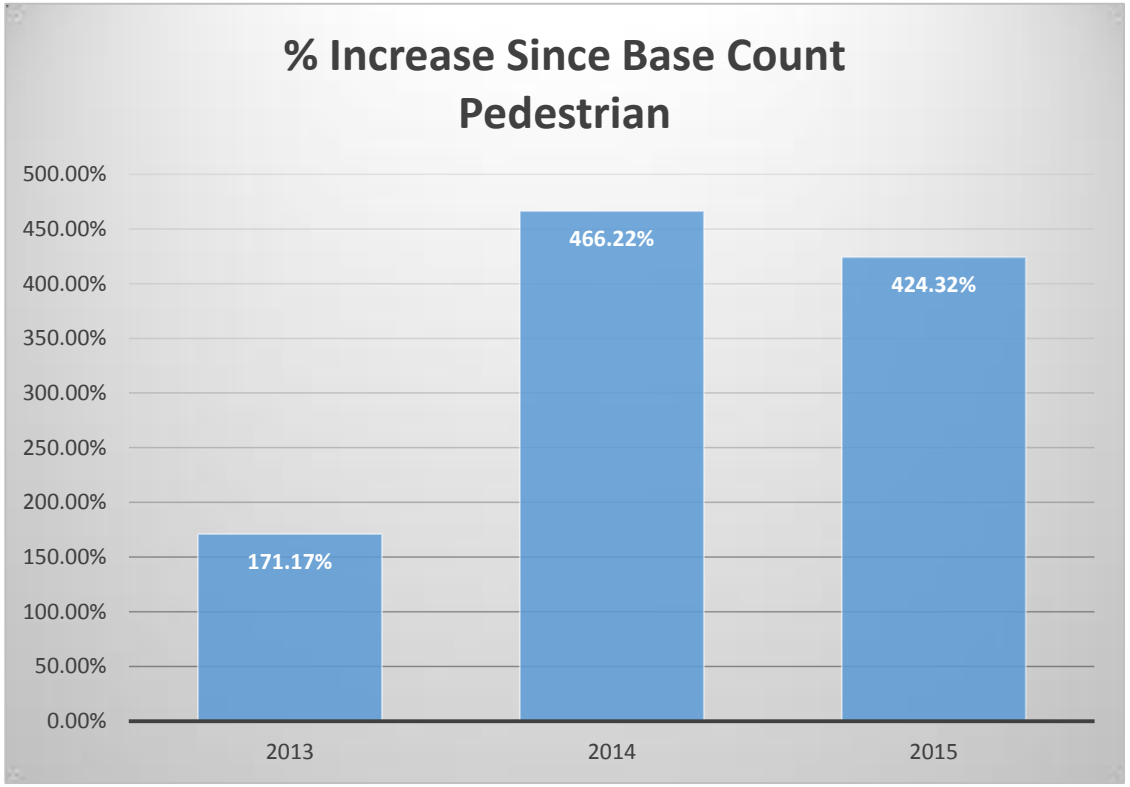
E Lake, 2nd, and Art Roberts
Deinhard and Commerce
E. Lake and Hemlock
Legacy Park and Pine St
Davis and Wooley
W Lake St, Rotary Park, Mather, Weekend
Davis and Wooley, Weekend
Davis and Lick Creek, Weekend
W Lake and Warren Wagon
W Lake St, Rotary Park, Mather
Mission and Idaho St
Smokejumper Base and Riverfront Park
Mission and Scott
Deinhard and Bike Path
Stibnite and Bike Path
1st St and Bike Path
E Lake, 2nd, and Art Roberts
Deinhard and Commerce
E. Lake and Hemlock
Legacy Park and Pine St
Davis and Wooley
Num_Peds
Poly. (Num_Peds)


General Trends Total Bikes
2013 Baseline Weekend
2013 Baseline
2013 Weekend
2013
2014 Weekend
2015
2015 Weekend
2016
Num_Bikes
Poly. (Num_Bikes)


% Increase Since Base Count
Bike
400.00%
350.00%
300.00%
250.00%
200.00%
150.00%
100.00%
50.00%
0.00%
200.00%
335.62%
213.01%
2013
2014
2015


% Increase Since Base Count
Pedestrian
500.00%
450.00%
400.00%
350.00%
300.00%
250.00%
200.00%
150.00%
100.00%
50.00%
0.00%
171.17%
466.22%
424.32%
2013
2014
2015

2016 Top 5 Pedestrian Locations

E Lake, 2nd, & Art Roberts	452
Legacy Park & Pine St	305
E. Lake & Hemlock	36
W Lake St & Rotary Park	34
Davis & Wooley	31

2016 Top 5 Pedestrian Locations

Legacy Park & Pine St	226
E. Lake & Hemlock	62
Stibnite & Bike Path	48
W Lake St & Rotary Park	47
1st St & Bike Path	47

Average Top 5 Locations

1. E. Lake & Art Roberts Park - 496
2. Legacy Park - 349
3. Davis & Lick Creek – 233
4. Hemlock & McCall Ave – 89
5. W. Lake & Rotary - 82