

Matthew Knight Arena Monitoring Report



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Created for the University of Oregon

By Community Planning Workshop, University of Oregon

Arena Monitoring Report

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ARENA MONITORING REPORT - EXECUTIVE SUMMARY

The Matthew Knight Arena (Arena) is the new home of the University of Oregon's basketball program. Completed in the fall of 2010, the Arena is on the corner of Franklin Boulevard and Villard Street, the former site of a bread factory. The Arena seats 12,800 people and was built to serve as a multipurpose venue for concerts, lectures, commencement, and other attractions in addition to basketball games.

In winter 2011, the University contracted with the Community Planning Workshop (CPW) to monitor Arena operations and determine the effectiveness of the mitigation and management measures described in the Arena Impact Mitigation Agreement (AIMA) and Transportation Demand Management Plan (TDM).

Overall, the findings suggest that the mitigation and management strategies intended to lessen the Arena's impact on the surrounding area are working. However, it is important to note that the Arena is only in its first year of operation and that the CPW only monitored three event days early in that first season.

Per the Arena Comprehensive Monitoring Plan requirements the CPW team collected data on-site at three Arena events (i.e., firsthand observation); from interviews with neighbors, local businesses, agency personnel, and other stakeholders, as well as from primary data, such as raw transit ridership, event attendance numbers, and parking citation information. Specifically, CPW collected information on:

- Arena communications
- Automobile parking
- Transit
- Bicycle parking
- Arena access routes and intersection function
- Noise
- Litter

This Executive Summary presents high level findings from our monitoring efforts and presents recommendations for ways to improve Arena mitigation strategies.

Mode Split

Our calculations indicate that the mode split for the Arena in 2011 is consistent with projections used in the Transportation Demand Management Plan. Our estimates found that 71% of attendees arrived by vehicle, 13% by transit, 16% on foot, and 1% by bicycle. Transit use increased 7% and vehicle use declined 6% over 2008 levels that JRH recorded at McArthur Court.

Communications

The University conveys Arena information through two units: Athletics and the Office of Government and Community Relations; however, there is a lack of a unified communication strategy. Interested parties also seek information from First Student Shuttle, Inc. and Lane Transit District—mostly to learn more about transit options, but sometimes to get additional information about parking or other operational details. The University and the City of Eugene need to continue to prioritize communicating with residents in the Fairmont Neighborhood and with Arena patrons.

Automobile Parking: University Lots and Event Parking District

The University has more spaces than are required to meet the City of Eugene's mandatory 2,085 off-street parking spaces. This is based on the CPW's 2011 count of on-campus automobile parking spaces, off-site lots, and off-site lease agreement data from the 2010 Arena Event Operations Plan.

Overall, the Event Parking District is functioning well based on our assessment after monitoring three events. On average for the events that CPW monitored, about 175 of the University's 500 allocated permits were used. This means that about 20%-25% of the 860 total spaces were occupied by cars with event day permits. These same vehicles made up between 35% and 67% of the actual vehicles in the Parking District during each event, as monitored by the LPR camera.

Transit: EmX and Arena Shuttle

The ridership numbers and interviews indicate that transit service to the Arena works well. The 13% mode split for the athletic event days that the CPW monitored is within one percentage point of the 14% TDM project mode split for overall transit access to the Arena.

Ridership numbers for the three events show that event attendees are utilizing EmX to access the Arena. Ridership increases range between 110 and 617 passengers over normal passenger loads. This shows that although ridership largely depends upon event attendance, more people rode EmX to attend the non-athletic event (Elton John concert) on February 17 than the athletic event on February 26.

Over the course of the 11 events that the Arena Shuttle serviced, 11,808 riders boarded a shuttle to get to the Arena. Ridership per event varied from between 6% (Nike Clash) to 18% (Elton John) of total attendees. The average ridership for all shuttle-serviced events between January 13 and March 8 was 9.4%. The average shuttle ridership for all Arena capacity events (events with attendance greater than 12,000) over this same period was 10%.

Bicycle Parking

Overall, bicycle ridership appears to account for a relatively low proportion of transportation to Arena events. The TDM projects a 1% mode split for bicycle transportation to the Arena, and our monitoring results are consistent with this projection. Low bicycle ridership may be due to the season in which data was collected, which exhibited particularly cold and rainy weather. In contrast, the CPW informally observed a large number of bicycles parked at the Arena during an unmonitored event on a warm, sunny weekend.

After conducting an inventory of available bicycle parking spaces identified on the Arena Site Plan, the CPW found that although the Arena is required to offer 150 permanent short-term spaces, it built 228 spaces. The minimum 50 permanent long-term parking spaces are located in the underground parking garage, and the Arena provides 40 covered, permanent short-term spaces which is compliant with the CUP Modification issued in June 2010.

Arena Accessibility and Intersection Function

The traffic-control measures set forth in the AIMA and TDM appear to ensure a mostly safe and easy flow of pedestrian, bicycle, transit, and vehicle traffic. University and City observations regarding traffic flow, problem areas, and execution of the TDM and AIMA are consistent with our observations.

The most obvious traffic-management and access problems are mid-block pedestrian crossings on Franklin Blvd. and general driver confusion related to parking. Some Fairmount residents did report increased traffic in their neighborhood, especially post-event along Orchard and along 17th; however, interviews indicate this impact was minimal for most neighbors.

Noise

CPW monitoring indicates that noise is generally not a problem in the Event Parking District. We observed low levels of car noise and people noise (the average was 1.27 on a scale of 1 to 3) and low frequency (averaging 10.3 incidents total) during each event. After the Elton John concert, our research found that the noise was slightly louder than after the two men's basketball games. In interviews, residents confirmed that they perceive noise to be at low levels and frequencies. Our research found that the geographic concentration of the noise is along Villard Street, Orchard Street, and 15th Avenue.

Litter

The CPW observations and interviews with neighborhood residents indicate that litter is not a problem within the litter-monitoring area. Both monitored areas demonstrate low levels of litter and low frequency of litter, with an average of only 17 pieces found after each event. This litter was most frequently located along routes of high foot traffic, such as Franklin Boulevard and 15th Avenue. The most common type of litter found after an event was non-Arena litter (82%), followed by questionable litter (14%), and Arena litter (4%).

RECOMMENDATIONS

CPW developed subject-specific suggestions for improving traffic flow, access, and safety, as well as for reducing the impact of Arena operations on the surrounding neighborhood. These recommendations are designed for the University unless specifically noted otherwise.

I. General

- 1.1 Continue monitoring Arena events to gain a better understanding of how the mitigation measures affect the surrounding neighborhood. This report reflects data collected in the winter; subsequent monitoring should also happen in the spring, summer, and fall.

2. Communications

- 2.1 In collaboration with the City, develop a comprehensive Arena communications strategy that targets residents, business owners, and event attendees. Assign a University of Oregon staff person to champion and maintain the new communications strategy.
- 2.2 Strengthen the Community Relations Arena webpage or establish a new Arena communications website that is separate from the University Relations site. Decide on a target audience for this site (residents and businesses, event attendees, or both). This website should:
 - i. Link, clearly and obviously, to University and City Arena-related websites, including Government and Community Relations (link to multiple pages), Fairmount Neighbors Association, and the Matthew Knight Arena “About Us” webpage.
 - ii. Provide a working e-mail address and telephone number to enable residents and businesses to contact the University with Arena concerns.
 - iii. List explicitly all event dates that trigger Event Parking District parking restrictions.
 - iv. In collaboration with the City, provide an online resource with answers to frequently asked questions such as “How do I file a complaint about crowd noise on my street?” or “How do I acquire a guest permit?”

- 2.3 With the City, ask neighborhood residents and businesses how they would like to receive information and provide feedback about Arena operations (e.g., the number

of expected event attendees, days and times the Event Parking District is in effect, etc.).

2.4 Convey information about multi-modal transportation access and parking to event attendees at the point of purchase: online, by phone, or at the ticket booth. For instance, design a computer program that would direct online ticket purchasers through a brief tutorial on travel options to the Arena (Arena Shuttle, EmX, parking options, bicycle and pedestrian routes, and bicycle parking options).

3. Automobile Parking: University Lots and Event Parking District

University Lots

- 3.1 Allow event attendees to buy a parking pass when they buy an event ticket.
- 3.2 Find ways to take advantage of underutilized University lots, such as 34 and 16A.
- 3.3 Change monitoring methodology to count parked cars during events, not just before events.

Event Parking District

- 3.4 Improve the methods for communicating the days and times of events that trigger use of the Event Parking District to Fairmount neighbors. This could be accomplished through the Matthew Knight Arena website, the FNA newsletter, the FNA website, and/or FNA listserv.
- 3.5 With the City, strengthen parking enforcement by: (1) creating a consistent route for the City's parking-enforcement monitor, (2) monitoring parking on each street in the Parking District with appropriate frequency (some areas may need more frequent monitoring than others), and (3) enforcing parking during the entirety of each high attendance event.
- 3.6 Discuss with the City the option of allowing Fairmount neighbors to continue using guest parking permits during men's basketball games; consider giving them a discounted rate for the University-issued permits. Per current policy, guest parking permits are not effective during times when the Event Parking District is in operation for Arena events.
- 3.7 With the City, discuss the option of linking license plates to permit sales in the Parking District.

4. Transit: EmX and Arena Shuttle

EmX

- 4.1 With LTD, explore options for increased service to the Arena before and after events.
- 4.2 Give customers the option to buy an EmX pass when they purchase tickets, in order to increase awareness and transit ridership for events. Transit passes could alleviate rider confusion and potential loss of revenue to LTD caused by EmX passengers unfamiliar with EmX operations.

Arena Shuttle

- 4.3 Assess the feasibility of downtown Eugene and downtown Springfield as options for future remote lot locations. Investigate whether downtown sales and City parking revenue change when the Arena Shuttle runs from downtown.

5. Bicycle Parking

- 5.1 Continue to examine the operations and layout of the bicycle valet parking area, with particular attention to the number of spaces provided and to covering some of the spaces.
- 5.2 Add permanent signage on or near the Arena site to help cyclists find rack spaces and the bike valet corral.
- 5.3 Advertise services for bicyclists in Arena transportation literature, and feature bicycle parking more prominently on the Arena website (it is currently in the last bullet point of the FAQ section).

6. Arena Accessibility and Intersection Function

- 6.1 Explore options for reducing the dangers of mid-block pedestrian crossing on Franklin Blvd.
- 6.2 Investigate creating an additional garage exit onto Columbia Street to reduce congestion at the Villard Street garage exit.
- 6.3 Improve nighttime visibility on 15th at Villard and Orchard so that vehicles can see bump-outs and reduce potential vehicle/pedestrian conflicts.
- 6.4 Move flagger warning signs so that approaching vehicles get enough advance notice that they are approaching a traffic-controlled intersection.

7. Noise

7.1 The current mitigation measures are working effectively; therefore, we have no recommendations for this section.

8. Litter

8.1 Eliminate or modify the AIMA requirement that requires a litter patrol in the Fairmont neighborhood (due to the limited amount of litter found).

I. INTRODUCTION

Background

The Matthew Knight Arena (Arena) is the new home of the University of Oregon's basketball program. Completed in the fall of 2010, the Arena is on the corner of Franklin Boulevard and Villard Street, the former site of a bread factory. The Arena seats 12,800 people and was built to serve as a multipurpose venue for concerts, lectures, commencement, and other attractions in addition to basketball games.

Plans for the Arena generated considerable controversy, particularly among residents of the Fairmont neighborhood, which is south and east of the Arena. The controversy generally centered on perceived negative impacts on traffic congestion, parking availability, security, litter, and noise. To construct and operate the Arena, the University of Oregon (University) accordingly agreed to implement traffic-management and other mitigation strategies.

Arena operations adhere to requirements set forth in three documents: the Conditional Use Permit (CUP), the Arena Impact Mitigation Agreement (AIMA), and the Transportation Demand Management Plan (TDM Plan).

Conditional Use Permit (CUP)

The City of Eugene (City) issued a CUP to the University in response to the University's application to develop the Arena. The CUP is contingent upon the University's compliance with the Eugene City Code, the Fairmount/University of Oregon Special Area Study, the Metropolitan Area General Plan, and two new documents: the Arena Impact Mitigation Agreement (AIMA) and the Transportation Demand Management Plan (TDM Plan).

Arena Impact Mitigation Agreement (AIMA)

The AIMA is a legal agreement among the City, the University, and the Association. The document sets forth mitigation strategies designed to lessen the impact of Arena operations. The document also describes the process by which adherence to the AIMA by the University and the City will be monitored. The major elements of the AIMA include traffic-management strategies (including signage, flaggers, and street improvements), automobile parking (including on- and off-site parking requirements, bicycle parking, and park-and-ride lots), litter, and communications. The document also describes the five levels of Arena events. "Level" distinguishes the type of event and the number of expected attendees. For instance, a Level 1

event has a projected attendance of between 0 and 4,000; a Level 3 event has a projected attendance between 6,501 and 9,500.

Transportation Demand Management Plan (TDM)

The TDM Plan is more detailed than the AIMA. It reviews expected Arena transportation impacts and describes detailed traffic- and transportation-management measures. The TDM Plan's overall purpose is the same as the AIMA: to lessen the impact of the Arena's operations on the surrounding areas. The TDM focuses on providing efficient transportation options for Arena users in order to decrease the impacts of parking and traffic congestion. The TDM also describes specific measures for effectively managing Arena-generated traffic. Traffic-management and mitigation measures in the TDM vary by event level.

Arena Monitoring

The University contracted with the Community Planning Workshop (CPW), a service-learning program for graduate students within the Planning, Public Policy, and Management department at the University, to monitor Arena operations and determine the effectiveness of the mitigation and management measures described in the AIMA and TDM Plan. Five graduate students wrote the following report under the direction of CPW Associate Director, Bethany Steiner.

The Arena Comprehensive Monitoring Plan (ACMP) guided the monitoring efforts of the CPW team under the direction of a scope of work the University issued to the CPW. The ACMP was, in turn, put together in accordance with the AIMA, which states:

"a. ...City and University, along with contracted consultant and with input from the Association, will evaluate the effectiveness of the TDM Plan and the measures under this Agreement, as well as the impacts of the Arena on surrounding neighborhoods and infrastructure."

"b. The purpose of the monitoring efforts is to provide information to enable the parties to determine the impact of Arena events on the surrounding neighborhoods, to determine the effectiveness of the TDM Plan and this Agreement, and to solve identified problems, with recommended changes to certain measures under this Agreement if necessary."

"c. The University will develop a comprehensive monitoring plan... The (monitoring) plan will collect information to determine the nature and scope of the parking, transit, traffic, bicycle, pedestrian and other related impacts arising from Arena events..."

Structure of This Report

This report presents a synthesis of the CPW's findings and provides recommendations to enhance existing mitigation and management strategies. The report includes four sections. Section III, Findings, evaluates eight categories of monitoring that the CPW conducted: mode split, communications, automobile parking, transit, bicycle parking, intersections, noise, and litter. The appendices include supplementary materials, raw data, and detailed analyses.

II. METHODOLOGY

AIMA Monitoring Plan Requirements

The ACMP is designed to evaluate how well the Arena complies with the AIMA, evaluate the effectiveness of the TDM Plan, and assess the Arena's impact on surrounding neighborhoods and infrastructure. Per the ACMP's requirements, the CPW collected information on:

1. Mode of travel attendees used to visit the Arena
2. Arena communications
3. Automobile parking
4. Transit
5. Bicycle parking
6. Arena access routes and intersection function
7. Noise
8. Litter

The CPW team collected data on-site at four Arena events (i.e., firsthand observation); from interviews with neighbors, local businesses, agency personnel, and other stakeholders, as well as from primary data, such as raw transit ridership, event attendance numbers, and parking citation information (see tables 1 and 2).

**Table 1.
Data Collected On-Site**

Type of Data
Automobile Parking
Bicycle Parking
Intersections & Access
Litter
Noise

**Table 2.
Other Sources for Data**

Type of Data	Source
Parking Permit Sales	City of Eugene
Parking Citations	City of Eugene
Transit Ridership Numbers	LTD and First Student, Inc.
Attendance Counts	University
Communications Information	University, First Student, Inc., LTD
Interviews	<ul style="list-style-type: none"> • Residents (12) • Businesses (11) • Crowd Management Services • Transit Management & Drivers (LTD and First Student, Inc.) • UO Athletics • UO Department of Public Safety • City of Eugene: Parking & Planning Departments

On-Site Data Collection

CPW collected on-site data during one non-athletic event and three athletic events. The first event we monitored (February 10, 2011) was a practice monitoring. Chapter 6 and Table 3 describe the events.

Table 3. Monitoring Dates and Conditions

Date	Type of Event	Time	Attendance & Level	Weather
Thurs., Feb. 10	Women's BBall UO vs. UCLA	7pm	1,777 Level 2	Clear; 34°
Thurs., Feb. 17	Elton John Concert	8pm	12,189 Level 4	Rain/snow; 35°
Thurs., Feb. 24	Men's Basketball UO vs. Cal	6pm	10,487 Level 4	Cloudy; 40°
Sat., Feb. 26	Men's Basketball UO vs. Stanford	3pm	12,364 Level 4	Cloudy; 42°

To conduct on-site monitoring, the CPW developed six instruments for data capture and collection. These instruments were designed to collect information about the following:

1. Use of University parking lots
2. Use of the Event Parking District
3. Use of bicycle parking
4. Arena access and intersection function
5. Litter accumulation
6. Noise in the Fairmount neighborhood

A detailed description of each instrument is in Appendix A.

Other Sources for Data

As described in Table 2, the CPW collected additional information through interviews with the City, the University, and transit agencies. When possible, the CPW collected data corresponding to the dates on which the CPW conducted on-site monitoring.

III. FINDINGS

This chapter presents CPW's major findings by subject area: travel mode split, communications, automobile parking in University lots and the Event Parking District, EmX and Arena Shuttle, bicycle parking, Arena accessibility and intersection function, noise, and litter.

Overall, the findings suggest that the mitigation and management strategies intended to lessen the Arena's impact on the surrounding area are working. However, it is important to note that the Arena is only in its first year of operation and that the CPW only monitored three event days early in that first season.

I. TRAVEL MODE SPLIT

The CPW derived a mode split using event attendance numbers from two men's basketball games (February 24 and February 26, 2011) using methodology from JRH Engineering, which predicted the likely travel mode split for the Arena prior to its construction. Our calculations rely on transit ridership data, the number of student tickets sold, bicycle parking spaces utilized, and an estimated 3.35 occupants per vehicle.

The transit ridership data is the most accurate because both transit agencies (LTD and First Student, Inc.) collected comprehensive ridership counts for each night of service. Pedestrian data is a rough estimate that assumes all students with tickets walked to the Arena. Assuming that additional, non-student attendees also walked to the Arena, this estimate is conservative. Bicycle parking data corresponds to the number of spaces utilized during each event.

To determine the number of people who drove to each event, we added transit ridership to the pedestrian and bicycle counts and subtracted this total from the total attendance numbers. We assume that the remainder represents people who arrived in a vehicle. Because student tickets were not available for the Elton John concert, we could not calculate a pedestrian mode split for this event, which is why we only use two events for our mode split average.

Our calculations indicate that the mode split for the Arena in 2011 is consistent with projections (see Table 4). Our estimates found that 71% of attendees arrived by vehicle, 13% by transit, 16% on foot, and 1% by bicycle. Transit use increased 7% and vehicle use declined 6% over 2008 levels that JRH recorded at McArthur Court. Bicycle use increased minimally but makes up the least popular mode. Notably, cold and rainy weather likely deterred bicycle riders during both monitored events.

Table 4: Estimated Mode Split 2011

Modal Choice	Estimated Mode Split for Arena 2011		TDM Mode Split Prediction for Arena		Mode Split at Mac Court 2008	
	%	Spectators (Cars)	%	Spectators	%	Spectators
Automobile¹	71%	8,061 (2,406)	69%	8,625	75%	6,667
Event Parking District ²	5%	570 (170)				
On-site & Adjacent ³	14%	1,605 (479)				
On-/Off-Street Parking ⁴	52%	5,887 (1,757)				
Bicycle	1%	74	1%	125	0.4%	35
Pedestrian⁵	16%	1,810	16%	2,000	19%	1,662
Transit⁶	13%	1,481	14%	1,750	6%⁷	531
EmX	5%	528	1.5%	190		
Arena Shuttle	8%	953	12.5%	1560		
Total		11,426 (2,406)		12,500		8,895

Source: CPW Monitoring 2011 and TDM.

Note: Percentages do not add to 100% due to rounding.

¹ Persons per vehicle = 3.35, see TDM p.36. Number of persons by automobile = total attendance - number of persons by transit - number of persons by bike - number of persons by walking.

² Average permit sales is 170. Persons parked in Event Parking District = 170*3.35 (persons per vehicle) = 570.

³ This includes garage parking, on-site surface parking, and adjacent parking, for a total of 479 spaces. We assume that all on-site and adjacent spaces are fully utilized for men's basketball games.

⁴ Number of persons parked off-street = number of persons by automobile - number of persons parked at garage - number of persons parked at Event Parking District.

⁵ Student ticket number is a proxy for pedestrian volume; average number of student tickets is 1,810.

⁶ Number of persons by transit = number of persons by EmX + number of persons by Arena Shuttle. Ridership data is from LTD and First Student Shuttle.

⁷ This number is only for LTD shuttles.

2. COMMUNICATIONS

CPW monitored Arena communication with two goals in mind:

1. To determine what type of response (if any) that event attendees, neighborhood residents, and local business owners have regarding Arena events and operations.
2. To determine how effectively current communication strategies convey Arena event information to event attendees and other interested parties (e.g., neighbors, businesses).

Methodology

To determine what people were saying about Arena operations, the CPW interviewed neighbors and local businesses and reviewed relevant e-mails to the University's Department of Public Safety and its Government and Community Relations department. To determine how effectively current communication strategies convey Arena event information, the CPW reviewed existing communication methods and processes, including websites related to Arena operations and mass e-mails from the University Ticket Office to ticket holders. The CPW also interviewed officials from the Department of Public Safety; First Student Shuttle, Inc.; Lane Transit District; and the Arena Ticket Office to get a sense of what kinds of questions (if any) they handle and whether and what kind of event publicity each organization generates.

Findings

The University conveys Arena information through two departments: Athletics and the Government and Community Relations department; however, there is a lack of coordination between the two departments. Interested parties also seek information from First Student Shuttle, Inc. and Lane Transit District—mostly to learn more about transit options, but sometimes to get additional information about parking or other operational details.

University Communications: Athletic Department

The Athletics department's website (www.matthewknightarena.com) is the main source of information about the Arena. The website is the first to populate search results using Google, Bing, and Yahoo!. The site's visitors can access event schedules, buy tickets, learn about the Arena, and find parking and transportation information. However, much of the transportation information, including information about the Arena Shuttle, EmX, passenger drop-off and pick-up locations, and bicycle parking, is not prominently displayed. Rather, it is part of a list of "Answers to Frequently Asked Questions" that is only accessible by clicking on one of the three links in the "parking" section of the site ("Concert and Event Parking," "Men's Basketball Parking," "Women's Basketball Parking"). Additional phone and web contact for information are more obvious on the main "transportation and parking" page. These contacts include the City of Eugene parking services and the University of Oregon parking services (through the Department of Public Safety). A number (541-346-8404) and e-mail (mattinfo@uoregon.edu) are also provided.⁸

⁸ As of April 2011, the University of Oregon Athletics department had not activated the phone number or e-mail address. As a result, during the winter of 2011 the department did not receive or review feedback from these channels. According to the AIMA, these communication channels should have been operational during the season.

Athletics also operates the Arena's ticket sales office. This office fields phone calls prior to events and sends out informational e-mails to ticket holders. E-mail blasts generally occur a few days before all non-athletic events and at least twice a year to basketball ticket holders. E-mails include information on event times, re-entry policies, prohibited items, smoking policy, and parking options, as well as a description of the Arena Shuttle and the locations of remote lots, EmX, and bicycle parking. Appendix H includes a copy of the e-mail to ticket holders prior to the Elton John concert on February 17.

The e-mail blast from the Arena ticket office to ticket holders contains easy-to-navigate information regarding transit options and bicycle parking. Given that much of this information is not intuitively located on the Arena's main webpage, we suspect this e-mail blast was a major source of travel information, particularly for EmX and Arena Shuttle riders.

University Communications: Government and Community Relations Department

While the Arena was under construction, the Government and Community Relations department hosted an Arena website designed primarily to keep people up-to-date on the construction and permitting process. The site includes the TDM Plan, the AIMA, and the CUP application. It was not intended to be accessible post-construction and therefore does not have parking information; however, it remains active and receives considerable traffic from people who want Arena information. In summer 2011, the Government and Community Relations department will delete this webpage.

Government and Community Relations publishes a "Campus Community Contact" newsletter, which provides information about upcoming campus events, as well as their locations, expected attendance, event parking, and traffic information; and also includes University staff names and contact information.

City of Eugene Communications: Parking Services

The City of Eugene's Parking Services website (eparkeugene.com) provides information regarding the Event Parking District. This website links to the main Arena parking and transportation page (matthewknightarena.com/parking.php). The eparkeugene.com site also provides information regarding parking in the City of Eugene, including information about the expanded parking permit area in the South University Neighborhood Association (SUNA) area, downtown parking closures (at 10th and Olive, the Overpark garage, and the Parcade garage), expanded free parking in downtown Eugene, and the opening of the Event Parking District on January 13, 2011. A toolbar links to 12 additional pages that address parking meters, the Event Parking District, parking citations, parking services news, and other parking topics.

Information regarding Arena parking is on the epark.com main page and also on the "Event Parking District Information" page. The main page provides background information about the Parking District, refers browsers who wish to purchase passes to the Arena ticket office, informs browsers that guest permits are not valid when the University sells parking passes, notes that

citation fines double during events, and shows a map of the Event Parking District. The main page also notes the availability of park and ride shuttles, EmX, and the bicycle valet. The page refers users to the Arena parking and transportation webpage (www.matthewknightarena.com/parking.php) for information on these options.

The “Event Parking District Information” page provides information regarding the establishment of the Event Parking District, resident parking permits, guest permits, and double parking fines during events. This page also lists information⁹ about where and when residents can pick up permits. This page displays the Event Parking District map and provides contact information for Jeff Petry, Parking Services Manager for the City of Eugene.

Other Channels of Communication

Though not official University communication channels, First Student Shuttle, Inc. (an Arena Shuttle operator) and Lane Transit District serve communications roles during Arena operations.

First Student Shuttle, Inc.: Our research found that First Student Shuttle receives a large volume of calls prior to some Arena events. For example, the office received more than 100 calls prior to the Elton John concert. On occasion, the volume required First Student to reassign personnel to answer phones. Efficiently handling Arena calls was most difficult on weekdays when dispatchers were busy routing after-school buses. (First Student provides school bus service to Eugene’s public schools.) Callers to First Student Shuttle ask about shuttle cost, frequency, remote parking lot locations, and event parking.

Lane Transit District (LTD): LTD received calls regarding EmX transportation to the Arena. Our research shows that LTD personnel were not necessarily prepared to answer the variety of inquiries about Arena operations, such as parking or event times.

Feedback from Interviews

Resident interviews indicate that providing more information regarding what triggers the Event Parking District restrictions would be helpful. Residents also want details regarding resident parking during event days, as well as a repository of information regarding how the University manages traffic, noise, and litter. Currently this information is not easily available on either of the University's Arena-related websites.

In addition to gathering information from websites and residents, users obtain Arena information from members of the Fairmount Neighborhood Association (Association) who are also members of the Neighborhood Arena Liaison Committee (NALC). This source provides some residents with necessary Arena-related information but is not a consistent channel of communication available to all residents.

⁹ CPW determined that this information is outdated.

Resident interviews indicate that some residents look to the Government and Community Relations newsletter for Arena information, though most did not.

Conclusions

Our research indicates that sufficient information is indeed available regarding the Arena’s operation, including information about transit options, on the Arena’s website as well as on the UO Community Relations and City of Eugene Parking Services websites. However, much of this information—especially regarding non-automobile travel options to the Arena—could be more prominent and better integrated with other websites containing Arena information. We support providing Arena information through various conduits, but the information itself should be centralized and standardized so that questions can be answered easily without having to access many different websites.

Despite the fact that parking maps are online, the volume of queries the ticket office and First Student Shuttle receive regarding parking and the confused behavior of many drivers (see Chapter 6) on event days indicate that parking communications strategies could improve. Overall parking confusion will likely decrease as guests become familiar with the landscape. However, especially for large shows (such as Elton John), there will always be first-time attendees. Similar to Arena-area residents, Arena patrons indicate that they want a more unified and strategic communications strategy.

3A. AUTOMOBILE PARKING: UNIVERSITY PARKING LOTS

Background

According to the City of Eugene Code Section 9.6410(3), the AIMA, and the TDM, the University must provide at least 2,085 off-street parking spaces for Arena parking. The University constructed 405 spaces on-site (underground garage and surface parking) and 74 spaces adjacent to the site, for a total of 479 spaces.

To make up the gap of 1,606 off-street parking spaces, the University turned to the idea of “shared parking” whereby the University utilizes existing campus parking lots, as well as nearby lots owned by other organizations and businesses that agree to make their lots available to event attendees. Using this method, the University provides more than 2,085 off-street parking spaces. Some of these lots operate as paid parking lots staffed by traffic-control personnel during events. Other lots (mostly campus lots farther away from the Arena) were free and have no control gate, personnel, or other infrastructure to restrict use. Part of the CPW’s scope of work was to inventory the available parking spaces in these uncontrolled campus lots one hour before an event.

Methodology

Using the same methodology as JRH Engineering, the CPW monitored on-campus automobile parking for one concert (Elton John) and two Level 4 men’s basketball games. CPW monitors counted the number of parked cars in each uncontrolled University lot, excluding 24-hour reserved spaces and spaces reserved for service vehicles, within one hour of the start of each

event. Because each of the five monitors counted 10 to 15 lots, the CPW recorded available spaces at different times within the hour. In total, the CPW monitored 62 of 71 campus lots. Lot selection was based on discussions with the University campus planner, Department of Public Safety (DPS) officers, transportation engineers, faculty, and Arena designers. Nine of the 71 lots were not selected for monitoring for one of the following reasons: (1) they were subject to special permits for parking; (2) they were controlled University lots; or (3) they were not within 1,320 feet of contiguous University-owned property (AIMA, p2).

The number of available spaces for each lot was calculated using the following formula:

$$\text{Available Spaces per Lot} = \text{Existing Spaces} - \text{Service Spaces} - \text{24-Hour Reserved Spaces} - \text{Parked Spaces}$$

We calculate the total available parking spaces by applying a 10% walking-factor deduction; this is in line with JRH's 2008 on-campus automobile parking monitoring method. The formula is:

$$\text{Total On-Campus Available Spaces} = 90\% * \text{Sum of Available Spaces in Each Lot}$$

Off-Street Automobile Parking Definitions

Available Spaces: Unoccupied, available spaces.

Existing Spaces: The total number of spaces per lot.

Service Spaces: On-campus parking spaces or zones for service vehicles, such as commercial delivery, loading, etc.

24-Hour Reserved Spaces: Parking spaces that are reserved at all times for specific license plate numbers.

Parked Spaces: The number of filled parking spaces when the monitoring occurs. This does not include cars parked in service spaces or in 24-hour reserved spaces.

On-Site Parking Spaces: Underground garage and surface spaces near the Arena, spaces on the west side of vacated Columbia Street, and spaces on the north side of 13th Avenue.

Off-Site Lease Agreement Spaces: Parking spaces that the University leases from owners and that can be used for Arena events parking.

Pay Lots: Parking lots that collect a \$10 parking fee for event parking. The University decides which lots are "pay lots" for each event.

Uncontrolled Lots: Parking lots that do not have a control gate or other infrastructure restricting use.

Findings

On-Campus Available Spaces

On average, CPW monitors found 1,351 available University campus parking spaces one hour before an Arena event starts, although the number of available campus parking spaces for each of the three monitoring events was slightly different. Detailed information for each event is in Table 5.

Because the CPW applies the same methodology that JRH did in 2008, comparisons of the number of available campus lot spaces in 2008 and 2011 are meaningful. Accordingly, in 2011,

the CPW found 250 more parking spaces than JRH did in 2008 (see Table 6). The reasons for the discrepancy between the 2008 and 2011 numbers may include:

- The University constructed more parking: the School of Music and the College of Education completed construction after the 2008 survey, which added spaces;
- The University increased the price of parking permits, possibly lowering permit sales;
- More staff and students used alternate modes to get to campus.

Table 5. Available Campus Parking Spaces for Three Arena Events

Date	Type of Event	Monitoring Time	Available Spaces
Thurs, Feb. 17	Elton John	7pm - 8pm	1,317
Thurs, Feb. 24	Men's Basketball	5pm - 6pm	1,409
Sat, Feb. 26	Men's Basketball	2pm - 3pm	1,326
Average Available Spaces			1,351

Table 6. Available Campus Parking Spaces, 2008 vs. 2011

JRH 2008 Count	CPW 2011 Count	Change (2011 to 2008)
1,101	1,351	250

Off-Street Parking Summary

The total number of off-street parking spaces is calculated using the following formula:

$$\text{Total Off-Street Parking Spaces} = \text{Available Campus Spaces} + \text{On-Site Spaces} + \text{Off-Site Lease Agreement Spaces}$$

Using this formula, the CPW counted an average¹⁰ of 2,286 parking spaces available for Arena parking one hour before an event. A detailed breakdown of the off-street parking categories is in Table 7.

¹⁰ The average spaces count is based on monitoring two men's basketball game and one concert.

Table 7. Off-Street Automobile Parking

Parking Requirements	CPW Count
C-2 Required Vehicle Parking Spaces	2,780
C-2 Required Vehicle Parking Spaces after 25% reduction	2,085
Provided Off-Street Parking Spaces	
On-Site or Adjacent to Site (Underground Garage, Surface Parking)	479
Available On-Campus Automobile Spaces One Hour before Event	1,351
Off-Site Lease Agreements	
1825 Garden Avenue (Chambers Management Corp.)	73
1976 Garden Avenue (Chambers Management Corp.)	32
1891 Garden Avenue (Chambers Management Corp.)	20
1933 Franklin Boulevard (Myrmo & Sons Inc.)	85
1600 Millrace Drive (Riverfront Research Park; Barney McCabe)	171
2123 Franklin Boulevard (InnCline Property Mgmt.)	75
Total Off-Site Lease Agreements	456
TOTAL	2,286
AIMA REQUIREMENT - LEVEL 3A/4	2085
Surplus	201

This data indicate that the University clearly exceeds the number of off-street parking spaces (2,085) required by City code, the TDM, and the AIMA (p2). The University provides a total of 2,286 off-street parking spaces within one hour of an Arena event—a surplus of 201 parking spaces.

Geographic Distribution of Available On-Campus Spaces

Map 1 shows the average vacancy rate for each monitored on-campus parking lot one hour before the start of each event. From the map, we can see that:

- There are great variations in occupancy for the 62 monitored on-campus lots.
- Most of the lots are not full one hour before Arena events (e.g., Lot 34 E had on average more than 200 available spaces one hour before an event).

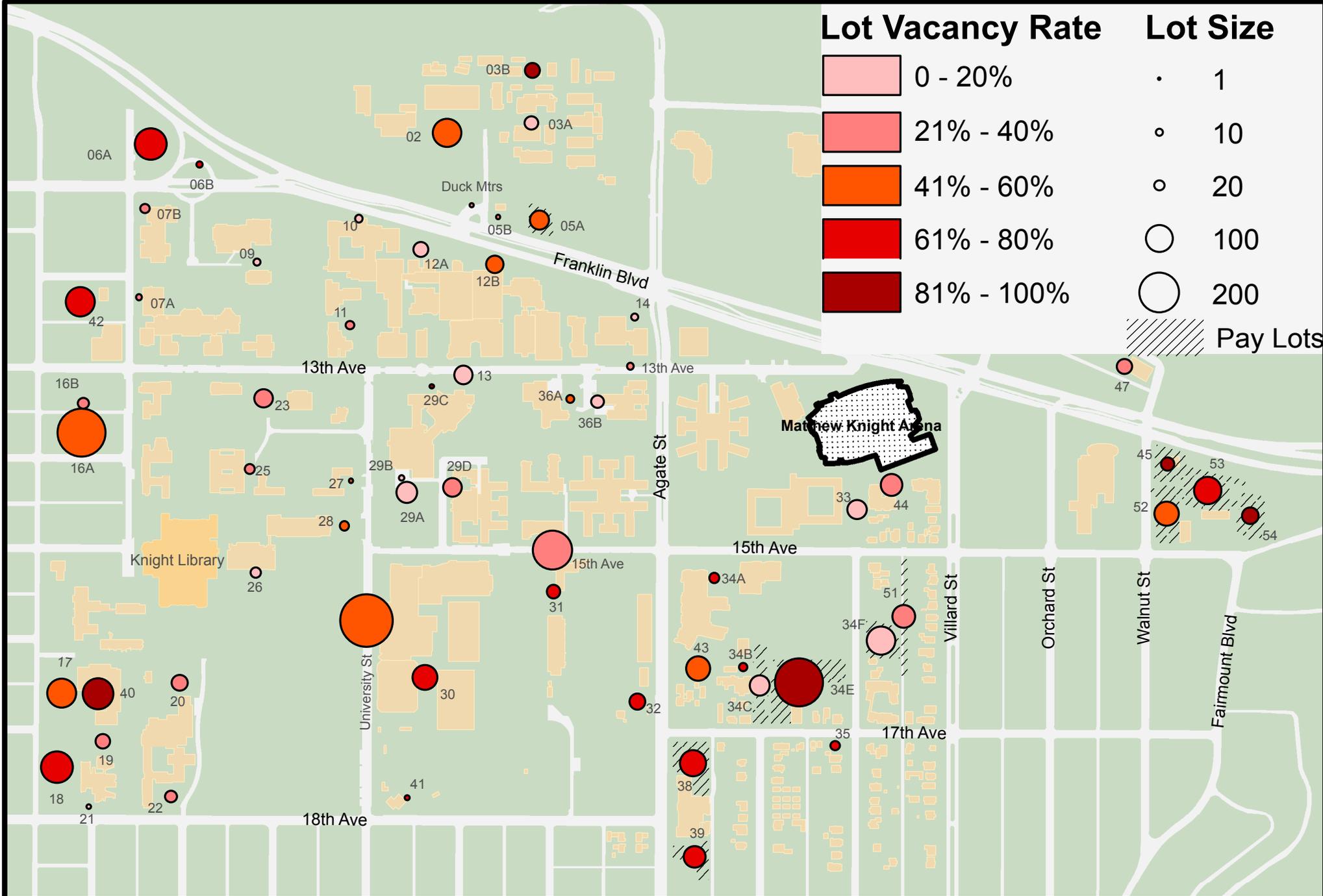
- Lots with high vacancy rates are generally along the periphery of the campus and farther away from the Arena. This includes lots 02, 06A, 16A, 17, 18, 34E, 37, 38, 40, and 54.
- Large lots with over 100 spaces usually have very high vacancy rates. This includes lots 06A, 16A, 18, 34E, 40, 42, and 53.

Conclusion

The University has more spaces than are required to meet the City of Eugene's mandatory 2,085 off-street parking spaces. This is based on the CPW's 2011 count of on-campus automobile parking spaces, off-site lots, and off-site lease agreement data from the 2010 Arena Event Operations Plan.

Map 1 illustrates that most on-campus lots are underutilized one hour before an event. Lots 02, 06A, 16A, 17, 18, 34E, 37, 38, 40, and 54 tend to have many available spaces (50 to 200 spaces) one hour before each event.

According to DPS Captain Herb Horner, on-campus parking operated smoothly during Arena events. DPS stops issuing on-campus parking tickets one hour before each Arena event in order to accommodate Arena parking. Therefore, there are no on-campus parking citations during each Arena event.



UO Lot Average Vacancy Rate One Hour Pre-event



Source: CPW



3B. AUTOMOBILE PARKING: THE EVENT PARKING DISTRICT

Background

Paragraph 5(a) of the AIMA sets forth mitigation measures for Arena event parking and specifically requires the City to establish a Fairmount Neighbors Event Parking District (Parking District). The AIMA states that the Parking District restrictions are in addition to the existing parking restrictions that apply within the Parking District boundaries.¹¹ The Fairmount Neighbors Event Parking District took effect in September 2010.

Map 2 shows the boundaries of the Parking District, within which there are approximately 860 on-street parking spaces.¹² Vehicles without a permit can only park for a maximum of two hours on all streets within the Parking District between 7am and 11pm, seven days a week. The City of Eugene enforces this two-hour limit and awards fines of \$16 to vehicles out of compliance. Fines double whenever there is an event in the arena. In nearby neighborhoods, the two-hour parking limit is only enforced between 7am and 6pm, Monday through Friday, and fines are consistently \$16.

Map 2. Event Parking District



Source: City of Eugene.

The City of Eugene's Parking Services program uses a License Plate Recognition (LPR) system to enforce on-street parking. The new technology photographs the license plates on cars parked in the Parking District and downloads them to a computer database. If the LPR camera photographs the same license plate in the same parking spot more than once after a two-hour period, the parking-enforcement monitor will issue a citation.

Event Parking Permits

Ticket holders may purchase a special permit from the University to park in the Parking District during Level 4 men's basketball games. Permits are \$10, consistent with the price of parking in a University parking lot. Up to 500 permits are available for the 860 on-street parking spaces in the Parking District.

The University of Oregon sold Parking District permits for 10 Level 4 men's basketball games during the 2010-2011 season. Ordinarily, there are up to 22 basketball games per season; however, because the Arena opened halfway through the 2010-2011 basketball season, only 10 Level 4 games remained (seven regular-season games and three post-season games).

¹¹ Administrative Order No. 58-10-15 of the City Manager of the City of Eugene, *Establishing Fairmount Neighbors Event Parking District*, Aug. 24, 2010.

¹² Interview with Eugene Parking Services, March, 2011.

Residents in the Parking District can receive two free “J Zone” permits from the City, which override the Parking District’s restrictions and give them unlimited access to on-street parking. Single-day guest permits are available as well but are not valid when the University is selling on-street event permits. To obtain a guest permit, residents must go to Eugene’s Planning & Development office and apply in person.

Methodology

To determine the number of vehicles parked in the Event Parking District during Level 4 men’s basketball games at the Arena, the CPW collected the daily LPR information from the Eugene Planning & Development office and counted the unique license plates on each street in the Parking District during the first two hours of events on February 3, 5, 17, and 24.¹³ “Unique” license plates refers to distinct vehicles in the Parking District during the two-hour timeframe we monitored. If the LPR camera photographed a license plate more than once during this time (i.e., it drove down a street more than once and re-photographed a car), we counted it as one “unique” vehicle.

To determine the number of parking permits distributed for each men’s basketball game, we contacted the University Athletics department, which records the number of permits distributed per event. The City of Eugene's Planning & Development office provided the number of parking citations written during each men’s basketball game within the Event Parking District.

Findings

Car Counts

On-street parking in the Event Parking District varied by event and by street. The LPR data show that not all streets in the Parking District are monitored equally. Thus, the data is limited for the following reasons:

1. The parking monitor drove down some streets more than others; certain streets were monitored multiple times per event, some only once, and some not at all.
2. The parking monitor took a break during each event; as a result, there are gaps in the data that last approximately 30 minutes.
3. The LPR data is not normalized by the total number of parking spaces on each street (i.e., the data does not take into account the fact that some streets have more parking spaces than others).

Table 8 shows the unique vehicle counts in the Parking District for each event. See Appendix C for the number of unique vehicles in the Parking District per street.

¹³ These dates are different from the dates that the CPW monitored, because the LPR camera was broken on February 26 and data for that day's event was therefore unavailable. Because of this constraint, we collected data for two other Level 4 men’s basketball games (February 3 and 5) in order to analyze the data. February 17 was the Elton John concert, and although permits for the Parking District were not sold on the 17th, there were a significant number of non-permitted cars parked in the neighborhood.

Table 8. Vehicles in Parking District

Date	Event	Start Time	Attendance	Cars in Parking District
Feb. 3	UO v. WSU	1:00 PM	11,925	437
Feb. 5	UO v. UW	8:00 PM	12,189	258
Feb. 17	Elton John	6:00 PM	10,487	175
Feb. 24	UO v. Cal	3:00 PM	12,364	310

Source: University of Oregon Athletics Department and the City of Eugene.

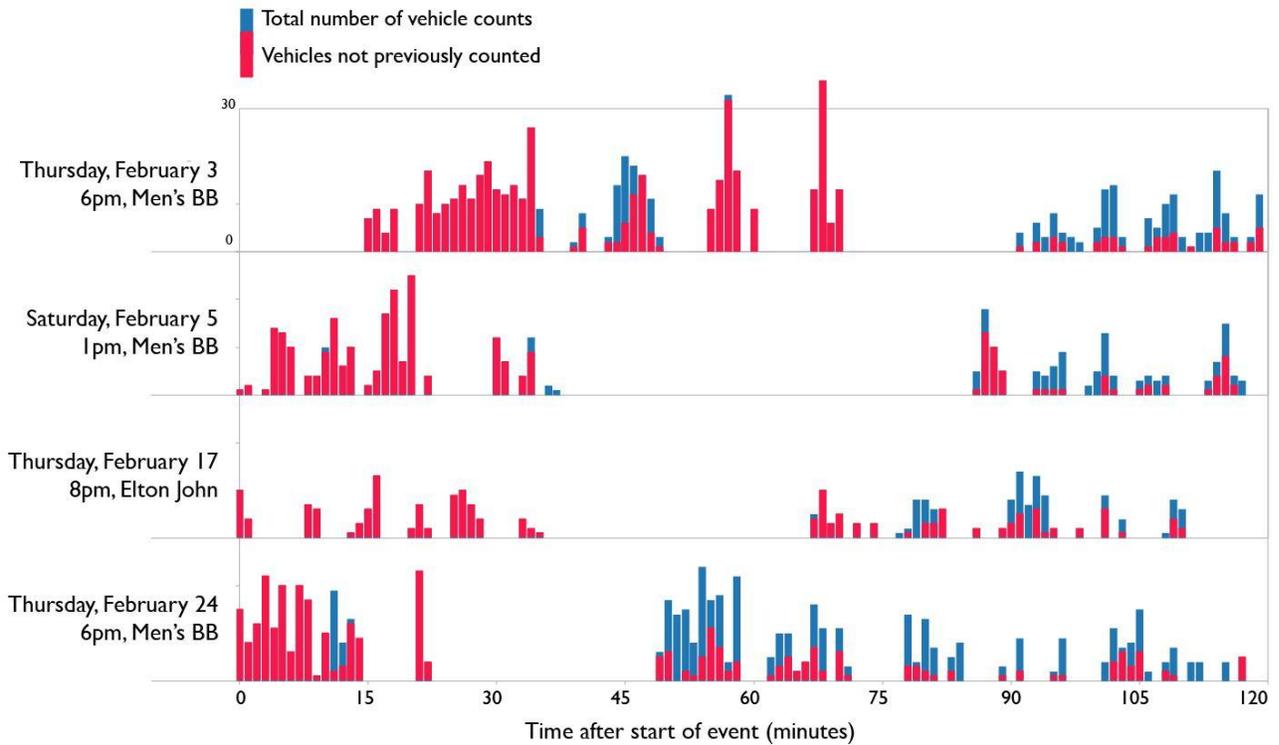
Table 9 presents the number of new vehicles and the number of total vehicles in the Parking District for the first two hours of each event. “New vehicles” refers to vehicles that the LPR camera counts for the first time. “Total vehicles” includes vehicles that were previously counted. Because the LPR camera records license plate images each time it passes a vehicle, passing the same vehicle more than once records as two distinct vehicles. We distinguish the values in order to avoid double-counting.

Table 9. New Vehicles

Date	New Vehicles¹⁴	Total Vehicles	Percent New
Feb. 3	101	437	23%
Feb. 5	58	258	22%
Feb. 17	77	175	44%
Feb. 24	72	310	23%

¹⁴ This number indicates the number of “new vehicles” counted one hour after the start of each event.

Figure 1. New Vehicles Over Time



This data indicate that the LPR camera recorded a significant number of new vehicles in the Parking District well after the start of each event. Assuming that people parking in the Parking District an hour after the start of an Arena event are not going to the event, this data suggests that a considerable portion (up to 44%) of vehicles are parking for reasons other than attending an Arena event.

Parking Permits

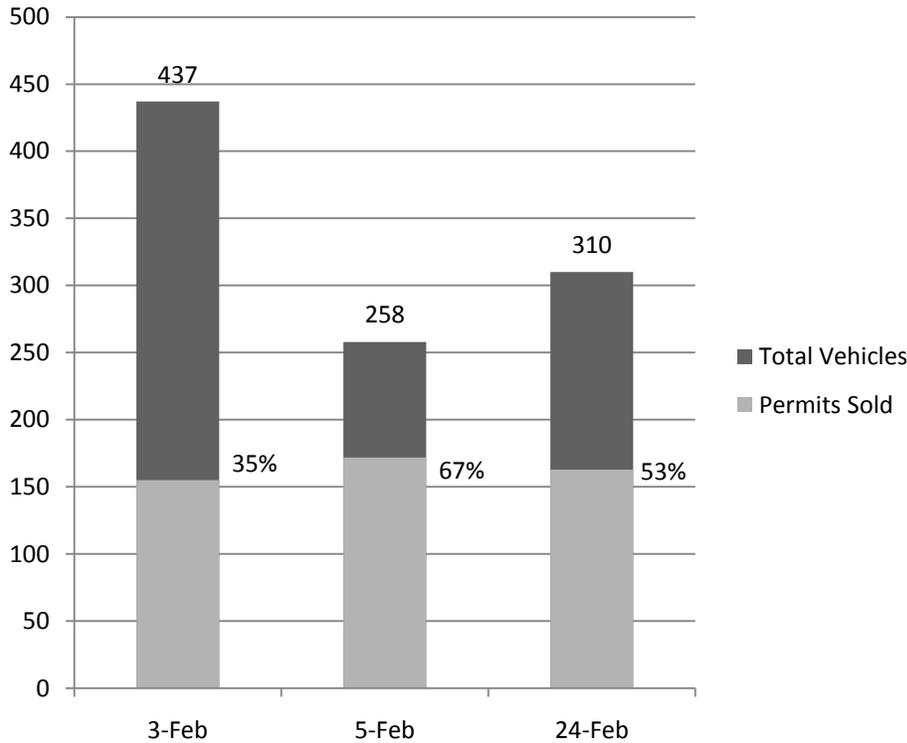
For each monitored event, about 175 of the University’s 500 allocated permits were used (see Table 10). In addition to University event permits, the City distributed 496 J Zone permits to residents in the Parking District.

Table 10. University Permits Used

Date	Event	Time	Attendance	Total Permits
Feb. 3	UO vs. WSU	6:00 PM	10,017	159
Feb. 5	UO vs. UW	1:00 PM	11,925	176
Feb. 24	UO vs. Cal	6:00 PM	10,487	167
Feb. 26	UO vs. Stanford	3:00 PM	12,364	178

The data in Table 10 indicate that permitted vehicles only used 20%-25% of the 860 total spaces (this number does not include the 496 J Zone permit spaces) in the Parking District during the men’s basketball games we monitored. These same vehicles made up between 35% and 67% of the actual vehicles in the Parking District during each event, as monitored by the LPR camera (see Figure 2).

Figure 2. Percent of Counted Vehicles with Permits



Source: University of Oregon Athletics Department and the City of Eugene.

Citations

Table 11 displays the number of city-issued citations in the Parking District for each monitored event.

Table 11. Citations

Date	Event	Time	Attendance	Citations
Feb. 5	UO vs. WU	1:00 PM	11,925	10
Feb. 17	Elton John	8:00 PM	12,189	12
Feb. 24	UO vs. Cal.	6:00 PM	10,487	5
Feb. 26	UO vs. Stanford	3:00 PM	12,364	9

Conclusions

Overall, the Event Parking District is functioning well. The University distributes parking permits during Level 4 men's basketball games, which override the new parking restrictions imposed by the Event Parking District. The City distributes J Zone permits to residents in the Parking District. Although these permits override the parking restrictions at all times, city-issued guest permits are not in effect during Level 4 men's basketball games. Several neighborhood residents complained about this policy during interviews (see Appendix G).

4. TRANSIT: EMX AND ARENA SHUTTLE

Transit is an important way to get people to and from the Arena without the use of the private automobiles and large parking lots. Both Lane Transit District's EmX and a private shuttle carrier, First Student Shuttle, connect to park and ride lots in the community.

The Transportation Demand Management Plan (TDM) projects an increase in ridership to the Arena from McArthur Court due to its proximity to EmX stops and the implementation of a TDM program. The mode split for transit at McArthur Court in a 2008 study was 6%. The mode split for athletic events at the Arena is projected to be 14% and is expected to be 12% for non-athletic events.

The ridership numbers and interviews indicate that transit service to the Arena works well. The 13% mode split for the athletic event days that the CPW monitored is within one percentage point of the 14% TDM project mode split for overall transit access to the Arena.

This chapter describes specific findings associated with EmX and the Arena Shuttle.

A. EMX Background

LTD runs an EmX bus from the Eugene Station to the Springfield Station every 10 minutes between 7 a.m. and 6:30 p.m. and every 15 minutes between 6:30 p.m. and 10:45 p.m. Monday through Friday. On Saturday and Sunday an EmX bus runs this route every 15 minutes from 7 a.m. to 10:45 p.m. These routes are not scheduled to change for Arena events. EmX has two stops on the east and west side of the Arena, which provide large, covered platforms for riders. The stops are on Franklin Blvd. at Agate St. and Walnut St.; they are 800 and 1,320 feet from the Arena, respectively.

Methodology

We obtained ridership numbers from LTD for the two EmX stops near the Arena (Franklin at Agate, and Franklin at Walnut). The CPW collected ridership information for event-monitoring days, as well as for comparable non-event days. Data for comparable non-event days consists of average ridership for the three days before a weekday event and the previous two Saturdays for Saturday events. The ridership numbers consist of passenger boardings and alightings (exits) from each bus. To determine the number of people utilizing the Arena stops, we average these two numbers (Average People Count). Subtracting the Average People Counts for comparable non-event days from event days indicates the increased ridership due to Arena events.

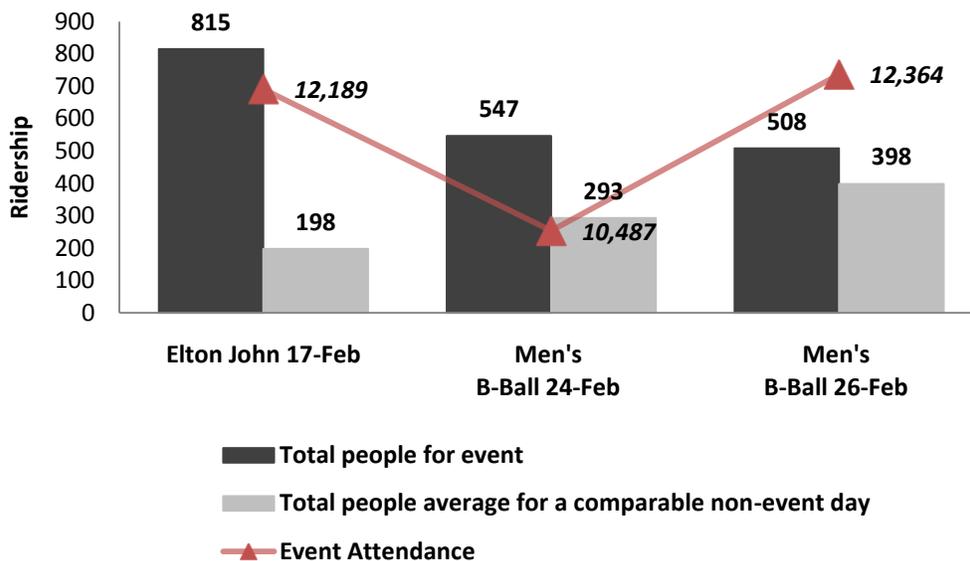
In addition to collecting ridership information, the CPW interviewed transit staff to understand how Arena events affect their operations. Interviews included eight EmX drivers who drove during one of the monitored events, Service Planning Manager Will Mueller, and Director of Operations Mark Johnson.

Findings

Event Ridership

Ridership numbers for the three events show that event attendees are utilizing EmX to access the Arena. Ridership increases range between 110 and 617 passengers over normal passenger loads. This shows that although ridership largely depends upon event attendance, more people rode EmX to attend the non-athletic event (Elton John concert) on February 17 than the athletic event on February 26 (see Figure 3).

Figure 3. EmX Ridership Increase from Baseline



Source: Lane Transit District.

Findings from LTD Interviews

CPW interviewed LTD managers and EmX drivers who drove during the monitored event days to determine how Arena events affect bus service. These interviews indicate that, overall, the EmX service to Arena events is functioning very well. The concerns identified in these interviews are within the categories of operations, safety, and budget.

Management

LTD managers provided several useful insights on Arena operations and bus service.

Operations:

- LTD has a limited supply of EmX buses needed to use the specialized platforms at the two Arena stops. The additional buses that LTD put in service for some events outstripped existing EmX capacity, resulting in regular-service buses stopping at alternate stops.
- Peak rush-hour coincides with evening events, which means that buses run near capacity at event start time on weekdays.

- Many riders assume that EmX is a shuttle service to the Arena and thus also assume that EmX buses will be available for a return trip without first checking on hours of operation.

Safety/Access:

- Pedestrian crossing mid-block on Franklin Blvd. results in people walking down the EmX right of way, which increases the potential for accidents.
- Crowded intersections at Agate Station post-event have resulted in people getting pushed into the street and into the EmX right of way.
- Overcapacity buses sometimes have limited wheelchair space during events.

Budget:

- Some of the evening events finish after regular EmX service ends, requiring LTD to extend its hours in order to provide return trips post-event.
- Extending LTD's hours of operation for the three monitored events monitored cost \$1,801 in overtime. (Appendix D, Table D.1.). To date, there has been no arrangement between the University and LTD regarding compensation for overtime or operating expenses. The extra ridership from the Arena events does not compensate for the extra expenses, according to LTD, because fares generally account for less than 20% of LTD's operating expenses.

Drivers

CPW interviewed eight EmX operators who drove during Arena events. These drivers identified rider and pedestrian safety as their top concern. In particular, drivers noted that crowded bus platforms and nearby intersections are dangerous because people may be pushed into a traffic lane. The drivers suggested better crowd control in these areas. The drivers all reported seeing pedestrians crossing and walking in the EmX right of way on Franklin Blvd. The consensus was that this behavior delays service by making drivers stop for pedestrians and thus miss the timed lights at intersections; it is also a dangerous situation for the pedestrians.

Conclusion

EmX service to Arena events has been successful, and ridership is within 1% of the TDM's predictions. However, for the monitored events, we did not find a larger proportion of transit ridership for athletic events versus non-athletic events as TDM predicted. In fact, the non-athletic event for which the CPW collected data (Elton John) had the greatest ridership proportion of each of the three monitored events. The non-athletic event also ended after EmX's operating hours, causing LTD to extend service and incur overtime expenses

4B. ARENA SHUTTLE (FIRST STUDENT, INC.)

Background

The purpose of our monitoring effort was to determine the effectiveness of Arena Shuttle operations for Arena events. The University contracts with First Student, Inc., for its shuttle service to remote parking lots for events with projected attendance greater than 6,500 (Level 3 and above). In this document, we refer to First Student generically as Arena Shuttle.

Shuttle riders park and ride from three remote parking lots: Autzen Stadium, South Eugene High School, and Springfield Station. On two occasions during the 2010/2011 season, Downtown Eugene substituted as a remote parking location for South Eugene High School because events at the high school limited parking availability.

The University used a remote-lot shuttle system during men's basketball games at McArthur Court. LTD in cooperation with the University provided this service, known as the Duck Express. Fewer than 6% of basketball fans at McArthur Court used the Duck Express.¹⁵

The remote-lot shuttle system also transports attendees to Autzen stadium for football games. Approximately 10,000 people, or 16% of Autzen attendees use this service to get to football games.¹⁶ The TDM anticipated that 12.5% of all event attendees at capacity athletic events would use a remote-lot shuttle to get to the Arena.

Methodology

CPW obtained Arena Shuttle ridership numbers from First Student for 11 Arena events the company serviced between January 13 and March 30. Ridership numbers indicate the number of people who boarded an Arena Shuttle at one of the remote parking lots. We compared these ridership numbers to total tickets sold for all events occurring on January 13 through March 8.¹⁷

We also interviewed First Student, Inc., manager Del Loucks for his perspective on shuttle operations, including the timing of routes, ease of access to and from the Arena, and the function of remote parking lots. Loucks was the lead supervisor for all shuttle-serviced events at the Arena.

Findings

Event Ridership

Over the course of the 11 events that the Arena Shuttle serviced, 11,808 riders boarded a shuttle to get to the Arena. Ridership per event varied from between 6% (Nike Clash) to 18% (Elton John) of total attendees (see Figure 4). The average ridership for all shuttle-serviced events between January 13 and March 8 was 9.4%. The average shuttle ridership for all Arena capacity events (events with attendance greater than 12,000) over this same period was 10%. This is slightly less than the 12.5% the TDM anticipated.

The fluctuation between total number of attendees and total ridership is shown in Figure 4. Shuttle ridership does not appear to be directly related to any specific event type. Ridership numbers were highest for the first two basketball games (approximately 12% of attendees) and for the Elton John concert (approximately 18%). At all other events, fewer than 10% of attendees rode an Arena Shuttle.

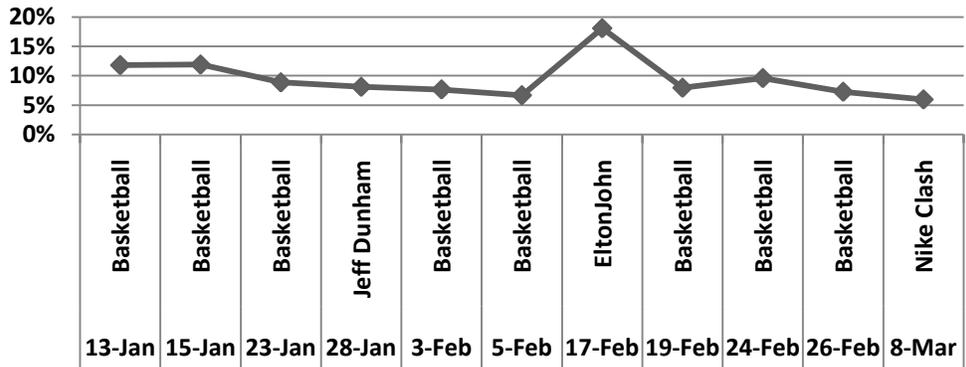
¹⁵ TDM, JRH, 2009.

¹⁶ TDM, JRH, 2009.

¹⁷ We were only able to compare ridership numbers to tickets sold through March 8 as opposed to March 30 because at the time of this analysis we only had total attendance numbers through March 8.

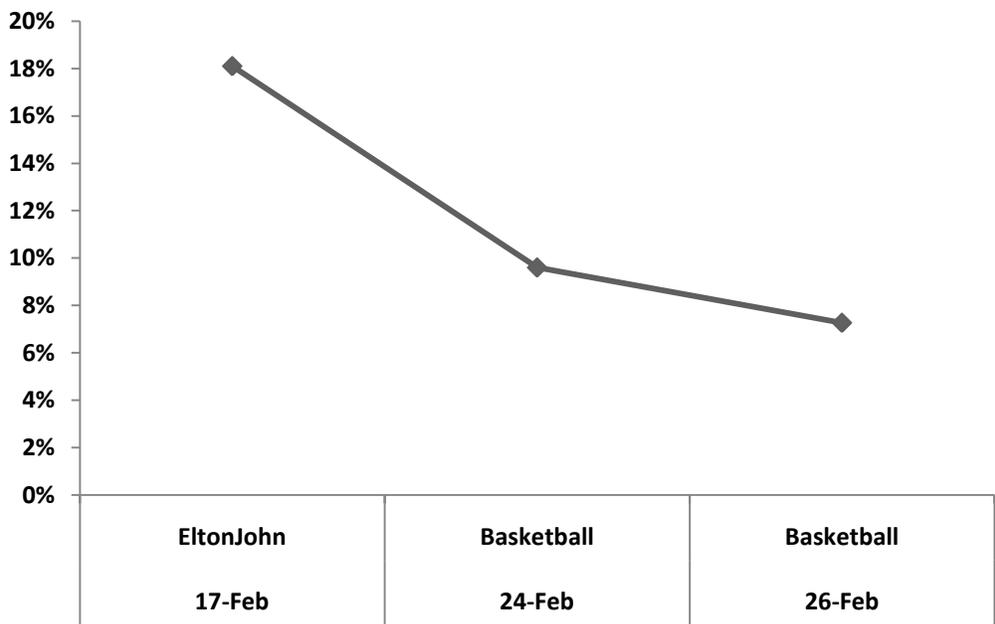
During the CPW's monitored events (Feb. 17, Feb. 24, and Feb. 26), 4,112 riders boarded a shuttle to get to the Arena. See Figure 5, which shows each day's ridership percentages.

Figure 4. Percent Attendees Who Rode Arena Shuttles



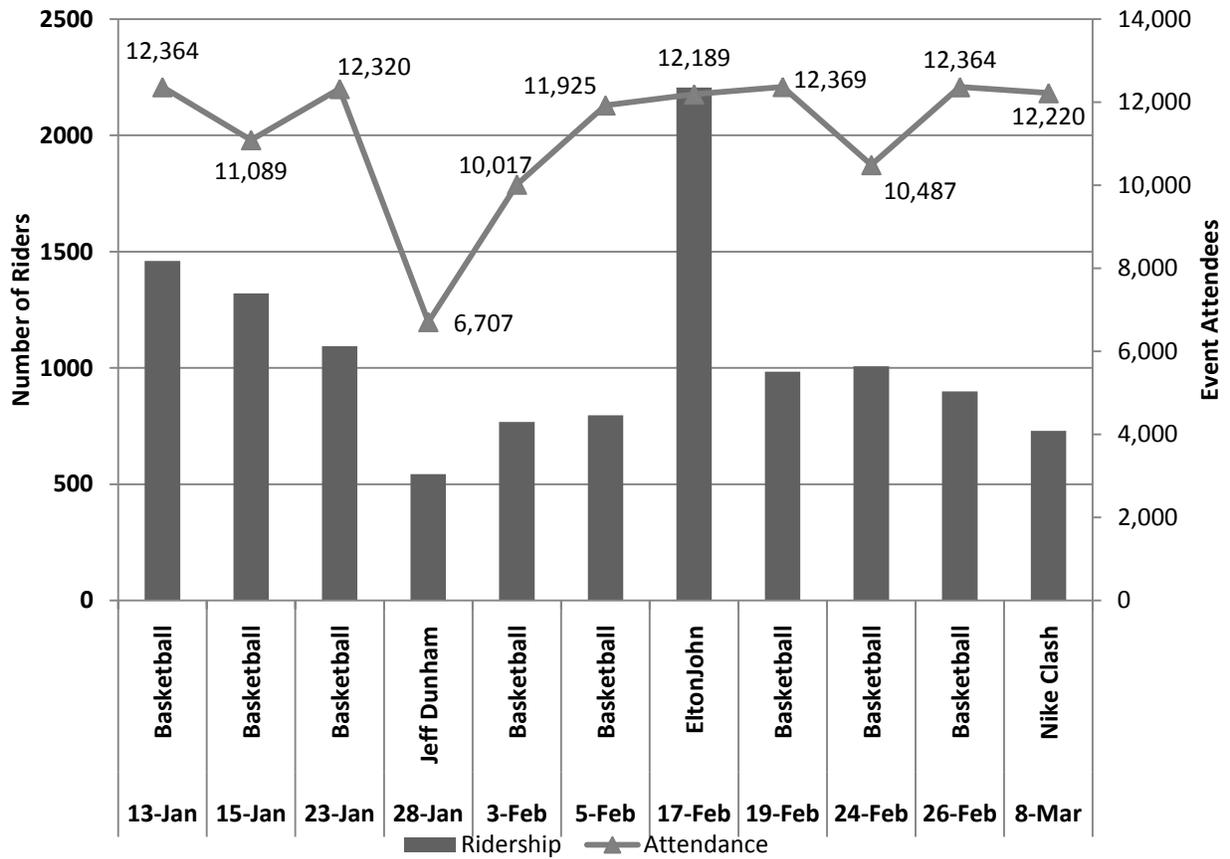
Source: First Student, Inc.

Figure 5. Percentage of Attendees Who Rode Arena Shuttle during CPW Monitored Events



Source: First Student, Inc.

Figure 6. Arena Shuttle Ridership Compared to Attendance



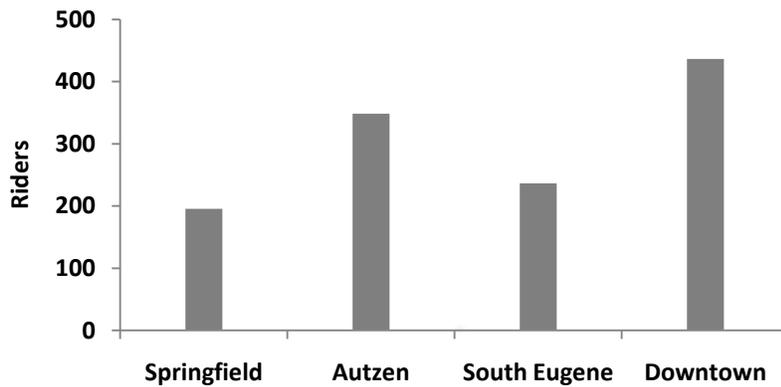
Source: First Student, Inc. and University of Oregon.

Remote Lots

Of the three regularly used remote lots (Autzen Stadium, South Eugene High School, and Springfield Station) the most popular remote lot is Autzen. Average ridership on an event day from Autzen was 349; it was 236 from South Eugene and 196 from Springfield. The average ridership from the Downtown Eugene station was 437 (note, however, that the Downtown Eugene station only operated during two events: Elton John and Nike Clash).

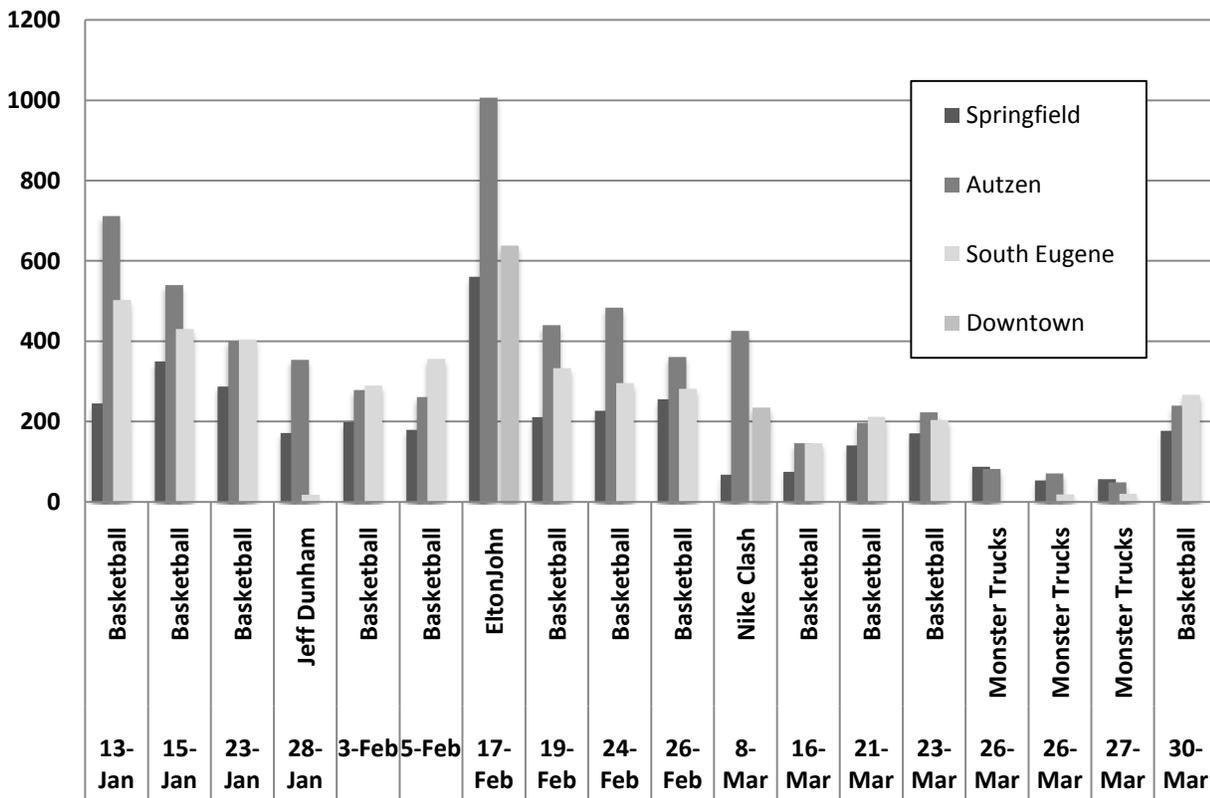
Figure 7 shows the Arena Shuttle average ridership by stop. Figure 8 shows total number of riders who boarded at a stop for each event which the Arena Shuttle serviced.

Figure 7. Arena Shuttle Average Ridership by Stop



Source: First Student, Inc.

Figure 8. Arena Shuttle Ridership by Stop over Time



Source: First Student, Inc.

Arena Shuttle Operations and Observations

First Student operates an average of 21 shuttles for an event and has operated a maximum of 23 shuttles and as few as 16 shuttles. The actual shuttles are school buses that seat between 44 and 48 passengers. The number of shuttles dispatched is dictated by event attendance projections.

First Student rotates a shuttle into each remote parking lot every eight minutes. Key to keeping this pattern consistent has been the company’s ability to make adjustments during events to mitigate congestion or other unforeseen road conditions that could cause delays. First Student communicated with the University and City regarding signage, routing, and infrastructure (e.g., stoplight scheduling on Franklin) to mitigate problems that could hinder shuttle rotation patterns.

During most events, First Student stationed a manager at each of the remote lots to monitor traffic, communicate with drivers, and answer questions from passengers. A manager is also stationed at the Arena to coordinate shuttle traffic on-site.

Per the TDM, 13th Avenue, where shuttle busses queue for passenger pick-up and drop-off, is one-way only (eastbound) during events that the Arena Shuttle services. Thirteenth Avenue is also closed to vehicle traffic post-game (except for the Columbia Street parking lot). These measures help alleviate shuttle and vehicle conflict. LTD’s Del Loucks noted that drivers did not complain of

pedestrian conflict near the staging area. He mentioned traffic-control personnel stationed at the front of the Arena helped keep pedestrians out of 13th Avenue.

First Student has been able to clear all passengers from the Arena site within 20 to 25 minutes after an event's end, usually within one rotation. During the Elton John event, enough passengers rode the Arena Shuttle that First Student dispatched all its buses to drop off passengers at remote lots and then returned to pick up remaining passengers. This kept more than 100 people waiting for approximately 15 minutes outside the Jaqua Center. For all events, First Student keeps a "straggler" bus on standby for passengers who may have missed their ride. A special-needs shuttle also runs from each lot and from the Arena after every shuttle-serviced event.

First Student receives a large volume of phone calls (more than 100 prior to Elton John) for some events. Callers have questions about shuttle cost, regularity, remote parking lot information, and general questions regarding event parking. To handle days with large caller volumes, the company reassigns personnel duties. Dealing with heavy call volumes is difficult during weekdays during the school year, when dispatchers are busy with after-school student buses.

Conclusion

The Arena Shuttle is popular among event attendees, and shuttle operations between the Arena and remote lots is well managed, timely, and efficient. Our research finds that Autzen is the most popular remote parking lot location, but all locations are well used. First Student's focus on communication helps alleviate passenger confusion. Crowd Management Services (CMS) personnel are also familiar with routing bus traffic, and First Student feels the University, the City, and CMS have been proactive in ensuring that the shuttles operate safely and efficiently.

5. BICYCLE PARKING

Background

Providing ample bicycle parking at the Arena is a part of the University of Oregon's commitment to sustainability, as witnessed by its recent designation as a silver level Bike Friendly University by the League of American Bicyclists. The Arena Impact Mitigation Agreement (AIMA) sets forth the types of bicycle parking that the Arena site must provide: permanent long-term, permanent short-term, and valet (temporary short-term). The AIMA also places other requirements on Arena bicycle parking:

- The Arena must provide at least 50 permanent long-term bicycle parking spaces and 150 permanent short-term spaces.
- For Level 4 events, the Arena must offer 425 valet (temporary short-term) spaces (347 spaces per Amendment #1 to the AIMA in June 2010).
- For Level 3 and Level 3A events, the Arena must offer 275 valet (temporary short-term) spaces (197 spaces per Amendment #1 to the AIMA in June 2010).
- The Arena must cover 25% of permanent short-term bicycle parking spaces.

Methodology

CPW collected bicycle parking data from two sources: (1) direct observations of bicycles parked in racks and noncompliant spaces; and (2) parking data from the bicycle valet parking program. Arena bicycle parking locations are shown in Map 3. We calculated available spaces by conducting an inventory of racks, noting the number and type of spaces (covered versus non-covered). The CPW obtained bicycle valet parking numbers from the University of Oregon's Holden Leadership Center, which runs the valet program, for all available events between January 13 and April 2. We interviewed bicycle valet parking attendants during the monitored events to obtain insights into the program's function.

To determine a baseline measurement of bicycles parked on a typical non-event night, the CPW conducted a survey on a Tuesday evening at 6pm. Because we monitored events on Thursdays, Tuesday was chosen for its consistency with Tuesday/Thursday class schedules. The CPW counted bicycles 30 minutes after a scheduled event start time, which assumes that most event attendees arrived and entered the Arena by that time.

Map 3. Bicycle Rack Locations at Arena



Bike Parking

Legend
* Bike Racks

CPW Community Planning Workshop
0 30 60 120 180 240 Feet
N

FINDINGS

Bicycle Parking Availability

CPW counted 558 available bicycle parking spaces (see Table 12), including permanent short-term spaces (bicycle racks), permanent long-term spaces (underground garage), and temporary short-term spaces (valet).

Table 12. Arena Site Bicycle Parking Spaces

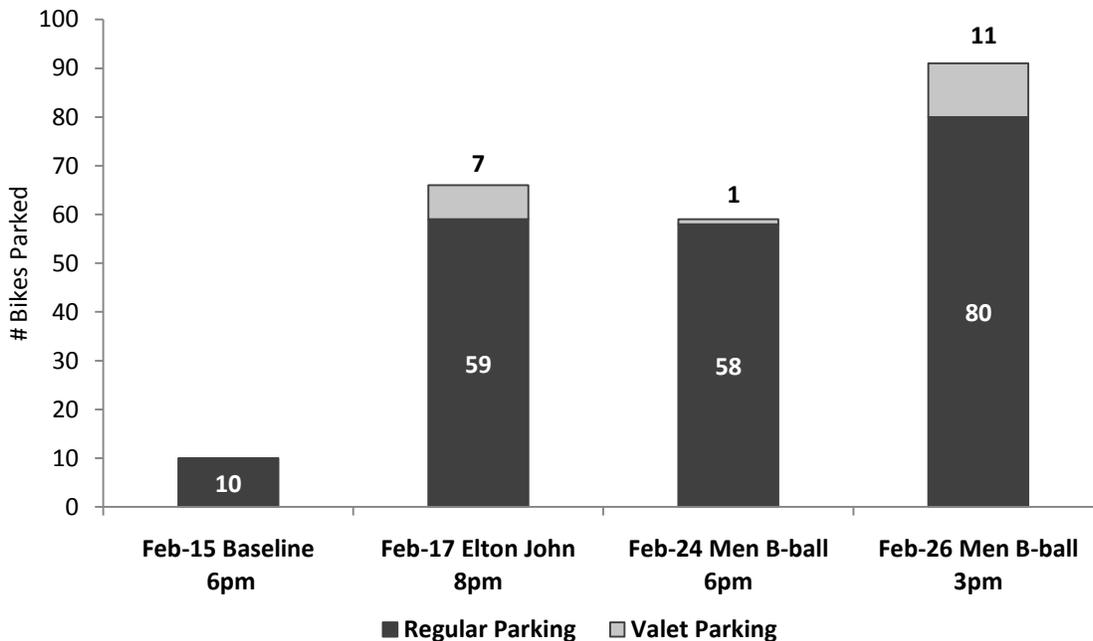
Bicycle Parking	Monitoring Findings
Permanent Short-Term	228
Permanent Long-Term	50
Temporary Short-Term (valet)	319

Source: CPW Monitoring 2011.

Bicycle Parking by Event

Initial findings from the monitored events show that the total number of bicycles parked at the Arena was highest for the weekend afternoon men’s basketball game on February 26 (for both racks and valet). The majority of the bicycles were parked in permanent short-term spaces (see Figure 9).

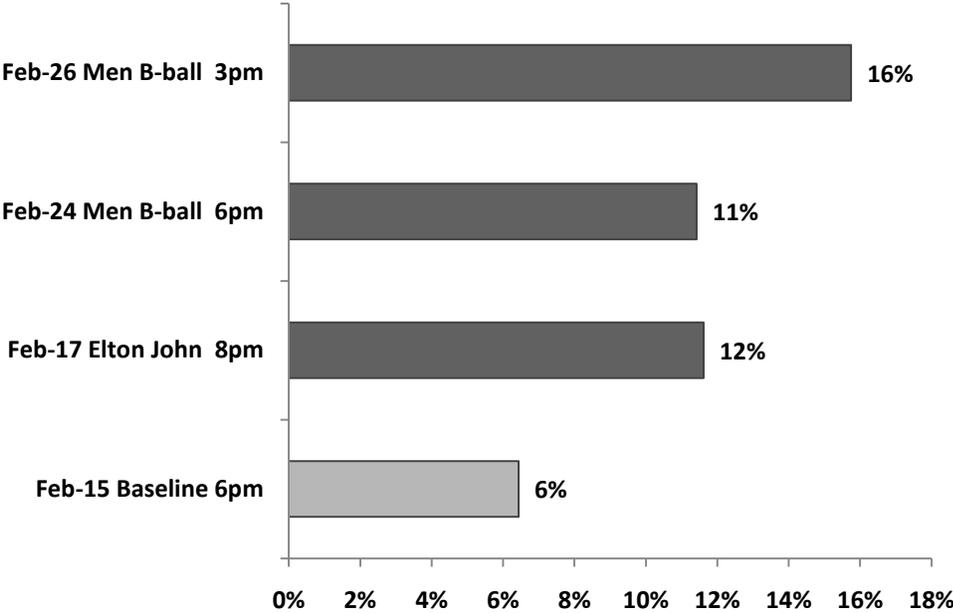
Figure 9. Bicycle Parking Totals



Source: CPW Monitoring 2011.

Our research indicates that 20%-25% of the Arena's bicycle parking spaces were utilized for the three events monitored. The baseline was a 6% utilization rate for non-events (see Figure 10); our research finds that parking utilization was highest (25%) for the 3pm weekend game on February 26.

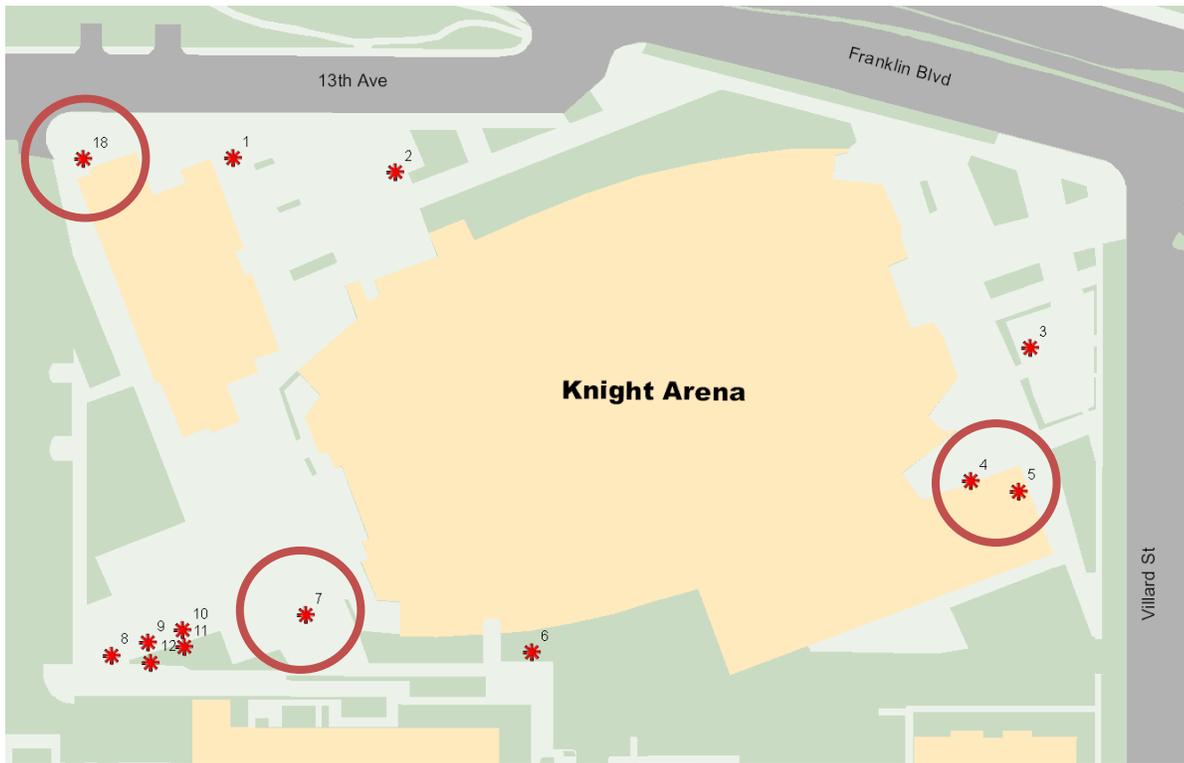
Figure 10. Percentage of Bicycle Parking Spaces Utilized in All Zones



Bicycle Parking by Location and Type

The parking numbers indicate that cyclists used the racks at the eastern entrance (racks #4 and #5) and near the western entrance (rack #7) most. The bike rack near the north entrance of the Ford Alumni Center (rack #18) also had a large utilization rate, and although this rack is not covered, it is close enough to the building to provide sufficient rain protection (see Map 4). These findings indicate that cyclists prefer covered parking, which makes sense considering the inclement weather on the monitored event days.

Map 4. Racks with Largest Bicycle Parking Increase

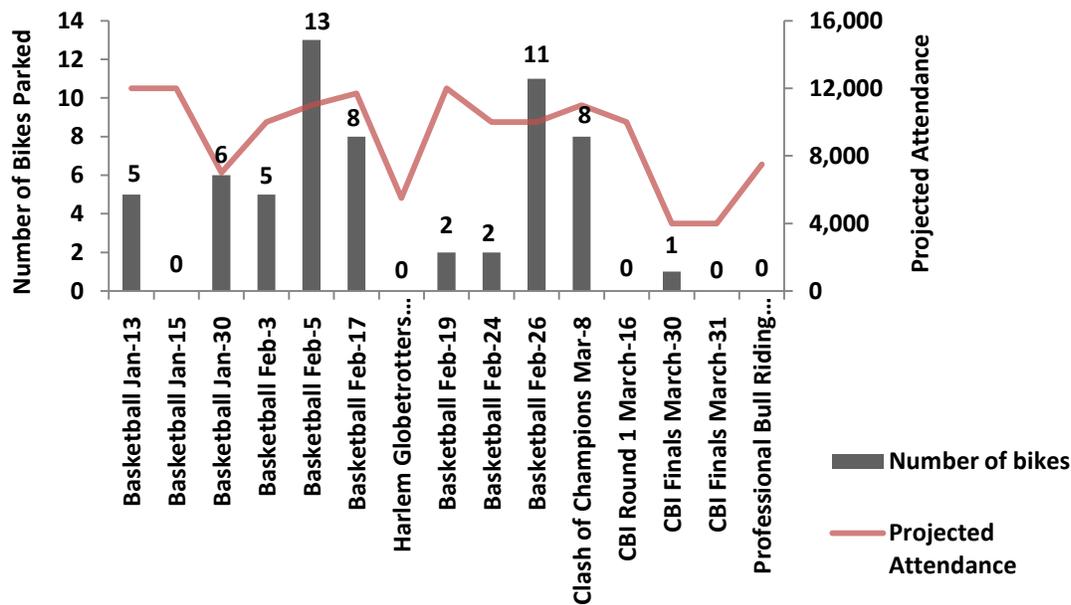


Source: CPW Monitoring 2011.

Bicycle Valet

An average of four bicycles parked at the valet for the 15 events that valet bicycle parking served between January 13 and April 2, 2011. The utilization rate was higher for weekend events, but overall, valet bike parking is underutilized (see Figure 11).

Figure 11. Bicycles Parked in Valet with Event Attendance



Source: CPW Monitoring 2011.

We asked valet attendants to tell us about issues with bicycle parking. They overwhelmingly agreed that visibility was the main problem. Lighting is also a problem: it is difficult for customers to find or see the valet because of surrounding shrubbery and a lack of a formal entrance (the valet area has four entrances, one on each side). During the monitored events, the south entrance was in use but is oriented away from the east Arena entrance.

Noncompliant Bicycle Parking

Noncompliant bicycle parking refers to bicycles that are locked to structures such as parking meters, street signs, and railings. We record noncompliant parking to determine if available parking is adequately sited in relation to demand. During the monitored events, we observed two noncompliant bicycles. Both were locked to parking meters in front of the north entrance of the Arena. During an informal site visit on a warm and sunny weekend event, the CPW observed many more noncompliant bicycles parking at the same area.

Conclusions

Overall, bicycle ridership appears to account for a relatively low proportion of transportation to Arena events. The TDM projects a 1% mode split for bicycle transportation to the Arena, and our monitoring results are consistent with this projection. Low bicycle ridership may be due to the season in which data was collected, which exhibited particularly cold and rainy weather. In contrast, the CPW informally observed a large number of bicycles parked at the Arena during an unmonitored event on a warm, sunny weekend.

Our research finds that bicyclists used bicycle racks and valet parking more for the weekend event than for weekday events. The racks with the greatest increase in use are near the Arena entrances and were either covered or close enough to the Arena to be slightly under its overhang.

After conducting an inventory of available bicycle parking spaces identified on the Arena Site Plan, the CPW found that although the Arena is required to offer 150 permanent short-term spaces, it built 228 spaces. The minimum 50 permanent long-term parking spaces are in the underground parking garage, and the Arena provides 40 covered, permanent short-term spaces which is compliant with the CUP Modification issued in June 2010.

The CUP Modification Amendment No. 1 requires the Arena to deploy two levels of valet bicycle parking. For Level 3/3A events, the Arena must provide 197 bicycle parking spaces; for Level 4 events, the Arena must provide 347 valet spaces. Monitors counted 280 spaces in the east plaza bike valet and another 39 spaces in the maintenance area, for a total of 319 available valet spaces during a Level IV event.

The June 2010 AIMA amendment also added temporary short-term rack spaces to Arena requirements. For all of the monitored events, the CPW monitors did not observe any of these spaces in use. We assume that these racks will be deployed for events when the Arena deems it necessary, and we did not find their use warranted during any of the events monitored.

Table 13. Arena Bicycle Parking Spaces

Bike Parking-Arena Site	Monitoring Findings	AIMA Requirements (for Level 4)
Permanent Short-Term	228	150
Permanent Long-Term	50	50
Temporary Short-Term (Valet)	319	347 ¹⁸
Temporary Short-Term (Racks)	N/A	78
Covered Permanent Short-term	40	38

Source: CPW Monitoring 2011.

The data as of the date of this report suggest that the Arena has enough on-site capacity. Low bicycle ridership for the monitored events is likely a result of poor weather conditions, and this caveat should be considered when making further decisions. Further monitoring of bicycle parking is necessary to determine demand for spring and summer events.

¹⁸ Per Amendment No. 1 to the AIMA in June 2010.

6. ARENA ACCESS AND INTERSECTION FUNCTION

Background

A major purpose of the TDM Plan and the AIMA is to decrease the impact of parking on neighborhood streets and to reduce traffic congestion. Both documents include traffic-control measures designed to ensure a safe, fluid, and easy access to and from the Arena for event attendees traveling on foot, by bike, by public transit, or by vehicle. The TDM and AIMA also include specific traffic-control measures to protect the Fairmount neighborhood from Arena-generated event traffic. Thus, the CPW monitored intersections to determine their multimodal functionality as major access routes.

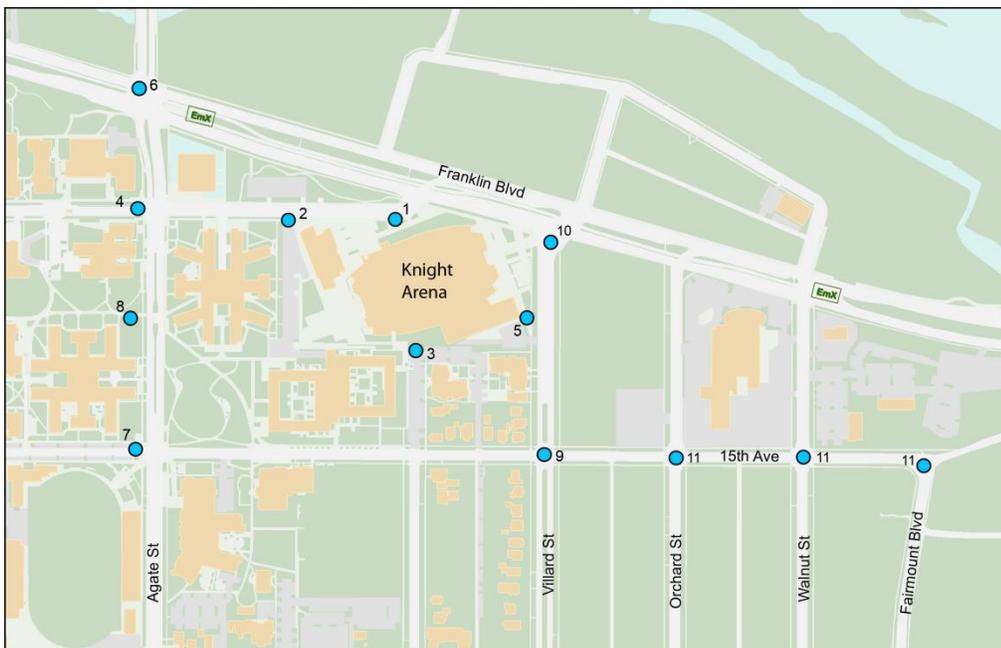
Methodology

CPW monitored 11 intersection areas on four selected event days: February 10 (practice monitoring), February 17, February 24, and February 26. We chose the intersections after visiting them, reviewing data from JRH Traffic Engineers, and considering the likely pedestrian and vehicle routes. The intersections are:

- #1: North side of the Arena (bus staging area)
- #2: Parking garage entrance at 13th Ave.
- #3: Moss Street Alley at Arena
- #4: Agate St. at 13th Ave.
- #5: Parking garage exit at Villard
- #6: Franklin Blvd. at Agate St.
- #7: Agate St. at 15th Ave.

- #8: Agate mid-block crossing at 14th Ave.
- #9: Villard St. at 15th Ave.
- #10: Villard St. at Franklin Ave.
- #11: Street improvements at 15th Ave. and Orchard/Walnut/Fairview streets (this was a roaming monitor)

Map 5. Location of Intersection Monitors



An intersection monitor was staged at each of these intersection points for approximately one hour before the event start times, and from approximately 15 minutes prior to event end until 30 minutes post-event. Map 5 shows the monitor locations. Each monitor used three observation tools: (1) a tally sheet with a list of possible problematic behaviors (e.g., mid-block crossings, bicycles on the sidewalk); (2) a map; and (3) a blank sheet on which to write a summary of observed issues. An example of these tools is in Appendix F.

In addition to active monitoring, the CPW also interviewed Crowd Management Services (CMS) personnel. CMS traffic-control personnel direct vehicle, bike, and pedestrian traffic at intersections and areas designated by the TDM. A CMS supervisor and the lead safety officer for each of three intersections (Agate at 13th, Agate at 15th, and Villard at 15th) provided descriptions and feedback about the intersections they worked during events. All personnel interviewed had several years of traffic-control experience at University events, including several years monitoring traffic during events at McArthur Court.

Findings

We categorize the findings into three sections according to mode of travel: vehicle, pedestrian, and bicycle. Findings include:

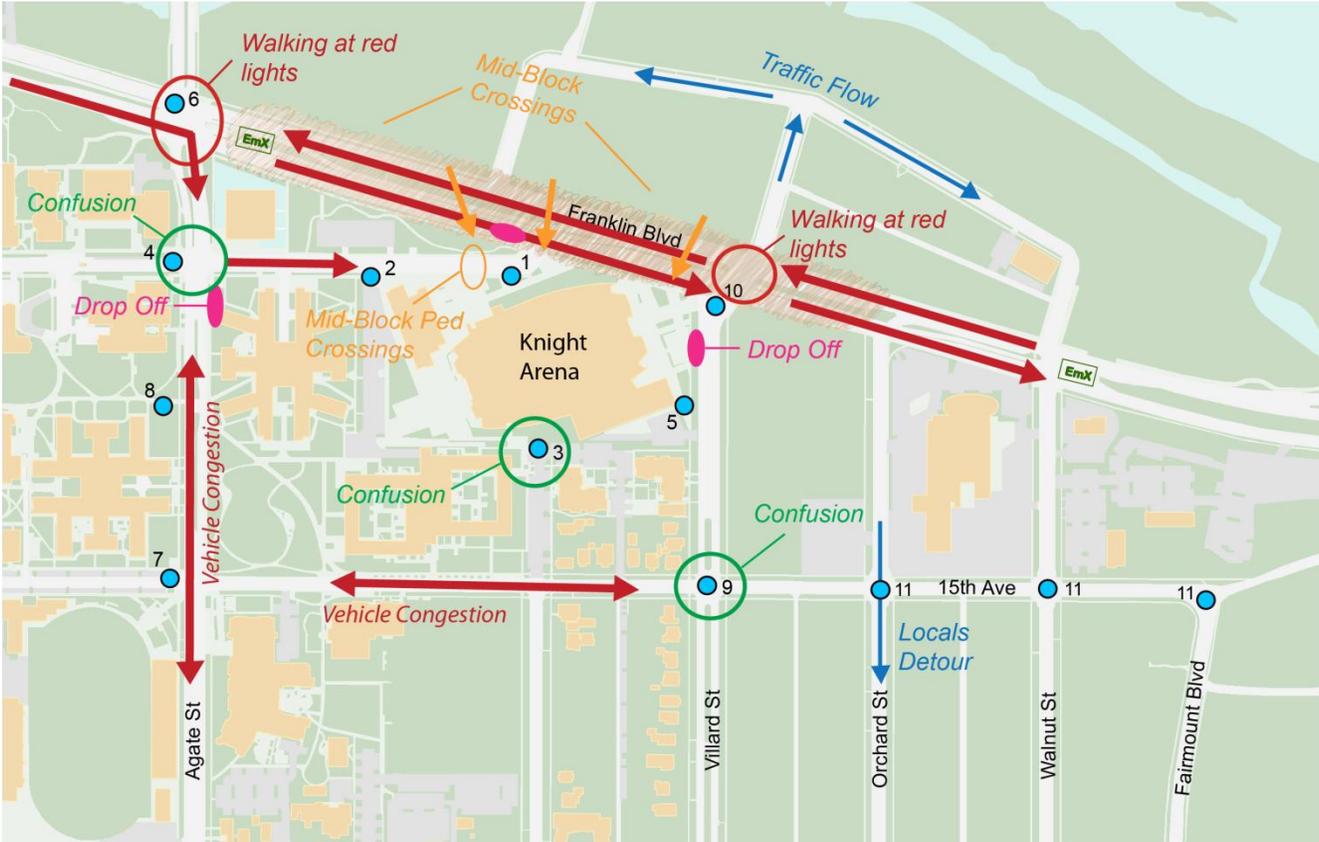
- Vehicle
 - Vehicle congestion
 - Driver confusion
 - Unsafe passenger drop-offs, pick-ups
 - Vehicle and pedestrian conflict
 - Vehicles in Fairmount neighborhood

- Pedestrian
 - Mid-block crossing on Franklin Blvd. and Villard St.
 - Pedestrians disobeying crossing guards
 - Pedestrians walking at red lights
 - Pedestrians straying from sidewalks and crossing areas
 - Pedestrian confusion

- Bicycle
 - Cyclist access
 - Cyclist and pedestrian conflict
 - Cyclist and vehicle conflict

Map 6, Map 7, Table 14, and Table 15 present summary findings for each of the intersections.

Map 6. Pre Event Intersection and Access Issues



Map 7. Post Event Intersection and Access Issues

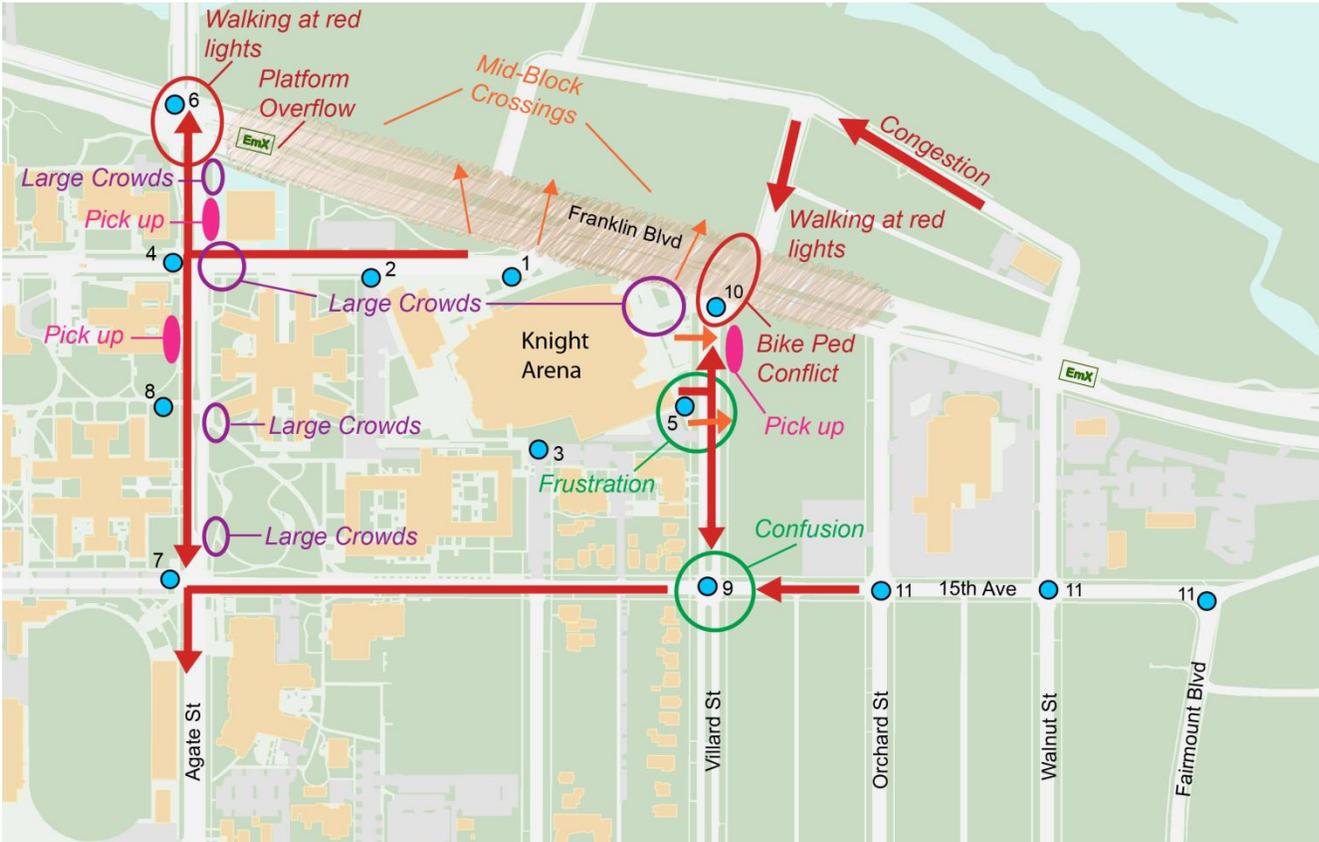


Table 14. Pre-Event – Key Intersection Characteristics and Issues

<p>#1: North Side of the Arena (Bus Staging Area)</p> <ul style="list-style-type: none"> -Mid block ped crossing on Franklin and some ped/vehicle crossing conflict on 13th -Peds walking on grass 	<p>#2: Parking Garage Entrance at 13th</p> <ul style="list-style-type: none"> -Confused vehicles -Confused pedestrians - Pedestrian/vehicle conflict at parking garage entrance 	<p>#3: Moss Street Alley at Arena</p> <ul style="list-style-type: none"> -Little traffic of any kind -Confused vehicles seeking parking -Confused peds seeking entrance to arena 	<p>#4: Agate at 13th</p> <ul style="list-style-type: none"> -Vehicle congestion creates safety/fluidity problems (2-3 minute idling periods) -Confused vehicles create unsafe conditions -vehicles drop off passengers (mid section south side of Agate) -Vehicles ignoring traffic officers 	<p>#5: Parking Garage Exit at Villard</p> <ul style="list-style-type: none"> - NA 	<p>#6: Franklin at Agate</p> <ul style="list-style-type: none"> -Mid-block ped crossing on Franklin -Peds walking on red light -Vehicle congestion/intersection blocking from right turn lane on Franklin to Agate
<p>#7: Agate at 15th</p> <ul style="list-style-type: none"> -Vehicle congestion on Agate headed north, some driver frustration -Peds not obeying crossing guards 	<p>#8: Agate Mid-Block at 14th</p> <ul style="list-style-type: none"> -Some pedestrian/traffic conflict in mid-block crossing -Some bike/ped conflict during busy periods (bikes on sidewalks) 	<p>#9: Villard at 15th</p> <ul style="list-style-type: none"> -Vehicle confusion - Some ped/vehicle conflict due to vehicle confusion -Ineffective traffic safety officers 	<p>#10: Villard at Franklin</p> <ul style="list-style-type: none"> -Peds walking on red light -Mid block ped crossing on Franklin -Peds overflowing from sidewalk to street -Vehicles speeding to avoid peds crossing -Vehicles drop off passengers along Villard and at the intersection -Bicycles on sidewalks (particularly pedal cabs) 	<p>#11: Street Improvements south of 15th</p> <ul style="list-style-type: none"> -Poorly marked bump outs and poor street lighting cause some near accidents (car vs. curb) -Very occasional offending vehicle (speeding) 	

Table 15. Post-Event – Key Intersection Characteristics and Issues

<p>#1: North Side of the Arena (Bus Staging Area)</p> <p>-Mid block pedestrian crossing on Franklin (including peds in EmX lane)</p>	<p>#2: Parking Garage Entrance at 13th</p> <p>- NA</p>	<p>#3: Moss Street Alley at Arena</p> <p>- NA</p>	<p>#4: Agate at 13th</p> <p>-Vehicles pick up passengers (mid-section south side of Agate)</p> <p>-Peds ignore instructions from traffic safety officers</p> <p>-Traffic backs up on Agate headed north and south</p>	<p>#5: Parking Garage at Villard</p> <p>-Mid block crossing on Villard</p> <p>-Vehicle confusion</p> <p>-U-turns</p> <p>-Vehicle congestion along Villard between Franklin and garage exit</p>	<p>#6: Franklin at Agate</p> <p>-People overflow from waiting areas into street when waiting to cross (including at EmX station platform)</p> <p>-Pedestrians walking on red light</p> <p>-Mid-block crossing on Franklin (including peds in EmX lane)</p>
<p>#7: Agate at 15th</p> <p>-Vehicle congestion on Agate north and south and from 15th headed west (onto Agate), peak congestion limited to a 10-15 minute period</p> <p>- Peds ignore safety officer instructions</p>	<p>#8: Agate Mid-Block Ped Crossing at 14th</p> <p>-Vehicle congestion on Agate headed north and south (high volume pedestrian crossing sometimes exacerbates vehicle congestion)</p>	<p>#9: Villard at 15th</p> <p>-Vehicle confusion</p> <p>-Poor street lighting</p> <p>-Pedestrian confusion</p> <p>-Vehicle congestion (during Elton John)</p> <p>-Ineffective traffic safety officers</p>	<p>#10: Villard at Franklin</p> <p>-Peds walking on red light</p> <p>-Peds overflowing from sidewalk to street</p> <p>-Vehicles pick up passengers (on Villard)</p> <p>-Mid block pedestrian crossing on Franklin</p> <p>-Mid block pedestrian crossing on Villard</p>	<p>#11: Street Improvements south of 15th</p> <p>-Vehicle confusion</p> <p>-Poorly marked bump outs and poor street lighting cause some near accidents (car vs. curb)</p> <p>-Occasional offending vehicle</p> <p>-Vehicle congestion (Elton John only)</p> <p>-Occasional loud pedestrian group (Elton John only)</p>	

Vehicle Findings

Congestion

Traffic volume in the Arena area, including along Franklin Blvd., was noticeably higher during rush hour (around 5:00 p.m.). Congestion is exacerbated when event start times coincide with rush hour; however, even during peak congestion, CPW monitors observed generally fluid and orderly vehicle movement. Peak congestion associated with an event lasted no longer than approximately 20 minutes before or after an event.

The presence of traffic-control personnel at key intersections was essential for traffic flow and likely mitigated major traffic jams. Traffic control-personnel were especially essential to traffic flow at Agate at 13th (intersection #4), Agate at 15th (intersection #7), and the parking garage entrance at 13th (intersection #2). During peak traffic periods, the following streets experienced heavy bumper-to-bumper traffic, with vehicles waiting up to three minutes to pass through an intersection (see Table 16).

Table 16. Congestion

Pre-Event Congestion	Post-Event Congestion
<ul style="list-style-type: none"> • <i>Agate</i>: north- and southbound between Franklin Blvd. and 15th (and possibly as far south as 19th, though no monitors were stationed beyond 15th to confirm this) • <i>Franklin</i>: right turn lane onto Agate • <i>Franklin</i>: between Agate and Villard St. 	<ul style="list-style-type: none"> • <i>Agate</i>: north- and southbound between Franklin Blvd. and 15th Ave. (and possibly farther south) • <i>15th</i>: westbound toward Agate St. from Villard St. (from Orchard St. during a Level 4 event) • <i>Villard</i>: northbound from 15th Ave.

Of these congested areas, vehicles turning right from Franklin Blvd onto Agate St. caused the most obvious line of backed-up cars, resulting in exhibitions of driver frustration.

Driver Confusion

Driver confusion was a common observation at several intersections and was more common before events than after events. Behavior indicating driver confusion included:

- Stopping in intersections to talk with traffic-control personnel
- Lack of turn signals, changing turn signals, or turning movements that were the opposite of turn signal indications
- U-turns
- Sudden alterations of route (fast-merging behavior)
- Erratic vehicle behavior

Driver confusion impedes traffic flow and creates hazards. Monitors observed the most driver confusion at several intersections (see Table 17).

Table 17. Driver Confusion

Pre-Event Driver Confusion	Post-Event Driver Confusion
<ul style="list-style-type: none"> • Parking garage entrance at 13th (intersection #2) • Agate at 13th (intersection #4) • Villard at 15th (intersection #9) 	<ul style="list-style-type: none"> • Parking garage exit at Villard (intersection #5) • Villard at 15th (intersection #9) • Villard at Franklin (intersection #10)

CMS traffic-control personnel indicated that most driver confusion is related to parking confusion. They also report that approximately 95% of drivers who stop to ask them questions ask about parking. Traffic-control personnel were helpful in mitigating potentially unsafe behavior from confused drivers.

Of the three four-way intersections CMS monitored, Villard at 15th (intersection #9) attracted the least traffic. CMS personnel reported that drivers at this intersection are often searching for the parking garage. In addition to event-generated traffic, a mix of other traffic passes through this intersection before events, including Fairmount residents and Eugene locals. CMS described these drivers as frustrated with traffic-control personnel and with the barricade, which they often circumnavigate, and are also reluctant to slow or stop at CMS direction.

Though most problems increased in proportion with event attendance, the CPW monitors noticed more confusion during the Level 2 women’s basketball game on February 10, especially along 13th in front of the Arena. The street was operating as a two-way street, and no traffic-control personnel were present. The intersection monitor at the entrance to the parking garage (intersection #2) recorded approximately 10 vehicles making U-turns in the middle of 13th before the women’s basketball game.

CMS traffic control personnel report a slight increase in confusion levels during non-athletic events compared to athletic events.

Unsafe Passenger Drop-Offs, Pick-Ups

Vehicles dropping off and picking up passengers added to confusion along already busy streets and nearby intersections, as well as impeded traffic and increased pedestrian/vehicle conflict.

CPW monitors observed three areas commonly used for passenger drop-offs (See Map 6): along Agate around 13th (intersection #4; especially along the south side of Agate) and near Villard at Franklin Blvd. (intersection #10; passengers were dropped off on Villard). Monitors also occasionally observed vehicles dropping off passengers on the south side of Franklin Blvd., across from the north

entrance to the Arena. Agate at 13th and Villard at Franklin Blvd. were also hot spots for passenger pick-ups post-event.

Vehicle and Pedestrian Conflict

Vehicle congestion, combined with driver confusion and/or other conditions (errant vehicle behavior, heavy pedestrian traffic, etc.), created some instances of vehicle and pedestrian conflict. CPW monitors observed the most conflict at the following locations:

- *Franklin between Agate and Villard (intersections #1, #6, #10):* Pedestrians crossing mid-block caused vehicles to stop abruptly. During congested periods on Franklin Blvd., pedestrians wove around idling vehicles.
- *13th between Agate and Villard (intersection #1):* Pedestrians crossing 13th toward the Arena's north entrance caused potential pedestrian/vehicle conflicts, especially as buses pulled into the staging area. Traffic-control personnel guide pedestrians across 13th and regulate bus traffic, helping to alleviate conflict.
- *Parking Garage at 13th (intersection #2):* Vehicles turning into the parking garage or vehicles without parking permits seeking exit from 13th share a small area with pedestrians walking to the Arena. Vehicles often block the pedestrian crossing area at the parking garage entrance.
- *Agate at 13th and Agate at 15th (intersections #4 and #7):* High volumes of pedestrians and bicycles at both of these intersections, both pre- and post-event, require aggressive control to avoid conflict. High pedestrian volume on the sidewalk occasionally contributes to an overflow of people into the street. This is especially true post-event, when a surge of people leave the Arena.
- *Right turn lane from Franklin Blvd. onto Agate (intersection #6):* Extended periods of congested traffic along Franklin Blvd. often results in vehicles in the crosswalk on Agate.

Vehicles in Fairmount Neighborhood

The AIMA and TDM describe specific traffic-control measures to protect the Fairmount neighborhood from Arena-generated traffic. To track how effectively the mitigation measures direct traffic away from this area, we assigned a roaming monitor to the intersections along 15th Street at Orchard, Walnut, and Fairmount Streets (intersection #11). We also stationed two monitors at the corner of 15th and Villard (intersection #9).

The data indicate that most pre-event traffic is effectively directed away from the Fairmount neighborhood via a combination of barricades and CMS personnel stationed at the corners of 15th at Villard and 15th at Orchard. (No flaggers were stationed on 15th at Walnut or Fairmount.) CMS personnel observed that some vehicles heading south on Villard and Orchard into the neighborhood appeared to be Eugene locals seeking a detour around Arena traffic. CPW monitors observed only occasional vehicles on Orchard and very little traffic on Walnut or Fairmount Streets before events.

During the two basketball games, CPW monitors observed almost no vehicles entering the Fairmount neighborhood post-event. After the Elton John concert, however, traffic backed up to Orchard St. along 15th from Villard, and some vehicles did head south on Orchard into the neighborhood. There were no CMS traffic personnel post-event at 15th and Orchard during the events we monitored. CPW monitors at 15th and Villard noted that CMS traffic personnel at this intersection successfully directed most traffic away from the Fairmount neighborhood post-event. Fairmount residents did report increased traffic in their neighborhood, especially along Orchard and along 17th Ave. A review of the AIMA, JRH findings, and further discussion with neighbors should determine whether placing CMS personnel at these locations could minimize traffic impacts in the neighborhood.

Pedestrian Findings

Pedestrian Confusion

Our observations indicate that errant pedestrian behavior is sometimes the cause of vehicle/pedestrian or bicycle/pedestrian conflict. Near the Arena's north entrance (intersections #1 and #2) pedestrians sometimes linger on 13th Ave., apparently indecisive about whether to head to the north, east, or west entrances. Traffic-control personnel were helpful here in shepherding pedestrians out of the street and away from potential conflicts with passing vehicles or buses. Pedestrian confusion appeared most problematic during the women's basketball game, when 13th Ave. was in two-way operation and when no traffic-control personnel were present.

Pedestrians on the south side of the Arena (intersection #3, Moss Alley) appeared confused about how to enter the Arena during the monitored events. However, few vehicles or bicyclists were present on the south side of the Arena to create conditions of conflict.

Pedestrian Street-Crossing Concerns

Franklin Blvd. is the locus for the most serious pedestrian safety concerns, though we consistently observed errant pedestrian behavior along Agate St. and Villard St. as pedestrians left the Arena in large groups. Overall street-crossing concerns fall into four categories:

1. Mid-block crossing on Franklin Blvd. and Villard
2. Pedestrians walking on red lights
3. Pedestrians disobeying crossing guards
4. Pedestrians straying from sidewalks or crossing areas and into the street

Mid-block crossing on Franklin Blvd. and Villard. Hundreds of pedestrians crossed Franklin Blvd. between Agate and Villard, beginning from up to an hour pre-event through event start. People crossing ranged from very young children with their parents to adults over 65. On several occasions, CPW monitors observed special-needs people crossing Franklin Blvd., including a person in a wheelchair and a visually impaired person. The CPW monitors observed a similar crossing condition post-event, though the overall time period when people cross totals about 20 minutes. The EmX line runs through the center of Franklin Blvd., which means that mid-block crossings create vehicle and pedestrian safety concerns, as well as conflict between pedestrians and the EmX buses.

Dozens of pedestrians also consistently crossed mid-block on Villard between Franklin Blvd. and 15th post-event. Villard is often very congested post-event because a large number of pedestrians are exiting the game and vehicles are exiting the parking garage and heading north toward Franklin Blvd. This was a hot spot of vehicle and pedestrian conflict (See Map 7).

Pedestrians walking on red lights. Monitors at Franklin Blvd. and Agate (intersection #6) and at Franklin Blvd. and Villard (intersection #10) observed hundreds of individuals, many times in large groups, crossing against the walk signal on Franklin Blvd. and on Villard. This condition was especially prevalent on Villard and especially problematic post-event because large groups of people crowded the crossing area. Intersection monitors on Villard also observed vehicles speeding through the intersection to avoid pedestrians, vehicles abruptly stopping to let errant pedestrians cross, and pedestrians weaving around vehicles stopped in the crossing area. Errant pedestrian crossings observed in intersection #6 on Franklin Blvd. were less frequent but created safety concerns due to the faster-moving traffic.

Pedestrians disobeying crossing guards. Crossing guards are essential for traffic flow and pedestrian safety at both Agate at 13th (intersection #4) and Agate at 15th (intersection #7). Five traffic-control personnel were deployed at each of these intersections pre- and post-event: one in the middle of the intersection and one at each corner. Consistent communication among the guards at these intersections and strong leadership by the traffic safety guard made this traffic-control design a good example for other intersections. When communication broke down among the officers, the intersections functioned less smoothly. In particular, the southeast corner of intersection #4 was the most heavily trafficked corridor and sometimes became unorganized.

Traffic-control personnel stationed at intersection corners are responsible for halting pedestrian traffic when vehicles are directed through the intersection. Both pre- and post-event, large crowds of pedestrians sometimes became impatient to cross. When this happened during our monitored events, some individuals or small groups would break from the waiting crowd and cross against orders. This was particularly evident post-event, when crowds were largest. Monitors did not observe any accidents resulting from this behavior, though during times of intersection dysfunction (due to errant behavior, vehicle or pedestrian confusion, or poor direction from crossing guards) monitors at intersections #4 and #7 noted that conditions for an accident increased substantially and produced several near-collisions. CMS personnel also said they observed dozens of near-collisions resulting from vehicle and pedestrian conflict in these areas.

Pedestrians straying from sidewalks or crossing areas and into the street. The CPW monitors observed that when large crowds are present, pedestrians often stray from sidewalks and crossing areas due to limited sidewalk capacity. This occurred most often at Franklin Blvd. and Agate (intersection #6) and at Franklin and Villard (intersection #10).

Franklin Blvd. and the Riverfront Parkway (intersection #6) sidewalks occasionally overflow with pedestrians waiting to cross. After the Elton John concert, for example, departing crowds were so

large that the EmX bus stop platform at Agate overflowed with people, who waited in and around the crossing island. This was also true at the east corners of this intersection.

At Franklin and Villard (intersection #10), pedestrians routinely overflowed into the street from the sidewalk and crosswalk at the southeast corner of Villard and Franklin Blvd. both heading to and leaving events.

At the Arena entrance (intersection #1), monitors observed that pedestrians walking on the landscaped sidewalk from the bus station toward the Arena often cut across the grass near 13th as a shortcut to the Arena entrance. The pathway does not end directly across from the Arena entrance but slightly to the east, making the lawn shortcut tempting.

Bicycle Findings

Cyclist Access

Very few people cycled to events. The early sunset and cold evenings likely contributed to reduced bicycle travel. Cyclists attending events appeared to enter the Arena area via 13th, crossing through Agate at 13th (intersection #4). The CPW monitors observed few bicycles passing along 15th or heading north on Villard, though this is the route where valet bicycle parking signs are placed.

Cyclist Conflict with Pedestrians

CPW monitors observed minimal instances of bicycle and pedestrian conflicts, consistent with the low volume of cyclists attending events. However, cyclists consistently rode on sidewalk among large pedestrian crowds in several areas. For example, around Franklin Blvd. and Villard (intersection #10), bicycle rickshaws carrying passengers to and from the event entrance often shared the sidewalk with pedestrians. The CPW monitors frequently observed cyclists heading north on the sidewalk along Villard.

Cyclist Conflicts with Vehicles

CPW monitors at Agate and 13th (intersection #4) and Agate and 15th (intersection #7) noted that cyclists consistently did not follow crossing guard directions and also that crossing guards varied in their treatment of cyclists, sometimes treating them like pedestrians and sometimes like vehicles.

Conclusion

The traffic-control measures set forth in the AIMA and TDM appear to ensure a mostly safe and easy flow of pedestrian, bicycle, transit, and vehicle traffic. University and City observations regarding traffic flow, problem areas, and execution of the TDM and AIMA are consistent with our observations.

The most obvious traffic-management and access problems are mid-block pedestrian crossings on Franklin Blvd. and general driver confusion related to parking. Some Fairmount residents did report increased traffic in their neighborhood, especially post-event along Orchard and along 17th; however, interviews indicate this impact was minimal for most neighbors.

7. NOISE

Background

Another purpose of the CPW study is to determine if Arena events cause an increased level of noise in the monitoring area, and to provide information to the Arena Monitoring Committee to aid in potential recommendations to changes in the AIMA and the TDM Plan.

Methodology

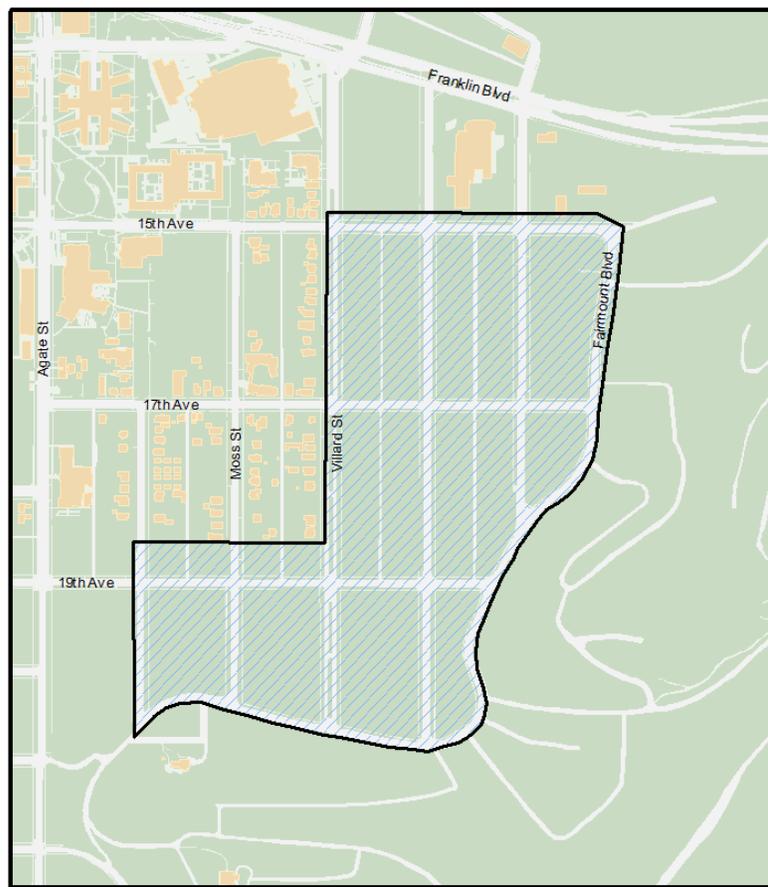
CPW monitors measured the level, type, and frequency of noise in the area during events on February 17, 24, and 26, 2011. Monitors also interviewed neighborhood residents and businesses.

Monitoring Area

The noise observation took place in an area slightly larger than the Event Parking District, as defined by the TDM (see Map 8). The monitoring area includes both the north and south sides of 17th Avenue. The CPW monitored this area because event attendees use it for parking and for walking to events, though it is a residential area where unacceptable levels of noise can be a disturbance. Monitors within the noise-monitoring boundaries noted all audible noise.

We excluded the Arena site—the block between Villard and Moss Street, and between Franklin Boulevard and the southern edge of the Arena grounds—from noise monitoring. However, noise emanating from the Arena site was recorded if it was clearly audible from the monitoring area.

Map 8. Noise Monitoring Boundary Map



Time Parameters

CPW monitored noise for 30 minutes pre-event and 30 minutes post-event (see Figure 12). The CPW assumed that the noise was greatest while event attendees were traveling to and from the Arena before and after events.

Figure 12. Noise Monitoring Time Frame



Source: CPW.

Baseline Monitoring

CPW conducted baseline noise monitoring on Monday, February 14 from 7:30 p.m. to 8:00 p.m. and on Tuesday, February 22 from 5:30 p.m. to 6:00 p.m. The baseline monitoring occurred within a limited time frame because preliminary monitoring confirmed that noise levels are low in the monitoring area on a non-event night.

Categories of Noise

The recorded noise falls into two categories: people noise and car noise. People noise is from groups and individuals. Car noise is noise created by vehicles, including noise from engines, horns, and tires.

Noise Levels

Monitors recorded the noise level for each noise incident. A noise incident is a single period in which a monitor notices sound of notable audibility. Monitors used three noise levels (1, 2, and 3) to characterize both people and car noise. Monitors did not record noise levels below 1.

People Noise:

- **Noise level 1:** A low level of noise, identified as a small crowd of 2–4 people laughing or talking loudly.
- **Noise level 2:** A moderate level of noise, identified as a medium crowd of 4–6 people talking or laughing very loudly, with up to one shout.
- **Noise level 3:** A high level of noise, identified as a large, loud, and boisterous group of 4 or more people shouting or screaming, or a group of 5 or more people broadcasting their voices very loudly.

Car Noise:

- **Noise level 1:** A low level of noise, identified by increased engine noise due to unusually heavy traffic flow.
- **Noise level 2:** A moderate level of vehicle noise, identified by screeching, peeling out, or a single vehicle honk.

- **Noise level 3:** A high level of noise, identified by screeching, peeling out, and honking or repetitive honking.

Monitoring Process

Monitors made records of all noise in the monitoring area, regardless of whether it originated in the monitoring area.

Findings

Baseline Noise

On February 14 from 7:30 p.m. to 8:00 p.m., CPW monitors heard four noise incidents, all of which were low-level car noise. One incident was a single car honk. On February 22 from 5:30 p.m. to 6:00 p.m., noise levels were slightly greater (although still low) due to a light increase in rush-hour foot and car traffic.

The baseline monitoring affirms that noise on non-event nights is low. Baseline monitoring indicates, however, that the neighborhood hears car honks and vehicle engine noise on non-event nights. Traffic increased during rush hour, especially on Villard Street, Orchard Street, and 15th Avenue.

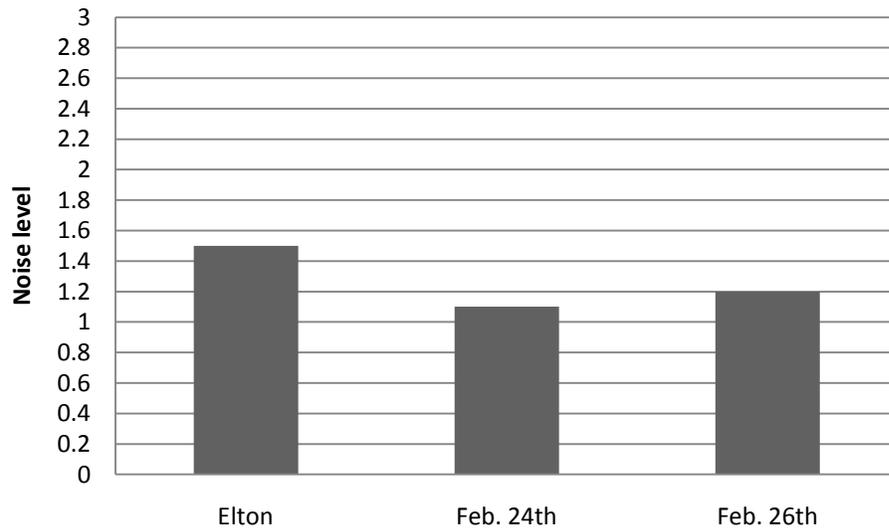
Geographic Location of Event Noise

Noise, especially post-event noise, was concentrated in certain parts of the monitoring area (see Map 9). Post-event noise was focused in areas with high foot-traffic volumes, especially along Villard Street and Orchard Street, on 15th and 17th avenues, and near the Arena (within 1,000 feet).

Noise Level

The overall noise level during events was low in the monitoring area, averaging 1.3 out of 3 for the monitored events. The CPW monitors heard few loud noises before and after the Elton John concert and the men's basketball games. They did observe some differences, however. For example, noise from the Elton John concert was slightly higher (1.47 out of 3) than noise from the basketball games. During the Saturday afternoon basketball game on February 26, noise levels were slightly higher than those of the Thursday night basketball game on February 24 (see Figure 13). However, the small number of monitored events means the data may not represent larger trends.

Figure 13. Noise Levels



Source: CPW.

Noise Type

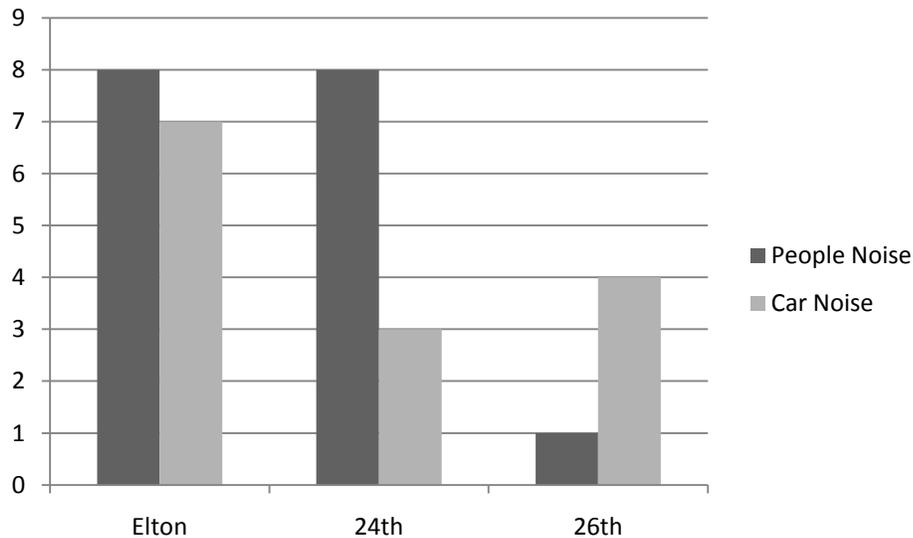
CPW monitors determined that people noise is 29% more frequent than car noise in the monitoring area. Most car noise was low-level noise and due to unusually heavy traffic flow. Most people noise was Level 1 noise. However, the average level of people noise (1.5 out of 3) was slightly higher than the level of car noise (1.3 out of 3).

The focal point of car noise is at Villard Street at 17th Avenue. The CPW monitors observed car confusion and conflict among drivers at this intersection, along with honking.

Noise Frequency

Noise frequency is the frequency of noise incidents within each pre- and post-event monitoring period. Our research indicates low noise frequency during Arena events (see Figure 14) and an average of 10.3 noise incidents per event. Incidents range from two people passing, to several passing groups of a few people (although most incidents were a single group of people or a single incident of car noise). Monitors heard the most noise incidents before and after the Elton John concert. Monitors heard less noise before and after the February 24 basketball game than before and after the February 26 game or the Elton John concert.

Figure 14. Noise Counts per Event



Source: CPW.

Findings from Interviews

Fairmount neighborhood residents indicated that noise before and after events is typically not a problem. Many residents commented that football game attendees are generally a louder crowd, however.

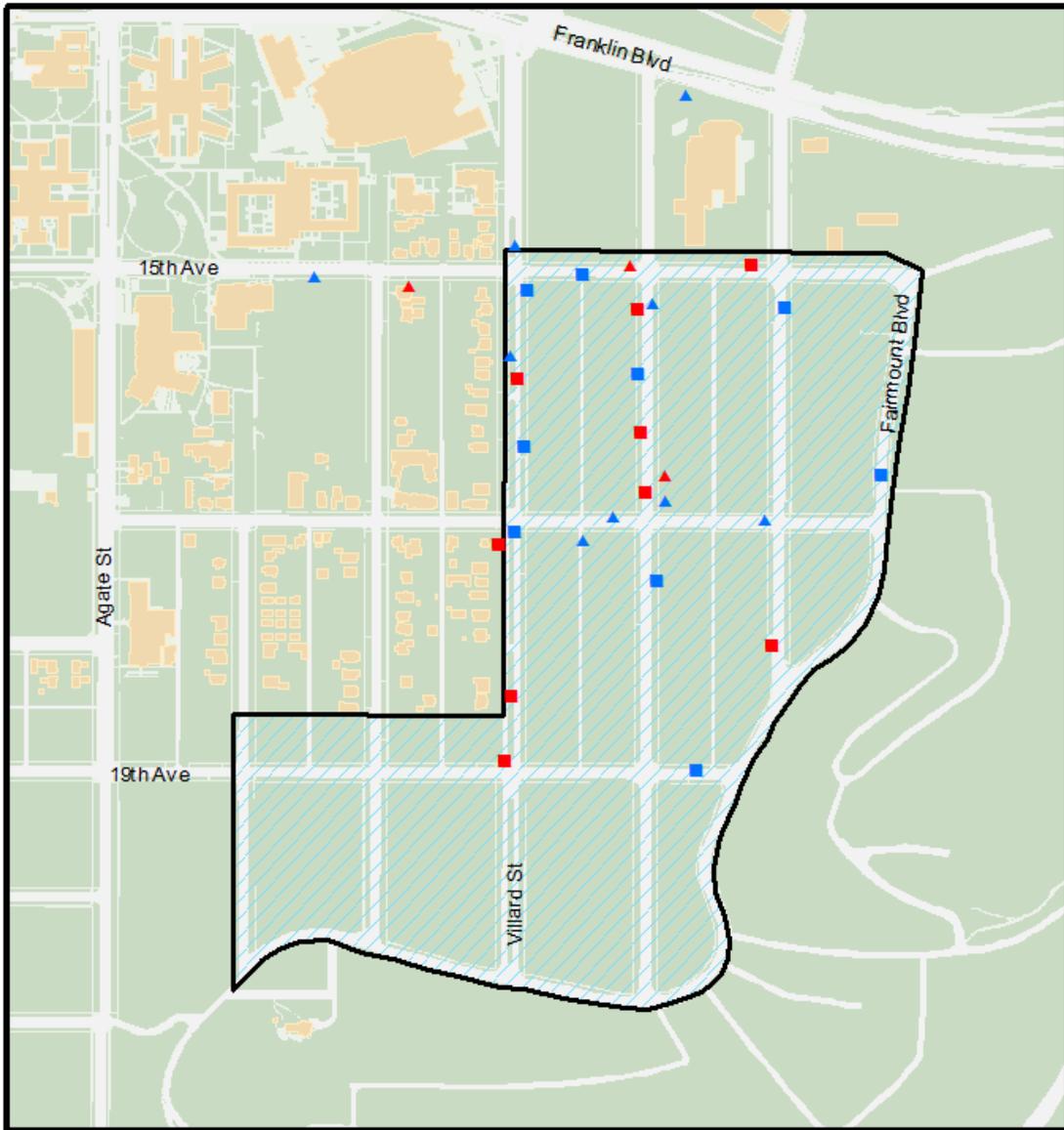
Between January and April, DPS received one complaint from a neighborhood resident about people noise on Villard Street after the Elton John concert. The resident wrote:

“The noise after the Elton John show on Villard and 17th is ridiculous tonight. Those passing by our place (on Villard) after the show moved slowly and yelled constantly. I had ZERO problem with the Avenged Sevenfold concert on Sunday, but these people were just rude.”

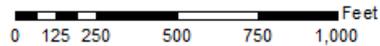
Interviews with business owners indicated that noise before and after events is not a problem.

Conclusion

CPW monitoring indicates that noise is generally not a problem in the Event Parking District. We observed low levels of car noise and people noise (the average was 1.27 on a scale of 1 to 3) and low frequency (averaging 10.3 incidents total) during each event. After the Elton John concert, our research found that the noise was slightly louder than after the two men’s basketball games. In interviews, residents confirmed that they perceive noise to be at low levels and frequencies. People noise was slightly louder and more common than car noise. Our research found that the geographic concentration of the noise is along Villard Street, Orchard Street, and 15th Avenue.



Noise Analysis



Legend	
	Noise Analysis Zone
Type of Noise	
	Car, Pre-event
	Car, Post-event
	People, Pre-event
	People, Post-event

8. LITTER

Background

The purpose of monitoring litter is to determine if Arena events increase litter in the surrounding neighborhood and if Arena materials (concession packaging, tickets, or merchandise) are deposited as litter post-event. In this report, CPW refers to litter caused by Arena events as event-generated litter.

Methodology

CPW monitored litter by identifying and measuring each litter incident within an 11-block area near the Arena (see Map 10). A litter incident is defined as one or more pieces of litter found in a single location. CPW monitors evaluated litter during events on February 17, 24, and 26, 2011. We also interviewed residents and businesses regarding the presence of event-generated litter in the neighborhood.

Monitoring Area

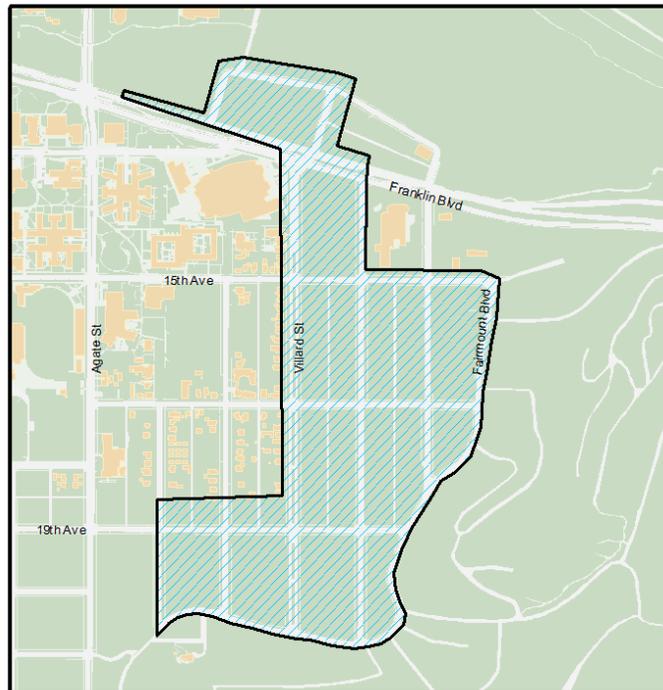
CPW monitors observed litter in two areas specified by the Arena Working Group:

1. An area roughly corresponding to the Event Parking District. The litter-monitoring area extends west to Columbia Street and Villard Street. Between Columbia Street and Villard Street, it extends 200 feet north of 19th Avenue. The monitoring area does not include Birch Lane, Rose Lane, or Sunset Drive (see Map 10).
2. The neighborhood area within 1/8 mile of the Arena to the north and east, excluding the University of Oregon campus (see Map 10).

The CPW focused on these two areas because the foot traffic in those areas often relates directly to events, creating litter opportunities. The Arena site (defined as the block on which the Arena is located) is excluded from monitoring activity. Litter on this site does not affect neighbors or businesses, and Arena personnel can clean it up if it becomes a concern.

We also exclude the area southwest of the Arena at 15th and Agate Streets and between Hamilton and Bean dormitories although it is within 1/8 mile of the Arena, because it is owned by the University, which can directly resolve litter issues in this location if a problem occurs.

Map 10. Litter Monitoring Boundaries



Time Frame

To determine how much litter accumulated during an event, the CPW counted the number and type of litter present 1.5 hours before the start of each event. This was the baseline litter count, which was conducted over the course of one hour. The CPW then conducted a second litter count beginning a half-hour after the end of each event. The second count was to determine the number of pieces of litter that accumulated while the Arena was active (See Figure 15). This method was based on the assumption that event attendees leave the Arena within a half-hour of the end of each event and that litter accumulates in this time frame. One hour was allotted for post-event monitoring because it takes a full hour to complete a comprehensive survey of the litter monitoring area. During the post-event count, CPW monitors paid special attention to any new litter that clearly originated from within the Arena.

Figure 15. Litter Monitoring Time Frame

Baseline Litter Monitoring	Waiting Period	Event	Waiting Period	Litter Monitoring
1 hour	1/2 hour		1/2 hour	1 hour

Source: CPW.

Monitoring Process

Monitors recorded litter found in the street, planting strip, and sidewalk of each street in the monitoring areas; they were tasked with monitoring only in the public right of way, although they were instructed to note any remarkable litter found on private property that appeared to be generated by event foot traffic.

Categories of Litter:

CPW monitors categorized litter into three distinct categories:

- **Arena Litter:** Litter that originates from Arena concessions, shops, and ticket kiosks; includes food packaging, cans and bottles, ticket stubs, and store merchandise.
- **Non-Arena Litter:** Litter that is definitively not generated inside the Arena. Examples include a Wendy’s fast food bag, a Ninkasi Brewing hat, and a clear plastic bag.
- **Questionable Litter:** Litter that falls in the grey area between Arena litter and non-Arena litter. Questionable litter could either be from the Arena or from another source. Examples include a candy bar wrapper or an Allann Bros. coffee cup; both products are sold at the Arena and at other locations near the Arena.

Levels of Litter:

CPW monitors recorded the level of litter found at each event. The level of litter is the amount of litter found in any one litter incident. Three levels of litter were used:

- **Level 1:** Indicates a low level of litter: 1–2 pieces of litter 5” x 3” in size, or six pieces 1 ½” x 1” in size (e.g. 1-2 Pepsi cups or six receipts).

- **Level 2:** Indicates a mid-range level of litter: four or more pieces of litter 5" x 2" in size (e.g., three cups and an empty bag of chips) in a half-block area, or a dispersed item (e.g., a strewn sandwich).
- **Level 3:** Indicates a high level of litter: a pile or conglomeration of pieces of litter, found in bunches (e.g., 1' x 2' bag of trash).

Findings

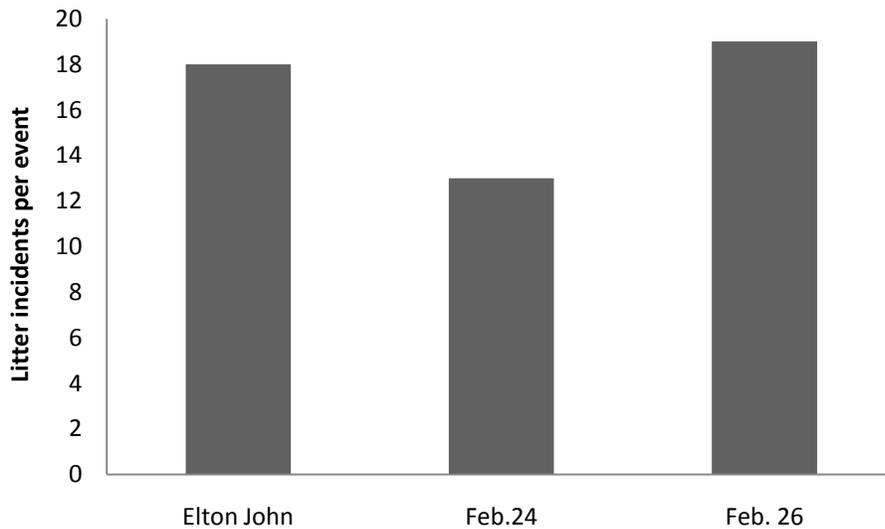
Data indicate that the level and frequency of litter in the litter monitoring area is low. Event type (concert or basketball game) did not appear to influence the level and frequency of litter. Litter infrequently originated from the Arena; only 4% of the litter we found following the monitored events was Arena litter. Map 11 demonstrates that litter was concentrated along major foot traffic routes, occurred infrequently post-event, and was most often non-Arena litter.

Frequency is defined as the number of incidents of litter found during each event. As stated, a litter incident is a case in which a monitor found one or more of the identified types of litter. In most cases, a litter incident included only a single piece of litter.

Our research finds that the frequency of litter during the monitored events was low. The CPW found few pieces of Arena litter in the Event Parking District and the area within 1/8 mile of the Arena. For all three events, the CPW found 50 new pieces of litter post-event (see Figure 16), indicating that 50 incidents of litter could be attributable to event attendees.

The frequency of litter post-event did not correlate to the event type (athletic or non-athletic). The frequency of litter incidents after the Elton John concert was 18, but the frequency of litter incidents after the February 24 and February 26 men's basketball games were 13 and 19, respectively (see Figure 16).

Figure 16. Unique Litter Incidents Post Event — All Types



Source: CPW.

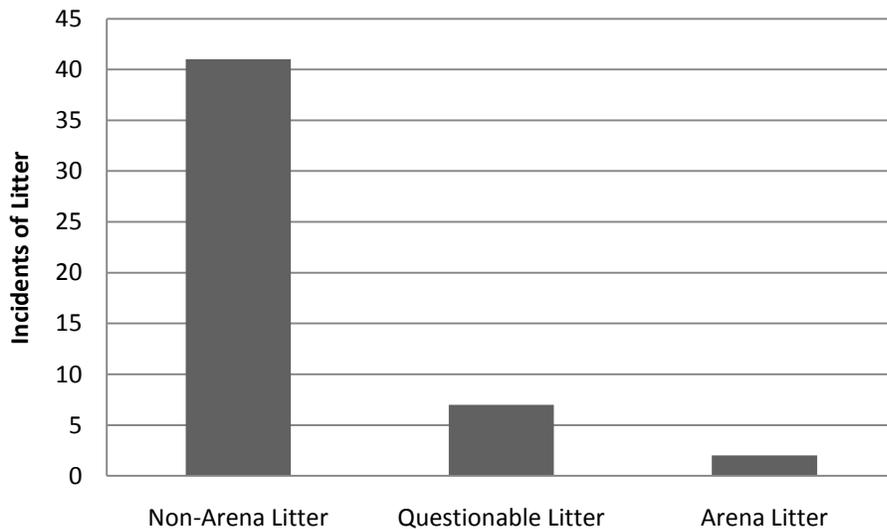
Geographic Location of Litter

Litter, especially post-event litter, was concentrated along routes with greater foot traffic, primarily along the west side of Villard Street, 15th Avenue, the north side of Franklin Boulevard (the south side of Franklin was not monitored because it is part of the Arena site), and Garden Way (see Map 11). Post-event litter in monitored areas was also concentrated near the Arena (within 1,000 feet of the Arena).

Type of Litter

The type of litter demonstrates whether the litter came from in the Arena (Arena litter), from outside of the Arena (non-Arena litter), or from an undetermined source (questionable litter). The CPW monitors found that the majority of the litter did not originate in the Arena. A small amount was questionable litter (14%), and the majority of litter found both before and after events was non-Arena litter (82%) (see Figure 17).

Figure 17. Post-Event Litter



Source: CPW.

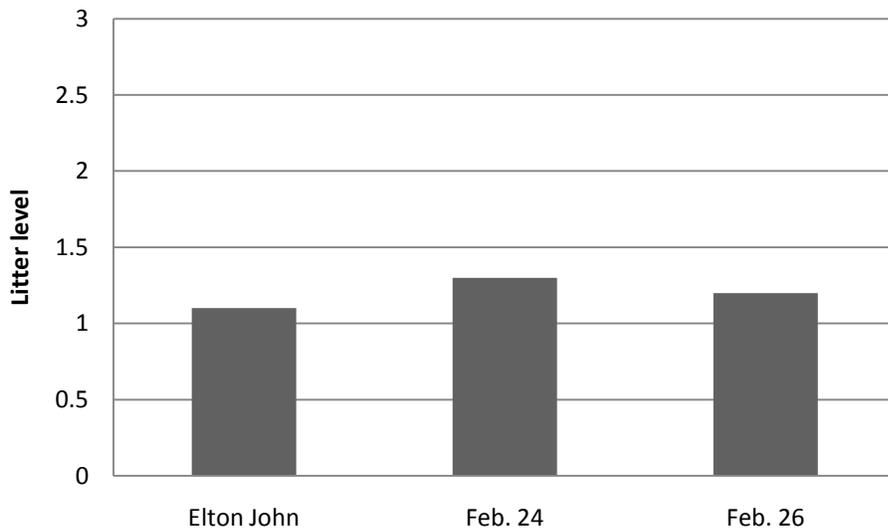
Our research finds that litter from the Arena was not more significant for athletic or non-athletic events. In fact, we find no particular correlation between event type and litter prevalence. The CPW monitors did find higher levels of questionable litter after the non-athletic event (Elton John concert) than after the athletic events, however. Questionable post-event litter constituted 28% of total litter at the Elton John concert, but questionable litter constituted 15% and 11% of total litter found after the men’s basketball games.

Level of Litter

The amounts of litter found in one location were very low post-event, averaging 1.12 on a scale of 1 to 3 for all three events (see Figure 18). According to the definition of *litter levels* set by the monitoring instrument, most litter incidents were one or two pieces of 5” x 3” litter or six pieces of litter 1½” x 1” in size or less. The data show that almost all litter incidents included just a single piece of litter.

The level of litter found after the Elton John concert was slightly lower than the average level of litter found after the men’s basketball games (1.1 on a scale between 1 and 3 versus 1.3 for the February 24 game and 1.2 for the February 26 game; see Figure 18).

Figure 18. Litter Level



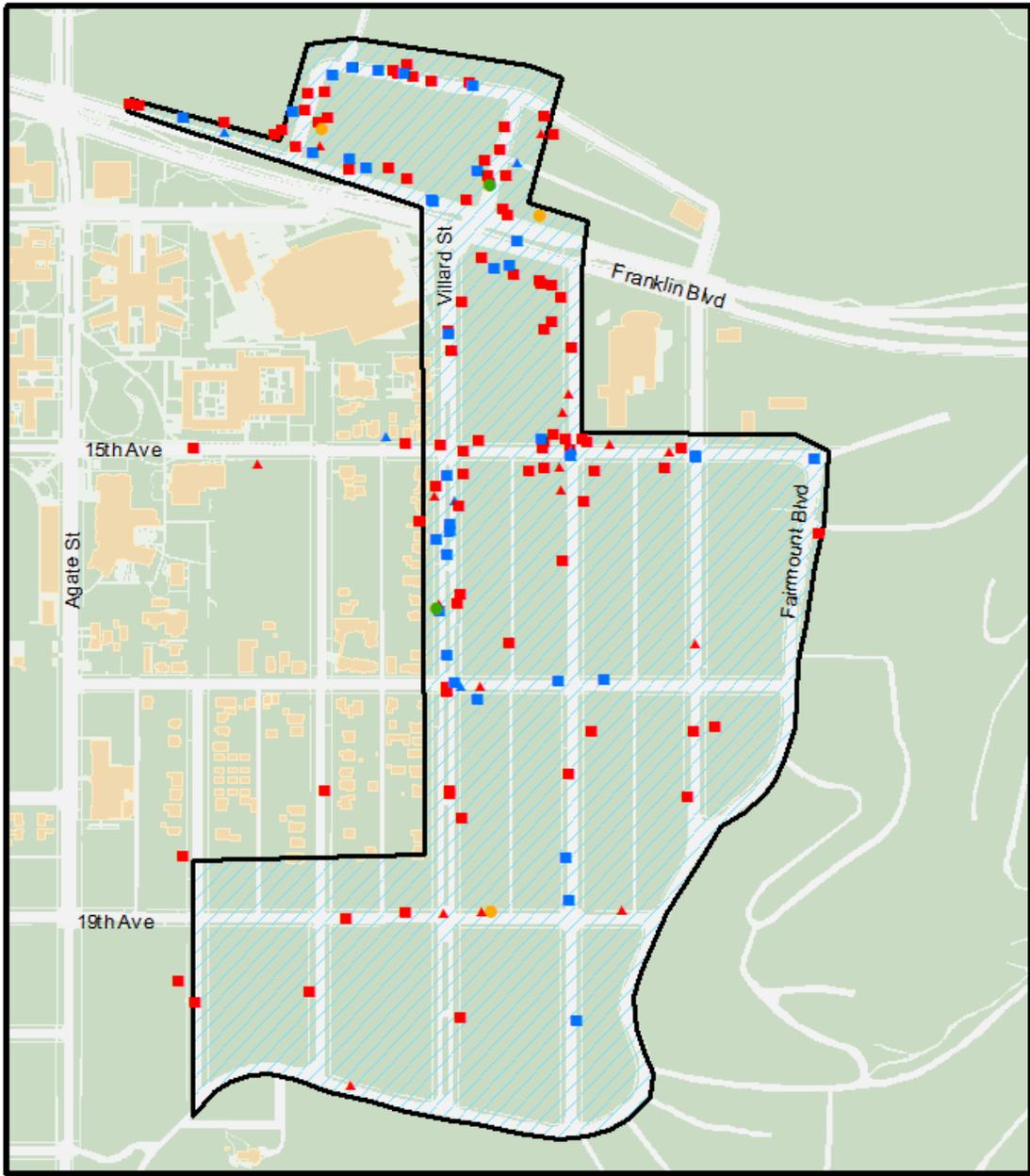
Source: CPW.

Findings from Interviews

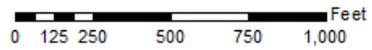
Generally, most of the residents the CPW interviewed did not think that event-related litter was a problem in the Fairmount neighborhood. Residents did not say they found increased amounts of litter on their property or within other areas of the neighborhood. One business in the litter-monitoring area did indicate that sidewalk trash is a problem, yet most business owners generally did not perceive litter to be of concern.

Conclusion

The CPW observations and interviews with neighborhood residents indicate that litter is not a problem within the litter-monitoring area. Both monitored areas demonstrate low levels of litter and low frequency of litter, with an average of only 17 pieces found after each event. This litter was most frequently located along routes of high foot traffic, such as Franklin Boulevard and 15th Avenue. The most common type of litter found after an event was non-Arena litter (82%), followed by questionable litter (14%), and Arena litter (4%).



Litter Analysis



Legend	
	Litter Analysis Zone
Type of Litter	
	Arena, Pre/Post-event
	Aena, Post-event
	Non-Arena, Pre/Post-event
	Non-Arena, Post-event
	Questionable, Pre/Post-event
	Questionable, Post-event

IV. RECOMMENDATIONS

This section presents CPW's subject-specific suggestions for improving traffic flow, access, and safety, as well as for reducing the impact of Arena operations on the surrounding neighborhood. These recommendations are designed for the University unless specifically noted otherwise.

Recommendations are divided by subject area (general, communications, automobile parking, transit, bicycle parking, Arena accessibility and intersection function, noise, and litter).

I. General

- 1.2 Continue monitoring Arena events to gain a better understanding of how the mitigation measures affect the surrounding neighborhood. This report reflects data collected in the winter; subsequent monitoring should also happen in the spring, summer, and fall.

2. Communications

- 2.1 In collaboration with the City, develop a comprehensive Arena communications strategy that targets residents, business owners, and event attendees. Assign a University of Oregon staff person to champion and maintain the new communications strategy.
- 2.2 Strengthen the Community Relations Arena webpage or establish a new Arena communications website that is separate from the University Relations site. Decide on a target audience for this site (residents and businesses, event attendees, or both). This website should:
 - i. Link, clearly and obviously, to University and City Arena-related websites, including Government and Community Relations (link to multiple pages), Fairmount Neighbors Association, and the Matthew Knight Arena "About Us" webpage.
 - ii. Provide a working e-mail address and telephone number to enable residents and businesses to contact the University with Arena concerns.
 - iii. List explicitly all event dates that trigger Event Parking District parking restrictions.
 - iv. In collaboration with the City, provide an online resource with answers to frequently asked questions such as "How do I file a complaint about crowd noise on my street?" or "How do I acquire a guest permit?"
- 2.3 With the City, ask neighborhood residents and businesses how they would like to receive information and provide feedback about Arena operations (e.g., the number of expected event attendees, days and times the Event Parking District is in effect, etc.).
- 2.4 Convey information about multi-modal transportation access and parking to event attendees at the point of purchase: online, by phone, or at the ticket booth. For instance, design a computer program that would direct online ticket purchasers through a brief tutorial on travel options to the Arena (Arena Shuttle, EmX, parking options, bicycle and pedestrian routes, and bicycle parking options).

3. Automobile Parking: University Lots and Event Parking District

University Lots

- 3.1 Allow event attendees to buy a parking pass when they buy an event ticket.
- 3.2 Find ways to take advantage of underutilized University lots, such as 34 and 16A.
- 3.3 Change monitoring methodology to count parked cars during events, not just before events.

Event Parking District

- 3.4 Improve the methods for communicating the days and times of events that trigger use of the Event Parking District to Fairmount neighbors. This could be accomplished through the Matthew Knight Arena website, the FNA newsletter, the FNA website, and/or FNA listserv.
- 3.5 With the City, strengthen parking enforcement by: (1) creating a consistent route for the City's parking-enforcement monitor, (2) monitoring parking on each street in the Parking District with appropriate frequency (some areas may need more frequent monitoring than others), and (3) enforcing parking during the entirety of each high attendance event.
- 3.6 Discuss with the City the option of allowing Fairmount neighbors to continue using guest parking permits during men's basketball games; consider giving them a discounted rate for the University-issued permits. Per current policy, guest parking permits are not effective during times when the Event Parking District is in operation for Arena events.
- 3.7 With the City, discuss the option of linking license plates to permit sales in the Parking District.

4. Transit: EmX and Arena Shuttle

EmX

- 4.1 With LTD, explore options for increased service to the Arena before and after events.
- 4.2 Give customers the option to buy an EmX pass when they purchase tickets, in order to increase awareness and transit ridership for events. Transit passes could alleviate rider confusion and potential loss of revenue to LTD caused by EmX passengers unfamiliar with EmX operations.

Arena Shuttle

- 4.3 Assess the feasibility of downtown Eugene and downtown Springfield as options for future remote lot locations. Investigate whether downtown sales and City parking revenue change when the Arena Shuttle runs from downtown.

5. Bicycle Parking

- 5.1 Continue to examine the operations and layout of the bicycle valet parking area, with particular attention to the number of spaces provided and to covering some of the spaces.
- 5.2 Add permanent signage on or near the Arena site to help cyclists find rack spaces and the bike valet corral.
- 5.3 Advertise services for bicyclists in Arena transportation literature, and feature bicycle parking more prominently on the Arena website (it is currently in the last bullet point of the FAQ section).

6. Arena Accessibility and Intersection Function

- 6.1 Explore options for reducing the dangers of mid-block pedestrian crossing on Franklin Blvd.
- 6.2 Investigate creating an additional garage exit onto Columbia Street to reduce congestion at the Villard Street garage exit.
- 6.3 Improve nighttime visibility on 15th at Villard and Orchard so that vehicles can see bump-outs and reduce potential vehicle/pedestrian conflicts.
- 6.4 Move flagger warning signs so that approaching vehicles get enough advance notice that they are approaching a traffic-controlled intersection.

7. Noise

- 7.1 The current mitigation measures are working effectively; therefore, we have no recommendations for this section.

8. Litter

- 8.1 Eliminate or modify the AIMA requirement that requires a litter patrol in the Fairmont neighborhood (due to the limited amount of litter found).

V. APPENDICES

APPENDIX A: MONITORING INSTRUMENTS

I. AUTOMOBILE PARKING

Scope Language:

1. *Collect automobile parking data for two event days, including an athletic event and a non-athletic event*
2. *Conduct an inventory of noncontrolled University lots for available parking spaces pre-event.*
3. *Conduct an inventory of available parking spaces in the Event Parking District during event.*
4. *Collect Event Parking District permit sales data from the City of Eugene and the University.*

Method for Acquiring Information:

TASK 1: Conduct an inventory of noncontrolled University lots for available parking spaces pre-event

Methodology:

1. Collect (count) the number of available parking spaces in noncontrolled University lots one hour before the start of each event. "Available" spaces include open/empty spaces, spaces designated as "24-hour reserved," and service spaces.
2. Inventory the number and distribution of "24-hour reserved" spaces and "7am-6pm reserved" spaces (one time only; this data is not accurate in the University's database).
3. Identify which lots are "pay" lots for each event.

TASK 2: Conduct an inventory of noncontrolled University lots for available parking spaces during two non-event days (baseline).

Methodology:

Conduct the same procedures as in TASK 1, Step 1 during two "baseline" dates, neither of which has an Arena event or another on-campus event scheduled that would draw unusually large crowds. One baseline count will occur on a Tuesday at 5pm in anticipation of a 6pm event, one will occur on a Tuesday at 6pm in anticipation of a 7pm event.

TASK 3: Conduct an inventory of available parking spaces in the Event Parking District (Parking District)

Methodology:

1. Request that Eugene Parking Services monitors the Parking District with the License Plate Recognition technology (LPR) for the duration of each event.
2. Retrieve the database from Jeff Petry (Eugene Parking Services) after completion of all three events.
3. Analyze the data for the number of cars in the Parking District during the first two hours of each event.

TASK 4: Collect Event Parking District permit sales data from the University.

Methodology:

Collect the number of Parking District permits sold for each event from the Athletic Department. Total permits includes season pass permits, permits the Athletics department gives to event personnel, and permits sold on the street by CMS staff.

TASK 5: Determine the number of citations issued in noncontrolled University lots and in the Event Parking District

Methodology:

1. Collect citation information from DPS (Herb Horner) during events. We recognize that not many citations will be issued during this time, except for cars parked in 24-hour reserved spaces, service spaces, or in places that present a safety hazard (citations are only issued until 6pm).
2. Collect on-street citation information from Eugene Parking Services during events.

Additional Parking Instrument:

1. **Interview Eugene Parking Services.** How effective is the Event Parking District? What are the issues and concerns? Can residents find parking near their homes? Are more citations issued during events?
2. **Interview DPS staff.** Is the policy regarding selling EPD permits reasonable, such as season only? Did the University purchase too many EPD parking spaces? Is the price too high or too low? Is the District underused or in high demand (i.e., do people prefer parking in the EPD or in University lots?) How successful are the “pay” lots during events? How much money is the University making (more or less than expected?)
3. **Interview neighborhood residents.** What are their concerns about living in the Event Parking District (do they have a permit, do they use it, do they find it difficult to park near their homes during an event, are cars parked too close to their driveways during events, etc.)

II. BICYCLE PARKING

Scope Language:

1. *Collect bicycle parking data for three (3) event days including, a weekday athletic event, a weekend athletic event, and non-athletic event.*
2. *Conduct an inventory of bicycle parking spaces in use at each location identified on the Arena Site Plan and bicycles parked in noncompliant spaces during events.*

Method for Acquiring Information:

Task: Determine the bike parking capacity by rack type on the Arena site and determine rack-utilization rates.

Methodology:

1. Inventory of bicycle parking spaces on Arena site 1/28/11:
 - a. Inventory existing spaces identified on Arena Site Plan.
 - b. Define types of parking categories.
 - c. Assign each space a number of available spaces and categories.
2. Survey bike parking during three events delineated:
 - a. Survey of bicycles parked in compliant spaces:
 - i. Obtain valet parking numbers for event to determine usage.
 - ii. Survey identified bicycle racks 30 minutes from scheduled starting time.
 - iii. Note any oversized bikes with trailers, tandem bikes, or other parking issues.
 - b. Survey of bicycles parked in noncompliant spaces:
 - i. Survey noncompliant spaces in area composing the south side of Franklin Blvd to the north, the east side of Villard St. to the east, Bean Hall to the south, and Agate St. to the west 30 minutes from scheduled starting time.
 - ii. A noncompliant space will include bikes locked to anything that is not a bike rack (example: trees, parking meters, railings, signs, and lightposts).
 - iii. Note what noncompliant bike is attached to, including whether it is covered.
 - iv. Note oversized bikes with trailers, tandem bikes.
3. Interview valet staff during three events delineated:
 - i. Ask how many people decided not to park because of parking fee.
 - ii. Ask about any other issues, such as whether oversized bikes with trailers or tandem bikes were turned away.

III. Intersections and Arena Access

Scope Language:

5.b. Collect observational data related to the function of the Arena site and associated mitigation measures, including data regarding:

- i. Function of intersections for multi-modal traffic both pre-event and post-event
- ii. Bicycle and pedestrian access routes
 - 1. Specific data related to bicycle and pedestrian access routes to be collected at the following locations in addition to other locations identified by monitoring consultant: Villard St. & 15th Ave., Villard St. & Franklin Blvd., Agate St. & Franklin Blvd.

Method for Acquiring Information:

Task 1: Determine multi-modal functionality of intersections.

Task 2: Collect data related to bicycle and pedestrian access routes to Arena both pre-event and post event.

Methodology:

The scope for JRH traffic engineers includes tracking intersection volumes of vehicles, bicycles, and pedestrians, as well as turning movements. At identified Arena access points and select intersections that JRH did not monitor, we will count volume and turning movements for bicycles and pedestrians. At identified intersections where JRH will be monitoring, we will evaluate other indicators of intersection function. The criteria described herein along with JRH volume counts will help determine the most used intersections, the least used intersections, the direction of travel, and safety concerns. Table A.1. identifies the 11 intersections/Arena access points we will monitor and specifies the monitoring actions assigned to each.

Table A.1. Monitoring Assignments

Number	Intersection	Function	Bicycle Count
1	Bus staging area at 13 th	X	
2	Parking garage entrance at 13th	X	
3	Moss St. Alley at Arena	X	X
4	Agate at 13 th	X	
5	Parking garage at Villard	X	
6	Agate at Franklin	X	
7	Agate at 15 th	X	
8	Agate mid-block pedestrian crossing at 14th	X	
9	Villard at 15 th	X	X
10	Villard at Franklin	X	
11	Street improvements south of 15th and Orchard/Walnut/Fairview streets	X	

Observation of Intersection Function: Each identified intersection or access point will have at least one monitor. Data will be collected one hour prior to event start and for 45 minutes after event end. Each observer will be have a set of directions, a clipboard, pen, and three observation tools: a tally sheet, a map, and a qualitative report-back form. All monitors will engage in a training session prior to monitoring and a debriefing session with the Project Lead following each monitoring period.

IV. Noise

Scope Language:

5. b. Collect observational data related to the function of the Arena site and associated mitigation measures, including data regarding:

ii. Noise

Method for Acquiring Information:

Determine the type and level of noise in the monitoring area.

Location:

Monitoring will occur in the Event Parking District, as defined by the TDM Plan.

Schedule:

Pre-event (on the day of the event): Monitoring will be done 30 minutes prior to the beginning of the event and for 30 minutes until the event begins.

Post-event: Monitoring will begin when the event ends and will continue until 30 minutes after the event.

Materials:

Data is collected using a pre- and post-event summary sheet. Monitors have a clipboard and noise-monitoring instrument, which is a chart to record the noise category, level, time, and description. During nighttime events, monitors have flashlights; during inclement weather, monitors have transparent plastic sheets to keep their instruments dry.

Training:

All observers will complete a basic training. This training will review the goal and purpose of the monitoring, location of the monitoring, specific locations of each monitor, how and what to record, and how to use the instrument to record data.

Monitoring Process:

To record the data, observers will:

- a) Identify the type of noise on the data sheet.
- b) Rate and record the level of noise on the data sheet.
- c) Record the location and time of the noise on the data sheet.
- d) Record the location of the noise on a provided map.

Noise Key:

Types of Noise:

People Noise ("P"): Noise made by people (e.g., talking, shouting, yelling, etc.)

Car Noise ("C"): Noise made by cars (e.g., honking, engine noise, wheel screeching, air brakes, etc.)

Levels of People Noise:

- 1- (low) Crowds of 2–4 people laughing or talking loudly (small loud group)
- 2- (medium) Crowds of 4–6 people talking very loudly, laughing, with up to one shout (medium-size loud group)
- 3- (high) Crowds of 4 or more people shouting, screaming, or broadcasting their voices very loudly (medium-size very loud group or large loud group)

Levels of Car Noise:

- 1- (low) Increased vehicle engine noise due to unusually heavy traffic flow (includes vehicle idling for more than 15 minutes)
- 2- (medium) Screeching, peeling out, or single honk
- 3- (high) Screeching, peeling out and honking, or repetitive honking

V. LITTER

Scope Language:

5. b. *Collect observational data related to the function of the Arena site and associated mitigation measures, including data regarding:*

iii. Litter

Method for Acquiring Information:

Task: Determine type and level of litter in the monitoring area.

Methodology:

Location:

Monitoring will occur in two areas:

- 1) Arena area: 1/8-mile radius around the Arena, excluding the Arena site
- 2) The Event Parking District as defined by the TDM Plan.

Schedule:

Pre- event (baseline monitoring): Baseline monitoring will begin 1½ hours before the event and will continue for one hour.

Post-event: Litter monitoring will begin 30 minutes after the event ends and will continue through completion or for up to one hour.

Materials:

Data is collected using a chart to record litter and a pre- and post-event summary sheet. Monitors have a clipboard and litter-monitoring instrument. The chart records litter category, litter level, time the litter was observed, and a description of the litter found. During nighttime events, monitors have flashlights. During inclement weather, monitors have plastic transparency sheets to keep their instruments dry.

Training:

All observers will complete a basic training. This training will review goal and purpose of the monitoring, overall location of monitoring, specific locations of each monitor, how and what to record, and how to use the litter instrument data sheets to record data.

Litter Monitoring Process:

Observers will record litter in the public right of way of the specified areas using a data recording sheet, a map, and a camera. The public right of way includes the street, planting strip, and sidewalk. Observers will note litter observed in private garden areas if it appears that this litter originated from a location other than the private property.

To record the data, observers will:

- a) Identify and record the type of litter on the data sheet.
- b) Rate and record the level of litter on the data sheet.

- c) Record the litter location and time found on the data sheet.
- d) Record the litter location on a map.
- e) Photograph the litter if it is unusual in amount, level, or type.

Litter Key:

Levels of Litter

- 1- (Low) 1–2 pieces of litter 5" x 3" in size (e.g., a cup or wrapper), or six pieces 1½" x 1" inches in size (e.g., receipt or cigarette butt).
- 2- (Medium) 4 or more pieces of litter 5" x 2" in size, or a dispersed item (e.g., strewn sandwich).
- 3- (High) Pile or conglomeration of pieces of litter found in bunch or bunches in half-block area (e.g., 1" x 2" bag of trash).

Types of Litter

A - Arena litter: Originates from Arena concessions, ticket booths, or shops. Examples of Arena litter are:

- Cups (Pepsi cups, Matt Court black cup)
- 16 oz. clear plastic water cup
- Wrappers (metallic, with "O" graphic)
- Chocolate milk bottle
- Aquafina water bottle
- Large Arena drink holder
- Haagen Dazs ice cream bar box
- Minute Maid Frozen Lemonade carton
- Black nachos holder
- Merchandise tags and ticket stubs from arena
- Arena merchandise (e.g., pom-poms)

O - Outside-the-event litter: Originates from outside the Arena (from stores, automobiles, etc.)

Examples of outside Arena litter are:

- Subway wrappers
- Market of Choice receipts
- Danish wrappers

"?" – Questionable litter:

Questionable litter may have originated in the Arena or may have originated outside the Arena. An example of questionable litter is a Sweetheart cup lid or an Allann Bros. coffee cup; either could have originated in the Arena or in nearby shops. Examples of questionable litter are:

- Drink lids
- Pepsi cans
- Allann Bros. coffee cup

**APPENDIX B:
UNCONTROLLED UNIVERSITY PARKING LOTS**

ARENA EVENT OPERATIONS PLAN PARKING AVAILABILITY CHECKLIST										
Existing University Lots										
LOT_NUMBER	Lot Type	Existing Spaces	Unavailable (Service Spaces)	Unavailable (7am-6pm Reserved Spaces)	Unavailable (Reserved at all times)	Unavailable (In-Use)	Available	Total Available	Actual Usage Rate	Need Pay
02	Faculty/staff	81	3	0	0	28	50	78	34.6%	N
03A	Student/Faculty/Staff	23	0	12	5	16	2	18	69.6%	N
03B	Student/Faculty/Staff	38	0	0	0	2	36	38	5.3%	N
05A	Student/Faculty/Staff	42	0	26	2	26	14	40	61.9%	Y
05B	Student/Faculty/Staff	3	0	0	0	2	1	3	66.7%	N
06A	Faculty/staff	100	0	35	0	18	82	100	18.0%	N
06B	Faculty/staff	6	0	0	0	2	4	6	33.3%	N
07A	Special Permits	6	2	4	0	2	2	4	33.3%	N
07B	Special Permits	13	0	11	5	3	5	8	23.1%	N
09	Faculty/staff	7	0	4	1	4	2	6	57.1%	N
10	Special Permits	9	7	1	0	2	0	2	22.2%	N
11	Special Permits	11	1	5	3	3	4	7	27.3%	N
12A	Faculty/staff	27	2	5	8	17	0	17	63.0%	N
12B	Faculty/staff	35	7	8	9	12	7	19	34.3%	N
13	Special Permits	40	8	7	5	27	0	27	67.5%	N
14	Special Permits	7	4	3	0	2	1	3	28.6%	N
16A	Faculty/staff	207	4	72	3	102	98	200	49.3%	N
16B	Student	16	0	160	0	6	10	16	37.5%	N
17	Faculty/staff/visitor	85	2	22	0	24	59	83	28.2%	N
18	Student/faculty/staff	99	0	0	0	31	68	99	31.3%	N
19	Reserved Client	26	1	1	0	15	10	25	57.7%	N
20	Faculty/staff	30	13	12	1	6	10	16	20.0%	N
21	Faculty/staff	4	1	0	3	0	0	0	0.0%	N
22	Faculty/staff	18	1	7	0	11	6	17	61.1%	N
23	Faculty/staff	40	2	20	4	28	6	34	70.0%	N
25	Special Permits	14	1	6	6	4	3	7	28.6%	N
26	Special Permits	15	1	13	1	12	1	13	80.0%	N
27	Special Permits	4	1	2	0	0	3	3	0.0%	N
28	Special Permits	12	1	11	0	1	10	11	8.3%	N
29A	Visitor	49	6	0	0	43	0	43	87.8%	N
29B	Special Permits	5	3	2	0	2	0	2	40.0%	N
29C	Special Permits	4	0	4	0	0	4	4	0.0%	N
29D	Special Permits	39	1	24	9	15	14	29	38.5%	N
30	Faculty/staff	67	1	34	0	29	37	66	43.3%	N
31	Student/Faculty/Staff	23	0	22	5	2	16	18	8.7%	N
32	Student/Faculty/Staff	30	0	5	0	12	18	30	40.0%	N
33	Student/Faculty/Staff	43	0	2	0	42	1	43	97.7%	N
34A	Special Permits	15	2	9	0	1	12	13	6.7%	N
34B	Special Permits	11	0	0	0	6	5	11	54.5%	Y
34C	Student/Faculty/Staff	44	0	0	0	41	3	44	93.2%	Y
34E	Student/Faculty/Staff	274	0	0	0	32	242	274	11.7%	Y
34F	Student/Faculty/Staff	80	0	0	0	79	1	80	98.8%	Y
35	Student/Faculty/Staff	12	0	6	0	2	10	12	16.7%	N
36A	Loading Zone	9	0	0	0	8	1	9	88.9%	N
36B	Special Permits	20	1	4	13	6	0	6	30.0%	N
38	Faculty/staff	71	1	17	0	34	36	70	47.9%	Y
39	Student/Faculty/Staff	52	0	0	0	18	34	52	34.6%	Y
40	Faculty/staff	127	1	33	0	1	125	126	0.8%	N
41	Special Permits	5	0	5	0	2	3	5	40.0%	N
42	Student/Faculty/Staff	84	8	23	8	28	40	68	33.3%	N
43	Faculty/staff	62	5	32	4	22	31	53	35.5%	Y
44	Special Permits	53	0	3	5	28	20	48	52.8%	N
45	Jaqua Center Permit	32	0	0	0	7	25	32	21.9%	Y
47	Faculty/staff	28	9	0	0	7	12	19	25.0%	N
51	Student/Faculty/Staff	54	0	0	0	40	14	54	74.1%	Y
52	Student/Faculty/Staff	64	0	0	0	36	28	64	56.3%	Y
53	Student/Faculty/Staff	78	0	0	0	21	57	78	26.9%	Y
54	Student/Faculty/Staff	46	0	0	0	1	45	46	2.2%	Y
13th Ave	On-Street	8	0	0	0	7	1	8	87.5%	N
15th Ave	On-Street	145	17	6	0	102	26	128	70.3%	N
Univer St	On-Street	236	0	0	0	128	108	236	54.2%	N
Duck Mtrs	Student/Faculty/Staff	3	0	3	0	2	1	3	66.7%	N
Total University Lots							1463			
10% Walking Factor Reduction							1317			

ARENA EVENT OPERATIONS PLAN PARKING AVAILABILITY CHECKLIST					24-Feb-11	5pm - 6pm	Weather: Partly Cloudy		Temperature: 40 F	
Existing University Lots										
LOT_NUMBER	Lot Type	Existing Spaces	Unavailable (Service Spaces)	Unavailable (7am-6pm Reserved Spaces)	Unavailable (Reserved at all times)	Unavailable (In-Use)	Available	Total Available	Actual Usage Rate	Need Pay
02	Faculty/staff	81	3	0	0	33	45	78	40.7%	N
03A	Student/Faculty/Staff	23	0	12	5	12	6	18	52.2%	N
03B	Student/Faculty/Staff	38	0	0	0	5	33	38	13.2%	N
05A	Student/Faculty/Staff	42	0	26	2	23	17	40	54.8%	Y
05B	Student/Faculty/Staff	3	0	0	0	2	1	3	66.7%	N
06A	Faculty/staff	100	0	35	0	32	68	100	32.0%	N
06B	Faculty/staff	6	0	0	0	2	4	6	33.3%	N
07A	Special Permits	6	2	4	0	2	2	4	33.3%	N
07B	Special Permits	13	0	11	5	1	7	8	7.7%	N
09	Faculty/staff	7	0	4	1	4	2	6	57.1%	N
10	Special Permits	9	7	1	0	2	0	2	22.2%	N
11	Special Permits	11	1	5	3	0	7	7	0.0%	N
12A	Faculty/staff	27	2	5	8	16	1	17	59.3%	N
12B	Faculty/staff	35	7	8	9	0	19	19	0.0%	N
13	Special Permits	40	8	7	5	15	12	27	37.5%	N
14	Special Permits	7	4	3	0	2	1	1	28.6%	N
16A	Faculty/staff	207	4	72	3	63	137	200	30.4%	N
16B	Student	16	0	160	0	9	7	16	56.3%	N
17	Faculty/staff/visitor	85	2	22	0	31	52	83	36.5%	N
18	Student/faculty/staff	99	0	0	0	33	66	99	33.3%	N
19	Reserved Client	26	1	1	0	10	15	25	38.5%	N
20	Faculty/staff	30	13	12	1	3	13	16	10.0%	N
21	Faculty/staff	4	1	0	3	0	0	0	0.0%	N
22	Faculty/staff	18	1	7	0	6	11	17	33.3%	N
23	Faculty/staff	40	2	20	4	18	16	34	45.0%	N
25	Special Permits	14	1	6	6	0	7	7	0.0%	N
26	Special Permits	15	1	13	1	7	6	13	46.7%	N
27	Special Permits	4	1	2	0	2	1	3	50.0%	N
28	Special Permits	12	1	11	0	8	3	11	66.7%	N
29A	Visitor	49	6	0	0	37	6	43	75.5%	N
29B	Special Permits	5	3	2	0	1	1	2	20.0%	N
29C	Special Permits	4	0	4	0	1	3	4	25.0%	N
29D	Special Permits	39	1	24	9	10	19	29	25.6%	N
30	Faculty/staff	67	1	34	0	25	41	66	37.3%	N
31	Student/Faculty/Staff	23	0	22	5	0	18	18	0.0%	N
32	Student/Faculty/Staff	30	0	5	0	11	19	30	36.7%	N
33	Student/Faculty/Staff	43	0	2	0	34	9	43	79.1%	N
34A	Special Permits	15	2	9	0	1	12	13	6.7%	N
34B	Special Permits	11	0	0	0	2	9	11	18.2%	N
34C	Student/Faculty/Staff	44	0	0	0	24	20	44	54.5%	Y
34E	Student/Faculty/Staff	274	0	0	0	63	211	274	23.0%	Y
34F	Student/Faculty/Staff	80	0	0	0	80	0	80	100.0%	Y
35	Student/Faculty/Staff	12	0	6	0	5	7	12	41.7%	N
36A	Loading Zone	9	0	0	0	3	6	9	33.3%	N
36B	Special Permits	20	1	4	13	6	0	6	30.0%	N
38	Faculty/staff	71	1	17	0	21	49	70	29.6%	Y
39	Student/Faculty/Staff	52	0	0	0	17	35	52	32.7%	Y
40	Faculty/staff	127	1	33	0	13	113	126	10.2%	N
41	Special Permits	5	0	5	0	1	4	5	20.0%	N
42	Student/Faculty/Staff	84	8	23	8	42	62	68	50.0%	N
43	Faculty/staff	62	5	32	4	15	38	53	24.2%	N
44	Special Permits	53	0	3	5	48	0	48	90.6%	N
45	Jaqua Center Permit	32	0	0	0	3	29	32	9.4%	Y
47	Faculty/staff	28	9	0	0	14	5	19	50.0%	N
51	Student/Faculty/Staff	54	0	0	0	43	11	54	79.6%	Y
52	Student/Faculty/Staff	64	0	0	0	43	21	64	67.2%	Y
53	Student/Faculty/Staff	78	0	0	0	38	40	78	48.7%	Y
54	Student/Faculty/Staff	46	0	0	0	1	45	46	2.2%	Y
13th Ave	On-Street	8	0	0	0	7	1	8	87.5%	N
15th Ave	On-Street	145	17	6	0	72	56	128	49.7%	N
Univer St	On-Street	236	0	0	0	119	117	236	50.4%	N
Duck Mtrs	Student/Faculty/Staff	3	0	3	0	1	2	3	33.3%	N
Total University Lots							1566			
10% Walking Factor Reduction							1409			

ARENA EVENT OPERATIONS PLAN PARKING AVAILABILITY CHECKLIST					26-Feb-11	2pm - 3pm	Weather: Cloudy		Temperature: 42 F	
Existing University Lots										
LOT_NUMBER	Lot Type	Existing Spaces	Unavailable (Service Spaces)	Unavailable (7am-6pm Reserved Spaces)	Unavailable (Reserved at all times)	Unavailable (In-Use)	Available	Total Available	Actual Usage Rate	Need Pay
02	Faculty/staff	81	3	0	0	51	27	78	63.0%	N
03A	Student/Faculty/Staff	23	0	12	5	16	2	18	69.6%	N
03B	Student/Faculty/Staff	38	0	0	0	8	30	38	21.1%	N
05A	Student/Faculty/Staff	42	0	26	2	18	22	40	42.9%	Y
05B	Student/Faculty/Staff	3	0	0	0	3	0	3	100.0%	N
06A	Faculty/staff	100	0	35	0	22	78	100	22.0%	N
06B	Faculty/staff	6	0	0	0	3	3	6	50.0%	N
07A	Special Permits	6	2	4	0	2	2	4	33.3%	N
07B	Special Permits	13	0	11	5	5	3	8	38.5%	N
09	Faculty/staff	7	0	4	1	6	0	6	85.7%	N
10	Special Permits	9	7	1	0	2	0	2	22.2%	N
11	Special Permits	11	1	5	3	5	2	7	45.5%	N
12A	Faculty/staff	27	2	5	8	17	0	17	63.0%	N
12B	Faculty/staff	35	7	8	9	0	19	19	0.0%	N
13	Special Permits	40	8	7	5	23	4	27	57.5%	N
14	Special Permits	7	4	3	0	2	1	1	28.6%	N
16A	Faculty/staff	207	4	72	3	186	14	200	89.9%	N
16B	Student	16	0	160	0	16	0	16	100.0%	N
17	Faculty/staff/visitor	85	2	22	0	50	33	83	58.8%	N
18	Student/faculty/staff	99	0	0	0	36	63	99	36.4%	N
19	Reserved Client	26	1	1	0	20	5	25	76.9%	N
20	Faculty/staff	30	13	12	1	13	3	16	43.3%	N
21	Faculty/staff	4	1	0	3	0	0	0	0.0%	N
22	Faculty/staff	18	1	7	0	17	0	17	94.4%	N
23	Faculty/staff	40	2	20	4	22	12	34	55.0%	N
25	Special Permits	14	1	6	6	5	2	7	35.7%	N
26	Special Permits	15	1	13	1	13	0	13	86.7%	N
27	Special Permits	4	1	2	0	1	2	3	25.0%	N
28	Special Permits	12	1	11	0	8	3	11	66.7%	N
29A	Visitor	49	6	0	0	29	14	43	59.2%	N
29B	Special Permits	5	3	2	0	0	2	2	0.0%	N
29C	Special Permits	4	0	4	0	0	4	4	0.0%	N
29D	Special Permits	39	1	24	9	24	5	29	61.5%	N
30	Faculty/staff	67	1	34	0	15	51	66	22.4%	N
31	Student/Faculty/Staff	23	0	22	5	0	18	18	0.0%	N
32	Student/Faculty/Staff	30	0	5	0	2	28	30	6.7%	N
33	Student/Faculty/Staff	43	0	2	0	43	0	43	100.0%	N
34A	Special Permits	15	2	9	0	5	8	13	33.3%	N
34B	Special Permits	11	0	0	0	1	10	11	9.1%	Y
34C	Student/Faculty/Staff	44	0	0	0	41	3	44	93.2%	Y
34E	Student/Faculty/Staff	274	0	0	0	28	246	274	10.2%	Y
34F	Student/Faculty/Staff	80	0	0	0	61	19	80	76.3%	Y
35	Student/Faculty/Staff	12	0	6	0	1	11	12	8.3%	N
36A	Loading Zone	9	0	0	0	5	4	9	55.6%	N
36B	Special Permits	20	1	4	13	6	0	6	30.0%	N
38	Faculty/staff	71	1	17	0	20	50	70	28.2%	Y
39	Student/Faculty/Staff	52	0	0	0	14	38	52	26.9%	Y
40	Faculty/staff	127	1	33	0	10	116	126	7.9%	N
41	Special Permits	5	0	5	0	2	3	5	40.0%	N
42	Student/Faculty/Staff	84	8	23	8	28	62	68	33.3%	N
43	Faculty/staff	62	5	32	4	36	17	53	58.1%	Y
44	Special Permits	53	0	3	5	29	19	48	54.7%	N
45	Jaqua Center Permit	32	0	0	0	2	30	32	6.3%	Y
47	Faculty/staff	28	9	0	0	18	1	19	64.3%	N
51	Student/Faculty/Staff	54	0	0	0	36	18	54	66.7%	Y
52	Student/Faculty/Staff	64	0	0	0	28	36	64	43.8%	Y
53	Student/Faculty/Staff	78	0	0	0	14	64	78	17.9%	Y
54	Student/Faculty/Staff	46	0	0	0	20	26	46	43.5%	Y
13th Ave	On-Street	8	0	0	0	4	4	8	50.0%	N
15th Ave	On-Street	145	17	6	0	88	40	128	60.7%	N
Univer St	On-Street	236	0	0	0	40	196	236	16.9%	N
Duck Mtrs	Student/Faculty/Staff	3	0	3	0	3	0	3	100.0%	N
Total University Lots							1473			
10% Walking Factor Reduction							1326			

APPENDIX C: EVENT PARKING DISTRICT

Table C.1. Cars per Street¹⁹

February 3, 6pm Start	
Columbia St.	20
E. 15th Ave.	132
E. 17th Ave.	67
E. 19th Ave.	44
Orchard Alley	2
Orchard St.	81
Villard St.	65
Walnut St.	26
Total	437

February 5, 1pm Start	
E. 15th Ave.	28
E. 17th Ave.	24
E. 19th Ave.	47
Fairmount Blvd.	0
Moss St.	0
Orchard St.	44
Villard St.	79
Walnut St.	36
Total	258

¹⁹ This data represents the number of unique cars in the Event Parking District within the first two hours after the start of each event.

February 17, 8pm Start	
Columbia St.	7
E. 15th Ave.	42
E. 17th Ave.	7
E. 19th Ave.	21
Fairmount Blvd.	5
Orchard St.	60
Villard St.	33
Total	175

February 24, 6pm Start	
Columbia St.	21
E. 15th Ave.	42
E. 17th Ave.	24
E. 19th Ave.	21
Orchard St.	84
Villard St.	97
Walnut St.	21
Total	310

Source: City of Eugene.

APPENDIX D: EMX RIDERSHIP

Table D.1. LTD Overtime Costs

Date	Overtime Hours	Total Overtime	Cost
Feb. 17	3 hrs. 35 min. Operators on standby and drove post-event 4 hrs. 34 min. Operators drove after regular shift 50 min. Operator assigned a trip off standby for pre-event service	8 hrs. 59 min.	\$1,311.08
Feb. 24	27 min. Operator held on stand and drove post-event 50 min. Operator drove after regular shift.	1 hr. 17 min.	\$186.88
Feb. 26	2 hrs. 5 min. Operator on standby and drove post-event	2 hrs. 5 min.	\$303.68

*Fully Allocated Costs = \$146.00 per hour

Total: \$1,801.634

Source: Mark Johnson, LTD Operation Manager 4/4/11.

Table D.2. EmX Ridership for Monitored Events

Special Event		Ons	Offs	Total	People
UO Women's B-Ball Game Thurs., 2/10/11 @ 7:00 p.m.	Agate & Walnut Stations between 6:00 p.m. & 11:00 p.m.	281	234	515	258
2/7 - 2/9 avg.	" "	202	189	391	196
Increase		79	45	124	62
Percent Increase		39%	24%	32%	32%

Special Event		Ons	Offs	Total	People
Elton John Concert Thurs., 2/17/11 @ 8:00 p.m.	Agate & Walnut Stations between 6:00 p.m. & 12:30 a.m.	722	907	1,629	815
2/14 - 2/16 avg.	" "	212	183	395	198
Increase		510	724	1,234	617
Percent Increase		241%	396%	312%	312%

Special Event		Ons	Offs	Total	People
UO Men's B-Ball Game Thurs., 2/24/11 @ 6:00 p.m.	Agate & Walnut Stations between 5:00 p.m. & 11:00 p.m.	558	536	1,094	547
2/21 - 2/23 avg.	" "	323	262	585	293
Increase		235	274	509	254
Percent Increase		73%	105%	87%	87%

Special Event		Ons	Offs	Total	People
UO Men's B-Ball Game Sat., 2/26/11 @ 3:00 p.m.	Agate & Walnut Stations between 1:30 p.m. & 6:30 p.m.	511	505	1,016	508
1/22 & 1/29 avg.	" "	466	329	795	398
Increase		45	176	221	110
Percent Increase		10%	53%	28%	28%

Source: Lane Transit District.

APPENDIX E: BICYCLE VALET

Table E.1. Bike Valet Parking Number Jan 13th – April 2nd

Bike Valet Date	Number of Bikes	Projected Attendance
Jan 13 Men's Bball 7:30 pm	5	12,000
Jan 15 Men's Bball 2 pm	0	12,000
Jan 30 Civil War Women's	6	7,000
Feb 3 Men's Bball 6 pm	5	10,000
Feb 5 Men's Bball 1 pm	13	11,000
Feb 17 Elton John 8 pm	8	11,700
Feb 18 Harlem Globetrotters 7 pm	0	5,500
Feb 19 Men's Bball 1 pm	2	12,000
Feb 24 Men's Bball 6 pm	2	10,000
Feb 26 Men's Bball 3 pm	11	10,000
Mar 8 Clash of Champions	8	11,000
March 16 CBI Round 1	0	10,000
March 30 CBI Finals	1	4,000
March 31 CBI Finals	0	4,000
April 2 Professional Bull Riding	0	7,500

Source: UO Community Services Center.

APPENDIX F: ARENA SHUTTLE

BASKETBALL**DEC. 2nd**

	18:30	18:45	19:00	19:15	19:30	19:45	20:00	TOTAL
SPRINGFIELD	3	8	11	22	15		3	62
AUTZEN			15	11	4			30
S.E.	3	7	21	14	25	27	3	100
								192

BASKETBALL**DEC. 5th**

	13:00	13:15	13:30	14:00	14:15	14:30	14:45	15:00	TOTAL
SPRINGFIELD			2			10			12
AUTZEN			2	6	9	2	2	2	23
S.E.			6	6	25	11	14		62
									97

BASKETBALL**DEC. 11th**

	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD			9			34	16	2	61
AUTZEN			2	6	5	19	6		38
S.E.			1	6	15	29	35	8	94
									193

BASKETBALL**DEC. 13th**

	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD		2	9		24	12			47
AUTZEN	2		2		4	21	6		35
S.E.		1	1	1	16	35	15	5	74
									156

BASKETBALL**DEC. 21st**

	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD			6		10	22	24		62
AUTZEN			9	4	8	10	3	2	36
S.E.			3	8	15	45	9	2	82
									180

BASKETBALL**DEC. 30th**

ATT.

BASKETBALL		NOV. 5TH									
	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL	
SPRINGFIELD				10	20	6	14			50	
AUTZEN					2	2	6	9		19	
S.E.			8		8		18	14		48	
										117	

BASKETBALL		NOV. 12TH										
	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD	3				1	9	14		25	8		60
AUTZEN					4		2	3	14			23
S.E.	1	2		2			15	3	30	15		68
											151	

BASKETBALL		NOV. 13TH																		
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	TOTAL
SPRINGFIELD									2		1	2				16	3	4	10	38
AUTZEN						2											1			3
S.E.			4														5			9

BASKETBALL		NOV. 14TH													
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL	
SPRINGFIELD	2		4		13	6	17	13						55	
AUTZEN	2		2	2			5		4					15	
S.E.				2	9	25	11			2				49	
														119	

BASKETBALL		NOV. 20TH										
	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	TOTAL
SPRINGFIELD		4	11		28	4						47
AUTZEN			10	19	12		2					43
S.E.			6	14	26	20	1					67
											157	

BASKETBALL		NOV. 23TH						
	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL	
SPRINGFIELD	1	15	9	16			41	
AUTZEN		10	2	8	3		23	
S.E.		4	16	11	10		41	
							105	

DEC 1

	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD			9	20	21	10	12		72
AUTZEN				12		7	9	18	46
S.E.	1		5	43		18	65		132
									250

BASKETBALL JAN. 1st

	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD		8	12	27	27	22	22		118
AUTZEN			5	15		24	19		63
S.E.			1	14		42	22		79
									260

MENS BASKETBALL JAN. 13th ATT 12,364

	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15
SPRINGFIELD					10	14	16	25	20	15	12	26	53	36	11	5	2		
AUTZEN					52	29	52	138	125	105	76	69	64	2					
S.E.						4	16	31	26	43	48	51	54	67	64	63	6	25	5
WORKER SHUTTLE	44	12		27															
CAMPUS SHUTTLE										4				2	2	3			

MENS BASKETBALL JAN. 15th ATT 11,089

	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	TOTAL
SPRINGFIELD					58	53	44	53	58	37	23	19	5	350
AUTZEN					58	53	120	106	73	71	46	13		540
S.E.			27	28	32	71	95	112	37	21	1	2	5	431
WORKER SHUTTLE		26	16	8										50
CAMPUS SHUTTLE					1		16	1		2				20
														1391

WOMANS BASKETBALL JAN. 23rd ATT 12,320

	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:05	TOTAL
SPRINGFIELD				94	44	54	64	18	7	6		287
AUTZEN			89	69	50	121	37	28	7			401
S.E.			45	62	86	102	47	63				405
WORKER SHUTTLE	32	15										47
												1140

JEFF DUNHAM JAN. 28rd ATT 6,707

	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	TOTAL
SPRINGFIELD							92	38	15	23	4			172
AUTZEN						51	52	60	103	41	47			354
S.E.							20	25	8	38	2	2		95
WORKER SHUTTLE				18										18
														639

MENS BASKETBALL		Feb 3rd					ATT 10,017								
	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	TOTAL	
SPRINGFIELD							16	20	49	33	64	12	5	199	
AUTZEN			4				16	33	22	87	78	39		279	
S.E.							9	38	36	40	139	25	3	290	
WORKER SHUTTLE														0	
														768	

MENS BASKETBALL		Feb 5th					ATT 11,925								
	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	TOTAL	
SPRINGFIELD					15	8	58	28	39	18	13	1		180	
AUTZEN						20	69	90	16	29	27	10		261	
S.E.					4	16	54	51	49	100	71	11		356	
WORKER SHUTTLE			34		22	9		47	29			12		153	
														950	

ELTON JOHN		Feb 17th					ATT 12,189								
	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	TOTAL	
SPRINGFIELD						86	110	107	129	64	48	16	1	561	
AUTZEN					56	119	198	213	168	171	62	14	6	1007	
DOWNTOWN						54	122	116	109	117	112	8		638	
WORKER SHUTTLE			32	16										48	
														2254	

MENS BASKETBALL		Feb 19th					ATT 12,369								
	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	TOTAL	
O.S.U....															
SPRINGFIELD						19	38	43	40	58	8	5		211	
AUTZEN					19	57	117	77	76	68	26			440	
S.E.					4	32	56	48	57	95	41			333	
WORKER SHUTTLE			18	7										25	
														1009	

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MENS BASKETBALL Feb 24th ATT 10,487

CAL.....	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:30	17:45	18:00	18:15	TOTAL
SPRINGFIELD						7		53	104	38	25			227
AUTZEN						7	14	67	232	76	83	5		484
S.E.							5	48	132	52	57	2		296
WORKER SHUTTLE			10	3										13
														1020

MENS BASKETBALL Feb 26th ATT 12,364

STANFORD	12:00	12:15	12:30	12:45	13:00	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	TOTAL
SPRINGFIELD						23	46	58	76	33	16	4		256
AUTZEN					3	66	67	95	76	19	35			361
S.E.						26	29	85	90	44	8			282
WORKER SHUTTLE	10											2		12
														911

NIKE CLASH March 8th ATT 12,200

	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	TOTAL
SPRINGFIELD						6		25	4	16	12	3	2	68
AUTZEN					39	37	50	33	91	87	45	27	17	426
DOWN TOWN					17	29		24	27	56	40		42	235
WORKER SHUTTLE	13	7												20
														749

MENS BASKETBALL March 16th ATT

WEBER STATE....	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD							7	13	10	19	21	4	1	75
AUTZEN								16	69	27	24	10		146
SOUTH EUGENE								14	15	19	89	5	4	146
WORKER SHUTTLE			13	3		5								21
														388

MENS BASKETBALL March 21st ATT

DUQUESNE	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	TOTAL
SPRINGFIELD							11	33	33	50	14			141
AUTZEN						2	9	52	46	62	26			197
SOUTH EUGENE							9	35	25	75	41	27		212
WORKER SHUTTLE			7	1		8								16
														566

APPENDIX G: INTERVIEW REPORTS

I. Neighborhood Resident Interviews

Introduction

Fairmount residents have different interpretations of the impacts of the Arena, which reflect their differences in location and lifestyle. The CPW interviewed residents who live in the Event Parking District and outside of it. Nearly all of the interviewed residents live south of Franklin Boulevard. The interviews indicate that residents have many common experiences but also many different experiences regarding Arena impacts. This report details our interview findings.

Key Findings

- Residents living inside the Parking District boundaries generally agree that a “trade off” (increased parking during Level 4 events in return for less parking congestion during the rest of the year) is worth it. There are fewer cars in the neighborhood on a daily basis.
- Residents living just outside the Parking District boundaries see an increase in cars parked on their streets on a daily basis. They perceive this as a significant problem.
- All residents observe an increase in traffic in the neighborhood during Arena events, but few see this as a serious problem (safety, livability, or otherwise).
- Few residents report that litter or noise generated by Arena events is a problem.
- All residents are disappointed that the University highlights the Parking District as a viable option during Level 4 events. They would generally like the neighborhood to be a “last resort” parking option and instead see the University directing event attendees to campus parking lots.
- City-issued guest permits are not effective during Level 4 events. This is a problem for *all* residents.

Methodology

The CPW interviewed 11 residents of the Fairmount neighborhood. We selected individuals with help from Karen Hyatt (a University of Oregon Government and Community Relations Associate), who recommended that we contact residents who were particularly vocal in the Arena development process as well as those who were less involved. The CPW purposely interviewed residents living throughout the neighborhood rather than concentrating on those who live directly adjacent to the Arena. We spoke with residents who have lived in their homes for decades, as well as those who have been in the neighborhood for only a few years. We interviewed homeowners and renters, professionals, retirees, and students. Our hope was to hear from a broad range of individuals so that our results were not biased based on age, location, or affiliation.

CPW interviewed residents over the course of approximately three weeks. Interviews took place on campus, on the phone, or at the residents’ homes (according to each interviewee’s preference). The CPW sent personal e-mails to potential interviewees and then set up interview times, dates, and locations based on each resident’s availability. Interviews lasted approximately 30-45 minutes and were conducted one-on-one (one CPW group member interviewed one resident at a time). Prior to

each interview, the CPW informed each resident about the project and the necessity of the interviews; the CPW interview then asked if the resident had any questions. The CPW also told the interviewees that their answers and identities would remain anonymous. The CPW interviewer took notes on the computer during the interviews; no audio recording was involved.

FINDINGS:

Change in Quality of Life

Residents who live closest to the Arena report significant impacts associated with increased traffic and on-street parking during events. “There is a completely different feel in the neighborhood during men’s basketball games,” said one resident who has lived in the neighborhood for ten years. “The neighborhood is not the place it used to be. The Arena and its associated events really took us by surprise.”

Some residents report feeling “trapped” in their own homes during events because they are afraid of being unable to find parking near their homes if they return home while an event is in progress. Neighbors also reported an inability to invite guests over or have non-event-related gatherings during a Level 4 men’s basketball game because their guests would not be able to find parking. One neighbor mentioned that this was the case when an elderly parent dropped in to see a grandchild during a basketball game. During the 22 men’s basketball games, City guest passes are invalid in the Parking District.

“I always knew the parking plan was terrible,” said an elderly resident with no driveway. “Parking is terrible, and there are not that many available campus lots! I knew the neighborhood would get really crowded.”

Residents who live farther from the Arena, however, hardly noticed a difference during events. “Nineteenth Street provides a great buffer for us,” said a resident who lives at Villard and Fairmount Streets. “We hardly notice a difference. That said, however, if the [19th Street] buffer goes, then we’re really in trouble.” A middle-aged resident who lives at 21st and Agate was even less concerned. “People drive and park in our neighborhood all the time,” he said, “but we are committed to the neighborhood, and we know that it isn’t easy with over 20,000 kids living right around the corner.”

Many residents shared this sentiment—even those who live in the Parking District. “We’ve lived here for more than forty years,” said an Orchard Street resident, “but when we bought our house we knew we were moving to a university neighborhood.” Elderly residents who rarely leave their house or have guests over similarly did not perceive the additional parking demand as a significant impediment.

Residents north of Franklin also experience increased traffic and parking demand during events. Not only do cars park on the streets, but lines are longer at the local businesses as well. They perceive crossing Franklin Boulevard as a serious problem, too, as one young resident of Garden Way mentioned. “Foot traffic after events is terrible and should be better directed,” she said. “Although

it's clear where to exit the Arena itself, once you exit, there aren't adequate crosswalks to get back across Franklin. It's also very poorly lit."

Many of these residents also admitted to seeing positive changes as a result of the Arena, such as an increase in pedestrian activity. Season ticket holders who live in the neighborhood are also pleased to have the new amenity so close. "We love being able to walk to the Arena," said one resident. "We've been to several basketball games and the Elton John concert."

Many residents also noted an improved relationship between the University and the neighborhood. One neighbor in particular spoke of his experience working with the University from the initial stages of the development proposal.

"In the beginning, neighbors wanted to be involved in the discussion but the University wouldn't let us. Eventually, we brought suit and won; since then, the process has been great. But, we had to force the University to do that! We never didn't want them to build the Arena, we just wanted to be part of the conversation."

Another resident noted a similar pattern. "The University's recent willingness to talk and listen is a good thing. The ongoing conversation of how we can do things better within NALC is a big asset. There is an interest in what neighborhood stakeholders have to say and there is active communication," he noted.

Increased neighborhood density, which most of the neighbors we interviewed opposed, appears to exacerbate residents' concerns about the Arena operations. Residents who live farther from the Arena noticed less of an impact. "Our neighborhood is always filled with cars, so the Arena didn't make any difference," said a resident at 21st and Agate streets. Residents who live just south of the Parking District also noticed very little difference. "People park as close as they can, so the streets are relatively clear up here on Fairmount." Those who live north of Franklin also report a significant increase in on-street parking during events.

A few residents commented on the "blinking" Arena sign on Franklin Boulevard. Some can see it from their houses; others find it slightly intrusive.

Parking Observations

One of our major observations—besides the increased on-street parking during Level 4 men's basketball games—was that event attendees do not appear to know where to park. Currently, the maps that come with ticket purchases only indicate where to park in the neighborhood. Residents in our interviews, however, think the University should direct its patrons to the neighborhood only as a last resort and should direct attendees to University lots or an EmX schedule instead. "Residents should know they *can* buy a permit for the neighborhood," said one resident, "but that there are many other excellent options. If nothing else, there should be a premium for parking in the neighborhood."

Some interviewees indicated that the neighbors never raised the issue early-on because they didn't realize the University would be charging to park in its lots.

"If we had known it was the same price to park in the neighborhood and in the lots, we would have urged the City to charge more for street permits. When given the option, event-goers will choose to park in the neighborhood because it's closer [to the Arena], and that's just not fair. The University should learn to use some self-restraint."

Another neighbor commented about his dissatisfaction: "The University should do what they said they would do in the first place—require people to park somewhere besides the neighborhood!"

Residents we interviewed also noted a tendency for event attendees to drive around the neighborhood, confused about the parking restrictions. "Even traffic-control personnel at the intersections don't know where to direct people!" said one resident. "If they had a flyer to hand out with a map directing people to parking lots, everything would work more smoothly." One neighbor told us he heard that several event-goers in one car will risk a ticket and park in the neighborhood unpermitted, as among them the ticket won't cost that much. The neighbor admitted he hadn't observed this directly, however.

Several residents said they also noticed an increase in on-street parking on streets *adjacent* to the Parking District. For example, one resident on the edge of the Parking District noted that event attendees park in front of his house only during Level 4 events. Whereas the streets within the Parking District used to be a "parking lot" for faculty, students, and visitors (often overnight), the neighboring streets (Moss and Columbia, in particular) are now used for those purposes because they do not share the new parking restraints. Neighbors who live on these adjacent streets have found this reality to be extremely inconvenient. "It is rude of the University to have not included Moss and Columbia Streets as part of the Parking District," said one resident. Neighbors who live inside the Parking District said they appreciate the decreased levels of parking on their streets during weekdays and non-event nights.

Many residents also said they recognized a difference between nighttime events and daytime events. At night, when students and faculty are mostly off-campus, the University has more available parking in its existing parking lots, which means less traffic and fewer cars parked on the street. Alternately, during daytime events when there are multiple competing uses on campus, many more people are parking in and driving through the neighborhood.

The CPW interviews provided several other notable observations:

- During non-event nights, fewer cars park in the Parking District due to the extended two-hour parking requirements.
- Residents with driveways have a difficult time backing out when the streets are filled with cars during events.

- Cars often park for more than two hours in the Parking District without getting ticketed. “There is enforcement, and it has been expanded, but there is simply not enough frequency of City parking enforcement during events,” said one resident. “People are getting away with parking in the neighborhood without a permit.”

Trade-Off

Many residents in the Parking District are extremely grateful for it. “The trade-off is totally worth it,” said a resident living at 15th and Walnut streets. “If the new parking restrictions were not in place, night events would go to hell.” Residents also appreciate the significant decrease in cars parked in the neighborhood during the day and overnight. “The neighborhood is virtually free of cars during the day,” said one resident. “This is a huge improvement to the parking lot that this place used to be.” The residents we interviewed said they feel the quality of life in the neighborhood improves when there are not student cars lining the street. Residents say they have a place to put their garbage and yard refuse cans on the street when students aren’t parking in front of their houses.

Other residents are not so certain. Even though they recognize the benefit of the new parking restrictions, they find events extremely restraining. “It’s too early to tell right now,” said one. “There haven’t been very many games this year. The neighborhood is *very* restrictive during the games, and if it’s the same next year or if the University adds additional priority events, then it might not be worth it.”

Many of the residents we spoke with who live outside of the Parking District did not think the trade-off is worth it. The new parking restrictions force an overflow of cars to park on the streets just outside the district. “Cars are parked here on a daily basis, not just during the games,” said one resident. A neighbor in the southern area of the Parking District told us she never has event attendees park in front of her home, yet she needs a parking pass for her house cleaner on a weekday.

A resident living at 16th and Orchard did not think the trade-off was worth it either. “It’s a beautiful building, well-built and all, but it’s in the wrong spot. It’s as if they didn’t even think about parking before they built it.” Other residents have recognized the potential for larger issues in the future. Many are worried about how the University will regulate the neighborhood for track meets and the Olympic trials at Hayward Field. “I’m worried that the City simply won’t ticket at all during events at Hayward. Those big events are going to draw huge crowds of people into the neighborhood. This whole new Parking District won’t be worth it if events continue into the spring and summer,” said one resident. Residents are also concerned that as time goes on and the University hands responsibility off to third parties, more events will be planned for the Arena, especially during the day.

A few residents also mentioned that football games are another problem. “We have more people in the neighborhood for football games than basketball games!” one resident told us. “People are just willing to park and get tickets; fines should be doubled during football events too.” These residents noted that increased parking is a problem for *all* events, not just basketball games. “Be it basketball,

football, track, or other events at the Arena, we are prisoners of our own home no matter where the event is,” said another resident. Some residents also mentioned parking during football games and other events but did not seem to take issue with the parking. Many of the residents we interviewed generally had the attitude of “change happens; I benefit from the convenient amenities in the neighborhood; I could move if it really bothered me.”

Parking Permits

Residents told us they have not had a difficult time obtaining their allotted parking permits, and many said that they found a distribution site at the Long House to be helpful. One resident commented that before the Arena was built, residents had to purchase parking permits; now the City gives each property two free “Zone J” permits.

Almost all of the residents we spoke with took issue with guest passes, however. “It’s ridiculous that guest passes don’t work during events,” said one resident. “Those are the times that are most difficult for us!”

Many residents also noted that obtaining guest permits is more difficult than it should be. If there isn’t time to go downtown to get a permit, visitors are forced to park on the street and get a citation if they don’t move their car within two hours. Additionally, guest permits are only issued on a daily basis; if a resident has a guest for more than one night, they need to think about putting two permits in the car, and ensure they have enough for the length of their stay. “The restrictions on guest passes don’t work!” said one resident. “It’s ridiculous that you need to have two permits to have a friend stay overnight.” One resident noted he would like to be able to purchase a permit online.

Other residents have learned to deal with the restrictions. “When guests come over, I put my car on the street and they park in my driveway. Even though it is inconvenient, it was something we anticipated ahead of time.” Many residents are angry that the University is allowing traffic control personnel to sell one-day permits on the street. “Quit selling parking passes for our neighborhood! Leave the two-hour parking and encourage people to take shuttles or use University lots!” said one resident.

Traffic

Most residents noticed a significant increase in traffic during events, which makes it more difficult to get into or out of the neighborhood. “It’s frustrating when it takes me 15 minutes to get out of my driveway,” said one resident, “or when I get stuck in traffic unexpectedly because I didn’t realize there was an event.” Residents avoid the Franklin area, driving instead via 18th and then Hilyard to reach destinations. One neighbor attributed badly functioning left-hand turns off Franklin to the cueing of cars and lights. Another noted that she avoids Market of Choice on event days and feels unsafe driving in the area.

Although some residents noted that cars in event traffic are not speeding or driving dangerously, others believe that most drivers are frustrated looking for parking, and do end up speeding or driving negligently as a result. Villard Street seems to be a particular concern, possibly because there are not

stop signs at every corner and trucks often pull in and out of the Arena garage onto the street. Residents also mentioned problems associated with the entranceways into University lots, as this person noted:

“Traffic enters the lots from all sorts of directions—from Villard, Franklin, and Orchard. It’s much more dangerous to be a driver or a pedestrian during events. We need more stop signs and crosswalks on Orchard and Villard. I’m afraid of hitting a pedestrian when I’m driving through the neighborhood.”

Another resident was similarly concerned about the Hiron’s and Market of Choice parking lots.

Some residents noted that the signs telling people to stay out of the neighborhood work well. Additional residents greatly appreciate the presence of traffic control personnel, whom they believe prevent an onslaught of traffic in the neighborhood; still others noted that the personnel are doing a poor job directing people to stay out of the neighborhood. “All that the traffic personnel do is sell those daily permits, which defeats the purpose of the Parking District,” said one resident.

Noise and Litter

Most residents reported in our interviews that noise and litter are not a problem. Some residents who live particularly close to the Arena have noticed loud crowds before and after events but said they did not consider it a problem. “I was only woken up once, and that was for the Elton John concert,” said one neighbor who has lived at 16th and Orchard for the past forty years, “but that’s it. Events are typically over early enough that post-event noise isn’t a problem.”

Neighbors report that litter been minimal in the neighborhood. “My major issues with litter are a product of my neighbors, not the Arena,” said one resident. Most interviewees shared this sentiment.

Communications

One neighbor said she appreciated the campus community contact sheet, which she said she has used, with the time the event starts and the estimated number of people attending. Generally, however, the residents we interviewed said that there is inconsistent and inadequate communication between the University and the neighborhood residents. Most would like to see a simple directory online where they could offer suggestions or complaints and find an up-to-date schedule for Level 4 men’s basketball games that would trigger the Event Parking District restrictions.

Additionally, residents told us they are beginning to feel as if their participation doesn’t matter. According to one resident, upon signing the AIMA, the City told the NALC that it could change the conditions unilaterally. This condition has created friction between the City and the FNA because residents feel the City can change the AIMA based on its own interpretations.

Although neighbors mentioned recent improved relations with the University, several neighbors also said they were disappointed that the University has historically left things up to the neighborhood to deal with instead of being proactive. “The University leaves too much for us to put up with. I wish the

University would take more responsibility; it's part of being a good neighbor," said one resident. In our interviews, neighbors also mentioned bitterness over the initial Arena process. "It was a gross oversight which cost the Fairmount Neighborhood significant costs," one resident noted. "That is the sort of thing that should be improved in future large projects."

Figure G.1.: Neighborhood Interview Questions

1. How has your quality of life changed since the Arena opened?
2. What's working well during Arena events? Address the following: traffic, parking, litter, noise.
3. What's not working well during Arena events? Address the following: traffic, parking, litter, noise.
4. What changes (positive and/or negative) have you observed since two hour parking from 7 a.m. – 11 p.m. seven days went into effect in the Event Parking District?
5. Is it worth it to trade 7 “event days” when the Event Parking District goes into effect for calmer days the rest of the year (due to the increased 2-hr parking restrictions)?
6. Have you had any difficulties obtaining your allotted parking permits?
7. What specific suggestions do you have for improvements to traffic control/parking that will improve the impact of Arena events on the neighborhood?
8. What suggestions not related to traffic and parking do you have for improving impacts of Arena events on the neighborhood?
9. What are the nearest cross-streets to where you live?
10. What is your age range?
11. Do you rent or own your home?

II. Local Business Interviews

Introduction

To help determine how Arena events affect businesses in the surrounding neighborhood, the CPW conducted interviews with ten neighborhood businesses. The interviews were conducted over the phone and were approximately 15 minutes long. When possible, we contacted the manager or owner of each business.

Spatial Extent

CPW conducted interviews with neighborhood businesses at two major locations: along Franklin Blvd. within 1/8 mile of the Arena, and at 19th and Agate. We selected five businesses were from each spatial location. Responses to the interview questions did not seem to vary according to location as much as they varied by type of business.

Types of Businesses

The businesses consisted of retail, hospitality, and automotive services. Eight of the ten businesses were in the hospitality industry.

Key Findings

Hospitality and service-oriented businesses such as restaurants, hotels, and retail generally reported positive effects of Arena events on business. The interviewees indicated that an increase in foot traffic has had a major impact on these neighboring businesses.

Businesses outside of the hospitality industry, such as the automotive repair shop, did not experience the same levels of positive effects. Two businesses of this type reported mostly negative impacts from Arena events, consisting mostly of parking problems for employees and patrons.

Parking

A large majority of businesses in all areas and industries reported negative impacts due to a lack of parking for employees and patrons, as well as illegal parking, causing some cars to be towed. Many businesses that reported positive sales impacts from Arena events still reported parking issues. For the two non-hospitality businesses we interviewed, parking was the number one problem.

Many businesses told us they control access to their parking lots by either installing signs, hiring lot attendants during events, or more strictly enforcing towing. In general, businesses that experience an uptick in business said they feel that the trade-off is worth it. The two businesses that have not experienced any uptick in business said they do not feel that the trade-off is worth it.

Parking has benefited some businesses by allowing them to sell Arena-event parking. Although none of the businesses we interviewed have a parking agreement with the University, 30% of the businesses we interviewed told us they sell parking during events.

Access

Access to the Arena from the surrounding neighborhoods was another issue that respondents felt needed attention. Several businesses noted that the pedestrian crossings on Franklin Blvd. were dangerous.

Suggestions from Businesses

Several businesses told us that drivers should be better informed about the limited supply of parking and encouraged to take alternative transportation to the Arena. They reported that many of their customers complained about a lack of parking. The businesses we spoke with also recommend permanent signage indicating where to park and where to walk.

Another suggestion was for the University to share projected attendance levels with businesses near the Arena so they can respond to increased customer loads during Arena events. One respondent who was very happy with the increase in business said that Arena events are also frustrating because they create uncertainty around staffing levels.

For businesses that say they experience negative impacts from the restricted parking, one owner suggested that the City convert some meters on Villard St. and Garden Way to operate only during Arena events.

Figure G.2. Business Interview Questions

General Questions

1. On a scale of -5 to +5, how would you rate the impact of events held at the new Mathew Knight Arena on neighboring businesses such as yours (-5 being very negative impact, +5 being very positive impact)?
2. Can you describe why you chose this rating?
3. In general, how has Arena affected business?
4. How has customer/client patterns changed before, during and/or after Arena events?
5. How has customer/client patterns changed when Arena events are not taking place?
6. What has surprised you in terms of impact of Arena operations on your business/organization?
7. What suggestions not related to traffic and parking do you have for improving impacts of Arena events on area?

Parking Related

1. Have you noticed any problems related to parking from the Arena (i.e., not enough spaces for customers)?
2. Do you sell parking?
3. Do you have a parking agreement with the University?
4. What's working well in terms of traffic and parking during Arena event?
5. What's not working well in terms of traffic and parking during an Arena event?
6. What specific suggestions do you have for improvements to traffic control/parking that will improve the impact of Arena events on the arena?

**APPENDIX H:
COMMUNICATIONS E-MAIL FROM TICKET OFFICE**



We hope that you are as excited as we are to see Elton John in Eugene this week. We will have a full arena and have had to make a change in one of our shuttle locations for this show. We wanted to make sure that you knew about your parking and transportation options, along with a few other things to help make your night enjoyable.

The doors to the arena will open at 7 pm for the 8 pm performance. We'd encourage you to make arrangements to arrive early if you'll be dining at an establishment near the arena or downtown near our special shuttle location. There will also be a variety of food options in the arena. During this event, beer and wine will be available in the McArthur Club, located on the event level of the arena, and beer will be available at special locations on the Main and Upper concourses.

Shuttles will be available for guests attending the Elton John Concert at Matthew Knight Arena on Thursday, February 17, but one of the locations will be different. The South Eugene High School park and ride lot will not be available due to a conflict with a musical production at the high school that evening.

To serve guests that might normally use the South Eugene location, shuttles will be provided from Downtown Eugene instead. The shuttle stop downtown will be located on East 10th Avenue between Willamette and Oak. Parking in the Overpark Garage (10th and Oak) will be available at no charge after 5 pm and the garage is located only steps from the downtown shuttle location. The familiar First Student buses will be available starting at 6:30 p.m.

The Park and Ride lots located at Autzen Stadium and LTD's Springfield Station will also be available for guests that find either of these locations more convenient.

The fare for all shuttles is \$3 per person and exact change is required.

LTD will also be providing EmX service from the Eugene and Springfield Stations. These buses will run at 10 minute intervals until 6:30 and every 15 minutes after that. Matthew Knight Arena has made arrangements to increase EmX capacity between the arena and both the Eugene Station and Springfield Station for concertgoers. Guests using LTD regular service will need to make sure they remember that the last service leaves at 10:45 pm.

PARKING

Parking is available in the Columbia Garage located just west of the arena off of East 13th Ave at \$10 per space. Parking is also available at various lots on campus. Event parking is not

permitted in the Fairmount Neighborhood (bounded by East 15th to the north, Fairmount Blvd. on the east and south and Columbia Street on the west). Additional parking information is available at www.matthewknightarena.com, click on *Plan Your Visit, Parking and Transportation*. There is also information on the Event Parking District on the City of Eugene parking website at www.eparkeugene.com

BIKE PARKING

There are 150 bike racks for daily and event use located on the east and west ends of the arena. There are 50 bicycle storage lockers located in the arena garage. Valet bicycle parking will be available for \$1 outside the East entrance near Villard Street.

PROHIBITED ITEMS

Cans, bottles, coolers or other food/beverage containers and their contents are prohibited.

Bags are subject to search.

Weapons, fireworks, laser pointers, explosives or munitions are not permitted inside the arena.

PUBLIC TRANSPORTATION

Please visit the Lane Transportation District website at www.ltd.org for more information on regular bus and EMX service near the arena.

RE-ENTRY

Re-Entry is not permitted to Matthew Knight Arena. Once you enter the building, you are not permitted to exit and re-enter with the original ticket. In emergency situations, you should contact the Guest Services desk.

SMOKING

Smoking is not allowed inside of Matthew Knight Arena. In anticipation of the announced campus wide ban on smoking, there are no areas to smoke for patrons attending events at the arena.

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Please do not reply to this email. Questions or comments may be sent to: tickets1@uoregon.edu.