

DEVELOPMENT STANDARD ADVISORY COMMITTEE

Maureen Sheehan

City of Seattle

Major Institutions and School Coordinator

OBJECTIVES

- Committee Members
- Purpose & Intent
- Meeting Process
- Schedule
- Recommendations
- Roles & Responsibilities
- Evaluation Criteria

	NAME	CATEGORY
1	Sue Terrible	Person residing within 600'
2	Charlie Calvano	Person owning property or a business within 600'
3	Elizabeth Hughes	Representative of the general neighborhood
4	Sarah Wightman	Representative of the general neighborhood
5	Barbara Vadakin	At large to represent citywide education issues
6	Robert Kelly	Representatives of the PTSA
7	Fiona Preedy	Representatives of the PTSA
8	Mike Barrett	Representative of the Seattle Public Schools
Alt 1	Tristan Thomte	Person residing within 600'
Alt 2	Vacant	
Ex-Officio	Maureen Sheehan	City DON (Non-voting Chair)
Ex-Officio	Holly Godard	City Seattle Department of Construction & Inspections (Non-voting Member)

PURPOSE & INTENT

- Most schools are located in single family zone neighborhoods, the land use code does not include a “school zone”
- Renovation and additions often times will not meet the underlying zoning, therefore the public schools can request exemptions, known as departures, from the land use code.
- This committee is an opportunity for neighbors and the surrounding community to give the City feedback whether to allow departures.
- The committee can recommend to grant, grant with condition, or deny the requested departures.

MEETING PROCESS

- Robert's Rules of Order – DON Staff serves as non-voting Chair
- Presentation from Seattle Public Schools
- Public Comment
- Committee Deliberation – reference criteria (SMC 23.79.008)
- Vote on the need for departures and each individual departure

SCHEDULE

May 9, 2018 Committee Formed

May 30, 2018 - First Meeting

TBD – 2nd Meeting, if needed

TBD – 3rd Meeting, if needed

Recommendation report due to director of SDCI (drafted by DON, with the committees final approval):

If 1 Meeting = June 29, 2018 (30 days after first meeting)

If 2-3 Meetings = August 28, 2018 (90 days after first meeting)

TBD, SDCI Director issues decision

RECOMMENDATIONS

Recommendations must include consideration of the interrelationship among height, setback and landscaping standards when departures from height or setback are proposed.

COMMITTEE ROLES & RESPONSIBILITIES

(23.79.008)

- A. It shall conduct one or more **public meetings** within a ninety (90) day period from formation of the advisory committee.
- B. It shall gather and evaluate **public comment**.
- C. It shall **recommend the maximum departure** which may be allowed for each development standard from which a departure has been requested. Minority reports shall be permitted. The advisory committee may not recommend that a standard be made more restrictive unless the restriction is necessary as a condition to mitigate the impacts of granting a development standard departure.

EVALUATION CRITERIA – CONSISTENCY

(SMC 23.79.008)

Departures shall be evaluated for consistency with the general objectives and intent of the City's Land Use Code, including the rezone evaluation criteria in Chapter 23.34 of the Seattle Municipal Code, to ensure that the proposed facility is compatible with the character and use of its surroundings.

EVALUATION CRITERIA – RELATIONSHIP

(SMC 23.79.008)

In reaching recommendations, the advisory committee shall consider and balance the interrelationships among the following factors:

Relationship to Surrounding Areas. The advisory committee shall evaluate the acceptable or necessary level of departure according to:

- 1) Appropriateness in relation to the **character and scale** of the surrounding area;
- 2) Presence of **edges** (significant setbacks, major arterials, topographic breaks, and similar features) which provide a transition in scale;
- 3) Location and design of structures to **reduce the appearance of bulk**;
- 4) Impacts on **traffic, noise, circulation and parking** in the area; and
- 5) Impacts on **housing and open space**. More flexibility in the development standards may be allowed if the impacts on the surrounding community are anticipated to be negligible or are reduced by mitigation; whereas, a minimal amount or no departure from development standards may be allowed if the anticipated impacts are significant and cannot be satisfactorily mitigated.

EVALUATION CRITERIA - NEED (SMC 23.79.008)

Need for Departure. The physical requirements of the specific proposal and the project's relationship to educational needs shall be balanced with the level of impacts on the surrounding area. Greater departure may be allowed for special facilities, such as a gymnasium, which are unique and/or an integral and necessary part of the educational process; whereas, a lesser or no departure may be granted for a facility which can be accommodated within the established development standards.

Questions?

Madison Middle School

2018 PARKING DEPARTURE REQUEST



REQUESTED DEPARTURE

Parking quantity

MADISON MIDDLE SCHOOL PROJECT OVERVIEW

Seattle Public Schools will install (4) portable classrooms to meet increased enrollment – (2) portables are proposed to be located in the North parking lot.

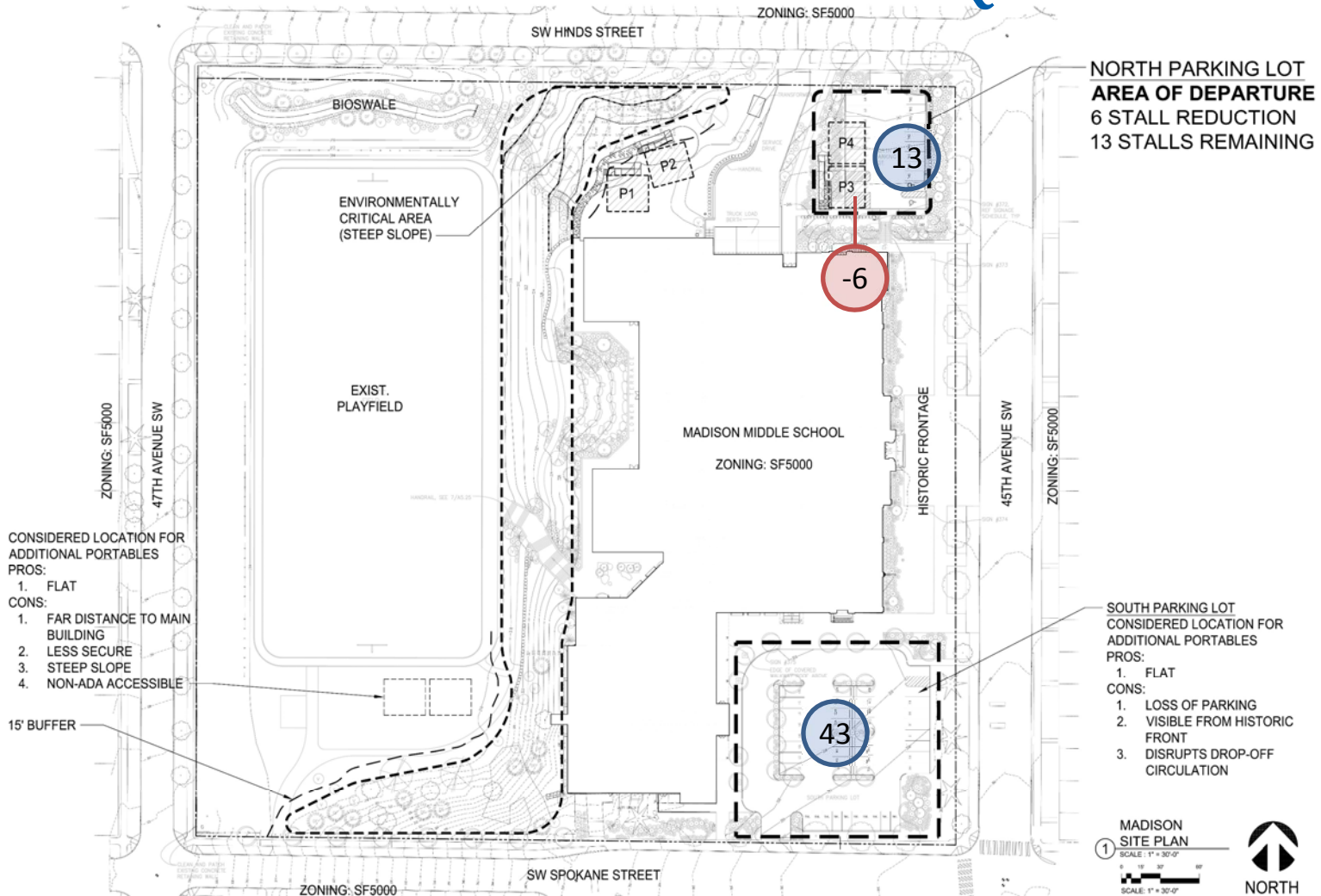
Madison Middle School

Capacity Overview & Need

- Madison Middle School enrollment has been increasing yearly.
- Programs offered at this school utilize classroom space at Madison MS in a way that affects available building capacity; separate classrooms are needed for the programs.
- Capacity management alternatives are considered prior to recommending placing portable classrooms at a school:
 - Utilize available vacant classroom space;
 - Repurpose/reconfigure non-homeroom spaces to create a classroom;
 - Other solutions such as sharing of classroom space, co-teaching, and larger class sizes.
- Enrollment projections for school year 2018-19 is for another increase in enrollment of an additional 110 students (4-5 additional classrooms).
- Enrollment projections beyond 2018-19 show continued increase and continued need for the added classroom space.
- SPS Capital Planning is evaluating long-term solutions to capacity at this school.

Madison Middle School

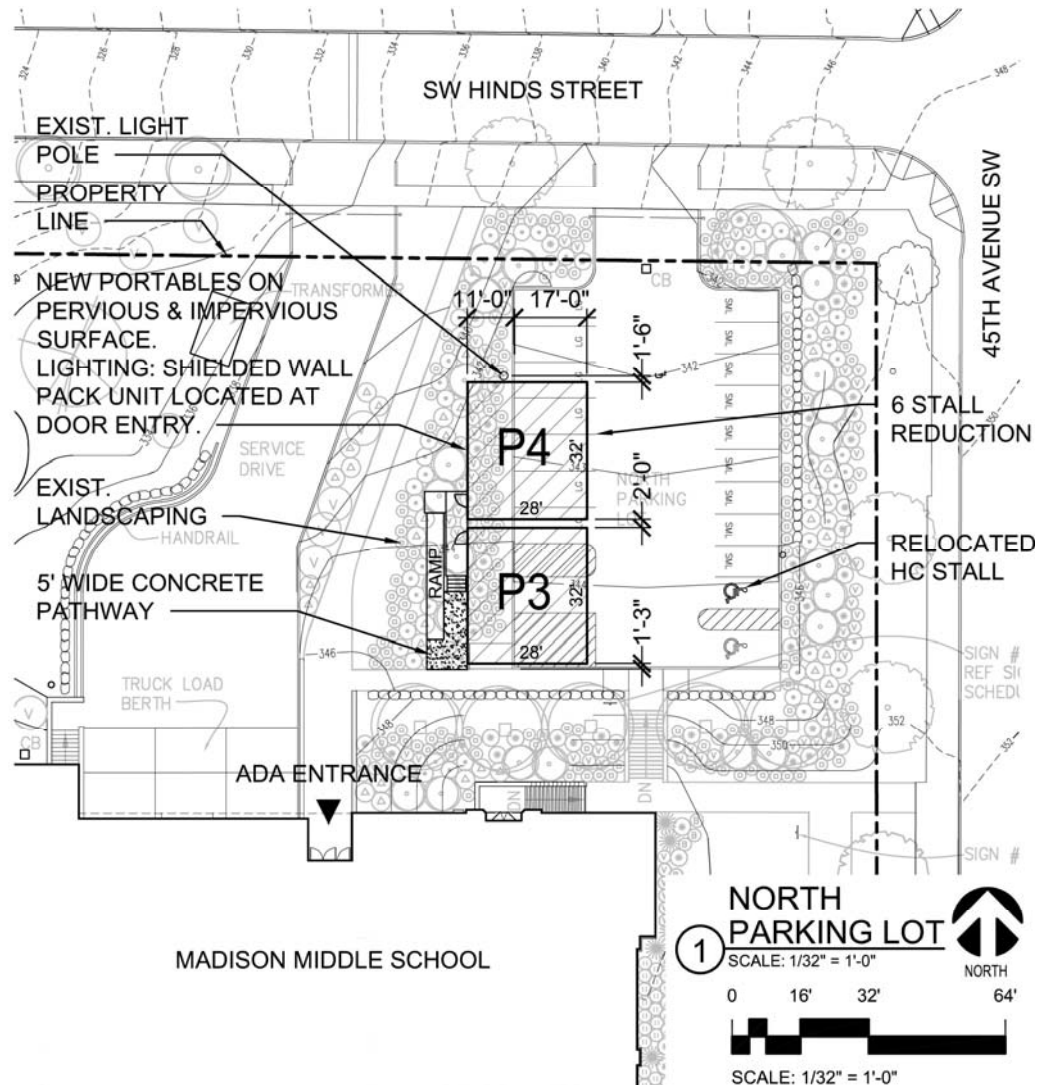
2018 PARKING DEPARTURE REQUEST



**DEPARTURE REQUEST OF 6 PARKING SPACES
 FOR A TOTAL OF 56 ON-SITE PARKING SPACES**

Madison Middle School

2018 PARKING DEPARTURE REQUEST



Madison Middle School

2018 PARKING DEPARTURE REQUEST



VIEW FROM SW HINDS STREET LOOKING S



AERIAL VIEW FROM SW HINDS STREET LOOKING SE

Madison Middle School

Departure Requested: Parking Requirements

Parking Requirements	SMC 23.54 Quantity and Design Standards for Access, Off-Street Parking, and Solid Waste Storage	
Required Parking Stalls	SMC 23.54.015 Required Parking Table C – Parking for Public Uses and Institutions Row N – Schools, Public Elementary and Secondary	
	<hr/> Parking Required by Code	160 Spaces
Parking Provided On-Site	2003 Departure Decision	62 Spaces
Departure Requested Parking	On-Site Parking	62 Spaces
	<hr/> Proposed Parking Space Departure	-6 Spaces
	Proposed Total Parking Spaces	56 Spaces

**Departure Request of 6 Parking Spaces
for a Total of 56 On-Site Parking Spaces**



Madison Middle School

2018 PARKING DEPARTURE REQUEST

Overview of Parking Analysis

- Inventory on-street parking supply in parking analysis study area
- Perform on-street and on-site parking demand counts during three weekday periods in which Madison Middle School generates parking demand (includes parking effect of existing portables), and Sunday period when church service at school site generates parking demand
- Adjust baseline parking to account for future projects that would affect on-street capacity or parking demand - *none identified within the project study area*
- Calculate parking demand that could result from installation of additional portables (due to displaced parking from school lot and demand generated by additional enrollment)
- Calculate future parking utilization with and without placement of additional portables

Madison Middle School 2018 PARKING DEPARTURE REQUEST

Parking Analysis Study Area



- Based on City of Seattle guidance for parking analysis
- 800-foot walking distance from site

Madison Middle School

2018 PARKING DEPARTURE REQUEST

Potential On-Street Parking Demand Generated by Additional Portables

Study Period	Parked Vehicles		
	Overspill from Parking Lot Capacity Reduction	Additional Demand from Increased Enrollment**	Total
Weekday Mid-Morning (9:30 to 10:30 A.M.)	0	5	5
Weekday Mid-Afternoon (1:00 to 2:00 P.M.)	0	5	5
Weekday Evening (6:30 to 7:30 P.M.)	0	5	5
Sunday Mid-Morning (10:00 to 11:00 A.M.)	0	0	0

**Assumes parking generation would be consistent with typical observed rates at elementary and middle schools – conservatively assumed to all occur on street

Madison Middle School

2018 PARKING DEPARTURE REQUEST

2018/2019 On-Street Parking Utilization

Study Period	Existing Utilization			Utilization with Portables		
	On-Street Supply (spaces)	Total Demand (vehicles)	% Utilization	Added Demand (vehicles)	Total Demand (vehicles)	% Utilization
Weekday Mid-Morning (9:30 to 10:30 A.M.)	1,045	261	25%	5	266	25%
Weekday Mid-Afternoon (1:00 to 2:00 P.M.)	1,045	265	25%	5	270	26%
Weekday Evening (6:30 to 7:30 P.M.)	1,045	347	33%	5	352	34%
Sunday Mid-Morning (10:00 to 11:00 A.M.)	1,045	371	36%	0	371	36%



- **CONCLUSION:** Parking impact would be negligible, therefore no mitigation is recommended

Madison Middle School

2018 PARKING DEPARTURE REQUEST

Summary

- An increase in student enrollment requires capacity expansion.
- There are limited expansion options and locations for portables.
- There will be negligible impact to On-Street parking due to portables.
- Departure Request: 6 spaces for a total of 56 on-site parking spaces.

TRANSPORTATION TECHNICAL REPORT

for the

Madison Middle School Portables Project

Prepared for:
Seattle Public Schools

PREPARED BY:



May 29, 2018

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1. INTRODUCTION

This report presents parking analyses for the Seattle Public Schools' (SPS) proposed placement of portable classrooms at Madison Middle School. The scope of analysis and approach were based on extensive past experience performing transportation impact analyses for numerous Seattle Public Schools improvement projects throughout Western Washington. This analysis was prepared to support a parking code departure application for this project. This report documents the existing conditions in the site vicinity, presents estimates of project-related parking demand, and describes potential impacts.

1.1. Project Description

Madison Middle School is located at 3429-45th Avenue SW in West Seattle. The project site and surrounding vicinity are shown on Figure 1.

SPS plans to install four portable classrooms at Madison Middle School. The portable classrooms are proposed to be in place by the 2018/2019 academic year to accommodate increased student enrollment until a long-term capacity solution can be implemented at the school. Madison Middle School is under consideration as a capacity improvement site within SPS's Building Excellence V (BEX V) Capitol Levy program, which is planned to be put before voters on a special election ballot in February 2019.¹

The school building occupies the eastern portion of the site and an athletic field is located on the western portion. There are three surface parking lots located on the site. A 43-space lot, located at the southeast corner, is accessed from SW Spokane Street. A 19-space lot at the northeast corner is accessed from SW Hinds Street. A small northwest lot is located directly to the west of that lot; it provides access to the school's truck loading dock and has a separate driveway on SW Hinds Street. It does not have formal marked parking spaces, but field observations indicate that it is regularly used for parking of up to 5 vehicles. For the purposes of the analysis presented in this report, it is estimated to have capacity for 5 vehicles.

SPS proposes to install two portable classrooms in an unpaved area on the west side of the northwest lot. Two additional portable classrooms would be installed in the northeast surface lot, which would displace six parking spaces and reduce the total on-site supply from 67 to 61 spaces, and the formal marked on-site supply from 62 to 56 spaces. The four portable classrooms could accommodate an additional enrollment capacity of about 120 students and four faculty members (with 30 students and one faculty member per classroom).²

The site plan with the locations of the proposed portable classroom is shown on Figure 2.

¹ SPS, Building Excellence V Program, Draft SEPA Programmatic Environmental Impact Statement, April 2018.

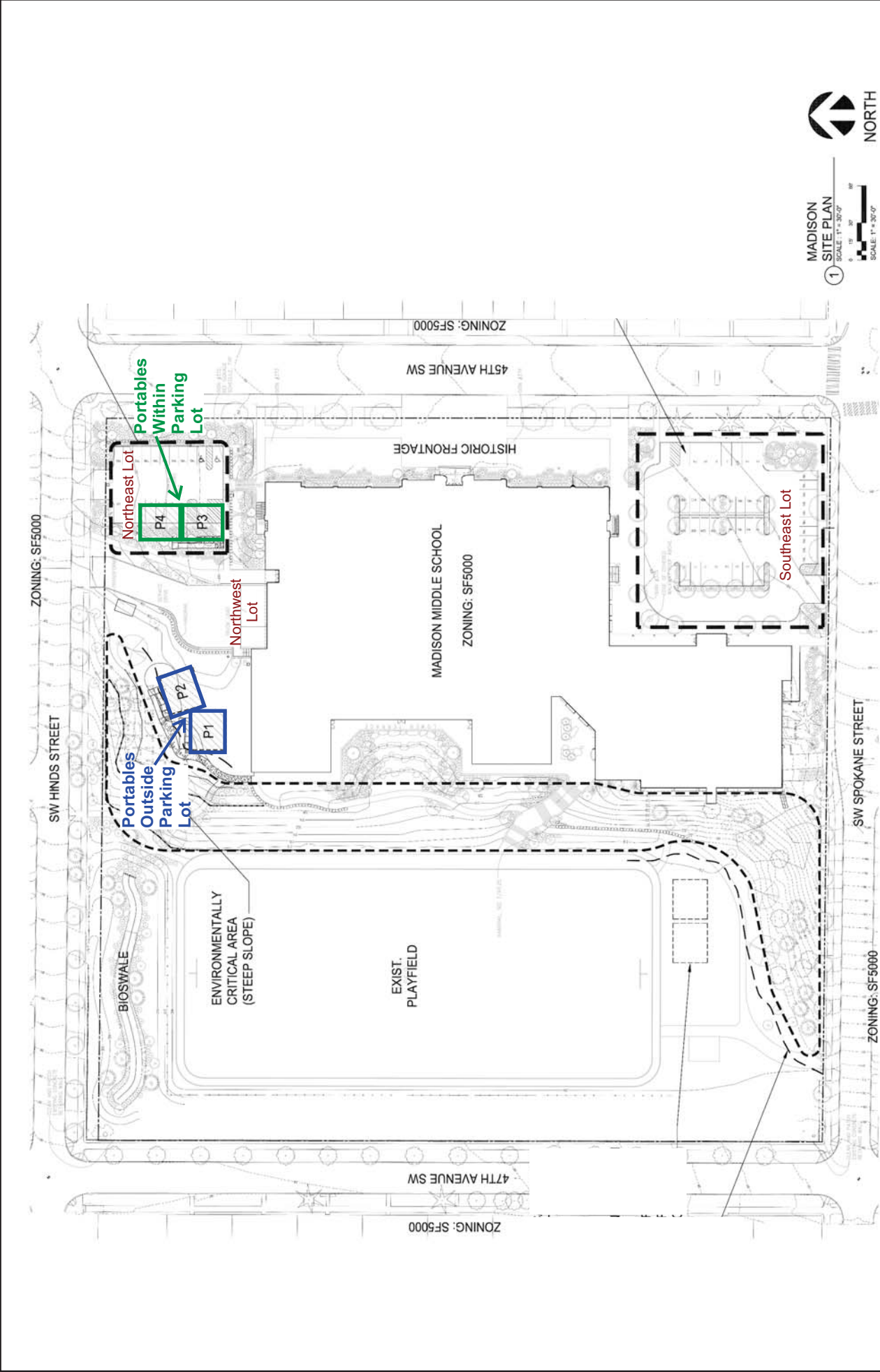
² Email communication, T. Wang, Seattle Public Schools, May, 2018.



**MADISON MIDDLE SCHOOL
Portable Classrooms**

Figure 1
Site Vicinity





Source: Rolluda Architects, May 2018

MADISON MIDDLE SCHOOL Portable Classrooms

Figure 2
Site Plan



2. BACKGROUND CONDITIONS

This section presents the existing transportation conditions in the vicinity of Madison Middle School, including the existing roadway network, transit facilities, non-motorized facilities, and parking.

2.1. Roadway Network

The Madison Middle School site is bounded on the east by 45th Avenue SW, on the south by SW Spokane Street, on the west by 47th Avenue SW, and on the north by SW Hinds Street. The surrounding area predominantly consists of single-family residences, with commercial development along California Avenue SW, two blocks to the east. Key roadways that serve the site are described below. Roadway classifications were obtained from the City of Seattle's (City's) *Street Classification Maps*.³ Speed limits are 25 miles per hour (mph) on arterials (unless otherwise marked) and 20 mph on local access streets.

45th Avenue SW is a north-south local access street that provides connection throughout West Seattle. It has one travel lane in each direction and sidewalk, curb, and gutter on both sides. Parking is allowed on both sides along most of its length, but the segment adjacent to the school is restricted to school bus load/unload only from 7:00 to 9:00 A.M., and 2:00 to 4:00 P.M. In the vicinity of the school it is signed as a School Zone with speed limit of 20 mph when children are present.

SW Spokane Street is an east-west local access street that provides connection between 42nd Avenue SW and 51st Avenue SW. It has sidewalk, curb, and gutter on both sides. With the exception of one wider segment adjacent to the school, the travel way along its length is effectively restricted to one lane for both directions of travel when on-street parking occurs on both sides.

47th Avenue SW is a north-south local access street that provides connection throughout West Seattle. In the vicinity of the school, it has sidewalk, curb, gutter, and parking on both sides. Due to its width, the travel way is effectively restricted to one lane for both directions of travel when on-street parking occurs on both sides. In the vicinity of the school it is signed as a School Zone with speed limit of 20 mph when children are present.

SW Hinds Street is an east-west local access street that provides connection between 49th Avenue SW and California Avenue SW. In the vicinity of the school, it has sidewalk, curb, gutter, and parking on both sides. Due to its width, the travel way is effectively restricted to one lane for both directions of travel when on-street parking occurs on both sides. In the vicinity of the school it is signed as a School Zone with speed limit of 20 mph when children are present.

49th Avenue SW provides north-south connection throughout West Seattle. In the vicinity of the site, between SW Admiral Way and SW Charlestown Street, it is a Collector Arterial. It has sidewalk, curb, and gutter on both sides. Parking is allowed on the west side of the street.

California Avenue SW provides north-south connection throughout West Seattle. It is a Minor Arterial between SW Admiral Way and Fauntleroy Way SW, and a Collector Arterial to the north and south of that section. It has one travel lane in each direction and a center two-way left-turn lane. There is sidewalk, curb, and gutter on both sides. Parking is generally allowed on both sides; some sections adjacent to the commercial development have time restrictions or are signed as loading zones.

³ Seattle Department of Transportation, Seattle Arterial Classifications, 2003; Seattle Transit Classifications, 2006.

SW Charlestown Street is an east-west roadway that provides connection between 55th Avenue SW and California Avenue SW. To the west of California Avenue SW, it is a Collector Arterial; to the east it is a local access street. It has sidewalk, curb, gutter, and parking on both sides.

2.2. Planned Improvements

The City's *2018-2023 Proposed Capital Improvement Program (CIP)*⁴ was reviewed; no projects were identified that are expected to affect parking in the vicinity of the school.

The *Adopted Seattle Bicycle Master Plan (BMP)*,⁵ recommends installation of neighborhood greenways (low-speed, low-volume streets that are designed to be shared by pedestrian, bicycle, and vehicular traffic) on several streets in the vicinity of Madison Middle School. They include 45th Avenue NW, 48th Avenue NW, and SW Hinds Street. The BMP also recommends an in-street local connector (a bicycle facility with minor separation) on SW Charlestown Street between 55th Avenue SW and California SW. However, none of these projects are included in the *2017-2021 BMP Implementation Plan*,⁶ so they are currently not planned to be constructed before 2021.

2.3. Parking

Both off-street and on-street parking at and around the Madison Middle School site were surveyed to determine the existing parking supply and parking demand. This information was then used to estimate how parking utilization could be affected by new parking demand generated by the proposed portables (which is presented later in *Section 3.1.4*). The following sections describe the parking supply as well as the current parking demand and utilization rates.

2.3.1. On-Street Parking Utilization

A detailed on-street parking study was performed and supply was documented according to the methodology outlined in the City of Seattle's TIP #117.⁷ The City recommends use of this methodology to document the number and type of on-street parking spaces that may exist within a defined study area. This analysis was completed to document the existing supply and how it is currently utilized.

The study area for the on-street parking utilization analysis included all roadways within an 800-foot walking distance from the school site, which is the study area typically required by the City for analyses of this type. The 800-foot walking distance results in a study area that extends just north of SW Hanford Street, just west of 49th Avenue SW, just south of SW Charlestown Street, and east to SW California Avenue. As discussed previously, the study area consists primarily of residential land uses, with commercial development concentrated along sections of California Avenue SW. Much of the residential development has access to off-street parking, with several north-south alleys also present in the area. Details about parking supply and demand are provided in the following sections.

⁴ City of Seattle. 2017.

⁵ SDOT, April 2014.

⁶ SDOT, April 2017.

⁷ The City recommends using information in TIP #117 to assist with parking utilization studies. Although created for another purpose, TIP #117 contains guidance for measuring on-street supply; other details and analysis requirements, such as parking demand count periods, are typically based on the type of project being proposed and evaluated.

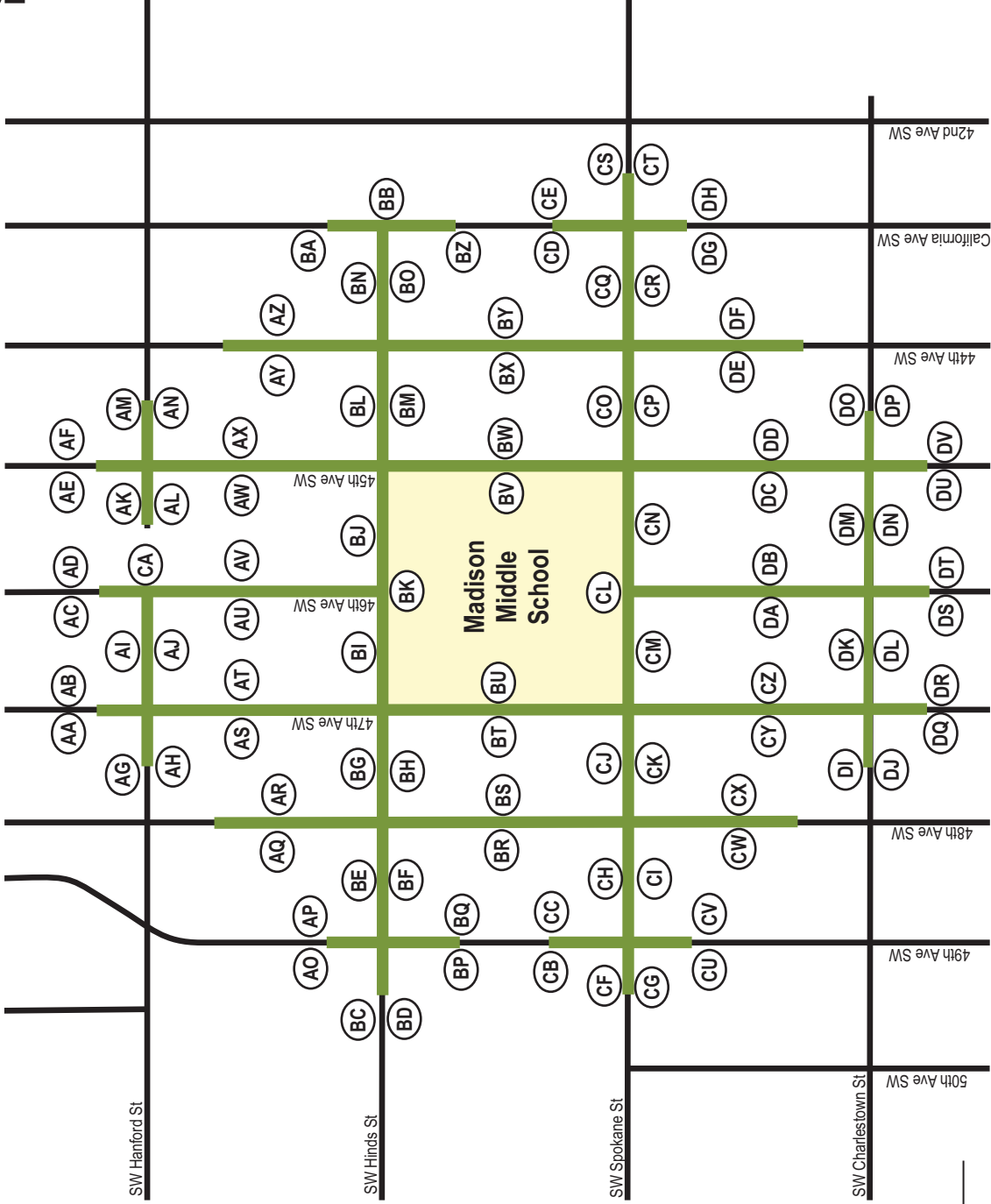
On-Street Parking Supply

In the study area, most of the local access residential streets are at least 25 feet wide and parking is generally permitted on both sides of the street. The study area was separated into individual block faces. A block face consists of one side of a street between two cross-streets. For example, the west side of 45th Avenue SW between SW Hinds Street and SW Spokane Street is one block face (identified as block face 'BV'). The study area and the designated block faces are shown on Figure 3.



Each block face was measured and analyzed to determine the number of on-street parking spaces. First, common street features—such as driveways, fire hydrants, and special parking zones—were noted and certain distances adjacent to the street features were noted. No on-street parking capacity was assumed within 30 feet of a signalized or marked intersection, within 25 feet of an intersection with a traffic circle, within 20 feet of an uncontrolled intersection, within 15 feet on either side of a fire hydrant, within 20 feet on either side of a crosswalk, or within 5 feet on either side of a driveway or alley. The remaining unobstructed lengths of street between street features were converted to legal on-street parking spaces using values in the City's TIP #117. It should be noted that the curb-face values in TIP #117 reflect space lengths that range from about 18.5 feet to 26.5 feet per space. Based on extensive experience preparing on-street parking utilization studies, the increased popularity of smaller cars (such as Smart cars) and the tendency for drivers to park closer together in areas with higher utilization can result in more available supply than would be suggested by the TIP #117 guidance. No adjustments were made to these values for this analysis and as a result, the reported supply may be conservatively low.

The parking supply was inventoried for three representative weekday periods when Madison Middle School typically generates parking demand: mid-morning (around 10:00 A.M.), afternoon (around 1:30 P.M.), and evening (around 7:00 P.M.). SPS leases space at the school to the All Souls Church, which holds services at 10:00 A.M. on Sundays. Parking supply was also inventoried for mid-morning weekend conditions, so that parking impacts could also be evaluated for conditions during church services.

The on-street inventory estimated a total supply of 1,045 parking spaces within the study area. Most of the on-street parking in the area is unrestricted. The restrictions that do exist do not affect parking supply during the analysis periods, so the on-street parking supply is the same for all analysis periods. The parking supply totals by block face are provided in Appendix A.



LEGEND

-  Study Area Block Face
-  Block Face ID

MADISON MIDDLE SCHOOL Portable Classrooms

Figure 3
Parking Study Area



Existing On-Street Parking Demand

Existing parking demand counts within the study area were performed for weekday conditions during the period from May 16 through May 22, 2018. Weekday demand counts were performed during three periods. Mid-morning (between 9:30 and 10:30 A.M.) and mid-afternoon (1:00 to 2:00 P.M.) counts were conducted to reflect typical school day conditions. Evening (6:30 to 7:30 P.M.) counts were conducted to reflect conditions when after-school activities or events may take place. The highest level of after-school activity occurred on Thursday, May 17, during the school's Science Night.

Counts were also conducted between 10:00 and 11:00 A.M. on Saturday, May 26, 2018 and Sunday, May 27, 2018, to reflect weekend daytime conditions without and with church services, respectively.

The results of the parking demand surveys are summarized in Table 1. Detailed summaries of the on-street parking demand for each block face for all counts are provided in Appendix A. On-street parking utilization was calculated as the number of vehicles parked on street divided by the number of legal on-street parking spaces within the study area or on a specific block face. The study area utilization totals are also summarized in Table 1. As shown, utilization of on-street parking in the study area averaged 25% (780 or more unused spaces) during both weekday daytime periods and 35% (675 unused spaces) during the evening period. During the Science Night event condition, on-street parking utilization was 40% (630 unused spaces).

On the weekend, mid-morning utilization was 28% on Saturday (755 unused spaces) and 36% on Sunday (674 unused spaces). Based on these counts, it is estimated that the church service generates an on-street parking demand of about 81 vehicles.

Table 1. On-Street Parking Demand Survey Results – May 16 through 27, 2018

Study Period	Parking Supply	Total Vehicles Parked	% Utilization	Unused Spaces
WEEKDAY				
Mid-Morning (9:30 to 10:30 A.M.)				
Monday, May 21, 2018	1,045	265	25%	780
Tuesday, May 22, 2018	1,045	257	25%	788
<i>Average</i>	<i>1,045</i>	<i>261</i>	<i>25%</i>	<i>784</i>
Mid-Afternoon (1:00 to 2:00 P.M.)				
Wednesday, May 16, 2018	1,045	269	26%	776
Thursday, May 17, 2018	1,045	260	25%	785
<i>Average</i>	<i>1,045</i>	<i>265</i>	<i>25%</i>	<i>780</i>
Evening (6:30 to 7:30 P.M.) No Event				
Wednesday, May 16, 2018	1,045	352	34%	693
Monday, May 21, 2018	1,045	342	33%	703
<i>Average</i>	<i>1,045</i>	<i>347</i>	<i>33%</i>	<i>698</i>
Evening (6:30 to 7:30 P.M.) With Event				
Thursday, May 17, 2018 ^a	1,045	415	40%	630
WEEKEND (10:00 to 11:00 A.M.)				
Saturday, May 26, 2018	1,045	290	28%	755
Sunday, May 27, 2018 ^b	1,045	371	36%	674

Source: Heffron Transportation, Inc., May 2018.

a. Reflected evening event conditions with Science Night.

b. Reflected conditions during All Souls Church service.

2.3.2. On-Site Parking Utilization

On-site parking lots are located on the north and south sides of the Madison Middle School campus. Currently, the lots provide 67 total spaces (62 formally marked in the northeast and southeast lots, and 5 informal spaces in the northwest lot), including four spaces that require disabled permits, and 63 general spaces. Existing parking demand counts within the lot were performed during the same study periods described previously for the on-street parking utilization study. Table 2 presents the results of the on-site parking demand counts. During periods when on-site parking demand was lower, one or more of the gates were closed. As noted in the table, the northeast lot was closed during one of the evening “no event” counts. All lots were closed on Saturday when there was no activity at the school, and only the southeast lot was open during the Sunday church service.

The table shows that demand ranged from 51 to 57 vehicles during the day. On average, 11 to 13 on-site parking spaces were unused during the day. A similar level of on-site demand occurred during the evening of the school’s Science Night (on May 17, 2018). During the other evenings, the on-site parking demand was fewer than 10 vehicles, with 58 to 65 unused spaces.

On Saturday (with all three lots closed as noted above) there were no vehicles parked on site. During the Sunday church service, 36 of the 43 spaces in the southeast lot were occupied.

Table 2. On-Site Parking Survey Results – May 16 through 27, 2018

Study Period	Parking Supply ^a	Total Vehicles Parked	Total Unused Spaces
WEEKDAY			
Mid-Morning (9:30 to 10:30 A.M.)			
Monday, May 21, 2018	67	56	11
Tuesday, May 22, 2018	67	55	11
<i>Average</i>		<i>56</i>	<i>11</i>
Mid-Afternoon (1:00 to 2:00 P.M.)			
Wednesday, May 16, 2018	67	51	16
Thursday, May 17, 2018	67	57	10
<i>Average</i>		<i>54</i>	<i>13</i>
Evening (6:30 to 7:30 P.M.) No Event			
Wednesday, May 16, 2018 ^b	67	9	58
Monday, May 21, 2018	67	2	65
<i>Average</i>		<i>6</i>	<i>61</i>
Evening (6:30 to 7:30 P.M.) With Event			
Thursday, May 17, 2018 ^c	67	55	12
WEEKEND (10:00 to 11:00 A.M.)			
Saturday, May 26, 2018 ^d	67	0	67
Sunday, May 27, 2018 ^e	67	36	31

Source: Heffron Transportation, Inc., May 2018.

- a. All school lots open unless otherwise noted.
- b. Northeast lot gated closed, leaving 48 spaces accessible in the southeast and northwest lots.
- c. Reflected evening event conditions with Science Night.
- d. All school lots gated closed.
- e. Reflected conditions during All Souls Church service. Northeast and northwest lots gated closed, leaving 43 spaces accessible in the southeast lot.

2.4. Transit Facilities & Service

King County Metro Transit (Metro) currently provides bus service to the site. The nearest stops are about 750 feet from the site. Stops on California Avenue SW at SW Hinds Street serve Metro Routes 50, 55 and 128. Stops on 49th Avenue SW at S Hinds Street serve Route 57. These routes provide direct connection to and from the Admiral District, Alaska Junction, Alki, Genesee Hill, Downtown, Beacon Hill, and Othello neighborhoods.

SPS provides yellow bus, door-to-door, Metro, and cab service. Eligibility for District-provided transportation depends on several factors including grade level and proximity to assigned schools. Middle school students who reside within the boundaries of the Seattle School District and who live more than 2.0 miles from their assigned school are eligible for transportation. ORCA cards may be provided for students attending a school outside of their service area or linked service area, if they reside farther than 2.0 miles from the school. Exceptions are allowed for students who require specialized transportation services or who require medical transportation as approved by District Health Services.⁸

⁸ Seattle Public Schools, *Transportation Service Standards 2017-2018*, Effective September 1, 2017.

2.5. Non-Motorized Facilities

Sidewalks exist along all streets in the site vicinity. Crosswalks are present on 45th Avenue SW mid-block (at the school entrance) and across the north and west legs of the SW Spokane Street /45th Avenue SW intersection. Signed and marked crosswalks are also present on California Avenue SW, just north of SW Hinds Street and SW Spokane Street.

3. PARKING IMPACTS

This section describes the parking impacts that would result from placement of the portable classrooms at Madison Middle School. As described previously, two portables are planned to be placed in the school's northeast surface parking lot in addition to two existing portables located outside of the lot, to accommodate additional student enrollment until a long-term solution can be implemented. No changes to the roadway network are proposed as part of the project.

3.1. Typical School Days

The addition of portable classrooms on the Madison Middle School site would affect parking on a typical school day in two different ways:

1. On-site parking demand (generally staff and employees) may be displaced due to the reduced number of spaces available and may spill over to on-street parking during periods when on-site parking demand exceeds the available capacity; and
2. The additional student enrollment accommodated by the portables may generate parking demand in the vicinity.

The potential impacts from each of these elements are discussed in the following sections.

3.1.1. Potential Overspill from On-Site Parking Supply Reduction

As discussed previously, two of the portable classrooms would be located outside of the parking lot, so they do not affect on-site parking supply. The two additional portables installed in the northeast lot would make six on-site spaces unusable, reducing the on-site capacity from 67 to 61 spaces (4 accessible spaces and 57 for general parking).

Table 3 summarizes the potential parking overspill to the street that is estimated to result from the on-site parking supply reduction during each of the four analysis periods. (Note, the average numbers of unused spaces were reduced from the values summarized in Table 2 to account for the four accessible spaces that may not be used by the displaced demand.) As shown, the reduced on-site supply is not expected to result in increased on-street demand during the weekday periods, as the average number of unused spaces exceeds the number that would be removed. Since the northeast lot was observed to be gated closed during the Sunday church service, and unused spaces were observed in the open southeast lot, no parking spillover to the street is anticipated to result from placement of the portables during that period.

Table 3. Potential Parking Spillover Resulting from On-Site Supply Reduction

Study Period	Average Number of Unused Spaces ¹	Spaces Removed ²	Average Parking Spillover to Street ³
Weekday Mid-Morning (9:30 to 10:30 A.M.)	7 spaces	-6 spaces	0 vehicles
Weekday Mid-Afternoon (1:00 to 2:00 P.M.)	9 spaces	-6 spaces	0 vehicles
Weekday Evening (6:30 to 7:30 P.M.) - No Event	57 spaces	-6 spaces	0 vehicles
Weekday Evening (6:30 to 7:30 P.M.) - With Event	8 spaces	-6 spaces	0 vehicles
Sunday (10:00 to 11:00 A.M.)	7 spaces ⁴	-0 spaces ⁴	0 vehicles

Source: Heffron Transportation, Inc., May 2018.

1. Average number of unused spaces does not include the four accessible spaces, which are assumed to remain unchanged with the portables in place, since they are unlikely to be used by the displaced demand.
2. Reflects the spaces that would be displaced by installation of two portables in 2018.
3. Spillover is projected during the periods when the additional displaced parking spaces exceed the available capacity.
4. The unused spaces are shown for the southeast lot, which is the only lot observed to be used by the All Souls Church during its service. Since the Church does not utilize the northeast lot where the portables would be placed, no spillover to the street is anticipated to result during typical weekend conditions.

3.1.2. Parking Demand from Increased School Capacity

The additional student enrollment capacity that can be accommodated at Madison Middle School with the installation of the portable classrooms may also generate parking demand. For elementary, middle and K-8 schools, staffing levels tend to provide a more reliable basis than student enrollment for estimating school-day parking demand. Counts conducted at and around four elementary schools from 2013 through 2017 for modernization and replacement projects found peak school-day parking demand rates that ranged from 0.52 to 1.23 vehicles per employee.⁹ Applying the high end of this potential range to the four additional staff members who would occupy the portable classrooms results in a calculation of 5 additional parked vehicles. Based upon this calculation, the parking analysis presented in this report conservatively assumes an increased weekday peak parking demand of 5 vehicles that would result from placement of the portables. It should be noted that the analysis conservatively assumes that the additional parking demand would all occur on-street, even though the data summarized in Table 3 indicate that some spaces could still be available on site. The analysis also conservatively applies the peak parking demand to all three weekday analysis periods, even though evening parking demand generated by middle schools is generally lower than daytime demand. The proposed portables would not generate additional parking demand on the weekends.

3.1.3. Potential Parking Demand Generated by Pipeline Development

The Seattle Department of Construction & Inspection’s (SDCI’s) Property and Building Activity permit map was reviewed to determine if any large future development projects are planned that could potentially generate additional parking demand in the project study area. No development projects were identified that are expected to have parking influence areas (800-foot walking distance from each of the development sites) that overlap the study area.

⁹ Heffron Transportation, Inc., Genesee Hill Elementary Replacement – Traffic Impact Analysis, September 2013; Heffron Transportation, Inc. Transportation Technical Report for Olympic Hills Elementary School Replacement, December 2014; Heffron Transportation, Inc., Updated Transportation Technical Report for Queen Anne Elementary School Addition, July.2017; Heffron Transportation, Inc., Transportation Technical Report for Wing Luke Elementary School Replacement, June 2017.

3.1.4. Cumulative Parking Impacts

Table 4 summarizes the projected cumulative on-street parking utilization, with and without the additional portable classrooms at Madison Middle School. The table shows that during the weekday analysis periods, installation of the four portables is expected to increase on-street parking utilization, which is currently 25% during the daytime and 33% in the evening, by 1% or less, even with the conservative assumption described previously that all of the additional parking would occur on-street. While on-street parking utilization is slightly higher during the Sunday church service than utilization on typical weekdays, the portables are not expected to affect on-street parking conditions during that period. The City typically considers parking utilization over 85% to be effectively full; the on-street parking utilization is well below this threshold during all study periods, with or without the proposed portable classrooms.

Table 4. Cumulative 2018/2019 On-Street Parking Utilization – With & Without Added Portables

Study Period	Utilization with Existing Portables ¹			Utilization with Future Portables		
	On-Street Supply	Total Demand	% Utilization	Added Demand ²	Total Demand	% Utilization
Weekday Mid-Morning (9:30 to 10:30 A.M.)	1,045	261	25%	5	266	25%
Weekday Mid-Afternoon (1:00 to 2:00 P.M.)	1,045	265	25%	5	270	26%
Weekday Evening (6:30 to 7:30 P.M.)	1,045	347	33%	5	352	34%
Sunday (10:00 to 11:00 A.M.)	1,045	371	36%	0	371	36%

Source: Heffron Transportation, Inc., May 2018.

1. Includes parking demand generated by the two portables that are already located on-site.
2. Parking demand from the portables includes additional weekday demand estimated to result from student enrollment increases and associated staffing increases. No overspill to the street is expected to result from reduced parking lot capacity during any of the study periods.

Because there is ample on-street parking available in the area nearest the school building, and a steep downhill grade that occurs westward from the west side of the school building, it is expected that most school-generated parking occurs in the areas nearest the school building. Review of data in the area located closer to the school building found that utilization is similar to that of the overall study area, and that there is capacity to accommodate the additional demand during all study periods.

3.2. Event Parking

It is acknowledged that on occasional evenings when there are large events occurring at Madison Middle School, utilization of the on-site lot and surrounding roadways can be higher than the average levels described above. The data summarized in Table 1 and Table 2 indicated that on the evening when Science Night was held, both on-street and on-site parking demand levels were higher than average. However, there were still more than six spaces unused in the school lots, and 630 unused on-street spaces within the study area. It is expected that displacement of the six on-site parking spaces that would result from installation of the portables would have a negligible effect on parking generated by evening events at the school.

4. SUMMARY OF FINDINGS

Seattle Public Schools plans to install two portable classrooms in the northeast surface lot of Madison Middle School, in addition to two portable classrooms that would be outside the parking area. The portables in the northeast lot would displace six parking spaces and reduce the total on-site supply from 67 to 61 spaces, and the formal marked on-site supply from 62 to 56 spaces. The portable classrooms are proposed to be in place by the 2018/2019 academic year to accommodate increased student enrollment until a long-term capacity solution can be implemented at the school.

Analysis presented in this report indicates that the additional parking demand that could be generated by the addition of the portable classrooms is expected to increase on-street parking utilization by 1% or less on weekdays, with more than 650 on-street spaces still typically available within the parking study area. Installation of the portables is not expected to affect on-street parking conditions during the Sunday church service that is held at the site. Because the parking impact would be negligible, no mitigation measures are recommended.

APPENDIX A

PARKING UTILIZATION STUDY DATA

Project Madison Middle School Portables

Block Face ID	Street Name	St Segment	Side of Street	Parking Supply											Total Parking Spaces		
				Unrestricted Parallel	Unrestricted Angle	1-Hour Parking 7a - 6p Except Sun/Hol	2-Hour Parking 7a - 6p Except Sun/Hol	4-Hour Parking 7a - 6p Except Sun/Hol	30-minute /ul only	30 minute /ul only 8a - 4p, exc Sat, Sun, & Hol	3 minute /ul 7a-6p, exc Sun & Hol	School Bus Only 7-9a, 2-4p	No Parking 7-10a, 1- 4p, exc Sat, Sun, & Hol	3-minute Passenger Load Only		Disabled	
DO	SW Charlestown Street	45th Ave SW and 800' boundary	N	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DP	SW Charlestown Street	45th Ave SW and 800' boundary	S	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DQ	47th Avenue SW	SW Charlestown St and 800' boundary	W	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DR	47th Avenue SW	SW Charlestown St and 800' boundary	E	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DS	46th Avenue SW	SW Charlestown St and 800' boundary	W	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DT	46th Avenue SW	SW Charlestown St and 800' boundary	E	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DU	45th Avenue SW	SW Charlestown St and 800' boundary	W	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DV	45th Avenue SW	SW Charlestown St and 800' boundary	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL				990	3	3	7	3	0	1	1	30	4	0	3	1045	

Project Madison Middle School Portables

Block Face ID	Street Name	Side of Street	St. Segment	Parking Supply		Parking Demand												Parking Utilization										
				Total Parking Spaces	Total	Weekday Daytime			Weekday Evening			Weekend			Weekday			Weekday Evening			Weekend							
						10:00 AM	1:30 PM	5:17/18	10:00 AM	7:00 PM	10:30 AM	10:00 AM	1:30 PM	7:00 PM	10:00 AM	1:30 PM	7:00 PM	10:00 AM	1:30 PM	7:00 PM	10:30 AM	10:30 AM						
BR	48th Avenue SW	W	SW Hinds St and SW Spokane St	31	3	3	4	2	7	6	5	6	6	5/27/18 (Church service)	10%	13%	6%	19%	23%	6%	19%	16%	19%	Sat 5/26/18	19%	Sun 5/27/18 (Church service)	19%	
BS	48th Avenue SW	E	SW Hinds St and SW Spokane St	23	5	4	6	6	13	12	7	7	7	5/26/18	22%	26%	26%	52%	23%	26%	26%	52%	30%	30%	30%	30%	30%	
BT	47th Avenue SW	W	SW Hinds St and SW Spokane St	31	5	7	6	6	13	8	11	9	9	5/27/18 (Church service)	16%	19%	19%	26%	42%	19%	26%	35%	29%	29%	29%	29%	29%	
BU	47th Avenue SW	E	SW Hinds St and SW Spokane St	27	0	0	1	0	0	0	0	0	0	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
BV	45th Avenue SW	W	SW Hinds St and SW Spokane St	30	1	0	0	0	8	20	0	0	0	5/26/18	3%	0%	0%	0%	27%	0%	0%	67%	0%	0%	0%	0%	33%	
BW	45th Avenue SW	E	SW Hinds St and SW Spokane St	27	10	10	10	11	11	21	10	8	12	5/26/18	37%	37%	41%	78%	41%	37%	41%	78%	37%	30%	30%	44%	44%	
BX	44th Avenue SW	W	SW Hinds St and SW Spokane St	27	15	9	8	6	13	16	16	13	15	5/26/18	56%	33%	30%	48%	48%	59%	59%	59%	59%	48%	56%	56%	56%	
BY	44th Avenue SW	E	SW Hinds St and SW Spokane St	26	12	13	14	10	11	13	13	9	15	5/26/18	46%	50%	38%	42%	42%	50%	50%	50%	50%	50%	35%	56%	56%	
BZ	California Avenue SW	W	SW Hinds St and 800' boundary	2	3	3	4	2	6	6	5	1	2	5/26/18	150%	200%	100%	300%	300%	250%	250%	250%	250%	50%	100%	100%	100%	
CA	SW Hanford Street	-	End of block	3	3	2	3	3	0	2	3	3	3	5/26/18	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CB	49th Avenue SW	W	800' boundary and SW Spokane St	6	0	0	1	0	0	0	1	0	0	5/26/18	0%	17%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	
CC	49th Avenue SW	E	800' boundary and SW Spokane St	0	0	0	0	0	0	0	0	0	0	5/26/18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
CD	California Avenue SW	W	800' boundary and SW Spokane St	5	2	1	2	3	3	4	2	3	4	5/26/18	40%	40%	60%	80%	60%	40%	60%	80%	40%	60%	60%	80%	80%	
CE	California Avenue SW	E	800' boundary and SW Spokane St	1	0	0	0	0	0	0	0	1	1	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CF	SW Spokane Street	N	800' boundary and 49th Ave SW	4	0	0	0	0	0	0	0	0	0	5/26/18	100%	100%	33%	67%	67%	100%	100%	100%	100%	0%	0%	0%	0%	
CG	SW Spokane Street	S	800' boundary and 49th Ave SW	3	3	3	1	2	2	2	3	0	1	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CH	SW Spokane Street	N	49th Ave SW and 48th Ave SW	9	0	0	0	0	1	1	2	1	1	5/26/18	0%	0%	0%	11%	11%	11%	11%	22%	11%	11%	11%	11%	11%	
CI	SW Spokane Street	S	49th Ave SW and 48th Ave SW	6	0	0	0	0	0	0	0	0	0	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CJ	SW Spokane Street	N	48th Ave SW and 47th Ave SW	10	1	2	0	0	0	1	1	0	1	5/26/18	10%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	10%	10%	
CK	SW Spokane Street	S	48th Ave SW and 47th Ave SW	8	0	0	0	0	0	0	0	1	1	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	13%	
CL	SW Spokane Street	N	47th Ave SW and 46th Ave SW	23	5	4	4	5	0	4	0	0	7	5/26/18	22%	17%	22%	17%	17%	22%	17%	17%	0%	0%	0%	30%	30%	
CM	SW Spokane Street	S	47th Ave SW and 46th Ave SW	9	0	0	0	0	0	0	0	0	0	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CN	SW Spokane Street	S	46th Ave SW and 45th Ave SW	7	2	4	4	5	0	5	0	0	5	5/26/18	29%	57%	71%	71%	57%	71%	71%	71%	0%	0%	0%	71%	71%	
CO	SW Spokane Street	N	45th Ave SW and 44th Ave SW	9	0	1	0	0	0	6	2	2	2	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	67%	67%	
CP	SW Spokane Street	S	45th Ave SW and 44th Ave SW	9	5	8	7	8	9	11	7	7	9	5/26/18	89%	89%	89%	89%	89%	89%	89%	100%	122%	78%	78%	100%	100%	
CQ	SW Spokane Street	N	44th Ave SW and California Ave SW	8	6	5	7	6	4	10	5	7	7	5/26/18	75%	88%	75%	88%	88%	75%	88%	75%	88%	88%	88%	88%	88%	
CR	SW Spokane Street	N	California Ave SW and 800' boundary	0	0	0	0	0	0	0	0	0	0	5/26/18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
CS	SW Spokane Street	S	California Ave SW and 800' boundary	2	2	2	2	1	3	2	1	1	2	5/26/18	100%	100%	50%	100%	150%	50%	100%	100%	50%	50%	100%	100%	100%	
CU	49th Avenue SW	W	SW Spokane St and 800' boundary	1	0	0	0	0	0	0	0	0	0	5/26/18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CV	48th Avenue SW	E	SW Spokane St and 800' boundary	0	0	0	0	0	0	0	0	0	0	5/26/18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
CW	48th Avenue SW	W	SW Spokane St and 800' boundary	20	4	5	4	4	7	6	7	5	5	5/26/18	20%	20%	20%	30%	35%	20%	30%	35%	35%	25%	25%	25%	25%	
CX	48th Avenue SW	E	SW Spokane St and 800' boundary	17	2	2	2	3	2	3	2	3	2	5/26/18	12%	12%	18%	18%	12%	18%	18%	18%	12%	18%	12%	12%	12%	
CY	47th Avenue SW	W	SW Spokane St and SW Charlestown St	31	7	8	10	8	12	11	14	10	9	5/26/18	23%	26%	26%	39%	39%	26%	39%	35%	45%	32%	29%	29%	29%	
CZ	47th Avenue SW	E	SW Spokane St and SW Charlestown St	28	5	4	4	4	7	8	10	9	6	5/26/18	18%	14%	14%	25%	25%	14%	25%	29%	36%	32%	21%	21%	21%	
DA	46th Avenue SW	W	SW Spokane St and SW Charlestown St	20	7	5	8	9	10	7	12	9	13	5/26/18	45%	35%	45%	45%	50%	45%	50%	35%	60%	45%	65%	65%	65%	
DB	46th Avenue SW	E	SW Spokane St and SW Charlestown St	23	9	7	5	8	9	7	8	9	9	5/26/18	30%	29%	35%	39%	39%	30%	39%	30%	30%	39%	39%	39%	39%	
DC	45th Avenue SW	W	SW Spokane St and SW Charlestown St	31	8	9	6	9	6	11	8	7	5	5/26/18	26%	26%	19%	19%	19%	29%	35%	35%	35%	26%	16%	16%	16%	
DD	45th Avenue SW	E	SW Spokane St and SW Charlestown St	28	9	7	13	10	12	15	13	14	16	5/26/18	32%	25%	46%	43%	43%	54%	54%	43%	43%	50%	50%	50%	50%	
DE	44th Avenue SW	W	SW Spokane St and 800' boundary	22	4	7	11	8	12	14	10	8	22	5/26/18	18%	32%	50%	36%	36%	21%	37%	53%	47%	63%	105%	105%	105%	
DF	44th Avenue SW	E	SW Spokane St and 800' boundary	19	8	5	13	4	7	10	9	12	20	5/26/18	42%	26%	68%	21%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
DG	California Avenue SW	W	SW Spokane St and 800' boundary	1	0	1	0	1	0	0	0	0	1	5/26/18	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
DH	California Avenue SW	E	SW Spokane St and 800' boundary	5	2	4	1	4	2	4	1	4	4	5/26/18	40%	80%	20%	40%	40%	80%	80%	40%	80%	20%	20%	80%	80%	

