

Facilities and Operations Committee  
Meeting  
Wednesday, April 12, 2023 4:00 PM

Dr. Matthew Prophet Education Center -  
Windows Cafeteria / Conference Room (Floor  
2)  
501 N. Dixon St.  
Portland, OR 97227

## **Agenda**

1. 4:00 pm - Tubman Relocation Update
2. 4:30 pm - Center For Black Student Excellence Update
3. 5:00 pm - Tubman Middle School Property Reuse
4. 5:30 pm - Adjourn
5. Public Comment Comment will be provided during the related agenda topic.
  - The topic must be related to an item on the agenda.
  - To sign up for public comment email [PublicComment@pps.net](mailto:PublicComment@pps.net) or call 503-916-3741.

# HARRIET TUBMAN MIDDLE SCHOOL (RE)SITING: DUE DILIGENCE V06



2023 APR 05

# INTRODUCTION

This study is intended to provide a common reference point for all Harriet Tubman Middle School stakeholders. The information in this report supports decision making and, as data is collected, this document will be updated to reflect the most current research.

The district issued volume 1 of this document in February 2022 and has since evaluated dozens of potential relocation options. Potential options are reviewed and discussed at meetings open to the public, including the Board of Education's Facilities and Operations Committee meetings. At the November 30, 2023 Facilities and Operations Committee meeting Board of Education members provided feedback on the relocation options and recommended proceeding with analysis of an option that would co-locate Harriet Tubman Middle School and the district approved charter schools, KairosPDX, on the existing Jefferson High School lot south of Alberta ("south lot") and/or the Humboldt property (where KairosPDX is currently located).

In this volume (see page 14) we will detail the Risks and Opportunities for each of the scenarios below.

Scenario 1 proposes Harriet Tubman Middle School be located on the Humboldt site and KairosPDX be located on the Jefferson High School south lot. This option greatly impacts the Jefferson HS Modernization.

Scenario 2 proposes that Harriet Tubman Middle School and KairosPDX both be located on the Humboldt site. This allows for a multi-sport field on Jefferson High School south lot. However, the Jefferson High school project schedule greatly affects this option.

Both scenarios will require both Harriet Tubman MS and KairosPDX to swing to remote sites for the length of construction. Each scenario details specific site

constraints, construction logistics, and schedule impacts. Sharing of outdoor space (parking, play grounds, athletics, etc) will be necessary in both scenarios as well. However, it is not assumed that the schools would share internal educational or common spaces. For the sake of this analysis, Staff assumed KairosPDX would require approximately 50,000 square feet to meet their academic programming needs. PPS middle school program area requirements for Harriet Tubman Middle School are noted in this document on page 7.

Previously considered sites are located in Appendix A.

# BACKGROUND

Over the course of decades, the Historic Albina neighborhood — the heart of Oregon’s historic Black community — has experienced harm caused by the construction and presence of the I-5 freeway. Since Black families had their homes and businesses demolished to make way for construction of the freeway and other “urban renewal” projects nearly fifty years ago, the air pollution and increased traffic associated with the freeway have negatively impacted the health of neighborhood residents and their quality of life. The resulting displacement and disinvestment in the Albina neighborhood is part of our community’s shared history.

The Federal-Aid Highway Act of 1956 originally provided funds to construct the interstate, in the process demolishing several hundred housing units and constructing the freeway immediately adjacent to what was then Eliot Elementary, which had opened in 1952. The creation of Harriet Tubman Middle School in the early 1980s at the former Eliot School site has historical significance, as it played a pivotal role in the struggle over school desegregation and racist busing policies in Portland during the 1960s-1980s.

Harriet Tubman has served PPS students in the Albina neighborhood since the early ‘80s, and then in 2018, reopened as a middle school as part of a district-wide Middle School Framework to provide students with a more comprehensive and equitable middle school experience and better preparation for high school. For this framework to be successful long-term, it is essential that students are educated in a building that is not negatively impacted by significant adjacent project construction and longer-term negative impacts from unhealthy ambient air quality, noise, and vibrations.

The location of the freeway directly adjacent to the school has created enduring environmental impacts. Today the exterior area of Harriet Tubman is functionally unusable for school purposes. As currently designed, the proposed I-5 Rose Quarter Improvement Project would further cut into the Harriet Tubman Middle School site, threatening to worsen the environmental situation and negative health impacts, both during construction and over the long term.

# SCHEDULE

Due to the proximity to the site and location of construction access roads, work on the Eliot Viaduct will directly impact the safety and learning of students at Harriet Tubman Middle School. Prior schedules provided by ODOT showed this portion of work beginning in September of 2027, and then in September of 2026, and now is shown beginning in Summer 2027. This work has a direct impact on the district's timeline to relocate Harriet Tubman. The most recent construction schedules provided to the district from ODOT indicate the Eliot Viaduct work will begin in Summer of 2027, suggesting the Harriet Tubman students must vacate the current location by June 2027.

The district can use our recently constructed Kellogg Middle School to infer the necessary duration to build a middle school. Kellogg Middle School opened in August of 2021 after four years of planning, design, and construction. The process began in May 2017 with procuring architectural and engineer services. Planning, design, and permitting took approximately two years; construction also took two years.

Given the uncertain timeline of Eliot Viaduct construction, it is necessary to make use of a swing site, or temporary location, for Harriet Tubman Middle School, while design decisions, community engagement, site selection, and construction are completed.

# COMMUNITY ENGAGEMENT

We recognize the need to collectively build support and vision for the future of Harriet Tubman school. Empowering students, staff, and community members to collaborate with Portland Public Schools will help create a recommendation on a future site for Harriet Tubman Middle School, and elevate essential needs that can be honored in future educational design planning impacting the Albina community.

The design of this engagement process endeavors to engage a diverse set of stakeholders who will make a relocation site selection recommendation to the PPS Executive Sponsors who will make the recommendation to the PPS School Board.

## **STAKEHOLDER GROUPS TO BE ENGAGED**

### **PPS Students- Harriet Tubman and Feeder Schools**

Affinity Groups  
Directed Outreach

### **PPS Parents - Harriet Tubman, Jefferson, and Feeder Schools**

King PTA  
Harriet Tubman PTA  
Sabin PTA  
Irvington PTA  
Directed Outreach

### **PPS Staff - Harriet Tubman, Jefferson, and Feeder Schools**

Principals  
Teachers  
All staff  
Retired staff

### **Black Community Leaders engaged in the Center for Black Student Excellence efforts**

# COST ESTIMATES

Hard Costs - Hard costs are defined as physical costs associated with construction of a project. The estimates are based on an assumed building area based on PPS' education specification and a dollar per square foot cost range provided by professional construction cost estimators Rider Levett Bucknall (RLB). Low range is based on \$500/SF, High Range is up to \$600/SF. Demolition costs at \$25/SF, if applicable, are additive to these Hard Costs. This cost category carries with it significant unknowns including the area of the site, the final size of the building(s), new construction versus renovation, and more. Below is a sample of hard cost estimates. The cost per square foot has been updated per RLB's recommendation on 1/24/23.

Building SF	Cost per SF	Hard Cost
120,000	\$500	\$60,000,000
120,000	\$600	\$72,000,000

Soft Costs - Soft costs include indirect project expenses including (but not limited to) architecture and engineering fees, land use and building, permitting, testing & inspection, surveying, and other consultants. The estimates are based on recent PPS capital projects.

FF&E - Includes costs for new furniture, fixtures, and equipment/technology to outfit a new middle school. The estimates are based on recent PPS capital projects.

Site Development - Cost includes estimates necessary to complete all on-site and off-site improvements including (but not limited to) clearing and grading, parking and circulation, field improvements, new utility infrastructure, and street and other ROW improvements that may be required. The estimates are based on recent PPS capital projects. The cost percentage ranged from 10% to 18% depending upon the perceived risks for each site.

Swing Site - Swing site costs are included in the cost ranges provided below.

Administration - Includes costs associated with management of the project including owner's representation services, construction management services, insurance, and other related costs. The estimates are based on recent PPS capital projects.

Contingency -15% contingency is held for design/owner changes, and unforeseen conditions.

Escalation - The escalation cost information was obtained from Rider Levett Bucknall (RLB), and it varies year over year based upon projected inflation rates. Current forecasts estimate approximately 7% annual cost increase across all trades for 2023. Given the current volatile inflationary environment, there is a lack of confidence at accurately predicting future escalation rates. The escalation rate(s) are projected to the approximate midpoint of construction. There are many variables and decisions that have yet to be made which affect the overall schedule for this work. The below table illustrates the compounding effects of annual cost escalation.

### Escalation Rates

2022	2023	2024	2025	2026	2027
N/A	7.0%	6.0%	5.0%	4.0%	4.0%
\$100	\$107	\$113	\$119	\$124	\$129

State Investment: It's important to understand the State of Oregon decided to fund the project below the bottom end of the cost estimate range as outlined in the State Investment Request document the District provided to the State. This document is included in the Appendix B, and is linked here: [STATE INVESTMENT REQUEST](#).

# PROGRAM REQUIREMENTS

## MIDDLE SCHOOL EDUCATIONAL SPECIFICATIONS

Created in 2014, the Portland Public Schools Educational Specifications (Ed Spec) represent a foundation on which planning and design work can begin; it outlines desired building characteristics for all district schools. The intent of the Ed Spec is to provide spaces for 21st-century teaching to occur while providing flexibility to adapt to future changes. The Ed Spec area program identifies the quantity and size of spaces within a middle school needed to deliver the district’s education program. This study interprets Ed Spec to meet site-specific constraints and program needs.

### SUMMARY

The current education specifications for a middle school require the site and building to support up to 675 students. The newly constructed Kellogg Middle School has been used as a baseline for comparing the different site options, which has 6 acres and a 104,000 SF building. This is on the lower end of the range from a space requirement perspective in meeting the District’s program requirements. An ideally sized site would be closer to 9 acres and a 120,000 SF building.

EXISTING MIDDLE SCHOOLS: BUILDING & SITE DATA			
SITE	SITE AREA (ACRES)	BUILT AREA (GSF)	CLASSROOM COUNT
BEAUMONT	5.7	91,294	34
DA VINCI	10	88,659	25
GEORGE	7.3	76,142	31
GRAY	13.2	74,614	26
HARRISON PARK	5.4	110,775	39
HOSFORD	6.7	88,532	32
JACKSON	36.4	219,281	40
KELLOGG	5.8	108,110	33
LANE	9.1	94,753	39
MT. TABOR	7.4	79,477	31
OCKLEY GREEN	5.2	74,018	31
ROSEWAY HEIGHTS	8.5	103,610	39
SELLWOOD	4.8	87,364	30
TUBMAN	3.1	87,610	33
WEST SYLVAN	13.6	108,187	40

### Building Program Requirements:

- » General education classrooms
- » Main gym is able to support a full student assembly
- » An auxiliary gym is optional, but not required.
- » Covered play area
- » Cafeteria & Commons area
- » Exploratory areas (music, art, computer lab, steam lab, kiln room, dance)
- » Media/technology area
- » Storage areas
- » Locker rooms & PE offices
- » Administrative spaces
- » Counseling spaces & SPED
- » Community & partner spaces
- » Health clinic
- » Building support spaces

### Site & Outdoor field Requirements:

- » Separate Bus Drop-off area
- » Parking area for staff and parking area for visitors to be separate if possible
- » (1) Softball field
- » (1) Soccer field (can overlay the softball field)
- » Play/practice area for baseball and running trail
- » Play equipment area
- » Hard Surface play area

# SITE CRITERIA

## COMMUNITY CONSIDERATIONS

**Student and neighborhood demographics:** The ideal site will take into consideration both the current and historic racial demographics of students and surrounding neighborhood. Staff and community will evaluate the risk of a proposed site exacerbating neighborhood gentrification and displacement for communities of color. To evaluate this risk, staff and community will specifically review the demographic impact of each proposed site to ensure that current concentrations of students of color are not lost.

**Neighborhood Accessibility:** The ideal site will take into consideration the ability of families of color to access the neighborhood and school site proposed. Staff and community will evaluate housing affordability, neighborhood and community amenities to ensure that students and families of color will be able to access the proposed site.

**Tubman Catchment Boundary:** Feedback from stakeholders, community and staff have consistently raised concerns about permanently relocating Tubman to outside the existing catchment area. Siting Tubman outside the current boundary raises fundamental questions regarding likely future enrollment and boundary changes that the District cannot foretell. Lacking the ability to accurately predict future changes is a significant concern for many stakeholders. Additionally relocating outside the current catchment would place all, or the majority of, Tubman students outside reasonable walking distance and necessitate busing of nearly the entire school population. The impression of whole program bussing and the operational implications of this effort are material and problematic to many community members. Based upon this feedback, Staff do not recommend relocating Tubman outside the existing catchment boundary.

## LOCATION

The ideal site will be located within the existing HTMS catchment area to minimize the impact to students, the community and PPS operations.

## SITE SUITABILITY

The ideal site will be close to 9 acres in gross area to accommodate all desired site amenities including onsite parking, outdoor recreational space, athletics, bus and vehicle circulation, etc. The smaller the site the fewer site amenities and/or increased cost to design around site challenges. The ideal site will be located within an established residential neighborhood with easy walkability, accessibility, access to transit and consistent with the District Safe Routes to School (SRTS) goals. Ideally the selected site will accommodate a three story building while providing for appropriate outdoor space.

## OPERATIONAL SUSTAINABILITY

The District is committed to Sustainability and the ideal site will activate underutilized properties and have minimal impact on both the environmental and ongoing operational resources. Additionally, the significant decline in enrollment in the HTMS catchment area should inform the site selection such that robust and sustainable educational resources may flourish in the community. Very often the time of the most negative environmental impact of a building is when it is demolished so a site that does not require significant demolition is preferable. Further, relocating HTMS to an underutilized District property will minimize ongoing operational costs.

## **ACADEMIC SUITABILITY**

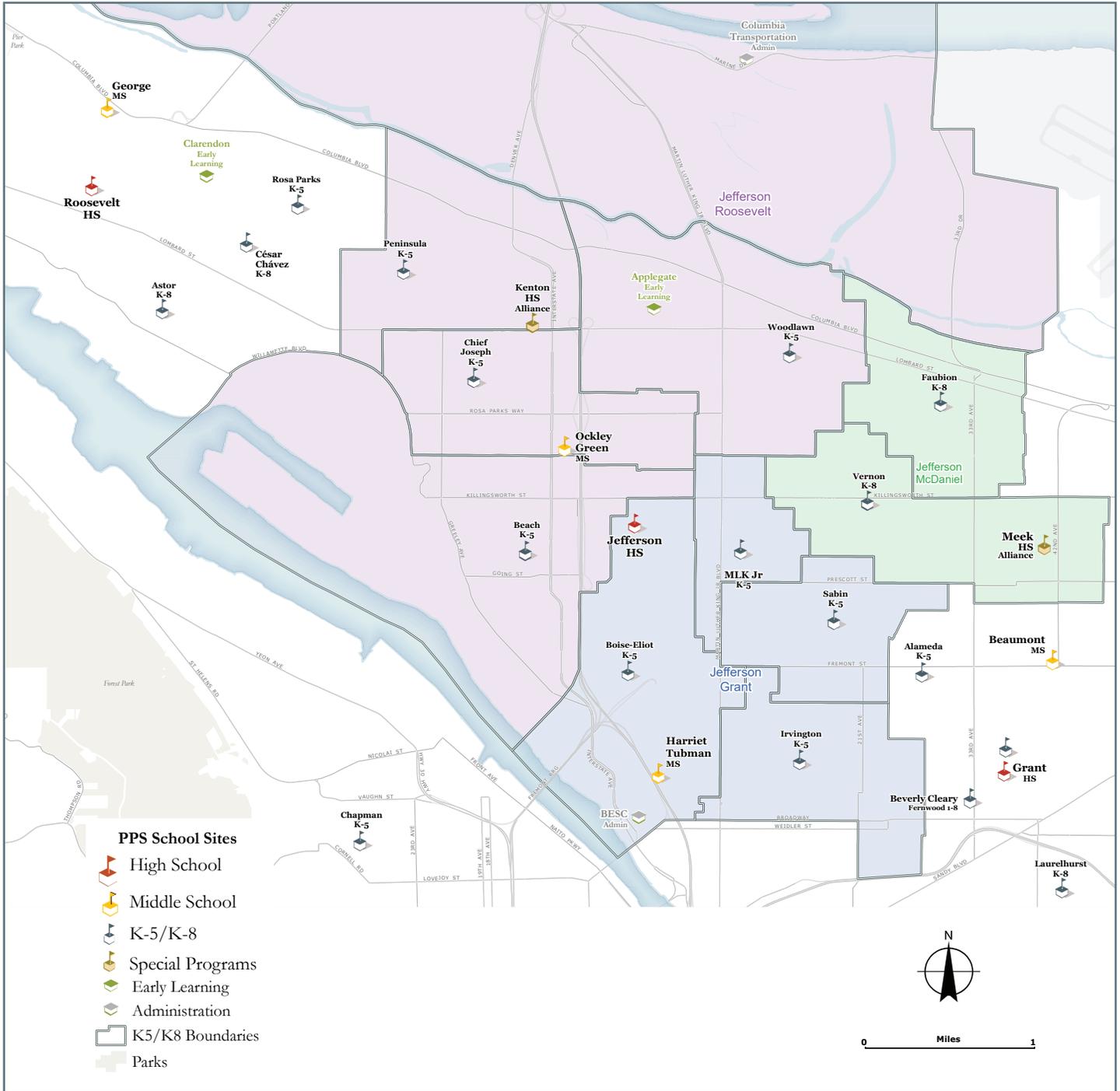
The ideal site will be large enough to accommodate the full middle school Education Specifications and a target enrollment of 675 students. The school will have sufficient space for students to engage in a variety of robust 21st century learning experiences including classrooms, media center, gymnasium and exploratory learning in science, technology, engineering, art and mathematics (STEAM) disciplines. These areas may include specialized rooms such as dance studios or maker space. The school will also have a common space where the entire student population can gather for school-wide events such as assemblies or performances. Middle schools are also adjusting to increasing minutes for physical education as required by the state, this means that there will be greater demand for gymnasium use during the school day. Schools will need to be located on sites that can utilize covered outdoor play areas to flexibly meet these changes.

## **COST CONSIDERATIONS**

We have listed cost considerations for each of the sites that we believe are unique to the location, or are something to take note of. This is intended to help provide some additional information to consider when comparing the different sites.

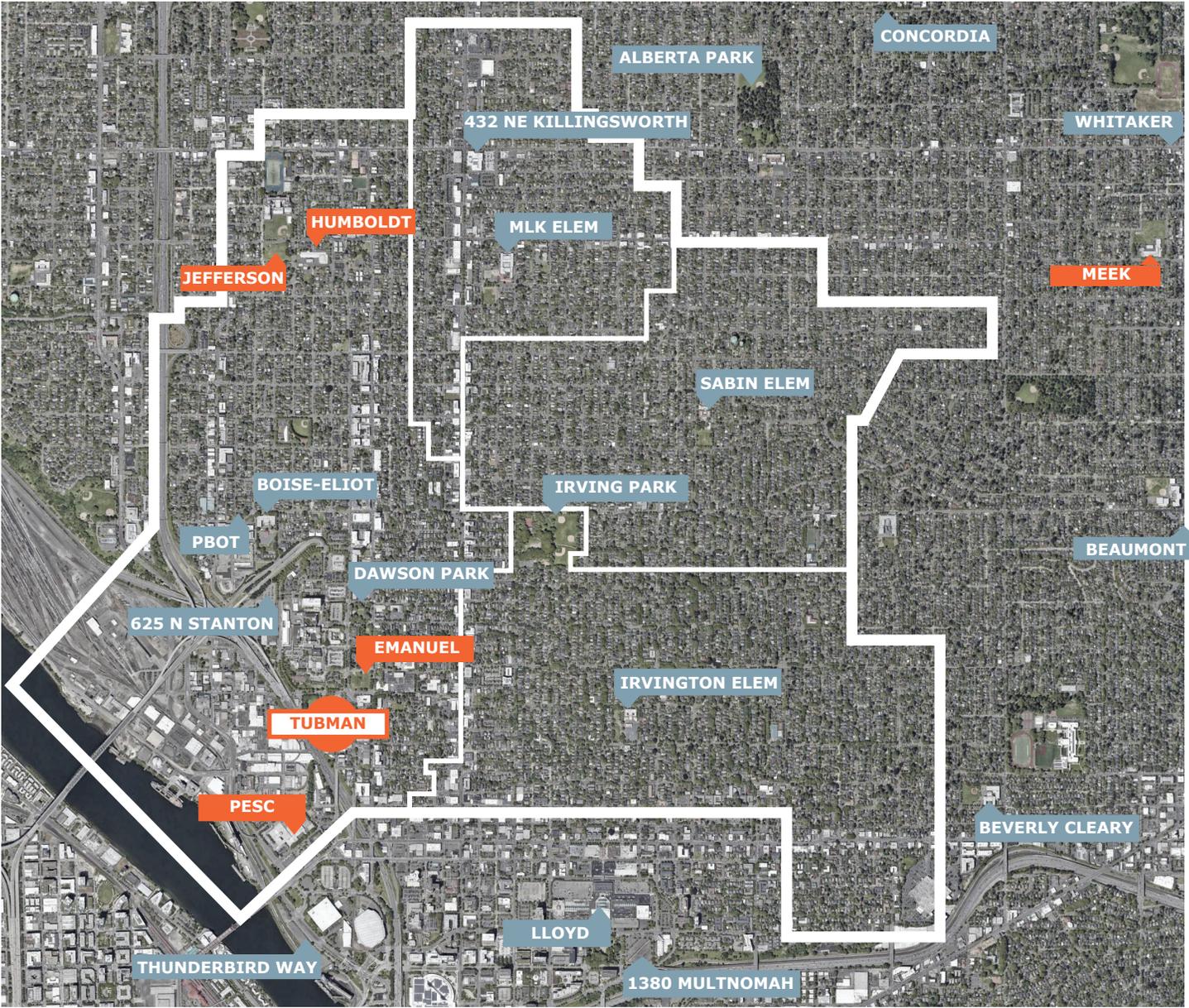
# JEFFERSON HIGH SCHOOL CATCHMENT AREA

(Includes all feeder school boundaries)



# HARRIET TUBMAN MIDDLE SCHOOL CATCHMENT AREA

KENTON



NOTE: The plans and diagrams on the following pages are shown for illustrative purposes. The intent of the diagrammatic plans are to illustrate an example of how a new middle school could potentially fit on the site. The plan is conceptual and does not include detailed land use or design review.

## SITE CRITERIA SUMMARY MATRIX

	CRITERIA						
	Community Consideration	Academic Suitability	Location	Site Suitability	Availability (Time)	Operational Sustainability	Cost
<b>Under Consideration</b>							
Colocation: Tuman + KairosPDX SCENARIO #1		0 *	+	0	0	0	-
Colocation: Tuman + KairosPDX SCENARIO #2		0	+	-	+	0	-
* Impacts Jefferson HS Modernization comprehensive plan, athletic fields and site improvements							
<b>Previously reviewed. Not considered viable. Not under current consideration</b>							
Humboldt Elementary (+ JHS South Lot)		+	+	0	-	+	+
Jefferson High School (South Lot)		-	+	-	-	+	+
Jefferson High School (Main Lot)		-	+	-	-	+	0
Prophet ESC (formerly BESC)		+	+	0	-	0	-
432 NE Killingsworth			+	0	-	-	-
Boise Eliot Elem			+	0	+	+	+
Concordia University Site			-	+	-	-	-
Emanuel			+	-	-	-	-
Meek Prof Tech School		+	-	+	+	+	+
Irvington Elem			+	0	+	+	+
Jefferson High School (Main Lot)			+	-	-	-	0
Kenton			-	0	+	+	+
Lloyd Center			0	-	0	-	-
Martin Luther King Elem			+	0	+	+	+
625 N Stanton			+	-	0	-	0
1380 NE Multnomah			0	+	0	-	-
PBOT Yard			+	-	0	-	0
PP&R (ALBERTA, DAWSON, IRVING)			+	+	0	-	+
Sabin Elem			+	0	+	+	+
Thunderbird Way			+	-	-	-	0
Whitaker-Adams			-	+	+	+	+

**KEY**

- + Positive Site Evaluation
- Negative Site Evaluation
- 0 Neutral Site Evaluation

# HARRIET TUBMAN MIDDLE SCHOOL

**ADDRESS**

2231 N FLINT AVE

**CONSTRUCTION DATE**

1952 (PRIMARY)

**CURRENT OWNER**

PORTLAND PUBLIC SCHOOLS

**LEVELS**

2

**BLDG AREA**

87,610 SF

**SITE AREA**

3.05 ACRES

**CLASSROOM COUNT**

33

**CAPACITY**

732 STUDENTS

**2021-22 ENROLLMENT**

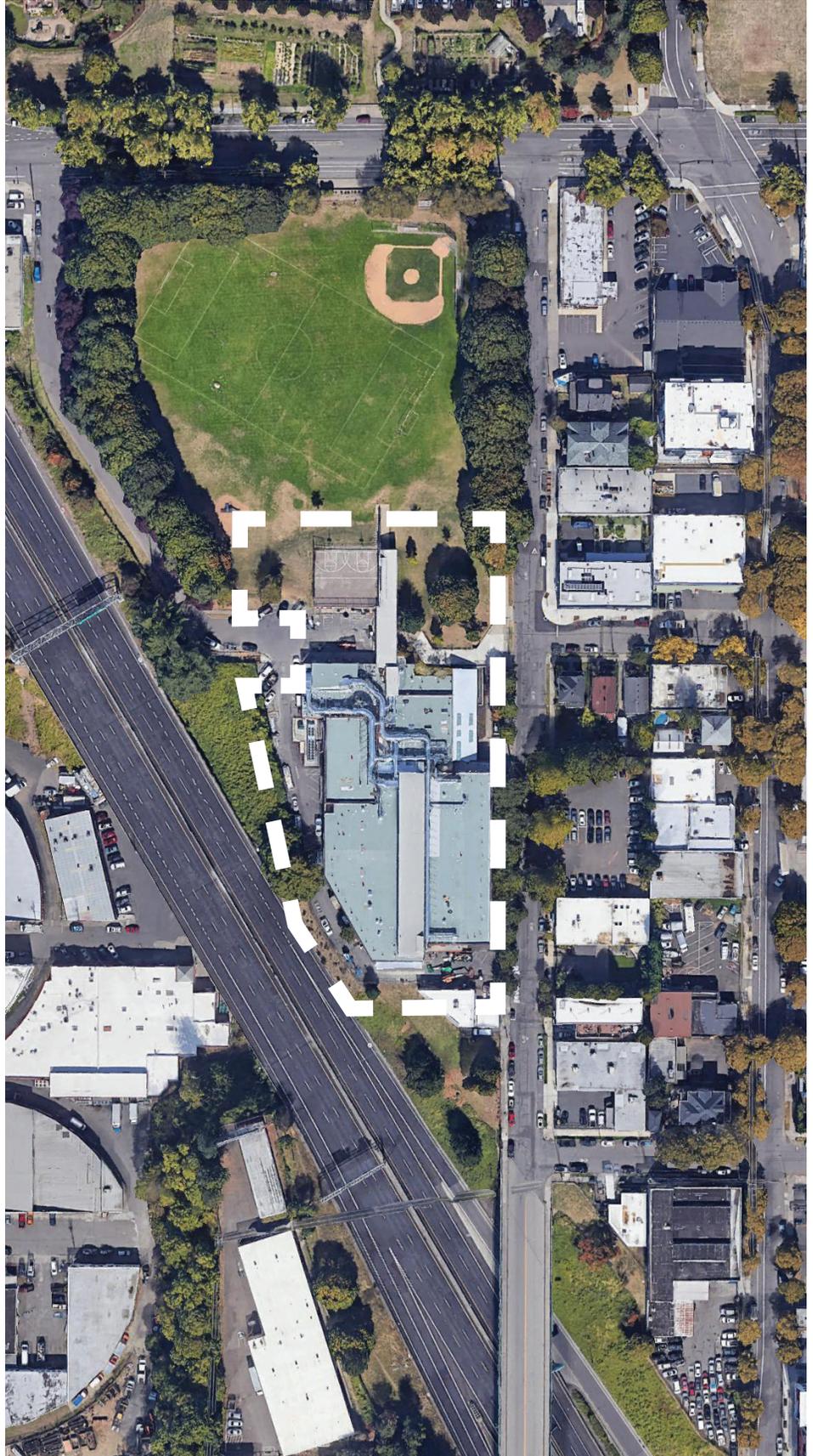
388 STUDENTS (TOTAL)

35 (MANDARIN)

353 (NEIGHBORHOOD)

**ZONING**

CM3 COMMERCIAL MIXED USE 3



# HARRIET TUBMAN ELEMENTARY COLOCATION WITH KAIROS PDX

## JEFFERSON (SOUTH LOT)

**ADDRESS**  
5210 N KERBY AVE

**SITE AREA**  
2.2 ACRES (APPROXIMATE)

**ZONING**  
IR INSTITUTIONAL RESIDENTIAL LCU

## HUMBOLDT ELEMENTARY

**ADDRESS**  
4039 NE ALBERTA CT

**SITE AREA**  
2.98 ACRES

**ZONING**  
RM2 RESIDENTIAL MULTI-DWELLING  
R2.5 RESIDENTIAL 2500



**SCENARIO 1 PLAN: KAIROSPDX ON JEFF SOUTH LOT - HARRIET TUBMAN MS ON HUMBOLDT LOT**



Image by: Mahlum Architects

**RISKS & OPPORTUNITIES**

In Scenario 1, The Jefferson High School south lot would be occupied by KairosPDX. Jefferson High School is currently in the Schematic Design phase of their Modernization. Construction ends in the Fall of 2028. The general contractor for the Jefferson HS project will need to utilize the south lot for construction operations until the end of 2028. This means we would not be able to start construction on the JHS south lot for the HTMS relocation efforts until early 2029 at the earliest. This would result in KairosPDX needing to be in a swing space from the start of HTMS construction on the Humboldt Site in 2026 through construction completion of the new building on the south lot in approximately 2030.

**SCENARIO 1 3D VIEW: KAIROSPDX ON JEFF SOUTH LOT - HARRIET TUBMAN MS ON HUMBOLDT LOT**

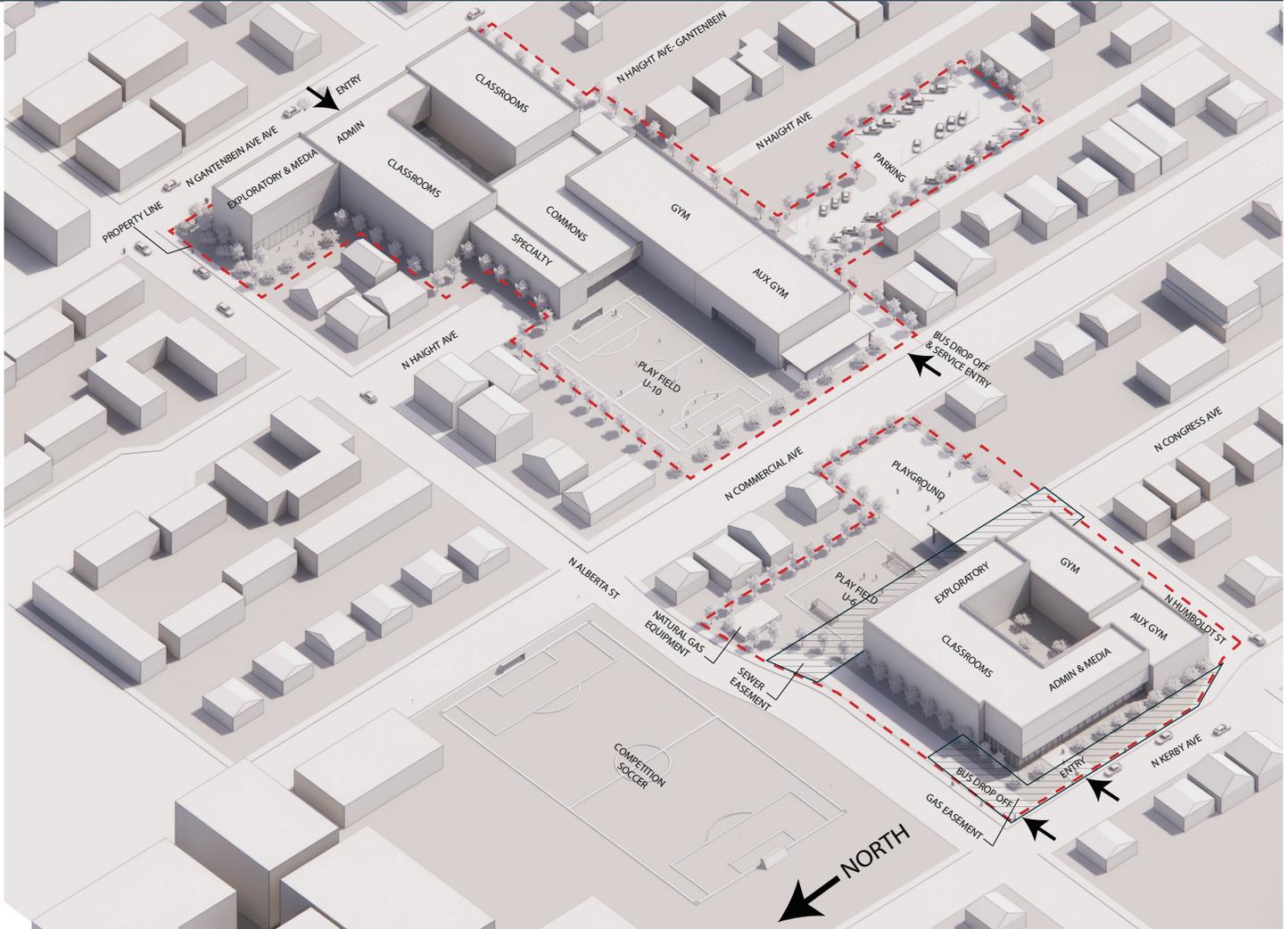


Image by: Mahlum Architects

In addition, PPS High School Educational Specifications require that we provide a baseball and softball field for Jefferson High School. The current plan is to provide softball on the south lot and baseball on the north lot. If we allocate the south lot to the HTMS relocation efforts, Jefferson High School would lose the softball field. Because of Title IX requirements, they would also likely lose the baseball field. This choice would require future high school and middle school students to have to leave the school campus for both practice and games. It would also require PPS athletics staff to find a place and time to schedule those practices and games on other PPS properties or park spaces. This would put additional strain on existing facilities and potentially take away opportunities for how students and staff currently use those other facilities.

The Jefferson High School modernization project is meant to provide more equity to this historically black community, but implementation of Scenario 1 will do the exact opposite. Additionally, through recent stakeholder feedback, the Jefferson HS project team found the need to update the site plan to accommodate existing High School and Middle School athletics programming that the Jefferson community would now lose in Scenario 1.

By co-locating both schools there is an opportunity to coordinate culturally specific supports from PreK to 12th Grade, especially for Black children in the Albina community. Sharing resources and collaboration of teachers and staff can lead to the sharing of best practices and expansion of network opportunities.

## LOCATION

The sites are located in the northwest quadrant of the Harriet Tubman catchment area.

## SITE SUITABILITY

The Humboldt site and Jefferson South Lot encompass approximately 5.2 acres combined; Additionally the site is bifurcated by a public street (N Commercial Ave) and is oddly shaped (causing it to be less efficient for development). Locating Harriet Tubman on the Humboldt Lot and KairosPDX on the Jefferson south lot limits the available outdoor amenities to be shared across the three schools and effectively reduces the site area for Harriet Tubman to the area of the Humboldt lot of 2.98 acres. This is well below the target acreage of 6-9 acres for a comprehensive middle school and smaller than the smallest current middle school site. Kellogg, by contrast, is 5.8 acres.

Due to the zoning constraints and atypical lot configurations, additional discussion with the City of Portland regarding building requirements such as use setbacks, right of way improvements, and more, will be critical.

These two parcels share hundreds of feet of property line with single family detached homes. Three and four story structures may be viewed as out of character by some community members and could face some approval challenges.

It is important to note that the developability of both the Jefferson South Lot and Humboldt may be further reduced due to the existing utility easements and abutting public right-of-ways.

## OPERATIONAL SUSTAINABILITY

Locating Harriet Tubman middle school on this site utilizes existing district property. Construction of a colocated middle school and K-5 charter school would require all new construction.

Conceptually this option could allow the ability to construct a school to meet all interior middle school

education specification requirements, however further discussion regarding zoning and land use implications would be essential to ensure a full size middle school could be built on the small and constrained site. Outdoor school needs including athletic fields and play spaces for recess would be greatly impaired with this option. Siting Harriet Tubman on the Humboldt parcel would put the school on the smallest middle school property in PPS and without adjacent open space (such as a park) to utilize for play spaces.

As a comparison, Kellogg Middle School is 3 stories tall on approximately 5.8 acres and staff have noted this site feels very constrained and challenged to meet the outdoor space needs during student drop off and pick up, and during recess.

There may be challenges in the blending of culture, operational priorities and strained or overcrowding which can negatively impact the quality of education. The close proximity of the schools and the resulting limited outdoor areas may increase noise levels and create distractions for students. Additionally, the revitalization of the community may lead to further gentrification, displacing some of the current residents and reducing the diversity of the student population. Changes in political leadership or policies may also affect funding and support for improved resources for North Portland.

## ACADEMIC SUITABILITY

Tailored educational pathways can address specific challenges Black youth faces, such as systemic racism, socioeconomic barriers, and disparities in educational opportunities. These pathways can help close the achievement gap and improve student academic outcomes by providing targeted support and resources.

A tailored educational pathway can incorporate culturally relevant and responsive curricula, enhancing students' engagement, motivation, and sense of belonging in the school environment. By providing an educational environment that acknowledges and values African American history, culture, and contributions, these pathways can boost students' self-esteem and empower them to take an active role in their learning and personal development.

An educational pathway serving primarily Black youth can help increase the representation of Black educators and role models in the school setting. This can inspire students and provide them with relatable mentors who can offer guidance and support.

Such educational pathways can foster strong connections with the local community, promoting a sense of belonging and encouraging students to give back to their communities through service projects and extracurricular activities.

A tailored educational pathway can create a safe and supportive environment for African American youth, where they can openly discuss and address issues related to race, identity, and social justice without fear of judgment or discrimination.

These pathways help create a network of students, educators, and community members who can collaborate to develop solutions to shared challenges and advocate for the needs of African American youth in the broader educational system.

By providing culturally responsive education, targeted support, and opportunities for personal and professional development, an educational pathway serving primarily Black youth can better prepare students for success in college, career, and civic life.

- This scenario includes overlapping of multiple large capital projects with varying schedules, designs and requiring use of some of the same spaces. The 15% contingency is a general rule of thumb for capital construction projects, but may need to be increased due to the complexity and duration of this option. Future cost estimates will explore how best to manage these risks in further detail.
- The addition of approximately 50,000 square feet of new construction dramatically increases the total project cost.
- Swing Site costs are only included for the Tubman MS Program. Depending on available options, the costs to temporarily house KairosPDX could materially increase overall costs. Future cost estimates will explore this option in more detail.
- The hard cost estimate is based on updated 2023 costs per square foot; escalation for the 2022-23 year has been removed. Escalation is budgeted through the approximate midpoint of construction (5 years).
- Total cost far exceeds the \$120,000,000 State funds. Funds to complete the project will likely need to come from a future general obligation bond, therefore requiring a future bond to include the necessary scope of work and be approved by voters.

## COST CONSIDERATIONS

### Conceptual Cost Estimate Ranges: \$195M to \$238M

Scenario 1 assumes the building area for the Kairos program of 50,000 SF, and an overall building area for Tubman at 120,000 SF. Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:

- The District already owns the property, no land purchase costs are estimated.
- Constrained or complex construction phasing (including requiring on-time materials delivery) could increase costs.

	SCENARIO 1 COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$88,056,992	\$107,511,836
SOFT COSTS	15%	\$13,208,549	\$16,126,775
FFE	10%	\$10,126,554	\$12,363,861
SITE DEVELOPMENT	12%	\$13,367,051	\$16,320,297
SWING SITE	5%	\$5,569,605	\$6,800,124
ADMINISTRATION	4%	\$5,213,150	\$6,364,916
CONTINGENCY	15%	\$20,331,285	\$24,823,171
ESCALATION	VARIES	\$39,275,933	\$47,953,349
TOTAL		\$195,149,119	\$238,264,329
<b>ROUNDED TOTAL</b>		<b>\$195,000,000</b>	<b>\$238,000,000</b>

### DEVELOPMENT AVAILABILITY (TIME)

The schedule is based upon the Humboldt/Jefferson South Lot being selected as the home for Tubman and Kairos in the Spring of 2023. Due to the overlapping construction projects and phases, the timing and sequencing of the various construction efforts is complex, linked and subject to a number of currently unknown variables. The below sample schedule is intended to illustrate general task durations and milestones and is not intended to convey precision. Much more information will be necessary to create a detailed schedule. All task durations are examples based on recent projects.

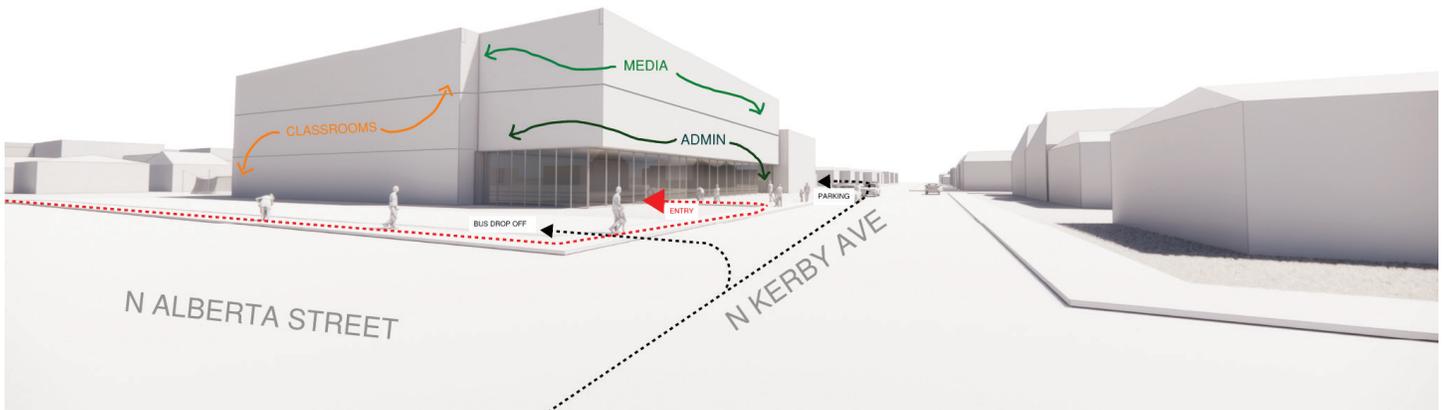
As noted in the Risks and Opportunities section above, one notable complexity of this scenario is the competing use of the Jefferson South Lot. As currently planned, this parcel will be utilized by the Jefferson HS Modernization project for a variety of uses until 2028, effectively delaying construction of the Jefferson South Lot until approximately early 2029. This results in a later opening date of the new KairosPDX building, and causing an extended stay in a temporary space. Further analysis will be needed to determine if construction could start sooner, while not affecting construction of the Jefferson HS Modernization. However other options may impact the cost and/or schedule of the Modernization.

It is also important to note this scenario is dependent upon successful negotiations with KairosPDX to develop the property. If an agreement cannot be reached, the Tubman relocation effort will start anew.

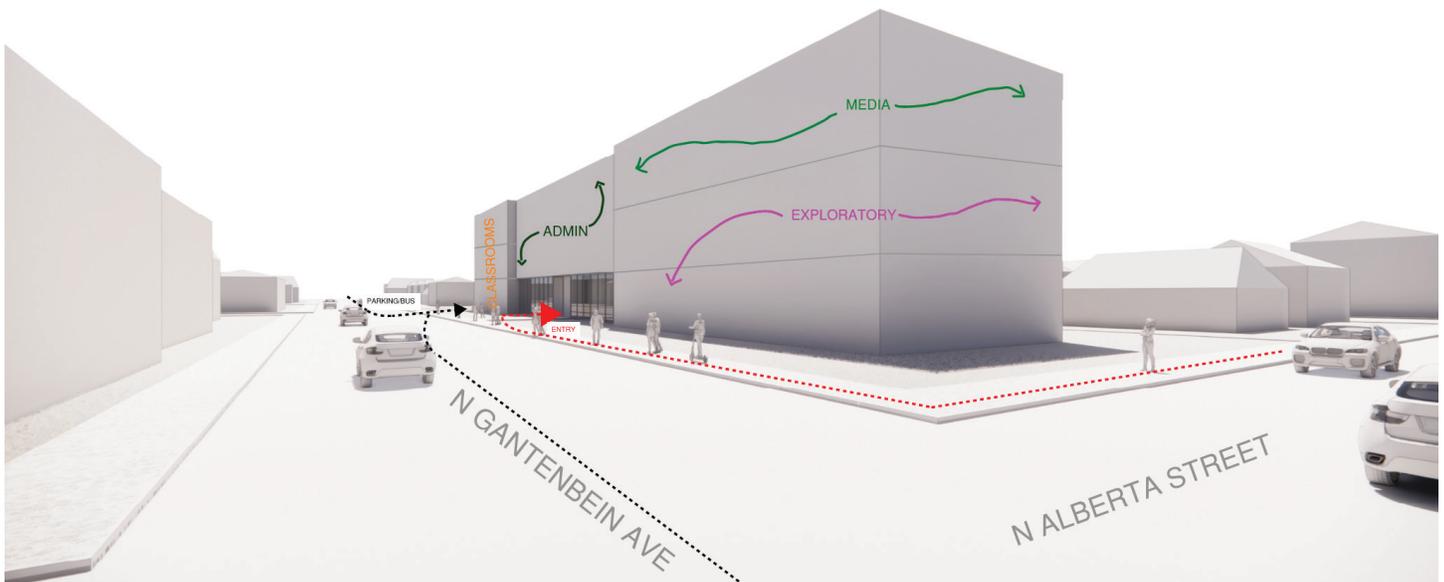
As noted in the Cost Considerations section above, this scenario will likely be tied to a future successful general obligation bond referral and voter approval. If the additional capital funds are not secured in time, the project will be delayed.

SCENARIO 1 SCHEDULE	2023	2024	2025	2026	2027	2028	2029	2030	2031
Site Selection	█								
Development Agreement Negotiations	█	█							
Property Due Diligence		█	█						
Procurement (Design Team)			█	█					
Master Planning			█	█	█	█	█	█	█
Design & Permitting			█	█	█	█	█	█	█
Relocate Existing Program (KairosPDX)				█	█	█	█	█	█
Relocate Existing Program (Tubman)					█	█	█		
Construction (Tubman on Humboldt)				█	█	█	█		
Construction (Kairos on JHS South Lot)							█	█	█
Tubman Opens (on Humboldt Site)						█			
KairosPDX Open (on JHS South Lot)								█	
Jefferson Construction			█	█	█	█	█		

## SCENARIO 1 KAIROS ENTRY



## SCENARIO 1 TUBMAN ENTRY



Images by: Mahlum Architects

SCENARIO 2 PLAN: KAIROSPDX & HARRIET TUBMAN MS ON HUMBOLDT LOT

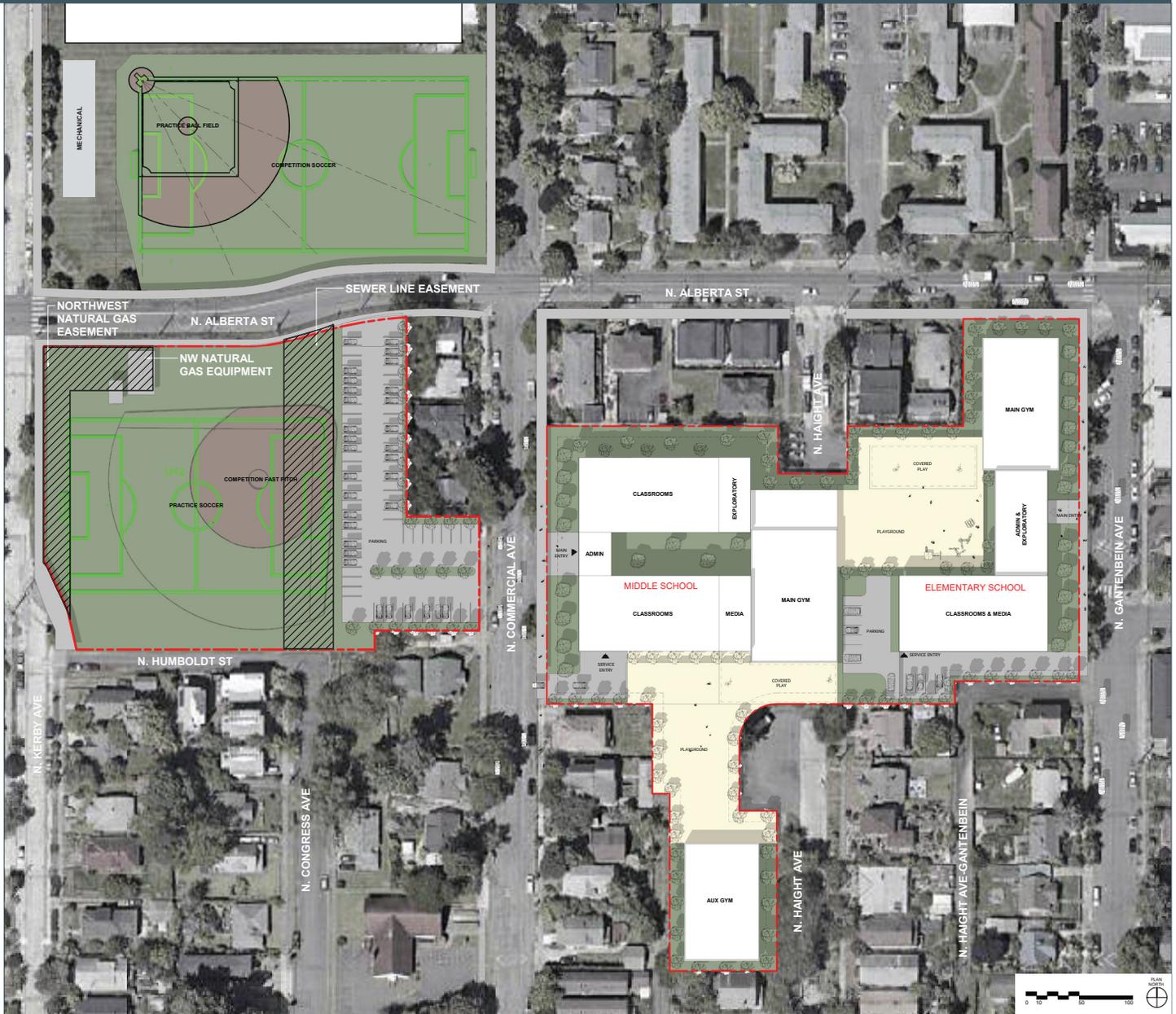


Image by: Mahlum Architects

RISKS & OPPORTUNITIES

In Scenario 2, both KairosPDX and Harriet Tubman MS would be located on the Humboldt lot. Although this option impacts the Jefferson HS Modernization project less, there are still some things to consider across these two projects. The Jefferson site contractor will be using the south lot until Fall 2028. This means that the south lot will be unavailable for use by the Humboldt site contractor for construction operations. They would potentially need to wait until early 2029 to start construction due to the dense nature of development. In Scenario 2, the Humboldt site is left with a much more challenging environment and would need to use the south lot for construction logistics (which could impact the completion of the Jefferson softball/multipurpose field and parking lot). Without the use of the south lot, the density of the proposed development in this scenario could create additional need for off site construction material storage

SCENARIO 2 3D VIEW: KAIROSPDX & HARRIET TUBMAN MS ON HUMBOLDT LOT

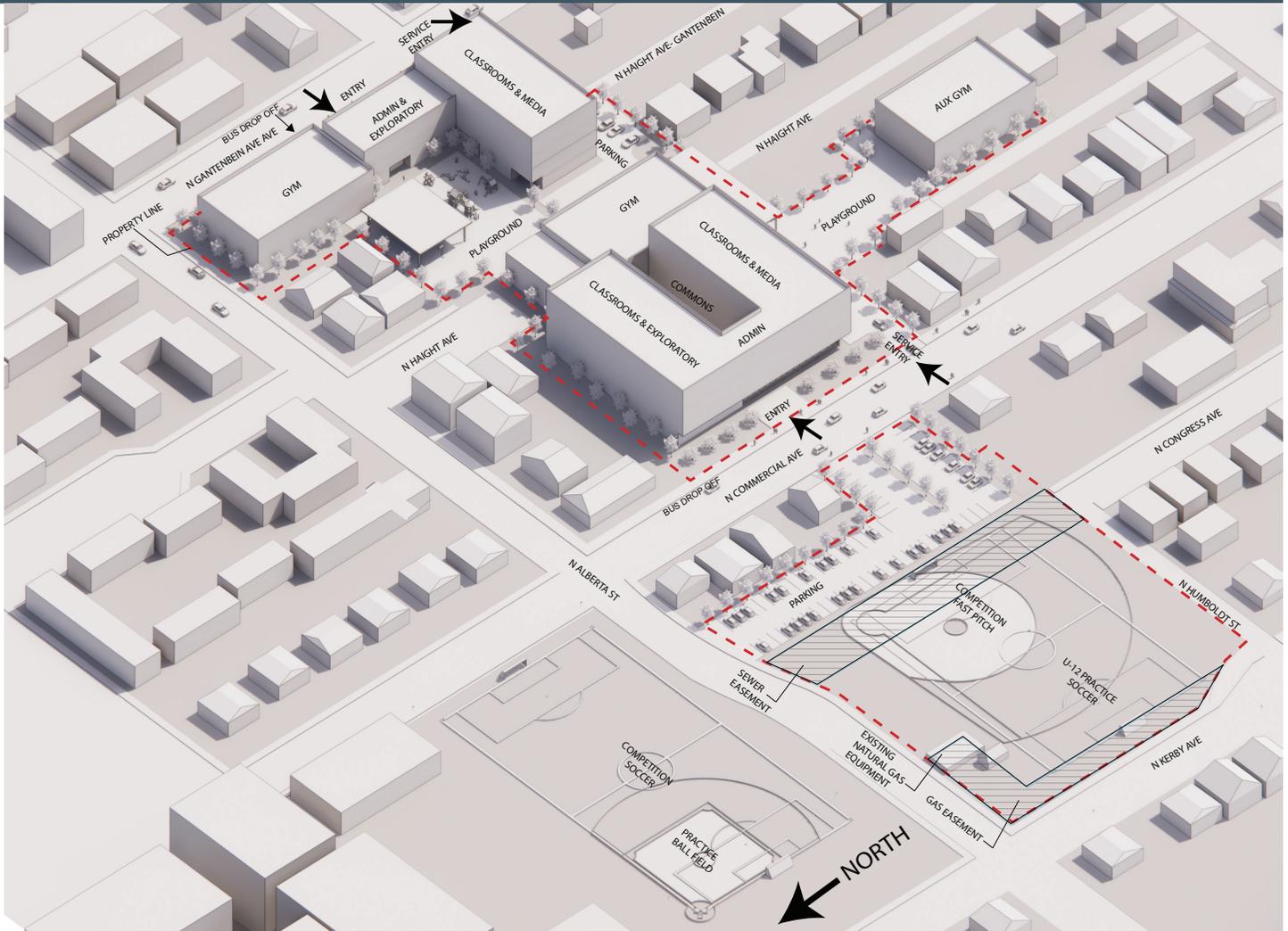


Image by: Mahlum Architects

and increased costs for project coordination which could also have negative schedule impacts. There is also a potential for increased costs and limitations to types of construction due to those logistical concerns.

The close proximity of this scenario could foster a sense of community and the opportunity for joint extra curricular activities and community service programs. The sharing of a site may allow for the sharing of resources and foster a sense of community among students, parents and staff. By locating together, the transition to middle school would be easier for the Kairospdx students since they are already familiar with the location and shared resources.

**LOCATION**

The sites are located in the northwest quadrant of the Harriet Tubman catchment area.

**SITE SUITABILITY**

The Humboldt site and Jefferson South Lot encompass approximately 5.2 acres combined; well below the target acreage of 6-9 acres for a comprehensive middle school and smaller than the smallest current middle school site. Kellogg, by contrast, is 5.8 acres. The addition of

## SCENARIO 2: KAIROSPDX & HARRIET TUBMAN MS ON HUMBOLDT LOT

the KairosPDX building constricts space available for Harriet Tubman MS. Additionally the site is bifurcated by a public street (N Commercial Ave) and is oddly shaped (causing it to be less efficient for development). Locating Harriet Tubman and KairosPDX on the same site will likely materially limit available outdoor amenities and further data gathering may result in a reduction of core academic spaces and overall school capacity.

These two parcels share hundreds of feet of property line with single family detached homes. Three and four story structures may be viewed as out of character by some community members and could face some approval challenges.

Due to the zoning constraints and atypical lot configurations, additional discussion with the City of Portland regarding building requirements such as use setbacks, right of way improvements, and more, will be critical. It is important to note that the developability of both the Jefferson South Lot and Humboldt may be further reduced due to the existing utility easements and abutting public right-of-ways.

### OPERATIONAL SUSTAINABILITY

Locating Harriet Tubman middle school on this site utilizes existing district property. Construction of a colocated middle school and K-5 charter school would require all new construction.

Conceptually this option might allow the ability to construct a school to meet all interior middle school education specification requirements. However further discussion regarding zoning and land use implications would be essential to ensure a full size middle school could be built. The addition of KairosPDX on the same site would further impact PPS middle school programming on an already constrained site.

There are challenges of sharing indoor spaces between two programs, particularly for two different grade bands. Elementary and middle grades programs follow different bell schedules (start, end of the day, lunch periods along with recesses) which mean that use of common areas such as cafeterias or gymnasiums would be difficult within the school day as well as for after school

programs. In addition specialized classroom use such as for music or maker spaces pose similar challenges for scheduling and use within the school day. In addition the two programs have to attend to student movement throughout the school day, namely passing periods for the middle grade students. Finally student arrival and dismissal times are different and require separate entrances. For these reasons staff assumes not sharing indoor spaces.

There may be challenges in the blending of culture, strained operational priorities, or overcrowding which can negatively impact the quality of education. The close proximity of the schools and the resulting limited outdoor areas may increase noise levels and create distractions for students. Additionally, the revitalization of the community may lead to further gentrification, displacing some of the current residents and reducing the diversity of the student population. Changes in political leadership or policies may also affect funding and support for improved resources for North Portland.

### ACADEMIC SUITABILITY

Tailored educational pathways can address specific challenges Black youth faces, such as systemic racism, socioeconomic barriers, and disparities in educational opportunities. These pathways can help close the achievement gap and improve student academic outcomes by providing targeted support and resources.

A tailored educational pathway can incorporate culturally relevant and responsive curricula, enhancing students' engagement, motivation, and sense of belonging in the school environment.

By providing an educational environment that acknowledges and values African American history, culture, and contributions, these pathways can boost students' self-esteem and empower them to take an active role in their learning and personal development.

An educational pathway serving primarily Black youth can help increase the representation of Black educators and role models in the school setting. This can inspire students and provide them with relatable mentors who can offer guidance and support.

## SCENARIO 2: KAIROSPDX & HARRIET TUBMAN MS ON HUMBOLDT LOT

Such educational pathways can foster strong connections with the local community, promoting a sense of belonging and encouraging students to give back to their communities through service projects and extracurricular activities.

A tailored educational pathway can create a safe and supportive environment for African American youth, where they can openly discuss and address issues related to race, identity, and social justice without fear of judgment or discrimination.

These pathways help create a network of students, educators, and community members who can collaborate to develop solutions to shared challenges and advocate for the needs of African American youth in the broader educational system.

By providing culturally responsive education, targeted support, and opportunities for personal and professional development, an educational pathway serving primarily Black youth can better prepare students for success in college, career, and civic life.

manage these risks in further detail.

- The addition of approximately 50,000 square feet of new construction dramatically increases the total project cost.
- Swing Site costs are only included for the Tubman MS Program.
- The hard cost estimate is based on updated 2023 costs per square foot, escalation for year 2022-23 has been removed. Escalation is budgeted through the approximate midpoint of construction (4 years).
- Total cost far exceeds the \$120,000,000 State funds. Funds to complete the project will likely need to come from a future general obligation bond, therefore requiring a future bond to include the necessary scope of work and be approved by voters.

## COST CONSIDERATIONS

### Conceptual Cost Estimate Ranges: \$185M to \$225M

Scenario 2 assumes the building area for the Kairos program of 50,000 SF, and an overall building area for Tubman at 120,000 SF. Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:

- The District already owns the property, no land purchase costs are estimated.
- Constrained or complex construction phasing (including requiring on-time materials delivery) could increase costs.
- This scenario includes overlapping of multiple large capital projects with varying schedules, designs and requiring use of some of the same spaces. The 15% contingency is a general rule of thumb for capital construction projects, but may need to be increased due to the complexity and duration of this option. Future cost estimates will explore how best to

	SCENARIO 2 COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$86,316,292	\$105,737,336
SOFT COSTS	15%	\$12,947,444	\$15,860,600
FFE	10%	\$9,926,374	\$12,159,794
SITE DEVELOPMENT	12%	\$13,102,813	\$16,050,928
SWING SITE	5%	\$6,114,646	\$6,687,887
ADMINISTRATION	4%	\$5,136,303	\$6,259,862
CONTINGENCY	15%	\$20,031,581	\$24,413,461
ESCALATION	VARIES	\$31,301,871	\$38,149,112
TOTAL		\$184,877,323	\$225,318,979
<b>ROUNDED TOTAL</b>		<b>\$185,000,000</b>	<b>\$225,000,000</b>

### DEVELOPMENT AVAILABILITY (TIME)

The schedule is based upon the Humboldt site being selected as the home for Tubman and KairosPDX in the Spring of 2023. Due to the overlapping construction projects and phases, the timing and sequencing of the various construction efforts is complex, linked and subject to a number of currently unknown variables. The below sample schedule is intended to illustrate general task durations and milestones and is not intended to convey precision. Much more information will be necessary to create a detailed schedule. All task durations are examples based on recent projects.

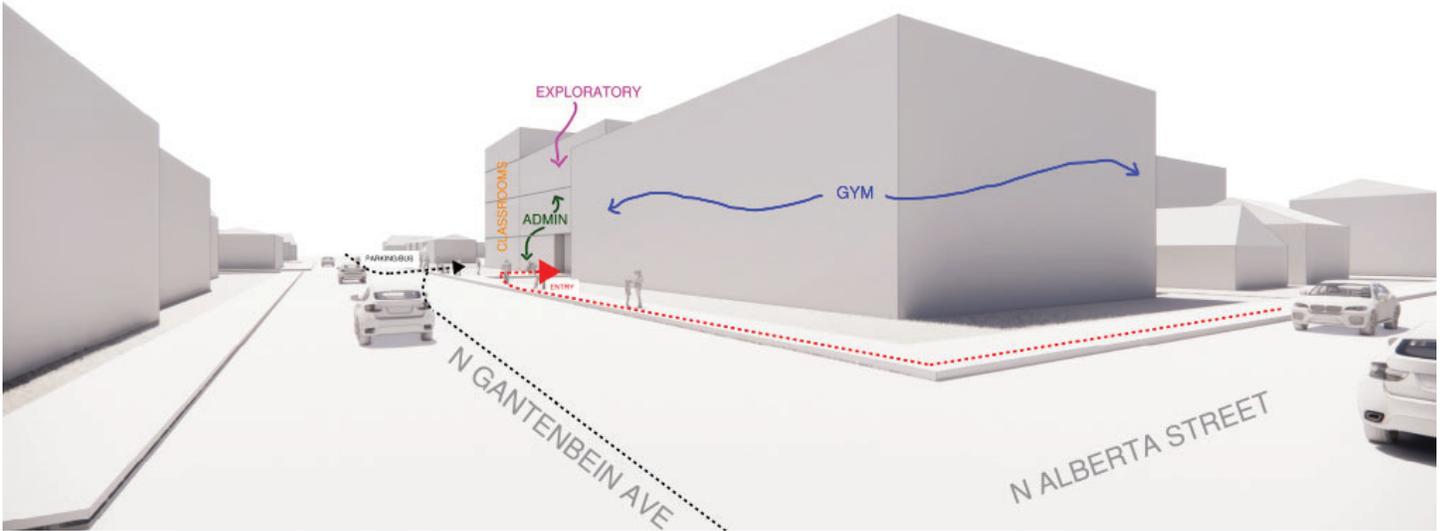
As noted in the Risks and Opportunities section above, overlapping construction with the Jefferson HS Modernization project results in a number of coordination and timing issues that could result in the delayed completion of the Tubman and KairosPDX buildings or the Jefferson Modernization project. Schedule delays will also result in cost increases.

It is also important to note this scenario is dependent upon successful negotiations with KairosPDX to develop the property. If an agreement cannot be reached, the Tubman relocation effort will start anew.

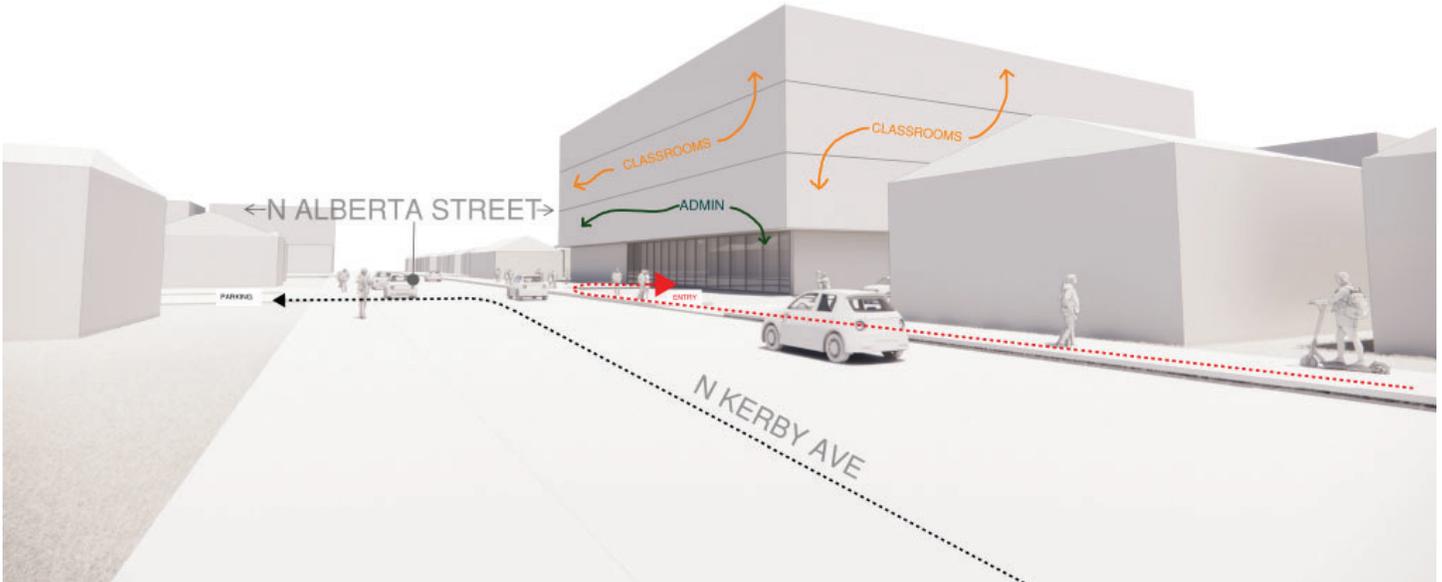
As noted in the Cost Considerations section above, this scenario will likely be tied to a future successful general obligation bond referral and voter approval. If the additional capital funds are not secured in time, the project will be delayed.

SCENARIO 2 SCHEDULE	2023	2024	2025	2026	2027	2028	2029	2030	2031
Site Selection	█								
Development Agreement Negotiations	█	█							
Property Due Diligence		█							
Procurement (Design Team)		█	█						
Master Planning			█						
Design & Permitting			█	█	█				
Relocate Existing Program (KairosPDX)				█	█	█	█		
Relocate Existing Program (Tubman)					█	█	█		
Construction				█	█	█	█		
Tubman & KairosPDX Open							█		
Jefferson Construction				█	█	█	█	█	

# SCENARIO 2 KAIROS ENTRY



# SCENARIO 2 TUBMAN ENTRY



Images by: Mahlum Architects

# APPENDIX A

## CONTENTS

- » Co-location Options
- » I-5 Impact Summary
- » Environmental Review Process
- » Funding
- » Enrollment Forecasts
- » Additional Opportunity Sites
- » Sites No Longer Under Consideration

# CO-LOCATION OPTIONS

## BACKGROUND

In 2016, the district launched a multi-year process to shift from a K-8 configuration to middle school and K-5 configurations. The shift intended to expand instructional programming options for students in grades 6-8. Eighteen of the twenty-nine total K-8s have been converted as of this writing — mostly to K-5s.

Three former K-8 schools were (or will soon be) converted to middle schools, including Harrison Park (planned, fall 2023), Ockley Green, and Roseway Heights. While the future status of the 11 remaining K-8 schools is yet to be determined, most will likely become elementary schools.

Older K-8 facilities are often poorly-suited for effective middle school instruction. They typically lack the specialized STEAM, performing arts, athletic, and elective spaces required to support the needs and interests of middle-grade students.

## BOUTIQUE MODELS

Faubion is a counterpoint to older K-8 buildings. Conceived and designed as a K-8, the building successfully supports the full range of grade levels, including dedicated STEAM, performing arts, and elective spaces for middle school students.

If Harriet Tubman Middle School were to be co-located at a PPS site within the Tubman catchment area (in a single school Faubion model), state funding could support a modernization that includes specific and intentional spaces for middle school instruction.

Space challenges would remain, however. Co-locating Harriet Tubman Middle School would be challenging, but not impossible if approached intentionally and with guidance from the community.

## CO-LOCATION SITES

After introductory spatial and zoning analysis of the Boise-Eliot, Irvinton, Martin Luther King, and Sabin school campuses, none of the sites are considered viable co-location options due to a variety of factors including lack of available building square footage (including floor-to-area ratio maximums).

As part of this Volume 4 analysis, Staff has considered co-location with Jefferson which is further discussed earlier in this document

# I-5 IMPACT SUMMARY

This summary is based on the latest information available. The I-5 Rose Quarter Improvement Project is in the design phase. Precise schedule details are not yet available and subject to change.

## 2023-24 SCHOOL YEAR

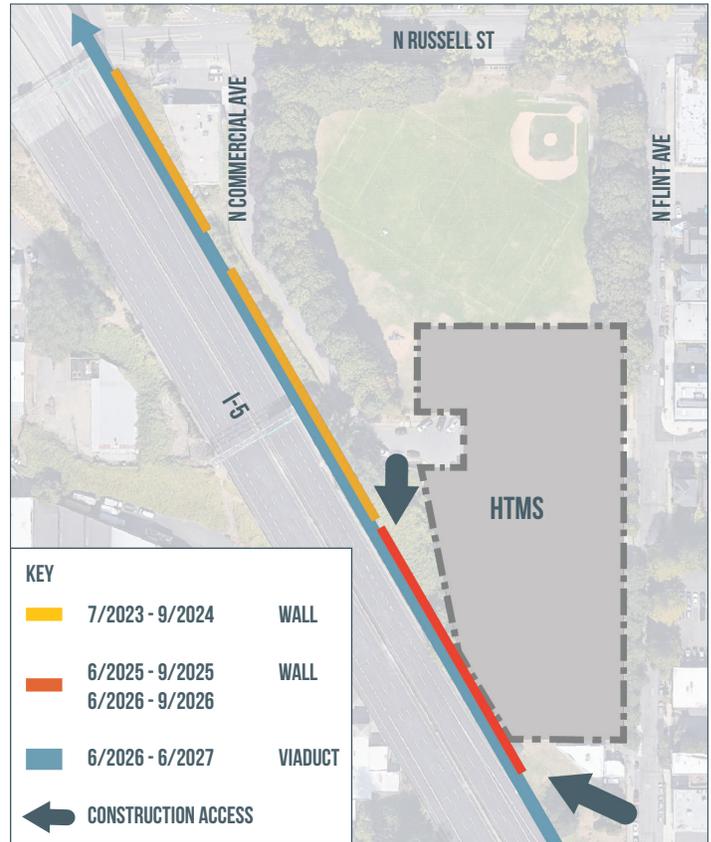
Monday-Friday daytime hours. Work will occur during the school year, starting in early 2024, off of PPS property but close to Tubman. Start to build walls from Russell St and south, to the area west of the gymnasium. Impacts include construction access utilizing Commercial Ave.

## 2024 SUMMER

Monday-Friday daytime hours. Potential relocation of underground utilities where the new retaining wall is going, west of Tubman. ODOT may need to access the back part of the Tubman property for this work during Summer 2024. This is in the preliminary stage of investigation and not yet confirmed to be necessary. If there are utilities requiring relocation, these utilities would be serving our buildings, so we would expect interruptions of service. Continue work on walls from Russell St to the area west of the gymnasium. Commercial Ave used for ODOT access. Does not require Tubman property staging or access.

## 2025 SUMMER ONLY

24/7 schedule planned. Using the back side of Tubman for staging and work. ODOT will create their access on ODOT Right Of Way (Tillamook Ave to PPS property line) and will also use access from Commercial Ave. Staging of equipment and ODOT access will take up the north, south and west sides of school. Remove fencing and pavement. Shaft drilling to create



retaining wall, west of the main school building. Continue work on walls from Russell St south, as well as the noise wall that goes on top of the new retaining wall. Temporary paving and fencing will be restored before the start of the school year.

## 2026 SUMMER ONLY

24/7 schedule possible. Using the back side of Tubman for staging and work. Remove temporary paving and fencing. Finish building the retaining wall. Complete building of the noise wall on top of the retaining wall. Paving and fencing will be restored before the start of the school year

## 2026-27 SCHOOL YEAR

Monday-Friday daytime hours. Construction of the fascia for retaining wall. Construction of the Eliot Viaduct, the area at current freeway level that is west of the Tubman property. Impacts include construction access utilizing Commercial Ave.

## ELIOT VIADUCT

ODOT has informed the district that they have concluded Harriet Tubman staff, students, and district operations will not be harmed by impacts of Eliot Viaduct construction when school is in session. This conclusion does not align with the district's assessment of impacts. District staff have requested specific technical details from ODOT that validate these statements, including current measurements, estimated peak measurements during construction, and anticipated measurements at the time of construction completion for:

- » air quality
- » noise
- » dust/airborne pollution
- » vibration
- » traffic flow and congestion during dropoff and pickup
- » access and circulation impacts for staff, students, families and school buses
- » equipment and construction activity impacts including cranes and swing radius
- » the construction impact upon air filtration equipment that was procured and installed during HTMS' 2017/18 HVAC upgrades

ODOT's responses to information requests have been mixed at best and largely evasive. Specific data on forecasted noise or air measurements (for example) remain unanswered. ODOT has not provided sufficient information to conclude construction of the Eliot Viaduct will not have material negative impacts to staff and students. Therefore the district continues to assert that the impact of Eliot Viaduct construction during school hours will be material and consequential, and has the potential to bring harm to staff and students occupying the site.

# ENVIRONMENTAL REVIEW PROCESS

To date, only cursory outdoor air sampling for particulate matter has been conducted at the PESC and PBOT sites. The cursory sampling ruled out any elevated particulate matter at the time of the sampling only. Any site selected for further analysis would be subject to an EPA-defined Phase I and Phase II Environmental Site Assessment.

A Phase I Environmental Site Assessment will research, catalog, and analyze:

- » Current and historical ownership and activities on the property
- » Existing environmental information related to the property, such as the past or current presence of underground storage tanks, utility lines, etc.
- » Influences from surrounding properties

A Phase II Environmental Site Assessment, when determined to be needed, will include:

- » Environmental sampling (air, soil, water)
- » Geotechnical surveys

# FUNDING

During the 2022 Legislative Session the legislature approved \$120 million in general funds for the District to relocate Harriet Tubman Middle School.

If the funding provided by the State is insufficient to cover the cost of relocation, the District will need to identify other capital funding sources to complete the relocation.

# ENROLLMENT FORECASTS

Enrollment forecasts are used, in part, to determine whether the district will need to add or modify facility space to meet school program or configuration needs. Student enrollment forecasts, combined with building capacity and utilization, provide a framework for facility needs to serve Portland Public Schools' graduate portrait.

The enrollment forecasts presented below were prepared by the Portland State University Population Research Center for Portland Public Schools. These data are based on recent enrollment numbers (October 2020 and

October 2021) and forecast through 2037 for K-5 and Middle School configurations, and the overall district. These data are preliminary; final forecasts are expected for individual schools by March of this year and will forecast enrollment to 2032.

The preliminary 15-year enrollment forecast integrates district enrollment trends with local area population, enrollment, and housing trends. This information is intended to be used as a school planning tool and a basis for community discussions about future school facility needs.

## ENROLLMENT CHANGE 2021-22 THROUGH 2036-37 SUMMARY

CONFIGURATION	2021-22 ENROLLMENT (ACTUAL)	2036-37 (PRELIMINARY FORECASTS)	CHANGE	
K-5	20,324	19,094	1,230	-6%
6-8	10,345	8,603	1,742	-17%
K-12	45,005	39,409	5,596	-12%

## PRELIMINARY ENROLLMENT FORECASTS PROVIDED BY PSU POPULATION RESEARCH CENTER, JANUARY 2022

NAME	PROGRAM	2019-20 (ACTUAL)		2020-21 (ACTUAL)		2021-22 (ACTUAL)		2022-23 (PRELIMINARY FORECAST)	
		ENROLLMENT	UTILIZATION	ENROLLMENT	UTILIZATION	ENROLLMENT	UTILIZATION	ENROLLMENT	UTILIZATION
BOISE-ELIOT	NEIGHBORHOOD	325	50%	327	50%	321	49%	325	50%
IRVINGTON	NEIGHBORHOOD	325	59%	320	58%	248	45%	242	44%
MLK JR	MANDARIN	166	-	181	-	169	-	167	-
	NEIGHBORHOOD	155	-	138	-	128	-	146	-
	TOTAL	321	51%	319	50%	297	47%	313	49%
SABIN	NEIGHBORHOOD	418	69%	360	59%	340	56%	340	56%
HARRIET TUBMAN	MANDARIN	13	-	26	-	35	-	34	-
	NEIGHBORHOOD	417	-	417	-	353	-	340	-
	TOTAL	430	59%	443	61%	388	53%	374	51%
JEFFERSON	NEIGHBORHOOD	641	35%	620	34%	588	32%	607	33%

The nature of forecasting requires some level of speculation, so questions around data integrity are warranted; however, previous forecasts offer a way to validate predictions because of the methodological consistency used by the Population Research Center. When measuring the deviation between forecasted and actual enrollment, estimates from 2010 through the end of 2019 (pre-pandemic) had an error rate of less than 2%, often below 1%.

Primary data sources used to prepare these forecasts include historic enrollments through 2021-22, U.S. Census Bureau 2000 and 2010 Decennial Censuses and 2015 to 2019 American Community Survey, birth data from the Oregon Center for Health Statistics, and housing development information from the City of Portland and Metro.

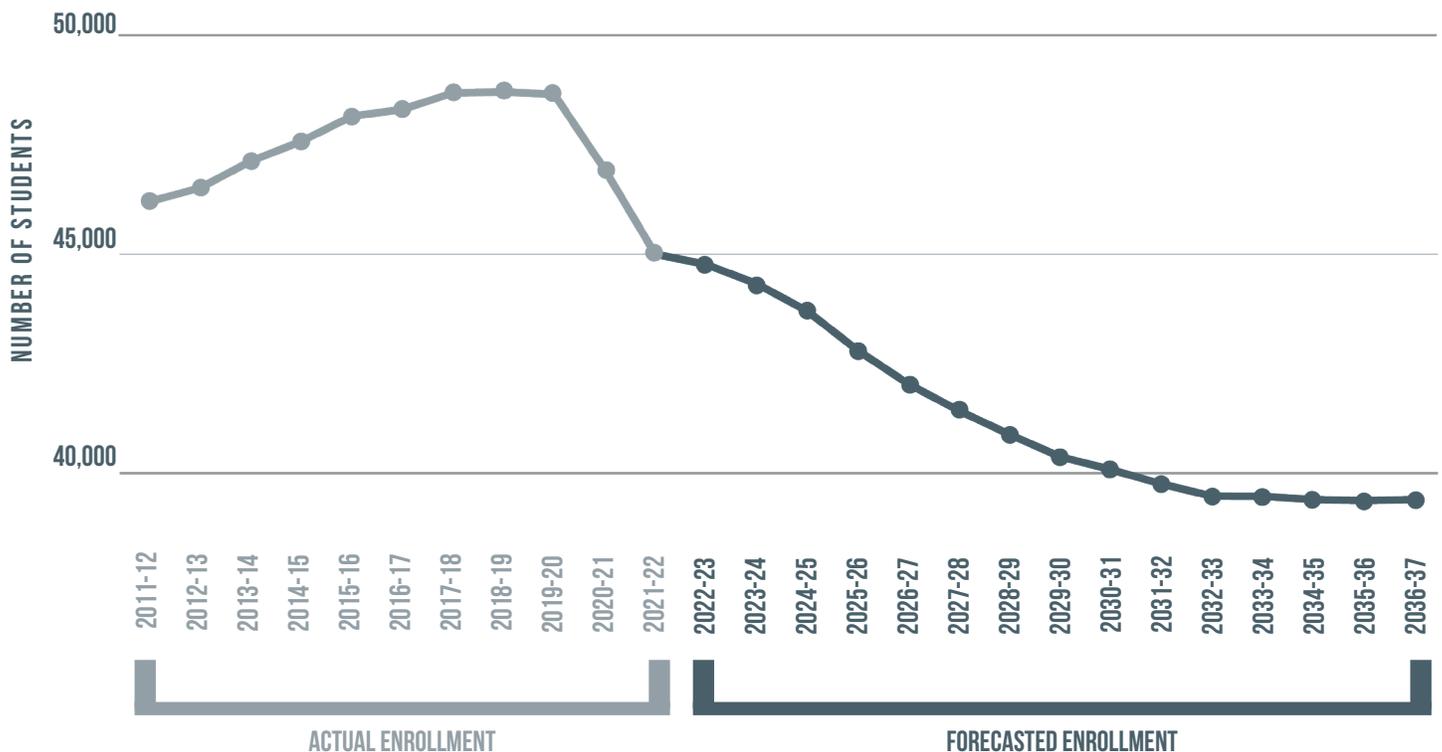
## DISTRICT ENROLLMENT FORECAST

The COVID-19 pandemic significantly shifted enrollment for the 2020-2021 school year. The lasting impact of the pandemic on enrollment remains to be seen but the enrollment decrease for the 2021-2022 school year was commensurate with the decrease from the previous year, suggesting the pandemic will have a durable effect on enrollment.

In fall 2021, the district enrolled 45,005 students in grades K-12, a decrease of 1,932 students from fall 2020. For comparison, the pandemic-related enrollment decline seen in fall 2020 was 1,716.

The most significant decline in the past two years was seen in the lower grades. From 2019-2020 to 2020-2021

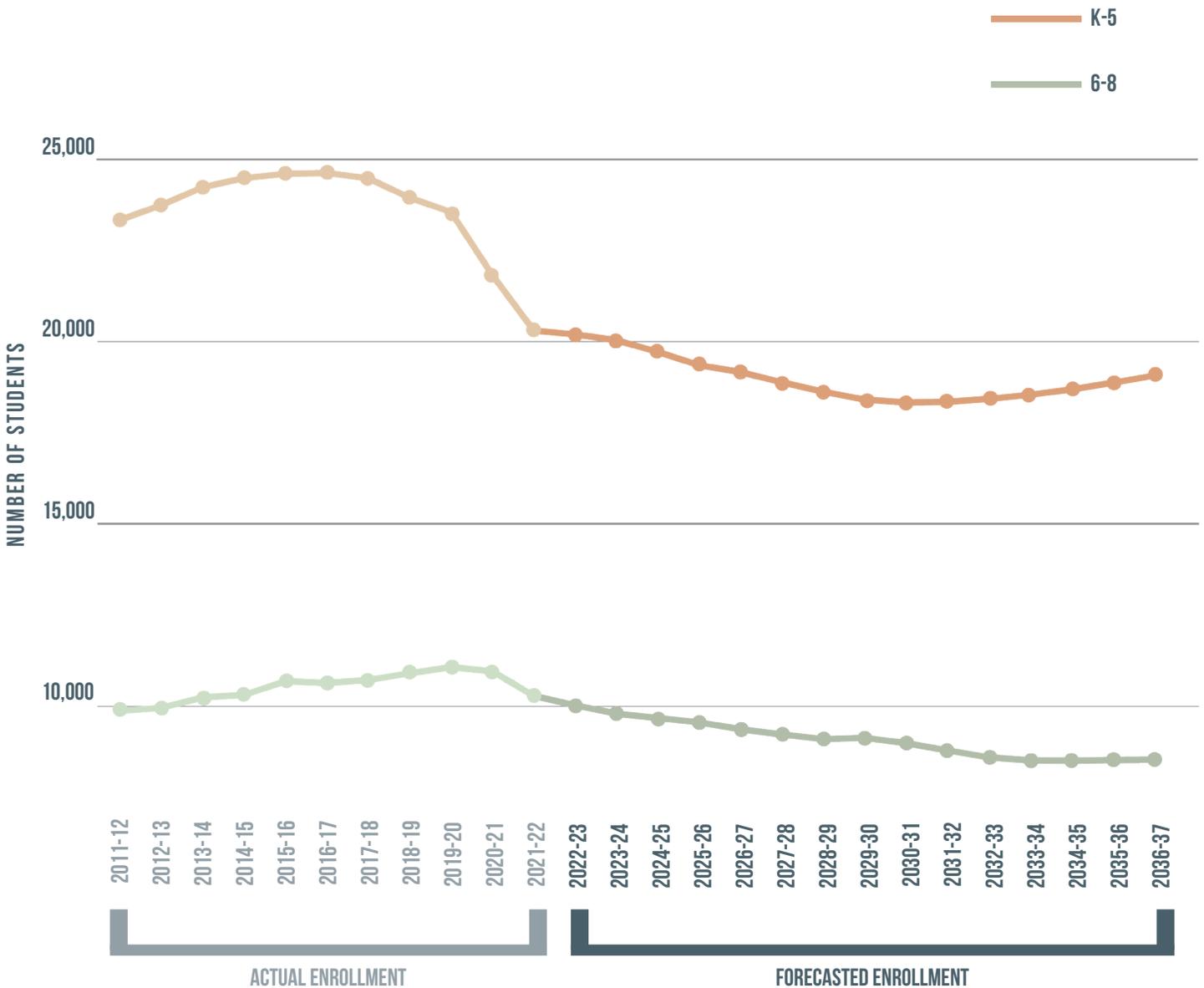
### PRELIMINARY DISTRICT ENROLLMENT FORECASTS



K-2 enrollment declined eight percent. From 2020-2021 to 2021-2022 the enrollment decline was similar at six percent. Demographers with the Portland State University Population Research Center anticipate that enrollment will continue to decline, albeit not as sharply, through the forecast range. In addition to the pandemic, declining birth rates and slower net migration to the Portland region play a significant part in the enrollment decline.

Overall district enrollment is projected to fall throughout the forecast range. By the end of the 15-year forecast in 2036-37, projected enrollment is 39,409 – more than 9000 students below its pre-pandemic 2019-20 level.

### PRELIMINARY CONFIGURATION ENROLLMENT FORECASTS



# ADDITIONAL OPPORTUNITY SITES

The following sites are not currently being considered for the Harriet Tubman Middle School relocation. If any of the additional opportunity sites that follow are considered viable by the Board, district staff can provide deeper analysis similar to what has been provided for the above locations.

# JEFFERSON HIGH SCHOOL (SOUTH LOT)

**ADDRESS**  
5210 N KERBY AVE

**CONSTRUCTION DATE**  
1909 (PRIMARY)

**CURRENT OWNER**  
PORTLAND PUBLIC SCHOOLS

**LEVELS**  
4

**BLDG AREA**  
318,790 SF

**SITE AREA**  
14.02 ACRES

**CLASSROOMS COUNT**  
74

**FUNCTIONAL CAPACITY**  
1,817 STUDENTS

**2021-22 ENROLLMENT**  
588

**ZONING**  
IR INSTITUTIONAL RESIDENTIAL LCU



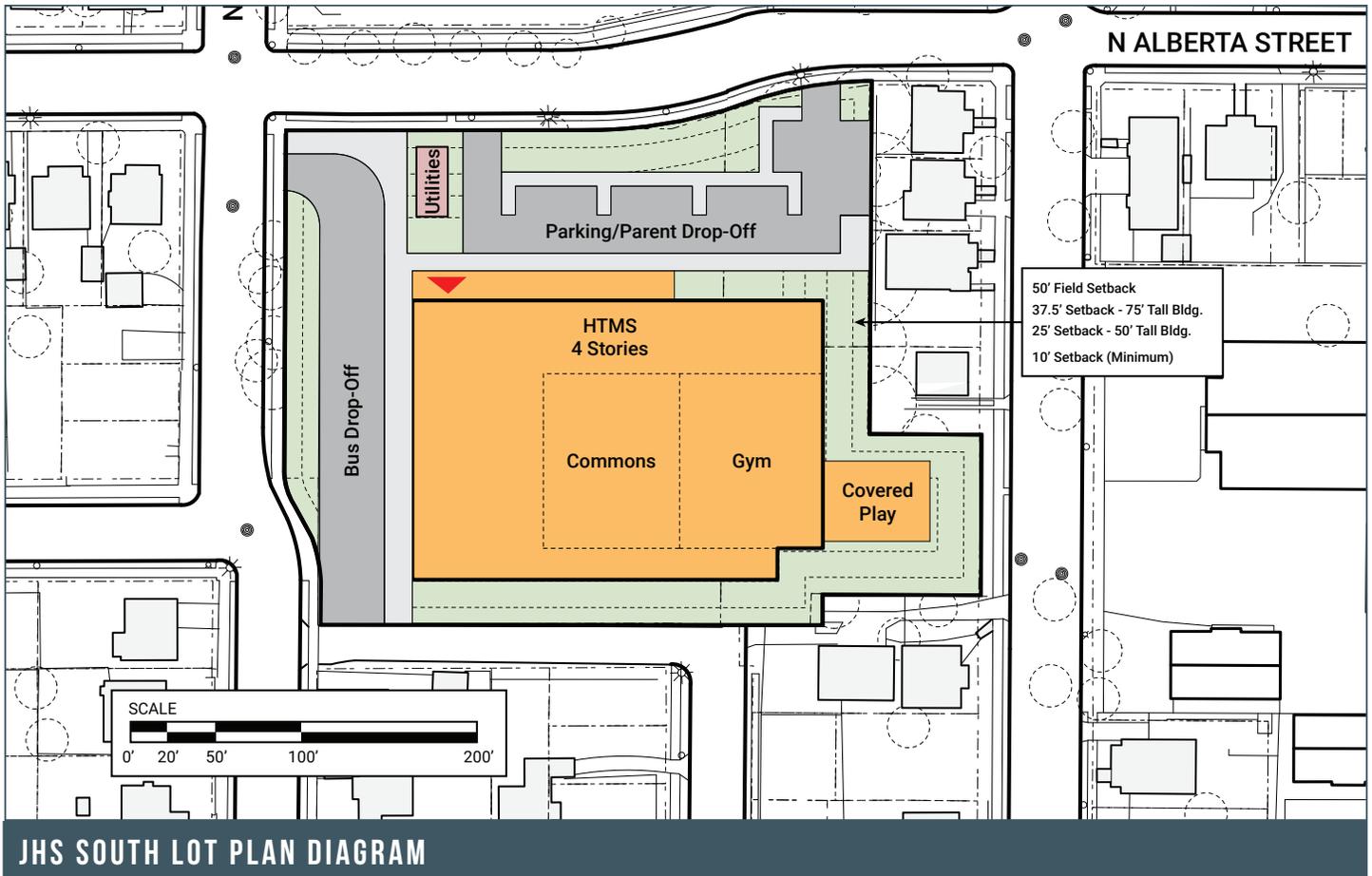


Image by: Bora Architecture & Interiors

## COMMUNITY CONSIDERATIONS

- » Tubman staff have expressed concern about the lack of outdoor amenities for students at the current location. Locating Tubman at Jefferson would likely realize a reduction in outdoor space and amenities.
- » Additional community input will be received in ongoing engagement sessions.

would move Jefferson to a 6-12 school model or co-locating Tubman MS and Jefferson HS in a combined facility, this study focused on the existing vacant parcel south of N Alberta St. The site analysis of Jefferson HS’s main campus was included in Due Diligence Vol.1 and is included in Appendix A. The Jefferson High School modernization conceptual site analysis is available [here](#) for reference.

## LOCATION

- » Jefferson High School is located in the northwest quadrant of the Harriet Tubman catchment area.
- » The Jefferson High School modernization comprehensive master planning is currently underway. Due to the District not currently considering programmatic changes which

## SITE SUITABILITY

- » The vacant parcel south of Alberta is just over two acres; well below the target acreage of 6-9 acres for a comprehensive middle school and smaller than the smallest current middle school site - Tubman (3.1 acres) - and lacks an abutting usable park. Kellogg, by contrast, is 5.8 acres.
- » Utilizing this parcel for a middle school would

alter Jefferson HS comprehensive master planning and would introduce a variety of challenges for both Jefferson and Tubman. The vacant parcel is envisioned as a softball field and parking lot in the Jefferson HS conceptual master plan. The final site plan for Jefferson HS will be determined via the ongoing comprehensive master planning process.

property, there are some anticipated savings to be realized as opposed to having to purchase land. (- \$)

- » Alternative athletic venue(s) would need to be located and potentially leased due to the relatively small land area. (+ \$)

## DEVELOPMENT AVAILABILITY (TIME)

- » The southern vacant parcel of Jefferson is expected to be utilized as swing space to temporarily house Jefferson students during construction and will be unavailable for development until 2026. Beginning construction in 2026 would push the Tubman reopening date to 2028 and require Tubman students to be housed at a temporary location for 2 years. Tubman planning and design would be scheduled to align with the beginning of construction.
- » Further, there is a sewer line running through the property that would need to be relocated and a pressurized natural gas (above ground) facility that would also need to be relocated. There is no estimate on time required to negotiate these changes with the utilities or cost associated with the relocations.

## OPERATIONAL SUSTAINABILITY

- » Locating Harriet Tubman middle school on this site utilizes existing district property. Construction of a new middle school at this site would require all new construction.

## COST CONSIDERATIONS

### Conceptual Cost Estimate Ranges: \$139M to \$164M

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:
- » **LAND** - Because the District already owns the

	JEFFERSON COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$59,446,450	\$70,596,750
SOFT COSTS	15%	\$8,916,968	\$10,589,513
FFE	10%	\$6,836,342	\$8,118,626
SITE DEVELOPMENT	12%	\$9,023,971	\$10,716,587
SWING SITE	5%	\$4,211,187	\$5,001,074
ADMINISTRATION	4%	\$3,537,397	\$4,200,902
CONTINGENCY	15%	\$13,795,847	\$16,383,518
ESCALATION	VARIES	\$32,883,270	\$38,602,099
TOTAL		\$138,651,430	\$164,209,068
<b>ROUNDED TOTAL</b>		<b>\$139,000,000</b>	<b>\$164,000,000</b>

## ACADEMIC SUITABILITY

- » Due to the limited size of the site, this option does not provide the ability to construct a school to meet all middle school education specification requirements.
- » If this site were to be used, exterior athletic fields and play areas would have to be shared with Jefferson and would be located across Alberta Street. Use of this site also impedes the ability to meet the high school educational specifications for athletics

## FURTHER CONSIDERATIONS

- » The District is not considering a programmatic change to a 6-12 school model or co-locating Tubman MS and Jefferson HS in a combined facility. Therefore, only the southern parcel at the Jefferson site has been included in the analysis.
- » PPS continues to investigate a utility easement and related facilities located on the site.

## SUMMARY

- » The Jefferson HS southern parcel has the benefit of being located within the existing Tubman catchment area and land currently owned by PPS. However the site has considerable challenges including being too small to site a comprehensive middle school.

## RECOMMENDED NEXT STEPS

- » Due to the size of the parcel, staff recommends pausing further analysis of the Jefferson southern parcel.

JEFFERSON HS CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027	2028
Site Selection							
Property Negotiations							
Property Due Diligence							
<b>Relocate Existing Programs</b>							
Procurement							
<b>Master Planning</b>							
<b>Design</b>							
<b>Construction</b>							
<b>Swing Site</b>							
Tubman MS Opens							

\*Schedule Risk: The Southern parcel will be utilized as a swing site until 2026

# HUMBOLDT ELEMENTARY

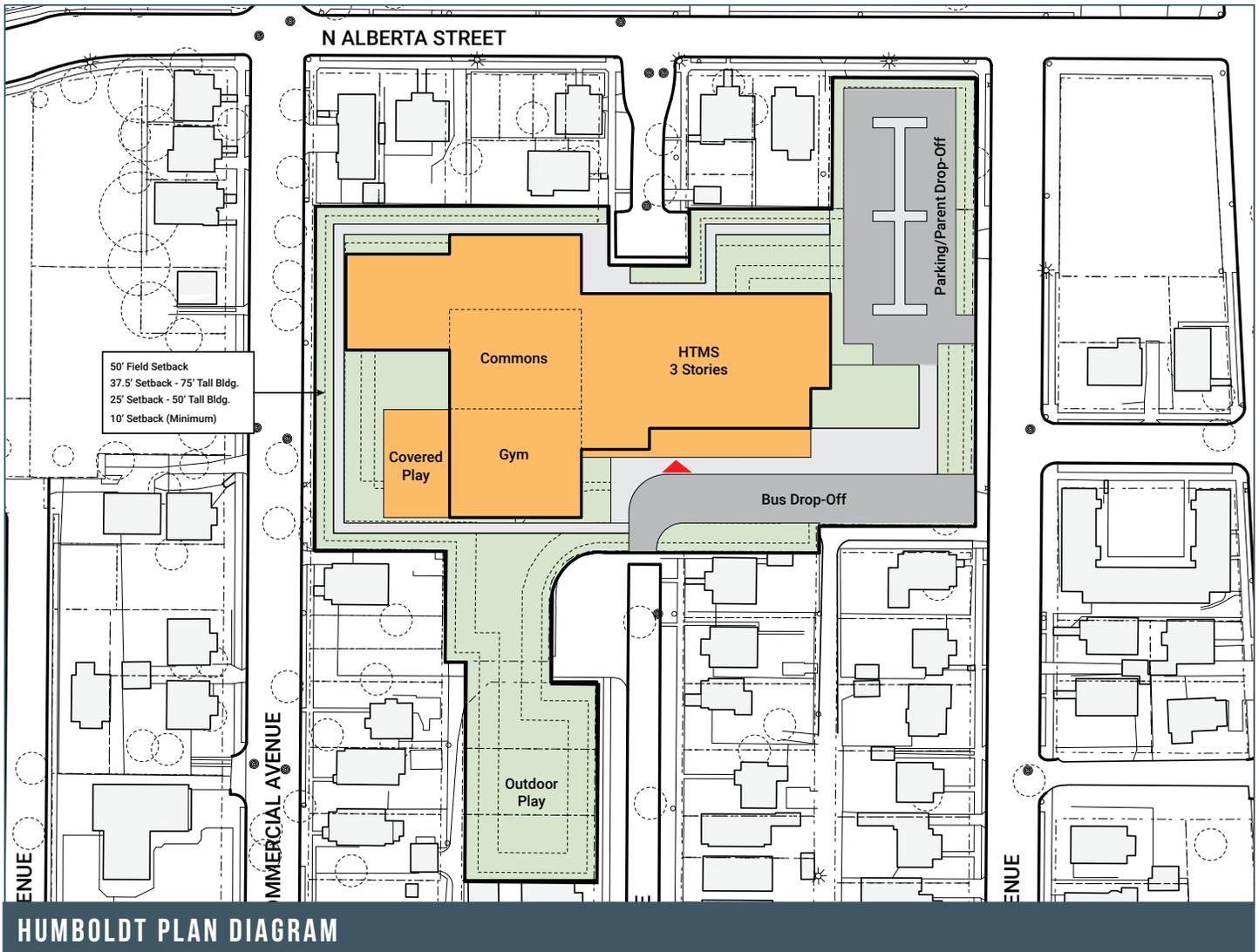
ADDRESS  
4039 NE ALBERTA CT

SITE AREA  
2.98 ACRES

ZONING  
RM2 RESIDENTIAL MULTI-DWELLING  
R2.5 RESIDENTIAL 2500



## HUMBOLDT ELEMENTARY



**HUMBOLDT PLAN DIAGRAM**

Image by: Bora Architecture & Interiors

### LOCATION

- » Humboldt is located within the HTMS catchment area and is adjacent to Jefferson High School. It is currently under a long term lease agreement with Kairos, a PPS charter school.

middle school with some limited site amenities, however the site is oddly configured and use of the vacant parcel connect to Jefferson HS - south of N Alberta St - may be necessary for site amenities such as parking and athletic space. The combination of these two parcels is approximately 5 acres.

### SITE SUITABILITY

- » The site is 2.98 acres; about the same size as the existing Tubman property but without the benefit of an adjacent usable park and well below the target acreage of 6-9 acres for a comprehensive middle school. It is also oddly shaped.
- » Zoning: the site is split zoned and conceptually has enough area to site a 3 story comprehensive

### DEVELOPMENT AVAILABILITY (TIME)

- » The site is currently not available due to the long term lease with KairosPDX, a PPS charter school.

### OPERATIONAL SUSTAINABILITY

- » PPS owns the current Humboldt property but has

a current long-term lease with KairosPDX, a PPS charter school.

### COST CONSIDERATIONS

#### Conceptual Cost Estimate Ranges: \$140M to \$166M

Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:

- » **LAND** - TThe District already owns the property, no land purchase costs are estimated. (- \$)
- » Costs associated to compensate Kairos for the long-term lease are not included.

	HUMBOLDT COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$60,468,442	\$71,638,586
SOFT COSTS	15%	\$9,070,266	\$10,745,788
FFE	10%	\$6,953,871	\$8,238,437
SITE DEVELOPMENT	12%	\$9,179,109	\$10,874,737
SWING SITE	5%	\$3,824,629	\$4,531,141
ADMINISTRATION	4%	\$3,579,853	\$4,241,148
CONTINGENCY	15%	\$13,961,425	\$16,540,476
ESCALATION	VARIES	\$33,308,504	\$38,998,155
TOTAL		\$140,346,099	\$165,808,468
<b>ROUNDED TOTAL</b>		<b>\$140,000,000</b>	<b>\$166,000,000</b>

school programming and a target enrollment of 675 students and there is space to provide outdoor amenities including play areas during recess, open space for physical education and sports. This option assumes sharing outdoor space with Jefferson High School on the parcel south of N Alberta St and across Alberta from the main school building. It is anticipated these shared spaces would be planned so students would not need to cross Commercial Ave. during recess..

### FURTHER CONSIDERATIONS

- » Consideration should be given to the overall plan of the Jefferson modernization and flexibility of the outdoor space and impact an adjacent middle school would have.

### SUMMARY

- » The Humboldt site has many beneficial characteristics including being owned by PPS and within the existing Tubman catchment area. However the site is not available for development due to the existing long-term lease.

### RECOMMENDED NEXT STEPS

- » Due to the existing lease Staff recommends pausing additional analysis of this site.

### ACADEMIC SUITABILITY

- » This option allows the ability to construct a school to meet all middle school education specification requirements. Interior spaces can support middle

HUMBOLDT CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027
Site Selection						
Property Negotiations						
Property Due Diligence						
Relocate Existing Programs						
Procurement						
Master Planning						
Design						
Construction						
Swing Site						
Tubman MS Opens						

# JEFFERSON HIGH SCHOOL (MAIN LOT)

**ADDRESS**  
5210 N KERBY AVE

**CONSTRUCTION DATE**  
1909 (PRIMARY)

**CURRENT OWNER**  
PORTLAND PUBLIC SCHOOLS

**LEVELS**  
4

**BLDG AREA**  
318,790 SF

**SITE AREA**  
14.02 ACRES

**CLASSROOMS COUNT**  
74

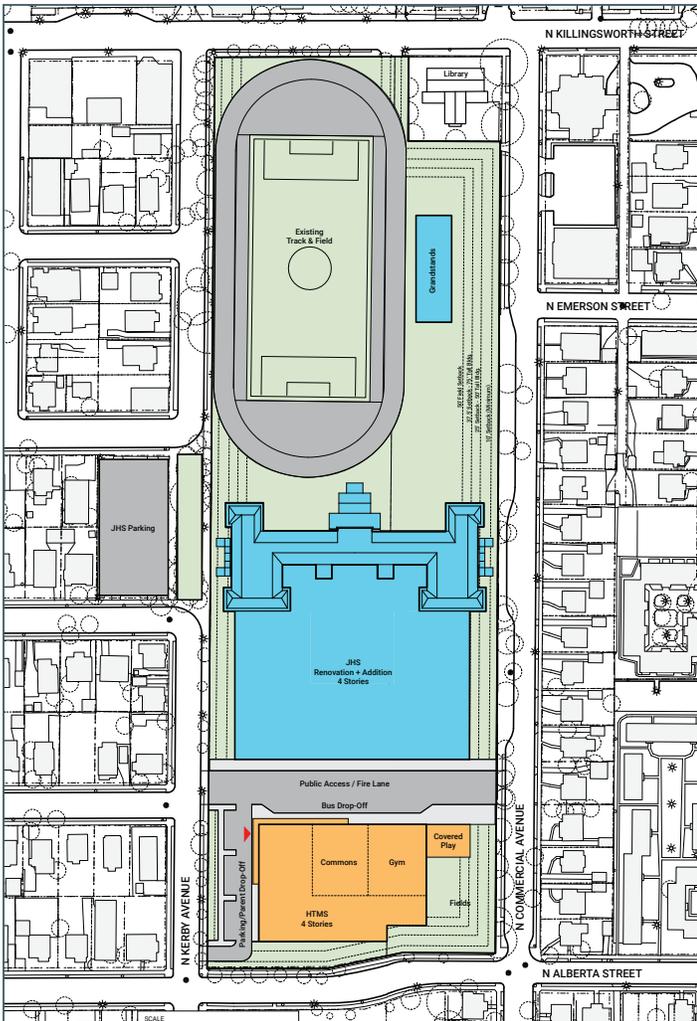
**FUNCTIONAL CAPACITY**  
1,817 STUDENTS

**2021-22 ENROLLMENT**  
588

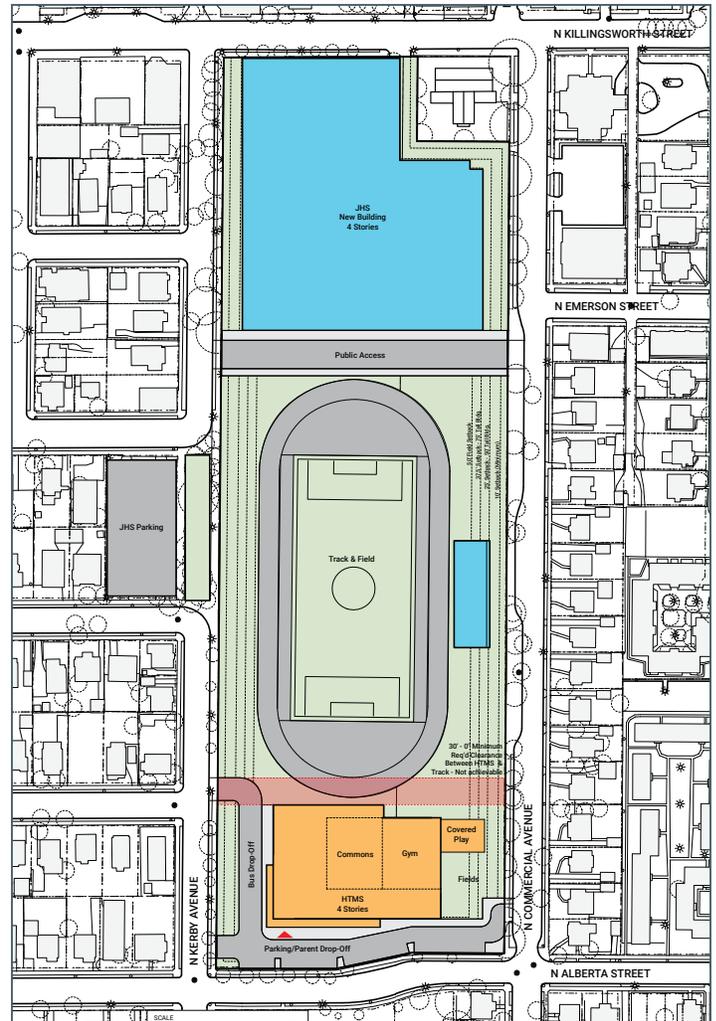
**ZONING**  
IR INSTITUTIONAL RESIDENTIAL LCU



## JEFFERSON HIGH SCHOOL (MAIN LOT)



JHS MAIN LOT PLAN DIAGRAM - RENOVATE



JHS MAIN LOT PLAN DIAGRAM - REBUILD NEW

Images by: Bora Architecture & Interiors

### COMMUNITY CONSIDERATIONS

- » Community concern has been expressed around the co-location of middle and high school students as well as the material reduction in outdoor space for both schools
- » Tubman staff have expressed concern about the lack of outdoor amenities for students at the current location. Co-locating Tubman at Jefferson would result in a reduction in outdoor space and amenities.

### LOCATION

- » Jefferson High School is located in the northwest quadrant of the Harriet Tubman catchment area.

### SITE SUITABILITY

- » The most significant site constraint is the size of the Jefferson main lot at 11 acres. 11 acres is too small to site all the necessary elements for a comprehensive high school, adding a comprehensive middle school to the site would exacerbate the site constraints.

- » Co-locating Tubman on this site would materially limit outdoor play and athletic space for both schools as well as parking, circulation and bus access.
- » Further the site is considered a “super block” by the City of Portland and development will require new bike and pedestrian access further breaking up the site.
- » With both schools sited at this location, all outdoor space (possibly including the track depending on the final layout) except the football field and covered play area will be lost. Please see plan diagrams above for sample site layouts..

**DEVELOPMENT AVAILABILITY (TIME)**

- » If Jefferson and Tubman are to be co-located on the same parcel, considerable planning will need to take place to carefully stage and phase the work.
- » The [Jefferson High School Conceptual Master Plan](#) assumed Jefferson students and staff would use vacant parcel south of N Alberta St during construction as temporary classroom space, as well as portions of the existing school (such as the theater and commons) until new structures are in place.
- » The southern part of the main parcel would be needed for construction staging area. If this assumption holds for a co-location with Tubman, it is likely that construction would not be able to begin on Tubman until 2026 or later, requiring students to remain at a temporary location for 2 or more years.

**OPERATIONAL SUSTAINABILITY**

- » Locating Harriet Tubman middle school on this site utilizes existing district property. Construction of a new middle school at this site would require all new construction.

**COST CONSIDERATIONS**

**Conceptual Cost Estimate Ranges: \$139M to \$164M**

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:
  - » **LAND** - Because the District already owns the property, there are some anticipated savings to be realized as opposed to having to purchase land. (- \$)
  - » Alternative athletic venue(s) would need to be located and potentially leased due to the relatively small land area. (+ \$)

	JEFFERSON COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$59,446,450	\$70,596,750
SOFT COSTS	15%	\$8,916,968	\$10,589,513
FFE	10%	\$6,836,342	\$8,118,626
SITE DEVELOPMENT	12%	\$9,023,971	\$10,716,587
SWING SITE	5%	\$4,211,187	\$5,001,074
ADMINISTRATION	4%	\$3,537,397	\$4,200,902
CONTINGENCY	15%	\$13,795,847	\$16,383,518
ESCALATION	VARIES	\$32,883,270	\$38,602,099
TOTAL		\$138,651,430	\$164,209,068
<b>ROUNDED TOTAL</b>		<b>\$139,000,000</b>	<b>\$164,000,000</b>

JEFFERSON HS CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027	2028
Site Selection							
Property Negotiations							
Property Due Diligence							
<b>Relocate Existing Programs</b>							
Procurement							
<b>Master Planning</b>							
<b>Design</b>							
<b>Construction</b>							
<b>Swing Site</b>							
Tubman MS Opens							

## ACADEMIC SUITABILITY

- » The co-location of two noncontiguous buildings on the Jefferson main site can be accommodated on the site only at the expense of athletic educational specifications for the high school. This would impact the practice fields as well as the baseball and softball fields, and tennis courts. The outdoor play area for the middle school would be severely limited, making outdoor gatherings, recess, etc. challenging.

## RECOMMENDED NEXT STEPS

- » Given the significant physical constraints and educational concerns of colocation, staff does not recommend considering this option further.

## FURTHER CONSIDERATIONS

- » Jefferson is currently in the process of being master planned for modernization with construction slated to begin in 2024. Incorporating the Harriet Tubman Middle School relocation into the project would require beginning an entirely new project and would put the reopening date of 2028 at risk. Additional costs would be associated with any material project delay.
- » Currently Jefferson students are expected to remain on site during construction (in much the same manner as Lincoln) however, co-locating would require displacement of students from both schools to swing sites for the duration of the project. Further, the density of the site creates problems with vehicular and pedestrian access and parking.

## SUMMARY

- » Siting Tubman on the Jefferson HS site has the benefit of locating the school within the existing Tubman catchment area and land currently owned by PPS. However co-locating two schools on such a small site would create material negative impacts for both schools and overburden the constrained site.

# PESC

**ADDRESS**  
501 N. DIXON ST

**CONSTRUCTION DATE**  
1979

**CURRENT OWNER**  
PORTLAND PUBLIC SCHOOLS

**SITE AREA**  
10.15 ACRES

**ZONING**  
EX - CENTRAL EMPLOYMENT

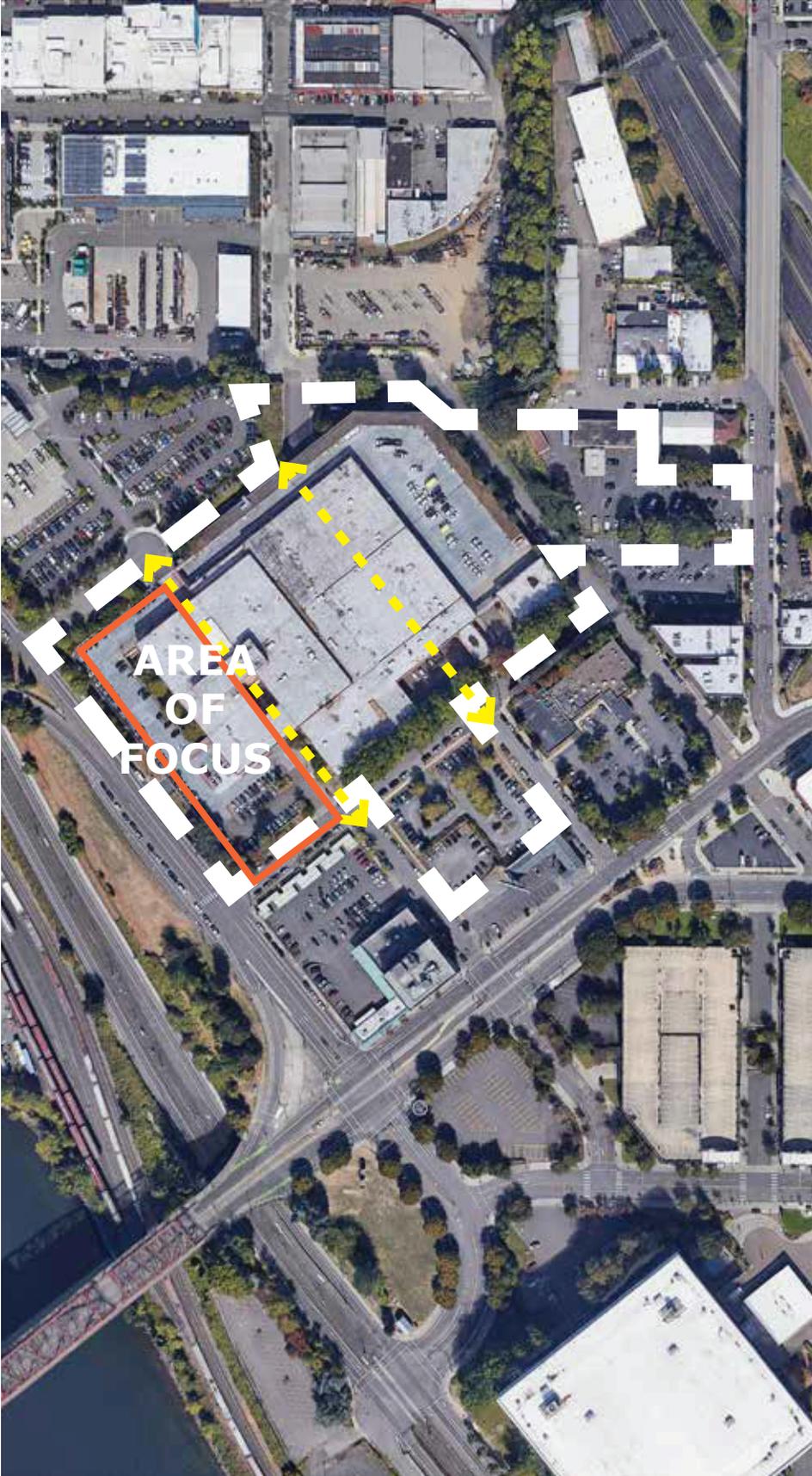




Image by: Mahlum Architects

## COMMUNITY CONSIDERATIONS

- » Families express the future of the PESC’s surrounding neighborhood needs to be clearly defined
- » Acknowledgement that option is in catchment area, meanwhile not a desirable option for engaged families
- » Additional community input will be received in ongoing engagement sessions.

(see conceptual drawing).

- » The nearest residential area is to the northeast surrounding Irvington Elementary School.
- » I-5 is nearly contiguous to the northeast portion of the site, albeit in an area planned to be covered in the forthcoming freeway expansion.
- » Zoning: the PESC site is zoned Central Employment (EX); schools are allowed outright on this site. No conditional use review would be necessary.
- » The area to the north of the parcel is zoned for industrial use; to the south, the zoning is intended to support high-density commercial use.

## LOCATION

- » PESC is located in the southwest region of the Harriet Tubman Catchment area.

## SITE SUITABILITY

- » With over 10 acres of land, PESC contains sufficient land area to support a middle school program.
- » The pedestrian infrastructure reflects the site’s industrial past and new development would likely re-establish the connections to the neighborhood

## DEVELOPMENT AVAILABILITY (TIME)

- » Before building a middle school at the PESC site, the existing administrative functions would need to be relocated to another site(s). PESC currently supports nearly 600 district employees as well as County staff in the portion of the building leased to Multnomah County. District services supported in the building range from educational support staff (e.g., program directors, administrative coaches, and the like) to instructional material storage in the warehouse.

- » To be sure, PESC is the district’s largest building at 361,000 square feet. A suitable replacement site or, more likely, multiple replacement sites would need to be identified, funded, acquired (lease or purchase), and improved for the relocation of district staff before construction on a new middle school could begin.
- » Locating, procuring and improving locations for the District’s administrative and operational functions will require complex and lengthy real estate decisions with no prescribed timeline. If new locations for current PESC users and functions cannot be secured in time to meet the current timeline, Tubman students will be required to stay in a temporary location longer than 1 year. If new locations for current PESC users and functions cannot ultimately be secured, the Tubman relocation process will need to begin anew.
- » This risk is highlighted below in the schedule table.

**OPERATIONAL SUSTAINABILITY**

- » Locating Harriet Tubman middle school on the PESC site utilizes existing district assets, and so is efficient in this regard, however, relocating the various administrative functions introduces necessary downstream real estate requirements. The existing administrative and operational functions would need to be supported at another location, albeit with a potentially smaller footprint for some staff as remote work considerations may persist beyond the pandemic.
- » Construction of a new middle school at this site would require demolition of a large building and all new construction.

**COST CONSIDERATIONS**

**Conceptual Cost Estimate Ranges: \$169M to \$196M.**

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:

**LAND**

- » The District already owns the property, no land purchase costs are estimated. (- \$)

**HARD COSTS**

- » It’s assumed a new building would be built as opposed to renovating the existing. The building is very large at 361,000 SF, and will require extensive demolition, abatement, and site restoration to get it to a suitable condition for building new. (+ \$)

**SITE DEVELOPMENT**

- » We Anticipate extensive public ROW work to make it suitable for a school that is located near an industrial area and major vehicle thoroughfares. We also anticipate the PBOT will require reconnecting the street grid through the property. (+ \$)

	PESC COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$68,742,200	\$80,073,000
SOFT COSTS	15%	\$10,311,330	\$12,010,950
FFE	10%	\$7,905,353	\$9,208,395
SITE DEVELOPMENT	18%	\$15,652,599	\$18,232,622
SWING SITE X 2	5%	\$4,347,944	\$5,064,617
ADMINISTRATION	4%	\$4,278,377	\$4,983,583
CONTINGENCY	15%	\$16,685,670	\$19,435,975
ESCALATION	VARIES	\$40,973,903	\$46,955,331
TOTAL		\$168,897,376	\$195,964,474
<b>ROUNDED TOTAL</b>		<b>\$169,000,000</b>	<b>\$196,000,000</b>

**ADMINISTRATIVE RELOCATION**

- » The provided cost range excludes costs to relocate current PESC users and functions. The District is currently working with a 3rd party consultant to update this analysis, which is anticipated to be complete by early Fall.
- » Costs to relocate administrative functions and construct a new Tubman MS on the current PESC site will far exceed the \$120 million provided by the State. Sale of portions of the PESC site (unused for the new school) and/or the current Tubman property could support offsetting costs.

## ACADEMIC SUITABILITY

- » The PESC site allows the ability to construct a school to meet all middle school education specification requirements. Interior spaces would support middle school programming and a target enrollment of 675 students. Exterior spaces would accommodate the covered play area and the fields.
- » Preliminary site plans indicate the site may be bifurcated by a new public street, careful planning would be necessary to ensure students do not need to cross a street during recess.

carries significant risk, including the unknown feasibility that suitable locations can be found and procured for existing PESC functions and the associated costs or PESC relocation.

## RECOMMENDED NEXT STEPS

- » Given the concerns over the PESC location, staff recommends pausing further investigation of the PESC site as an option for HTMS relocation.

## FURTHER CONSIDERATIONS

- » Albina Vision Trust (AVT) has a Right of First Offer (ROFO) in the event the district chooses to sell. Additionally, there is a 99-year lease with the County which is subservient to the AVT ROFO but should AVT pass on the opportunity, the County is next in line so there are timing and legal complexities.

## SUMMARY

- » The PESC site incorporates beneficial characteristics including sufficient acreage and location within the current Tubman catchment area. However development of the PESC also

BESC CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027
Site Selection						
Property Negotiations						
Property Due Diligence						
<b>Relocate Existing Programs/Departments*</b>						
Procurement						
Master Planning						
Design						
Construction						
Swing Site						
Tubman MS Opens						

\* Schedule Risk: Creating a plan and implementing it to relocate several District programs is a critical task that contains schedule impact risks.

# MEEK PROF TECH SCHOOL

**ADDRESS**  
4039 NE ALBERTA CT

**CONSTRUCTION DATE**  
1953 (PRIMARY)

**LEVELS**  
1

**BLDG AREA**  
35,945 SF

**SITE AREA**  
5.38 ACRES

**CLASSROOMS COUNT**  
16

**CAPACITY**  
441 STUDENTS

**ZONING**  
R5 RESIDENTIAL 5,000 CU





Images by: Mahlum Architects

## COMMUNITY CONSIDERATIONS

- » Meek will not work for many Irvington families due to increased distance
- » Boise-Elliott expressed Beaumont or Ockley Green is a better MS options than Tubman for many families, with the proposed site options
- » With this option, a large bussing implication is anticipated for families at multiple feeder schools
- » Additional community input will be received in ongoing engagement sessions.

## LOCATION

- » Meek is located less than a mile from the eastern edge of the existing Harriet Tubman catchment area.

## SITE SUITABILITY

- » With over five acres, Meek would be one of the smallest middle schools in the district portfolio (only Tubman and Sellwood are smaller) but could support middle school programming with careful site design and early consideration of athletics space requirements.
- » The site is embedded within a predominantly single-dwelling zone, with a commercial core one block to the east. The pedestrian network surrounding the site reflects its residential character. Meek is well-connected to the surrounding neighborhood by existing sidewalks and low-traffic streets.
- » Zoning: the Meek site is zoned R5 Residential 5,000 CU. Single-family zones have development restrictions - including building size maximums, lot coverage maximums, building setbacks and overall height limits, to name a few - that restrict the size and shape of buildings in the zone. Schools are not allowed by right on this site. A conditional use review would be necessary.

MEEK CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027
Site Selection						
Property Negotiations						
Property Due Diligence						
Relocate Existing Programs						
Procurement						
Master Planning						
Design						
Construction						
Swing Site						
Tubman MS Opens						

### DEVELOPMENT AVAILABILITY (TIME)

- » The Alliance program currently uses the building. Once Alliance relocates to the Benson campus in August 2024, Meek will be available.

### OPERATIONAL SUSTAINABILITY

- » Locating Harriet Tubman middle school on the Meek campus would realize some operational savings by utilizing an underutilized district asset. Meek is undersized and would require additional square footage to house a middle school. The overall Facility Condition Index (FCI) - the ratio of a building’s maintenance costs relative to the cost of replacing the building at current construction costs - is .09 (which is considered “fair” condition), suggesting renovation with a new addition is the likely construction option.
- » Being located outside the existing catchment area will necessitate additional bussing for all of, or most of, the school population.
- » Locating a school outside the existing catchment area necessitates consideration of realignment of school enrollment boundaries. School enrollment changes are lengthy, complex processes that require thoughtful analysis of all outcomes and robust stakeholder engagement. The district is unable to predict future enrollment changes if Tubman is to be relocated outside the existing catchment area.

### COST CONSIDERATIONS

#### Conceptual Cost Estimate Ranges: \$140M to \$166M

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include
  - » **LAND**
  - » The District already owns the property, no land purchase costs are estimated. (- \$)
  - » Alternative athletic venue(s) would need to be located and potentially leased due to the relatively small land area. (+ \$)

	MEEK COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		NA	NA
HARD COSTS		\$60,217,354	\$71,382,623
SOFT COSTS	15%	\$9,032,603	\$10,707,393
FFE	10%	\$6,924,996	\$8,209,002
SITE DEVELOPMENT	12%	\$9,140,994	\$10,835,882
SWING SITE	5%	\$4,265,797	\$5,056,745
ADMINISTRATION	4%	\$3,583,270	\$4,247,666
CONTINGENCY	15%	\$13,974,752	\$16,565,897
ESCALATION	VARIES	\$33,332,877	\$39,051,706
TOTAL		\$140,472,642	\$166,056,913
<b>ROUNDED TOTAL</b>		<b>\$140,000,000</b>	<b>\$166,000,000</b>

## ACADEMIC SUITABILITY

- » The Meek site allows the ability to construct a school to meet all middle school education specification requirements. Interior spaces would support middle school programming and a target enrollment of 675 students.
- » Consideration of covered outdoor learning spaces for physical education as well as athletic fields would have to be examined in the planning.

## SUMMARY

- » The Meek site contains many desirable characteristics including currently being PPS owned property, within an established neighborhood, available for construction per schedule and one of the least cost options considered to date. However, Meek is located outside the existing Tubman catchment area. The district is unable to predict future enrollment changes if Tubman is to be relocated outside the existing catchment area. Additionally whole school busing raises operational and neighborhood concerns.

## RECOMMENDED NEXT STEPS

- » Considering the impacts of relocating Tubman outside the existing catchment area (including busing and school boundary considerations) staff recommends pausing further analysis of the Meek site.

# LLOYD CENTER

**ADDRESS**

2201 NE LLOYD CENTER

**CURRENT OWNER**

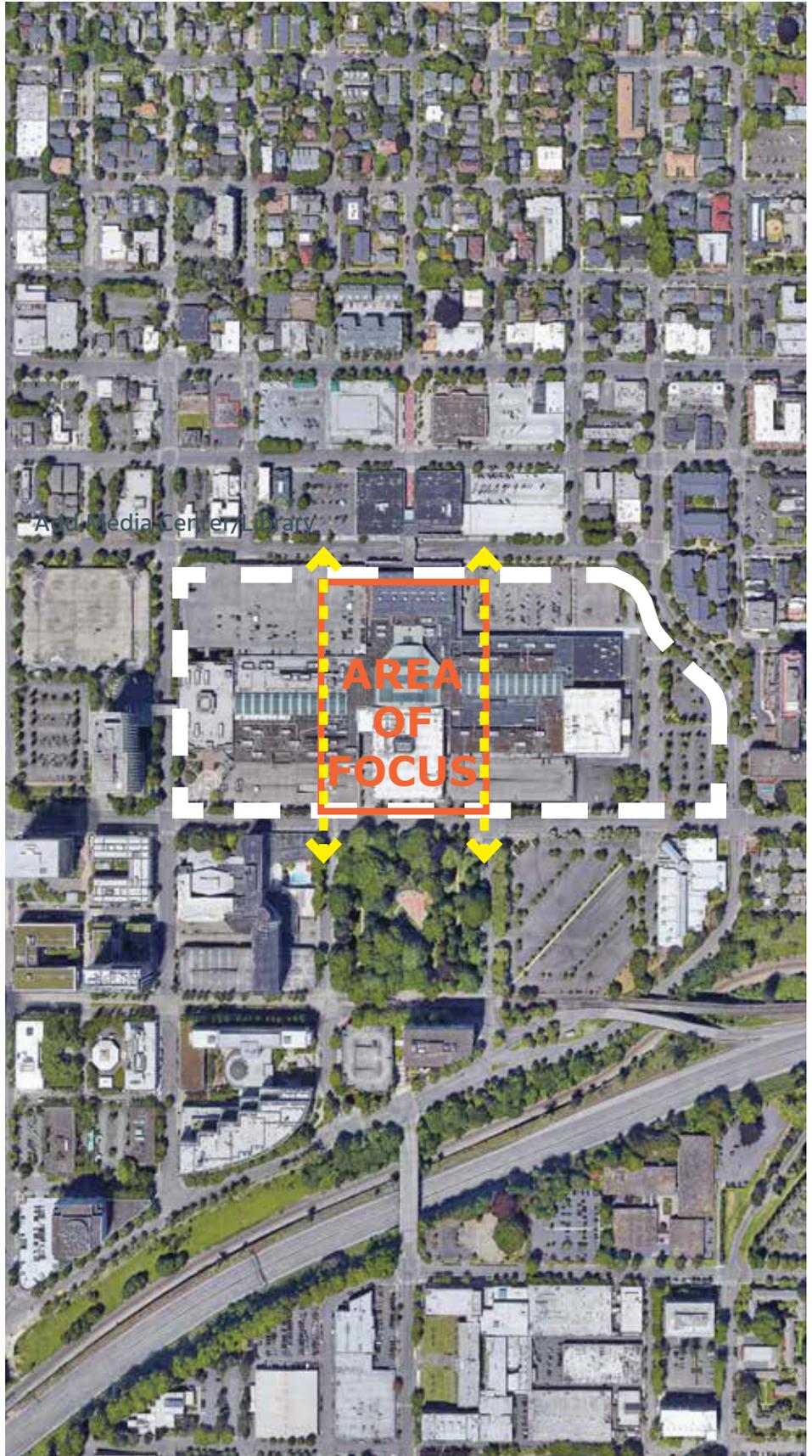
LLOYD CENTER LLC

**SITE AREA**

24.25 ACRES

**ZONING**

CX - CENTRAL COMMERCIAL



	EXISTING CONDITION			WHAT FITS?		
	existing building footprint	remaining allowed area (FAR)	remaining footprint (site coverage)	building area	stories	student capacity (rough)
LLOYD	confirm portions of building to remain	4,225,320	1,056,330	119,000	2	675

**Summary:** Site is large enough to add an Ed Spec middle school. Next step is to confirm optimal site area to accommodate school and site elements.



FIGURE 02 KELLOGG MS FOOTPRINT ON LLOYD SITE

FIGURE 01 SITE AREA ANALYSIS

### COMMUNITY CONSIDERATIONS

- » Outside catchment area, but has potential to encourage commuting for families
- » May bring other students in due to its location and ability to commute
- » Also in close proximity to a freeway
- » In a commercial area, which presents trade offs with residential area options
- » Additional community input will be received in ongoing engagement sessions.

### LOCATION

- » The Lloyd Center sits two blocks south of the existing Harriet Tubman catchment boundary.

### SITE SUITABILITY

- » Lloyd Center is over 24 acres. All or part of the Lloyd Center parcel would be sufficient to support middle school programming.
- » The site is embedded within a predominantly commercial zone, reflecting the heritage of the shopping center. The pedestrian network surrounding the site is typical for Portland’s urban core. The area to the south is severed by I-84. To the north, NE Weidler and SE Broadway offer access to commercial activity but also interrupt access to the Irvington neighborhood.
- » Zoning: the Lloyd Center site is zoned Central Commercial (CX); schools are allowed outright

on the site. No conditional use process would be necessary.

- » Figure 02 overlays Kellogg Middle School on the Lloyd Center site.. The solid orange shape is the Kellogg site and the lighter orange outline is the building. While not a true test-fit, the overlay illustrates the approximate suitability for the site to support a three-story middle school.

### DEVELOPMENT AVAILABILITY (TIME)

- » Lloyd Center is currently under new management and long term master planning has begun. The desire on the part of the owners is to maintain office and retail at this location.
- » Utilizing part of the Lloyd site for Harriet Tubman middle school would require complex property negotiations likely to take months or years. Prolonged negotiations could require Tubman students to stay in a temporary location longer than 1 year. If property negotiations are ultimately unsuccessful, the Tubman relocation process will need to start over.

### OPERATIONAL SUSTAINABILITY

- » Locating HTMS at Lloyd Center would bring a new asset into the District’s portfolio and require either new construction..
- » Being located outside the existing catchment area will necessitate additional bussing for all of, or most of, the school population.

## LLOYD CENTER

- » Locating a school outside the existing catchment area necessitates consideration of realignment of school enrollment boundaries. School enrollment changes are lengthy, complex processes that require thoughtful analysis of all outcomes and robust stakeholder engagement. The district is unable to predict future enrollment changes if Tubman is to be relocated outside the existing catchment area. That said, Lloyd Center is close to the existing Tubman catchment area and overall impacts may be lesser compared to locations
- » The cost estimate assumes demolition of a portion of the existing buildings to make room for construction of a new school.
- » Costs to relocate Tubman MS to the Lloyd Center site will far exceed the \$120 million provided by the State.

## FURTHER CONSIDERATIONS

- » With a twenty year redevelopment plan, HTMS would be located in a significant construction area for many years.

## COST CONSIDERATIONS

### Conceptual Cost Estimate Ranges: \$205M to \$284M

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include:
  - » **LAND:** The District would need to purchase/lease a portion or all of the property. The site is considered desirable commercial real estate with highest and best uses of dense commercial development. The cost to purchase this property likely exceeds the high end of the initial cost estimate range. (+ \$)
  - » We assume the need to purchase approximately eight (8) acres of property in the cost estimate.
  - » **HARD COSTS:** The existing site is very large at 24 acres and is composed of a shopping mall, acres of asphalt parking, and parking structures. Significant demolition and site preparation will need to occur to prepare the site for renovation/construction of a new middle school. (+ \$)

## SUMMARY

- » The Lloyd Center site includes beneficial characteristics including being available for purchase and large enough to accommodate a comprehensive middle school. However development of this site carries many significant risks including the unknown probability of successful (and timely) property negotiations and potentially exorbitant costs. The site is not located in a residential area, and is located outside the existing Tubman catchment area; the proximity to the current catchment boundary likely reduces the concern over future boundary changes but will still require busing of the majority of the student population.

	LLOYD CENTER COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		\$40,000,000	\$80,000,000
HARD COSTS		\$65,278,825	\$76,542,375
SOFT COSTS	15%	\$9,791,824	\$11,481,356
FFE	10%	\$7,507,065	\$8,802,373
SITE DEVELOPMENT	12%	\$9,909,326	\$11,619,133
SWING SITE	5%	\$4,128,886	\$4,841,305
ADMINISTRATION	4%	\$3,864,637	\$4,531,462
CONTINGENCY	15%	\$15,072,084	\$17,672,701
ESCALATION	VARIES	\$49,604,910	\$68,799,766
TOTAL		\$205,157,556	\$284,290,470
<b>ROUNDED TOTAL</b>		<b>\$205,000,000</b>	<b>\$284,000,000</b>

## RECOMMENDED NEXT STEPS

- » Considering the material challenges and risks noted with development of this site, staff recommends pausing further analysis of the Lloyd Center site.

LLOYD CENTER CONCEPT SCHEDULE	2022	2023	2024	2025	2026	2027
Site Selection						
<b>Property Negotiations</b>						
Property Due Diligence						
Relocate Existing Programs						
Procurement						
Master Planning						
Design						
Construction						
Swing Site						
Tubman MS Opens						

# EMANUEL

**ADDRESS**  
122 N GRAHAM ST

**CURRENT OWNER**  
LEGACY HEALTH SYSTEM

**SITE AREA**  
4.01 ACRES

**ZONING**  
C12 CAMPUS INSTITUTIONAL (north)  
CM3 COMMERCIAL MIXED USE (south)



# EMANUEL



## COMMUNITY CONSIDERATIONS

- » Emanuel Medical Center is located in the Albina neighborhood and within the HTMS boundary. Considering the history of negative impact the growth of the hospital has had on the area, the HTMS project could be a welcome step in repairing their relationship with the Black community.

## LOCATION

- » The two parcels under consideration are to the north of the hospital within the Harriet Tubman Catchment

## SITE SUITABILITY

- » The subject site consists of 2 parcels separated by a public street (N Graham). The sites are approximately 4 acres in aggregate.
- » Dawns Park is located immediately to the north, across N Stanton St, and an established residential neighborhood resides east. Emmanuel Legacy hospital lies directly west (the current emergency room is one block away) and hospital parking and

an office building currently occupy the site. The proximity to a busy hospital has raised concerns about location appropriateness for some students. The current Tubman site is about 1/4-mile from the subject site; which would allow a familiarity to students and families.

- » Zoning: there is a mix of zoning across the two parcels - Commercial Mixed Use 3 (CM3) and Campus Institutional 2 (CI2) - schools are not allowed in CI2 zones and development would first require a successful zone change.

## DEVELOPMENT AVAILABILITY (TIME)

- » Legacy has indicated these parcels are not available at this time.

## OPERATIONAL SUSTAINABILITY

- » Locating Tubman at this site would bring a new asset into the District's portfolio and (presumably) require demolition of an existing office building followed by new construction.
- » Due to its proximity to the existing Tubman school, transportation would remain substantially similar

to current operation.

including requiring a successful zone change, navigating safety and design questions, but more notably, the current property owner has indicated the parcels are not for sale.

## COST CONSIDERATIONS

### Conceptual Cost Estimate Ranges: \$162M to \$207M.

- » Base cost estimates assumptions are outlined in the COST ESTIMATES section. Unique site cost considerations include
- » **LAND** - Costs of these parcels would include the land as well as the relocation of a significant amount of hospital support and doctors offices.
- » We assume the need to purchase approximately four (4) acres of property in the cost estimate.

## FURTHER CONSIDERATIONS

- » Siting a school on a property bifurcated by a highly traveled public right-of-way that conveys vehicles to the adjacent hospital creates notable design and safety concerns.

## SUMMARY

- » The subject site has the benefit of being located near the current Tubman location, however development would meet several challenges

## REQUIRED NEXT STEPS

- » Staff recommends pausing further analysis of the site.

	EMANUEL COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		\$20,000,000	\$40,000,000
HARD COSTS		\$60,988,103	\$72,168,338
SOFT COSTS	15%	\$9,148,215	\$10,825,251
FFE	10%	\$7,013,632	\$8,299,359
SITE DEVELOPMENT	12%	\$9,257,994	\$10,955,154
SWING SITE	5%	\$3,857,497	\$4,564,647
ADMINISTRATION	4%	\$3,610,618	\$4,272,510
CONTINGENCY	15%	\$14,081,409	\$16,662,789
ESCALATION	VARIES	\$33,610,034	\$39,299,686
TOTAL		\$161,567,502	\$207,047,732
<b>ROUNDED TOTAL</b>		<b>\$162,000,000</b>	<b>\$207,000,000</b>

KENTON

# KENTON

**ADDRESS**

7528 N FENWICK AVE

**CONSTRUCTION DATE**

1913 (PRIMARY)

**LEVELS**

3

**BLDG AREA**

66,599 SF

**SITE AREA**

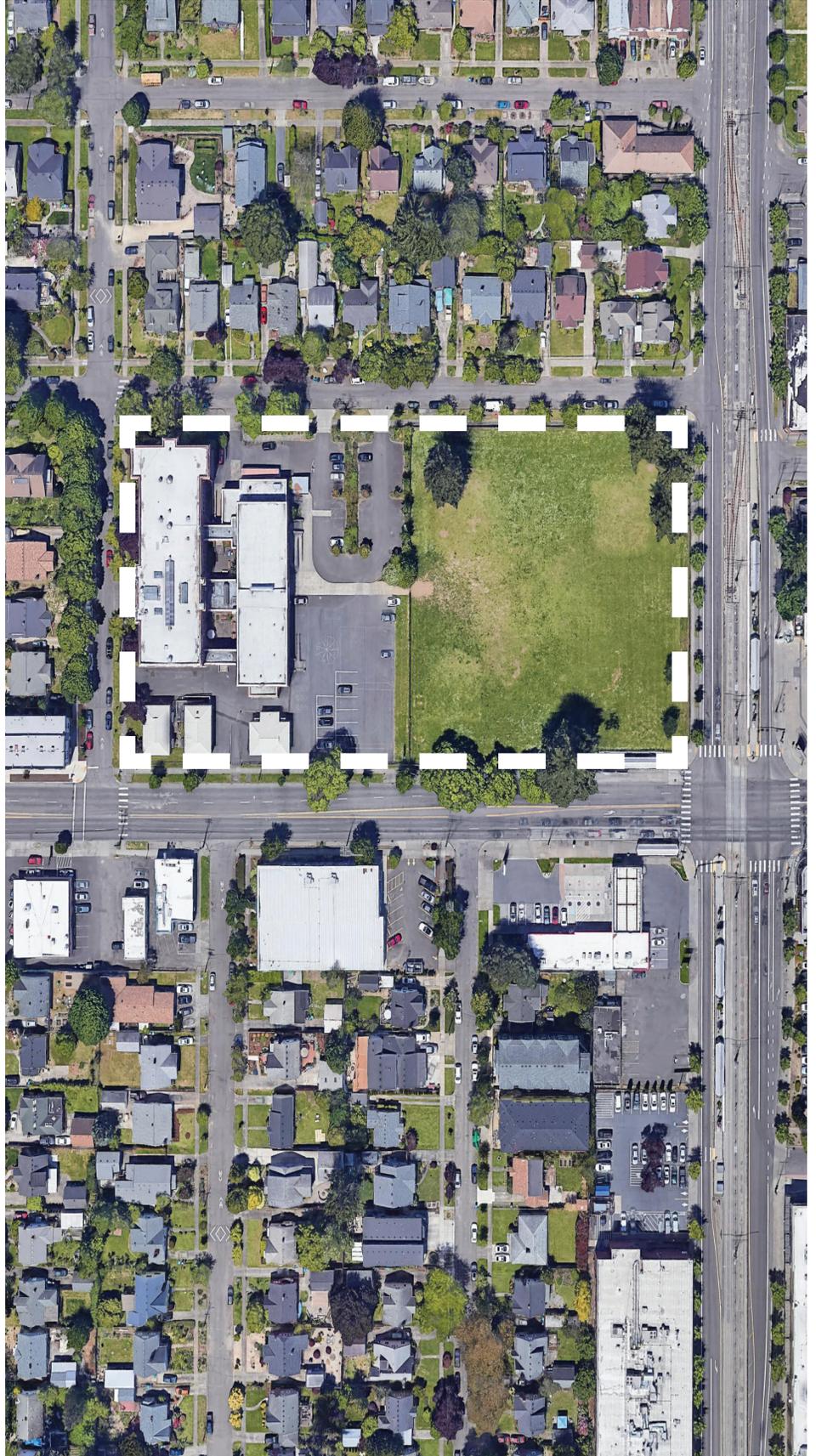
3.96 ACRES

**CLASSROOM COUNT**

18

**ZONING**

RM2 - RESIDENTIAL MULTI-DWELLING 2



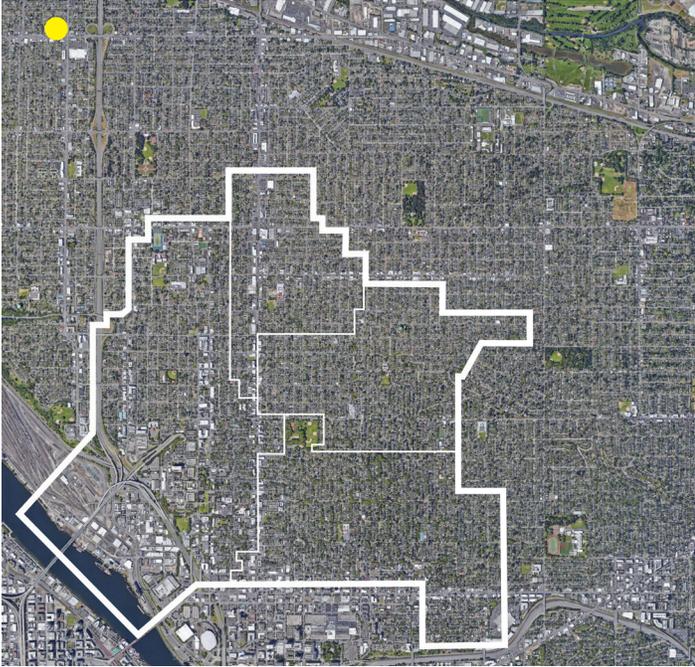


FIGURE 01 HARRIET TUBMAN CATCHMENT



FIGURE 02 KELLOGG MS FOOTPRINT ON KENTON SITE

## RACIAL EQUITY AND SOCIAL JUSTICE

»

## COMMUNITY CONSIDERATIONS

- » Additional community input will be received in March and April.

## LOCATION

- » Kenton is located 1.6 miles north of the Harriet Tubman catchment area.

## SITE SUITABILITY

- » At four acres, supporting middle school programming at Kenton would be challenging, especially for athletics.
- » The site is flanked to the south and east by high-traffic streets: N. Lombard and N. Interstate.
- » Zoning: The Kenton site is zoned RM2 - Residential Multi-Dwelling. Schools are not allowed by right on this site. A conditional use review would be necessary. Land area surrounding the site supports

a patchwork of uses, from residential to the north and south, and commercial to the east and west.

- » Figure 02 overlays Kellogg Middle School on the Kenton site. The solid orange shape is the Kellogg site and the lighter orange outline is the building. While not a true test-fit, the overlay illustrates the approximate suitability for the site to support a three-story middle school.

## DEVELOPMENT AVAILABILITY (TIME)

- » The Alliance program currently uses the building. Once Alliance relocates to the Benson campus in 2024, Kenton will be available.

## OPERATIONAL SUSTAINABILITY

- » Locating Harriet Tubman middle school on the Kenton site would realize some operational savings by utilizing an underutilized district asset. Kenton is undersized and would require additional square footage to house a middle school. The overall Facility Condition Index (FCI) - the ratio of a building's maintenance costs relative to the cost of replacing the building at current construction costs - is .28 (or colloquially "poor"), suggesting renovation with a new addition is the likely

construction option.

## **COST CONSIDERATIONS**

- » Because the District already owns the property, there are some savings to be realized as opposed to having to purchase land. (- \$)
- » The existing building is in fairly good condition with exceptions like the mechanical, electrical, and plumbing systems. It has the potential to be well-suited to renovating and adding new on to the existing building. (- \$)
- » Alternative athletic venue(s) would need to be located and potentially leased due to the relatively small land area. (+ \$)
- » We believe this property to be in the low to middle of the cost range provided.

## **FURTHER CONSIDERATIONS**

- » Kenton is twenty thousand square feet smaller than the existing Harriet Tubman building. Significant capital investment would be necessary to align the building with middle school space requirements.

## **REQUIRED NEXT STEPS**

- » If considered viable by the Board, district staff will begin master planning efforts.

# 1380 NE MULTNOMAH

**ADDRESS**  
1380 NE MULTNOMAH ST

**CURRENT OWNERS**  
MULTIPLE

**SITE AREA**  
6.51 ACRES

**ZONING**  
CX - CENTRAL COMMERCIAL



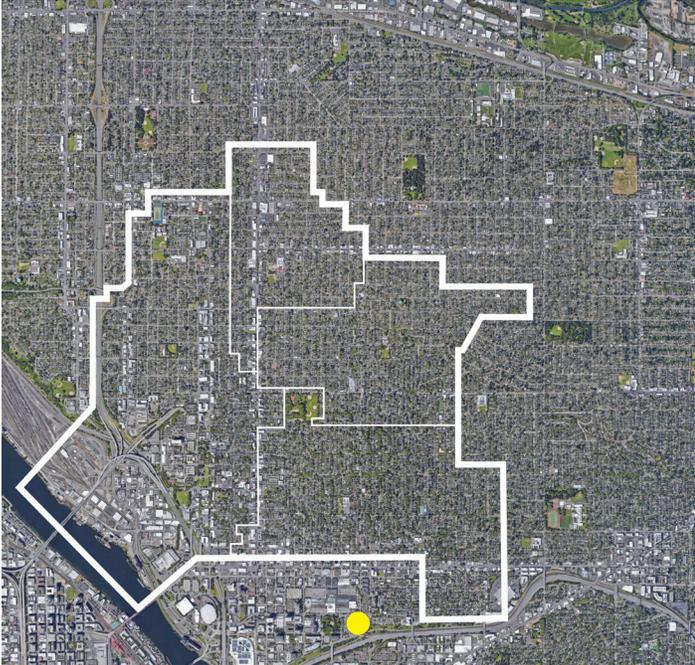


FIGURE 01 HARRIET TUBMAN CATCHMENT



FIGURE 02 KELLOGG MS FOOTPRINT ON 1380 NE MULTNOMAH SITE

## RACIAL EQUITY AND SOCIAL JUSTICE

»

## COMMUNITY CONSIDERATIONS

- » Additional community input will be received in March and April.

## LOCATION

- » The NE Multnomah sits three blocks south of the existing Harriet Tubman catchment boundary.

## SITE SUITABILITY

- » By combining two adjacent parcels, the site would be 6.51 acres which is sufficient to support middle school programming. Individually, each parcel is unsized to support a middle school.
- » The site is embedded within a predominantly commercial zone, reflecting the heritage of the shopping center.
- » The pedestrian network surrounding the site is typical for Portland’s urban core. The area to the

south is severed by I-84. To the north, NE Weidler and SE Broadway offer access to commercial activity but also interrupt access to the Irvington neighborhood.

- » Zoning: the NE Multnomah site is zoned Central Commercial (CX); schools are allowed outright on the site. No conditional use process would be necessary.
- » Figure 02 overlays Kellogg Middle School on the NE Multnomah site. The solid orange shape is the Kellogg site and the lighter orange outline is the building. While not a true test-fit, the overlay illustrates the approximate suitability for the site to support a three-story middle school.

## DEVELOPMENT AVAILABILITY (TIME)

- » This study assumes two parcels would be purchased and consolidated. The western parcel is currently for sale and the developers of Lloyd Center have indicated they would be open to divesting of the adjacent movie theater parcel however, the location is zoned for high density and a number of development restrictions and agreements with Lloyd Center would need to be negotiated.

## OPERATIONAL SUSTAINABILITY

- » Locating HTMS at NE Multnomah would bring a new asset into the District's portfolio and require a new middle school be constructed.

## COST CONSIDERATIONS

- » 1. The District would need to purchase multiple parcels of land. The site is considered desirable commercial real estate with highest and best uses of dense commercial development. The cost to purchase this property likely exceeds the high end of the initial cost estimate range. (+ \$)
- » 2. The existing sites are a mix of asphalt parking lots, and the existing Regal Lloyd Theater bldg. Complex. Connecting the different areas to make a cohesive middle school campus seems to be a particular challenge and carries with it some cost risk. (+ \$)
- » We believe this property to be higher on the cost range provided.

## FURTHER CONSIDERATIONS

- » The parcel currently for sale (the western site) is 4.5 acres. Supporting a middle school on this land area would be challenging and could likely happen only at the expense of athletics programming. The initial cost being discussed by developers for this site is \$40M.

## REQUIRED NEXT STEPS

- » If considered viable by the Board, district staff will begin a dialogue with the owners regarding the site.

# WHITAKER-ADAMS

**ADDRESS**

5700 NE CESAR E CHAVEZ BLVD

**SITE AREA**

10.05 ACRES

**ZONING**

CM2 COMMERCIAL MIXED USE 2  
R5 RESIDENTIAL 5,000 CU



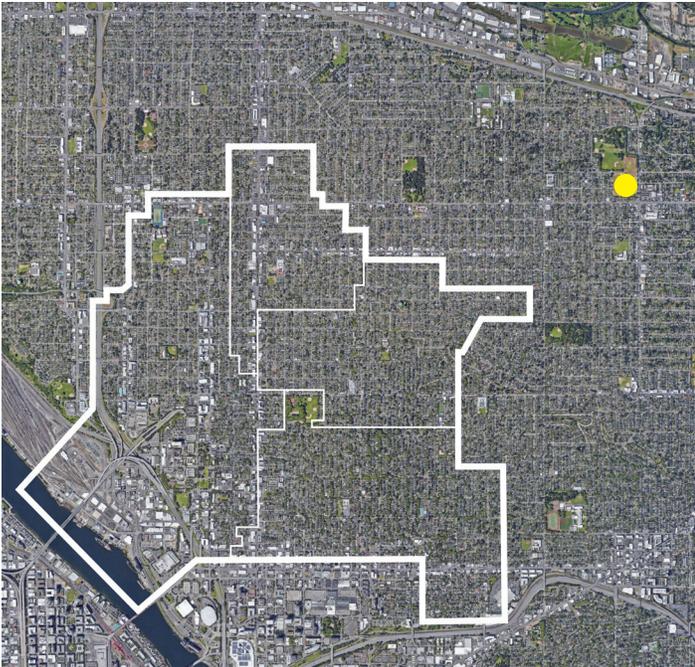


FIGURE 01 HARRIET TUBMAN CATCHMENT

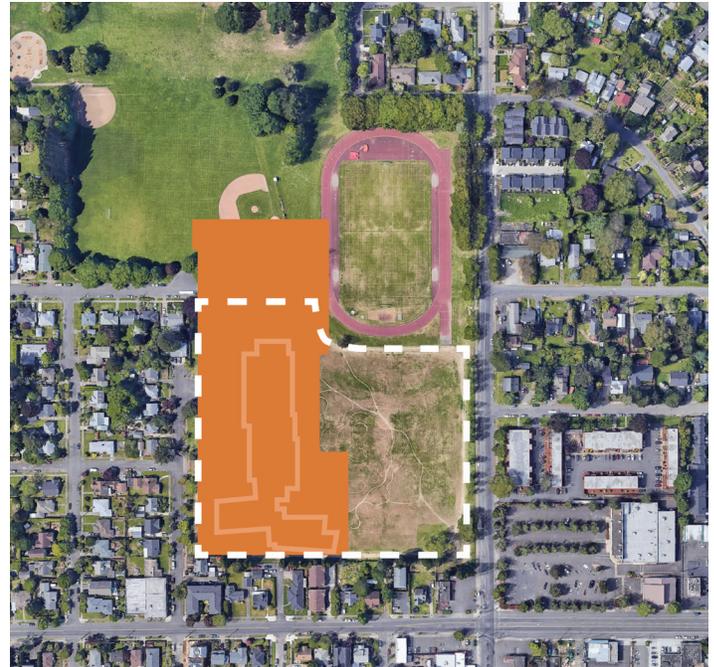


FIGURE 02 KELLOGG MS FOOTPRINT ON WHITAKER-ADAMS SITE

## RACIAL EQUITY AND SOCIAL JUSTICE

»

## COMMUNITY CONSIDERATIONS

- » Additional community input will be received in March and April.

## LOCATION

- » Whitaker-Adams is outside the Harriet Tubman catchment area to the east.

## SITE SUITABILITY

- » With over 10 acres of land, Whitaker-Adams contains sufficient land area to support a middle school program. The site is bound to the south and east by high-traffic streets; the north and west edges of the site are contiguous with Fernhill Park and the Concordia neighborhood respectively.
- » Zoning: the bulk of the Whitaker-Adams site is zoned Residential 5,000 CU (R5). The eastern edge of the site that fronts NE 42nd Ave is zoned

Commercial Mixed Use2 (CM2). Schools are allowed outright in zone CM2. However, they are not allowed outright in R5. A conditional use review would be necessary.

- » Figure 02 overlays Kellogg Middle School on the Whitaker-Adams site. The solid orange shape is the Kellogg site and the lighter orange outline is the building. While not a true test-fit, the overlay illustrates the approximate suitability for the site to support a three-story middle school.

## DEVELOPMENT AVAILABILITY (TIME)

- » The district owns Whitaker-Adams and is immediately available for redevelopment.

## OPERATIONAL SUSTAINABILITY

- » Locating HTMS at the Whitaker-Adams site would require new construction of a school on vacant District property.

## COST CONSIDERATIONS

- » Because the District already owns the property,

there are some savings to be realized as opposed to having to purchase land. (- \$)

- » The site has already been cleared of buildings and is basically an open field ready for construction. (- \$)
- » We believe this property to be in the low to middle of the cost range provided.

## **FURTHER CONSIDERATIONS**

- » The district's Long-Range Facility Plan identifies Whitaker-Adams as one of three athletics hubs across the district. Together the three hubs support middle and high school athletics in regionally distinct, programmatically specific ways.
- » Additional consideration should be given to the proximity of this location to Ockley Green MS which is located in between the current Harriet Tubman site and Whitaker-Adams

## **REQUIRED NEXT STEPS**

- » If considered viable by the Board, district staff will begin master planning efforts.

## **SITES NO LONGER UNDER CONSIDERATION**

The following locations have been removed from consideration as they do not meet the basic criteria for a new building location

# ALBERTA PARK

**ADDRESS**

1905 NE KILLINGSWORTH ST

**CURRENT OWNER**

CITY OF PORTLAND

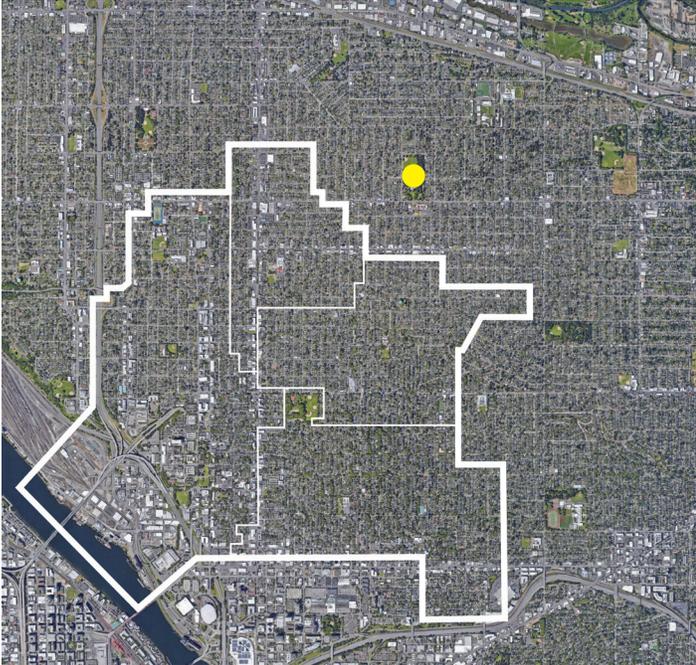
**SITE AREA**

16.70 ACRES

**ZONING**

OS - OPEN SPACE





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Alberta Park is outside the existing Harriet Tubman catchment area. It sits northeast of the catchment boundary by approximately a mile.

## SITE SUITABILITY

- » With more than sixteen acres, Alberta Park contains more than sufficient land area to support a middle school. The park is directly north of Vernon K-8 and is flanked by residential neighborhoods to the east and west and commercial strips to the north and south.
- » The park is currently owned by the City of Portland, if negotiations proceed, athletic resources shared by the City and the district should be considered.
- » The site is not considered viable as the District does not support displacement of amenities supporting the historically Black neighborhoods nor does the site have sufficient land for a school.

## DEVELOPMENT AVAILABILITY (TIME)

- » Alberta Park is currently owned by the City of Portland. It is not available for purchase or development. It is documented here for discussion purposes only.

# BEAUMONT

**ADDRESS**

4043 NE FREMONT STREET

**CURRENT OWNER**

PORTLAND PUBLIC SCHOOLS

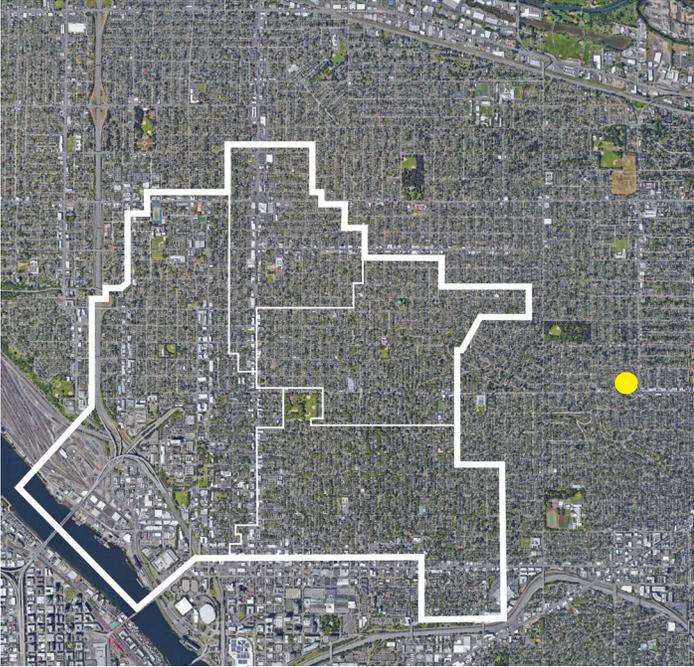
**SITE AREA**

5.72 ACRES

**ZONING**

R5 - RESIDENTIAL 5,000





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Beaumont is located just outside of the Harriet Tubman catchment area 1.0 mile directly east along Fremont.

## SITE SUITABILITY

- » With over five acres, Beaumont could support middle school programming with careful site design and early consideration of athletics space requirements.
- » This site is not considered viable as it is outside of the catchment area currently occupied by students.

## DEVELOPMENT AVAILABILITY (TIME)

- » Beaumont is owned by the District.

# BEVERLY CLEARY

**ADDRESS**

3255 NE HANCOCK ST

**CURRENT OWNER**

PORTLAND PUBLIC SCHOOLS

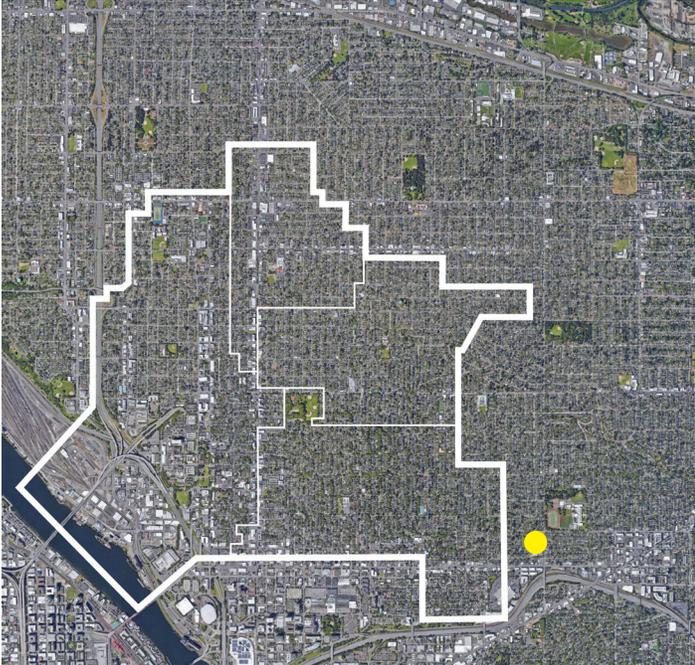
**SITE AREA**

4.27 ACRES

**ZONING**

R5 - RESIDENTIAL 5,000





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Beverly Cleary is located just outside of the Harriet Tubman catchment area 1.0 mile directly east along Fremont.

## SITE SUITABILITY

- » With just over four acres, Beverly Cleary might be able to support middle school programming with careful site design and early consideration of athletics space requirements. However, it may prove to be challenging.
- » This site is not considered viable as it is outside of the catchment area currently occupied by students.

## DEVELOPMENT AVAILABILITY (TIME)

- » Beverly Cleary is owned by the District.

# CONCORDIA

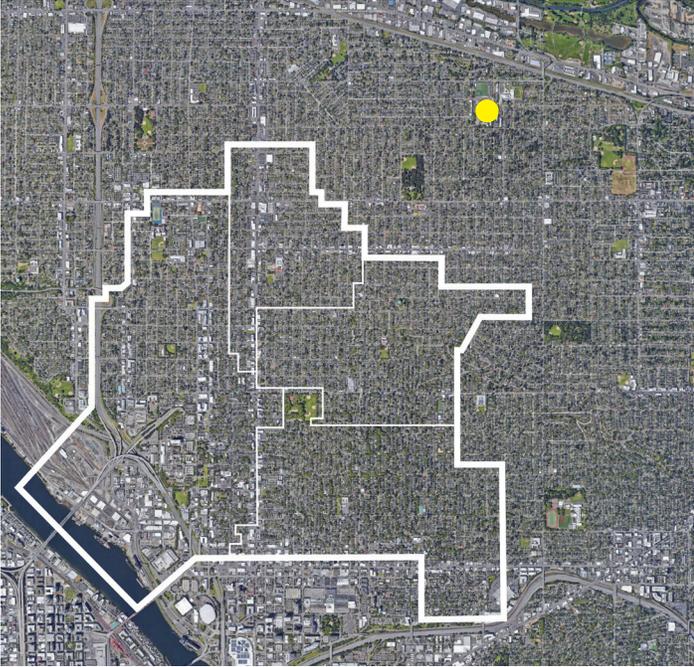
**ADDRESS**  
2811 NE HOLMAN ST

**CURRENT OWNER**  
CONCORDIA UNIVERSITY

**SITE AREA**  
18.88 ACRES

**ZONING**  
C11 - CAMPUS INSTITUTIONAL 1





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Concordia is outside the Harriet Tubman catchment area. The site is nearly two miles northeast of the Harriet Tubman catchment boundary.

## SITE SUITABILITY

- » At almost nineteen acres, Concordia contains more than sufficient land area to support a middle school program.
- » The site does not meet criteria as it lacks transit, is fully built out, far larger than needed, would require zone change and comp plan amendment rendering the development availability impossible.

## DEVELOPMENT AVAILABILITY (TIME)

- » This parcel is not available for purchase. It is documented here for discussion purposes only.

DAWSON PARK

# DAWSON PARK

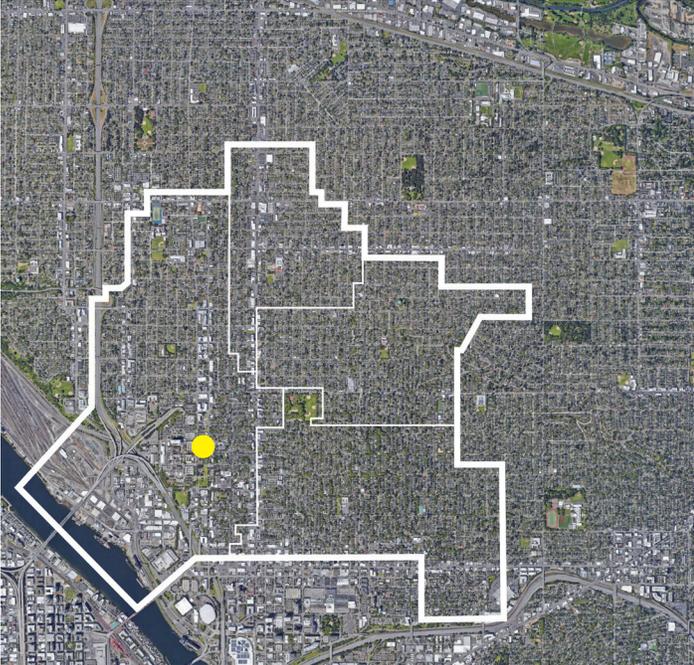
**ADDRESS**  
1 N STANTON

**CURRENT OWNER**  
CITY OF PORTLAND

**SITE AREA**  
2.05 ACRES

**ZONING**  
OS - OPEN SPACE





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Dawson Park is located several blocks north of the existing Harriet Tubman Middle School building.

of amenities supporting the historically Black neighborhood.

## SITE SUITABILITY

- » At two acres, Dawson Park has insufficient land area to support middle school programming.
- » The site is flanked to the east and west by two high-traffic streets: N Vancouver Ave and N Williams Ave. On the other side of N. Vancouver to the west, is the Legacy Medical Center; to the east is a patchwork of commercial and residential zones.
- » All pedestrian access is challenged by the two neighborhood collectors, N Vancouver Ave and N Williams Ave, on either side of the site. Connection to the neighborhood to the east is limited for this reason.
- » The existing Harriet Tubman middle school site is the smallest (in terms of land area) in the district with only three acres and benefits from its adjacency to Lillis Albina Park. No such adjacency exists at Dawson Park.
- » The site lacks sufficient acreage for development and the District does not support displacement

## DEVELOPMENT AVAILABILITY (TIME)

- » Dawson Park is currently owned by the City of Portland. It is not available for purchase or development. It is documented here for discussion purposes only.

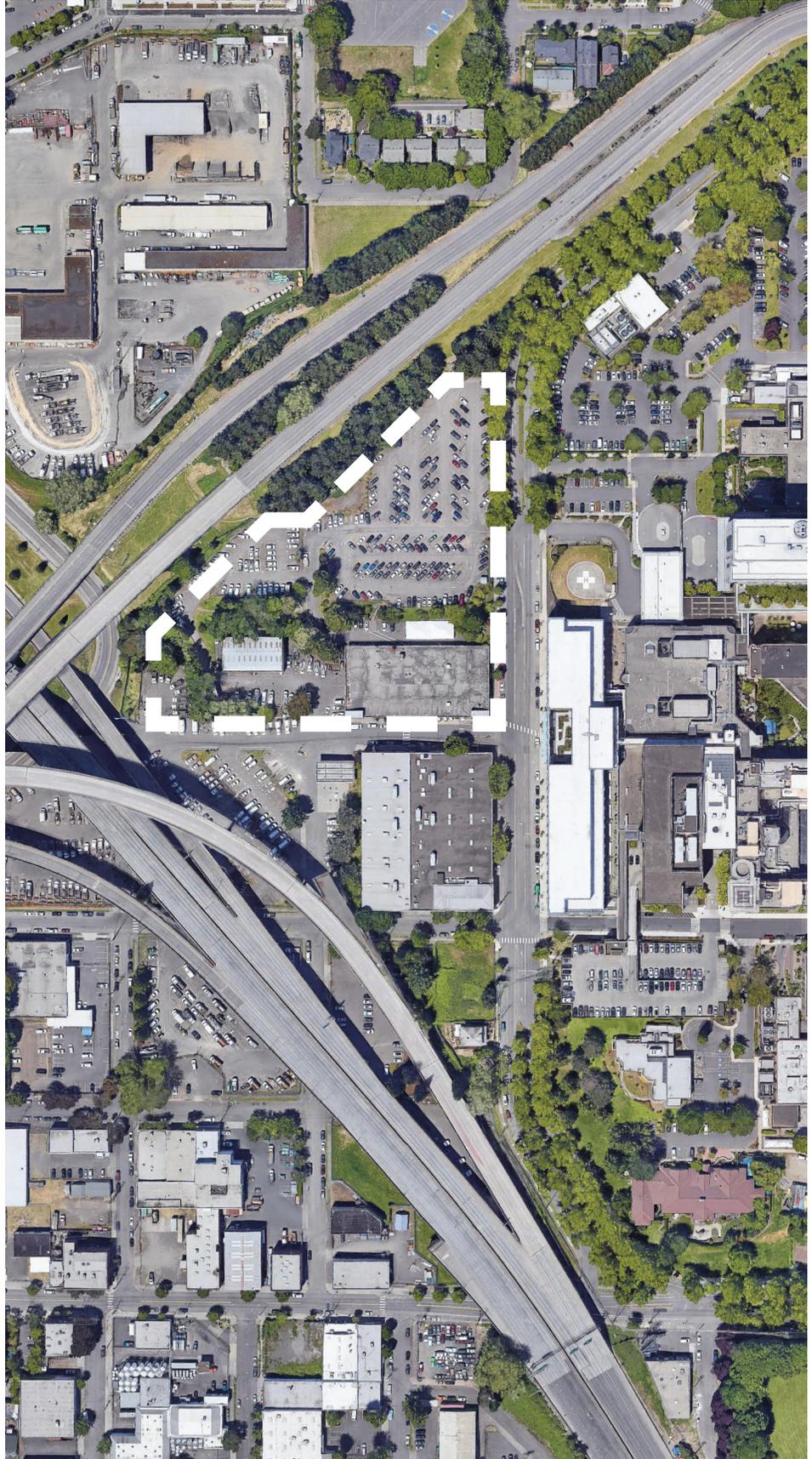
# N. STANTON

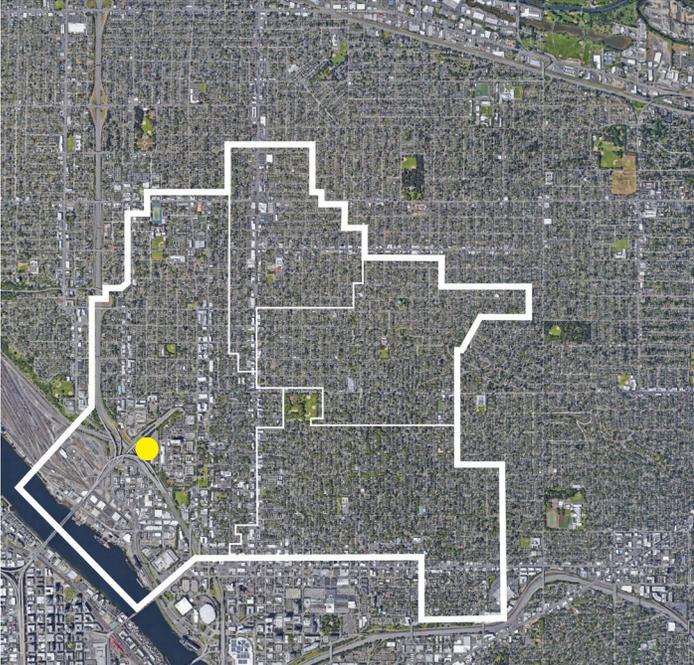
**ADDRESS**  
625 N STANTON ST

**CURRENT OWNER**  
CITY OF PORTLAND

**SITE AREA**  
5.27 ACRES

**ZONING**  
IG1 - GENERAL INDUSTRIAL 1





HARRIET TUBMAN CATCHMENT

## LOCATION

- » N. Stanton is located within the Harriet Tubman catchment area immediately east of Legacy Medical Center.

- » The district has not started a dialogue with the City around relocating Harriet Tubman Middle School at this site.
- » At this time it is unknown whether the City would consider sale or shared use of the site.

## SITE SUITABILITY

- » While the parcel is over five acres, the parcel geometry would challenge successful athletics programming on the site.
- » The site sits within a patchwork of commercial and industrial areas with no meaningful access to the residential areas. To the west, the site is bracketed by I-5 and I-405; to the east, the medical center interrupts any potential pedestrian access to the Eliot neighborhood.
- » The site is not considered viable. Since it is adjacent to both I-5 and I-405, the risk of repeating the environmental harm at the existing Harriet Tubman site is high.

## DEVELOPMENT AVAILABILITY (TIME)

- » N Stanton is currently owned by the City of Portland.

# 432 NE KILLINGSWORTH ST

**ADDRESS**

432 NE KILLINGSWORTH ST

**CURRENT OWNERS**

CITY OF PORTLAND & BOYS AND GIRLS CLUB

**SITE AREA**

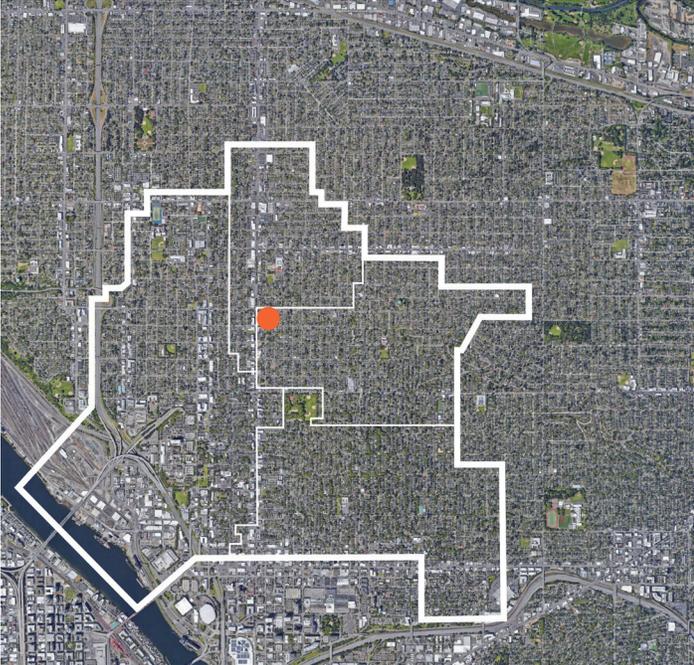
4.26 ACRES

**ZONING**

CM3 - COMMERCIAL MIXED USE 3

CM2 - COMMERCIAL MIXED USE 2





HARRIET TUBMAN CATCHMENT

## LOCATION

- » Located at the corner of NE Killingsworth and NE MLK Jr, this site is located in the north-central area of the Harriet Tubman catchment area.

## SITE SUITABILITY

- » At less than five acres, supporting middle school programming at the corner of NE MLK Jr Blvd and NE Killingsworth st would be challenging, especially athletics. The parcel sits immediately to the east of a major city traffic street: NE MLK Jr and another high-traffic street to the north — NE Killingsworth St. These two streets limit safe access to the Humboldt neighborhood to the west. To the east, the immediate vicinity is predominately commercial with few direct connections to the Vernon neighborhood.
- » The site is flanked on the north and west by high-traffic streets which further complicating safe athletics programming on this site.
- » The site is not considered viable as it would displace historically Black businesses, have significant safety issues given the surrounding streets and would limit access and be a long and uncertain path to property acquisition.

## DEVELOPMENT AVAILABILITY (TIME)

- » For the purposes of this study, two parcels were combined. Negotiations would need to be successful with both owners.
- » The district has not started a dialogue with either owner around relocating Harriet Tubman Middle School to the sites.
- » At this time it is unknown whether the current owners would consider sale or shared use of the site.

# PBOT

**ADDRESS**

3150 N MISSISSIPPI AVE

**CURRENT OWNER**

CITY OF PORTLAND

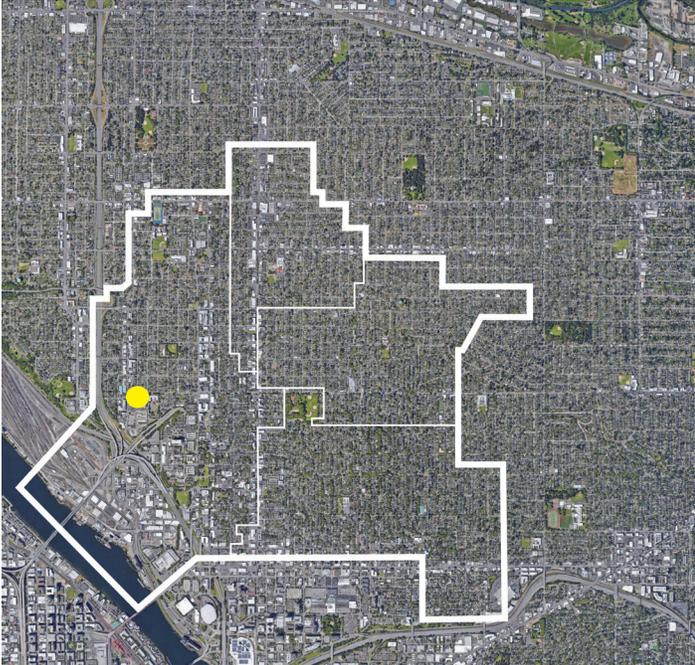
**SITE AREA**

5.51 ACRES

**ZONING**

IG1 - GENERAL INDUSTRIAL 1





HARRIET TUBMAN CATCHMENT

## LOCATION

- » PBOT is located within the Harriet Tubman catchment area Northeast of where Fremont Bridge and the I-5 meet.

## SITE SUITABILITY

- » With over five acres, PBOT could support middle school programming with careful site design and early consideration of athletics space requirements.
- » The site currently serves various functions for the Portland Bureau of Transportation (hence the moniker, “PBOT”). The parcel sits immediately north of the I-5 and I-405 exchange. Access to areas south of the site is impossible because of the freeways. To the north, the site is bound by a commercial zone and, to the northeast, a residential area, and Boise-Eliot Elementary School.
- » Pedestrian access to and throughout the site is poor. Sidewalks are limited. Connections to the neighborhood to the northeast are indirect and circuitous.
- » This site is not considered viable due to its proximity to two freeways, the lack of neighborhood connections and the complication

of relocating important City services.

## DEVELOPMENT AVAILABILITY (TIME)

- » PBOT is currently owned by the City of Portland.

# THUNDERBIRD WAY

**ADDRESS**

4013 NE 18TH AVE

**CURRENT OWNERS**

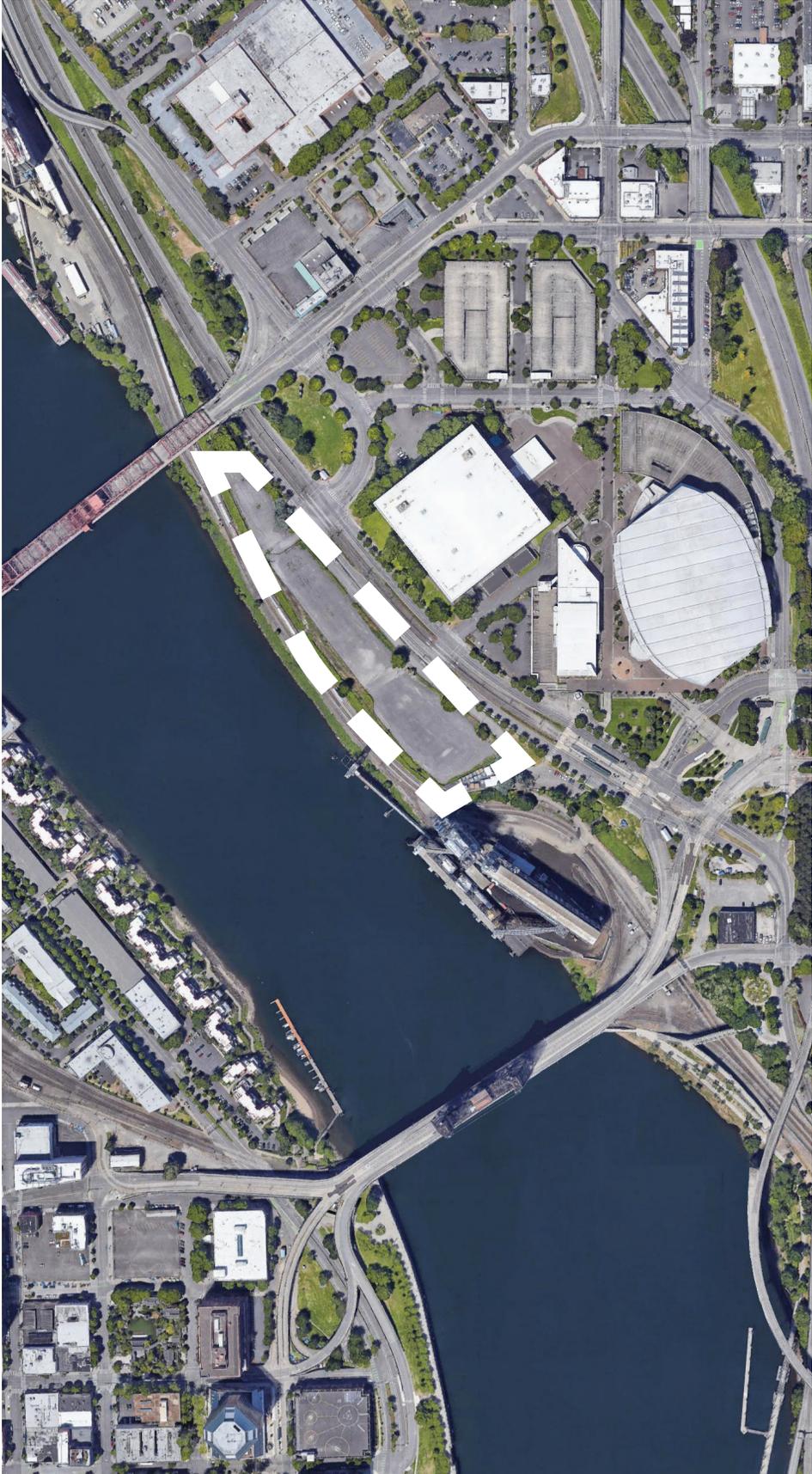
PORTLAND TRAIL BLAZERS & STATE OF OREGON

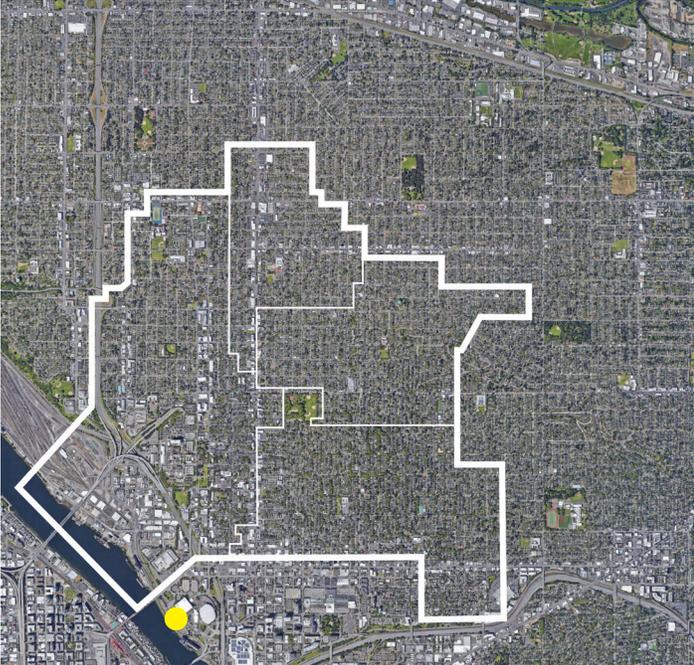
**SITE AREA**

3.71 ACRES

**ZONING**

CX - CENTRAL COMMERCIAL





HARRIET TUBMAN CATCHMENT

## LOCATION

- » The Thunderbird Way site is outside the Harriet Tubman catchment area, south of the Broadway bridge and near PESC and the Moda Center.

## SITE SUITABILITY

- » At less than four acres, Thunderbird Way does not contain sufficient land area to support middle school programming, especially athletics.
- » The site geometry would also challenge any development; it is too narrow for most school functions.
- » The site is bound by a set of train tracks, the Willamette River, and N. Interstate Ave. The surrounding context is predominantly commercial, connections into and out of the site are poor, and the pedestrian network is fragmented.
- » This location is not considered viable due to size, location and air quality concerns.

## DEVELOPMENT AVAILABILITY (TIME)

- » The site is privately owned.

- » The district has not started a dialogue with the owners around relocating Harriet Tubman Middle School at this site.
- » At this time it is unknown whether the current owners would consider sale or shared use of the site.

# APPENDIX B

## SUPPORTING DOCUMENTS

- » 2022 State Investment Request
- » PPS Letter to Oregon Transportation Commission
- » Oregon Transportation Commission Letter to PPS
- » Environmental Safety & Health Considerations
- » Indoor and Outdoor Air Quality Health Risk Assessment
- » PPS Resolution 5856 - March 19, 2019
- » PPS Resolution 6008 - December 3, 2019
- » PPS Resolution 6354 - July 27, 2021



# RELOCATING HARRIET TUBMAN MIDDLE SCHOOL



## BACKGROUND

Over the course of decades, the Historic Albina neighborhood -- the heart of Oregon’s historic Black community -- has experienced harm caused by the construction and presence of the I-5 freeway. Since Black families had their homes and businesses demolished to make way for construction of the freeway and other “urban renewal” projects nearly fifty years ago, the air pollution and increased traffic associated with the freeway have negatively impacted the health of neighborhood residents and their quality of life. The resulting displacement and disinvestment in the Albina neighborhood is part of our community’s shared history.

The Federal-Aid Highway Act of 1956 originally provided funds to construct the interstate, in the process demolishing

several hundred housing units and constructing the freeway immediately adjacent to what was then Eliot Elementary, which had opened in 1952. The creation of Harriet Tubman Middle School in the early 1980s at the former Eliot School site has historical significance, as it played a pivotal role in the struggle over school desegregation and racist busing policies in Portland during the 1960s-1980s. Harriet Tubman has served PPS students in the Albina neighborhood since the early ‘80s, and then in 2018 reopened as a middle school as part of a district-wide Middle School Framework to provide students with a more comprehensive and equitable middle school experience and better preparation for high school. For this framework to be successful long-term, it is essential that students are educated in a building that is not negatively impacted by

significant adjacent project construction and longer-term negative impacts from unhealthy ambient air quality, noise, and vibrations.

The location of the freeway directly adjacent to the school has created enduring environmental impacts. Today the exterior area of Harriet Tubman is functionally unusable for school purposes. As currently designed, the proposed I-5 Rose Quarter Improvement Project would further cut into the Harriet Tubman Middle School site, threatening to worsen the environmental situation and negative health impacts, both during construction and over the long term.

The image below is of the existing Harriet Tubman Middle School site and demonstrates the current proximity of the interstate to the school. The

interstate expansion will exacerbate existing environmental hardships and threaten the western edge of the site.

site area for a middle school is between six and nine acres.

Of utmost importance in the siting of the new Harriet Tubman are improved environmental conditions from the existing school location.

To this end, the district has reviewed more than twenty mid-sized, potentially suitable properties, both within and near the Albina neighborhood that meets the district criteria. While no single site clearly stands as an obvious candidate to the exclusion of all others, the district has enough information to generate the cost ranges described in figure 2 below.

Many important considerations remain unknown at this time: first among many is whether any existing program operating at a site could be relocated to another site within an acceptable timeline.

FIGURE 1: EXISTING CONDITIONS AT HARRIET TUBMAN MIDDLE SCHOOL

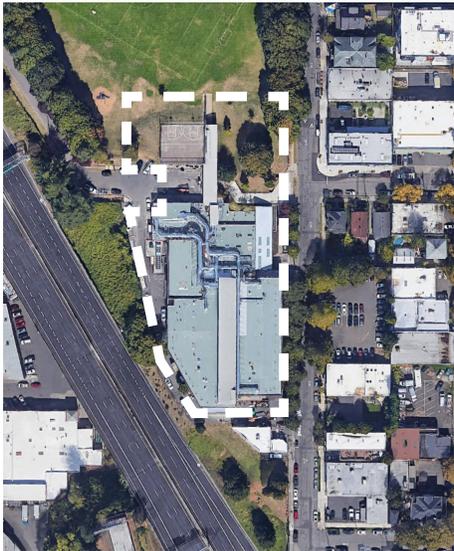


FIGURE 2: PRELIMINARY COST ESTIMATE RANGE

	COST ESTIMATE RANGE		
	%	LOW	HIGH
LAND		\$15,000,000	\$30,000,000
HARD COSTS		\$54,791,520	\$64,320,480
SOFT COSTS	15%	\$8,218,728	\$9,648,072
FFE	10%	\$6,301,025	\$7,396,855
SITE DEVELOPMENT	12%	\$8,317,353	\$9,763,849
SWING SITE	0%	\$0	\$0
ADMINISTRATION	4%	\$3,105,145	\$3,645,170
CONTINGENCY	15%	\$12,110,066	\$14,216,164
ESCALATION	VARIABLES	\$19,936,190	\$23,403,353
TOTAL		\$127,780,026	\$162,393,944
<b>ROUNDED TOTAL</b>		<b>\$128,000,000</b>	<b>\$162,000,000</b>

## PROPOSAL

Utilize state funds to relocate and rebuild Harriet Tubman Middle School to address the patterns of entrenched racism that have negatively impacted the Albina neighborhood for generations and address the additional environmental harm contemplated by the future interstate expansion.

Portland Public Schools is actively studying nearly twenty sites.

## DEVELOPMENT PROPOSAL

Few sites within the Harriet Tubman catchment area meet the land area required for a middle school. In addition to the building area (over 100,000 SF of instructional space), outdoor play/athletics space, parking, setbacks, among other site conditions, must be considered. The optimal

# SCHEDULE

Due to the proximity to the site and location of construction access roads, work on the Eliot Viaduct will directly impact the safety and learning of students at Harriet Tubman Middle school. Recent construction schedules provided to the district from ODOT indicate this work will begin in June of 2027, suggesting the Harriet Tubman students must be relocated by August 2027.

Working backward from August 2027, the district can use our recently constructed Kellogg Middle School to infer the necessary duration to build a middle school. Kellogg Middle School opened in August of 2021 after four years of planning, design, and construction. The process began in May 2017 with procuring architectural and engineer services. Planning, design, and permitting took approximately two years; construction also took two years.

Comparing Kellogg with the development proposal described above, it's worth noting a number of asymmetries between the processes. First, the district already owned the parcel for Kellogg Middle School. Not all sites currently under consideration are within the district's control. In these cases, the district must negotiate with the current property owner for sale, lease, or trade for the land. If the current property owner is another government agency, there will likely be a public process around the property purchase. District staff estimate a minimum of six months would be required for property negotiations.

To further address potential differences between

Kellogg and the current study, the existing zoning for Kellogg allowed school use through a conditional land use process — a familiar and predictable administrative process for granting land-use approval for schools. Some parcels currently under consideration do not allow school use. These parcels will require comprehensive plan amendments — a process that requires City Council approval. A comprehensive plan amendment is in no way guaranteed. If the district pursues a parcel that does not allow school use, it does so at risk.

Returning to the inferences we can make from the assumed I-5 construction schedule and the timeline from Kellogg Middle School, the district should identify and begin procurement for design services by August 2023. However, lessons learned from previous projects, including Kellogg, suggest additional time for procurement and planning are prudent, to say nothing of time for scheduling contingencies to address unexpected or unknown site conditions, supply-chain issues, or labor shortages.

Accounting for lessons learned and scheduling contingencies, work on any site currently within the district's control should proceed no later than November 2022 to relocate Harriet Tubman students successfully. In the case where the district does not own the selected parcel, an additional six months of property negotiations prior to any planning or design will be necessary. In this latter case, the district must identify a site by May 2022 to relocate Harriet Tubman students by August 2027.

The preliminary schedule is presented below in figure 3.

FIGURE 3: PRELIMINARY PLANNING AND CONSTRUCTION SCHEDULE





## PORTLAND PUBLIC SCHOOLS

501 North Dixon Street / Portland, OR 97227

Telephone: (503) 916-2000

Mailing Address: P. O. Box 3107 / 97208-3107

June 6, 2019

Tammy Baney, Chair  
Alando Simpson  
Oregon Transportation Commission  
355 Capitol Street NE  
Salem, OR 97301-3871

Dear Chair Baney and Commissioner Simpson,

On behalf of Portland Public Schools (“PPS”), please submit this correspondence into the public record of the I-5 Rose Quarter project file in response to your letter of May 31, 2019. In the May 31<sup>st</sup> letter you provide an update on your efforts to convene an executive advisory committee to offer “advice only” on important project changes to, and related impacts from, the I-5 Rose Quarter project that are intended to respond to stakeholder comments. Attached to your May 31, 2019 letter is a copy of your April 29, 2019 Key Outcomes summary based on the “I-5 Rose Quarter Project Conversation.”

In the Key Outcomes document, you plainly agree, “ODOT needs to conduct further analysis on the Rose Quarter project. In particular, more needs to be known about the implications to Harriet Tubman Middle School and more conversations about highway covers, their alignment and structural capacity, all informed by additional engineering expertise, need to occur.” (Emphasis added). The May 31<sup>st</sup> letter repeats this admission that further study and analysis is needed to understand the real and significant impacts on Harriet Tubman Middle School.

While we appreciate outreach efforts to impacted parties, this outreach and future analysis has come too late in the process and does not alter our legal assessment that the project requires a full Environmental Impact Statement (“EIS”).

As we previously stated during the public comment period, although the proposed project is immediately adjacent to PPS properties, in particular the Harriet Tubman Middle School, neither ODOT nor the City meaningfully engaged with PPS during the planning process to assess the potential impacts, either short-term or long-term, on the health of students and staff from environmental hazards or on the structural integrity of PPS facilities from incursions on PPS property during construction.

We have raised substantial questions about potential impacts on PPS properties, including risks to soil stability under the Harriet Tubman Middle School site during the construction process, increased air pollution, increased noise pollution, and shifts to traffic patterns in the vicinity of both Tubman and District headquarters.

{00900400;1}

Harriet Tubman Middle School recently invested in a state-of-the-art air quality system to protect students in that school from substandard air quality based on adjacency to the existing highway corridor. The PPS investment of over \$17 million cannot protect these students from the already poor outdoor air quality, and this project will further challenge that outdoor air quality in closer proximity to the school.

The May 31<sup>st</sup> letter and accompanying Key Outcomes document now seem to recognize the nature and significance of these impacts. This impact analysis is not the proper subject matter for an after-the fact, advisory-only committee. Instead, this is the kind of analysis that ODOT has a duty to evaluate in the initial project assessment to determine whether an EIS is justified. ODOT's refusal to adequately address these significant environmental issues and unique populations in the environmental assessment process was in error, and to now ask us to engage in that analysis outside of the EA/EIS process is not acceptable.

Due to the potential significant negative short-term and long-term impacts of the proposed project to PPS property, students, staff, and stakeholders, Portland Public Schools believes that neither ODOT nor the FHWA can legitimately issue a Finding of No Significant Impact (FONSI). As ODOT now seems to agree, additional study and analysis is necessary to understand the full extent of the impacts on PPS property and whether based on those impacts, our PPS property remains a viable and environmentally safe location for our staff, teachers and students.

We appreciated the invitation to meet with you and other stakeholders of ODOT's I-5/Rose Quarter transportation construction project on April 29th. However, we object to ODOT's plans to proceed with the request for proposal (RFP) contracting process associated with this project. Until our request for further environmental analysis and assessment and the concerns expressed on behalf of the Harriet Tubman Middle School and lower Albina community have been addressed, we cannot support this project moving forward.

Therefore, PPS will continue to advocate that the project be subject to an EIS so that we fully understand the short and long-term scope and impacts to this community's health, safety and well-being.

Sincerely,

Scott Bailey  
Board of Education, Portland Public Schools

Julia Brim-Edwards  
Board of Education, Portland Public Schools

Stephanie Soden  
Chief of Staff, Portland Public Schools



# Oregon

Kate Brown, Governor

**Oregon Transportation Commission**

Office of the Director, MS 11

355 Capitol St NE

Salem, OR 97301-3871

July 10, 2019

Portland Public School Board of Education  
501 N. Dixon Street  
Portland, OR 97227

Dear Ms. Soden:

This is a follow up response to your June 6<sup>th</sup> letter and the July 3<sup>rd</sup> response from the Oregon Transportation Commission (OTC) Chair Baney and Commissioner Simpson.

We understand that Portland Public Schools (PPS) is asking for additional analysis of the I-5 Rose Quarter Improvement Project (Project), or at a minimum a better understanding of the analysis that has already been conducted, as it relates to the short- and long-term health of Harriet Tubman Middle School students and staff from environmental hazards such as air pollution and noise and the structural integrity of the PPS facilities. Ensuring the safety of students and staff is a core value that we share, and one that is guiding our approach to this Project. We remain committed to continued collaboration between our agencies to ensure the Project affords positive outcomes for the community and future generations. We have many more opportunities to engage in the future and are committed to working with you and your staff at the school as we move forward.

As we presented to the Portland Public School Board on March 19, 2019, the Project's Environmental Assessment (EA) is based on preliminary design and the physical footprint for the design concept. The preliminary project design evaluated in the EA reflects the recommended design concept from the ODOT and City of Portland 2012 I-5 Broadway Weidler Facility Plan and N/NE Quadrant Plan. The EA follows federal practices for evaluating project effects, including an understanding the impacts at the Harriet Tubman Middle School site.

As project design progresses, we will better understand the specific effects to areas surrounding the project to appropriately plan, design, or mitigate for them. We will also pay special attention to the concerns you have shared with us – environmental, health, and structural integrity – to ensure the mitigation measures described in the EA to reduce potential impacts are carried forward through design and construction. This work will be done in close coordination with interested stakeholders, including PPS.

We too want to ensure students, staff and the surrounding community have safe air to breathe. To best understand air pollutant and GHG emissions, the EA used the most current modeling approaches and traffic data from the regionally-adopted Metro Regional Transportation Plan. The analysis found that, when the project moves forward, future pollutant and GHG emissions will be slightly less when compared to projected levels without the project. The reduction in emissions will be due to improved traffic flow and less idling traffic on I-5 with the project.

We are committed to the reduction of noise pollution. The project, as evaluated in the EA, proposes the construction of a sound wall between I-5 and Harriet Tubman Middle School. The proposed sound wall would reduce the noise level below what it is today, improving the noise environment for students and staff. We will work with PPS during the proposed sound wall design.

The structural integrity of the school also is of utmost importance. The project includes a retaining wall between I-5 and Harriet Tubman Middle School to provide enhanced slope stability and retain the soils in proximity to the school. This is an area where specific PPS collaboration and input will be critical, including collaboration on the soils analysis, retaining wall design type and construction method. In the near term, we plan to perform geotechnical work and collect soil samples to better understand the soil conditions in the vicinity of the school, provide additional data to PPS regarding the slope stability, and inform the retaining wall and sound wall designs. This work will include targeted boring locations on ODOT and PPS property west of the school. Our team will be connecting with you to coordinate this work and request access to the proposed study area, with the intent of completing this work between mid-July and early August to avoid any overlap with the school year.

While we do expect short-term impacts from construction activities such as dust, construction noise levels and traffic delays, the EA identified mitigation strategies for reducing these impacts, such as scheduling construction activities proximate to the school during the summer months, implementing dust control measures and maintaining traffic control to provide accessible, safe and comfortable alternative travel routes for pedestrians and bicyclists, including in the vicinity of the school. Refining and coordinating these mitigation measures will again require significant collaboration between ODOT and PPS.

Moving forward, we are actively working with the Federal Highway Administration (FHWA) to review and respond to the public comments received during the 45-day public review period. These public comments, along with the technical analysis provided in the EA, will inform FHWA's National Environmental Policy Act (NEPA) decision document. We understand that additional coordination with PPS is needed as the Project moves forward and look forward to future conversations to produce positive outcomes for our community, students, staff, and the traveling public. Should you have any questions, please do not hesitate to contact me at [megan.channell@odot.state.or.us](mailto:megan.channell@odot.state.or.us) or 503-731-3087.

Sincerely,



Megan Channell, AICP  
Rose Quarter Project Director  
ODOT, Region 1



September 3, 2021

Joe Crelier, ARM  
Director of Risk Management  
Portland Public Schools  
501 N Dixon Street  
Portland, Oregon 97227

Via email: jcrelier@pps.net

Regarding: Environmental Report – Freeway Widening Project  
Harriet Tubman Middle School  
2231 N Flint Avenue  
Portland, Oregon 97227  
PBS Project 25000.203

Dear Mr. Crelier:

PBS Engineering and Environmental Inc. (PBS) has prepared this letter summarizing various environmental safety and health considerations related to the widening of the Interstate 5 (I-5) freeway alongside Harriet Tubman Middle School (HTMS) located at 2231 N Flint Avenue in Portland, Oregon (site).

### **PROJECT UNDERSTANDING**

PBS understands that Oregon Department of Transportation (ODOT) plans to widen the I-5 freeway alongside HTMS, which would include converting a portion of land along the western edge of the school to transportation land use. Current plans include construction of approximately 400 linear feet of new retaining wall along I-5, within approximately 20 feet of the school. Design of the wall is currently ongoing but will reportedly be a 5-foot-diameter secant or tangent pile wall with maximum exposed height of up to 20 feet. ODOT has submitted information related to the proposed design of the widening plan as well as projections relating to potential impacts to the environment surrounding the project.

### **BACKGROUND**

HTMS was built in 1952, originally as Eliot Elementary School. It is situated in the Eliot neighborhood in the Albina area of Portland, just east of I-5. After World War II, Portland residents approved a measure to modernize and construct Portland Public School buildings to address the increase in families to the area as a result of wartime industry. During the war, and particularly after the 1948 Vanport flood, an influx of African Americans moved to Albina. In 1962, I-5 construction cut a wide swath through the Eliot neighborhood, demolishing homes and displacing many citizens, subsequently resulting in a population decrease in the area from the disconnection of the street grid and large increase in commuter cars going through the area.

This acquiring of properties in predominantly African American neighborhoods was all too common whether it be for construction of freeways or for commercial development. While the proposed widening of the freeway corridor does not represent seizing school property per se, it does appear to ignore the historical damage the freeway has caused this neighborhood and ignores the opportunity to make whole some of the damage that was caused.

With respect to future health and safety impacts to HTMS, the ODOT submittal focuses primarily on long-term projections relating to ambient air quality adjacent to the freeway corridor and freeway corridors in general. It is clear that over the last 20 years air quality adjacent to freeways has improved largely due to improvements in tailpipe emission standards and fuel formulations. This trend is compelling and will likely hold true in the long term. These projections, however, do not address likely short-term adverse impacts that could result from an increase in freeway capacity during morning and afternoon commutes when there would likely be more cars idling during periods of heavy traffic. The projections also do not account for possible regressions in both tailpipe emission standards and in fuel formulations. Nor do the progressions consider possible impacts related to climate change. When asked to clarify these specific concerns the ODOT response was incomplete.

One final glaring omission in the ODOT submittal is any recognition of the Environmental Protection Agency (EPA) document "School Siting Guidelines." This document unequivocally shows that freeways and schools do not mix. Freeways present a significant and measurable negative impact to the environment and the locating, or in this case the widening, of freeways in the vicinity of a school building will result in an environment that can harm students.

### **GEOTECHNICAL CONDITIONS AND POTENTIAL IMPACTS**

The site is roughly rectangular except for the southwestern corner, which has been truncated by an adjacent slope along I-5. The slope is approximately 3H:1V (horizontal to vertical), with a maximum elevation of approximately 138 feet above mean sea level on the school property, sloping downward to a retaining wall with a maximum height of approximately 14 feet that supports the slope. The approximately 20-foot-wide area between the school and adjacent slope is paved. Our current understanding is that the school building is supported on pile foundations.

Based on information presented by ODOT during the coordination meeting with Portland Public Schools (PPS) on May 4, 2021,<sup>1</sup> the school rests on approximately 30 feet of fill overlying fine-grained Missoula flood deposits ranging in thickness from approximately 10 to 30 feet, all underlain by alluvial sand deposits.

Under contract with PPS, Rhino One Geotechnical installed three inclinometers and two vibrating wire piezometers at the site and presented the results in an instrumentation monitoring report dated August 2019.<sup>2</sup> Inclinometer measurements indicated no measurable lateral or vertical movements around the time of installation. The groundwater monitoring indicated an increase in groundwater level in September 2018, from a depth of 40 feet to 35 feet below the ground surface, followed by relatively consistent groundwater levels over the remainder of the monitoring period.

ODOT's preliminary analyses suggest supporting the I-5 freeway widening with a tangent pile wall consisting of one row of 5-foot-diameter drilled shafts. At the time this information was presented to PBS, no tiebacks were deemed necessary to stabilize the wall.

A tangent pile wall consists of a series of vertical, drilled shafts that touch the adjacent piles. The drilled shafts are constructed of concrete and typically reinforced with steel rebar. The shaft is drilled to the target depth, removing

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<sup>1</sup> Oregon Department of Transportation (ODOT). (May 4, 2021). PPS Technical Coordination for I-5 Rose Quarter Improvement Project.

<sup>2</sup> Rhino One Geotechnical. (August 14, 2019). Instrumentation Monitoring Report: August 2019. Portland, Oregon. Prepared for Portland Public Schools. Rhino One Project PPS-2017-010.

soil cuttings in the process. The rebar is typically inserted into the open hole before it is filled with concrete. A secant pile wall is similar to a tangent pile wall, except that in a secant pile wall, piles overlap several inches. In addition, only every other pile may be reinforced with steel rebar.

Tangent pile walls are often used when limiting deformation of the wall is critical, such as when the wall is supporting a structure. In addition, the construction of tangent pile walls involves drilled shafts, as opposed to driven piles, and typically produce lower levels of vibration during construction, which could help limit disturbance or structural damage to the school. In our opinion, given the school is on deep foundations, small magnitudes of deformation of the wall would be less likely to result in structural damage.

Based on information presented by ODOT during the coordination meeting with PPS on May 4, 2021, the existing wall and slope between I-5 and the school is seismically unstable. The new wall system proposed by ODOT would meet the current standard for seismic loading, resulting in an increase in seismic stability of the adjacent slope. Improved seismic stability decreases the risk of failure of the slope during a seismic event, which in turn reduces the risk of structural damage to the school. PBS recommends that the seismic design consider the impact from a 2,500-year earthquake, consistent with the current Oregon Structural Specialty Code, rather than the 1,000-year event, which is typically considered for transportation projects.

For a 400-foot-long, 5-foot-diameter tangent pile wall, with an average exposed wall height of 10 feet and 20 feet of embedment, approximately 2,100 cubic yards of soil would need to be exported. The volume of exported soil would require more than 200 dump truck trips. This assumes a swell factor of 20% and dump trucks with a 10-cubic-yard capacity.

While the ODOT submittal supports the installation of the tangent wall in order to provide increased seismic stability of HTMS, it does not discuss how the original placement of the freeway corridor has compromised the seismic stability of the school and adjacent hillside. It is PBS' opinion that ODOT has an obligation to provide seismic reinforcement of the school building whether or not the freeway is widened.

## **ENVIRONMENTAL HEALTH AND SAFETY IMPACTS AND PLANNED/POSSIBLE MITIGATION**

### **Construction Period Operations Impacts (Noise, Environmental, Access/Egress)**

The installation of retaining wall piles along the border between HTMS and the subsequent widening of the I-5 freeway will be a significant undertaking that will have detrimental short-term impacts on the fundamental utility of HTMS and to the surrounding neighborhood. Use of semi-permanent cranes, the flow of dump trucks and cement trucks through the property, and the mobilization of countless construction workers and their vehicles will at times bring all neighborhood traffic to a standstill. The development of a comprehensive traffic control plan can help attenuate some of these impacts but there will be significant impacts nonetheless.

While some of the project traffic surfacing will be paved, the moving of large quantities of soil will result in the deposition of construction soil on both the school property and the neighboring roadways. Dirt and debris that is tracked off from construction sites is a safety concern and can present an environmental hazard. Use of vehicle tire/wheel washes can reduce soil deposition to the surrounding neighborhood. Chemical analysis of soils on the project have indicated the presence of a variety of contaminants that could be made airborne without the implementation of aggressive dust controls. Any wastewater generated from dust mitigation measures should be captured in order to perform an appropriate characterization of possible environmental contamination.

During the project there will be temporary and semi-permanent impacts to neighborhood traffic depending on the final traffic control plan that is developed and implemented for the project. These will hinder access to the property for students, staff, and parents. These effects will evolve over the course of the project as various phases of the construction are completed. Emergency access and egress to the property for emergency services providers may be hindered as well.

### **Post-Construction Period Impacts (Noise, Environmental, Access/Egress)**

Based upon review of the ODOT submittal, the widening of the freeway will have a minimal effect on the long-term noise levels in and around HTMS. The ODOT submittal goes further and presents noise barrier wall scenarios that will reduce long-term overall noise levels at HTMS. The ODOT submittal does not address the deleterious effects of the current noise levels at HTMS that are the direct result of the existing freeway traffic. Nor does the ODOT submittal address increases in short-term transient noise levels that would be presented during periods of heavier (due to the wider freeway) traffic congestion that will coincide with morning and afternoon commutes. It is unfortunate that these periods of increased traffic congestion will occur at the very times students are outdoors preparing to start their school days and outdoors getting ready to go home.

The installation of sound attenuation barriers along freeways is ubiquitous. They are most often seen in areas where freeways pass through residential neighborhoods. Almost without exception they are masonry panel structures that rise to an elevation of up to 10 feet or more. These systems are effective at deflecting noise generated by freeway traffic. Noise levels aside, these barriers rarely improve the livability of the area being protected. What was once a view of the horizon will become a gray masonry surface that is subject to vandalization, physical damage, long-term maintenance costs, and ultimately end of life replacement. Also, noise barriers work both ways; all noise generated in the vicinity of HTMS will now be reflected directly back to the school building. These noises could include vehicle operations, equipment operations, various warning signals (trucks backing up, fire alarms, car alarms, etc.), children playing, and conversation. The ODOT submittal makes no mention of potential increases in noise levels from noises generated at HTMS.

### **EXISTING ENVIRONMENTAL CONDITIONS AND POTENTIAL SOIL AND GROUNDWATER IMPACTS**

Soil studies on the project have documented chemical contamination of the soil. These levels are generally low. Potential exposures to these chemical contaminants would likely be limited to the duration of construction period operations (see above). Upon completion of the construction project, there would be no significant exposure to existing contaminated soil. All surfaces exposed during the project would be either covered with paving or covered with clean soil that would then be seeded.

ODOT to date has not analyzed groundwater on the site for chemical contamination. Considering the depth to groundwater in the vicinity of the project, it is not likely that the construction operations would create an unacceptable conduit for the mobilization of these soil contaminants into the existing groundwater. As a precaution, before and after construction groundwater samples could be analyzed for those contaminants of concern that have been identified in the soils on the HTMS project.

### **SHORT-TERM AND LONG-TERM IMPACTS TO AIR QUALITY**

Over the past decade, the freeway's effect on air quality in the HTMS vicinity has been extensively studied and shows that there are measurable adverse impacts to the air quality at HTMS. The negative impacts are consistent with the "School Siting Guidelines" document. The ODOT submittal relies on both national projections of air quality parameters around freeways and the findings of an air pollution modeling tool—MOVES. The modeling tool utilizes a variety of parameters to predict air quality trends related to freeway traffic. Parameters entered into

this modeling software include miles driven over the roadway, a profile of vehicles in use, the aging out of older vehicles, fuel types, and quality and weather dynamics including temperature, prevailing wind directions, humidity, and precipitation. To better understand the MOVES air quality predictions, ODOT was presented with the following questions:

ODOT was asked if there was a resolution to the predictions that would allow a person to determine short-term impacts on an hour-by-hour basis because the greatest exposure concerns to students would likely occur during morning and early afternoon hours which coincide with periods of heaviest congestion on the freeway. The ODOT response was that the predictions are more geared toward long-term, average conditions (24-hour averages).

ODOT was asked if the long-term air quality impact predictions were made considering a possible climate change scenario where ambient temperatures were higher. ODOT's response was that speculative parameters were not used but that "Temperature is a very sensitive parameter across all pollutants and vehicle types."

ODOT was asked if the predictions could be separated into narrower time bands; the predictions as presented were for 2045. The ODOT response was that the predictions are more geared toward long-term, average conditions (24-hour averages).

Considering this latest information from ODOT, it is PBS' opinion that the model predictions relating to air quality impacts associated with the I-5 freeway do not provide sufficient resolution to determine if air quality conditions will be better or worse in the short-term or during the times when students would be at greatest risk of environmental exposures associated with the freeway.

## **CONCLUSIONS AND RECOMMENDATIONS**

At this time, it is PBS' opinion that the I-5 freeway presents an unacceptable air quality and noise risk to the safe and healthful operation of HTMS and that the widening of the freeway will not change this.

Based upon review of the ODOT submittal, it is clear that any increase in noise to HTMS associated with the widening project will be minor and easily mitigated. It should be understood, however, that current freeway noise near HTMS is significant and that these impacts will continue despite installation of the proposed noise barriers.

PBS sees no compelling information to indicate that there would not be short-duration adverse air quality impacts to HTMS resulting from the widening of the freeway. It is possible that air quality conditions at 8:00 am and at 3:00 pm during school days will be worse at HTMS because of this project.

ODOT has recognized that the current shoring system between HTMS and the freeway is unstable. This condition is the result of the original establishment of the freeway and should be corrected whether the freeway is widened or not.

If you have any questions regarding this information, please call me at your convenience. I can be reached at 503.417.7597 or douglas@pbsusa.com with any questions or comments.

Sincerely,

Douglas Hancock, CIH, CSP  
Senior Project Manager

DH:mo



**Harriet Tubman Middle School**  
**Indoor and Outdoor Air Quality Health Risk Assessment**

**Prepared by**  
**William Lambert, PhD**  
**August 19, 2019**

## 1.0 Executive Summary

The design and installation of the HVAC system for Harriet Tubman Middle School was developed out of concern for the health of students and staff. Portland Public Schools recognized that the outdoor air at the school was impacted by traffic-related air pollution from I-5, and potentially by area industry. Preliminary air monitoring conducted in March and April of 2018 confirmed the need for an HVAC system with filtration for particles and gases to prevent sustained daily exposure. Renovation of the school building and installation of the HVAC system was completed in August. To evaluate the performance of the particle filters and the charcoal sorption bed, a new round of monitoring was conducted in September and October, with measurements made at the air intake and within the air handling units of the HVAC system. These measurements confirmed that the HVAC system achieved protective levels of indoor air quality at the time of occupancy. A third round of monitoring was conducted at the end of the school year, in April and May of 2019. Measurements at this time confirmed the HVAC system continued to provide a high level of removal of particles and gases.

This report provides an analysis of the adequacy of the HVAC system to minimize the health risks posed by air pollution at Harriet Tubman Middle School. The measurements of the various components of traffic-related air pollution are evaluated against available federal and state air quality standards, and published governmental and scientific literature. The report also evaluates the potential health risks from exposure to outdoor air pollution during physical education and lunch periods.

The five key conclusions from the health analysis are:

1. Indoor levels of air pollution are very low. For each of the pollutants monitored, the filtered air delivered to the classrooms and interior spaces of the school is clean, safe and supportive of health for students and staff.
2. Particle and gas removal by the HVAC system and its filtration systems remained consistently high across the school year.
3. Outdoor levels of particulate matter (PM<sub>10</sub>, and PM<sub>2.5</sub>) and the gases carbon monoxide (CO) and nitrogen dioxide (NO<sub>2</sub>) are below federal air quality standards, and therefore pose no concern for health during physical activities.
4. Certain pollutants associated with diesel exhaust (ultrafine particles and black carbon) were observed at elevated levels typical of locations near heavily travelled highways. The HVAC system provides a high level of protection against exposure in the classrooms and interior of the building.
5. The health risks of short-term exposures to diesel pollution are not known, and regulatory limits have not been established. However, sufficient toxicological and epidemiological evidence exists to recommend that outdoor physical education activities be scheduled in the later morning and afternoon when traffic pollution is much lower. This recommendation is made with an abundance of caution, recognizing that some students, such as those with asthma, may be more susceptible to adverse effects of traffic-related air pollution.

## **2.0 Introduction**

Increasing public health attention to traffic-related air pollution (TRAP) compelled Portland Public Schools (PPS) to design and install a heating, ventilation, and air conditioning (HVAC) system with filtration for particles and gases during the modernization of Harriet Tubman Middle School. The predominant concern was the reduction of day-to-day exposures to TRAP that have been associated with reduced lung growth in children, and increased risk for the development (onset) of asthma and exacerbation (triggering) of asthma attacks. The commitment to install the HVAC system by PPS also acknowledged emerging health research concerns for individual components of TRAP, specifically diesel particulate matter. Extensive air monitoring studies were conducted by scientists from Portland State University to characterize the outdoor air quality and confirm the adequacy of the performance of the HVAC filtration system to provide clean air to classrooms and indoor spaces at the school. Air quality measurements were first made in the April 2018, and were conducted again in the September and October following installation of the HVAC system and building occupancy. Another cycle of measurements was made in April and May of 2019 to evaluate outdoor-indoor conditions after 7 months of air handling system operation.

The PSU team conducted a monitoring on a comprehensive set of individual pollutants that comprise TRAP. The set of pollutants include the “criteria pollutants” carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) whose health effects are widely recognized and for which federal regulatory standards exist (NAAQS Table). Ultrafine particles (UFP), black carbon (BC), and volatile organic compounds (VOCs) are constituents of diesel exhaust and these forms of PM were also monitored. Specific air quality standards do not exist for these diesel pollutants, however, evidence from animal toxicology research and ongoing epidemiologic studies support concern for children as particularly susceptible to the adverse respiratory effects of long-term exposure to diesel particulate pollution (HEI 2010; HEI 2013; Guarnieri and Balmes 2014).

This report provides an opinion on the health risks posed to students and staff at Harriet Tubman Middle School using the measured exposures in outdoor and indoor air. This analysis follows a weight-of-evidence approach that applies federal health-based standards when available, and applies information from published studies for pollutants which lack regulatory guidelines.

## **3.0 Carbon Monoxide**

### **3.1 Relevant Background**

Carbon monoxide (CO) is a toxic asphyxiant gas that is hazardous because of its specific ability to bind to hemoglobin and to reduce the ability of the blood to deliver oxygen to tissues. As a component of motor vehicle emissions, CO penetrates to indoor spaces with high efficiency because this gas has very low chemical reactivity. These same physical and chemical properties limit engineering abilities to economically remove CO gas when present in the intake air of building ventilation systems. To protect public health, regulatory emphasis has been placed on reducing CO emissions from motor vehicles through the cleaner formulations of gasoline fuels, motor/vehicle inspection maintenance programs, and reducing emissions from wood stoves, fireplaces, open burning, and industrial sources. CO trends

for Oregon and Portland have steadily declined over the past 5 decades and currently the second highest 8-hour average occurring in a year is less than 2 ppm (<https://www.oregon.gov/deq/FilterDocs/2017aqannualreport.pdf> ). Although CO from motor vehicle emissions disperses quickly under most conditions, poor traffic flow and congestion can lead to elevated exposures for motor vehicle occupants and persons in close proximity to highways. CO concentrations measured at microscale sites have declined in the same proportions as concentrations recorded at monitors representing larger urban regions. Ambient monitoring at near-road locations indicate that the federal standards are not exceeded, and this protection is attributed to greatly improved control of motor vehicle emissions (e.g., clean burning fuels, improved light-duty engine design, and catalytic convertors). Measurements of ambient CO at the Oregon DEQ I-5 Tualatin near-roadway air monitoring station have not recorded exceedances of federal standards during 2015 to 2017 (maximum 8-hour averages = 1.4 ppm).

The health risks of CO have been long recognized and CO is one of the original six “criteria” air pollutants defined in the Clean Air Act of 1970. The current National Ambient Air Quality Standard (NAAQS) for carbon monoxide is 35 ppm over a 1-hour averaging time and 9 ppm over an 8-hour averaging time (<https://www.epa.gov/criteria-air-pollutants/naaqs-table> ). These levels are based on an extensive evidence base from epidemiologic studies and controlled exposure studies on human subjects (<https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=218686&CFID=78776911&CFTOKEN=81884369> ). The two averaging times prevent blood carboxyhemoglobin levels from reaching 2%, the level at which chest pain (angina pectoris) is triggered in exercising adults with coronary artery disease, and to protect pregnant women and the developing fetus from hypoxic stress and low birth weight outcomes. As a point of reference, carboxyhemoglobin concentrations in cigarette smokers range from 3-8% and symptoms of intoxication and acute poisoning generally appear above 20%, although symptoms and clinical states of acute CO poisoning correlate poorly with level of carboxyhemoglobin (Raub 2000).

### **3.1.2 HTMS Outdoor and Indoor Levels**

The distribution of school-day average CO concentrations during Portland State University’s Phase II (September-October) and Phase III (April-June) monitoring periods is presented in Figure 1. During the Fall, outdoor carbon monoxide levels averaged 0.4 ppm (432 ppb) over the 9 AM to 4 PM school day. The maximum school-day average was 1.4 ppm (1434 ppb). 95 percent of the outdoor air school-day averages in the Fall were below 0.6 ppm (639 ppb).

In the Fall, measurements of CO levels at the supply air point of the HVAC system, representing air that has been filtered of particles and passed through the charcoal bed, contained substantially lower concentrations of CO relative to the outdoor air. Approximately 44% removal was observed. However, measurements of the return air were essentially equal to the concentrations measured in outdoor air, suggesting CO infiltration through the building envelope.

In the Spring, the outdoor average level was 0.09 ppm (90.8 ppb), considerably lower than the Fall average. 95% of the school-day averages were below 0.2 ppb (236 ppb). Concentrations in the supply air were identical with the outdoor air. Although CO has not been removed from the air supplied to the

interior space of the school, these levels are below the NAAQS of 9 ppm averaged over 8 hours. Measurements of CO in the return air, representing the mixed air of the entire interior of the school, averaged 0.07 (73.9 ppb). This small difference in the air concentration is not appreciable, and is supportive of improved balancing of air delivery and minimization of infiltration in the Spring.

### **3.1.3 Implications for Health**

Although the levels of CO in outdoor air were higher in the Fall than in the Spring, these school-day average levels of 0.4 ppm and 0.2 ppm are well below the NAAQS 9 ppm 8-hour average. Even the highest school-day average of 2.2 ppm is only one-fourth the level of the NAAQS. Thus, exposures of students and staff to CO at Harriet Tubman Middle School do not differ from those expected to be received at their residences or during commuting.

Measurements of ambient CO in the Portland area by the Oregon DEQ at Portland monitoring stations and do not exceed the NAAQS. For example, during 2008-2017, maximum 8-hour averages measured by the DEQ at the SE Lafayette neighborhood site ranged from 1.3 to 3.1 ppm, and for the near-roadway site at Tualatin I-5 during 2015-17 maximum 8-hour averages range from 1.3 to 1.4 ppm (Oregon Air Quality Annual Report 2017).

In summary, the monitoring data from Fall 2018 and Spring 2019 at HTMS confirm that concentrations of CO are consistently low and do not present a health risk to students and staff.

## **3.2 Nitrogen Dioxide**

### **3.2.1 Relevant Background**

Nitrogen dioxide (NO<sub>2</sub>) is an irritant gas that combines with water on respiratory tract tissues to form nitric (HNO<sub>3</sub>) and nitrous (HNO<sub>2</sub>) acids. When inhaled in high concentrations, NO<sub>2</sub> results in edema and bronchopneumonia. At lower concentrations, short term (acute) exposures to NO<sub>2</sub> are associated with exacerbation of asthma caused by the constriction of the smooth muscle of the conducting airways and increased mucous production. Longer term exposures at low levels are associated with the development of asthma in children. The health effects of NO<sub>2</sub> are well documented in experimental studies in animals, and in controlled human exposure and epidemiologic studies (<https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=310879>). As a chemical class, nitrogen oxides are principal components of motor vehicle emissions, and NO<sub>2</sub> is specifically regulated as a criteria pollutant under the Clean Air Act. In recognition of the need to protect against both acute and chronic exposures, the current NAAQS for NO<sub>2</sub> are 100 ppb averaged over 1 hour and 53 ppb averaged over 1 year (<https://www.epa.gov/criteria-air-pollutants/naaqs-table>).

Over the past decade, Oregon DEQ monitoring data at the Portland neighborhood site, highest hourly averages of NO<sub>2</sub> have been near 40 ppb (<https://www.oregon.gov/deq/FilterDocs/2017aqannualreport.pdf>). Over 2015 to 2017, the daily maximum concentrations from the I-5 near-roadway station in Tualatin has also tracked in the 35-40 ppb range. Thus, the maximum concentrations measured at urban locations in Portland are well below

the federal standard of 100 ppb. Similarly the annual NO<sub>2</sub> average for the neighborhood and near-roadway monitoring sites has consistently tracked near 10 ppb and 13 ppb, respectively; also well below the federal standard of 53 ppb.

### **3.2.2 HTMS Outdoor and Indoor Levels**

The distribution of school-day average NO<sub>2</sub> concentrations during the Fall and Spring monitoring periods is presented in Figure 2. In the Fall, outdoor NO<sub>2</sub> levels averaged 13.0 ppb over the 9 AM to 4 PM school day. The highest school-day average was 67.6 ppb. 95 percent of the daily averages were below 30 ppb, and 75 percent were below 20 ppb. The mean supply air average was 0.89 ppb, indicating a high level of removal by the air handling system. The mean NO<sub>2</sub> levels in return air was 6.92 ppb. Despite the apparent infiltration of outdoor NO<sub>2</sub> through the building envelope, indoor NO<sub>2</sub> levels are approximately one-half of the levels observed in outdoor air.

In the Spring monitoring period, the school-day average of 7.3 ppb was substantially lower than concentrations observed in the Fall. Supply air concentration averaged 2.8 ppb, again indicating substantial removal by the HVAC system. Return air NO<sub>2</sub> concentrations averaged 0.9 ppb, substantially lower than the supply air and possibly indicating reaction of NO<sub>2</sub> with indoor surfaces and occupants.

Outdoor NO<sub>2</sub> levels measured by passive samplers placed on the school grounds, the adjacent city park, and neighborhood streets provided one-week average measurements that were comparable to the levels measured in outdoor air at the HVAC intake unit, and demonstrated reductions in levels with increasing distance from the I-5 highway.

### **3.2.3 Implications for Health**

NO<sub>2</sub> is not simply an indicator of other traffic-related pollutants, and this oxidant gas has independent effects on the respiratory system. High short-term exposures are associated with asthma attacks, and with bronchoconstriction and airway inflammation. These health effects are observed independent of other traffic-related pollutants, such as PM<sub>2.5</sub> and black carbon. Further, repeated and persistent exposure to NO<sub>2</sub> across years results in the development of allergic responses and structural changes to the airways of the child, damaging lung growth. Because the respiratory effects of NO<sub>2</sub> appear to occur across both short- and long-term time scales, the U.S. EPA developed standards for both 1-hour and annual averaging times to provide protection against triggering asthma attacks, and against asthma development.

Indoor concentrations of NO<sub>2</sub> in the school, as represented by the levels measured in return air to the HVAC system in the Fall and Spring, averaged 6.9 and 0.88 ppb, respectively. These school levels are very low relative to the 1-hour standard of 100 ppb and the annual standard of 53 ppb, and are likely lower than levels of exposure experienced by students and staff in their homes and neighborhoods.

Outdoor concentrations averaged 13 ppb across the 9 AM to 4 PM school day in the Fall and 7 ppb in the Spring. These levels are higher than neighborhood background and reflect the influence of traffic

emissions from I-5, but they are well below the federal standards of 100 ppb 1-hour average and 53 ppb annual average.

The maximum school-day average concentration was 67.6 ppb in the Fall of 2018, and 75% of school-day averages during this monitoring period were less than 20 ppb. These levels are substantially lower than the concentrations known to trigger changes in lung function and symptoms in panel studies of asthmatic children (U.S. EPA *Integrated Science Assessment for Nitrogen Oxides*, 2016). The concentrations associated with increased airway responsiveness range from 200 to 300 ppb for 30 min, and 100 ppb for 1 hour. The concentrations associated with allergic inflammation are 581 ppb for 15 min and 260 ppb for 30 min. Therefore, the observed levels of NO<sub>2</sub> in outdoor air surrounding the school buildings and the park are below levels of concern for this susceptible group of children.

### **3.3 Particulate Matter**

#### **3.3.1 Relevant Background**

As type of air pollution, particulate matter (PM) includes finely divided solid and liquid materials that are suspended and move in the air. The size distribution of particles can vary greatly, and the mixtures of depend on the types of sources. The smaller size classes of particles are of greater health concern because they have the capability to bypass the normal defenses of the upper respiratory tract and can be inhaled deeply into the lungs where they can be deposited and cause harm.

Two principal classes of particle sizes are used in federal air pollution standards: “PM<sub>10</sub>” which are particles smaller than 10 microns in diameter and able to be inhaled through the nose. Soil dust, pollen, and mold particles are in this size range. “PM<sub>2.5</sub>” is comprised of particles that are 2.5 microns and smaller, and includes the class of particles that are called “fine” (diameters of 0.1 to 2.5 μm) and “ultrafine” (0.01 to 0.1 μm). Combustion processes generate this size fraction, and some of the fine and ultrafine particles of PM<sub>2.5</sub> may contain liquid acid condensates, organic compounds, and heavy metals, increasing their toxic potential. The health effects of particulate matter include respiratory system irritation, lung damage, the development of chronic obstructive pulmonary disease (COPD), and heart attacks (U.S. EPA. *Integrated Science Assessment for Particulate Matter (External Review Draft)*, 2018).

Particulate matter air pollution is measured as weight (mass) per cubic meter of air, and the federal standards are defined using these units. The NAAQS for PM<sub>10</sub> is 150 micrograms per cubic meter (μg/m<sup>3</sup>) averaged over a 24-hour period. The NAAQS for PM<sub>2.5</sub> is 35 μg/m<sup>3</sup> averaged over a 24-hour period and 12 μg/m<sup>3</sup> averaged over one year.

#### **3.3.2 HTMS Outdoor and Indoor Levels**

The school-day average levels of outdoor PM<sub>10</sub> were relatively low during the Fall monitoring period (Figure 3). At this time, PM<sub>10</sub> averaged 2.58 μg/m<sup>3</sup> with an interquartile range of 1.40 to 3.30 μg/m<sup>3</sup>. PM<sub>10</sub> concentration in the supply air averaged 0.14 μg/m<sup>3</sup> indicating high removal capacity by the HVAC filtration system. A small increase of PM<sub>10</sub> was observed in the return air, which averaged 1.20 μg/m<sup>3</sup>, and can be attributed to re-suspended interior dust and infiltration. Outdoor PM<sub>10</sub> levels were higher in

the Spring, with average levels at  $7.39 \mu\text{g}/\text{m}^3$  and an interquartile range of  $5.28$  to  $9.33 \mu\text{g}/\text{m}^3$ . High removal efficiency was observed again; supply air concentrations of  $\text{PM}_{10}$  averaged  $3.08 \mu\text{g}/\text{m}^3$  and the return air average concentration were essentially the same at  $3.11 \mu\text{g}/\text{m}^3$ . In summary, the outdoor levels of  $\text{PM}_{10}$  are considerably lower than the  $150 \mu\text{g}/\text{m}^3$  per 24-hour average NAAQS, and the school's HVAC system effectively filters  $\text{PM}_{10}$  to very low indoor levels.

Outdoor air concentrations of  $\text{PM}_{2.5}$  were also consistently low in both the Fall and Spring (Figure 4). In the Fall,  $\text{PM}_{2.5}$  averaged  $2.13 \mu\text{g}/\text{m}^3$  with an interquartile range of  $1.06$  to  $2.86 \mu\text{g}/\text{m}^3$ . Thus, outdoor levels are below the NAAQS of  $35 \mu\text{g}/\text{m}^3$  24-hour average and  $12 \mu\text{g}/\text{m}^3$  annual average. In the Spring,  $\text{PM}_{2.5}$  averaged  $2.69 \mu\text{g}/\text{m}^3$  with an interquartile range of  $1.25$  to  $3.85 \mu\text{g}/\text{m}^3$ . Effective removal capacity of  $\text{PM}_{2.5}$  by the HVAC system was observed in both seasons. Return air concentrations averaged  $0.72 \mu\text{g}/\text{m}^3$  in the Fall and  $0.71$  in the Spring, demonstrating very low  $\text{PM}_{2.5}$  exposures to building occupants.

### **3.3.3 Implications for Health**

Both  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$  in outdoor air were measured at concentrations below the federal standards in both the Fall and Spring seasons, supporting the conclusion that particulate matter pollution from I-5 does not present a health hazard for students and staff. The HVAC system was specifically designed to remove particles in this inhalable and respirable size range, and large removal efficiencies were observed in both monitoring seasons, providing evidence of air handling system stability across the entire school year. Because students are in the filtered indoor environment during the majority of the school day, their total exposure to particulate matter is likely reduced relative to the exposures they would have received at their residences full-time.

The potential health risks associated with short-term particulate matter exposure during outdoor activities must be considered. The U.S. EPA's *Integrated Science Assessment for Particulate Matter (2018)* combines the evidence from controlled animal studies employing short-term exposures on markers of lung injury and oxidative stress. These toxicological studies provide insight into the potential mechanisms of respiratory health effects (biological plausibility) and assist with the interpretation of epidemiologic evidence. While multiple studies of long-term  $\text{PM}_{2.5}$  exposure provide coherent evidence to support a causal role in the development of asthma in children, the evidence to support short-term effects on asthma attacks is much more limited. Collectively, the available epidemiologic studies on children with asthma in U.S. cities provide weak support for aggravation of asthma symptoms at 24-hour average concentrations typically experienced in urban areas. The shared limitations of these studies include reliance on self-reported symptoms, incomplete adjustment for co-occurring pollutants, use of modelled personal exposure from central monitoring sites, and the potential for the constituents of  $\text{PM}_{2.5}$  (elemental carbon, ultrafine particles), rather than  $\text{PM}_{2.5}$  mass itself, to explain the observed outcomes. Further, the ambient concentrations in these studies are substantially higher than levels observed outdoors at the school where average school-day  $\text{PM}_{2.5}$  levels in the Fall of 2018 were  $2.13 \mu\text{g}/\text{m}^3$ . Mean 24-hour  $\text{PM}_{2.5}$  concentrations are greater than  $15 \mu\text{g}/\text{m}^3$  in studies of emergency department visits and hospital admissions for asthma (Sarnat et al. 2015; Ostro et al. 2016), and those studies considering respiratory symptoms and asthma medication (Rabinovitch et al. 2006; Mann et al. 2010; Spira-Cohen et al. 2011).

In summary, the outdoor concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> at HTMS are below federal standards, and are safe for students and staff, including those with asthma. The school's HVAC system further reduces these concentrations to create an indoor environment which has very low levels of PM<sub>10</sub> and PM<sub>2.5</sub> pollution.

### **3.4 Black Carbon**

#### **3.4.1 Relevant Background**

Black carbon (BC) is an important component of particulate matter, and is emitted during the combustion of biomass and fossil fuels. In particular, BC in the ultrafine particle fraction is used as a marker of diesel exhaust and is argued to be a useful alternative measure to particle mass (PM<sub>10</sub> and PM<sub>2.5</sub>) because health risks may be qualitatively and quantitatively different due to unique physical and chemical properties of BC (Jannsen et al. 2011). Diesel exhaust is a complex mixture of gases and ultrafine particles of a diameter less than 0.1 µm. No single chemical constituent of diesel exhaust can serve as a unique marker of exposure (Grahame, Klemm, and Schlesinger 2014), but taken together, fine particles (PM<sub>2.5</sub>), BC, ultrafine particle counts provide a reasonably complete characterization of diesel exhaust levels.

The available epidemiologic evidence on the health effects of diesel exhaust goes back to the 1990s but the studies are challenging to interpret because exposures are not precisely quantified. Further, the studies were conducted in occupational settings and on healthy adult male workers, therefore the levels of exposure are above the range observed in the community setting and must be extrapolated with some uncertainty to women, children, and the elderly. Although no federal air quality standard for BC or diesel particulate matter exists, the health hazard is recognized (Health Effects Institute, 2015). The health endpoint of regulatory concern has been lung cancer and risk assessments are based on lifetime exposure scenarios. However, the U.S. EPA and the World Health Organization have withdrawn their previously published unit risk estimates, ostensibly because the most appropriate metric to represent diesel exhaust exposure remains unknown. PM<sub>2.5</sub> elemental carbon (EC) has been used as a surrogate to date, but it is not expected that EC itself is the toxicologically active agent. In 2010 and again in 2016, the Oregon Air Toxics Science Advisory Committee (ATSAC) reviewed the available literature on diesel particulate matter and recommended an Ambient Benchmark Concentration (ABC) of 0.1 µg/m<sup>3</sup> (equivalent to 100 ng/m<sup>3</sup>) which is very close to these previous risk estimates of the EPA and WHO, and assumes 70-year exposure duration and risk of 1 excess cancer in 1 million persons. This ABC was adopted by the Oregon Environmental Council in 2017, and provides a point of reference for evaluating potential health risk.

The possible effects of exposure to BC on neurodevelopment and cognition in school children have also been the subject of recent research efforts in Europe and the U.S (Basagana et al. 2016; Harris et al. 2016; Forns et al. 2017). These studies are motivated by the observation of translocation of ultrafine and fine particles from the lungs to the central nervous system in animal toxicology studies (Elder et al. 2006). The BREATHE Program in Barcelona, Spain followed 2,687 children in 265 classrooms in 39 schools, assessing attention with a computer-administered neurobehavioral test. Classrooms in these

schools are naturally ventilated and the penetration of outdoor PM<sub>2.5</sub> and NO<sub>2</sub> to the schools' indoor areas is high (Amato et al. 2014), and means that school children are exposed to elevated levels throughout the school day, indoors and outdoors. In the Barcelona classrooms, the mean NO<sub>2</sub> level was 15.8 ppb (11.9-18.9 ppb interquartile range) and the mean PM<sub>2.5</sub> elemental carbon was 1270 ng/m<sup>3</sup> (980-1240 ng/m<sup>3</sup> interquartile range). EC is measured using a thermal-optical transmittance, and BC is measured by optical reflectance - aethelometer. The BC:EC correlation is approximately 3:1 and varies with the source of soot emissions (Jeong et al. 2004). Converting the Barcelona EC values to BC yields 3810 ng/m<sup>3</sup> (2940-3720 ng/m<sup>3</sup> interquartile range). In another BREATHE publication, Sunyer et al. (2017) reported lower performance on attention tests for school children in the top exposure quartile of daily classroom EC and NO<sub>2</sub> relative to those in the bottom exposure quartile over a 12-month period. Basagana et al. (2016) reported reductions in cognitive growth in working memory and attentiveness across quartiles of classroom PM<sub>2.5</sub>, but these effects were not observed for EC or other measures of particulate matter. The most recent Barcelona publication by Forns et al. (2017) demonstrated that deficits in working memory and inattentiveness persisted over 3.5 years of follow-up and were associated with outdoor NO<sub>2</sub> and indoor (classroom) ultrafine particle counts, but not EC.

The Project Viva Cohort Study in eastern Massachusetts followed children from pre-birth to 8 years of age (Harris et al. 2016). Residence location was used to model exposure to outdoor BC and PM<sub>2.5</sub>. Children with higher mid-childhood exposure to BC and increased near-residence traffic density had greater problems with behavioral regulation as assessed by teachers, but no relationship was observed using parent report measures. The methods used in this report are similar to those of a 2008 analysis of Boston children (Fraco Suglia 2008). BC exposures were retrospectively estimated with a land-use regression model for 218 children in a cohort study for which neurocognitive assessments were available. BC was associated with decreased cognitive function across measurements of verbal and nonverbal intelligence, and memory.

In summary, the body of evidence for the independent effect of BC on cognitive development and function in children provides mixed evidence to support a causal hypothesis. The most reliable evidence comes from the Barcelona BREATHE Program which utilizes direct measurements of EC at schools, which is superior to the reliance on estimated exposure from land-use models used in other studies. The associations with cognitive deficits reported in the set of BREATHE papers suggests that traffic-related pollution as a whole is responsible for the observed neurodevelopmental effects. It is important to recognize that the schools and classrooms in the Barcelona studies rely on natural ventilation and indoor levels of pollutants are similar to those outdoors. In contrast, the HVAC system at Harriett Tubman Middle School effectively removes the fine particles and BC from traffic emissions and eliminates the hazard posed by sustained exposure to traffic air pollution throughout the school day.

### **3.4.2 HTMS Outdoor and Indoor Levels**

The distributions of BC concentrations in outdoor air, and the supply and return air locations in the HVAC system are presented in Figure 5. Levels of BC in outdoor air were appreciably higher in the Fall 2018 monitoring period than during the Spring of 2019, with mean school-day concentration averaging 1399 ng/m<sup>3</sup> and an interquartile range of 757 to 1925 ng/m<sup>3</sup>. In the Spring, mean school-day average BC

was 829 ng/m<sup>3</sup>, with an interquartile range of 290 to 1127 ng/m<sup>3</sup>. Thus, outdoor levels in both seasons exceeded the Oregon ABC. In both monitoring seasons, the HVAC system demonstrated large removal efficiencies for BC; approximately 95% in the Fall and 86% in the Spring. Very tight distributions of values were observed in the Spring for supply and return air, evidence of very good HVAC system performance.

In the Spring monitoring, BC was measured with a handheld aethelometer in the park and other outdoor areas surrounding the school, during lunchtime and afternoon hours. Median levels were comparable to those measured at the HVAC intake, ranging from 457 to 725 ng/m<sup>3</sup>. The median neighborhood background level, measured several blocks to the east of the school, was 333 ng/m<sup>3</sup>.

### **3.4.5 Implications for Health**

The outdoor concentrations of BC at HTMS are within expected ranges, and resemble distributions of BC measured in recent years at Oregon DEQ monitoring sites in Portland (Figure 6). The distribution of one-hour BC concentrations at the Portland North Roselawn neighborhood site measured during 2010 to 2016 had a mean of 718 ng/m<sup>3</sup>. At the Portland SE Lafayette over 10 months in 2010, a very similar distribution and mean of 745 ng/m<sup>3</sup> was observed. BC monitoring at the Tualatin I-5 near-roadway site over 2014 to 2016 averaged 1293 ng/m<sup>3</sup>. In comparison, the Fall season outdoor average at HTMS was 1623 ng/m<sup>3</sup> and in the Spring was 829 ng/m<sup>3</sup>. This comparison shows that outdoor levels of BC at HTMS are higher than residential neighborhood background levels in Portland, and are very similar to those measured at the DEQ near-roadway monitoring station, even though this DEQ site is a relatively long distance away in Tualatin.

Indoor BC exposure levels, as represented by return air concentrations, are very low, indicating a high level of protection for students and staff, with average school-day concentrations of 233 and 158 ng/m<sup>3</sup> in the Fall and Spring, respectively. While these indoor levels are higher than the 100 ng/m<sup>3</sup> ABC, they are within the uncertainty bounds of the risk estimate used to set this guideline, and the protection achieved by the HVAC system is very high. During the indoor time of the school day, students and staff experience lower exposures than they would likely receive in their homes or during commuting.

## **3.5 Ultrafine Particles**

### **3.5.1 Relevant Background**

As described earlier in Section 3.3, particulate matter (PM) is regulated in two size ranges, PM<sub>10</sub> and PM<sub>2.5</sub>. PM<sub>10</sub> is the total mass of particles less than 10 micrometers (microns or μm) in aerodynamic diameter. Similarly, PM<sub>2.5</sub> is the mass of particles less than 2.5 μm in diameter. PM<sub>2.5</sub> is also called *fine* particle mass. PM<sub>10</sub> minus PM<sub>2.5</sub> gives the *coarse* particle mass. Ultrafine particles (UFP) represent that size fraction of particulate matter less than 0.1 μm in diameter. Because the individual particles in UFP have very little mass, other measures such as particle count and surface area have been used for toxicity testing in animal experiments.

Ultrafine particles are poorly soluble and when they deposit by diffusion they readily pass into epithelial tissues because of their tiny dimensions. If deposited in the nasal passages, these particles can translocate through the olfactory nerve into the brain. When deposited in the respiratory tract, UFP can pass via blood or lymph, where they can distribute to other organs of the body, such as the heart.

The physical and chemical properties of PM vary greatly, and toxicity of the mixture of particulate matter is determined by size, chemical composition, and solubility. This is a major source of variability in the effects for particulate matter, where mass is used as the metric of exposure. For example, the PM<sub>2.5</sub> mass contains the mass of the UFP fraction, but this mass is relatively small compared to the weight of particles in the PM<sub>2.5</sub> – PM<sub>0.1</sub> fraction, and PM<sub>2.5</sub> mass does not accurately represent the presence of UFP. Thus, the use of particle counts to represent UFP exposure and dose has gained favor. Certainly, the application of a single set of federal air quality standards has practical advantages for monitoring and regulation, but the PM<sub>10</sub> and PM<sub>2.5</sub> standards are acknowledged to have limitations for public health protection. Epidemiologic studies of the effects of UFP have only recently been conducted, and the evidence for independent health effects of UFP is limited (HEI Panel on the Health Effects of Traffic-Related Air Pollution, 2010; HEI Review Panel on Ultrafine Particulates, 2013; Weichenthal et al. 2017).

### 3.5.2 HTMS Outdoor and Indoor Levels

Figure 7 presents the distribution of ultrafine particle counts for outdoor air, and supply and return air points in the HVAC system. Mean UFP counts are averaged over the 9 AM to 4 PM school day. In the Fall, UFP counts averaged 24908 particles/cm<sup>3</sup>, with an interquartile range of 17949 to 27170 particles/cm<sup>3</sup>. The HVAC system removed these particles very efficiently; the average count in supply air was 1484 particles/cm<sup>3</sup> and the return air was 1067. A walking transect conducted inside the school yielded a mean count of 461 particles/cm<sup>3</sup> and an interquartile range of 264 to 498 particles/cm<sup>3</sup>. Much lower counts were measured in outdoor air during the Spring monitoring period. The mean was 829 particles/cm<sup>3</sup>, with an interquartile range of 290 to 1127 particles/cm<sup>3</sup>. Particle filtration by the HVAC system continued to perform efficiently in the Spring, with mean supply air counts of 117 particles/cm<sup>3</sup> (interquartile range 62-151 particles/cm<sup>3</sup>) and mean return air counts of 158 (interquartile range 107 to 156 ng/cm<sup>3</sup>).

The PSU air monitoring team conducted walking transects in Lillis Albina Park and outdoor areas surrounding the school on two days in the Fall monitoring period and two days in the Spring. Particle counts were higher in the Fall than the Spring. A summary of the relative concentration magnitudes for Fall is presented below:

Location	Time	Ultrafine Particle Counts (median, particles/cm <sup>3</sup> )	
		Wed Oct-10	Wed Oct-15
Park	Morning 8-9 AM	13,000	39,000
Park	Morning 9-10 AM	26,000	43,000
Lunch 1	Noon hour 11:15-12 PM	10,000	15,000
Lunch 2	Noon hour 12-12:45 PM	8,000	16,000
Park	Afternoon 1-2 PM	13,000	14,000

Dismissal on Flint Ave	Afternoon 3:30-4:15 PM	6,800	6,600
Neighborhood	Afternoon 4:15 & later	---	5,400

Two patterns are evident in this table. First, substantial day-to-day variation is observed. Second, UFP counts are highest in the morning hours on both days, and drop substantially by the first lunch period. This hourly profile may be attributed to reduced traffic emissions on I-5 as the morning rush hour ends, and because of warming atmospheric temperatures and increasing wind speed (Zhu et al. 2006). This outdoor pattern is evident in Figure 8 which presents the median UFP counts for the Spring monitoring period by outdoor location and time of day.

### 3.5.3 Implications for Health

Although air quality regulations currently do not address UFP, this class of submicron-sized particles may exert greater toxic effects compared with larger particle because of their greater surface area/mass ratio, chemical composition, deeper lung penetration, and ability to translocate to the systemic circulation and other organs. A recent workshop concluded that the current evidence base does not differentiate the effects of UFP from other particle size fractions and gaseous pollutants (Baldauf et al. 2016). The limited available epidemiologic literature focuses on adult respiratory and cardiac outcomes, and mortality. Studies considering children are beginning to be reported. For example, prenatal UFP exposure was associated with asthma onset by age 6 years in a recently published study from Ontario, Canada (Lavigne et al. 2019).

The lack of epidemiologic evidence and regulatory standards for UFP precludes a quantitative assessment of the health risks in the outdoor air surrounding the school. However, avoidance of sustained exposures to UFP counts exceeding 25,000/cm<sup>3</sup> seems advisable based on acute physiologic changes in blood pressure and micro-vascular function observed in exercising women exposed to high levels of traffic-related air pollution for short periods (Weichenthal, Hatzopoulou, and Goldberg 2014). While these physiologic changes are of uncertain health significance at this time, they do suggest the body is showing an oxidative stress response, and this would be expected to also occur in children.

UFP levels in the range of 25,000 particles/cm<sup>3</sup> were observed in outdoor areas surrounding Harriet Tubman Middle School during the morning hours of the Fall monitoring period. While the health risks of short-term exposures UFP are not known, and regulatory limits have not been established, sufficient toxicological and epidemiological evidence exists to recommend that outdoor physical education activities be scheduled in the later morning and afternoon when traffic pollution is much lower. This provides a margin of safety for students and staff who may be more sensitive to the adverse effects of traffic pollution (i.e., asthmatics).

## 3.6 Volatile Organic Compounds

### 3.6.1 Relevant Background

Volatile organic compounds are emitted as gases during combustion of gasoline and diesel fuels, and they are also emitted from indoor sources, including building materials and furnishings, office

equipment, and cleaning products. In fact, the concentrations of many VOCs are higher in indoor residential settings and public buildings, than outdoors (U.S. EPA Team Study, 1985). The health effects associated with exposure to VOCs include eye and upper airway irritation, asthma and allergic respiratory symptoms, headaches, dizziness, and nausea, memory impairment, damage to the liver, kidney and central nervous system, and for certain VOCs, cancer (Indoor Air Quality Scientific Findings Resource Bank, <https://iaqscience.lbl.gov/voc-sensory> ). The charcoal bed filter bank in the HVAC system at HTMS is designed to remove broad classes of VOCs from outdoor air. There are hundreds of organic compounds, therefore a reduced set of VOCs with relevance to TRAP or high toxic potential were selected for monitoring by the PSU team, and were monitored in the outdoor air, and the supply and return air streams of the HVAC system.

Currently, no federal standards have been set for VOCs, although guidelines and recommendations have been set by various professional organizations (ACGIH, <https://www.acgih.org/tlv-bei-guidelines/tlv-chemical-substances-introduction> ). The evidence for toxicity for VOCs that are commonly present in TRAP has been reviewed by the Air Toxics Science Advisory Committee (ATSAC) of the Oregon DEQ, and this advisory body has recommended Ambient Benchmark Concentrations (ABCs) for specific chemical compounds that were adopted by the Environmental Quality Commission of the State of Oregon in 2017 (<https://www.oregon.gov/deq/aaq/air-toxics/Pages/default.aspx> ). The ABCs are reviewed every 5 years and are based on the best available scientific evidence to derive an excess health effects risk (cancer, birth defect, organ damage) of 1-in-1 million from continuous inhalation exposure across a lifetime. This is the additional or extra risk of developing cancer due to exposure over the 70-year life of an individual. The ABCs include uncertainty factors to protect sensitive subgroups. Thus, the ABCs are health-based and provide a useful point of reference for evaluating population health risks, but it is incorrect to apply the ABCs to estimate the probability that an individual will experience an adverse health effect.

### 3.6.2 HTMS Outdoor and Indoor Levels

Levels of VOCs in the Spring monitoring period represent the typical occupancy conditions of the school without the influence of construction activities and off-gassing of new building materials. Outdoor air measurements of these VOCs at HTMS were less than concentrations reported by DEQ for Portland neighborhood monitoring stations (Figures 9-11). Using measurements of VOCs in the return air to represent the indoor exposure of students in classrooms, each of these VOCs were well below Ambient Benchmark Concentrations.

Chemical	Portland Background µg/m <sup>3</sup>	Oregon DEQ ABC µg/m <sup>3</sup>	Outdoor Air µg/m <sup>3</sup>	Return Air µg/m <sup>3</sup>
Benzene	0.59	0.13	0.10	0.00
Toluene	1.12	5000	0.41	0.18
m-, p-Xylene	1.28*	200*	0.31	0.10
o-Xylene	1.28*	200*	0.11	0.04
Ethyl-benzene	0.3	0.4	0.08	0.01

\*mixed xylenes

### 3.6.3 Implications for Health

Indoor concentrations of VOCs were below the Oregon DEQ Ambient Benchmark Concentrations, indicating substantial protection while students and staff are indoors. Because students and staff are in this filtered air environment for the majority of their school day hours, their total daily exposure to VOCs is likely reduced relative to the total exposures they would receive when spending their day at their residence.

The potential for outdoor exposure to benzene during lunch and physical education activities exists. However, short-term exposures to benzene are not known to be associated with adverse health effects. Oregon DEQ monitoring indicates that outdoor levels of benzene are elevated across the Portland metro area and generally exceed the ABC. Human activities that emit benzene are common include evaporation from gasoline fuels at service stations and from vehicles, vehicle exhaust, and industrial processes. Control of benzene from these anthropogenic sources has been a focus of the Portland Air Toxics Solutions program (PATS). Additionally, natural sources of benzene in outdoor air include wildfires, which have impacted Portland urban air quality in recent years. The principal health concern for benzene is damage to the bone marrow and blood-forming tissues, and acute myeloid leukemia, resulting from long-term (lifetime) exposure.

## 4. Conclusions

- For each of the pollutants monitored, the filtered air delivered to the classrooms and interior spaces of the school is clean, safe and supportive of health for students and staff.
- Particle and gas removal by the HVAC system and its filtration systems remained consistently high across the school year.
- Outdoor levels of CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> were below federal air quality standards.
- Outdoor levels of pollutants associated with diesel exhaust (black carbon and ultrafine particles) were observed at elevated levels typical of locations near heavily travelled highways.
- Outdoor levels of traffic-related air pollutants are consistently elevated in the early morning hours, but drop substantially by the first lunch period at 11:15 AM.

## 5. Recommendations

- To provide a margin of safety for students and staff who may have asthma, or be sensitive to traffic-related air pollution, outdoor physical education activities should be scheduled in the later morning and afternoon hours to avoid the highest daily outdoor levels.
- To ensure the continued high and effective performance of the HVAC system, continued monitoring of outdoor, supply and return air should continue at 3-month intervals until the operating characteristics of this unique system is confidently understood. In addition to providing assurance of health protection, this data will allow definition of a schedule of filter replacement that minimizes cost and waste.

## 6. References Cited

ACGIH. *TLV/BEI Guidelines*. American Conference of Governmental Industrial Hygienists, Washington, D.C. <https://www.acgih.org/tlv-bei-guidelines/tlv-chemical-substances-introduction> , accessed August 5, 2019.

Amato F, Rivas I, Viana M, et al. Sources of indoor and outdoor PM<sub>2.5</sub> concentrations in primary schools. *Sci Total Environ* 2014;490:757-65.

Basagana X, Esnaola M, Rivas I, et al. Neurodevelopmental deceleration by urban fine particles from different emission sources: A longitudinal observational study. *Environ Health Perspect* 2016; 124(10):1630-6.

Baldauf RW, Devlin RB, Gehr P, et al. Ultrafine particle metrics and research considerations: Review of the 2015 UFP workshop. *Int J Environ Res Public Health* 2016;13:E1054.

Elder A, Gelein R, Silva V, et al. Translocation of inhaled ultrafine manganese oxide particles to the central nervous system. *Environ Health Perspect* 2006;114:1172-8.

Franco Suglia S, Gryparis A, Wright RO, Schwartz J, Wright RJ. Association of black carbon with cognition among children in a prospective birth cohort study. *Am J Epidemiol* 2007;167(3):280-6.

Forns J, Dadvand P, Esnaola M, et al. Longitudinal association between air pollution exposure at school and cognitive development in school children over a period of 3.5 years. *Environ Res* 2017;159:416-21.

Grahame TJ, Klemm R, and Schlesinger RB. Public health and components of particulate matter: The changing assessment of black carbon. *J Air Waste Manage Assoc* 2014;64(6):620-60.

Guarnieri M, Balme JR. Outdoor pollution and asthma. *Lancet* 2014;398(9928):1581-92.

Harris MH, Gold DR, Rifas-Shiman SL, et al. Prenatal and childhood traffic-related air pollution exposure and childhood executive function and behavior. *Neurotoxicol Teratol* 2016;57:60-70.

HEI Diesel Epidemiology Panel. Diesel emissions and lung cancer: An evaluation of recent epidemiological evidence for quantitative risk assessment. Health Effects Institute, Boston, MA, 2015. <https://www.healtheffects.org/publication/diesel-emissions-and-lung-cancer-evaluation-recent-epidemiological-evidence-quantitative> , accessed August 10, 2019.

HEI Panel on the Health Effects of Traffic-Related Air Pollution. *Traffic-related air pollution: A critical review of the literature on emissions, exposure, and health effects. (Special Reports)* Health Effects Institute, Boston, MA, 2010.

HEI Review Panel on Ultrafine Particulates. *Understanding the health effects of ambient ultrafine particles (Perspectives No. 3)* Health Effects Institute, Boston, MA, 2013.

IARC. *Benzene (Monograph)*. <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono100F-24.pdf> accessed August 5, 2019.

Indoor Air Quality Scientific Findings Resource Bank. Lawrence Berkeley National Laboratory, Berkeley, CA. <https://iaqscience.lbl.gov/voc-sensory>, accessed August 5, 2019.

Janssen NAH, Hoek G, Simic-Lawson M, et al. Black carbon as an additional indicator of the adverse health effects of airborne particles compared with PM<sub>10</sub> and PM<sub>2.5</sub>. *Environ Health Perspect* 2011; 119(12):1691-9.

Jeong C-H, Hopke PK, Kim E, Lee D-W. The comparison between thermal-optical transmittance elemental carbon and aethalometer black carbon measured at multiple monitoring sites. *Atmos Environ* 2004;38:5193-204.

Lavigne E, Donelle J, Hatzopoulou M, et al. Spatiotemporal variations in ambient ultrafine particles and the incidence of childhood asthma. *Am J Respir Crit Care Med* 2019;199(12)1487-95.

Mann JK, Balmes JR, Bruckner TA, Mortimer KM, Margolis HG, Pratt B, Hammond SK, Lurmann F, Tager IB. Short-term effects of air pollution on wheeze in asthmatic children in Fresno, California. *Environ Health Perspect* 2010;118(10):1497-502.

Ostro B, Malig B, Hasheminassab S, Berger K, Chang E, Sioutas C. Associations of source-specific fine particulate matter with emergency department visits in California. *Am J Epidemiol* 2016;184(6):450-9.

Raub JA, Mathieu-Nolf M, Hampson NB, Thom SR. Carbon monoxide poisoning – a public health perspective. *Toxicology* 2000 Apr 7;145(1):1-14.

Rabinovitch N, Strand M, Gelfand EW. Particulate levels are associated with early asthma worsening in children with persistent disease. *Am J Respir Crit Care Med* 2006;10:1098-105.

Sarnat SE, Winquist A, Schauer JJ, Turner JR, Sarnat JA. Fine particulate matter components and emergency department visits for cardiovascular and respiratory diseases in the St. Louis, Missouri-Illinois, metropolitan area. *Environ Health Perspect* 2015;123(5):437-44.

Spira-Cohen A, Chen LC, Kendall M, Lall R, Thurston GD. Personal exposures to traffic-related air pollution and acute respiratory health among Bronx schoolchildren with asthma. *Environ Health Perspect* 2011;119(4):559-65.

State of Oregon Department of Environmental Quality. *Oregon Air Quality Annual Report 2017*. <https://www.oregon.gov/deq/FilterDocs/2017aqannualreport.pdf>, accessed August 5, 2019.

Sunyer J, Suades-Gonzalez, Garcia-Esteban R, et al. Traffic-related air pollution and attention in primary school children. *Epidemiology* 2017;28(2):181-9.

U.S. EPA. *Integrated Science Assessment for Particulate Matter (External Review Draft)*, October 23, 2018. <https://www.epa.gov/isa/integrated-science-assessment-isa-particulate-matter>

U.S. EPA. *Integrated Science Assessment (ISA) For Carbon Monoxide (Final Report, Jan 2010)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/019F, 2010. <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=218686&CFID=78776911&CFTOKEN=81884369>

U.S. EPA. *NAAQS Table*. <https://www.epa.gov/criteria-air-pollutants/naaqs-table> , accessed August 5, 2019.

U.S. EPA. *Integrated Science Assessment (ISA) For Oxides Of Nitrogen – Health Criteria (Final Report, 2016)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-15/068, 2016. <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=310879>

U.S. EPA. *The Total Exposure Assessment Methodology (TEAM) Study. Summary and Analysis: Volume I*. Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC, EPA/600/6-87/002a, 1987.

Weichenthal S, Hatzopoulou M, Van Ryswyk K, et al. Long-term exposure to ultrafine particles and respiratory disease in Toronto, Canada: A cohort study. *Environ Health* 2017;16(1):64. doi: 10.1186/s12940-017-0276-7.

Weichenthal S, Hatzopoulou M, Goldberg MS. Exposure to traffic-related air pollution during physical activity and acute changes in blood pressure, autonomic and micro-vascular function in women: A cross-over study. *Particle and Fibre Technol* 2014; 11:70. <http://www.particleandfibretechnology.com/content/11/1/70> , accessed August 5, 2019.

Zhu Y, Kuhn T, Mayo P, Hinds WC. Comparison of daytime and nighttime concentration profiles and size distributions of ultrafine particles near a major highway. *Environ Sci Technol* 2006;40:2531-6.

Figure 1. Plots of the median concentrations of carbon monoxide across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in parts per billion (ppb). The NAAQS is 9000 ppb averaged for 8 hours.

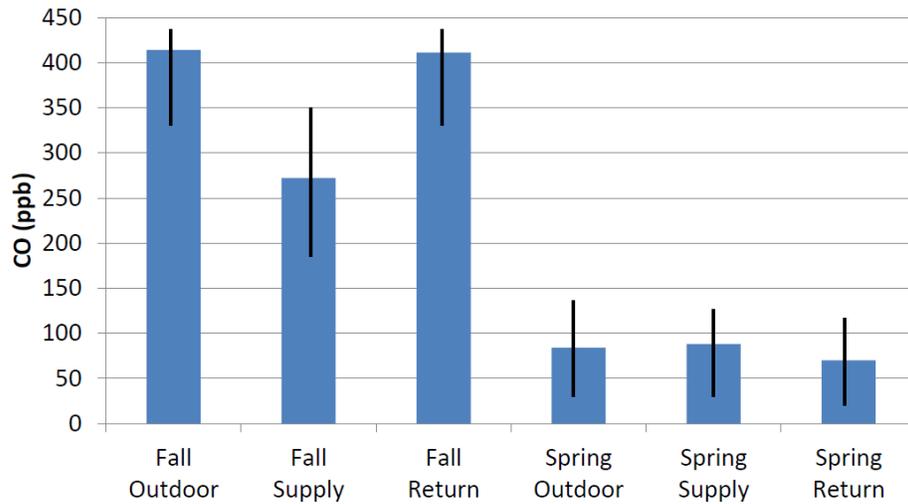


Figure 2. Plots of the median concentrations of nitrogen dioxide across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in parts per billion (ppb). The NAAQS is 100 ppb averaged for 1 hour.

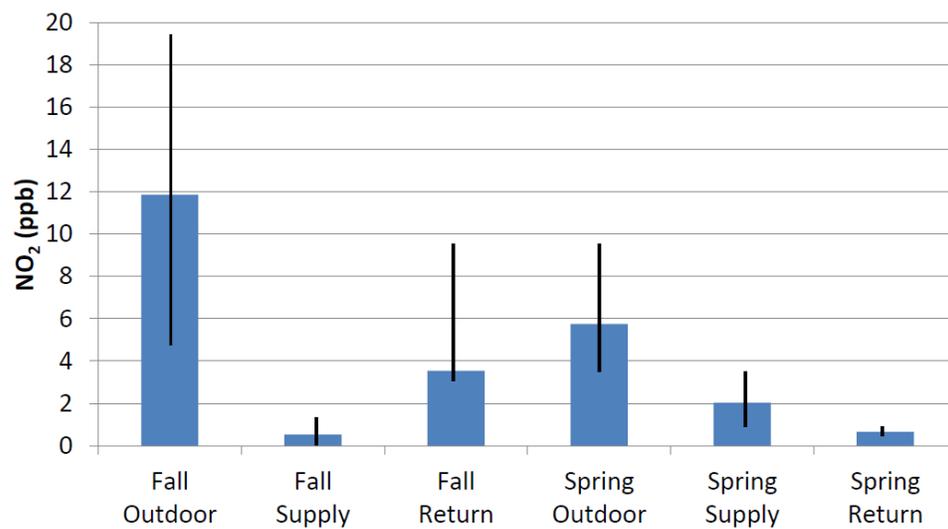


Figure 3. Plots of the median concentrations of PM<sub>10</sub> across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in micrograms per cubic meter (µg/m<sup>3</sup>). The NAAQS is 150 µg/m<sup>3</sup> averaged over 24 hours.

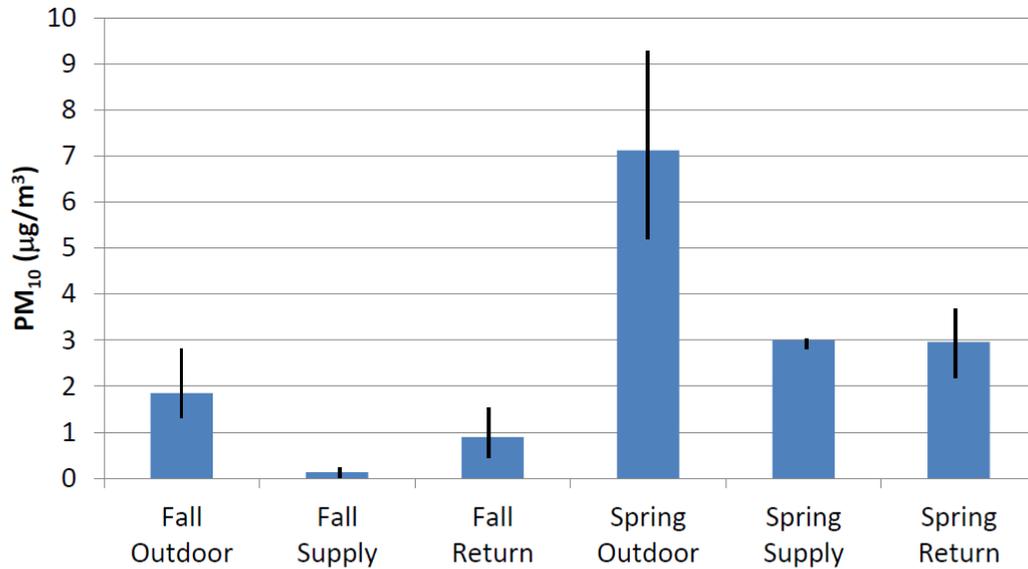


Figure 4. Plots of the median concentrations of PM<sub>2.5</sub> across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in micrograms per cubic meter (µg/m<sup>3</sup>). The NAAQS for PM<sub>2.5</sub> are 35 µg/m<sup>3</sup> 24-hour average and 12 µg/m<sup>3</sup> annual average.

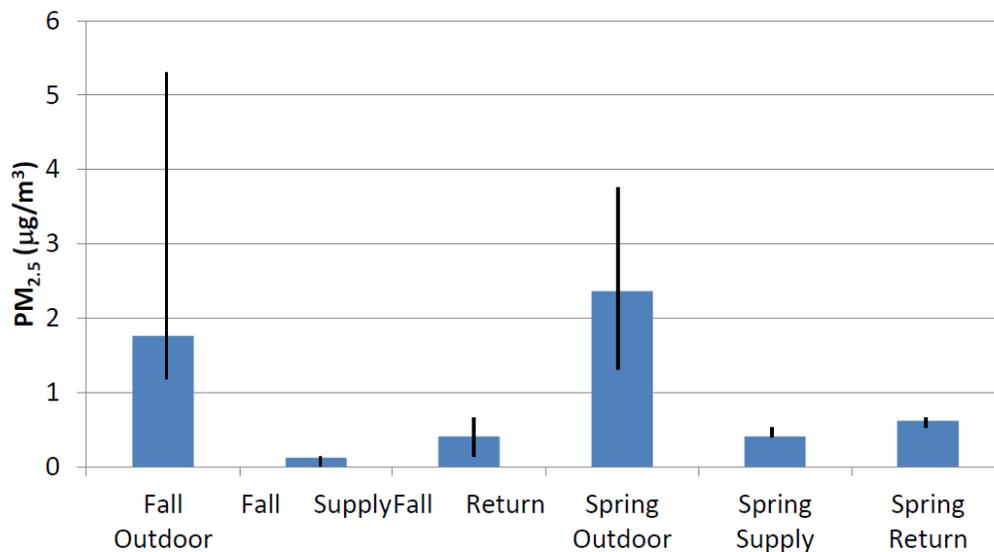


Figure 5. Plots of the median concentrations of Black Carbon across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in nanograms per cubic meter ( $\text{ng}/\text{m}^3$ ). There is no federal standard for BC.

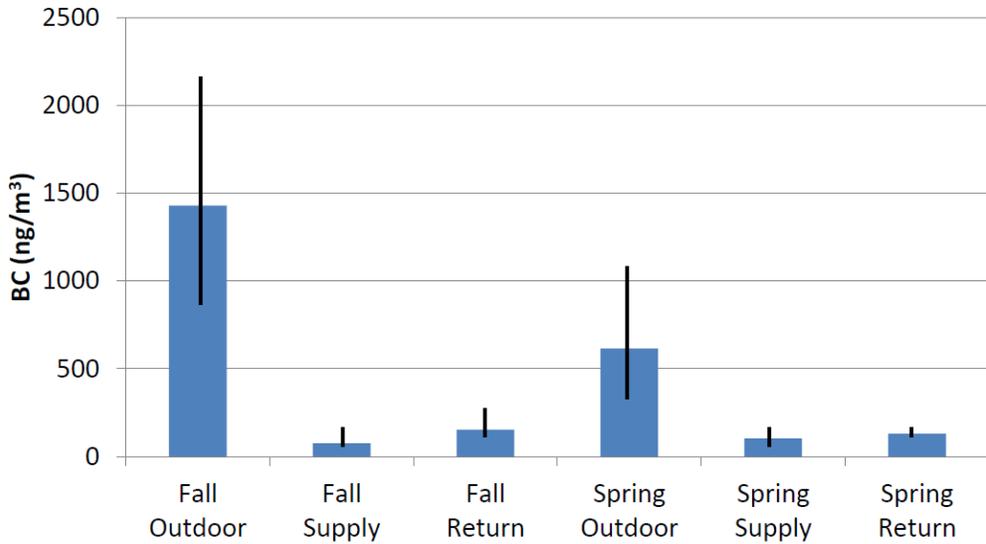


Figure 6. Plots of the distribution of one-hour average concentrations of Black Carbon measured at three Oregon DEQ monitoring sites (Portland N Roseland 2010-16, Portland SELafayette 2010, and Tualatin I-5 Bradbury Court 2014-16). The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in nanograms per cubic meter ( $\text{ng}/\text{m}^3$ ).

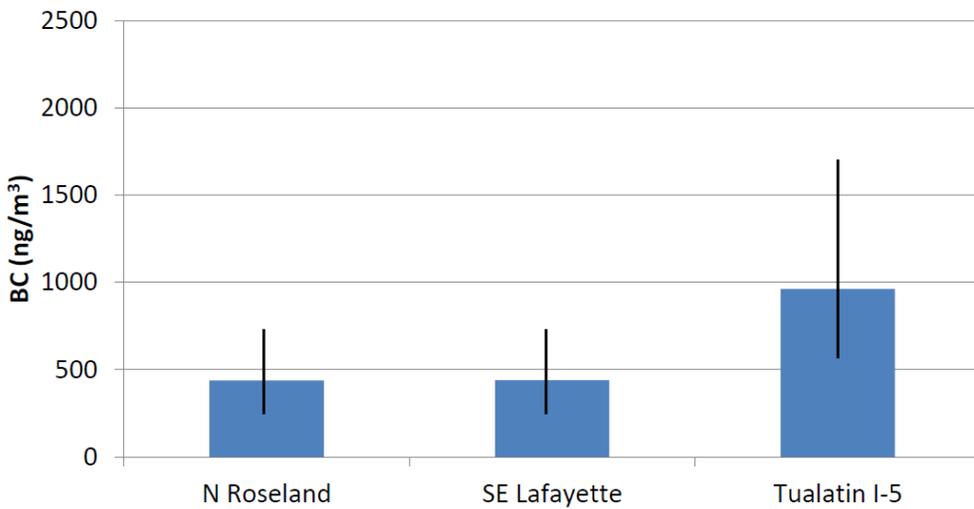


Figure 7. Plots of the median concentrations of Ultrafine Particles across the 9 AM – 4 PM school day. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in counts per cubic centimeter (particles/cm<sup>3</sup>).

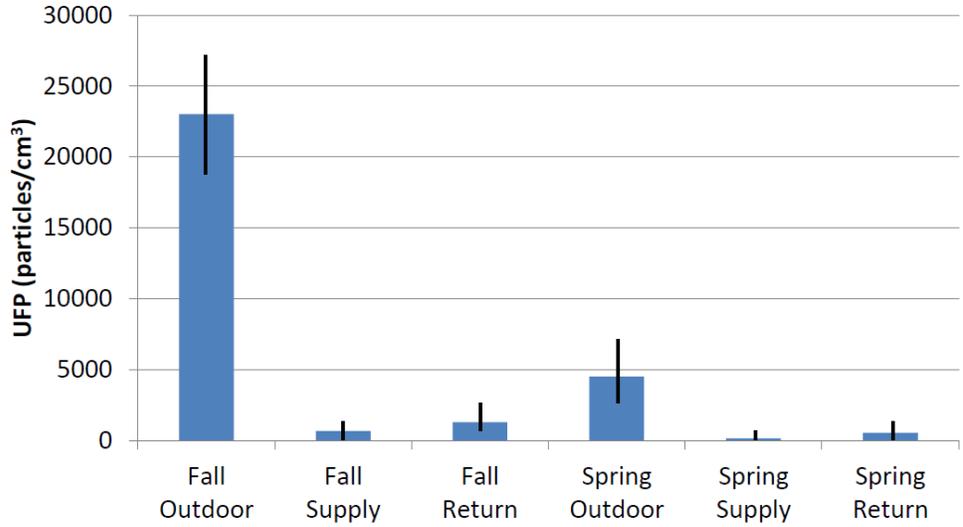


Figure 8. Plots of the median concentrations of Ultrafine Particles in outdoor areas surrounding HTMS in Spring 2019. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in counts per cubic centimeter (particles/cm<sup>3</sup>).

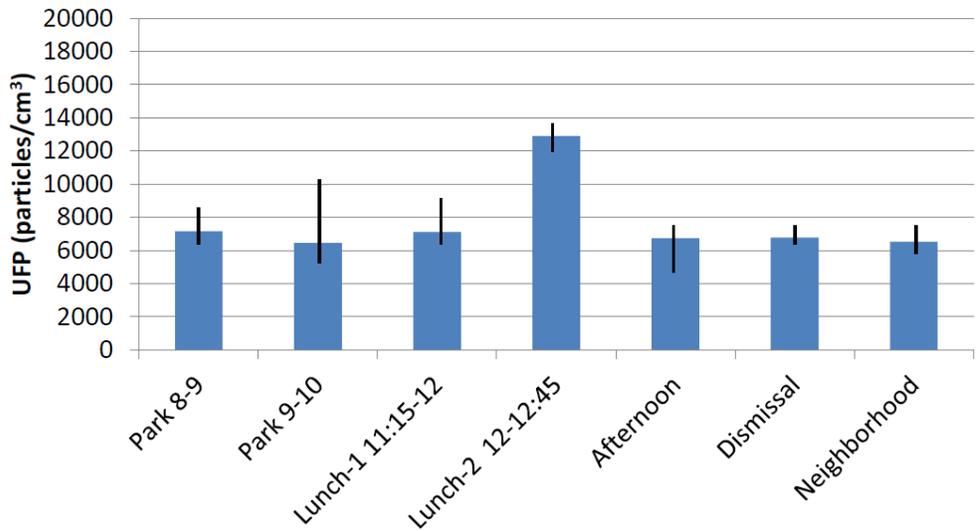


Figure 9. Plots of the median concentrations of the VOCs benzene and toluene in outdoor, supply, and return air locations of the HVAC system during Spring 2019. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

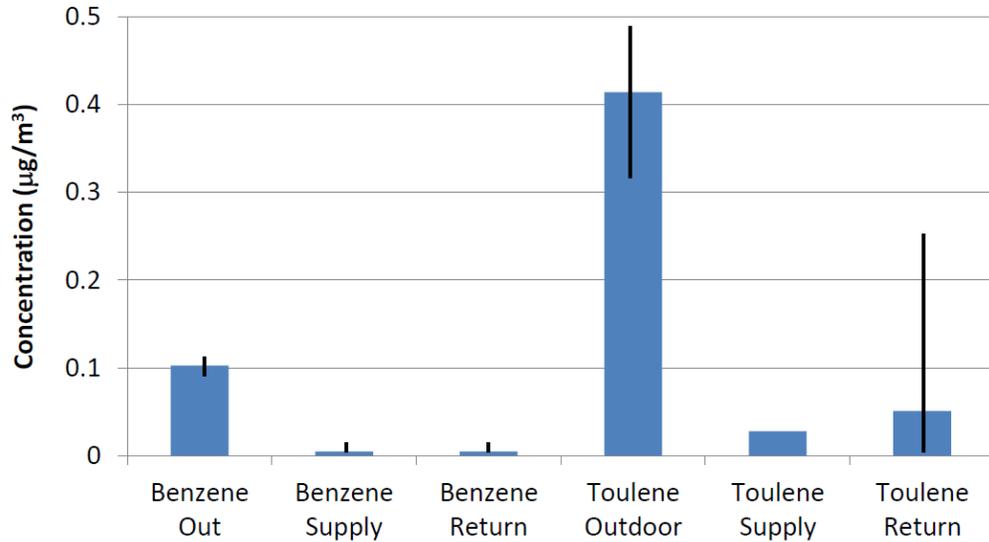


Figure 10. Plots of the median concentrations of the VOCs m-, p-Xylene and o-Xylene in outdoor, supply, and return air locations of the HVAC system during Spring 2019. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

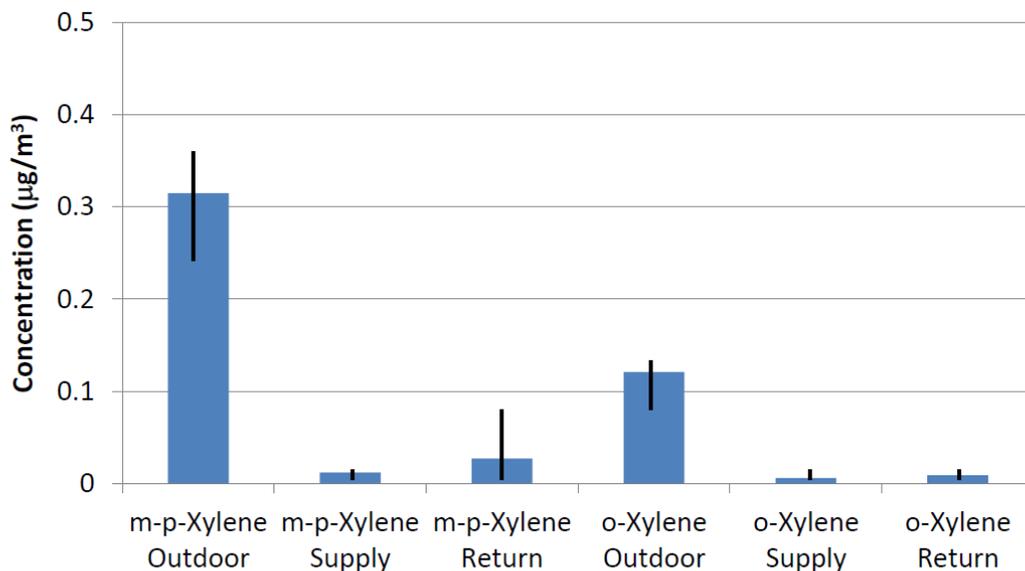
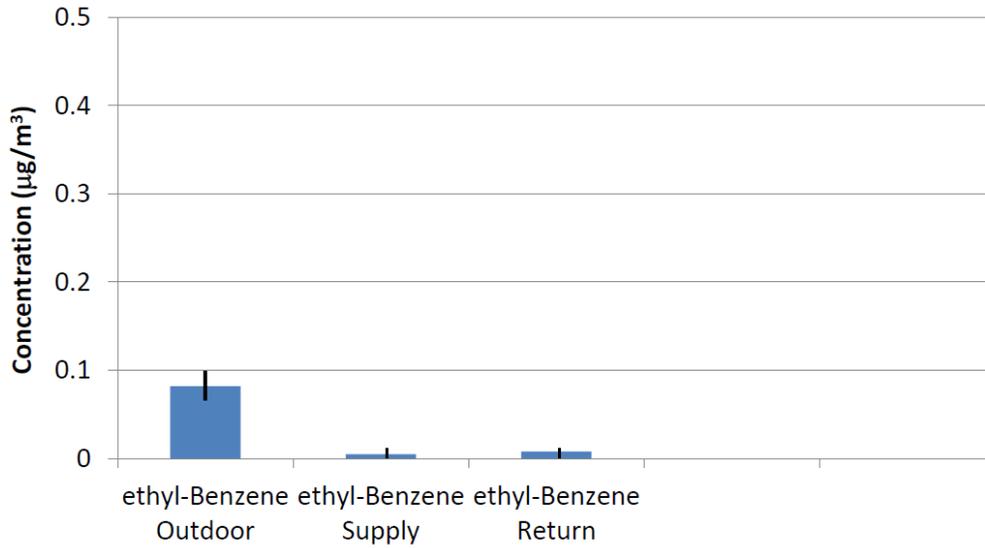


Figure 11. Plots of the median concentrations of the VOC ethylbenzene in outdoor, supply, and return air locations of the HVAC system during Spring 2019. The height of the solid bars represents the median concentration. The ends of the whiskers represent the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Concentration is expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).



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Other Matters Requiring Board Approval

Resolution Numbers 5856 through 5861

During the Committee of the Whole, Director Kohnstamm moved and Director Anthony seconded the motion to adopt amended Resolution 5856. The motion was put to a voice vote and passed unanimously (6-yes, 0-no), with Director Kohnstamm absent and Student Representative Paesler voting yes, unofficial.

Director Anthony moved and Director Bailey seconded the motion to amend Resolution 5856 by adding the following language to Recital G: "...lack of school bus egress from Harriet Tubman Middle School with the removal of the Flint Street overpass, ....". The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Paesler voting yes, unofficial.

Director Kohnstamm moved and Director Anthony seconded the motion to amend Resolution 5856 by revising the language of Recital 3 as follows: "The Board agrees to busmit comments to ODOT during the Environmental Assessment public comment period."

During the Committee of the Whole, Director Anthony moved and Director Brim-Edwards seconded the motion to adopt Resolution 5857. The motion was put to a voice vote and passed unanimously (6-yes, 0-no), with Director Kohnstamm absent and Student Representative Paesler voting yes, unofficial.

Director Anthony moved and Director Bailey seconded the motion to amend Policy 6.50.010-P by replacing the word "avoid" with "mitigate" in the first sentence of paragraph I.5. The motion was put to a voice vote and failed (1-yes [Anthony], 5-no), with Director Kohnstamm absent and Student Representative Paesler voting no, unofficial.

Director Brim-Edwards moved and Director Anthony seconded the motion to amend Policy 6.50.010-P by adding the word "race" in the first sentence of paragraph I.5. The motion was put to a voice vote and passed unanimously (6-yes, 0-no), with Student Representative Paesler voting yes, unofficial.

Director Bailey moved and Director Brim-Edwards seconded the motion to amend Policy 6.50.010-P, paragraph I.3, to read as follows:

- 3) Schools and staff to submit field trip requests for review, and approval or denial, prior to any planned activities.
  - a. Principals shall have the authority to approve regular off-campus field trips, subject to Risk Management approval, occurring during the course of one school day.
  - b. All off-campus trips comprising more than one school day will be reviewed by Risk Management and approved by the supervising Area Assistant Superintendent.
  - c. Specific timelines, procedures, and requirements of this field trip approval process will be outlined in a related Administrative Directive.

During the Committee of the Whole, Director Kohnstamm moved and Director Anthony seconded the motion to adopt Resolutions 5859 through 5861 (Resolution 5858 withdrawn). The motion was put to a voice vote and passed unanimously (6-yes, 0-no), with Director Kohnstamm absent and Student Representative Paesler voting yes, unofficial.

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**RESOLUTION No. 5856**

PPS Comments on the Environmental Assessment of the I-5 Broadway-Weidler Facility Plan

**RECITALS**

- A. In 2012, the Oregon Department of Transportation (ODOT) and the City of Portland Bureau of Planning and Sustainability and the Bureau of Transportation developed the I-5 Broadway-Weidler Facility Plan in conjunction with the City's N/NE Quadrant Plan. The N/NE Quadrant Plan set goals and actions for the land use and development in north and northeast Portland, while the Broadway-Weidler Facility Plan was intended to improve safety and operations on I-5 in the vicinity of the Broadway/Weidler interchange. Key elements of the facility plan include:
1. Adding auxiliary lanes and full-width shoulders (within existing right-of-way).
  2. Rebuilding structures at Broadway, Weidler, Vancouver and Williams and adding a lid over the freeway.
  3. Moving the I-5 southbound on-ramp to Weidler.
  4. Adding new connections over the freeway for pedestrian and bicycle travel in the interchange area.
- B. In 2012, the Portland City Council and the Oregon Transportation Commission approved the Broadway-Weidler Facility Plan. The proposed plan includes substantial widening of I-5 immediately adjacent to Harriet Tubman Middle School, including extending travel lanes closer to the school and constructing new retaining walls.
- C. In 2016, ODOT concluded the Broadway-Weidler Facility Plan improvements were technically feasible, and proceeded with development of an Environmental Assessment (EA). The EA is intended to evaluate the benefits and impacts within the Project Area of two alternatives: one in which the project would move forward as planned (Build Alternative), and one in which the project would not be built (No-Build Alternative).
- D. The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. Based on the EA, the following actions can occur:
- a. If the agency determines that the action will not have significant environmental impacts, the agency will issue a Finding of No Significant Impact (FONSI). A FONSI is a document that presents the reasons why the agency has concluded that there are no significant environmental impacts projected to occur upon implementation of the action.
  - b. If the EA determines that the environmental impacts of a proposed action will be significant, an Environmental Impact Statement is prepared.
- E. ODOT's EA was published on February 15, 2019. The public comment period closes April 1, 2019. ODOT is required to take into consideration public health impacts in its analysis, and to use an equity lens in its planning processes. The historical legacy from ODOT ignoring health and equity concerns voiced decades ago about building a freeway to close to a school has cost PPS millions of dollars that were used to make the air inside Tubman safe for students.
- F. Although the proposed changes are immediately adjacent to PPS properties, in particular the Harriet Tubman Middle School, neither ODOT nor the City meaningfully engaged with PPS during the planning process to assess the potential impacts, either short-term or long-term, on the health

March 19, 2019

of students and staff from environmental hazards or on the structural integrity of PPS facilities from incursions on PPS property during construction.

- G. An initial review of the EA by PPS staff has raised substantial questions about potential impacts on PPS properties, including risks to soil stability under the Harriet Tubman Middle School site during the construction process, increased air pollution, increased noise pollution, lack of school bus egress from Harriet Tubman Middle School with the removal of the Flint Street overpass, and shifts to traffic patterns in the vicinity of both Tubman and District headquarters.
- H. The materials that have been made publicly available to date, including the environmental assessments published only six weeks ago, provide insufficient evidence that the full scope of potential impacts from these projects has been adequately assessed.

### **RESOLUTION**

1. Due to the potential significant negative short-term and long-term impacts of the proposed project to PPS property, students, staff, and stakeholders, the Board of Education (Board) believes that ODOT cannot legitimately issue a Finding of No Significant Impact (FONSI). Additional study and input is necessary to understand the extent of the impacts and develop mitigation strategies.
2. Therefore, the Board finds that a full Environmental Impact Statement for the proposed project is warranted and necessary to determine the potential impacts of the proposed I-5 construction on PPS properties, PPS students and staff, and the larger community.
3. The Board agrees to submit comments to ODOT during the Environmental Assessment public comment period.

**December 03, 2019**

Consent Agenda

Resolution 6006 was tabled prior to the start of the meeting.

Resolution 6007 was tabled and will be brought back to the next meeting.

As a committee of the whole, Director Scott moved and Director Lowery seconded a motion to amend Resolution 6008 to replace the word “privately” under section K to “indicated that”. The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Latterell voting yes.

As a committee of the whole, Director Scott moved and Director Brim-Edwards seconded a motion to adopt Resolution 6008. The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Latterell voting yes.

Director Lowery moved and Director Scott seconded a motion to amend the final sentence of the second paragraph in Resolution 6009, under the Structure section, to read “One or two student members will be appointed to a one-year term through a process defined by the District Student Counsel.” The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Latterell absent.

Director Lowery moved and Director Bailey seconded a motion to amend Resolution 6009 to add “Members are expected to attend committee meetings. Persistent lack of participation may result in the termination of a member’s Board appointment.” The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Latterell absent.

Director DePass moved and Director Scott seconded a motion to adopt Resolution 6009. The motion was put to a voice vote and passed unanimously (7-yes, 0-no), with Student Representative Latterell absent.

December 03, 2019

**RESOLUTION No. 6008**

PPS Comments on Status of Oregon Department of Transportation's "I-5 Rose Quarter Improvement Project"

**RECITALS**

- A. In 2012, the Oregon Department of Transportation (ODOT) and the City of Portland Bureau of Planning and Sustainability and the Bureau of Transportation developed the I-5 Broadway-Weidler Facility Plan in conjunction with the City's N/NE Quadrant Plan. The N/NE Quadrant Plan set goals and actions for the land use and development in north and northeast Portland, while the Broadway-Weidler Facility Plan was intended to improve safety and operations on I-5 in the vicinity of the Broadway/Weidler interchange. Key elements of the facility plan include:
  - a. Adding auxiliary lanes and full-width shoulders (within existing right-of-way).
  - b. Rebuilding structures at Broadway, Weidler, Vancouver and Williams and adding a lid over the freeway.
  3. Moving the I-5 southbound on-ramp to Weidler.
  4. Adding new connections over the freeway for pedestrian and bicycle travel in the interchange area.
- B. In 2012, the Portland City Council and the Oregon Transportation Commission approved the Broadway-Weidler Facility Plan. The proposed plan includes substantial widening of I-5 immediately adjacent to Harriet Tubman Middle School, including extending travel lanes closer to the school and constructing new retaining walls.
- C. In 2016, ODOT concluded the Broadway-Weidler Facility Plan improvements were technically feasible, and proceeded with development of an Environmental Assessment (EA). The EA is intended to evaluate the benefits and impacts within the Project Area of two alternatives: one in which the project would move forward as planned (Build Alternative), and one in which the project would not be built (No-Build Alternative).
- D. The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. Based on the EA, the following actions can occur:
  - a. If the agency determines that the action will not have significant environmental impacts, the agency will issue a Finding of No Significant Impact (FONSI). A FONSI is a document that presents the reasons why the agency has concluded that there are no significant environmental impacts projected to occur upon implementation of the action.
  - b. If the EA determines that the environmental impacts of a proposed action will be significant, an Environmental Impact Statement is prepared.
- E. ODOT's EA was published on February 15, 2019. The public comment period closed April 1, 2019. ODOT is required to take into consideration public health impacts in its analysis, and to use an equity lens in its planning processes. The historical legacy from ODOT ignoring health and equity concerns voiced decades ago about building a freeway too close to a school has cost PPS millions of dollars that were used to make the air inside Tubman safe for students and had health and environment consequences for our students and the surrounding community..

**December 03, 2019**

- F. Although the proposed project is immediately adjacent to PPS properties, in particular Harriet Tubman Middle School, neither ODOT nor the City meaningfully engaged with PPS during the planning process to assess the potential impacts, either short- or long-term, on the health of students and staff from environmental hazards of the freeway and the expansion or on the structural integrity of PPS facilities from incursions on PPS property during construction.
- G. An initial review of the EA by PPS staff raised substantial questions about potential impacts on PPS properties, including risks to soil stability under the Harriet Tubman Middle School site during the construction process, increased air pollution, increased noise pollution, lack of school bus egress from Harriet Tubman Middle School with the removal of the Flint Street overpass, and shifts to traffic patterns in the vicinity of both Tubman and District headquarters.
- H. In March 2019, the PPS Board of Education passed a resolution urging ODOT to move forward with a full Environment Impact Statement (EIS) to fully resolve questions around the potential impacts of the I-5 freeway and the proposed expansion on our students.
- I. In June 2019, ODOT convened a group of elected leaders and staff as well as community stakeholders to discuss the I-5 Rose Quarter Improvement Project in the Albina neighborhood.
- J. To date, this group has met five times and made no substantial progress to substantially address issues raised by Portland Public Schools and the Albina Vision or offer alternatives to the current project plan.
- K. At this time, the OTC has indicated that it plans to unilaterally take action at its December 17 public meeting without addressing any of the troubling and significant impacts that the widening will have on students and community health.
- L. Per Board Resolution 5272, the Board is committed to addressing issues of climate justice that affect our students.

### **RESOLUTION**

- The Board of Education for Portland Public Schools opposes ODOT's efforts to move ahead with the Interstate 5 North of the Rose Quarter expansion in Albina without conducting a full Environmental Impact Statement (EIS) and addressing the long term health and environmental issues at Harriet Tubman Middle School caused by the I-5 freeway.
- The Board of Education for Portland Public Schools will work in partnership with Albina Vision Trust to understand the environmental and health impacts of the freeway for students in the Albina neighborhood and develop initiatives that mitigate the freeway's impact on students and their families in this neighborhood.
- The Board will work with the community to share information about the impacts of this freeway and the expansion with the legislature's Joint Committee on Transportation and other legislative leaders so that they understand the potential impacts of this project to Portland Public Schools' students and the wider Albina community.

## RESOLUTION No. 6354

### Protecting PPS Students, Staff, and Communities in Oregon Department of Transportation's I-5 Rose Quarter Project

#### RECITALS

- A. In 2012, the Oregon Department of Transportation (ODOT) and the City of Portland Bureau of Planning and Sustainability and the Bureau of Transportation developed the I-5 Broadway-Weidler Facility Plan in conjunction with the City's N/NE Quadrant Plan. The N/NE Quadrant Plan set goals and actions for the land use and development in north and northeast Portland, while the Broadway-Weidler Facility Plan was intended to improve safety and operations on I-5 in the vicinity of the Broadway/Weidler interchange. Key elements of the facility plan include:
  - a. Adding auxiliary lanes and full-width shoulders (within existing right-of-way).
  - b. Rebuilding structures at Broadway, Weidler, Vancouver and Williams and adding a lid over the freeway.
  - c. Moving the I-5 southbound on-ramp to Weidler.
  - d. Adding new connections over the freeway for pedestrian and bicycle travel in the interchange area.
- B. In 2012, the Portland City Council and the Oregon Transportation Commission approved the Broadway-Weidler Facility Plan. The proposed plan includes substantial widening of I-5 immediately adjacent to Harriet Tubman Middle School, including extending travel lanes closer to the school and constructing new retaining walls.
- C. In 2016, ODOT concluded the Broadway-Weidler Facility Plan improvements were technically feasible and proceeded with development of an Environmental Assessment (EA). The EA is intended to evaluate the benefits and impacts within the project area of two alternatives: one in which the project would move forward as planned (Build Alternative), and one in which the project would not be built (No-Build Alternative).
- D. The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. Based on the EA, the following actions can occur:
  - a. If the agency determines that the action will not have significant environmental impacts, the agency will issue a Finding of No Significant Impact (FONSI). A FONSI is a document that presents the reasons why the agency has concluded that there are no significant environmental impacts projected to occur upon implementation of the action.
  - b. If the EA determines that the environmental impacts of a proposed action will be significant, an Environmental Impact Statement is prepared.
- E. ODOT's EA was published on February 15, 2019. The public comment period closed April 1, 2019. ODOT is required to take into consideration public health impacts in its analysis and to use an equity lens in its planning processes. The historical legacy from ODOT ignoring health and equity concerns voiced decades ago about building a freeway too close to a school has had health and environment consequences for our students and the surrounding community and required PPS to spend millions in limited capital funds to make the air inside Tubman safe for students.
- F. Although the proposed project is immediately adjacent to PPS properties, in particular Harriet Tubman Middle School, neither ODOT nor the City meaningfully engaged with PPS or our families during the planning process to assess the potential impacts, either short- or long-term, on the health of students and staff from environmental hazards of the freeway and the expansion or

on the structural integrity of PPS facilities from incursions on PPS property during construction.

- G. I-5 is already built hazardously close to Harriet Tubman Middle School (HTMS) and has negative impacts on the air quality for students and staff. PPS spent more than \$10M to install air filtration systems when the school reopened in 2018 to mitigate the impacts of traffic on I-5.
- H. An initial review of the EA by PPS staff raised substantial questions about potential impacts on PPS properties, including risks to soil stability under the Harriet Tubman Middle School site during the construction process, increased air pollution, increased noise pollution, lack of school bus egress from Harriet Tubman Middle School with the removal of the Flint Street overpass, and shifts to traffic patterns in the vicinity of both Tubman and District headquarters.
- I. In March 2019 and again in December 2019, the PPS Board of Education passed resolutions 5856 and 6008 urging ODOT to move forward with a full Environmental Impact Statement (EIS) to fully resolve questions around the potential impacts of the I-5 freeway and the proposed expansion on our students.
- J. Representatives of Portland Public Schools and the Board of Education have continued raising concerns about potential air-quality impacts to Harriet Tubman Middle School students and the surrounding neighborhood and to support economic empowerment in the Albina neighborhood by investing in highway covers to enable redevelopment and reinvestment and improve neighborhood connectivity.
- K. To date, none of the concerns raised by Portland Public Schools has been addressed by ODOT; and in fact, at an Executive Steering Committee meeting in fall 2020, ODOT representatives opposed language that would require the project to result in air quality at Harriet Tubman Middle School that is safe for youth.
- L. In late spring 2021, Portland Public Schools conducted community outreach to Harriet Tubman Middle School families, as well as its feeder schools: Boise-Eliot, Irvington, Sabin and Dr. Martin Luther King Jr.
- M. An online survey was open from June 3-June 21, 2021, and the District also conducted a focus group. In general, the feedback from the community can be summarized under three themes: air quality for students, broader engagement, and relocation of HTMS. Given COVID-19 gathering restrictions and summer schedules, community engagement will be ongoing.
- N. The feedback regarding air quality included requests for improved indoor ventilation systems, identification of long-term impacts on students, and installation of highway covers.
- O. State and regional leaders have shared their concern for the negative impact the original freeway placement has had and that the freeway expansion will have on HTMS students and the community.
- P. On June 11, 2020, the PPS Board of Education unanimously approved Resolution 6130. In this resolution, the Board declared that the lives of Black students and our Black community matter and committed to working with the Superintendent and the Portland community to create the conditions for every student, especially our Black and Native students who experience the greatest challenges, to realize the vision of the Graduate Portrait.
- Q. The work of the Albina Vision Trust and the Black community in Portland to reclaim the Albina community is similar to the push for equitable access to public education, especially for our Black students and their families. This push has long been a key component of the civil rights movement and fight for racial justice and builds on the legacy of advocacy for Black children in Portland, and catalyzed by the social movements for Black Lives. Government Institutions like ODOT and PPS, have a moment, an opportunity to lead, not with race-neutral plans, but with an

anti-racist agenda that amplifies an intergenerational healing process among students, their families, and our community.

- R. Portland Public Schools appreciates that the State and other partners are working with PPS to find a solution to address the ongoing concerns about the air quality and construction disruption at Harriet Tubman Middle School.

### **RESOLUTION**

- A. The Board of Education for Portland Public Schools will work in partnership with Albina Vision Trust, state and community leaders to understand the environmental and health impacts of the freeway for students in the Albina neighborhood and advocate for initiatives that mitigate the freeway's impact on students and their families in this neighborhood.
- B. The Board of Education for Portland Public Schools supports and urges federal investments to reconnect, revitalize and transform the Albina community to address the many harms caused by the original construction of the Interstate freeway and ensure a seamless, aligned project that addresses displacement, economic, and environmental racism, while supporting educational innovation and new economic opportunities for the community.
- C. If ODOT and the State proceed with the project that will compound the original negative health and environmental impacts on the students and neighboring community, the Board of Education and Superintendent for Portland Public Schools calls on state leaders and the project team to accept the responsibility for the harm they have caused and to mitigate the past and potential future harm to the health of students and staff at Harriet Tubman Middle School.
- D. Further, Portland Public Schools leadership demands that if the State moves ahead with the project that it commits to create a transformative infrastructure project for Historic Albina and to secure the funds to rebuild Harriet Tubman Middle School in a safe, healthy location in Historic Albina.

# Driving Innovation in Portland Public Schools



*Through the  
Center for  
Black Student  
Excellence*



PORTLAND PUBLIC SCHOOLS





*The Center for Black Student Excellence (CBSE) is a currently a concept. PPS, in collaboration with the community, will determine the exact vision and outcomes of the CBSE through a thoughtfully curated innovation equity design process.*

### **Deliverables:**

- CBSE Vision
  - CBSE as A Place
  - CBSE as An Approach
  - CBSE as A System Redesign



## ▶ CBSE Vision

This document will describe the collective aspiration for what the CBSE will be, do and accomplish on behalf of Black students, staff and families.

## ▶ Approach

This document will detail the specific elements of the CBSE along with strategies, programs and experiences that span the PK-12 learning continuum.

- **Curriculum/ Instruction**
- **Student Support**
- **Family Support**
- **Educator Capacity Building, Hiring and Retention**
- **Advocacy**

## ▶ Place

This document will describe the implications of the CBSE Vision and Comprehensive Plan on physical space, including but not limited to site improvements, modernizations, property purchases and/or new builds. Elements of this plan will also closely connect spatial implications of the Jefferson Modernization Project and site considerations for the Harriet Tubman Middle School Relocation.

## ▶ System Redesign

This document will describe the ongoing support for the initiative including maintenance of infrastructure, hiring, capacity building and retention of high quality talent, etc.

## Spectrum of Community Engagement



### Inform

We provide balance and objective information to our community.

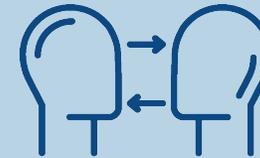


### Consult

We seek and obtain feedback from our community on analysis, issues, alternatives and decisions.



**Collaborate  
& Empower**  
Partner with the community in each aspect of the decision-making.



**Involve**  
Work with our community to make sure that their concerns and aspirations are considered and understood.



**Communication  
Powered Action**  
District-decision making as a result of autonomous advocacy from the community.

# Meet the Team



**Dr. Cheryl Proctor,  
Executive Sponsor**



**Camille Idedevbo, Founding  
Manager, Innovation Studio**

# Meet the Team

**Dr. S. Renee Mitchell,**  
Creative Revolutionist,  
I AM MORE



**Bryan Lee, Jr., Founder,**  
Colloqate Design

# Meet the Team

**Joy Alise Davis,  
Executive Director,  
Imagine Black Futures**



# Meet the Team

**Cliff Chesnut, Director  
30 Point Strategies**



**Diego Caballero, Executive  
Creative Director, MKT BOX**



# Meet the Team

- **Patrice Woods**
- **Dr. Aisha Hollands**
- **Gary Hollands**
- **Anjene Bryant**
- **Kiesha Locklear**
- **Dani Ledezma**
- **Tony Hopson Sr.**
- **Immanuel Harice**
- **Dr. Camedra Jefferson**
- **Sydney Kelly**
- **Lindell Stone**
- **Marsha Williams**
- **Stacey L. Murray**
- **Loretta Benjamin-Samuels**
- **Ayana Horn**
- **Cortonio Smith-Myles**
- **Jamaal Tibbs**
- **Stetson James**
- **Mirna Ghamrawi**
- **Tyler Brown**
- **Ebonee**
- **Crystal Ball**
- **Jazmin Jinnah**
- **Tanesha Dawson**
- **Tamra Hickok**
- **Kristen Brayson**
- **Mary Evans**



# Phase I Explained



## Relationships, History, Healing, Needs Finding

Phase I of the CBSE design process includes activities to encourage **relationship building**. During this phase, project participants explore the **histories** that have shaped the current Black student and community experience in PPS schools. In addition, community engagement is framed through the lens of trauma informed community **healing** and project participants engage in a **needs** analysis of what the CBSE aims to accomplish on behalf of primary stakeholders.

Overall, we've hosted more than 30 design and engagement activities to date with a primary focus on **students and staff**.



# Phase I Activities

## September

On September 20, 2022, the PPS Board adopted a resolution that read in part: "The vision of the CBSE is one of collaboration, among Black-led community organizations and PPS ... working together to advance a culture of Black excellence, unify, and elevate the Black educational experience, and improve outcomes for Black students, families, and educators."



### October

Subsequently, in October, the Innovation Studio launched preliminary design research with students and staff to understand the current experiences in our schools. In Addition, we held a kickoff gathering at the Prophet Education Center for members of the CBSE working groups. This gathering served as the first interaction with peers as the project moved into the design phase.



*Innovation Studio launched preliminary design research with students and staff to understand the current experiences in our schools.*

*We held a kickoff gathering at the Prophet Education Center for members of the CBSE working groups.*

# Phase I Activities

## November

In November, one of those working groups, the CBSE Guiding Coalition, comprising leaders from Black-led organizations and leaders who are influencing change within the community, held its first session. The group explored the origins behind the project, discussed what current research says about the condition of Black students and families, and participated in collective storytelling.

The Design team also convened its first two meetings in November. This group of subject-matter experts and stakeholders with lived experience in the Black community is tasked with driving the planning and management of the development process, conducting design research, facilitating community engagement sessions, and helping to interpret key lessons from community discussions. During its first session, the Design team began the chartering process to establish the group's working relationship and take inventory of existing bodies of work that will influence the design process.





# Phase I Activities



In addition to these gatherings, community members have been able to interact during a series of community gatherings, including a community dinner series, a Harriet Tubman Community night, and a Black Family night at King Elementary School – all in service of projects within the historic Albina neighborhood. These activities are only the beginning of a series of engagements that will collectively inform the development of the Center for Black Student excellence community plan.



# Narratives from Design Research

**When asked, “what do adults need to know about how to support you,” students said:**

- “Just bear with me and don't give up on me.”
- “Be there for me when I need you.”
- “Understand me”
- “Patience”

**When asked, “what is Black excellence,” community members:**

- Described self actualization and a commitment to the community as the indicators of excellence.

**When asked, “how will you know when you see it,” community members:**

- Described a shift in body language, youth to youth interactions and youth to adult interactions. They described the confidence students would have in expressing their learnings and passions.

**When asked, to what extent has your personal identity work contributed to your ability to connect with Black students, educators said:**

- “Identifying as a fellow "village" member caring for these kids alongside parents.”

**When asked, what additional support, coaching, or professional learning might support you to deepen your practice, educators said:**

- “Trauma informed training”
- “Concrete classroom practices to support students in trauma. Less talk, more strategies!”

# What Does the Data Say?

- **3rd Grade**  
**Reading: 17%**
- **High School**  
**Graduation:**  
**75%**

- **5th Grade**  
**Mathematics: 5.4%**
- **School Safety: Topic**  
**with the Greatest**  
**Variance by Race,**  
**Gender and Sexual**  
**Orientation**

- **8th Grade**  
**Reading: 5.1%**
- **Nonbinary Students:**  
**reported the greatest**  
**variance in school**  
**climate, safety, sense of**  
**belonging, engagement**  
**& relationships**



### **The problem:**

Decades of underinvestment, systemic racism, lack of coordinated systems of support, and discriminatory practices have resulted in an enduring opportunity and achievement gap for Black students in Portland.



### **The opportunity:**

The opportunity ahead is to redefine the future by advancing a culture of Black excellence while meaningfully integrating joy and healing; unifying and elevating the Black educational experience; and improving outcomes for Black students.



### **The mechanism:**

Center for Black Student Excellence

*A place, an approach and a [redesign] of the system.*





**Preserving Black Spaces  
Lecture: Architectural  
Heritage Center**



# Phase II: Inspiration & Ideation



**In My Shoes Community  
Walk: Word is Bond**



# Phase II: Inspiration & Ideation



**Black Professionals Expo,  
NAMC & YGB**





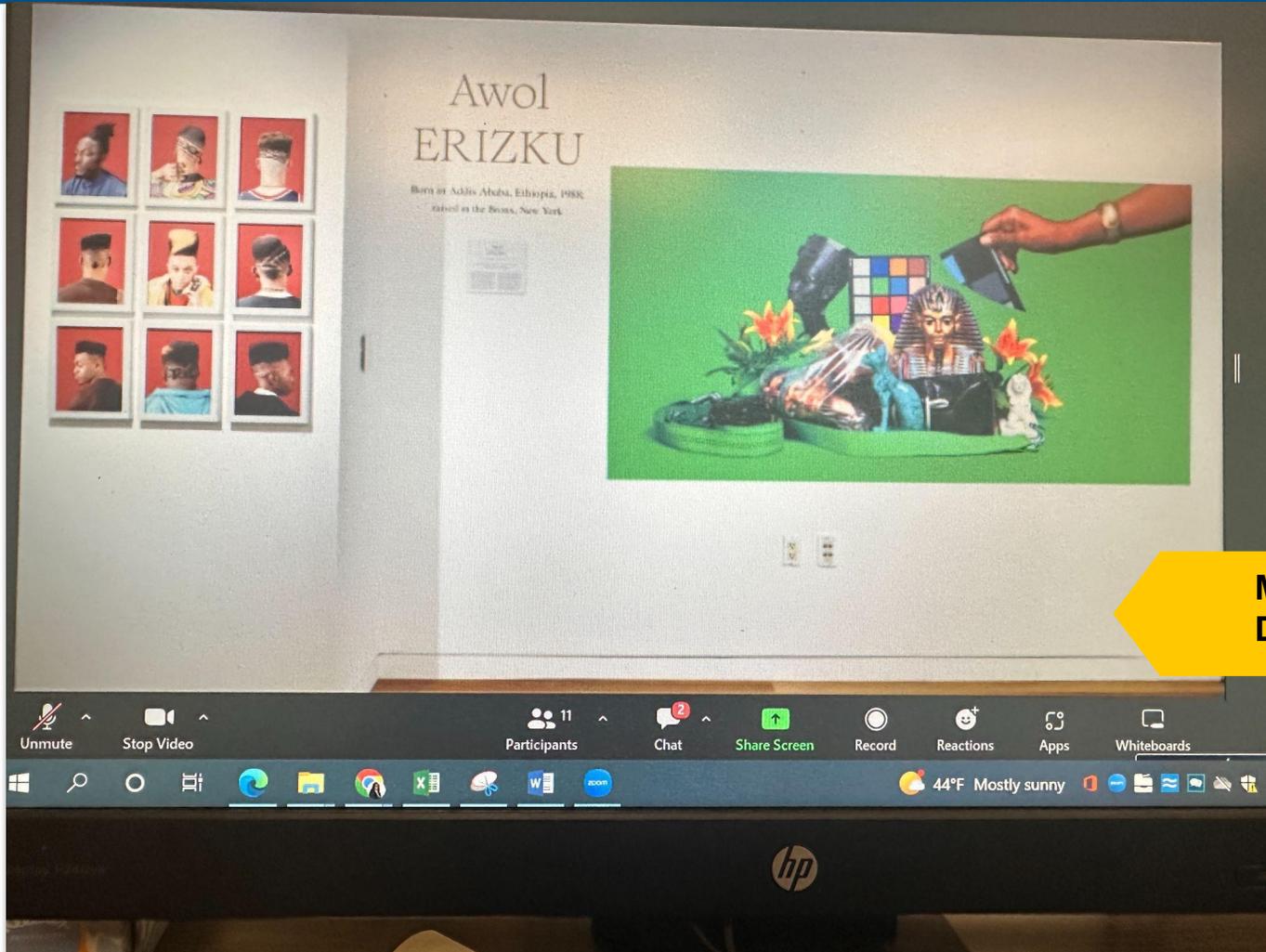


**Portland City Tour BEAM Village, Soul Restoration Center, SEI, Akadi**



**Portland City Tour BEAM Village, Soul Restoration Center, SEI, Akadi**

# Phase II: Inspiration & Ideation



**Museum of the African  
Diaspora Virtual Tour**



**#Enough Plays to End Gun  
Violence Jefferson Theatre**

**CBSE** Learning Journey

[Home](#) [Videos](#) [Photos](#) [Documents](#) [Virtual Tour](#) [Engagement Questions](#)



# CBSE Learning Journey



[Learning Journey Microsite](#)

# Guiding Coalition: Phase II

- By Guiding Coalition #2, the group focused on student voice, began to brainstorm potential solutions to meet the needs identified during the first Guiding Coalition and refined the guiding principles of the project.
- The group also began the journey to articulate the brand identity of the CBSE and learn about the latest developments with the Jefferson Modernization project.

- We've been hosting stakeholder-specific engagement opportunities.
- **At this juncture, we've created more than 80 opportunities to speak with students, staff, and community members. This includes:**
  - K-5 families
  - K-8 students & families
  - 9-12 students & families
  - Staff
  - RESJ Partners
  - Clergy
  - Gang Informed & Impacted
  - Displaced
  - National Panhellenic Council
  - Albina Vision Trust
  - Elders
  - Retired Educators
  - Phone banking

- During Guiding Coalition #3, the group focused on building a foundation in reading space and identifying the type of infrastructure the CBSE should have.
- In support of the brand identity development, the group analyzed how students currently receive information through PPS channels.
- The group engaged in discussion about the partnership with Kairos PDX to problem-solve for the HTMS Relocation.
- Finally, the group began the process of sequencing priorities.

# Guiding Coalition: Phase IV

- By Guiding Coalition #4, the group focused on parent/caregiver voice with an emphasis on how the CBSE can be supportive.
- The group engaged in discussion about the partnership with Kairos PDX to problem-solve for the HTMS Relocation and the impact to the Jefferson Modernization.
- The group reviewed and refined the emerging themes from community data to-date.

# Phase IV: Community Engagement

- During the final phase of community engagement during this portion of the process, we're focusing on understanding the internal bodies of work for which the CBSE efforts will take residence.
- In the next month, we will have a well articulated vision for the physical CBSE infrastructure, the programming, and policy implications, and recommendations for the system-level redesign to support the CBSE efforts.



## VISION [EMERGING]

# DRAFT

The Center for Black Student Excellence is comprised of a PLACE, AN APPROACH, and a REDESIGN of the Portland Public Schools' system to ensure aligned coordination of efforts in the direction of Black students. Undergirded by Black scholarly research, community advocacy, identity, culture, and belonging, students fundamentally experience school differently and are embedded within an ecosystem of care. Outcomes improve exponentially and students have a plan for their path beyond graduation. The graduate portrait is illuminated for Black students:

***A graduate of Portland Public Schools will be a compassionate critical thinker, able to collaborate and solve problems, and be prepared to lead a more socially just world.***

Community violence has reduced with the return of collectivism and community building. Portland's model becomes an exemplar on a national scale of the possibilities that emerge when the community and public education system work shoulder to shoulder to redefine the future for Black students.

**Black student excellence** is defined as student efficacy, connection to community, and mastery of content. In addition to core academics, students demonstrate confidence and the skillful ability to share boldly on topics of interest. They recognize that their excellence is innate and they reclaim their own cultural narratives. Joy is visibly present as students cultivate a practice of healing even on days they don't feel their best. This is inclusive of all students in the African diaspora regardless of linguistic, ethnic, and experiential diversity of students.

## A PLACE

**DRAFT**

**Students, staff, and community members have dedicated space(s) embedded within the schools and/or within the CBSE infrastructure to experience Black joy and healing.**

The infrastructure serves as a resource hub of programs, aide, and multi-use spaces as students gather for affinity, staff gathers for professional development, and community members gather to facilitate honest discussions. The resources of the space extend digitally for families who've been displaced.

## AN APPROACH

# DRAFT

The standard of excellence is exemplified through measurable outcomes across student, staff, and partner groups. Student leadership development opportunities and self efficacy are encouraged and supported through peer and intergenerational mentorship. Students have consistency in the PK-12 educational experience that results in high achievement. Students with various developmental and social needs are adequately seen and resourced.

Educators with proven track records of success are celebrated, and managed risk taking is supported. All educators continue

to refine their practice and are supported with the necessary professional learning. Black staff retention has increased because the environment has shifted to support their health, safety, growth and development.

Families and caregivers are leveraged for their expertise and coached to navigate the system including non-Black parents of Black children. Schools become a place for continuous learning for honest local histories as new families move to the area. Non-black families are allies in the pursuit of Black student excellence.

## A SYSTEM REDESIGN

**DRAFT**

The system redesign is rooted in redistribution of power from silos to community networks, processes of competition to collaboration, transparency, accountability and ultimately creating a community ecosystem with Jefferson, Tubman, Kairos, MLK, Boise-Eliot Humboldt and displaced families. At the district level, efforts are coordinated to ensure high-quality delivery of service to schools. Teams meaningfully collaborate so that efforts are not duplicated. Community leaders and organizations contribute to a tightly woven community of educators, service providers, community members and entities working in coordination for the benefit of Black students

# INNOVATION N

# STUDIO





## STAFF MEMO

**Date:** April 5, 2023

**To:** Board of Education - Facilities and Operations Committee

**From:** Dan Jung, Chief Operating Officer  
Jonathan Garcia, Chief of Staff

**Subject:** Future Use of Harriett Tubman MS

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The purpose of this memorandum is in response to the combined Intergovernmental and F&O Committees' request to familiarize the Board with the specifics of the current Harriett Tubman MS and District policy regarding disposition of real property.

### Current Site Overview:

Tubman Middle School (Tubman) is a 33 classroom, 87,610 square foot building built primarily in 1952. It sits on 3.05 acres adjacent to Lillis Albina Park.

In 2018 the District invested more than \$18M to address deficiencies, the abatement of hazardous materials, and the installation of a high efficiency HVAC system. The Long Range Facility Plan indicates that the building is in better condition than all other non-modernized middle schools.

As a result of the impacts of ODOT's plan to widen the I-5 Corridor to the west of Tubman, the school is scheduled to be relocated. Staff is currently working to identify a site for the relocation of the school, but no site has yet been finalized. The vacation of the current building is anticipated in summer of 2026.

### Future Use

The Tubman building is in very good condition and is located in the geographic center of the District. Staff has discussed multiple scenarios for the repurposing of the building once vacated, but has not completed any in-depth studies. No recommendations or decisions have been made about the future of the vacated property, at this time.

The District has a number of space needs. Given the pending real estate decisions in front of the school board, it must consider the long-term viability of the existing headquarters, the Board-approved agreement with the Albina Vision Trust for a right of first offer on the Prophet Center, and the future location for the emerging Center for Black Student Excellence. The District is also challenged with adequate space to provide regular professional development for PPS educators and staff.

### Process for Disposition of Real Property

Policy 8.70.040-P Preservation, Maintenance, and Disposition of District Real Property ([LINK](#)) and the Administrative Directive 8.70.043-AD Process for Disposing of Surplus Real Property ([LINK](#)) outline the procedure for the preservation and disposal of any real property that is not deemed essential to the

District's mission (under statute, the Board must determine that the property is not required for "school purposes").

The policy states that only on rare occasions will the District sell real property without replacing that property with an equivalent or better property.

The policy provides that the Superintendent recommends to the Board that property be considered surplus and that Board vote to declare a specific property as surplus; then the property can be marketed for sale. The policy requires the pursuit of market terms unless the Board approves otherwise under specified criteria. When selling or leasing District property, the District will offer the property for other public services *or* for uses that substantially advances the District's racial equity and social justice goals "whenever possible."

# HARRIET TUBMAN MIDDLE SCHOOL

**ADDRESS**

2231 N FLINT AVE

**CONSTRUCTION DATE**

1952 (PRIMARY)

**LEVELS**

2

**BLDG AREA**

87,610 SF

**SITE AREA**

132,858 SF  
3.05 ACRES

**CLASSROOM COUNT**

33

**FUNCTIONAL CAPACITY**

732 STUDENTS

**CLUSTER**

JEFFERSON

**MODULAR CLASSROOMS**

0

**ZONING**

CM3 COMMERCIAL MIXED USE 3



## HISTORICAL SUMMARY

The Harriet Tubman (originally Eliot Elementary School) is a two story brick veneer building designed in the International style. The campus consists of the original L-shaped building built in 1952 and 1983 ribbed concrete additions that are located along the east (front) and west (rear) elevations of the building. The Brutalist styled addition is connected to the original building creating a modified rectangular plan. A rectangular concrete building is located to the north of the primary facility, and the two facilities are connected via a covered breezeway.

Harriet Tubman school is situated in the Eliot neighborhood of East Portland. The neighborhood consists of a mix of commercial, industrial, and single and multi family residences. The campus occupies an irregular shaped parcel that is bound on the north by Lillis Albina Park, on the east by N. Flint Avenue, on the south by commercial buildings, and on the west by Interstate 5. The school is located on the south end of the campus and an industrial

arts building is located to the north. Parking is provided along the south, west, and north sides of the building and play areas are provided in Lillis Albina Park to the north.

While Tubman is a notable historic building, it does not retain a level of historical integrity commensurate with other Portland schools constructed during the same period and is therefore not eligible for the National Register of Historic Places (NRHP).

## RESJ CONSIDERATIONS

As of this writing, Harriet Tubman Middle School is under consideration for relocation. Student population data is presented below.

- » For the 2021-22 school year, 62% of Tubman’s students are historically underserved; this is significantly higher than the middle school mean (37%).
- » For the 2021-22 school year, 35% of Tubman students qualified for free or reduced lunch; this is above the middle school mean

(26%).

## ENROLLMENT & UTILIZATION

For the 2021-22 school year, Tubman is forecast at 60% utilization. Over the next several years, enrollment is projected to decline slightly to 57% by the 2030-31 school year, Given this anticipated enrollment pattern, the district should plan for program consolidation or co-location with other programs.

## FACILITY CONDITION SUMMARY

Harriet Tubman Middle School is 69 years old, but in good condition as with a facility condition index (FCI) score of 0.05. The district invested significant funds to renovate Tubman in 2018, addressing facilities deficiencies as well as abatement of hazardous substances. As the average FCI score for non-modernized middle schools in PPS is 0.12; Tubman’s FCI score indicates that its building is in better condition than all other non-modernized middle schools.

Facility condition assessments conducted in 2019-20 revealed the following deficiencies:

### Mechanical & Plumbing

- » The building had several plumbing fixtures that appeared to date from original construction, but the majority of plumbing fixtures appeared to have been replaced at the time of the South Addition project in 1986. The plumbing system was observed to be in good condition with no major

- deficiencies.
- » A majority of the HVAC system was upgraded in 2018 and is in excellent condition. Existing HVAC equipment serving the South Addition had not been replaced as part of the upgrade but appeared to be in good working condition.

### Fire Protection

- » The building was observed to have a wet-pipe sprinkler system. The piping and sprinkler heads were estimated to have been installed as part of the South Addition and renovation project in 1986 and were observed to be in average condition with no major deficiencies.
- » An addressable fire alarm system headend (Silent Knight 5820XL) and associated detection and signal devices were installed in 2014.

### Electrical

- » As part of the upgrade of the overall HVAC system in 2018, a 480Y/277V electrical service was added to the building. This new service is in excellent condition and is dedicated to the new HVAC systems. However, the majority of the building is served by a 208Y/120V service that was installed with the South Addition and renovation project in 1986. The main 208Y/120V electrical switchboard and its associated panel boards had exceeded their typical design lives. The original 208Y/120V switchboard had been backfed from the main switchboard and was still in use, serving panels also dating back

to original construction. These had all exceeded their typical design lives and should be replaced. A new sub-distribution board and associated panel board had been added in 1996 as part of a telecommunications upgrade.

### Arch/Struct/Site

- » The lockers in the locker rooms had exceeded typical design life and had excessive wear and denting throughout.
- » The aluminum south facing exterior windows of the Industrial Arts building had deteriorated frames and sealant. (The building function is now a dance room.)
- » The exterior architectural components are planned for future assessment.

## RECENT CAPITAL EXPENDITURES

- » Significant building system upgrades were completed in 2018 including a new mechanical system
- » Drinking fountain fixture replacements in 2021

## EDUCATIONAL SUITABILITY

- » Some classrooms lack windows.
- » The school’s SPED classroom is undersized.
- » The cafe/auditorium shares walls with classrooms, causing noise transference between spaces.
- » The health room lacks space for a cot.

## EDUCATIONAL PROGRAM FORECAST

**SITE SUMMARIES**

**High Priority**

- » Addition of accessible and age-appropriate play equipment and a covered play structure.
- » Add flexible furnishings to support student collaboration.
- » Incorporate recommendations of PPS' All Gender Task Force, including restrooms and locker rooms (once finalized).
- » Re-purpose space to create an art exhibition area.
- » Complete 2020 bond-funded security projects, including new classroom door locks and improvements to the security / alarm system.
- » Re-purpose an existing space into a sensory room.
- » Conduct inventory and assessment of SPED classrooms and support spaces to determine alignment with SPED programmatic goals.

**Moderate Priority**

- » Re-purpose an existing space into a wellness room.
- » Re-purpose existing space to provide a Family Resource Center with kitchen equipment.
- » Allocate an area for a Reconnection Services office.
- » Re-purpose space for a 2nd visual arts classroom, providing separate teaching stations for 2D and 3D visual arts instruction.
- » Add or re-purpose space for a 2nd music room with shared ensemble/practice rooms, music office, and music library.
- » Upgrades to existing stage / auditorium (as needed) to support performing arts instruction.
- » Add a makerspace to support

STEAM activities in alignment with CTE pathways at the high school level.

**Lower Priority**

- » Expand P.E. storage by repurposing space and/or adding casework.
- » Allocate instructional, office, and meeting space for Virtual Scholars.



TITLE	<b>FUTURE SCHOOL</b>
ARTIST	<b>DELPHINA SEEGER</b>
GRADE	<b>8</b>
SCHOOL	<b>JACKSON</b>
TEACHER	<b>JESSICA HICKEY</b>



**Preservation, Maintenance,  
and Disposition of District  
Real Property**

**A. Land Acknowledgment**

The Portland Public Schools Board of Education acknowledges that the District's real property assets are on the traditional land of the Chinook, Clackamas, Kalapuya, Multnomah, Wasco, Kathlamet, Tualatin, and Molalla tribes. We also know that many other tribes made their homes along the Columbia and Willamette Rivers. We also recognize the robust present-day federally recognized tribes of this area: the Grande Ronde, Siletz and Cowlitz, and the Native American community, representing more than 380 tribes that have made the City of Portland one of the top 25 cities with the largest American Indian/Alaska Native populations. We honor their history and acknowledge the sacrifices they made.

We also acknowledge that federal, state, and local governments supported the invasion and dispossession of Native People's lands and the institutionalized practices of the removal and displacement of Native people from their lands. Additionally, PPS acknowledges that Portland institutions and citizens participated in redlining and structurally organized policies, zoning, and planning that restricted or prevented Black, Indigenous, and communities of color from land ownership and led to their disproportionate displacement through "urban renewal" or gentrification.

**B. Duty to Maintain and Preserve Real Property**

With the recognition of our role, we know that as current caretakers of this ancestral land, the District recognizes its fiduciary responsibility to preserve and maintain its real property assets in a manner that will serve current students and future generations, including keeping land in the public domain.

Only on rare occasions will the District sell a property without replacing that property with an equivalent or better property.

The Board of Education recognizes that the District's real property assets must be maintained in a sufficient physical condition to preserve their value and utility. The Board shall take necessary steps, taking into account budgetary constraints, to preserve and maintain the physical integrity of District real property.



## **Preservation, Maintenance, and Disposition of District Real Property**

### **C. Objectives in Real Property Transactions**

District properties that are not currently needed for District purposes will be managed to carry out the following objectives:

- Reflect the District’s short-, intermediate-, and long-term educational and operational needs, considering long-term population and enrollment projections for the Portland area;
- Maintain flexibility in lease terms to allow for early termination to adjust to enrollment fluctuations or other District needs for the property; and
- Provide revenue and other support for District needs; in this case, the District must seek maximum long-term financial and other benefits. The District also recognizes that conveyance of real property rights-of-way or easements may be imposed as a condition of approval of District development projects without compensation or may occur for other good or valuable consideration.

### **D. Sale of Real Property**

Under ORS 332.155, the District may lease, sell, and convey all property of the District that will not be required for the District’s educational purposes in the long term. In the unlikely event that District property does not support and is not expected to support the District’s mission now or in the future, the Superintendent shall recommend to the Board the disposal of such property, including a thorough analysis of the implications of any property sale on fulfillment of the District’s educational mission over the long term.

Whenever possible, any long-term disposition of District property should take the form of a long-term lease rather than a sale. A “long-term lease” is defined as a lease of at least five years and shall provide the District termination rights in the event the property is needed for District use.

Sale of a District property without replacing it with an equivalent or better property is usually disfavored and shall be considered only after assessing alternatives and determining that the District’s best long-term interests are served by a sale. Whenever possible, any District property sale should be to a public entity that intends to actively use the property for public purposes or that substantially advances the District’s racial equity and social justice goals for public schools, including PPS charter schools provided that any transaction is structured to allow PPS to regain ownership of the real property if it is no longer going to be used for public or designated purposes.



**Preservation, Maintenance,  
and Disposition of District  
Real Property**

**1. Recommendation and Sale Process**

- a. Sale of District Property Recommendation: The Superintendent shall make recommendations to the Board on the sale of any District property, including an analysis of implications for the District's ability to fulfill its responsibilities in the short-, medium-, and long-term; and a market analysis.
  
- b. Public Hearing: Any process to consider the sale of the property shall be a transparent and public process, and at least one public hearing shall be held by the Board prior to declaring any real property or portion thereof prudent and necessary for sale. In the unlikely event the Board determines that it is prudent or necessary to sell a District property, it shall pass a resolution identifying the property, how relinquishing property promotes both the District's mission and the public interest, and the terms and conditions under which it may be sold.
  
- c. Sale process: Once the Board declares that it is prudent or necessary to sell a District property, the Superintendent, or such persons as may be designated by the Superintendent, shall establish and conduct a process for sale or other conveyance of the property. The Superintendent will market and negotiate a proposed sale or other conveyance of the property and bring a recommended agreement to the Board for the Board's review and approval.

**E. PPS Leases**

**1. Presumption of Market Terms:**

When entering into leases involving real property, the District shall pursue maximum market value and other then-current market terms, unless the Board adopts a resolution that makes an express finding that the transaction involving District property for less than market terms (1) confers significant benefit to the District and the communities it serves, including, but not limited to whether the transaction advances the goals of the District's Racial Educational Equity policy; and (2) is with another party with an official connection to the District or its enrolled students or students expected to enroll in PPS (e.g., PPS charter school, an organization providing direct services to PPS students, or a prekindergarten or head start program). Any express finding justifying less than market terms shall also consider the factors or combination of factors below and be assessed through the PPS Racial Equity and Social Justice lens.



**Preservation, Maintenance,  
and Disposition of District  
Real Property**

- a. Extraordinary economic or other unusual circumstances beyond the control of all parties (“Extraordinary Circumstances”). Under this factor, the tenant must provide evidence of the impact of Extraordinary Circumstances on its financial status, prior prudent efforts to manage risks and impacts, and efforts made to explore options other than financial or other relief from the District.
- b. Offering below-market terms confers significant benefit to the District or its students, and those benefits substantially outweigh the costs of below- market terms;
- c. The communities being served by the other party include a substantial proportion of underserved students: students of color; students whose families qualify for free or reduced lunch, students with special needs, emerging bilingual students, or LBGTQ students.

To the extent any below-market terms under a lease are granted, the District shall define the time period under the lease during which the below-market terms are effective, after which market terms shall be restored for any remainder of the lease. The factors set out in this section do not override the presumption of maximum market value in every circumstance, but may be considered on a case-by-case basis.

**F. Compliance with Grant Agreements.**

Notwithstanding any other part of this policy, if District property in a contemplated real estate transaction was purchased with state, federal, or private grant funds, any transaction involving the property shall be made as required in the grant or by state or federal regulations.

**G. Delegation of Authority for Certain Transactions**

The Board delegates authority to the Superintendent or his/her designee to approve and execute real estate transactions in which the total value of the transaction is at or below applicable delegation thresholds for District expenditure and revenue contracts, as set forth in PPS Public Contracting Rule 45-0200 (Authority to Approve and Execute District Contracts); in which conveyance of real property rights-of-way or easements is imposed as a condition of approval of District development and maintenance projects; or in which the transaction can be terminated by the District within 90 days or less. All other real estate transactions shall require Board approval. The Superintendent will provide a quarterly report to the



**Board**

**8.70.040**

**Preservation, Maintenance,  
and Disposition of District  
Real Property**

Board regarding leases signed below the delegation threshold.

Legal References: ORS 271.330 ORS 332.155

History: Adopted 6/71; Amended 12/13/76; Amd. 8/28/78; Amd. 10/13/83; Amd. 8/31/95; Amd. 10/28/02 BA2463; Amd. 1/12/09 BA 4019; Amd. 11/13/18; Amd.3/9/2021