

EXHIBIT PC-3: PUBLIC COMMENT

Wade M. Clarke, P.E.
811 Nicole Court
West Linn, Oregon 97068
June 13, 2021

Mr. Chris Meyers and the City of West Linn Planning Commission
22500 Salamo Road
West Linn, Oregon 97068
RE: Athey Creek Middle School at Dollar Street Conditional Use Application
< CUP-21-02/DR-21-04/WRG-21-02/MISC-21-04/VAR-21-01/VAR-21-06/LLA-21-02 >
Third Party Review of Transportation Impact Study

Dear Mr. Chris Meyers and the City of West Linn Planning Commission:

Numerous residents of the City of West Linn, deeply concerned about the effects on Willamette area traffic of the proposed relocation of the Athey Creek Middle School to the District property on Dollar Street, retained V-Naught Traffic Solutions, LLC. (V-Naught) to perform a third party review of the October 21, 2020 Transportation Impact Study prepared for the West Linn-Wilsonville School District by DKS Associates (DKS Study). The V-Naught report, enclosed with this letter, describes the findings of that review, which identified numerous shortcomings of the DKS Study. Key conclusions and recommendations presented in the V-Naught report are highlighted herein, and supplemental related comments are provided on behalf of many concerned West Linn residents.

Regarding the traffic counts that form the basis of the evaluation of the study intersections, V-Naught points out that the counts were all made on a single day, which could lead to inaccurate data, and that it would be prudent to supplement these counts with several days of hose counts. In addition, V-Naught notes that the driveway counts for the existing Athey Creek Middle School presented in Table 6 appear to have missed trips. For example, it would be highly unusual for there to be significantly more trips out than in during the peak AM hour at a middle school as the Table 6 data indicates. The multiple possible entrances to the site, or combined trips with the adjacent primary school, may have contributed to inaccurate existing Athey Creek Middle School counts. Specific times and locations of the existing school counts were not provided in the DKS Study.

Note that on page 6 of the DKS Study, the authors state that the current Athey Creek Middle School would be expected to have a lower trip generation rate than a typical middle school because it is outside of the exclusive Athey Creek enrollment zone, and many students are bused. In the paragraph that immediately follows, the authors state that the new middle school will generate *35% fewer* vehicle trips than the existing school, though they had just postulated that the existing school generates fewer trips than a typical school because it is remote to the area it serves. This flawed logic, combined with a comparison of the much greater ITE trip generation rates with the final assumed trip generation rates (0.67 vs 0.30 AM and 0.33 vs 0.22 Midday), and the seemingly inaccurate counts at the existing school,

calls into question the validity of the assumed trip generation rates for the relocated school used in the DKS Study.

As V-Naught points out, the intersection study results are heavily dependent on the assumed modal split that was presented in the DKS Study with limited explanation as to its derivation. The supplemental memo issued by DKS on January 25, 2020 provides some additional background on how DKS arrived at their primary modal split assumption that 250 of the 850 students will walk or bike to school; however, this assumption is clearly unrealistic. At the request of community members, the District provided the 2020 Athey Creek Middle School enrollment numbers for the proposed walking boundary shown in Figure 10 of the DKS study. In 2020, a total of 157 students lived within the walking boundary. The District's ten year long range planning study, prepared by FLO Analytics, indicates that the entire Athey Creek exclusive enrollment zone, which is much larger than the proposed walking boundary, is only projected to grow by 23 students by 2028 (Figure 13 in the FLO Analytics report). Given the substantial physical barriers of I-205 and the Tualatin River, it is highly unlikely that any future right of way improvements will lead to a meaningful expansion of the walking boundary. This being the case, the vast majority of the growth in student enrollment numbers can be expected to occur outside the walking boundary (and outside of the Athey Creek exclusive enrollment zone). Therefore, the proposed 29% walk/bike split is unrealistically high. V-Naught suggests that the 100 students walk/bike sensitivity scenario is more realistic. The follow-up 50 student walk/bike sensitivity scenario described in the DKS supplemental memo is the most likely scenario during inclement weather and winter.

V-Naught points out several additional inaccuracies or oversights in the DKS modeling that lead to an underestimation of delays in the study area. The sensitivity scenarios include an average trip increase over the entire model; however, based on the enrollment areas most of these added trips would be coming from the east, resulting in increased eastbound traffic at the midday peak hour. This would increase the delays at the Willamette Falls Drive/Ostman Road intersection at the midday peak hour. In addition, all existing Athey Creek trips were removed from the study area, though according to the District, the new high school at the existing Athey Creek site is scheduled to open simultaneously with the relocated middle school, meaning that some trips associated with that site would continue. V-Naught also notes that it appears that the peak hour factor was not input based on the data collected, resulting in reduced modeled delays. Finally, the conflicting lanes in the model do not account for bike lane and pedestrian crossings, which would add to estimated delay times at the subject intersections. All of these errors result in a reduction in the predicted delays at the study intersections. These must be corrected to obtain an accurate estimate of traffic impacts on the study area.

Section 60.070.A.7 of the West Linn Community Development Code (CDC) prescribes that the Planning Commission shall approve or deny a conditional use application based on findings of fact with respect to the compliance of the use with the "applicable policies of the Comprehensive Plan." The Comprehensive Plan specifies a minimum intersection LOS D. The DKS Study, which, as discussed, appears to underestimate traffic delays, estimates an LOS F for the Willamette Falls Drive/Ostman Road intersection after the proposed Athey Creek Middle School relocation to Dollar Street. Therefore, per

the CDC, the Planning Commission cannot approve the conditional use application as it stands, as the proposed development presented in the application does not comply with the Comprehensive Plan.

The DKS Study states on page 24, and the District and DKS have reiterated at several “Community Engagement Meetings”, that the City of West Linn staff desire to maintain the current all way stop control at the Willamette Falls Drive/Ostman Road intersection, and that they would like to take a “wait and see” approach with this intersection. Reportedly, for this reason no mitigations or improvements were recommended in the DKS Study. The January 25, 2021 DKS supplemental memo indicates that System Development Charges associated with the project can be used to improve the intersection at some point in the future if the City desires. Many members of the community (who agree that a safe intersection at this location is essential) were shocked to hear that the District and City would take a passive, reactive approach to addressing this issue when the District’s transportation impact study clearly demonstrates that the intersection in question is problematic. Community members remain skeptical that City representatives would take such an approach, particularly when even currently it is common for traffic queues to build up at the Willamette Falls/Ostman Road intersection that reach all the way to the location of the proposed roundabout at the Brandon Place Extension.

As previously noted, the Planning Commission, per the CDC, cannot approve a conditional use application that does not comply with the Comprehensive Plan. In order to for the application to be approved by the Planning Commission, it would need to include a transportation impact study that is free from technical deficiencies, and that study must include an analysis demonstrating the effectiveness of a mitigation strategy that increases the projected LOS of the all of the affected intersections to an acceptable level. Such a mitigation strategy would need to be implemented as part of the development in question. In addition, it would be prudent for the Planning Commission to consider the effects of the forthcoming I-205 tolling, the planned Willamette Falls Drive improvements and associated construction, and other known local development projects when making their decision. To do otherwise would be a disservice to the community.

In summary, common sense tells us as a community that the proposed relocation of the Athey Creek Middle School to the Dollar Street site will result in the exacerbation of an already problematic traffic situation in the Willamette area. Even with its technical deficiencies, which result in an underestimation of the traffic impacts of the proposed school relocation, the DKS Study corroborates this and indicates that the resulting traffic delays will be unacceptable per the City’s Comprehensive Plan, and significantly worse than the delays calculated for the no-build scenario. As such, in accordance with Section 60.070.A.7 of the West Linn Community Development Code, the Planning Commission is obligated to deny the conditional use application presented by the District. Particularly when combined with the effects of the forthcoming tolling on I-205 and other known local development projects, from a transportation standpoint the adverse impacts of the proposed relocation of the Athey Creek Middle School on the residents and businesses of the Willamette Neighborhood and surrounding areas would be substantial.

Mr. Chris Meyers and the City of West Linn Planning Commission

June 13, 2021

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Thank you for your consideration of these comments, and of the attached V-Naught review of the DKS Study, as you evaluate the District's application for conditional use for the proposed Athey Creek Middle School at Dollar Street.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wade M. Clarke', with a long horizontal flourish extending to the right.

Wade M. Clarke, P.E.



**V-Naught Traffic Solutions,
LLC**

971-317-8668
info@vnaught.com

November 18th, 2020

Wade Clarke
West Linn Community Member

Enclosure: Athey Creek Middle School TIS Review Report

Mr. Clarke:

The purpose of this correspondence is to communicate the results of the Transportation Impact Study (TIS) review you requested at the possible relocation of Athey Creek Middle School in West Linn, Oregon. In accordance with your request, V-Naught Traffic Solutions, LLC has completed the review of the study. The enclosed report includes the following components:

- Review of the existing conditions in the TIS
- Review of the proposals in the TIS
- Recommendations

The full review of the Transportation Impact Study follows this page.

If you have any questions or concerns regarding the process or results of this report, please do not hesitate to contact us.

Sincerely,

Mark Haines, PE
Principal

Andrew Sullivan, PE, PTOE
Principal

Introduction

On November 3, 2020, V-Naught Traffic Solutions, LLC was contacted by Wade Clarke of the West Linn Community who was seeking a third-party review of the methodologies and assumptions used in a traffic impact study conducted to gauge the impacts of a proposed middle school relocation in the West Linn-Wilsonville School District. We were also tasked with responding to questions and concerns raised by local community members. V-Naught Traffic Solutions, LLC agreed to provide this review. This report examines the traffic impact study section-by-section and communicates the findings and recommendations that resulted from this review. Only sections with comments are included in this report.

Existing Conditions

Study Area: The identified study area appears to adequately cover the primary intersections that could reasonably be tied to the development of the school site. Effects of the proposed development may also impact the intersections of 19th St/Blankenship Rd, 19th St/Dollar St, 19th St/Willamette Falls Dr, and Willamette Falls Dr/Dollar St. Each of these streets appear to be collector-type streets with at least one uncontrolled approach. Inclusion of these intersections would help inform the City of West Linn if additional traffic controls are necessary to maintain adequate and safe operations in the future condition.

Existing Traffic Volumes: The traffic counts for the study area appear to be limited to one morning and one afternoon turning movement count, all collected on the same day, for each of the study intersections. There is some risk that, by using only one day of counts, extenuating circumstances could have impacted traffic volumes on this day. To diminish this risk, it may be prudent to corroborate the turning movement counts with 24-hour hour hose counts collected over multiple days (typically Tuesday through Thursday) and averaged. The data supplied in Table 6 of the TIS appear to miss trips being taken from other driveways and/or combined trips with the primary school immediately adjacent to the existing middle school site. If actual volume counts were used from the existing school, this information is missing from the traffic data appendix.

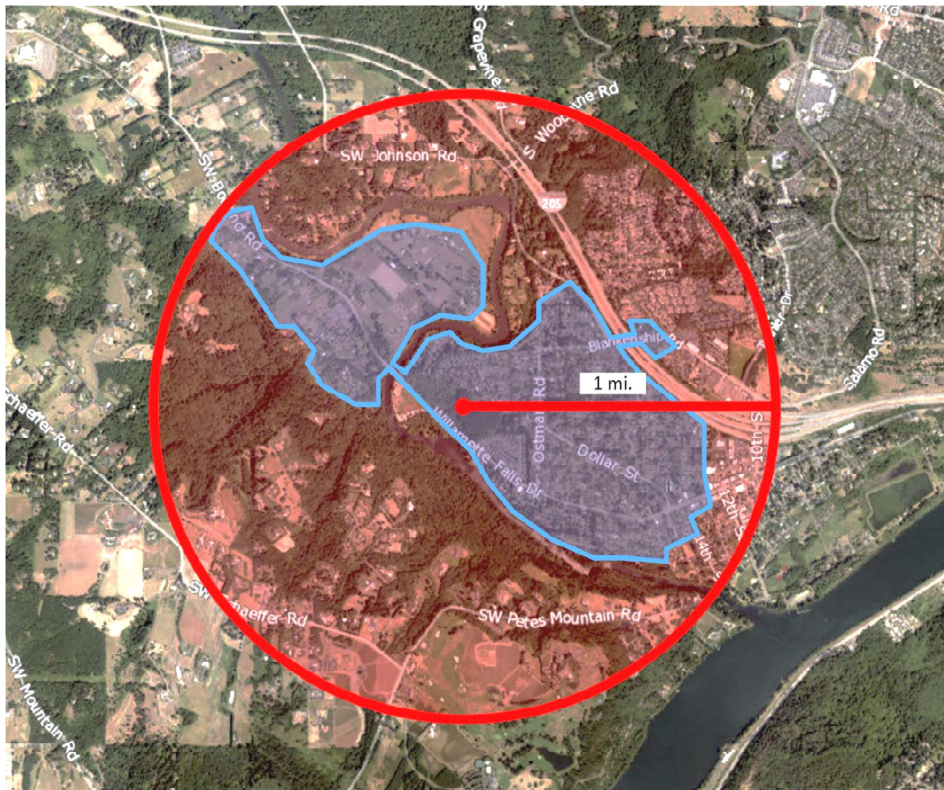
Safety Analysis: As mentioned in the review of the Study Area evaluation, it may be advisable to include a safety evaluation of the four nearby collector intersections with at least one uncontrolled approach (mentioned previously) to verify no existing collision patterns are occurring. Additional traffic attracted to those intersections due to the development could increase risk of similar collisions. Such an analysis would help inform decisions for the City to implement countermeasures proactively in anticipation of increased traffic volumes.

School Relocation

Trip Generation Overview:

Modal Split: The commentary touching on the School District's estimation that bus mode split will drop from 72% to 53% when school operations are shifted to the new school is very important and cannot be overlooked. At full capacity, this means approximately 160 fewer students will be bused to school and must switch modes. In the worst-case scenario, all 400 of these students without access to buses would be driven alone to the school. With this many potential drive-alone trips, calculating an accurate modal split is imperative in deriving meaningful results from the traffic impact study. The methodology surrounding the development of the modal splits in the TIS appears to be inadequate to substantiate the 29% claim. The report claims a 1-mile radius around the school as the walking boundary, but does not show how the conclusion that 250 students live within this boundary is reached. It also does not specify if this 1-mile radius boundary is a true radius or a 1-mile walkshed which is a much more reasonable walking boundary. The difference between these two boundaries is considerable:

Athey Creek Middle School Walkshed Map – 1 Mile Radius vs. 1 Mile Walking Distance



The size of this 1-mile walkshed boundary relative to the overall size of the school enrollment boundary brings into question the assumed 29% walk/bike mode split. The traffic impact study does not provide evidence of enrollment numbers within the 1-mile walkshed of the proposed school site that substantiate the claim. It appears unlikely that actual mode split values will approach the values assumed in the report.

The school district provided current school year (2020-2021) data for the number of students within the proposed walking boundary of the proposed middle school site. There were approximately 157 students in 2019 who lived within the proposed walking boundary. There was a projected growth of 23 students by the year 2028 in a boundary larger than the proposed walking boundary. Assuming all of the growth in the proposed Athey Creek middle school boundary occurred within the proposed walking boundary and 100% of the students in the proposed walking boundary in 2028 took every trip to and from school by foot or bike each peak period, that would account for only approximately 170 of the proposed 250 bike/walk trips. It appears that most of the growth for the proposed middle school site to reach capacity would happen outside of the proposed walking boundary which should increase the number of assumed vehicle trips made to and from the school site by the TIS.

Furthermore, the proposed modal splits shown in Table 5 appear to have little evidence and seem to be solely based on the number of estimated bused students to the new site. Although the new middle school site will provide more opportunities for students to walk or bike to school, there appears to be no substantial evidence provided in the TIS that merits the change from zero students to 250 students walking or biking for opening day in 2023.

Finally, it would be advisable to review the Rosemont Ridge middle school walk/bike trips from 2018-2019 school year. The walk boundary for Rosemont Ridge is about twice the size in area as the proposed walk boundary for the proposed Athey Creek site with fewer major boundaries, but it could still offer valuable comparisons for modal splits.

Vehicle Trip Distribution:

Trip Addition - Relocated Middle School: Trip redistribution can be a challenging thing to predict. The best tool available to estimate trip redistribution is through the use of a travel demand modelling software. However, if no existing base model for the study area exists that can be easily modified to gage the impact of the new development, such an undertaking to build a new travel demand model for this study would be potentially very expensive and likely cost-prohibitive. Alternatively, determining these values relies heavily on data-driven decisions and engineering judgment. In this case, it would be helpful to see a geographic representation of where the students of the school are living, assume how many from each region will choose to drive, and make assumptions about which route those trips will take to reach the school. The report lacks details on how these percentages were developed, but they may still be a fair representation.

The key element of the redevelopment proposal that will impact trip redistribution in the study area is the creation of a new link connecting Dollar Street as a new through street. This will likely result in at least some existing through drivers (not destined for the school) to use Dollar St to bypass the all-way stop at Willamette Falls Dr/Ostman Rd which appears to be the primary traffic constraint within the study area. That aspect appears to have been neglected and deserves some attention to gage the implications for Dollar St, including the safety for students who must cross Dollar St to access the school.

The effort would help inform decisions whether or not additional traffic control devices are necessary on Dollar St once it connects to the west segment of Willamette Falls Dr.

Trip Removal - Existing Athey Creek Middle School: The removal of all trips from the old school site seems to underestimate the total number of vehicle trips. The old middle school site will function as a high school with doors set to open simultaneously with the relocated middle school. Furthermore, the report does not seem to adjust for current trips that are combined with the primary school immediately adjacent to the existing middle school site. It is unclear from the TIS report how many of those combined trips will remain as vehicle trips, now to two school sites, or will result in a mode change for the student attending the proposed middle school site.

Future Conditions

Future Traffic Operations: The results of these analyses hinge on the accuracy of the projected traffic volumes developed in the previous section. With the study area only consisting of stop controlled intersections, the capacity analysis is a simple task. The validity of the results produced by the study are only as accurate as the inputs to the model. The input assumptions seem to come only from the assumed number of bus trips given by the school district and do not seem to match the student residency data provided by the school district.

Sensitivity Analysis: The results of the TIS sensitivity analyses showed an increase in control delay at the critical intersection of Willamette Falls Dr and Ostman Rd. The sensitivity analysis performed in the traffic impact study shows a minimum 12% bike/walk mode split. Including a worst-case scenario where there are fewer than 5% bike/walk trips would help inform local stakeholders of the true range of traffic impacts that can be reasonably expected by the opening of this school. Furthermore, the sensitivity analyses did not seem to add the majority of the additional vehicle trips in the direction of the associated assumed mode change trips. Most of the ped/bike trips would be coming from east of the middle school, therefore, the additional vehicle trips assumed in the sensitivity analyses should have been coded to and from that direction as well. This is a significant change in the assumptions as it may show that Willamette Falls Dr and Ostman is further exacerbated by the school site related traffic flows. Or, otherwise it might show results indicating that additional traffic control changes may be necessary at other intersections within and surrounding the study area. It seems prudent to start with assumptions similar to those listed under the sensitivity analysis scenario #2 for opening day, design remedies for the traffic impacts associated with this scenario, and take actions in order to achieve the optimum number of walk/bike trips each peak period.

Willamette Falls Drive/Ostman Road Intersection: It appears that City representatives have accepted the safety and traffic calming benefits of the all-way stop control in exchange for congestion and delay during the peak hours. However, the traffic impact study for the middle school site shows that Willamette Falls Dr and Ostman Rd will no longer meet the City standards for level of service (LOS) during the midday peak hours, even under the assumption that there will be 250 bike/walk trips. The results of the sensitivity analysis scenario #2 show further degradation in vehicle level of service at this specific

intersection to LOS F and may not describe the worst case scenario in regard to the number of assumed bike/walk trips. There appears to be little description in the transportation impact study for remedies to the increase in vehicle congestion, and resulting noise and emissions.

Site Review

Frontage Improvements: The frontage improvements for Dollar St do not mention bicycle facilities. Although this street is classified as a local street, it appears to function as a collector type street for the subdivision to the north as is indicated by the double solid yellow centerline and absence of other roadway connectivity. Additionally, the extension of Brandon PI will provide a link to Willamette Falls Dr, potentially attracting through trips during periods of congestion. Bicycle facilities on Dollar St would make this a viable alternative cycling route to the proposed new school site, potentially helping the school meet its mode split goals.

Parking: The report shows that City code requires a minimum of 112 bicycle parking spaces but the proposal only shows 100 bicycle parking spaces being provided. The TIS should detail the assumptions around how the 100 proposed bicycle stalls meet the requirements from the City.

Off-Site Parking: Establishing bicycle facilities on Dollar St and the new Brandon PI as an alternative to on-street parking should be considered to encourage students and staff to bike to the school rather than drive.

Neighborhood Connections: It appears that the north side of the site does not provide ample access to the school which may reduce the number of bike/walk trips. There appears to be a missed opportunity to connect the school site with the neighborhood cluster to the southwest near Epperly Way which may increase bike/walk trips.

Modeling

General Conditions: It appears that the peak hour factor was not input based on the traffic volume data that was collected. The value that was input for the peak hour in the TIS results in a reduced delay experienced by the drivers using the system. Furthermore, it appears that the conflicting number of lanes input into the model may not adequately account for both the bike lane (where it exists) and the pedestrian crossing at each intersection. The existing, and proposed increase in, bike and walk trips will certainly add delay to each intersection in the study area. That does not seem to be captured by the results shown in the TIS. Finally, it is unclear if the model was one comprehensive system wide model encompassing the entire study area or simply a look at each individual intersection within the study area. One comprehensive model complete with simulation results may provide a clearer picture of the traffic impacts of the proposed school site.

Sensitivity Analyses: Each sensitivity analysis scenario adds vehicle trips to the system, however the TIS does not clarify the origination or destination of each additional vehicle trip. The model results provided

in the TIS for each sensitivity scenario seem to show an average trip increase across the entire model. As discussed earlier, most of the additional vehicle trips associated with each sensitivity analysis scenario should have an origin/destination inside the walk boundary of the proposed school site - most likely from east of the proposed school site. This would provide more accurate results for the sensitivity of the system when students are driven to school instead of walking or biking.

Safe Routes to School

The walkshed boundary shown on Figure 10 of the original study leaves unanswered questions surrounding the validity that up to 250 students will walk to school. Comparing the number of households within this boundary to recent Census data and the data provided by the school shows that fewer than 250 students live within these limits. Furthermore, the pedestrian network identified in the report shows a lack of safe and comfortable routes by which students will be expected to travel. The recommendations could go further to help achieve the desired results and it would be useful to show an entire network built for the walking boundary with specific routes identified. As shown, the walking boundary and identified safe routes to school leave much of the area students stranded or otherwise unable to connect to the identified safe routes. For example, the intersection of Dollar St and Ostman Rd pictured below is indicative of systemic features of the roadway network that are unfriendly to pedestrians:

Dollar St & Ostman Rd Intersection



- Unnecessarily wide corner radii increase pedestrian crossing and exposure distances and permit turns at higher speeds
 - Stop bar placement encourages motorists to encroach upon natural pedestrian paths and fails to give pedestrians a dignified space to legally cross the street

Additionally, The City of West Linn should consider identifying critical walking routes accessing the school and implementing measures designed to ensure pedestrians feel safe and comfortable walking to school. These measures can be as simple as deploying low-cost materials like paint and posts to tighten corner radii, shorten crossing

distances, and provide concise and legible pedestrian routing through intersections. Finally, street lighting is an important part of pedestrian and cyclist safety. The TIS recommendations should include street lighting improvements for the entire walking boundary.

Conclusions & Recommendations

Overall, the transportation impact study performed by DKS provides critical insight into the site plans and their effects on the surrounding neighborhoods. There are, however, a few outstanding items in the report that should be evaluated.

Here are the major findings from V-Naught Traffic Solutions in our review of the transportation impact study for the proposed Athey Creek Middle School Site:

- The TIS should provide all available count information taken as a part of this study including:
 - Current school site counts, time of counts, and specific locations
 - Current study site counts, time of counts, and specific locations (provided)
 - Any corroborative counts or data for the study
- The TIS should:
 - Clarify the basis for the number of assumed bike/walk trips
 - Identify where these trips are coming from/going to
 - Identify the year at which the community should expect to meet this number of bike/walk trips
 - Identify their source of raw data for the assumption
 - Provide actual school district data that informed these decisions
- The TIS should identify how many trips to the current school site were combined with trips to the remaining, and immediately adjacent, primary school
- The TIS should clearly describe the growth potential in students living within the walk boundary as it relates to trips by bike or foot
- The TIS should consider the number of trips created by the proposed high school in the site of the existing middle school
- The TIS may consider the number of trips created by the proposed sports complex to the west of the proposed middle school site
- The TIS may consider the number of trips created by the proposed tolling on I-205 in the vicinity of the proposed middle school site
- The TIS should provide more detailed information surrounding the installation of a traffic signal at Willamette Falls Dr and Ostman Rd
- The TIS should provide simulation reports using travel time comparison metrics in concert with modeled control delay
 - Travel times are easier to understand and compare to real life experiences
 - Travel times can be verified before and after the site is developed using anonymized bluetooth data
- The TIS should provide results for a scenario where a traffic signal is installed at Willamette Falls Dr and Ostman Rd
- The TIS shows an increase in control delay at Willamette Falls Dr and Ostman between 4 and 18 seconds per vehicle which could lead to increased queuing and may affect travel patterns in the nearby neighborhoods during the midday peak.

- The TIS should take into account the delay added due to increased pedestrian and cyclist traffic
- The TIS should model the sensitivity scenarios by adding vehicle trips only from east of the proposed school site in order to simulate a change in mode choice from walk/bike to personal vehicle
- The TIS should create a sensitivity analysis scenario #3 with fewer than 5% assumed bike/walk trips to create a better understanding of the impacts fewer bike/walk trips could have on the system
- The TIS should reconcile the difference between the 112 bicycle stalls required by the City and the 100 stalls proposed by the development
- The TIS should compare the actual pre-COVID-19 Rosemont Ridge Middle School bike/walk trips to the proposed Athey Creek Middle School bike/walk trips
 - This comparison should take into account the major boundaries present for the proposed Athey Creek site
 - This comparison should take into account the area size of each walking boundary and their topographic features
 - The comparison may also take into account other school district trip numbers with relation to the school type, capacity, geographical constraints, and topography.
- The TIS should provide a network wide graphic representation of the proposed walking routes for the entire walk boundary of the proposed site
 - The network wide graphic should identify all gaps in safe and comfortable pedestrian infrastructure including sidewalks, protected shoulders, curb ramps, and pedestrian crossings.
- The TIS should recommend that a street lighting analysis be completed for the entire walk boundary of the school including:
 - New and improved pedestrian crossings
 - Neighborhood greenways where an increased number of pedestrians and cyclists are expected
 - Areas where there may be other safety concerns
- The TIS should provide recommendations for bike facilities on Dollar St and Brandon Pl
- The City should consider improving the traffic control at Willamette Falls Dr and Ostman Rd for all road users
- The City should consider using the sensitivity analysis scenario #2 provided in the TIS for the opening day operations surrounding the proposed school site and base development required remedies in line with the results of that scenario
- The City should consider comprehensive safety improvements for the entire walk boundary of the proposed school site including improvements for vulnerable road users, improved crossings, and street lighting
- The City and School District should consider the effects to the neighborhood if the school does not achieve the proposed 250 bike/walk trips each peak period and be prepared to address those effects

From: [John J. McCabe](#)
To: cmeyers@westlinnoregon.gov; [Wyss, Darren](#); [Williams, John](#)
Subject: Dollar Street Hearing
Date: Monday, June 21, 2021 10:48:15 PM


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https://www.wlwg.k12.or.us/cms/lib/OR01001812/Centricity/Domain/100/WLWV_LRFP_2019_FINAL%20LR%20Links.pdf

To all;

Please submit this one item(I have sent both links in case there is an issue. Critical items are listed in the report as to the Dollar Street Site. Since they are reports commissioned by the West Linn Wilsonville School District, they should not object to these items from being included in testimony.

John McCabe


Please inform me that these items have been received.

WEST LINN-WILSONVILLE LONG RANGE FACILITIES PLAN - 2019 EDITION

JUNE 2019

Part 1 - Long Range Plan Table of Contents

Part 2 - Capital Improvement Program
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PREFACE

WEST LINN-WILSONVILLE SCHOOL FACILITIES PLAN – 2019 EDITION

Originating in 1996, West Linn-Wilsonville School District has regularly published a Long Range School Facilities Plan that provides a summary of the District’s framework for facilities planning. Updates to this plan have occurred five times over the last 23-years culminating in this latest 2019 Edition. Each edition takes an in-depth look at current school educational programs and initiatives that shape the built environment in support of the highest quality public education for all district students.

The School Facilities Plan is divided into two parts. The Long Range Plan and the Capital Improvement Program.

“Part 1 – West Linn-Wilsonville School District Long Range Plan” provides a summary of the District’s framework for facilities planning in three sections:

- A - FRAMEWORK FOR EXCELLENCE: Describes the values, themes and educational needs and approaches that are the basis of facility planning and maintenance decisions.
- B - SCHOOL FACILITIES: Identifies the existing school capacity, potential growth and educational trends and factors that could impact the future facility needs.
- C - CAPITAL IMPROVEMENTS: Outlines the capital improvement planning process and identifies criteria for identifying future capital improvement projects.

“Part 2 – West Linn-Wilsonville School District Capital Improvement Program” supports consideration of a capital bond measure in the near future by providing background information relating to issues facing the District over the next 10-years and the potential improvements that could address them. The report is organized to answer four questions:

- OVERVIEW: What is the District’s mission, what are the challenges, and what is the Capital Improvement Program?
- EXCELLENCE IN EDUCATION: Why does the District’s goal for excellence in education serve as the basis for the Capital Improvement Program?
- CAPITAL IMPROVEMENT PLANNING PROCESS: How is the Capital Improvement Program developed and how will the proposed projects support the District’s commitment to excellence?
- CAPITAL PROJECTS LIST AND NEXT STEPS: When will the Capital Improvement Program projects be prioritized and implemented?

Together, Part 1 and Part 2 of the School Facilities Plan provide a comprehensive overall picture of District educational aspirations, goals and the facilities that will support them.

Following a joint meeting between the School Board, Long Range Planning Committee and staff, the School Board provided direction and action to combine both Part 1 and Part 2 into a single document that provides a complete, comprehensive view of the School Facilities Plan that will ensure compliance with ORS 195.110- School Facility Plan for Large School Districts (2017). Toward that end, the School Board adopted Part 1 of the School Facility Plan on January 28, 2019.

Following a more public review of Part 2 during the Spring of 2019, the Board and Long Range Planning Committee have prioritized proposed capital projects that align with district goals, patron support and funding strategies. On June 10, 2019, the Board adopted Part 2 as a formal action precedent to moving forward with a Capital Bond initiative. Together, Part 1 and Part 2 is the published and adopted “West Linn-Wilsonville School Facilities Plan-2019 Edition”.

WEST LINN- WILSONVILLE SCHOOL DISTRICT

Resolution No. 2018-2

Long-Term Facilities Plan – Part 1 Adoption of Amendment

WHEREAS, the school board adopted a long-term School Facilities Plan for the district on April 15, 1996; and,

WHEREAS, the first, second, third and fourth amendments to the district's long-term School Facilities Plan were adopted by the school board on September 22, 2000, February 7, 2005, December 10, 2007 and January 13, 2014; and

WHEREAS, the school board has reviewed and considered part 1 of a fifth proposed amendment to the district's long-term School Facilities Plan; and,

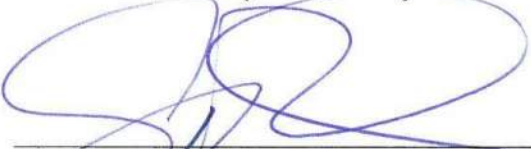
WHEREAS, the 2019 West Linn-Wilsonville School District School Facilities Plan will comply with ORS 195.110-*School Facility Plan for Large School Districts (2017)*; and,

WHEREAS, Oregon statutes allow a public school district, by resolution, to impose construction excise taxes on non-exempt new construction, provided that such district has first adopted a long-term School Facilities Plan.

Now, **THEREFORE, BE IT RESOLVED** that:

1. The West Linn-Wilsonville School Board hereby adopts, through this resolution, Part 1 of the fifth proposed amendment to the district's long-term School Facilities Plan: and
2. Until further amendment or other action of the school board, the district's long-term School Facilities Plan, as amended hereby, shall be current and effective for all purposes required or permitted under Oregon law.

Dated this 28th day of January 2019.



Chair, Board of Directors



Attest: Board Secretary

WEST LINN- WILSONVILLE SCHOOL DISTRICT

Resolution No. 2018-14

Long-Term Facilities Plan – Part 2 Adoption of Amendment

WHEREAS, the school board adopted a long-term School Facilities Plan for the district on April 15, 1996; and,

WHEREAS, the first, second, third and fourth amendments to the district's long-term School Facilities Plan were adopted by the school board on September 22, 2000, February 7, 2005, December 10, 2007 and January 13, 2014; and

WHEREAS, the school board has adopted Part 1 of the 2019 long-term School Facilities Plan through Board Resolution 2018-2; and,

WHEREAS, the school board has reviewed and considered Part 2 of the district's long-term School Facilities Plan; and,

WHEREAS, the West Linn-Wilsonville School District School Facilities Plan-2019 Edition (Part 1 & 2) complies with ORS 195.110-*School Facility Plan for Large School Districts (2017)*; and,

WHEREAS, Oregon statutes allow a public school district, by resolution, to impose construction excise taxes on non-exempt new construction, provided that such district has first adopted a long-term School Facilities Plan.

Now, **THEREFORE, BE IT RESOLVED** that:

1. The West Linn-Wilsonville School Board hereby adopts, through this resolution, Part 2 of the fifth proposed amendment to the district's long-term School Facilities Plan: and
2. Until further amendment or other action of the school board, the district's long-term School Facilities Plan, as amended hereby, shall be current and effective for all purposes required or permitted under Oregon law.

Dated this 10th day of **June 2019**.



Chair, Board of Directors



Attest: Board Secretary

PART 1

WEST LINN-WILSONVILLE SCHOOL DISTRICT

2019 LONG RANGE PLAN





ACKNOWLEDGEMENTS

West Linn-Wilsonville School District is deeply appreciative of the generous contributions freely given by patrons and staff.

In particular, we wish to extend recognition and thanks to the following individuals and groups for their tireless efforts in compiling the information contained in this report.

WEST LINN-WILSONVILLE SCHOOL BOARD

Ginger Fitch, Chair Chelsea King Martin
Dylan Hydes, Vice Chair Betty Reynolds
Regan Molatore

Dr. Kathleen Ludwig, Superintendent

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WITH PROFESSIONAL ASSISTANCE FROM

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Keith Liden, Planning Consultant
Rebecca Stuecker, Dull Olson Weekes - IBI Group Architects, Inc.
Jim Fitzpatrick, Dull Olson Weekes - IBI Group Architects, Inc



West Linn – Wilsonville Schools

To: Kathy Ludwig, Superintendent
School Board

From: Long Range Planning Committee

Date: January 28, 2019

Subject: **Part 1-West Linn-Wilsonville School District Long Range Plan
Second Reading & Adoption
Resolution 2018-2**

The West Linn-Wilsonville School District **2019 Long Range Plan** dated January 2019 is organized in three sections with Section A describing values, themes and approaches that are the basis for facility planning. Section B identifies existing capacity, enrollment and growth using Fall 2018-2028 demographic data, and Section C outlines the capital improvement planning process.

First created in 1996, this document and the companion Part 2-2019 Capital Improvement Program represents the latest edition of the District’s vision for district facilities that will support quality education into the future.

Over the last few months the Long Range Planning Committee, with assistance from DOWA-IBI Group Architects and district staff, has been updating the District Long Range Plan and Capital Improvement Program. This work has been supported by FLO Analytics for enrollment projections from 2018 to 2028; and, is in compliance with ORS 195.110-*School Facility Plan for Large School Districts (2017)*.

Long Range Plan Adoption History

- *Original Long Range School Facility Plan* April 15, 1996
- *First Amendment* September 22, 2000
- *Second Amendment* February 7, 2005
- *Third Amendment* December 10, 2007
- *Fourth Amendment* January 13, 2014
- *Fifth Amendment* January 28, 2019 (pending approval)

The Long Range Planning Committee and staff recommend the Board adopt the *Part 1-January 2019 Edition of the District Long Range Plan* as submitted and recognized by Board Resolution 2018-2.

PART 1 - LONG RANGE PLAN

WEST LINN-WILSONVILLE SCHOOL DISTRICT

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- Learning Space Capacity Analysis Worksheet and Memo
- Local Planners Meeting Minutes
- Memo of compliance with ORS state requirements
- Oregon Revised Statute 195.110



New school in Wilsonville, 1912

INTRODUCTION





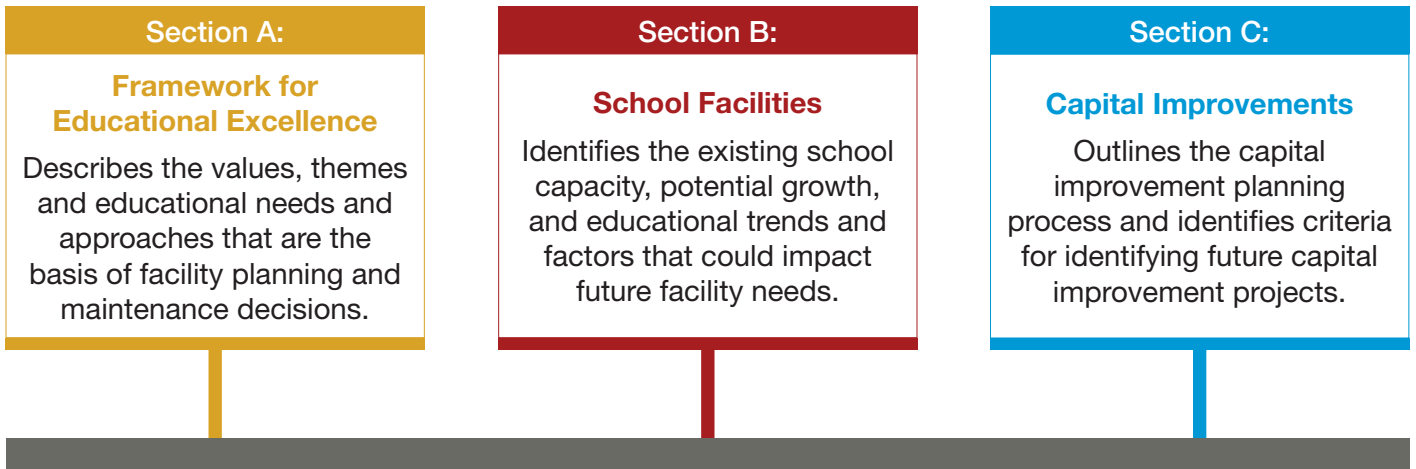
Trillium Creek
Primary School
Established 2012 - 2013



PURPOSE

Consistent with the West Linn-Wilsonville School District’s mission question, “How do we create learning communities for the greatest thinkers and most thoughtful people...for the world?” the District engages in an on-going process to evaluate the ability of its facilities to enable quality education for the current and future students within the District.

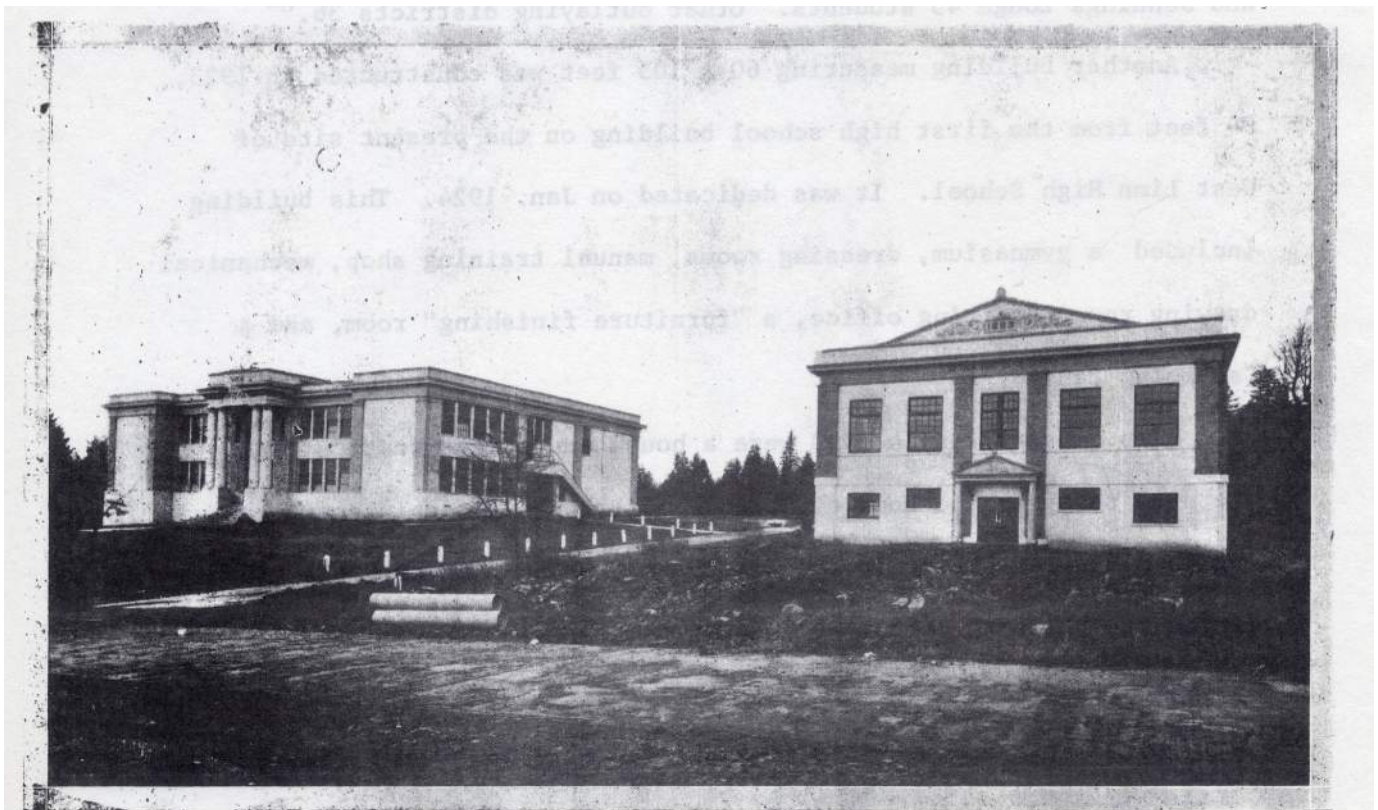
The purpose of this Long Range Plan document is to provide a summary of the District’s framework for facilities planning. The Long Range Plan includes three sections:



Each section of the Long Range Plan builds off the previous section. Section A: Framework for Excellence details the educational values and programs that affect facility planning. Section B: School Facilities identifies school capacity based on the educational programs implemented in the District. Section C: Capital Improvements describes criteria for evaluating future capital improvement projects and the process for planning a capital improvement program.

LONG RANGE PLAN HISTORY

The West Linn-Wilsonville School District has a long-standing commitment to planning for the future and collaborating with the cities and counties within its boundaries. The first Long Range Plan, originally titled the Long Range School Facilities Plan, was finalized in 1996. It was the result of a joint planning effort between the District, the cities of West Linn and Wilsonville, and Clackamas County to address residential development in the District and related enrollment issues. An intergovernmental agreement (IGA) was approved by the participants. It called for improved planning coordination and it obligated the District to develop a facilities plan. The Long Range Plan has proved to be an enormously helpful tool to help guide the District in preparing for future student enrollment and school facility needs. The plan was updated in 2000, 2005, and again in 2014. The Long Range Plan is developed by the Long Range Planning Committee and adopted by the School Board.



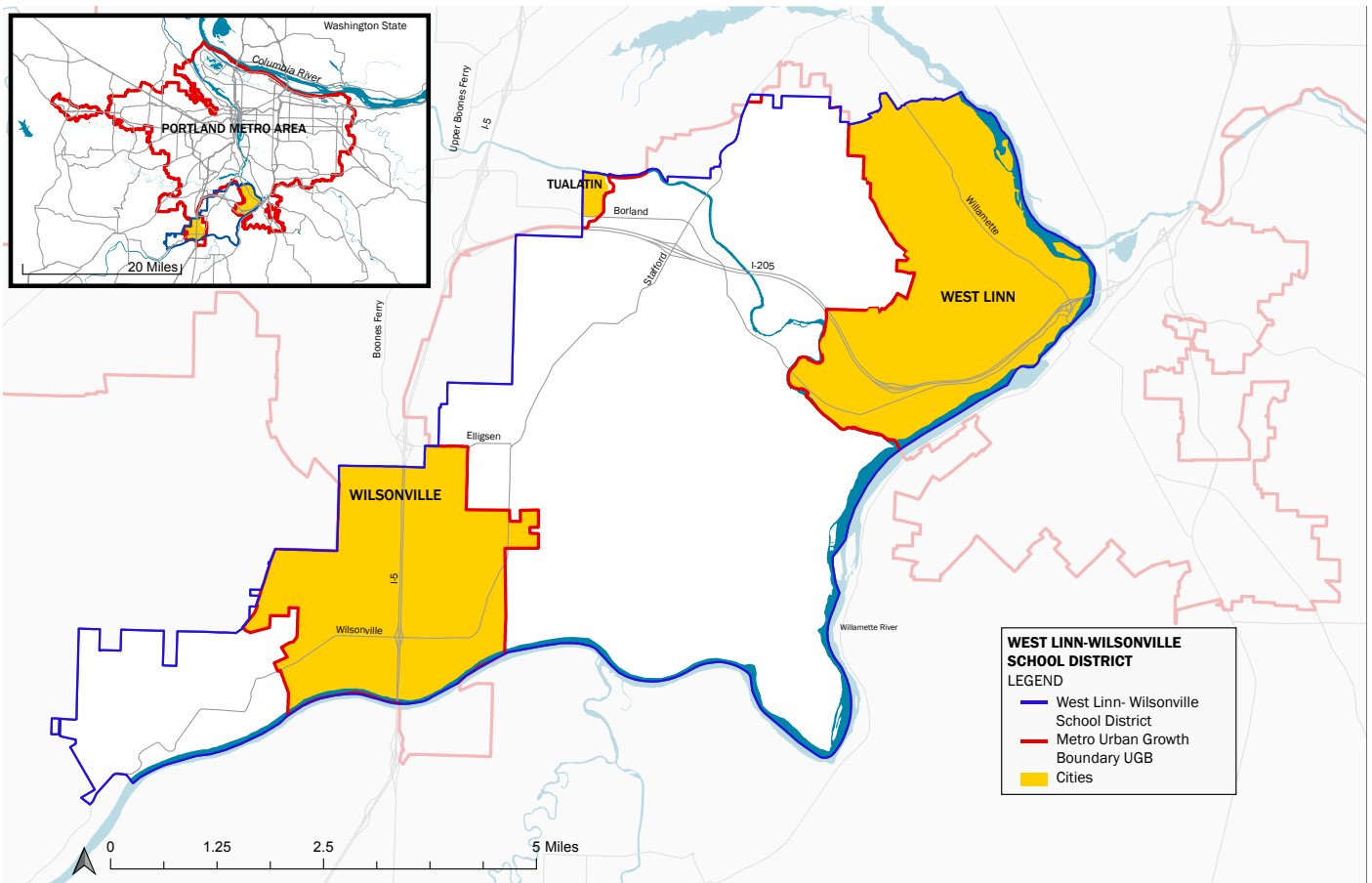
WEST LINN UNION HIGH SCHOOL
1920 BUILDING on Left. On the right is the 1923 Building.

OVERVIEW OF THE DISTRICT

Location and Boundaries

The West Linn-Wilsonville School District is located in the southwestern portion of the Portland metropolitan area, encompassing approximately 42 square miles. Approximately 40% of the land within the district is urbanized, and 60% of the land is undeveloped or in agricultural/resource use. The District includes the entire city of West Linn, the majority of the city of Wilsonville, an unincorporated area of Clackamas County between the two cities, and minor portions of Washington County and the city of Tualatin. The majority of the county land is outside of the Portland metropolitan area’s Urban Growth Boundary (UGB). Figure 1, below, shows the District outlined in blue, with each city colored yellow and the UGB marked in red. The uncolored area within the District’ blue boundary is unincorporated county.

FIGURE 1



HISTORY OF THE DISTRICT

Since its formation in 1933 through the consolidation of three smaller districts, the West Linn-Wilsonville School District has historically earned a reputation as one of the top academic performing public K-12 school districts in the state of Oregon. District patrons provide an unprecedented level of support for its schools as evidenced by very high volunteer rates at all schools, strong participation in local Parent Teacher Associations, enthusiastic support for the performing and visual arts, regular, unwavering commitment to school athletics, robust participation on various district-level committees, task force work groups, and the school board. The District is also historically successful in gaining community support for regular passage of local option funding initiatives and capital improvement bonds through broad community outreach and participation. The result is a progressive, high performing public school system with a deep commitment to, and connection with, the West Linn-Wilsonville community.

The District has seen a significant level of growth over the last twenty years, with a total enrollment of over 9,000 students in pre-kindergarten through 12th grade (2018-2019). With the opening of a new middle school in 2017, the District now operates nine primary schools, four middle schools, two comprehensive high schools, one option high school, and one charter school. District facilities are in excess of 1,400,000 square feet on over 360 acres of land.



**1931: Ed Gross and his school buses.
The one on the right was on the Wilsonville run.**

SECTION A: FRAMEWORK FOR EXCELLENCE



Explora • Explore

Desafía • Challenge

Sueña • **Home** Dream

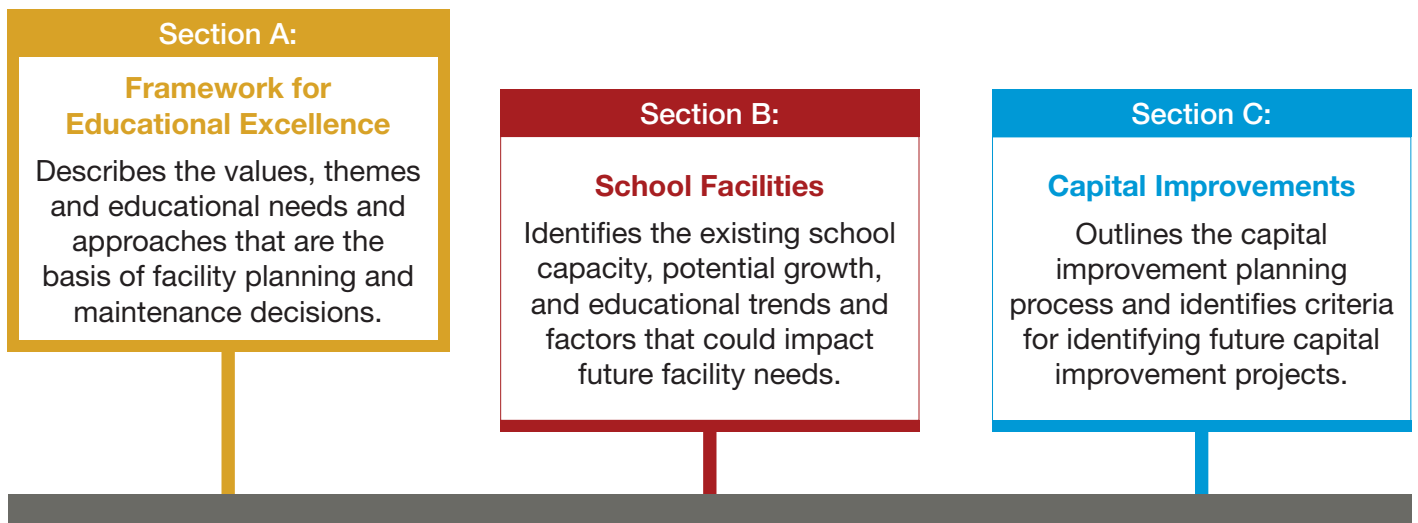


Home



INTRODUCTION

This section, Framework for Excellence, is the first of three sections that provide the framework for facilities planning, define the issues facing the District, and identify future facility needs and improvements. The three sections that collectively make up the District’s Long Range Plan and provide the framework for school facility needs are:



OUR DISTRICT MISSION, VISION, AND VALUES

District Mission

The result of the West Linn-Wilsonville community's dedication to "creating learning communities for the greatest thinkers and most thoughtful people... for the world", is a progressive, high performing public school system. In return for the community's dedication, the District maintains a deep commitment to serving its patrons efficiently and effectively. The West Linn-Wilsonville School District is one of the top academic performing public K-12 school districts in the state of Oregon. This reputation for excellence is the result of the teachers, staff and administrators in the District, dedicated students and parents, and long-time community support. Examples include:

- In 2017-18, the West Linn-Wilsonville School District achieved the highest four-year cohort graduation rate (93%) for the 25 largest school districts in Oregon and a drop-out rate of 1.3%.
- The West Linn-Wilsonville School district was honored by the College Board in 2011 and in 2012 by being one of two Oregon districts named to the second and third AP (Advanced Placement) Honor Roll. The honor recognizes increases in the number of students taking Advanced Placement classes and increases in the percentage of students achieving scores that qualify for advanced college credit. The District offers more than 20 AP courses and regularly recognizes students who achieve qualifying scores in multiple subject areas.
- Award-winning performing arts, visual arts, and athletics in the schools receive enthusiastic support from the community.
- The Center for Research in Environmental Sciences and Technology (CREST) provides rich, hands-on, inquiry-based science education for all students and staff.
- The CREST-Jane Goodall Science Symposium showcases District STEM education. The symposium allows students to conduct original research in science and engineering. Students compete at the local, state, and international level for scholarships and recognition.
- Wilsonville High School Robotics team is nationally recognized, qualifying for the world championships several times in recent years. West Linn High School's Robotics team qualified for the world championships in its first year of competition in 2017-18, winning the "Rookie Inspiration Award."
- Robotics programs are offered at WLWV's two comprehensive High Schools and as an after-school program at most Primary and Middle schools.
- Preschool is offered at six of the District's nine primary schools.
- Science, Technology, Engineering and Mathematics (STEM) curriculum and enrichment opportunities at all grade levels.
- Broad community outreach and participation during the past 25 years have led to the successful passage of three local option funding initiatives and five capital improvement bonds.

This portion of the Long Range Plan provides a summary of the District's programs and ways in which its facilities enable the achievement of the District's mission.

Vision and Values

The West Linn-Wilsonville School District is committed to excellence in education. We want a high-quality education for all our students – one that provides a personalized education for all students and affords all learners the opportunity to capitalize on strengths, work on challenges, and maximize potentials. This unyielding commitment to excellence has produced an exemplary public education system.

The District creates learning communities that nurture a growth mindset for great thinking. In this environment, we work to maximize human potential and enable all students to function successfully in a changing world through access to a high-quality education that:

1. Demonstrates personal and academic excellence.
2. Provides a personalized education to improve student performance.
3. Establishes community partnerships and expands the classroom beyond the school.
4. Creates a circle of support for each student.
5. Educates the whole person--intellectually, emotionally, physically, and ethically.
6. Integrates technology in daily learning.

SCHOOL BOARD COMMITMENT TO EXCELLENCE

The five-member West Linn-Wilsonville School Board is responsible for establishing educational goals that guide both the Board and staff in working together toward the continuing improvement of the District's educational program and lead to achieving the mission. The Board Goals provide alignment and coherence throughout the organization. The Board Goals for the 2018-19 school year are:

1. Grow student achievement through the use of high leverage instructional strategies that raise rigor and generate equitable outcomes for all students while eliminating opportunity and achievement gaps.
2. Align, evaluate and update integrated systems of professional growth, assessment, inclusive practices and accountability that build competence, confidence, and self-efficacy for every student.
3. Operate in an accessible and transparent manner that encourages and fosters community involvement as our parents, students, and community partners are an integral and valued voice in our district.
4. Be responsive to community growth and student learning needs of the future by conducting long-range capital improvements and financial planning through processes and practices that lead to long-term financial stability and sustainability.

Originally formed in 1933 through the consolidation of three smaller districts, the West Linn-Wilsonville School District 3JT encompasses approximately 42 square miles in the southwestern portion of the Portland metropolitan area.

CITIZEN COMMITTEES

As part of the Board’s dedication to involve the citizens and engage stakeholders within the District, the Board has established various citizen committees to assist them with oversight of the District. Two of these committees play a significant role in future planning for the District:

- **Long Range Planning Committee** - a seven-member citizen committee responsible for guiding the development of the Long Range Plan, that provides a rational framework for evaluating and addressing future school facility needs as the West Linn and Wilsonville areas grow.
- **Budget Committee** - a ten-member citizen committee responsible for reviewing the annual budget, gathering feedback from the community, and providing a recommendation to the School Board for adoption.

The Long Range Planning Committee and the Budget Committee study the issues and formulate options and recommendations for the School Board. These committees operate within the District policies and priorities. Ad hoc advisories are periodically created to study and provide input to specific projects.

In addition to these citizen committees, the West Linn-Wilsonville Education Foundation is a non-profit community-based organization with the mission “to secure funding to advance the School District’s mission.” The 25-member organization, comprised of parents and community members, is committed to preserving teaching positions and supporting academic success throughout the District. The Foundation is currently the only nonprofit fundraising entity with the ability to fund additional teaching positions for the District.

The District has a total enrollment of more than 10,000 students in preschool through 12th grade. There currently are nine primary schools, four middle schools, two comprehensive high schools, one option high school, and one charter school operated by the District.



PROGRAMS THAT SHAPE SCHOOLS

The curriculum and instruction provided by the District are designed to educate the whole child, awaken the mind, and encourage children and adults to go where questions lead. Students develop a “growth mindset” allowing them to take on challenges while demonstrating performance character. In addition to the curriculum offered at the primary, middle, and high schools, other program strategies are used by the District to create a collaborative, integrated approach. Some programs impact the architecture and design of the building and school site because they require a different type of space than a standard classroom or require a separate facility. The spaces and infrastructure needed to support the programs are outlined in the subsequent pages.

The following programs significantly enhance the overall quality of education offered to the students of West Linn-Wilsonville:

- Early Childhood Programs
- Inclusive Services: Learning for All
- Cultural Diversity: World Languages
- Health and Wellness
- Science, Technology, Engineering, Math (STEM) Education
- Career and Technical Education (CTE)
- Visual and Performing Arts
- The Center for Research in Environmental Sciences and Technologies
CREST
- Co-Curricular Enrichment and After-School Programs
- The Library: A Center for Research and Inquiry



EARLY CHILDHOOD PROGRAMS

Preschool

Preschool programs in the District are based on the belief that young children “learn by doing”. The goal of the program is to engage children in experiences that enhance the natural processes of physical and intellectual growth. The District has designated one classroom in six of the District’s nine primary schools for preschool. However, without preschool boundaries, prospective students can attend any of the District’s preschools. Locating preschools within the primary schools offer a natural sense of community connection and belonging with other children and families from the neighborhood.

The District offers scholarship opportunities to support families enrolling in the tuition-based program. The student age range and time of each preschool session differs by school according to the needs and participation of the community. The program currently serves approximately 200 students. Several language-integration classes are taught at the preschool level. The District constantly seeks to increase the diversity of its staff and actively recruits bilingual teachers into the preschool program. Preschool curriculum aligns with state requirements and the District’s pedagogy. Students in the program are being prepared to be socially, emotionally, and academically ready for Kindergarten. The preschool program is taught in a primary school classroom, but has several distinguishing elements:

- Learning is play-based with age-appropriate furniture
- Classrooms are adjacent to a separate outdoor play area with age-appropriate equipment
- The program is offered half-day (either morning or afternoon depending on location)
- Students have in-class snacks but do not receive lunch service from the school
- Parents organize pickup and drop off. There are no bus obligations for preschool students



Early Intervention and Early Childhood Special Education

The West Linn-Wilsonville School District believes in the power of partnerships with families. The District partners with the Clackamas Education Service District (ESD) to provide individually designed services to address the needs of young children (birth to age 5) with developmental delays or disabilities. Developmental evaluations are provided by the West Linn-Wilsonville School District at no cost to families. The Clackamas ESD provides services once a child is found eligible.

Currently, the Early Childhood Center is housed in the Annex at Stafford Primary School. The center has a staff of dedicated professionals to connect with families early and reach those that may benefit most from District services. Some of the families arrive through referrals from their doctor or healthcare provider. Evaluations and parent coaching are primarily provided at the center, but the District also conducts home evaluations and preschool evaluations. The early childhood intervention and special education services are guided by the following four principles:

- We believe that every child is remarkable and each family has a unique story.
- Through the evaluation process, we highlight the child's development and strengths, allowing us to support parents in understanding their child as a learner.
- We connect families to the Clackamas Education Service District (ESD) for services and reconnect the family as they transition back to the district for kindergarten.
- By establishing positive relationships early with families, we begin the journey of supporting their child's growth in learning.



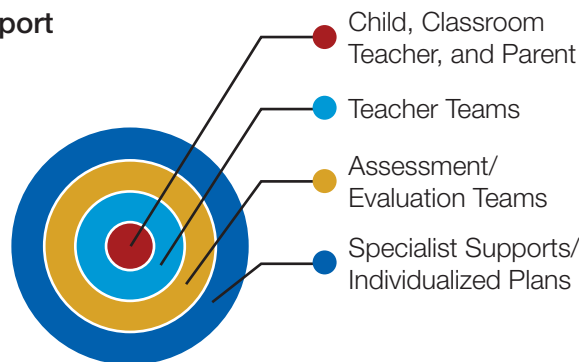
INCLUSIVE SERVICES

West Linn-Wilsonville School District is committed to ensuring that each student becomes part of a learning community for the greatest thinkers and most thoughtful people for the world. Within the District’s vision is the theme of Circles of Support. In all cases, the student and the classroom teacher are at the center. If evidence suggests that current learning, whether academic, behavioral, or social, may need additional support or challenge, additional levels of supports may wrap around the student. Some students may need supports that rise to the level of an individual plan, which may include a TAG (Talented and Gifted) plan, a 504 plan, an ELD (English Language Development) plan, or an IEP (Individualized Educational Program). The child continues to have their learning nested within the general classroom.

West Linn-Wilsonville has worked hard to develop capacity at every school to provide the continuum of support that may be required by an individualized plan. The first and most high-leverage place to continue increasing capacity is in the general education classrooms. The District continues to focus on instructional strategies that engage all learners, help all students develop a growth mindset, and emphasize the moral and performance character development of students. The more that every student feels a sense of belonging in their classroom, the more inclusive our culture will be for the benefit of all students.

Special education is focused on increasing access to each general education experience. Sometimes, students may need specific, explicit instruction from a special education teacher or specialist to help accelerate their learning in the general education classroom or to support a particular individual need. The District has taken great care to ensure the facilities meet the needs of all learners and builds equity and inclusiveness into the spaces, inside and outside, which the student inhabits throughout the day. Facility design and operational decisions ensure each school is not only compliant with current codes, but provide a fully inclusive experience. The experience of every student is improved when the building is fully inclusive, fostering a culture that celebrates diversity. Learning neighborhoods are designed in a way that provides differentiated learning environments that reach each student’s learning style. Extended learning areas, or porches, provide flexible space just outside of the classroom. Because the porches are inclusive and used by all students, providing wrap-around support tied to a student’s individual plan in the porch connects directly the student’s everyday learning environment.

Circles of Support



CULTURAL DIVERSITY: WORLD LANGUAGES

All students in WLWV are engaged in the world language program. There are cultural and language diversity appreciation aspects in:

- World language programs
- English Language Development (ELD) courses
- Dual Language programs

World Language

All primary school children learn Mandarin or Spanish. The focus begins with language proficiency standards as well as cultural awareness and appreciation. In kindergarten and first grade, students have a world language experience once per week; in second through fifth grade, twice per week. In middle school, all students take a Mandarin or Spanish course for one semester each year. Some students chose to take the language course for the full year. French courses are also offered in middle school. All primary school instructors of a world language are native speakers.

There are heritage Spanish courses that begin in middle school (Spanish for Spanish Speakers) and continue to high school. In high school, students can take French, Japanese, Mandarin, or Spanish, with an increasing number earning the Biliteracy Seal every year. AP language courses in all four languages are also offered at both comprehensive high schools.

English Language Development

The district approaches ELD learning for emerging bilingual students knowing their language proficiency and language learning is an asset. The approach ensures that students have opportunities to work with literacy in their native language as they develop English proficiency. The cultural contributions that emerging bilingual students and families bring are integral to school learning and activities. Many schools facilitate afterschool events to recognize the language and cultural diversity present in their schools. Schools host events and networks to engage and involve language diverse communities.

Dual Language

The Dual Language Program that began in the 2012/13 school year has continued to be robust with virtually no attrition. Students in primary school have the opportunity to become bilingual and bi-literate in two languages, Spanish and English, through a District Dual Language Immersion Program. The Program is located at two schools: Lowrie Primary School in Wilsonville, and Trillium Creek Primary School in West Linn. Using the 50:50 model, students receive 50% of their instruction in Spanish and 50% in English. The dual language cohorts that began in the 2012/13 school year have transitioned to Middle School at Rosemont Ridge and Wood Middle School and will soon be transitioning to West Linn and Wilsonville High Schools. The cohort comprises a full class of students in each location. There is an opportunity for native speaking students to join the Middle School Dual Language Program if they have proficiency. Native speaking students in middle school enroll in English Language Arts, Spanish Language Arts, and Spanish Social Studies and are fully integrated into the middle school program.

HEALTH AND WELLNESS

The West Linn-Wilsonville School District approach to wellness is whole child, whole school, whole district, and whole community. This means that with the adoption of the 2016 health standards, health and wellness is integrated into all aspects of learning and participation in school. The approach to health education is collaborative, holistic, based on engagement and involvement. Students learn skills that they can apply well beyond the classroom and into their experiences in the community.

The health and wellness curriculum is intertwined with nutrition, with social-emotional learning, with community partnerships, and brings together families and teachers. Using age-appropriate curriculum, the program includes topics such as physical, emotional, social, and mental health. Wellness education is focused on analyzing influences, being able to access information, use interpersonal communication skills, decision-making, and goal setting with the overall objective of learning healthful skills and promoting an overall healthy lifestyle. The curriculum is planned and taught to help students gain essential health skills and health-enhancing behaviors that they will use throughout their lives. This may involve gardening, cooking, setting personal exercise routines, and doing research.

Physical Education (PE) is one aspect of the health and wellness program. What had been offered previously as PE, is called Wellness and includes health class. Students K through 12 spend time in the classroom learning activities directly related to health, but also spend a significant amount of time in field experiences through the community to apply the skills learned in the classroom. Increasingly, students are learning health and wellness content in places where they can immediately apply skills and be actionable in the community. The facility needs surrounding the health and wellness program include spaces for many different kinds of movement and a broad use of media and technology. The District is committed to physical education inclusivity, requiring equipment, programs, and training offer opportunities for all students.



The District's Nutrition Services Program is compliant with all national standards and utilizes MyPlate to build healthy meals for students. School Garden Coordinators work closely with the District's Center for Research in Environmental Sciences and Technology (CREST) Program to ensure students have sampling and tasting experiences. The District partners with local farms to get locally sourced food and also uses the CREST center to grow food for schools. The nutrition services spaces are an extension of the learning environment. When a child has experience growing the food, they are more likely to eat that food and it has made a difference in how they taste the food.

There is a strong social-emotional learning opportunity in the style of lunch service. The District abides by nutritional requirements, but it is important to instill in the students the ability and knowledge they need to make healthy choices. The Nutrition Service Program offers free and reduced benefits for families and is compliant with Department of Education standards for reimbursable meals. The Nutrition Services Department offers different menus with a variety of products to make meals that kids like and can be served efficiently. In the 2017/18 school year, the District served 51,413 breakfasts and 427,434 lunches.

For the High School lunch service, students have ownership of the school building and are free to eat anywhere. There is a single lunch period at the high schools. The Nutrition Services Department works hard to find a balance between healthy food choices and meals students like. At the high schools, new food tastings are offered that students can vote on before they go on the menu. It is important that the program integrates student voice and choice into the options it provides.



SCIENCE, TECHNOLOGY, ENGINEERING, MATH (STEM) EDUCATION

The West Linn-Wilsonville's learning communities of great thinkers use science, technology, and mathematics to engineer solutions to problems for the world. STEM education supports the learning and development of essential and foundational skills and knowledge to support these learning communities of great thinkers and thoughtful global citizens. The District's STEM education initiative considers the following elements.

Best Practices and Instructional Leadership: The district has engaged in professional learning to develop and implement Next Generation Science Standards (NGSS) and STEM units of study. Teachers work collaboratively to understand best instructional practices in their disciplines, deepen their understanding of state and national standards in content areas, and give and receive feedback to improve instructional practices and better integrate STEM disciplines to enhance student learning. There are ongoing evaluation and revision of units of study and design of experiences for students to apply their learning.

PreK-12 STEM Experiences: State and national standards in STEM disciplines provide important frameworks for best practices and the scope and sequence for content across the grade levels. These frameworks and curricular resources are used to design STEM education for students and to integrate science, math, engineering, and technology. The scope and sequence of preK-12 learning experiences are designed to engage all students and increase their interest and skills in STEM areas. Current and future STEM experiences include classroom and school day experiences, after-school clubs, independent research projects, and summer and non-school day experiences. STEM experiences are planned to interest and prepare students for pathways, courses of study, CTE programs, and post preK-12 learning.

Exemplars of STEM Education Programs: The District has many exemplars of STEM education programs currently across the schools and grade levels. In addition to a wide variety of STEM electives, students participate in robotics, and International Science and Engineering Fair (ISEF). These programs begin with primary school enrichment class experiences and science fairs. These programs and unique learning experiences for students integrate STEM disciplines in ways that provide hands-on, real world, and relevant learning experiences for students, often supported by community partners or STEM industry professionals. These exemplars set our work apart from other local initiatives and continue to inspire the development of additional STEM programs and experiences.



Community Partners: The district is part of the collaborative South Metro STEM Partnership and also works with local universities for professional learning. By working collaboratively with the Oregon Institute of Technology (OIT) and Clackamas Community College (CCC), the District develops courses and pathways that could allow students to earn dual credit and/or prepare for post-PreK-12. The district has and will continue to invest in the spaces and equipment needed to support these programs.

National Standards: Effective STEM education is grounded in teaching for deep and enduring understanding in all disciplines. We see the Common Core State Standards (CCSS) in Mathematics and English Language Arts, as well as the NGSS, as important resources in establishing frameworks for developing deep understanding and cognitive skills in the STEM disciplines. District Administrators, School Principals, CREST staff, and Teachers continue to work in collaborative groups to discharge and integrate the CCSS and NGSS into the District's work.

STEM Learning Spaces and Contexts: The Center for Research in Environmental Sciences and Technologies (CREST) is well positioned to support this larger STEM education initiative through the lens of sustainability and the environment. Grounding STEM education experiences in the environment and the context of sustainable development reinforces our District's mission of supporting great thinkers for the world. The arts also provide an important context for STEM education. Science, Technology, Engineering, Arts, Math (STEAM) education provides opportunities to interpret information, thinking critically, and ground their thinking about art in math, science, engineering and technology practices. Courses and programs integrate the arts so that students learn to apply them along with science, technology, engineering, and math. Facilities around the District support these unique and diverse learning experiences and contexts, providing not only the physical spaces but also the tools and resources needed to support meaningful learning for students.



SECTION A: FRAMEWORK FOR EXCELLENCE

MakerSpaces: Typically at the heart of the school and adjacent to the library, MakerSpaces are a place in which hands-on, play-based research takes place. It is a place where students get to choose what they do, with whom they do it, and sometimes for how long. They are the “intellectual playgrounds” of the school. There are often computers with access to coding activities: connected to devices or completely virtual. MakerSpaces have a variety of materials and equipment for experimentation, design iteration, and creation, both virtually and physically.

STEM Learning Descriptors:

SCIENCE PRACTICES (NGSS)	TECHNOLOGY (ISTE)	ENGINEERING (NGSS)	MATHEMATICAL PRACTICES (CCSS)
Make sense of phenomenon and ask questions	Act as an empowered learner, leverage technology to take an active role in choosing and achieving learning goals	Defining problems	Make sense of problems and persevere in solving them
Develop, use, evaluate, and revise models		Develop, use, evaluate, and revise models	Model with mathematics
Plan and carry out investigations	Be a digital citizen in the interconnected world	Plan and carry out investigations	Use appropriate tools strategically
Analyze and interpret data	Construct knowledge and curate resources	Analyze and interpret data	Attend to precision
Use mathematics and computational thinking	Innovate design solutions	Use mathematics and computational thinking	Reason abstractly and quantitatively
Construct explanations and storylines	Think computationally, use technology to develop and test solutions	Design solutions	Look for and make use of structure
Engage in arguments from evidence	Communicate and express oneself clearly and creatively	Engage in an argument from evidence	Construct viable arguments and critique the reasoning of others
Obtain, evaluate, and communicate information	Collaborate globally, use digital tools to broaden perspectives	Obtain, evaluate, and communicate information	Look for and express regularity in repeated reasoning

CAREER AND TECHNICAL EDUCATION (CTE)

Career & College Readiness

The district continues to expand its CTE courses of study. We currently offer two of the six CTE state-approved course areas: Arts, Information & Communication as well as Industrial & Engineering Systems.

STATE OF OREGON'S CTE COURSE AREAS	WLWV CURRENT CTE COURSE AREAS
Agriculture, Food and Natural Resource Systems	Environmental Science
Arts, Information and Communication	Arts, Information and Communication
Business and Management	
Health and Biomedical Services	
Human Resources	
Industrial and Engineering Systems	Industrial and Engineering Systems

The 2018-2019 High School Study revealed great interest on the part of students, parents, staff and community members in expanding both course offerings and as well complete CTE Course Areas. There is an emphasis on developing pathways and courses of study in addition to the formal work done by the CTE programs. Although not all expansion is or will lead directly to a new CTE program, there are individual courses within existing departments being developed that align with all six CTE areas. In creating new courses as well as CTE offerings, the district must first take steps to understand what students are interested in as well as what the community can support in terms of mentorships, internships, business and industry models.

The district uses Naviance, a college & career planning tool, for students to envision their future work. This tool will also be used to understand student interest and craft new pathway offerings.



VISUAL AND PERFORMING ARTS

The Arts are a vital means of transmitting cultural heritage from generation to generation; students come to better understand the nature of the human experience, appreciating the diversity and similarities among people and cultures. An Arts education stimulates, develops, and refines critical cognitive and creative skills, invigorating the process of learning and promoting achievement across all academic subjects. As developing artists, students gain relevant workplace “know-how”, preparing them for jobs where imagination, critical thinking, adaptability, teamwork, and communication are key. The West Linn-Wilsonville school communities integrate art into the everyday experience of all students. Vibrant art classes and performing arts programs make school a place students want to be.

Visual Arts

Arts education is integrated with and extends the entire primary curriculum. The District employs a Discipline-Based Arts Education (DBAE) approach to learning and instruction enabling students to have broad and rich experiences with works of art. DBAE uses inquiry-based teaching and learning, tailored to specific ages and grade levels, and emphasizes students’ interests, judgment, reasoning, and critical thinking/problem-solving skills.

Art activities also offer an opportunity to engage community members. School PTA groups actively support art programs by funding materials, art literacy lessons which are taught by community members. Music and Arts Partners (MAP) support art exploration for students and teachers, and Artist-In-Residence Programs transform schools with temporary and permanent installations. At the primary level, learning neighborhood porches are used heavily to teach art lessons, especially in support of artist-in-residence activities. Some primary schools in the District have dedicated rooms used for this rather than porches. The design of porches includes storage for art supplies, durable flooring and furniture, and sinks for wet art activities.

At the Secondary Level, arts programs involve students in discipline-based arts process to develop an appreciation of aesthetics and critique, and further understanding of the relationships between ideas, society, and the arts. Middle School courses include art, drawing, graphic art, and digital design. At the High School level, a great variety of courses are offered in the visual arts. They include but are not limited to 19 fine arts courses and 4 photographic arts courses. Three Advanced Placement (AP) opportunities are offered in Studio Art: Drawing, Studio Art: 2D Design, and Art History. The spaces needed to support these highly successful programs are specific in their nature. Display opportunities throughout the school facility provide ways to highlight the work of students and broaden the benefits of the arts programs to all individuals of the school community. Through partnerships with cities, High School artists are also provided ways to display work publicly in their surrounding community.

Performing Arts

Music, dance, and theater are all part of the primary arts program. There is a great deal of movement and dance associated with music education at the primary level. This requires the music rooms to be large enough and have adequate instrument storage in order to free up the floor space in the room to safely hold movement-based lessons. Because the District's programs are so well supported with the proper equipment and instruments, storage is of great importance: to ensure access to instruments, to protect them from damage, and for security. There is a strong investment in performances at the primary level. It is important that stages, even at the primary and middle school level, have appropriate theatrical lighting, acoustics, sound, data, projection screens, and robust audio/visual systems.

Music and wellness programs at the primary level work closely together. Music teachers are given training and support to create academic access points for students. Teachers in the arts have an opportunity to reach students that may not otherwise see themselves as academically successful. Success in a music class builds confidence in students that can be leveraged to increase their engagement with other academic programs throughout the day.

The Strings After-School Program meets twice a week with two classes housed in Boeckman Creek and two at Cedaroak Park. Students that take part in the program are bussed from neighboring primary schools. Due to the successful procurement of grant funding, the program was able to purchase a number of instruments. Proper equipment and storage is an integral component of a successful program. Students that take part in the Strings Program have the opportunity to grow their skills in the orchestra programs offered at the secondary level.

At the middle school Level, arts programs involve students in discipline-based arts process to develop an appreciation of aesthetics and critique, and further understanding of the relationships between ideas, society, and the arts. Courses include band, choir, guitar, percussion, play production, drama, orchestra, jazz band, and chamber choir. Middle schools have an annual musical which takes place in the High School auditoriums. The musical involves 200-300 students every year and is extremely well-attended.

Both West Linn and Wilsonville High School are home to vibrant art communities. Two large community performances are held each year in the high school auditoriums. A wide variety of courses are offered including but not limited to 5 vocal courses, 9 instrumental and general music courses, and 14 performing arts courses (theater, dance, film). Performing arts courses range from Symphonic Choir to Video Production and include one AP opportunity in Music Theory. The spaces needed to support these programs at the high school level are very specific in their design and operation. Two large theater performances are put on each year by both high schools and are very well attended. The theater arts program in Wilsonville, in particular, has grown significantly in the past several years and has outgrown its current performance space within the school. The District is committed to arts programs at all schools and seeks to provide places that meet the needs of the programs and are reflective of their excellence.

THE CENTER FOR RESEARCH IN ENVIRONMENTAL SCIENCES AND TECHNOLOGIES (CREST)

The Center for Research in Environmental Sciences and Technologies (CREST) is an environmental education center that serves students and teachers of the West Linn-Wilsonville School District. The CREST site is located adjacent to Boones Ferry Primary and Wood Middle School and allows for the growing and harvesting of food crops. Since its establishment in 2001, CREST staff have helped thousands of students and teachers learn through doing – by engaging them in field experiences, independent student research, gardening, service learning, and hands-on, inquiry-based science. CREST staff work directly with students in the field, at school, or at the CREST site. CREST also provides curricular support for teachers in the areas of science and education for sustainability. With the exception of day camps and summer camps, CREST is a free resource for students, teachers, and parents of the West Linn-Wilsonville School District.

CREST programs offer an innovative approach to providing real-world and relevant learning experiences for students. Beginning in the 2018-2019 school year, The CREST site became the location for applying Science Technology Engineering and Math (STEM) curriculum, Next Generation Science Standards (NGSS), Career Technical Education (CTE) programs, and sustainability practices. Opportunities for students to engage in field work that applies concepts in science, wellness, and economics take place at the CREST site. Professional learning for teachers at CREST allows them to provide activities for students that include planting, harvesting, and learning about the principles of growing food.

CREST fully supports the mission statement of the district: How do we create learning communities for the greatest thinkers and most thoughtful people...for the world?

Through its different programs, CREST strives to:

- Foster a sense of wonder, understanding, and stewardship for the natural world
- Help students achieve science literacy and develop a lifelong appreciation for science
- Increase personal wellness through connections to local food systems and outdoor activities
- Promote and inspire sustainability through education and demonstrations
- Support teachers in teaching science and environmental education

The District held a summit in May 2018 to gather input from all stakeholders about the continued and future programming at CREST. At that summit, the message communicated by stakeholders was a desire to have a CREST presence in every school. As a result, experiences at the CREST site are extended to each primary level through a School Garden Coordinator. At the middle and high school levels, CREST experiences are taught at CREST Headquarters, and future greenhouse spaces will be considered. Additionally, the CREST facility has a classroom for professional learning and provides a base for high school internships and co-curricular activities.

CREST has continued to evolve over its 18-year existence, adding learning opportunities for students while routinely evaluating the effectiveness and quality of programs. CREST includes all of the experiences students have come to know and love, including new student experiences as well:

- Robust Science Fair opportunities.
- Increased garden and farming opportunities as school gardens are expanded at all nine WLWV primary schools.
- Additional real-world learning experiences through partnerships with local farms and science-based organizations.
- Internship opportunities through high school studies in environmental and agricultural sciences.
- “Learning on the Go” Field Trips for primary-aged students throughout the school year.
- Hands-on summer camps for all ages.



CO-CURRICULAR ENRICHMENT AND AFTER-SCHOOL PROGRAMS

Co-Curricular Enrichment is an integral part of establishing a culture of excellence, personalization, and support for the whole child that extends beyond the classroom. Participation in Co-Curricular Activities also has the benefit of improving student outcomes – including attendance, participation in class, sense of self-efficacy, and academic performance. In addition, Co-Curricular Activities are an essential part of our Student Services focus area of Creating Inclusive Cultures. Through participation in athletics, performing arts, leadership, enrichment programs, clubs and service activities, students served by Special Education can interact with peers in ways that benefit all participants and strengthen the overall culture of the school. Participation in Co-Curricular Activities can also support the development of Student Voice – another Student Services focus area.

There is a range of activities that can be considered Co-Curricular Activities. There is no single definition and no exhaustive list of activities, and indeed the list of offerings routinely changes based on student interest/need and staff expertise. In general, a Co-Curricular Activity is a school-based activity that is optional, and outside of the regular academic coursework. Also, a Co-Curricular Activity would be an ongoing activity with regular opportunities for participation over the course of weeks or months, and not a one-time event. Co-Curricular Activities can take place before or after school as well as during the school day (lunchtime clubs, for example).

Major categories of Co-Curricular Enrichment Activities:

- Athletics
- Performing Arts (Strings, Missoula Theater, etc.)
- Academic Activities (Science Fair, Lego Robotics, Oregon Battle of the Books, CREST programs, School Garden, etc.)
- Leadership
- Enrichment Programs
- Clubs (Art, Chess, etc.)
- Service Activities

The West Linn-Wilsonville School District is proud to partner with local, private (non-District) services for After School Activities and Childcare. These innovative programs are committed to community engagement and continued enrichment once the school day is complete. Providers are not hired by the district but allowed to rent space to offer their program.

Lego Robotics is offered at the primary level through a private organization and provides an opportunity for students to feed into the school-run robotics programs offered at the secondary level. MakerSpaces provide the optimal location for this program as it requires a flexible space where large tables can be set up with secure storage and robust power/technology infrastructure.

The District supports the communities' needs by allowing after-school community-based childcare programs in all of its primary schools. They are incredibly successful and in-demand with 10% or more student involvement and an extensive waiting list. The programs are mainly housed in the cafeteria/commons of each school and require the use of many types of spaces. These include spaces for wellness activities (outdoor or in the gymnasium), storage of snacks and materials including refrigerated storage and sinks, and restroom access.

THE LIBRARY: A CENTER FOR RESEARCH AND INQUIRY

The District supports collaboration among teachers and students at all levels. Teaming helps teachers provide a coherent and aligned program kindergarten through 12th grade and classroom-to-classroom. The library is the center of collaboration and inquiry in the school. Seen through this lens, the culture of the school resonates from the library. The themes of school activities, the inquisitive methods of exploration, the wisdom of expert guidance, the joy of reading, the seamless integration of technology, the self-initiated investigation of a question of the moment, the fun of learning, the collaboration of students and staff – indeed, the very mood and ethos of the school – is unmistakable in the library and resonates from the library.

The library is located at the heart of the school connecting students and teachers to research, inquiry, wonder, and delight. The influence of the library is experienced in the center and extends out to the adjoining porches of each learning neighborhood, and into each classroom. The library connects classrooms and extends learning in all subject areas. The Teacher Librarian works throughout the school as a leader and a partner with classroom teachers. The Teacher Librarian brings ideas and resources to the planning process with teachers and supports the development of information and research skills in the context of classroom studies. The Teacher Librarian teaches alongside classroom teachers supporting inquiry that awakens curiosity, sustains passion, engages all learners, and culminates with learning and accomplishment. Learners are guided to hone skills of inquiry, enjoy and explore reading, and collaboration around questions they might encounter.

The library is interactive, inviting, open, and fun. Activities that occur in the library include problem-solving, design, and collaborative literacy and can be an extension of a MakerSpace. District libraries are designed to allow small groups and individuals to work on projects that challenge their imaginations. Teachers and children work together to sharpen questions, expand students' background knowledge, and connect with local and global experts. Many of the library resources are available digitally. The library is a research base for the school that includes a balance of books and media technology to support literacy and research. MakerSpaces, typically adjacent to the library, are a place in which hands-on, play-based research takes place. (See also, STEM narrative, page 16)

The library is a living children's museum. Amazing, beautiful work is displayed in the library and throughout the school along with explanations, process notes, reflective templates, and further questions. Interactive displays invite children to engage in interesting questions of their time. Questions highlight and explore ethical considerations, intellectually challenging content, add depth and connections from one study to another, and challenge children to extend and practice performance character. Craftsmanship in thought, process, and products are given an honored place in the school.



INITIATIVES THAT BUILD RESILIENT SCHOOLS

Schools are a part of a larger ecosystem, the demands of which change over time. In addition to the programs outlined above, West Linn-Wilsonville School District embraces many initiatives that shape the design and use of its facilities. Through these four initiatives, the District builds resiliency within its schools, increasing their capacity to adapt to changing conditions.

- High-Performing Schools
- Safe and Welcoming Schools
- Community Partnerships
- Learning with Technology



HIGH PERFORMING SCHOOLS

High performing buildings integrate and optimize all major performance attributes including durability, life-cycle performance, energy efficiency, and occupant productivity. There is a direct connection between the design and construction of school buildings that truly support the mission of the West Linn-Wilsonville School District: to create learning communities for the greatest thinkers and most thoughtful people...for the world.

Inclusive Design and Construction Processes

The District is inclusive in the design and construction process. The entire operations, maintenance, and construction management team is integrated into the process. This helps the District get input, consider long-term maintenance ramifications and training, and build a knowledge base within the staff. As a result, when a new building is complete and the contractor hands it to the District to operate and maintain, the staff are much more knowledgeable about the products and systems and are ready to keep them functional throughout the life of their warranty. The District uses multiple strategies to withstand the rising costs of construction and lack of skilled labor in the workforce while maintaining the expectation that construction is of the highest quality. Decisions about initial costs are carefully weighed against long-term life-cycle costs of all products and systems.

There is a growing change in the workforce skills and technical knowledge required to maintain and use highly technical controls and systems for modern buildings. Security, mechanical, and electrical all have a high degree of computer-based and technical control requirements. Including the District IT department into the design and construction of buildings is critical to the overall success of any project. Integrating and blending staff between facility maintenance and IT is becoming the new cultural norm. Project Management Software and Building Information Modeling (BIM) are essential aspects of system maintenance. Resilient building design requires an understanding that a building is a living breathing thing and that there are major differences in how different ages of buildings in the District operate.

Environmental Sustainability

The District is committed to energy conservation. Incentives in Oregon SB1149 and partnerships with the Energy Trust of Oregon (ETO) have enabled the production of a more resilient product. The District is currently conducting an energy audit of each building using incentive funding to help identify equipment and systems that can be improved. This audit will highlight several factors including the long-term considerations and ramifications of building envelopes, equipment, and operations on the facility's overall energy use. All new school buildings in the District take advantage of solar energy through photovoltaic panels.

Oregon's code requirements have elevated the energy efficiency of buildings as well as their seismic resiliency. The District relies on the design consultant team of architects and engineers as well as local and regional codes to design more energy efficient and resilient schools that perform well into the future.

The District is committed to providing learning opportunities through its buildings and surrounding site. Robust stormwater and water quality standards allow for the use of the site as a teaching tool. Natural features of the site like wetlands or forests are incorporated into the curriculum.

Schools are centers of community. The District partners with local jurisdictions and organizations such as Safe Routes to School to consider ways to make schools more accessible for students that bike, skateboard, or walk to school.

Farsighted Decision-Making

The nature of buildings can be very rigid. Flexible spaces add to the long-term resiliency of the facility, enhancing its ability to provide places for uses that are not yet known. The spaces need to be simplistic, and not overly complex in their infrastructure so that the users can actually use the buildings – turn on the lights, use the projector, etc. The ramifications that technological advances have on design in schools is vast. The District is thoughtful in deciding what electronics and teaching tools go into schools in order to serve the current needs while also preparing for change.

The District does not build anything without investigating its effects on the educational environment. In all cases, form must follow function. The investment of the building must give the District a place that performs as a school in the end. A resilient building provides spaces that are flexible and can be modified and used differently as teaching and learning methods change. Modern buildings have the potential to enhance the teaching environment through current standards and products available for systems such as lighting, heating, air conditioning, air quality, temperature control, increased acoustical performance, etc.

Consistency in the design consultant team is an important part of the decision-making process, ensuring each new facility fits into the fleet of schools that must be maintained and used for decades. The District requires innovative design solutions, but does not “practice” on untested products or systems, using materials and methods that are compatible with the rest of the buildings it operates. There is a consistency with the specifications that are used for every new building to ensure durable and long life-cycle products and systems are provided in each school.

SAFE AND WELCOMING SCHOOLS

Safety is a top priority within the West Linn-Wilsonville School District. Many factors are critical to fostering a Safe School Climate, all of which are included in the District's Safety Plan. The District utilizes a three-tiered approach to reviewing, revising, and implementing District-wide security procedures and protocols as well as security upgrades at WLWV schools.

Tier I

Tier I encompasses the building level, as well as the District Safety Committee, which is a representative group that proactively reviews current practices and procedures. Tier I includes School Emergency Response Teams (principals, secretaries, counselors, teachers, and staff trained in first aid), who meet monthly to review safety procedures and processes as well as aid in the practicing of those processes. Tier I implements directives given at the Tier II level.

Tier II

Tier II is made up of the District Safety Leadership Team, which is made up of District Administrators who regularly meet to review and evaluate district safety and security with guidance from Tier III. This is the group that determines District-wide improvements, how resources will be allocated and utilized, timelines for improvement plans, and review of the Emergency Operations Plan. Tier II includes community partners such as West Linn and Clackamas County Police, and Tualatin Valley Fire and Rescue, who meet quarterly.

Tier III

Tier III is the group that guides all District decisions related to safety and security. Tier III consists of a nationally recognized safety consultant that regularly reviews District and school security measures and practices. Elert and Associates ensure that WLWV is using best practices, has top facility safety features, and is in compliance with state and national standards, FEMA procedures, homeland security, and more. Elert and Associates conduct thorough audits, which provide the baseline for the District Safety Plan while influencing ongoing and future safety improvements.

In addition to these three Tiers, the District provides opportunities for public input to better understand the priorities of the overall community. There are ongoing opportunities for citizens and patrons to send safety concerns/ suggestions for all three tiers. The board may designate advisory groups to research or respond to specific safety topics.

Safety Regulations, Measures, and Processes across the District

The District diligently complies with federal and state safety regulations, updating and upgrading safety measures and processes across these main areas:

- Student Support Systems
- Emergency Preparedness and Response
- Environmental Safety and Health
- Digital Safety
- Operational Safety

Safe and Welcoming School Building Design

Safety and Security relies on 4 elements: Structures, Systems, Policies, and Practices. The structures and systems are supported by the built environment. Policies and practices rely on the structures and systems in place. There is a direct connection between District safety priorities and the long-range planning for school facilities. The District's design consultants use regional and national school safety design standards to inform their decisions. Teachers and parents are given opportunities to weigh-in on those design decisions throughout the process and engage in the conversation about the interplay between safety, security, teaching, and learning. The District partners with first responders, law enforcement, and city officials throughout the design process.

The District encourages parent involvement, solicits community involvement, and welcomes visitors and volunteers with a layer of security through background checks, etc. Schools welcome all families and provide resources through a culture of care and inclusiveness. The District considers the experience of the building through the lens of the student, family, and staff members. The building and surrounding site should have structures, systems, and practices of inclusion as well as structures, systems, and practices of safety. It is important to maintain a positive reception and consider the whole experience of entering and using a school.



COMMUNITY PARTNERSHIPS

District Commitment to Community Partnerships

The West Linn-Wilsonville School District considers community partnerships not in how it forms partners, but how it can be a partner. Schools and facilities are a hub of the community and have a culture that supports community growth. As schools thrive and grow, so does the community. Schools are part of a greater ecosystem. The relationship between school and local communities and partners is symbiotic. Investment by cities and counties in community assets like parks and public transportation benefits schools just as District investment in shared spaces like athletic fields and theaters benefits the community. Schools don't have community partnerships, they are a community partner.

The District operates in an accessible and transparent manner that encourages and fosters community involvement as our parents, students, and community partners are an integral and valued voice in our district (see School Board Commitment to Excellence). To do this, the District is committed to certain actions:

- Expanding communication to increase accessibility and transparency
- Developing “Leading Together” opportunities that foster community involvement
- Partnering with parents and service/community agencies to plan and support students and families
- Strengthen professional organization and university partnerships



Educational Partnerships

Educational partners enrich the PreK-12 curriculum by linking teachers and students with the world outside of the classroom. Partners strengthen and support the teaching and learning experience of students every day to help it stay rich, connected, and relevant. The expertise and assets the community brings come into the classroom. Partners help improve and extend the systems for teaching and learning and provide additional opportunities through their expertise, research, and consultancy. Community partners push thinking and challenge the District to consider new technology/research/information. Some partnerships are simple on-time, one class/school visits. Others involve periodic or regular visits to classrooms/school or even semester or academic year-long collaborative ventures. Community partners may also host individual students at their workplace for career exploration. Or, they may host a class field trip to demonstrate how classroom subject matter is directly applied to their jobs or hobbies.

Shared Facility Needs

Community partnerships play an integral role in the planning, design, and operation of school facilities. The District hosts many city, regional, and statewide community events in its facilities including conferences, Oregon School Activities Association OSAA events, Global Read Aloud, Robotics, concerts, Unified activities, etc. Similarly, local community venues also play host to several District events such as field trips, science exploration, and student art creation and display.

A long range plan considers not only the needs of the school district, but also the facilities that support the community at large. The city and school district have a collaborative understanding of the shared use of spaces like playfields, parks, libraries, and performance centers. When cities update their parks master plan, they consider the school sites. The Parks Departments of the City of West Linn and Wilsonville both utilize school facilities for recreational programs and organized community events. There is also a strong need for community arts venues. The high school performance venues fulfill a cultural need in both cities and highlight the need to have true collaboration in the design and use of facilities. Partnerships like those with the Missoula Children's Theater transform school performance venues and engage primary school students in a highly successful co-curricular enrichment program. Some partnerships, such as those formed through PTO and PTA groups, play an active role in fundraising and building facility assets such as playground and athletic equipment.

Capital improvement projects and bonds are brought to the community through bond summits. From the conceptual and planning phases through the design, our committees encourage and provide community input. The recent high school study included parents and an opportunity for both West Linn and Wilsonville Rotaries to give input. The permitting process ensures further outreach via neighborhood meetings and open house events. The District embraces this because it is aligned with the culture of inclusion and desire to listen to school neighbors. Our board is selected by and represents the community. They have a strong connection to listening and welcoming community voices regarding the prioritization of funds.

LEARNING WITH TECHNOLOGY

Our schools have a long-standing tradition of excellence that is rooted in a culture of action research and innovative practices. It is a culture in which all members of the learning community participate and collaborate in the ongoing pursuit of the district's mission, visions, and goals.

Within this learning environment, technology is now widely used by our students for research, close reading and production. Students use the technological tools available to calculate, to read and write, to tap into streams of live information, to communicate with others, to explore theory and take it into practice, and to do so from school and from home.

Digital video, digital music, graphic multimedia presentations are daily activities in our classrooms. When children are invited to make public presentations of complex learning, the products become models for the next student, the next class. In this way, a rising standard of student performance emerges in the learning community. While certainly incorporating the flash, color, and style of new presentation systems, our students are introduced to this method of presentation early in their educational careers. The early exposure invites this exploration of the tools, but also allows students to move well beyond the whiz-bang of dynamic presentations to presentations that are rooted in content, research, and evidence.

Learning with technology allows children and teachers to do what they could not otherwise do. Technology is allowing the days of hard-bound, heavy, stale textbooks to be moving into the past. Resources for research and study are accessible via the web on robust and accessible tools provided to our students and also accessible on personal devices. Video sources provide a window to worlds the student cannot visit, a seat in the great lecture halls of the world, and quick reference for review or expansion of concepts. State of the art systems adapt and adjust to each student's current level of knowledge and understanding, and can level the playing field to allow students to address curriculum areas even as other skills are still developing. Curriculum developed from a constructivist approach allows students to explore concepts they do not yet understand, test ideas, fail, grow, and construct a useful understanding of the concept. Today's tools for writing help students review and refine their writing, while also providing word choice or sentence structure suggestions that help students learn new, clearer and more illustrative ways to present their thoughts.

Technology allows the "E" (engineering) in STEM to come alive, to move from theory to practice. When posed with a real-world problem – for example, program this drone to navigate through a maze of unknowns – the significance of doing something real causes the learning to come alive. STEM activities facilitate learning through robotics, sustainable agriculture, computer software courses, engineering design and other programs currently happening throughout the district. Cohesiveness and support around these programs also provides important professional development opportunities for teachers looking to also expand their practice and integrate STEM education into their curriculum.

Students are being exposed to CTE (Career/Technical Education) courses that bring real-world application of complex and rigorous concepts in authentic and skill-enhancing practice. Students have the opportunity to explore



graphic design, video production, web development, and a variety of other applied curriculum and pursue a career pathway that can lead to their ultimate livelihood. And, our recent high school study has provided valuable and genuine insight to the value of expanding these offerings.

“MakerSpaces” allow for more applied and authentic learning activities at all ages. To understand MakerSpaces, consider school recesses. There is much learning that takes place on playgrounds. Students are learning the nuances of many games and exploring dirt, puddles, insects, foliage and how they are learning to interact together, and so much more. Learning is real, self-directed, and fun! In an abstract sense, this is also the idea and philosophy associated with MakerSpaces. One could call them “Intellectual Playgrounds”. In West Linn – Wilsonville, MakerSpaces are often found near the center of the school, usually near the library. The MakerSpace may look messy. It will usually contain what seems to be a hodge-podge of craft-type materials (clays, wood blocks, etc) as well as some electronics (3D printer, SnapCircuits, Makey-Makey kits, and much more!). There are often computers with access to coding activities, sometimes connected to devices and sometimes completely virtual. In these environments, students can explore, experiment, and learn without the stressful expectation of a pre-defined outcome.

Assessment with technology escapes the boundaries of time, becoming timely, personalized, and adaptive. Adaptive assessment has greater power to yield useful assessment information for teachers to use as feedback and actionable data.

Every student uses some technology resource every day for their school activities. Access to devices and electronic resources is now ubiquitous and transparent in our schools. This allows the power of serendipity and immediacy to take effect and further enhance the personalized learning opportunities and experiences of students. There is significant impact, efficacy, and ownership to having a question now, and being able to pursue that question now – in that very moment. This happens every day!

With a technology tool in-hand, students can become more active readers who gain deeper understanding. For example, a student can actively access multiple definitions and the background of a word or term. Imagine reading a passage that refers to the Leaning Tower of Pisa. Within a few clicks, students can access a picture along with some quick facts about the building, the city, the area, and the culture. These insights bring deeper meaning and relevance to the original text.

In the social sciences, students can access varying viewpoints. They can research the history of a situation from various angles and gain deeper understanding.

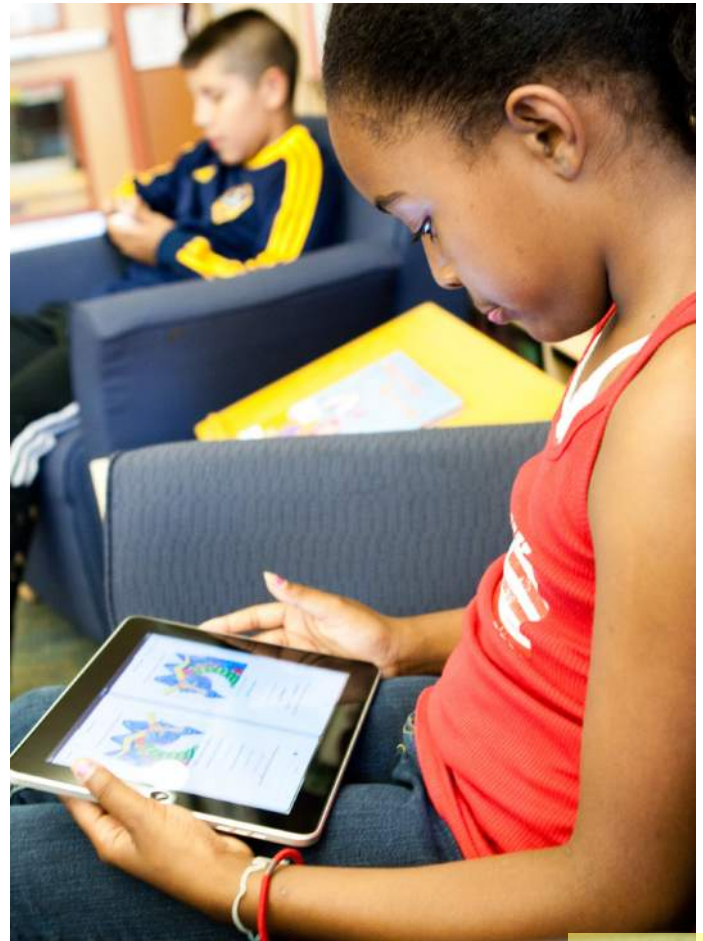
In the math classroom, technology can bring greater synthesis to the application of the theories being learned. For example, we can be told that linear algebra is actually the basis of most computer animation. But with a technology tool in hand, they can be given tasks that cause them to manipulate the mathematical model to create specific results in an animation.

The research and inquiry aspects provided by access to technology are clear as well. The acquisition of fact-based knowledge has been replaced by higher order processes of analysis and synthesis and increased the ability to retain a deeper and richer learning experience.

Teaching in this way is complex, sophisticated, challenging, and intensely intellectual work. The role of each individual teacher has become extraordinarily significant. Successful teachers are those who prepare for their students, not just for their lessons. Successful teachers are more skillful in knowing and understanding individual learners. Successful teachers respond to diverse learners with varied culturally responsive approaches to instruction. Each teacher has a range of strategies and is able to choose the strategy to fit both the content and the learner. Teachers prepare student-centered, divergent learning experiences that draw each and every student to high standards of performance. Teachers in this Age of Learning work from student strengths rather than focusing on the weaknesses. Effective teachers carry the belief that every child can be successful. This mindset leads to a reorientation of teachers' role and disposition toward teaching.

It is important to note that our technology plan is not about the technology itself. While much thought needs to be put into the selection of devices, it is not the device that should drive this. The improvement and enhancement of the pedagogical practices in the classroom that enhance the educational experiences of students toward the achievement and surpassing of initiatives like the Common Core Standards or the Next Generation Science Standards is the ultimate goal.

Technology has also become a vital component of virtually every aspect of our operation. Although perhaps a more indirect, schools that can operate more efficiently, increase safety, and promote responsible use of resources will also experience an enhanced learning environment.



SECTION B: SCHOOL FACILITIES





GIVING TREE

Education



Please do NOT climb the rack or my body. Thank!

Home



INTRODUCTION

This section, School Facilities, provides the framework for facilities planning, defines the issues facing the District, and identifies issues that will affect future facility needs and improvements. It is the second of three parts that collectively provide the framework for school facility needs:

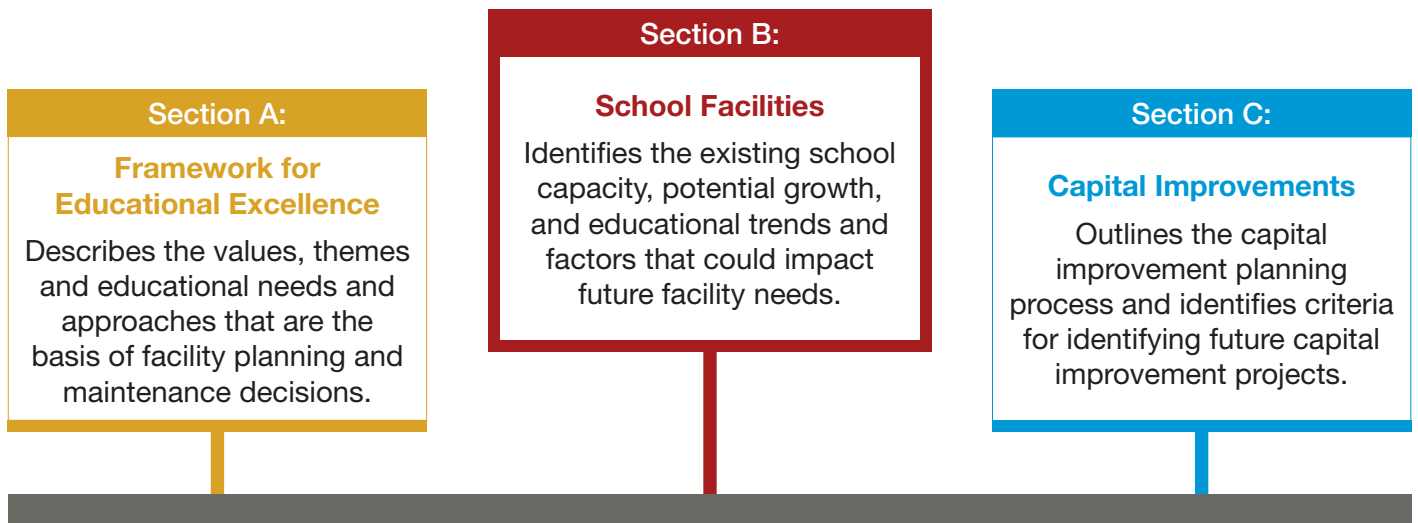
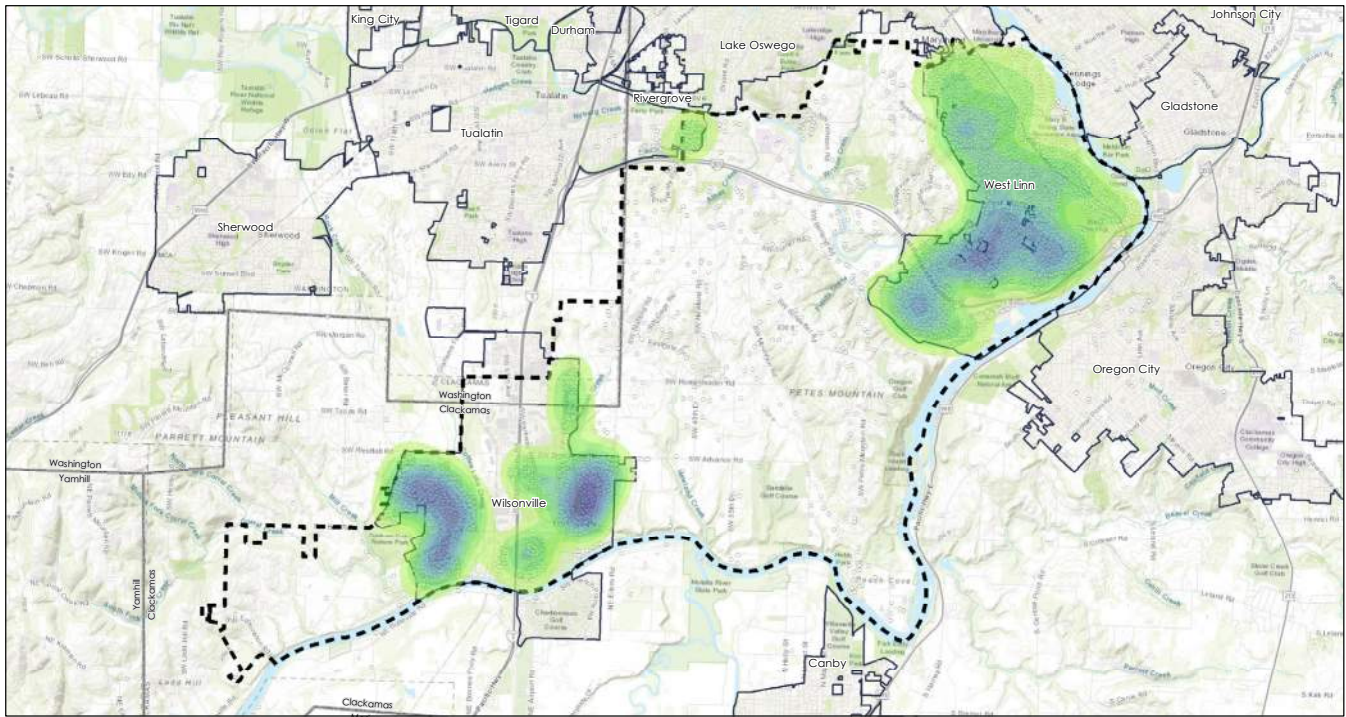


FIGURE 2



LEGEND		Student Density per Square Mile
	District Boundary	701 - 875
	County Boundary	876 - 1,050
	Municipality	1,051 - 1,225
	Student Household	1,226 - 1,400
	0 - 175	> 1,400
	176 - 350	
	351 - 525	
	526 - 700	

FIGURE 2
Student Density

0 0.5 1 2 Miles

N

SNAPSHOT OF TODAY

Existing Development and Enrollment

The total enrollment for the District on September 30, 2018 was 9,836 K-12 students. The majority of residences and development is located within the cities, with the city of West Linn accounting for the largest share. The relative concentration of the student population in the District is shown in Figure 2.

To evaluate enrollment, the District contracted with FLO Analytics to evaluate existing and future development, resulting enrollment, and the location of students. The District collects quarterly enrollment data for each of the schools. The enrollment figures include kindergarten through 12th grade. Enrollment has steadily increased across the District with some of the highest growth rates occurring in the 1990's. Enrollment for September 2018 is shown in Table 1.

TABLE 1
2018 SCHOOL CAPACITY AND ENROLLMENT

	SCHOOL NAME	CURRENT ENROLLMENT (2018/19 YEAR)	LEARNING SPACE CAPACITY	AVAILABLE CAPACITY
PRIMARY	Boeckman Creek	550	550	0
	Boones Ferry	610	775	165
	Lowrie	571	575	4
	Wilsonville Subtotal	1,731	1,900	169
	Bolton	345	475	130
	Cedaroak Park	291	500	209
	Stafford	433	525	92
	Sunset	345	425	80
	Trillium Creek	583	575	-8
	Willamette	518	525	7
	West Linn Subtotal	2,515	3,025	510
	Primary Subtotal	4,246	4,925	679
MIDDLE	Athey Creek	702	669	-33
	Meridian Creek	414	490	76
	Rosemont Ridge	743	713	-30
	Wood	532	691	159
	Middle Subtotal	2,391	2,563	172
HIGH	Wilsonville	1,223	1,345	122
	West Linn	1,865	1,730	-135
	Arts & Technology**	111	80	-31
	High School Subtotal	3,199	3,155	-44
	Total	9,836	10,643	807
	Three Rivers Charter*	100	112	12

*Three Rivers Charter is not included as part of the district enrollment

LONG RANGE PLAN – 2019 UPDATE

The District currently operates nine primary schools, four middle schools, two comprehensive high schools, one option high school, and one charter school. The last evaluation of the learning space capacity of each school was conducted in 2013. In 2014, District voters approved a Capital Improvement Bond that funded additions, improvements, and new facilities, changing the capacity of many school locations. Specifically, Meridian Creek Middle School is a new facility that opened in the fall of 2017 and Sunset Primary school is a new replacement facility that also opened in the fall of 2017. Major remodel and expansion projects took place at four primary schools (Trillium Creek, Lowrie, Bolton, and Boeckman), and both comprehensive high schools.

Since the 2013 capacity analysis, the educational programs offered by the District have evolved in response to various research-based initiatives, state/federal requirements, and local program investments. The programs that affect capacity are outlined in Part A of the Long Range Plan.

During the fall of 2018, the District revised the Long Range Plan. This effort involved an update to all three parts of the plan:

Section A: Framework for Excellence – Describes the values, themes, and educational needs and approaches that are the basis of facility planning and operational decisions.

Section B: School Facilities – Identifies the existing school capacity, potential growth, and educational trends and factors that could impact future facility needs.

Section C: Capital Improvements – Outlines the capital improvement planning process and provides a link between the Long Range Plan and future capital improvement projects that are identified by the Capital Improvement Program.



LEARNING SPACE CAPACITY

District learning space capacity was first studied in 2007 then updated in 2013 and 2018. Over this 11-year period, changes in capacity occur due, in part, to construction. Two new primary schools were opened in 2012, and one new middle school in 2017. Major renovations and additions to schools provide additional teaching and support spaces. Changes in capacity also occur due to calculation methodology. In the 2007 and 2013 analysis, learning space capacity was calculated using a class size and room utilization method. In the 2018 analysis, capacity was calculated using a square-foot-per-student ratio. Although class size and room use were factors in developing the correct ratio, the analysis resulted in slightly different capacity numbers for each facility. The advantages of calculating building capacity using the sf/student ratio is that, once the ratios are established, they can easily be used to calculate the number of spaces needed in new construction to serve a specified student population.

Long range facility planning requires knowledge of the student capacity that each school can safely, effectively, and efficiently accommodate. The capacity analysis conducted in the fall of 2018 is based on the size of learning spaces and number of students the spaces can support. This square-foot-per-student ratio is derived through an analysis of many factors: national and regional standards, preferred class size, class schedules, academic programs, and District planning priorities.

The learning space capacity analysis is a planning tool that helps the District compare current enrollment to projected growth and the available capacity of its facilities. The analysis takes into account only those areas used for teaching and learning. At the primary level, that is the classroom. At the middle school level, it includes the gymnasium, music, art, science, general education, and makerspace rooms. At the high school level, it includes gymnasium, music, art, drama, science, general education, makerspace, CTE, and weight rooms. There are many spaces necessary for a school building to function that are not considered learning spaces such as the cafeteria, kitchen, locker rooms, administrative offices, hallways, and boiler rooms. The square-footage needed for these core support spaces differs for each building due to such factors as plan layout, site constraints, and program priorities during design. The learning space capacity analysis is not intended to be a tool for building design. Instead, during the planning stages for a new school building, the District uses the experience of the effective functioning of its existing facilities and works closely with architects to determine the area needed for each space and the gross building square footage.

SECTION B: SCHOOL FACILITIES

It is also important to recognize that not all learning spaces in the schools are included in the capacity calculation. At the primary school level, one classroom is a designated preschool room. Preschool is currently offered as a tuition-based optional program for resident children, and the current and future enrollment projections are based on populations of students that are between Kindergarten and 12th grade. Therefore, preschool-aged students are not included in the overall K-12 capacity of the District. Additionally, one classroom in primary, middle, and high school buildings is designated as a special education support space. The District's special education program maintains a fully integrated population of students at all levels, but uses one room in each building to provide additional support or instruction to students as needed. Further explanation of these programs and their facility needs is provided in the Long Range Plan.

During September/October 2018, several meetings were held with District operational and administrative staff to discuss how each building was being used. Floor plans of each building were developed to identify each space and assign the current use. The area of these spaces was calculated and square-foot-per-student (sf/student) ratio applied to determine the overall building capacity. Different ratios were used for primary, middle, and high schools due to the different building and educational functions at each level. The square foot per student needed is a factor of the types of spaces used for teaching. Therefore, at middle and high schools a different ratio is used to calculate the capacity of some teaching spaces due to their particular program needs. For instance, the area needed to safely accommodate a student in a PE class held in the gym is much larger than in a history classroom. The high school buildings have more of these types of large teaching spaces: gymnasiums, black box theaters to teach drama classes, weight rooms for PE class, etc. Although primary schools have gymnasiums, they were not considered an additional teaching space because students remain within their class groupings and attend PE as a support program. In other words, if one first grade class goes to Music, their classroom is left empty. Due to middle and high school schedules, it is possible to have every classroom in full attendance at the same time as PE spaces. As a result, the sf/student ratio is lowest at primary school buildings and highest at high school buildings.

Below is a list of the sf/student ratios used to calculate building capacity:

Primary Schools	37.5 sf/student
Middle Schools	40.6 sf/student
High Schools	46.2 sf/student

Conclusion - Capacity Analysis

It is important to recognize that learning space capacity is a planning tool used by the District to assist in comparing current enrollment and the needs projected by future growth. It is not an indication of the quality of the educational environment or programs provided at each school. Principals and teachers assess the needs of each student and use the building in very unique ways to provide a high quality learning environment while considering enrollment, transfers, schedules, staff availability, and district-wide program balance. As is the practice of every public school, actual students attending any given school will routinely fluctuate. This analysis is done concurrent to a demographic and enrollment projection report. Together, these documents are used by the District to understand the facility needs and plan for capital improvement projects.



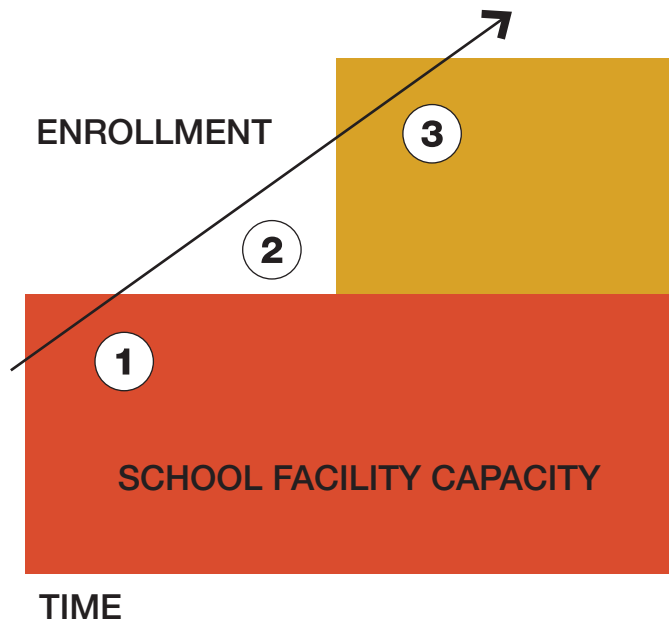
PLANNING FOR THE FUTURE

EFFICIENT PROVISION OF SCHOOL FACILITIES

As noted earlier, the District has experienced a steady increase in enrollment over the past 20 years. To provide adequate school facilities for primary, middle, and high school students, the District received voter approval of school bond measures during this same period to construct new facilities and upgrade and maintain existing assets.

The District is committed to providing educational facilities in the most financially prudent manner possible. The key is to balance efficiency with maintaining quality educational environments. The District must balance steady enrollment growth with capacity, which must occur in distinct increments because new facilities, such as a new school or school addition, must be constructed at once, not incrementally. The graph in Figure 3 demonstrates the balance the District must maintain between enrollment growth and capacity. Figure 4 illustrates how the enrollment has grown steadily and capacity has increased in increments when new schools or school expansions were completed.

FIGURE 3
SCHOOL FACILITY CAPACITY

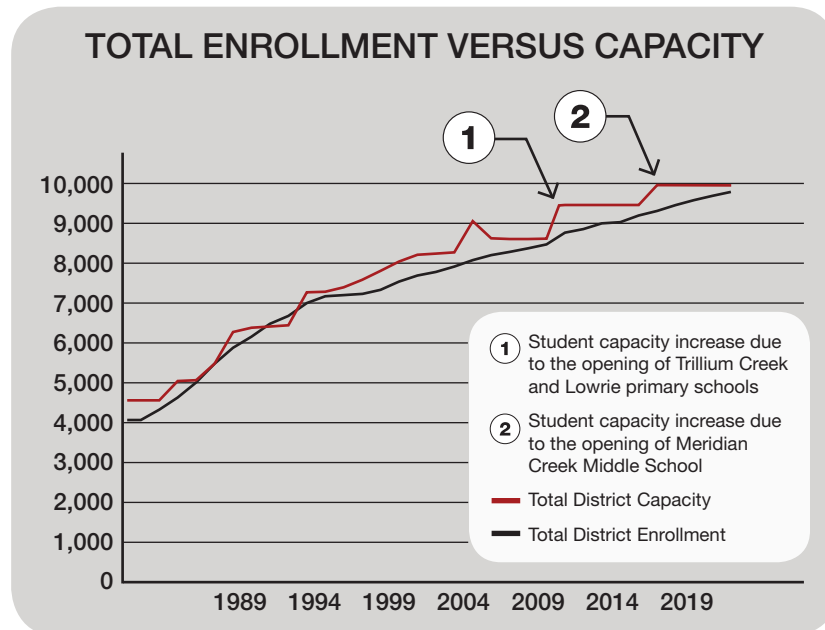


- ① As enrollment exceeds capacity, the District constructs one or more facilities to increase capacity. There is excess capacity following construction, but because of associated operating expenses, to be financially efficient, this extra capacity should not be too large.
- ② After completion, the enrollment continues to increase and the capacity remains static. Eventually the extra capacity is absorbed, and the District is over capacity. Portable classrooms, larger class sizes, and other measures are used to accommodate students during this period.
- ③ Periodic capacity deficits are considered necessary, however, they soon need to be addressed with another increment of new capacity or serious overcrowding will result.

POTENTIAL CAPACITY IMPACTS OF SCHOOL PROGRAMS

In addition to the size of the facilities, school capacity is directly influenced by educational programs, such as early childhood education, co-curricular enrichment, inclusive services, visual and performing arts, and community partnerships as described in Part A: Framework for Excellence. The implementation of these programs has effectively changed the District's capacity because many of them have building space ramifications. Improving educational programs may reduce or increase school capacity, depending on the program. It is important to note that any capacity changes are outweighed by the improved educational results created by these programs.

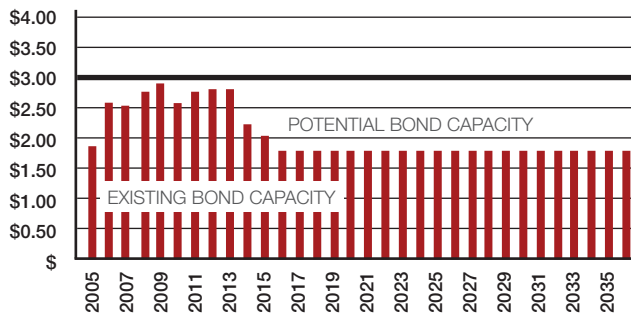
FIGURE 4



POTENTIAL BONDING CAPACITY

Since 2001, the District has held to its commitment to keep capital bond levies at or below \$3.00 per \$1,000 of assessed value at any given point in time (Figure 5). With previous bonds expiring in 2019, the District sees an opportunity to present a capital bond to voters in the near future to respond to growth and to continue the excellence in education the communities of Wilsonville and West Linn have come to expect without increasing the tax rate.

FIGURE 5
ANY PUBLIC SCHOOL DISTRICT
EXISTING V. POTENTIAL BONDING CAPACITY



ACCOMMODATING FUTURE ENROLLMENT GROWTH

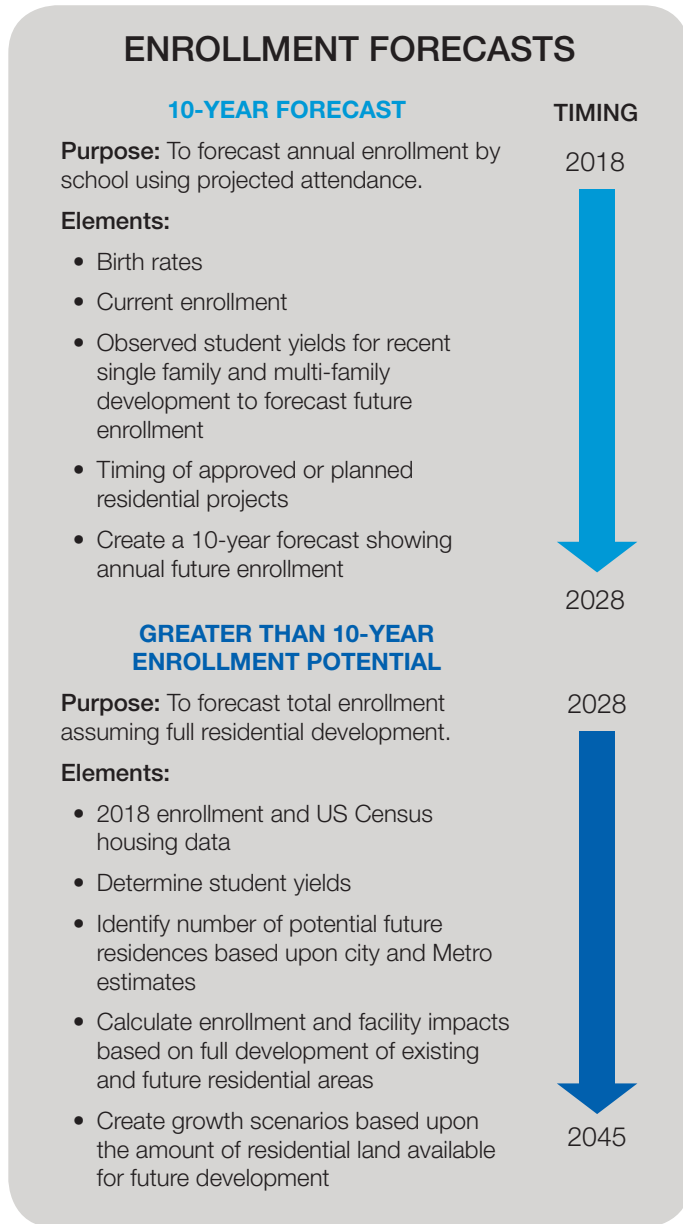
Creating and maintaining a quality educational environment is constantly challenged by enrollment growth, which has increased by approximately 74% from 5,644 students in 1990 to 9,836 students in 2018. In addition to providing the capacity to give each and every student a superior education, the District must also maintain and upgrade existing facilities and constantly look for ways to improve educational programs and techniques.

The District periodically evaluates demographic and land development trends to assess how they may affect enrollment and the ability of the schools to have the appropriate capacity to serve the students. These efforts involve understanding the potential enrollment impacts associated with development of existing residential land within city limits and the Metro Urban Growth Boundary (UGB) as well as planned future expansion of the UGB and city limits.

The District forecasts future enrollment potential in two ways: 1) a shorter-term 10-year forecast of enrollment growth; and 2) a longer-term evaluation well beyond ten years. The 10-year enrollment forecast is based upon the rate and location of new residential development. Understanding these factors is critical to enable the District to proactively respond to imminent enrollments demands. The greater than 10-year forecast considers the enrollment growth potential for areas that are planned for future urbanization. Its primary purpose is to keep the District mindful of the potential magnitude of future enrollment growth and associated facility needs.

A summary of the purpose, elements, and timing associated with forecasts for 10-year and greater than 10-year enrollment growth is provided in Figure 6. Both evaluations are explained in the following sections: 10-Year Enrollment Forecast and Greater than 10-Year Enrollment Forecast. Additional detail regarding the 10-year enrollment methodology utilized by FLO Analytics is provided in the Appendix.

FIGURE 6



10-YEAR ENROLLMENT FORECAST

A 10-year forecast is designed to help the District anticipate enrollment in the relative short-term. Forecasts are based on recent demographic trends, existing residences, and approved residential developments. This forecast was prepared in October 2018 by FLO Analytics (Appendix). The development data was created by interviewing city staff regarding approved residential developments and the timing for their completion, and the types of residences involved. As part of this analysis, student yield estimates (Table 3) were calculated by comparing student enrollment associated with recently built single and multi-family residences. It shows that single family, detached residences typically generate approximately one student for every two homes while approximately four multi-family attached or apartment units produce one student. The student yield factors were applied to the number and types of anticipated new homes to forecast future enrollment. The projection anticipates significant enrollment growth from 9,832 students in September 2018 to 11,430 students in 2028. Table 2 summarizes the results of the 10-year forecast.

The primary school capacity is 4,925 students with a 2018 student enrollment of 4,246. Similarly, the middle schools, with a capacity of 2,563 and a current enrollment of approximately 2,387, will be adequate in the short-term, but will begin operating over capacity by around 2023. High school capacity is 3,155, and the current enrollment of 3,199 yields a slight over-capacity situation. The overall high school capacity in the District is anticipated to become significant unless additional facility solutions are provided.

While having a general understanding of enrollment potential in ten years is useful, the District must focus on a shorter five-year timeframe to proactively plan future capital bond measures to ensure that adequate school learning space capacities are provided across the District. In preparation for a potential new school bond, the District will be directing most of its attention to school capacity needs in 2023 rather than 2028.



SECTION B: SCHOOL FACILITIES

TABLE 2
2018 SCHOOL CAPACITY AND 10-YEAR ENROLLMENT FORECAST*

	School Name	Capacity	Enrollment					5-Year Forecast				
			2018	2019	2020	2021	2022	2023				
PRIMARY	Boeckman Creek	550	550	559	584	627	654	683				
	Boones Ferry	775	610	595	594	601	608	613				
	Lowrie	575	571	644	692	731	722	779				
	Wilsonville Subtotal	1,900	1,731	1,798	1,870	1,959	1,984	2,075				
	Wilsonville Available Capacity		169	102	30	-59	-84	-175				
	Bolton	475	345	344	331	331	322	315				
	CedarOak Park	500	291	325	329	335	321	318				
	Stafford	525	433	423	416	428	436	436				
	Sunset	425	345	316	320	324	332	334				
	Trillium Creek	575	583	607	604	614	626	622				
	Willamette	525	518	541	550	553	569	561				
	West Linn Subtotal	3,025	2,515	2,556	2,550	2,585	2,606	2,586				
	West Linn Available Capacity		510	469	475	440	419	439				
	Subtotal		4,246	4,354	4,420	4,544	4,590	4,661				
TOTAL AVAILABLE CAPACITY (K-5)	4,925	679	571	505	381	335	264					
MIDDLE	Athey Creek	669	702	735	751	712	694	720				
	Meridian Creek	490	414	462	494	476	476	509				
	Rosemont Ridge	713	739	716	702	703	710	743				
	Inza Wood	691	532	558	549	565	583	601				
	Subtotal		2,387	2,471	2,496	2,456	2,463	2,573				
	TOTAL AVAILABLE CAPACITY (6-8)	2,563	176	92	67	107	100	-10				
HIGH	Wilsonville	1,345	1,223	1,214	1,286	1,378	1,441	1,504				
	West Linn	1,730	1,865	1,930	1,936	1,968	1,971	1,946				
	Arts & Technology	80	111	80	80	80	80	80				
	Subtotal		3,199	3,224	3,302	3,426	3,492	3,530				
	TOTAL AVAILABLE CAPACITY (9-12)	3,155	-44	-69	-147	-271	-337	-375				
Total		9,832	10,049	10,218	10,426	10,545	10,764					
TOTAL AVAILABLE CAPACITY (K-12)	10,643	811	594	425	217	98	-121					

* Projections assume that current school attendance areas remain unchanged.

SECTION B: SCHOOL FACILITIES

School Name	6-10-Year Forecast						
	2024	2025	2026	2027	2028		
Boeckman Creek	713	747	786	815	851	PRIMARY	
Boones Ferry	613	613	613	607	608		
Lowrie	781	785	794	800	802		
Wilsonville Subtotal	2,107	2,145	2,193	2,222	2,261		
Wilsonville Available Capacity	-207	-245	-293	-322	-361		
Bolton	312	310	307	299	296		
Cedaroak Park	316	315	310	307	310		
Stafford	438	442	448	452	450		
Sunset	333	330	328	323	318		
Trillium Creek	619	619	620	612	605		
Willamette	559	559	559	557	554		
West Linn Subtotal	2,577	2,575	2,572	2,550	2,533		
West Linn Available Capacity	448	450	453	475	492		
Subtotal	4,684	4,720	4,765	4,772	4,794		
TOTAL AVAILABLE CAPACITY (K-5)	241	205	160	153	131		
Athey Creek	740	752	729	740	755		MIDDLE
Meridian Creek	564	582	595	624	642		
Rosemont Ridge	764	760	737	739	740		
Inza Wood	606	623	627	640	639		
Subtotal	2,674	2,717	2,688	2,743	2,776		
TOTAL AVAILABLE CAPACITY (6-8)	-111	-154	-125	-180	-213		
Wilsonville	1,498	1,522	1,583	1,644	1,713	HIGH	
West Linn	1,962	1,971	2,025	2,049	2,067		
Arts & Technology	80	80	80	80	80		
Subtotal	3,540	3,573	3,688	3,773	3,860		
TOTAL AVAILABLE CAPACITY (9-12)	-385	-418	-533	-618	-705		
Total	10,898	11,010	11,141	11,288	11,430		
TOTAL AVAILABLE CAPACITY (K-12)	-255	-367	-498	-645	-787		

GREATER THAN 10-YEAR ENROLLMENT POTENTIAL

FORECASTING ELEMENTS

This second enrollment forecast is used by the District to estimate facility needs beyond the 10-year horizon. It relies upon existing regional and local plans along with development trends to understand what the District enrollment could be once identified residential areas are developed and redeveloped in the future. This planning analysis enables the District to anticipate future facility demands and secure necessary school sites and/or financing to continue to provide additional school capacity in a timely manner. The rate of development and enrollment change is very difficult to predict more than a few years ahead. Consequently, this forecast beyond 10 years is focused primarily on three elements: 1. number of students per residence; 2. number of potential future residences; and 3. general timing for new residential development.

1. **Understanding the number of students** coming from all residences throughout the District is key to estimating the impact of future residential development. To create an estimate of students per household, or “student yield”, the number and type of recent residential development (single family and multi-family) were compared to calculate the average number of students associated with each new residence. Although they are likely to change over time as household characteristics evolve, these student yields for 2018 are assumed to remain constant for the purposes of estimating future enrollment as more residences are built within the District. Student yields will be reassessed during subsequent updates of this plan. The student yields for new single family and multi-family residences in the District are summarized in Table 3.
2. **The potential for new residential development** within the current Urban Growth Boundary (UGB) and city limits is the second critical element to forecasting future development potential and enrollment. Areas within the UGB, including the cities of West Linn, Wilsonville, and Tualatin, are planned for urban development. To provide a greater level of certainty regarding which areas may be eligible for future UGB expansion, Metro completed a process with local governments in 2010 to designate “Urban Reserve Areas” (URAs) where future UGB expansions can occur and “Rural Reserve Areas” where they may not. Metro, in coordination with local governments, originally developed and adopted estimates in November 2012 for the residential development potential of these URAs – several of which are located within the District. These URAs are intended to provide capacity for urban development to 2060. Metro has recently updated its development estimates, and they are reflected in this longer-term forecast that looks beyond 10 years. Any land brought into the UGB over the next 25+ years is planned to come from these designated URAs. The estimated enrollment impact of the portions of the URAs within the District is summarized in Figure 7.

TABLE 3
STUDENT YIELD FACTORS*

Grade Ranges	K-5	6-8	9-12	K-12
Single Family Units Student Yield Factor	0.285	0.111	0.125	0.521
Multi-family Attached Units Student Yield Factor	0.111	0.055	0.071	0.237
Average Student Yield Factor	0.198	0.083	0.098	0.379

*FLO Analytics evaluation of student ratios related to new development, information from local jurisdictions, and educated assumptions about new development trends.

3. **The general timing for expanding the UGB for urbanization** is the final element. Following designation of urban and rural reserve areas in 2010, Metro considered potential expansion of the UGB. In 2011, Metro completed this review process, and no land in the West Linn-Wilsonville School District was added to the UGB. However, in December 2018 Metro approved a UGB expansion in Wilsonville by bringing URA 4H Advance Road/Frog Pond into the UGB. Future UGB expansions will be considered on a six-year cycle and are based on regional growth rates and the ability and willingness of local cities to provide needed public infrastructure. The time period considered extends to 2045. The Metro timing estimates and development potential for UGB expansion are used to form the District’s greater than 10-year enrollment forecast and the growth scenarios described in the following section.



GREATER THAN 10-YEAR GROWTH ASSUMPTIONS AND OUTCOME

It is important to recognize that longer-range estimates are based upon very general information and will certainly be subject to re-evaluation and revision over time. The primary purpose of the forecast is to give the District some guidance regarding the approximate magnitude of future residential development and its potential impact on future enrollment.

This scenario is based on the following assumptions:

- Any remaining undeveloped residential land within the existing UGB, which did not develop during the 10-year forecast period to 2018, will develop to the maximum current density allowable.
- The learning capacity for existing schools (Table 1) will remain constant. For planning purposes, the learning capacities for new schools is assumed to be:
 - Primary school – 550 students
 - Middle school – 750 students
 - High school – 1,700 students
- The ratio of school age children per residence will be consistent with student yield ratios calculated for recently constructed housing units (Table 3 and FLO Analytics report in Appendix).
- The urban reserve areas brought into the UGB will be developed at densities assumed by Metro (typically 10 to 15 units per acre).

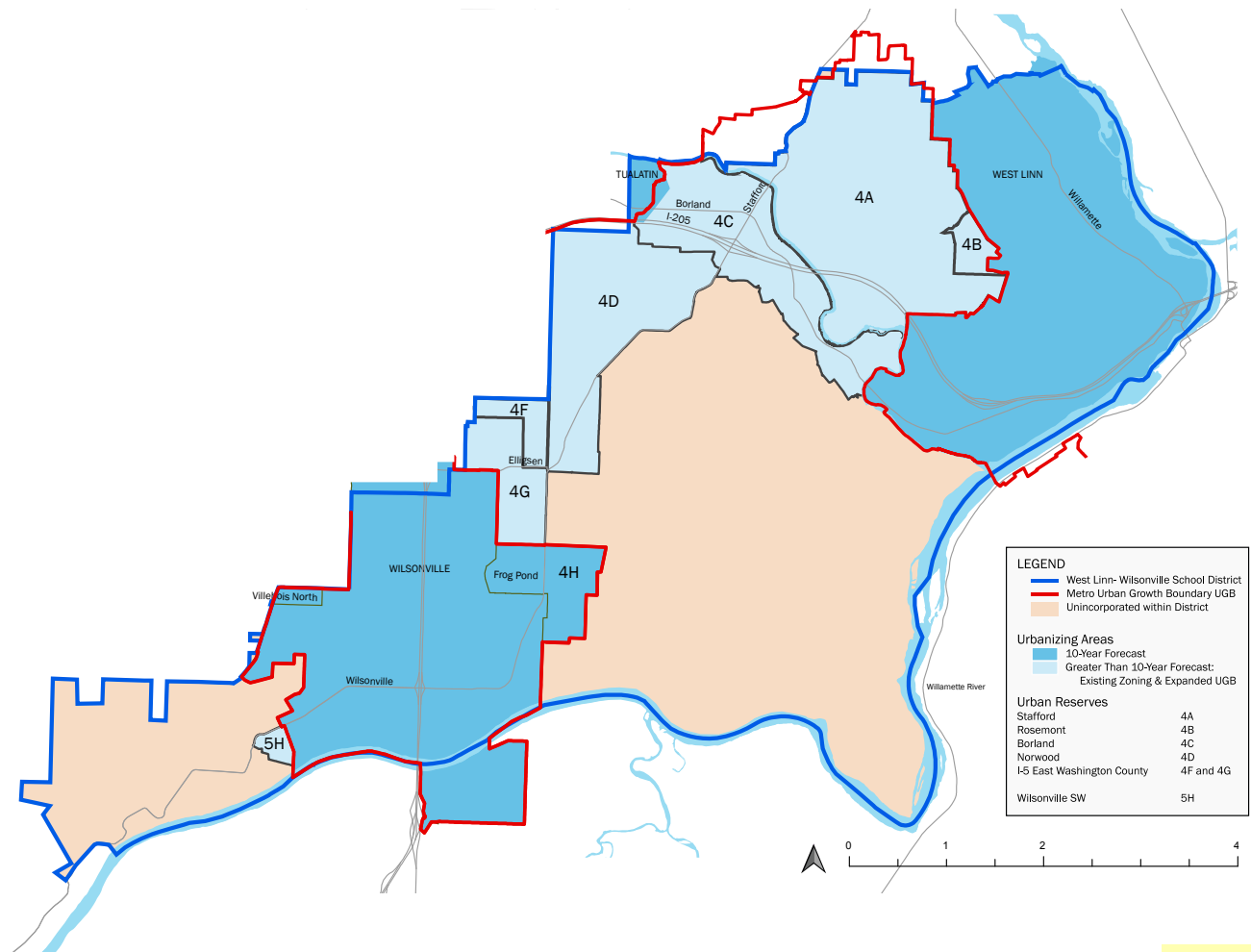
This growth scenario includes land located in the north-central portion of the District with Stafford Basin/Borland Road representing the major areas involved (Figure 7). Several of the urban reserve areas are only partially within the District. All of these areas are estimated to yield over 24,000 residential units. Metro anticipates that full development in these urban reserve areas will not occur until sometime after 2045. This amount of development would clearly have an enormous impact on enrollment. The challenges will encompass much more than school facilities, including governance and providing a wide range of urban services and facilities. The issues related to urbanization of these areas as well as infill and redevelopment within the existing UGB, will continue to be evaluated by Metro and local government. Subsequent updates of this plan will need to revisit the magnitude and timing of residential development within the District.



FIGURE 7
POTENTIAL ENROLLMENT OF FUTURE URBANIZED AREAS

Future Development	Future Potential Dwelling Units*	Additional Enrollment Estimates			
		Primary	Middle	High	Total
10-Year Forecast (Table 2)					
Subtotal		548	389	661	1,598
Greater Than 10-Year Forecast					
4A Stafford	7,389	1,463	613	724	2,800
4B Rosemont	826	164	69	81	313
4C Borland	4,326	857	359	424	1,640
4D Norwood	7,869	1,558	653	771	2,982
4F Elligsen North	2,808	556	233	275	1,064
4G I-5 Elligsen South	1,180	234	98	116	447
5H Wilsonville Southwest	252	50	21	25	96
Subtotal	24,650	4,881	2,046	2,416	9,342
Total	24,650	5,429	2,435	3,077	10,940

*The housing mix has not been determined for, and it is assumed to be a 50/50 mix of single and multi-family. Therefore, an average student yield factor for single and multi-family is applied to the total number of anticipated housing units.



FUTURE SCHOOL NEEDS

TRANSLATING RESIDENTIAL DEVELOPMENT INTO ENROLLMENT IMPACT

The future development within the next 10 years and beyond 10 years must be interpreted to estimate the enrollment impacts associated with each forecast. The number of estimated residential units is multiplied by the district-wide student yield factors presented in Table 3. Table 4 summarizes the district-wide future potential enrollment impact by school type. This information is then used to help identify the related school facilities necessary to accommodate future enrollment.

TABLE 4
FUTURE POTENTIAL SCHOOL FACILITY NEEDS SUMMARY

	PRIMARY	MIDDLE	HIGH	TOTAL
Existing Conditions				
2018 Capacity	4,925	2,563	3,155	10,643
2018 Enrollment (9/30/18)	4,246	2,387	3,199	9,832
Remaining Capacity	679	176	-44	811
Schools	9	4	3	16
10-Year Forecast				
Enrollment in addition to existing conditions	548	389	661	1,598
Total enrollment district-wide	4,794	2,776	3,860	11,430
Additional educational capacity needed once remaining capacity is utilized	-131	213	705	787
Schools required in addition to existing conditions	0.0	0.3	0.4	0.7
Total schools required district-wide	9.0	4.3	3.4	16.7
Greater Than 10-Year Forecast: Existing Zoning and Expanded UGB				
Enrollment in addition to 10-Year Forecast	4,881	2,046	2,416	9,342
Total enrollment district-wide	9,675	4,822	6,276	20,772
Schools required beyond the 10-year forecast	8.9	2.7	1.4	13.0
Total schools required district-wide	17.9	7.0	4.8	29.7

ENROLLMENT IMPACT ACROSS THE DISTRICT

The student enrollment is not evenly distributed, and the concentration of students is expected to vary widely across the District. During the timeframe of the 10-year forecast, the majority of the enrollment growth is anticipated to come from the Wilsonville area with approximately 1,400 new students coming from Villebois and Frog Pond in addition to smaller residential projects located throughout the city. West Linn is expected to see moderate growth related to infill development, and the unincorporated areas in the District are anticipated to have insignificant enrollment gains.

The greater than 10-year forecast would produce unprecedented enrollment growth totaling over 9,000 new potential students. Because of the uncertainty over the fate of the urban reserve areas and the distant horizon for their development, the potential enrollment and school facility impacts of the greater than 10-year forecast are not considered in the following evaluation of the District's more immediate school facility needs. This longer-range forecast should be revisited in future updates of this plan.



DISTRICT PROPERTIES

In anticipation of future school needs, the District has acquired several properties, which could potentially be used to accommodate new school facilities. The District assumes it will ultimately use these available sites. Additional sites will need to be acquired to meet long-term facility needs. The properties owned by the District are shown in Table 5.

All of the District properties are available for future school use. As the enrollment and attendance area picture changes with future expansion of the UGB, the District may need to sell a property holding in favor of another more suitable location. However, the appropriateness of using any of the sites should be subject to a detailed review prior to committing a specific site for school use. The availability of school sites between 10 to 50 acres is very limited due to development that has occurred and the UGB, which prevents urban growth, including schools, on rural and resource lands. The constrained number of possible sites will often make it impractical for the District to construct new schools on or near an “ideal” location. In addition, future expansions of the UGB may cause significant shifts in future attendance areas and ideal school locations. Because of this uncertain future, it will be critical for the District to evaluate its land holdings for their value as future school sites. The District will work closely with local governments and property owners in the planning and development of these areas.

TABLE 5
SCHOOL DISTRICT PROPERTIES

PROPERTY	TOTAL ACREAGE	LOCATION
Dollar Street	22 acres	Between Dollar Street and Willamette Falls Drive in West Linn
Oppenlander	10 acres	North Side of Rosemont Road in West Linn
Frog Pond West	10 acres	North of Boeckman Road in Wilsonville
Frog Pond South	9 acres	Eastern portion of the Meridian Creek Middle School site in Wilsonville

ACCOMMODATING SCHOOL FACILITY NEEDS

10-YEAR SCHOOL FACILITY NEEDS

The enrollment forecast in Table 2 illustrates what the District should expect over the next ten years. As noted above, the most acute capacity problems will be associated with high schools, which are currently operating slightly above capacity. However, this forecast also indicates that a new primary school will be needed in Wilsonville as the Frog Pond west development accelerates. In order to focus on the anticipated school facility needs for a potential school bond, the school capacity needs forecast for 2023 are highlighted in Table 6.

TABLE 6
FUTURE POTENTIAL SCHOOL FACILITY NEEDS IN 2023 AND 2028

	2018	2023		2028		LOCATION AND APPROXIMATE TIMING
	CAPACITY	ADDITIONAL CAPACITY NEEDED	NEW SCHOOLS	ADDITIONAL CAPACITY NEEDED*	NEW SCHOOLS	
Primary Schools	4,925	175	0.3	361	0.7	Frog Pond West - potential new primary school. In 2023, the District is forecast to have an overall capacity for 264 students, but the Wilsonville area will have a capacity deficit of 175 students. With the anticipated development of Frog Pond, this capacity shortage is expected to grow rapidly to approximately 361 students in 2028 (see Table 2). This could potentially be a partial primary school in Frog Pond - West designed for future expansion.
Middle Schools	2,563	10	0.0	213	0.3	Minimal middle school capacity needed by 2023, but some additional capacity will be necessary by 2028. This may potentially be satisfied by constructing the planned buildout of Meridian Creek Middle School to full capacity.
High Schools	3,155	375	0.2	705	0.4	Establish a new location for Arts and Technology High School. Providing for additional capacity will be in the near term.
Total	10,643	560	0.6	1,279	1.4	

*Includes all additional capacity needs based on the 10-year forecast.

SCHOOL FACILITY NEEDS BEYOND 10 YEARS

The majority of the longer-term enrollment growth after 2028 is expected from the Urban Reserve Areas generally located on the northwestern and northern portions of the District. West Linn and the south-central areas of the District are expected to contribute very little additional enrollment.

Based on communication with Metro and local governments, full development of this scenario could be anticipated between 2028 and sometime beyond 2045. Assuming that existing capacity is fully utilized before building new school capacity, a total of approximately 13 new schools will be necessary. This will clearly create a need to acquire new school sites beyond what the District owns today to allow for the development of these additional schools. A summary of the primary, middle, and high school needs is provided in Table 7.

**TABLE 7
FUTURE POTENTIAL SCHOOL FACILITY NEEDS BEYOND 10 YEARS***

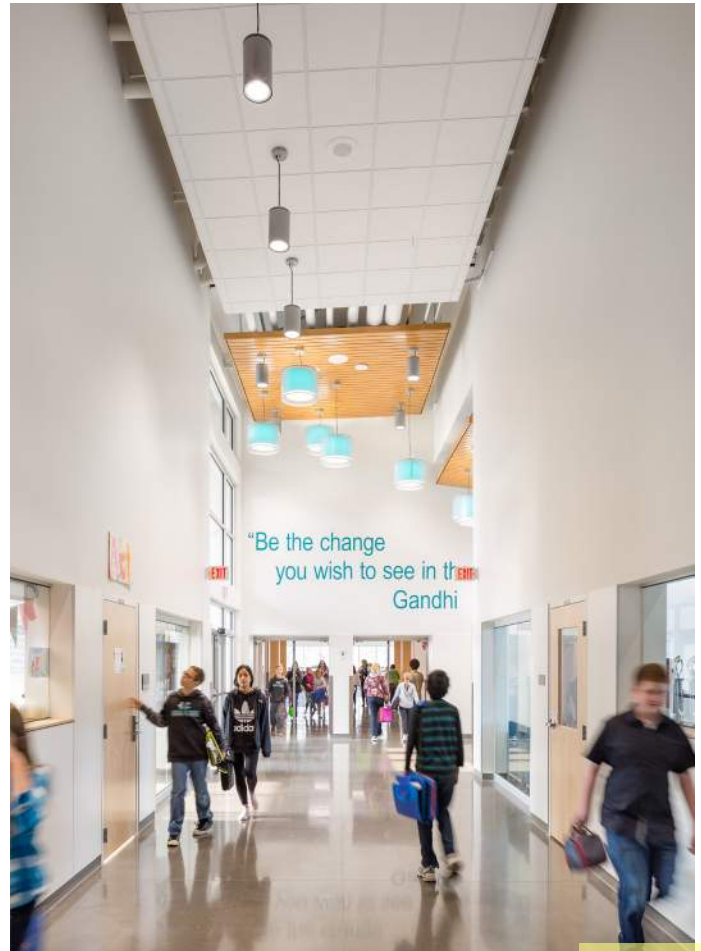
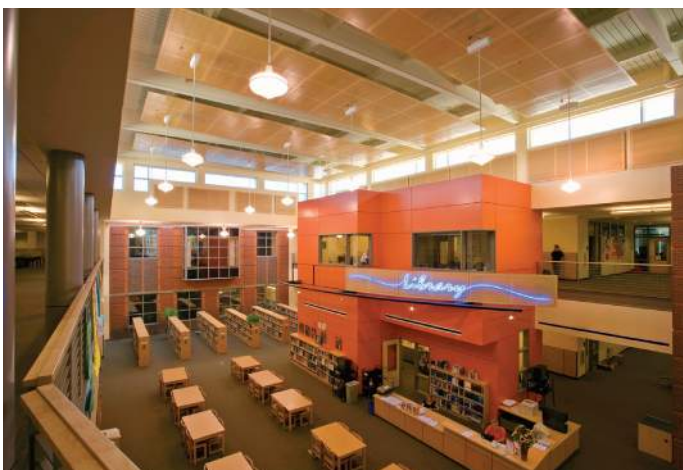
	ADDITIONAL CAPACITY NEEDED	NEW SCHOOLS	LOCATION AND APPROXIMATE TIMING
Primary Schools	4,881	8.9	Potentially utilize the remaining Meridian Creek Middle School site and the Oppenlander property to accommodate two of the additional primary schools needed.
			New facilities will be necessary to accommodate over capacity situation with full development (2045).
Middle Schools	2,046	2.7	Potentially utilize the Dollar Street site for a new middle school.
			New facilities to accommodate over capacity situation with full development.
High Schools	2,416	1.4	New facilities to accommodate over capacity situation with full development.
Total	9,342	13.0	

*In addition to the 10-Year Forecast

NEXT STEPS

The 10-year enrollment forecast coupled with the beyond 10-year evaluation of what potential lies ahead are essential for proactive planning and being prepared for future district needs. Our understanding of current enrollment, capacity, and short-term enrollment growth highlight the immediate needs for additional primary school capacity in Wilsonville, additional high school capacity district-wide, and finding a permanent home for the Arts and Technology High School. The longer-term estimates, by their very nature, are not as clearly defined, and the timing for new facilities is only generally understood. Future influences, such as the economy, household demographics, and evolving educational programs, will influence the ultimate timing of these long-term facility needs. The District must continuously monitor future facility needs. Several “next steps” should be followed between now and the next update of the Long Range Plan:

- Prepare a 10-year enrollment forecast annually to enable the District to proactively anticipate future enrollment and related capacity issues.
- Continue coordination with the City of Wilsonville regarding the planning and development for Frog Pond and north Villebois.
- Monitor the urban reserve area planning being conducted by Metro in coordination with local governments.



SECTION C: CAPITAL IMPROVEMENTS



Lowrie Primary

Established
2012 ~ 2013

[Home](#)

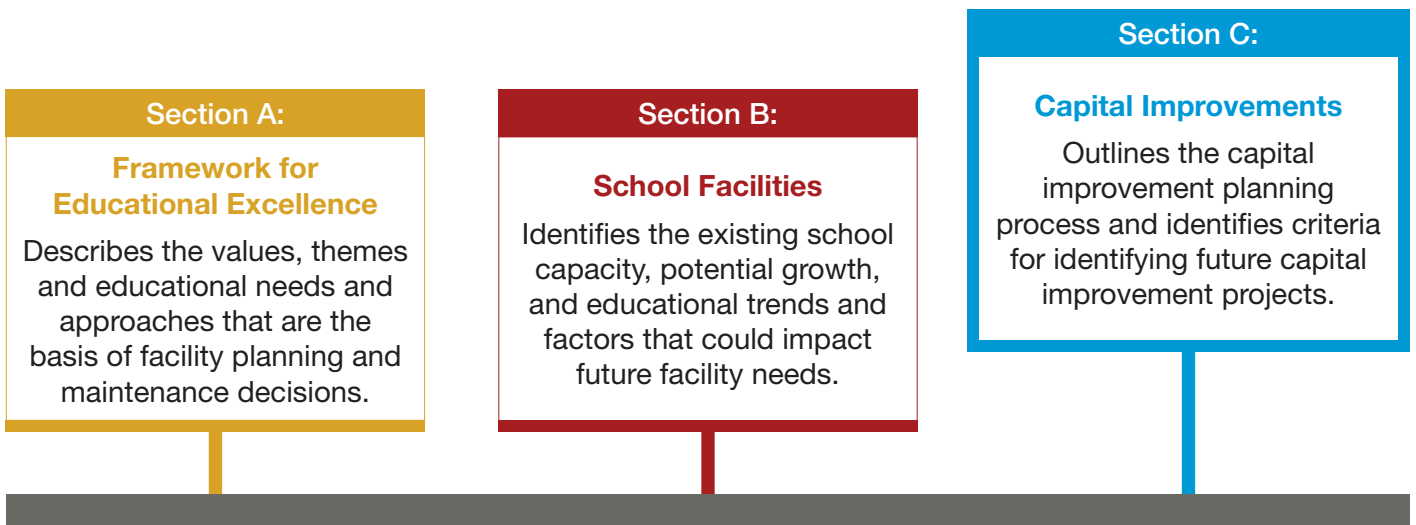


Home



INTRODUCTION

This section, Capital Improvements, is the third and final section of the Long Range Plan, and describes criteria for evaluating future capital improvement projects and the process for planning a capital improvement program. The three sections that collectively make up the District’s Long Range Plan and provide the framework for school facility needs are:



CAPITAL IMPROVEMENT PROGRAM (CIP) HISTORY

District residents have approved Capital Improvement Program (CIP) bond measures in 1979, 1988, 1989, 1992, 1997, 2002, 2008, and 2014. This pre-planned sequence of smaller bonds (rather than less frequent large bonds) has enabled the District to successfully balance ongoing maintenance, needed facility improvements, and expanding enrollment and capacity in a way that minimizes public debt and provides lasting solutions in real time.

The last CIP bond measure, passed in 2014, represents the most recent step toward fulfilling the District's Long Range Plan first envisioned over 20 years ago. Highlights of the bond included: construction of a new middle school, a replacement primary school, additions to both high schools, new technology district-wide, remodel and modernization of two primary schools, and various athletic and site improvements. The bond provided additional square footage in excess of 95,000 square feet to district facilities, as well as contributing to the local economy after an unprecedented local/regional/national economic downturn.

The District's CIP is based on an over-arching strategy to "capitalize" general fund expenses by incorporating bond planning and spending with daily facility management. This allows regularly occurring bond eligible expenses to be incorporated into the CIP thus preserving general fund monies. Over the bond's 5-year period, including bond eligible expenses in the CIP has freed up over \$6-million in expenses that otherwise would have been paid by the general fund. As a result, more annual resources are available for classroom instruction.



LINKING THE LONG RANGE PLAN AND THE CIP

Aided by the Long Range Plan, the CIP has successfully managed both growth and life cycle replacement in the District over the last 25 years. Long Range Plan recommendations have been folded into the District's CIP as specific school projects since the Plan's inception:

- In the mid 1990s, there was a need for middle school capacity. The 1997 bond responded to this need with the construction of Rosemont Ridge Middle School which opened in 1999. (1992 and 1997 bond)
- Similarly, an aging Wilsonville Primary School and growing primary level enrollment in Wilsonville prompted the construction of Boones Ferry Primary which opened fall 2001. (1992 and 1997 bond)
- The next greatest need identified by the Long Range Plan was overcrowding at the high school level. As part of the CIP, in 2000 and 2005, both West Linn High and Wilsonville High received needed upgrades and additions to complete their master planned potential. (1997 and 2002 bond)
- The 2008 bond focus was on primary school crowding by the opening of Lowrie Primary School in Wilsonville and Trillium Creek Primary School in West Linn in the fall of 2012. (2008 bond)
- To meet the needs of an aging primary school facility in West Linn and middle school crowding and projected growth in Wilsonville, the 2014 bond enabled the District to open Meridian Creek Middle School in Wilsonville and Sunset Primary School in West Linn in 2017. (2014 bond)
- Capital bond programs over the past decades has included funding for land to accommodate future planned growth, money for instructional technology and funding to minimize/eliminate deferred maintenance to the extent possible. This attention to future risk has proven to be instrumental in preparing successive school boards with the tools needed to maximize classroom instruction while being able to respond effectively to meet facility needs.

CAPITAL IMPROVEMENT PROGRAM PROCESS

SCHOOL BOARD DIRECTION

The School Board is committed to engaging stakeholders in strategic planning and decision making. Part of this commitment is the appointment of the citizen Long Range Planning Committee (LRPC), which has been charged with continually examining existing functional needs stemming from aging facilities, expected student population growth, and education program equity for all students. Under Board direction, the LRPC used the Long Range Plan to make recommendations for the 2014 Capital Bond Program. After the 2019 update of the Plan, the Board may again ask the LRPC to review the needs of the District and recommend projects for inclusion in the next CIP.

IDENTIFICATION OF FACILITY NEEDS

Consistent with the District's progressive planning mindset, the School Board has consistently provided guidance for long term capital needs through thoughtfully created and prioritized Board Goals. The Board has given priority to forward planning and facility stewardship by adopting the following 2018-19 goal: Be responsive to community growth and student learning needs of the future by conducting long-range capital improvements and financial planning through processes and practices that lead to long-term financial stability and sustainability. (Board approved goal #4)

As District enrollment increases, and life-cycle replacement schedules narrow, the Board has provided more detail and direction to the Long Range Planning Committee with the following:

- Review the West Linn-Wilsonville School District Long Range Plan with a specific focus on determining the impact of Villebois growth and potential growth in the Stafford Basin area as well as “infill” development in West Linn and Wilsonville;
- Develop a list of potential projects/capital items, which could be included in the next bond issue;
- Develop possible strategies for a future bond issue; and
- Re-calibrate student capacity at all schools.

Throughout this study, interviews were held with District administration, principals, building administrators, classified employees, certified employees, the technology leaders, local city planners, and the District's land-use planner, architect, and mechanical/electrical engineer.

The 2019 edition of the Long Range Plan recognizes the value of community involvement in developing long term vision and positive outcome through collaboration between patrons, the Long Range Planning Committee and the School Board.

PROJECT EVALUATION CRITERIA

Following the District's vision themes, the Operations Department staff routinely canvass the District to determine the current state of existing facilities and perceived near-term (five year) needs. To weigh this information, several evaluation criteria have been developed. Each criterion has unique relevance to District goals and the CIP:

- **Growth:** Primarily related to student enrollment increases; also program and staff growth and expanded offerings.
- **Equity:** The notion that every patron's child should enjoy the same educational experience regardless of which school in the District they attend.
- **Teaching and Learning:** School facilities must be designed and have adequate capacity to accommodate successful educational programs. Part A of the Long Range Plan provides a comprehensive list and description of programs that shape school buildings.
- **Health and Wellness:** New state and federal mandates require a health and wellness policy. The District adopted this new policy in 2006. It impacts health curriculum, physical education and food service.
- **Stewardship:** The strong community support experienced over many years has provided the District with some of the finest public education facilities in the state. Stewardship contemplates measures needed to protect these investments, including capital-level maintenance and life cycle replacement.

In addition, supplemental criteria recognizes the role schools play in a larger community ecosystem and embrace these initiatives that shape the design and use of its facilities to build resiliency within its schools and increase their capacity to adapt to changing conditions.

- **High-Performing Schools:** Buildings must integrate and optimize all major performance attributes including energy efficiency, life-cycle performance, durability, and occupant productivity.
- **Safe and Welcoming:** Structures and systems for safe and welcoming schools are supported by the built environment. The policies and practices rely on those structures and systems to be in place.
- **Community Partnerships:** Joint ventures with in-district groups to further the District's mission and empower community interests to the benefit of all. District athletic facilities remain the primary venue for all organized sports in the District and for many community programs. As schools thrive and grow, so does the community.
- **Learning with Technology:** From classrooms to HVAC systems, every aspect of the District is enhanced with technology. It is integrated into and beyond the learning environment.

CIP TIMING AND SEQUENCE

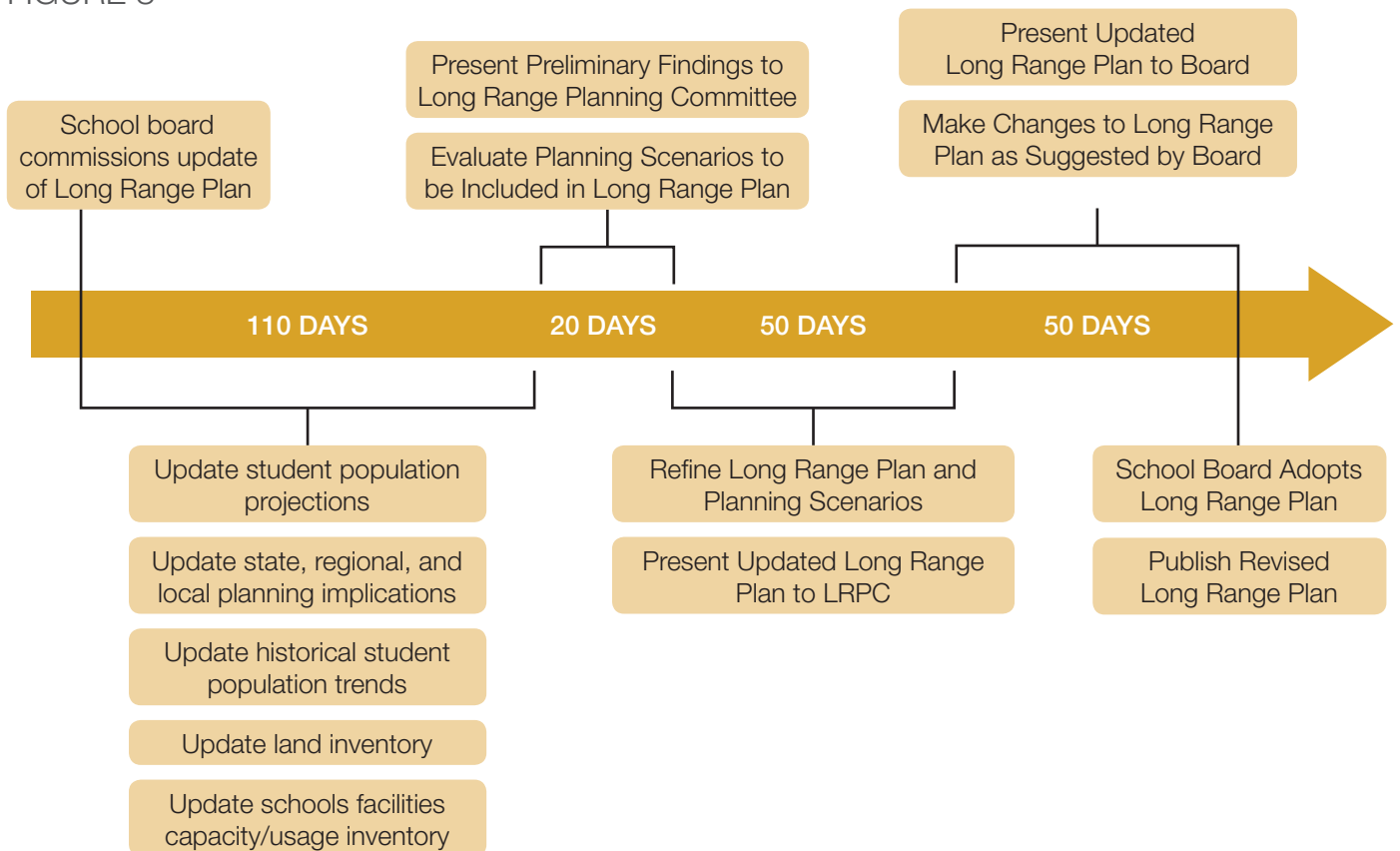
While only the School Board can initiate and implement a Capital Bond election, the LRPC remains engaged year-round in examining facility needs and contemplating next steps. One component of this on-going stewardship is recognition of the process the District has historically established leading up to successful passage and funding of Capital Bond Programs.

This process and timeline is designed to solicit interest and feedback from internal and external stakeholders throughout the District in a very measured, deliberate and inclusive way. Over time District staff, students, parents, and patrons are introduced to the facility needs of the District with increasing detail, building consensus, and purpose toward successful funding outcomes.

UPDATING THE LONG RANGE PLAN

The process of assessing the need for a Capital Bond Program is initiated when the School Board commissions an update of the Long Range Plan. District staff then gather the latest data and projections for student population, facility needs and land inventory. This information allows staff to develop a draft revision of the Long Range Plan. This draft is then reviewed with the LRPC, refined, and presented again for approval. The approved Long Range Plan is then presented to the School Board for final review, changes and adoption.

FIGURE 8

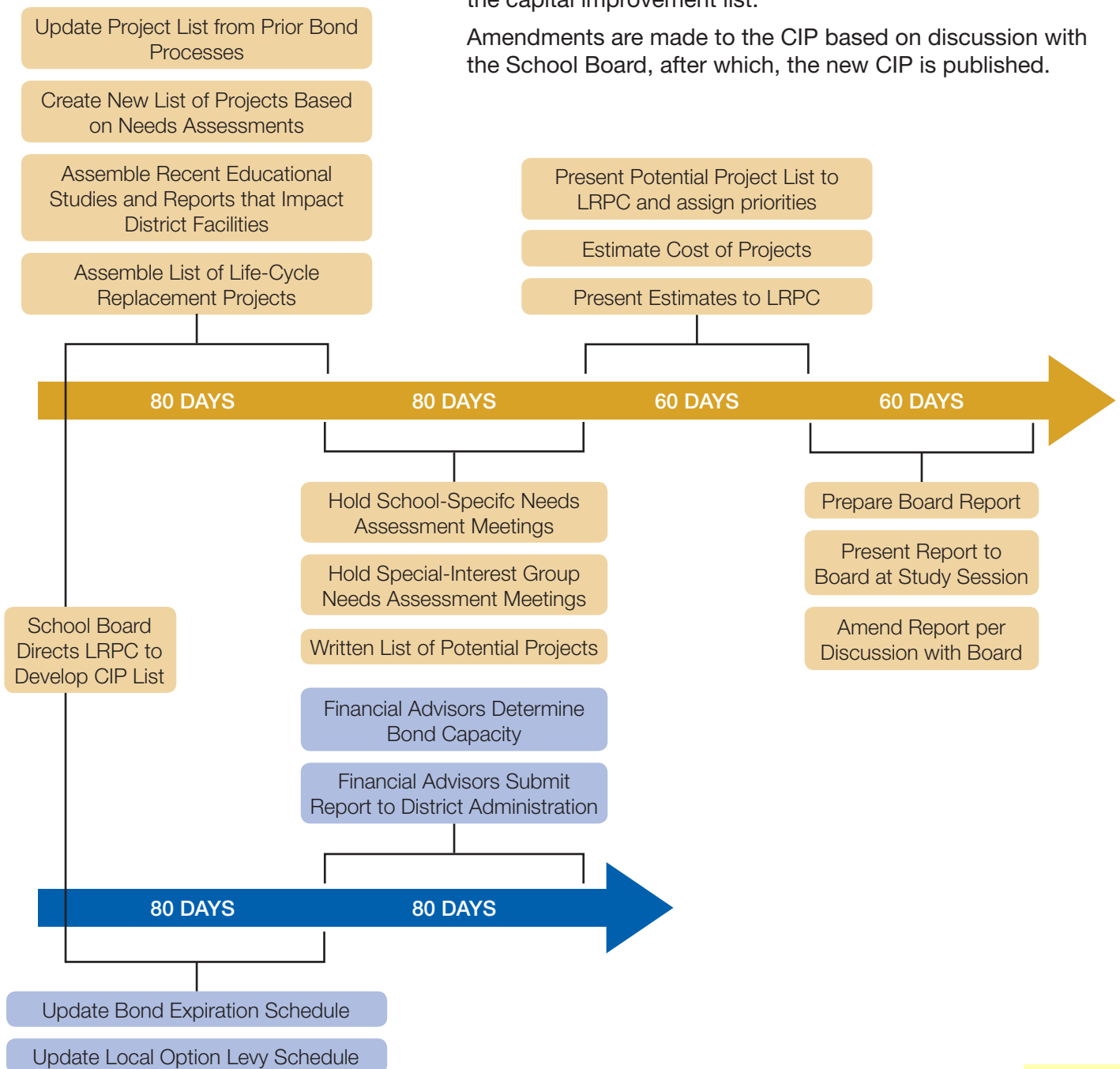


DEVELOPING A NEW CIP

If the updated Long Range Plan demonstrates the need for significant capital improvements the School Board directs the LRPC to develop a new CIP. Improvements added to the new list include legitimate uncompleted projects from prior bond processes and projects discovered over time that await funding. Additional projects may be identified based on impacts to facilities due to enrollment projections, educational program changes and “needs assessment” meetings with each school and special-interest groups to discuss desired improvements. This list, and associated conceptual cost estimates, are brought to the LRPC for review and inclusion on the capital improvement list.

Amendments are made to the CIP based on discussion with the School Board, after which, the new CIP is published.

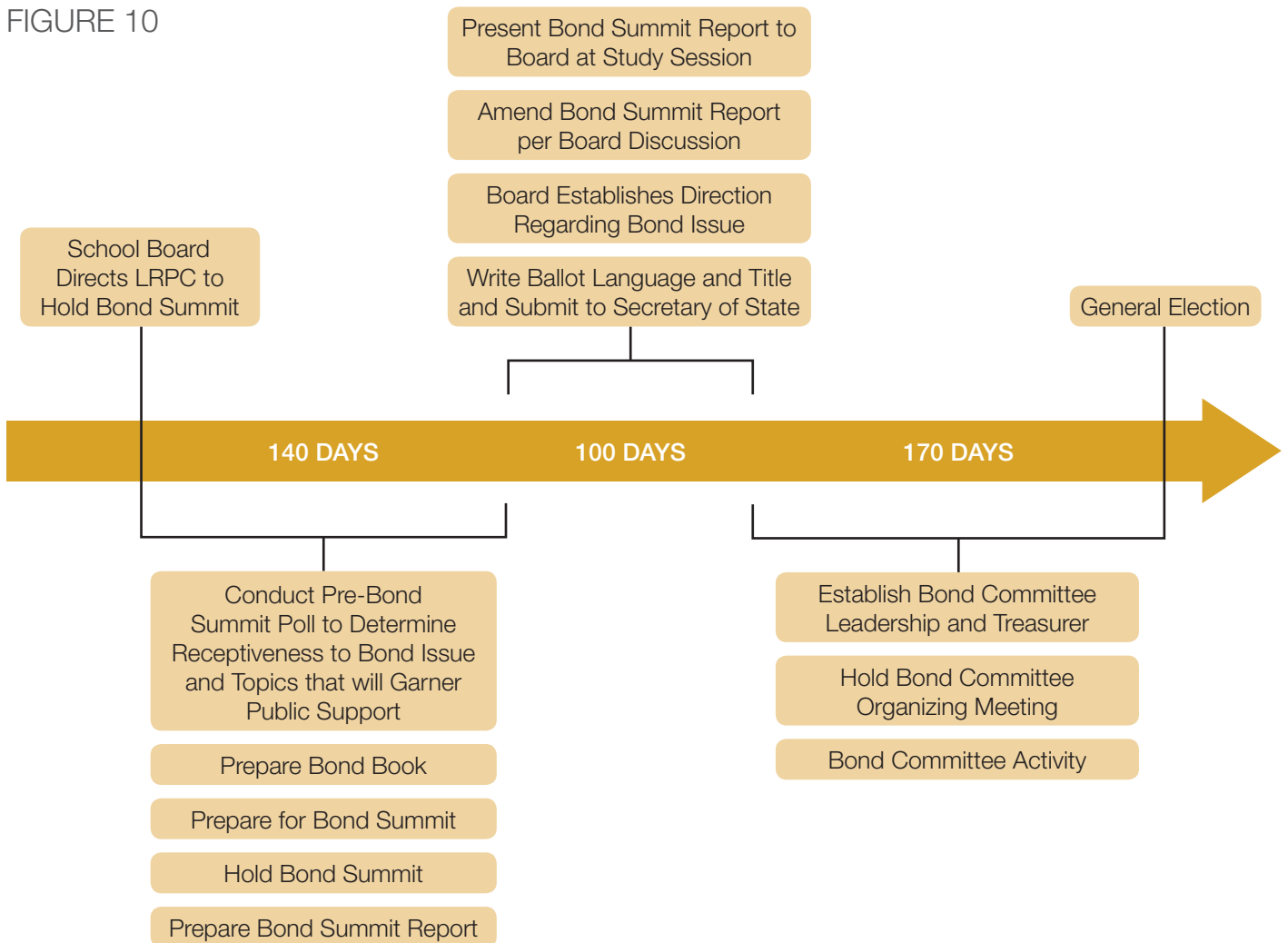
FIGURE 9



BOND SUMMIT AND GENERAL ELECTION

In response to the published CIP, the School Board may direct the LRPC to hold a bond summit. The purpose of the bond summit is to provide stakeholders an opportunity to discuss the facility needs of the District and to voice preferences for what needs should be prioritized in the event of a bond election. After the bond summit, staff prepares a report of the findings which is brought to the School Board for review. The amended report is then used as the basis for determining direction regarding a bond issue. If the School Board decides to proceed with a bond measure, the language is drafted and submitted to county election officials. A bond committee is then established and the election process proceeds towards the vote.

FIGURE 10



CAPITAL IMPROVEMENTS

Part C of the District Long Range Plan provides recognition that physical improvements to District facilities are necessary for the advancement of the school district in reaching its goals for quality instruction and learning for all children. This section also makes a strong connection between those instructional goals and the built environment.

While this section does not list specific projects that may be included in a Capital Improvement Program, it does provide appropriate background and a legitimate process by which important capital work can be processed, prioritized, funded and implemented.

West Linn-Wilsonville School District is committed to proactively engaging our community stakeholders in understanding long-term and short-term capital needs of the District. A companion document entitled “Capital Improvement Program”, provides background, motivation and detail as related to the immediate capital needs of the District based on this 2019 Long Range Plan.

In general, that document is created as described below and will be utilized as a resource for future planning.



CAPITAL IMPROVEMENT PROGRAM

A capital improvement program (CIP) is a five-year plan for financing major public assets based on District-adopted master plans, goals and policies. The purpose of a CIP is to match scarce financial resources with the capital needs of a growing school-community and to preserve or enhance existing capital assets to provide efficient district services.

A CIP provides many benefits:

- Allows for a systematic evaluation of all potential projects at the same time.
- The ability to stabilize debt and consolidate projects to reduce borrowing costs.
- Serves as a public relations and education program development tool.
- A focus on preserving the school District's infrastructure while ensuring the efficient use of public funds.
- An opportunity to foster cooperation among departments and an ability to inform other units of government of the entity's priorities.

Development of a CIP that will insure sound fiscal and capital planning requires effective leadership and the involvement and cooperation of all community stakeholders. For that reason, the District School Board and Long Range Planning Committee actively work every day toward responsible leadership and decision-making for the future of West Linn-Wilsonville schools.



APPENDIX





OCTOBER 31 FLO ANALYTICS REPORT



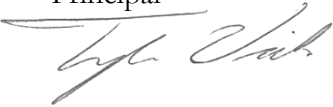
MEMORANDUM


To: Ms. Kathy Ludwig
Superintendent
West Linn-Wilsonville School District

Date: October 31, 2018

From: Tyler Vick
Principal

Project: F1580.01.01


Jerry Oelerich
Data Analyst



RE: Enrollment Forecasts Report – West Linn-Wilsonville School District

At your request, FLO Analytics (FLO) conducted demographic and geographic analysis to assist the West Linn-Wilsonville School District (District) in understanding enrollment trends and to produce forecasts of future student enrollment. The analysis was completed through three main tasks: 1) Student Enrollment Assessment 2) Land Use Analysis 3) Projected Student Enrollment Distribution Analysis. These forecasts provide the number of students by individual grade and grade group that will be residing in each of the District's elementary, middle, and high school attendance areas, as well as attending each of the District's elementary, middle, and high schools at the beginning of the 2019–20 through 2028–29 school years.

The forecasts included in this memo are based on October 1, 2017 enrollment, and were prepared prior to realization of—and were not informed by—actual October 1, 2018 enrollment. Originally, in a September 24, 2018 memo, FLO provided the District with forecasts for the 2018–19 through 2027–28 school years, with 2017–18 as the base year. This memo includes those same forecasts for the 2019–20 through 2027–28 school years, with 2028–29 forecasts added at District request to support specific capital facilities planning needs. The original 2018–19 forecasts have been replaced with actual October 1st, 2018 enrollment numbers.

Note that all housing development information included in the Land Use Analysis summary below, which informed the enrollment forecasts, was current as of October 2017.

SUMMARY FINDINGS

Student Enrollment Assessment:

- FLO's analysis occurred within the boundaries of the District (Figure 1). Individual students were mapped and geocoded to the parcel-level. Figure 2 shows the distribution of students across the District.

Land Use Analysis:

- Of students enrolled in District schools in 2018–19, 83% reside in single-family (SF) housing, 16% in multi-family (MF) housing, and 2% in housing that FLO is unable to immediately classify as SF or MF. Development data compiled by FLO indicates that the MF percentage is likely to increase over the projection range.
- FLO conducted in-person or phone interviews with planners from Clackamas County and the municipalities of West Linn, Wilsonville, and Tualatin to discuss foreseeable residential growth within the District throughout the projection range. Zoning and key development data acquired through these meetings for West Linn are presented in Figure 3 and 4, which Figure 4 showing the locations of expected SF and MF developments. Figures 5 and 6 show the same for Wilsonville. More detailed information from these meetings, as well as assumptions made by FLO staff, are available within the GeoPlanner web application, as well as upon request.
- The most notable areas of residential development include Frog Pond and Villebois, both located within Wilsonville.
- Frog Pond will consist of three areas, built in three general phases, with a planned total capacity of approximately 1,800 units, based on information gathered during the spring and summer of 2018. Frog Pond West, located north of Boeckman Rd. and west of Stafford Rd., is currently under construction and planned to accommodate approximately 575 units. Frog Pond East, located north of Advance Rd. and east of Stafford Rd., is currently within an urban reserve area and is planned to accommodate approximately 760 units. Frog Pond South, located south of Advance Rd and east of Meridian Creek Middle School, is currently within an urban reserve area and is planned to accommodate approximately 475 units. Construction on East is anticipated to begin within the 10-year forecast horizon, after completion of West. We do not anticipate construction on South to begin until after 2028.
- Villebois, located in west-central Wilsonville, has a planned capacity of 2,151 units. Construction is ongoing and is approximately 65% built-out. Approximately 806 units remain to be built.
- West Linn does not possess any similarly large developments. Rather, there are a number of small to medium-sized areas of unincorporated County that may be annexed by the City of West Linn. These areas have capacities that range from two to sixty units. The City also

currently has no plans to expand the UGB with intent to develop urban reserve in the near future.

5-year Enrollment Forecasts Summary:

- Between the 2018–19 and 2023–24 school years, overall District building attendance enrollment (headcount) is projected to increase from 9,832 to 10,758 or by 9.4%.
- The District is projected to capture 88.1% of the projected District population of all school-age children (12,072 children). The grade and attendance-level capture rates used were informed by known 2017 student data. Note that out-of-District students accounted for 4.5% of enrollment in 2018–19; due to recent policy changes regarding inter-district transfers, we project this percentage will fall to 0.5% by 2028–29.
- Included in these projections is an increase in grades:
 - K–5 enrollment from 4,242 to 4,658 (9.8% gain)
 - 6–8 enrollment from 2,391 to 2,570 (7.5% gain)
 - 9–12 enrollment from 3,199 to 3,530 (10.3% gain)
- Both these and the 10-year building attendance forecasts exclude preschool (PS) and Three Rivers Charter students.

10-year Enrollment Forecasts Summary:

- Between the 2023–24 and 2028–29 school years, overall District enrollment (headcount) is projected to increase from 10,758 to 11,424 or by 6.2%.
- The District is projected to capture 88.2% of the projected District population of school-age children (12,885 children).
- Included in these forecasts is an increase in grades:
 - K–5 enrollment from 4,658 to 4,791 (2.9% gain)
 - 6–8 enrollment from 2,570 to 2,774 (7.9% gain)
 - 9–12 enrollment from 3,530 to 3,859 (9.3% gain)
- Over the 10-year range, these 2028–29 forecasts represent an increase over 2018–19 counts by 16.2% for overall District enrollment, 12.9% for grades K–5, 16.0% for grades 6–8, and 20.6% for grades 9–12.

Annual District-Wide Building Attendance Enrollment Forecasts by Grade Group:

- Figure 7 shows the total annual District building attendance enrollment projections through the 2028–29 horizon for low, medium (preferred), and high-growth scenarios. Figure 8 shows the enrollment projections broken down by grade group for the medium growth series.

- Figures 9–11 provides elementary, middle, and high school building attendance enrollment projections through 2028–29, respectively, for low, medium, and high-growth scenarios.

Detailed Attendance Area Residence-Based Forecasts:

- Figures 12–14 detail projected change over the next ten years in the number of district students residing in each attendance area for elementary, middle, and high, respectively. Note that our forecasts are produced at a significantly more granular level—that of Census block group, of which there are 28 in the District. For future boundary scenario modeling (or other) work, these more granular projections are available upon request, and can be accurately aggregated to current or future attendance area boundaries.
- Figures 15–17 provide annual forecasts by attendance area and grade of District students residing in each attendance area for elementary, middle, and high, respectively. Figure 18 provides District grade totals (and includes both residence-based and building attendance totals by grade group).

Detailed Building Attendance Forecasts:

- Figures 19–21 detail projected change over the next ten years in the number of District students attending elementary, middle, and high school buildings, respectively.
- Figures 22–24 provide annual forecasts by building and grade of District students attending each elementary, middle, and high school building, respectively.
- Building attendance forecasts are derived from the attendance area residence forecasts using an analysis of the rates of intra-district transfer for specific grades, as well as rates of out of district student enrollment. For this forecast set, the October 1, 2017 student information system (SIS) was used as the basis for this analysis, as it provides the address (which we geocoded to the parcel-level) and attending building for each student.

Helpful Notes on Using Forecasts:

- The two fundamental types of student enrollment forecasts are building/program attendance (i.e., the number of students expected to attend school at a specific building), and residence-based (i.e., the number of students expected to reside within a certain region, whether it be the District as a whole, or individual attendance areas). This report contains both residence-based and building/program attendance forecasts.
- Residence-based forecasts are generally more accurate than building attendance forecasts, as they are not subject to variability linked to student choices (e.g., intra-district transfers), movement of program locations, constraints on intra-district transfers imposed by building capacities, etc.
- Residence-based forecasts are rooted in student location, and therefore, with the proper granularity, can be re-allocated to different boundaries besides the current attendance areas.

This, coupled with their increased accuracy over building attendance forecasts, makes them more suitable for boundary scenario modeling.

- In district-wide totals, building attendance forecasts will always be greater than residence-based ones, as by definition, only the building attendance forecasts include out-of-district students.
- Finally, when comparing building attendance and residence-based forecasts for an individual school, it is important to recognize that the two can sometimes vary quite considerably. In some cases the building attendance is higher than the count of students residing in the corresponding attendance area, while at other times it is lower.
- In addition to traditional attendance areas, the District possesses choice zones at the elementary (Boeckman Creek - Stafford) and middle school (Athey Creek - Rosemont Ridge and Meridian Creek - Athey Creek) levels. Students living within these areas have the ability to choose which of elementary or middle school they would like to attend. Choice zones are by design less restrictive than the typical application process for intra-district transfers, and therefore, are less predictable. Although historic data on enrollment patterns helps anticipate future choice, the nature of choice zones adds a considerable degree of uncertainty when forecasting future decisions made by students living with choice zones.
- Upon District request, Figures 25-29 were created to provide more detailed information on factors influencing forecasting:
 - Figure 25: District-Wide Birth Factors
 - Figure 26: Student Yield Factors Used
 - Figures 27-29: Enrollment Patterns (Elementary, Middle, and High School)

ENROLLMENT FORECASTS METHODOLOGY

EXTERNAL DATA SOURCES

In addition to historic enrollment and housing development data provided by the District, FLO used the following external data sources to inform our student enrollment forecasts:

Enrollment Forecasting:

- US Census and American Community Survey
- Esri 2017/2022 US Demographics
- Historic October Enrollment provided by the District
- Oregon Department of Education (ODE) October Enrollment
- Oregon Health Authority (OHA) birth data

- Portland State University Population Research Center (PSU PRC) annual July 1 population estimates
- PSU PRC Oregon Population Forecast Program (OPFP) county and urban growth boundary forecasts
- Davis Demographics 2013-2017 Enrollment Forecast Reports

Student Enrollment Assessment and Land Use Analysis:

- Student addresses and attribute data from the District's October 1, 2017 student information system (SIS)
- School attendance area boundaries provided by the District
- Clackamas County Parcels
- 2017 Statewide Urban Growth Boundaries and City Limits from Oregon Geospatial Enterprise Office's Oregon Spatial Data Library
- Development data compiled by the District
- FLO-conducted interviews with planners from Clackamas County and the municipalities of West Linn, Wilsonville, and Tualatin

INITIAL STEPS

Our first step in preparing enrollment forecasts is to perform a detailed assessment of the geographic distribution of District students, as well as historic enrollment trends (i.e., last five years). The results of this preliminary analysis feed into our enrollment forecasts, which use a combination of the demographic cohort-component model to forecast population for the District by age and sex, and the enrollment rate method, which advances each age cohort through successive grade levels. In the former, the components of population change are births, deaths, and migration (which includes a detailed analysis of expected housing development and resulting student yields).

USE OF ENROLLMENT RATE METHOD

In terms of linking historic enrollment trends to future enrollment forecasts, the enrollment rate method is first used to look at the percent of five-year-olds living in the District boundary in the 2017–18 school year that enrolled in K at District schools. This is referred to as the K enrollment (or “capture”) rate. Separate enrollment rates are computed in a similar manner for each of the other age/grade cohorts present in 2017–18 (i.e., 1st through 12th grades). These cohort-specific enrollment rates modified based on certain assumptions (e.g., drop-out rates in high school), are the primary basis for determining the rate at which each given cohort will be enrolled in the future, and can be thought of as a means of calibrating the future enrollment forecasts. For example, the 2017–

18 3rd grade enrollment rate of 8-year-olds heavily informs the 8th grade capture rate of the projected 13-year-old District population in 2022–23, and so forth.

Note that following calculations applying capture rates to available school-age children, a 3-year average of grade progression ratios (e.g., ratio of 2nd graders for a given year to 1st graders in the year prior) is enforced at the District level.

PROJECTING NET MIGRATION

Another way historic enrollment data are used is by leveraging knowledge of the geographic distribution of the 2017–18 student population to calculate enrollment rates at the sub-District level. To do this, FLO divided the District into 12 regions (corresponding to Census tracts), each with a sufficient number of students at each grade level to permit statistical calculations. These sub-District, cohort-specific enrollment rates were applied as a baseline to new District school-age children projected to be added due to net in-migration over the next five years. Note that the future migration rate and population projections used, which were largely informed by Esri’s 2017/2022 US Demographics, were prepared at an even finer geographic resolution (Census block groups), and at units that are generally socioeconomically distinct from each other.

The Esri 2017/2022 US Demographics dataset is prepared using recent growth trends derived from US Census and state/local sources such as OFM, and account for regional land use and comprehensive plans, publicly available development data (i.e., permits), housing inventory, and US Postal Service carrier route additions to track growth. Prior to use, FLO reviews these data and confirm proper assumptions and incorporation of local data sources, particularly with respect to any publicly available vacant lands and comprehensive plan data, making modifications as warranted based on our detailed review of local data. In particular, FLO performs a very detailed analysis to incorporate expected housing development and associated student yields.

The benefit of this approach is that the geographic analysis performed allowed for a granular forecasting of how many of the eligible new children in the District over the next five years will enroll in District schools, which is expected to be more accurate than simply using District-level rates to predict capture. This is key, as migration often plays a larger role in future enrollment levels than any other factor—more so than gradual changes in birth rate, for example—but can vary greatly within a region.

At the end of each 5-year window, the attendance area numbers are modified as needed to ensure they are consistent with District-wide numbers, which are computed using only District-wide population and historic enrollment numbers. In this way, the District-wide numbers are used to “control” the attendance area-level numbers.

LONGER-TERM FORECASTS (10-YEAR)

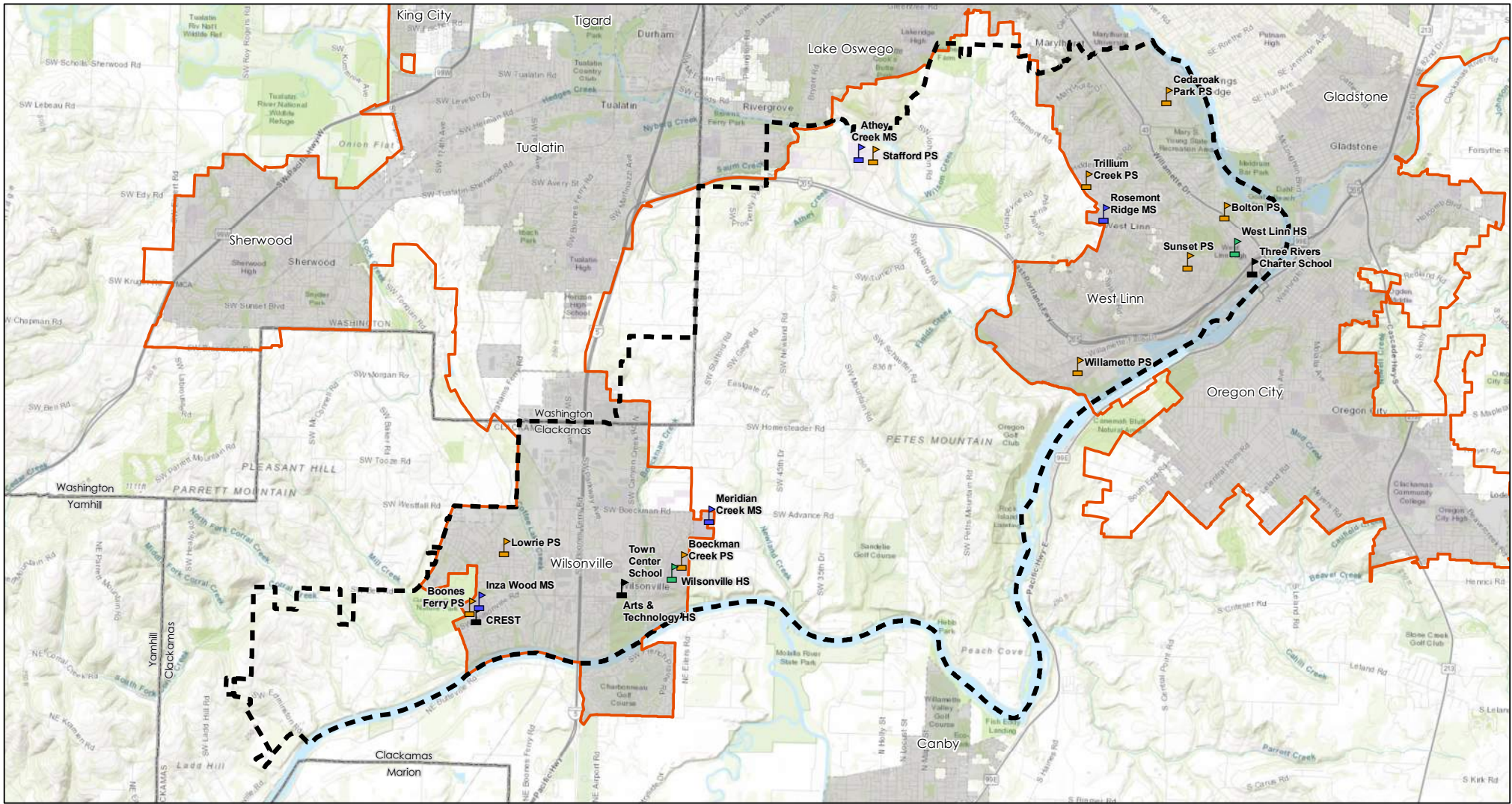
Our 10-year forecasts assume similar Census tract-level migration patterns between 2023–24 and 2028–29 as were applied between 2018–19 and 2023–24, only scaled back proportionately as the slowing in District total population growth, as well as quantities of buildable land within district boundaries and the relative rates at which those spaces are expected to be built out (e.g., as ascertained from review of all known development data).

2017–22 births, which inform K classes beginning with the 2022–23 school, were projected based on a review of historic OHA zip code birth data throughout the District, forecasted population of females of child-bearing age throughout the District, and county and state trends in fertility (declining).

In terms of capture rate, the grade-specific rates computed from the 2017–18 student enrollment assessment are used. Also, as with the shorter-term projections, a 3-year average of grade progression ratios are enforced at the District level.

FIGURES



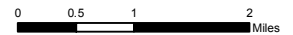


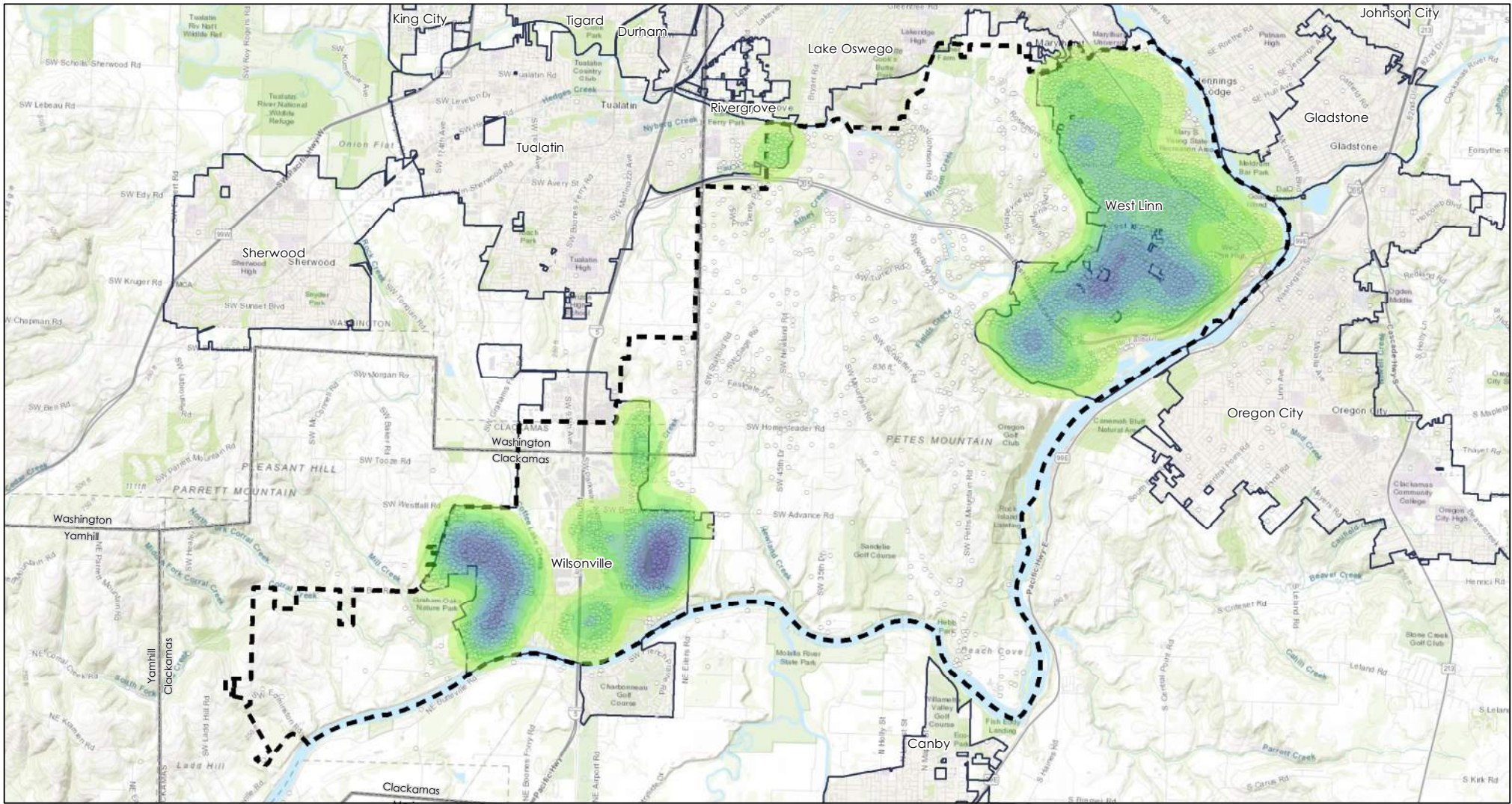
LEGEND

- School Location
- Elementary School
 - Middle School
 - High School
 - Non-Attendance Area School
- District Boundary
 - Urban Growth Boundary
 - Municipality
 - County Boundary

FIGURE 1

District Overview





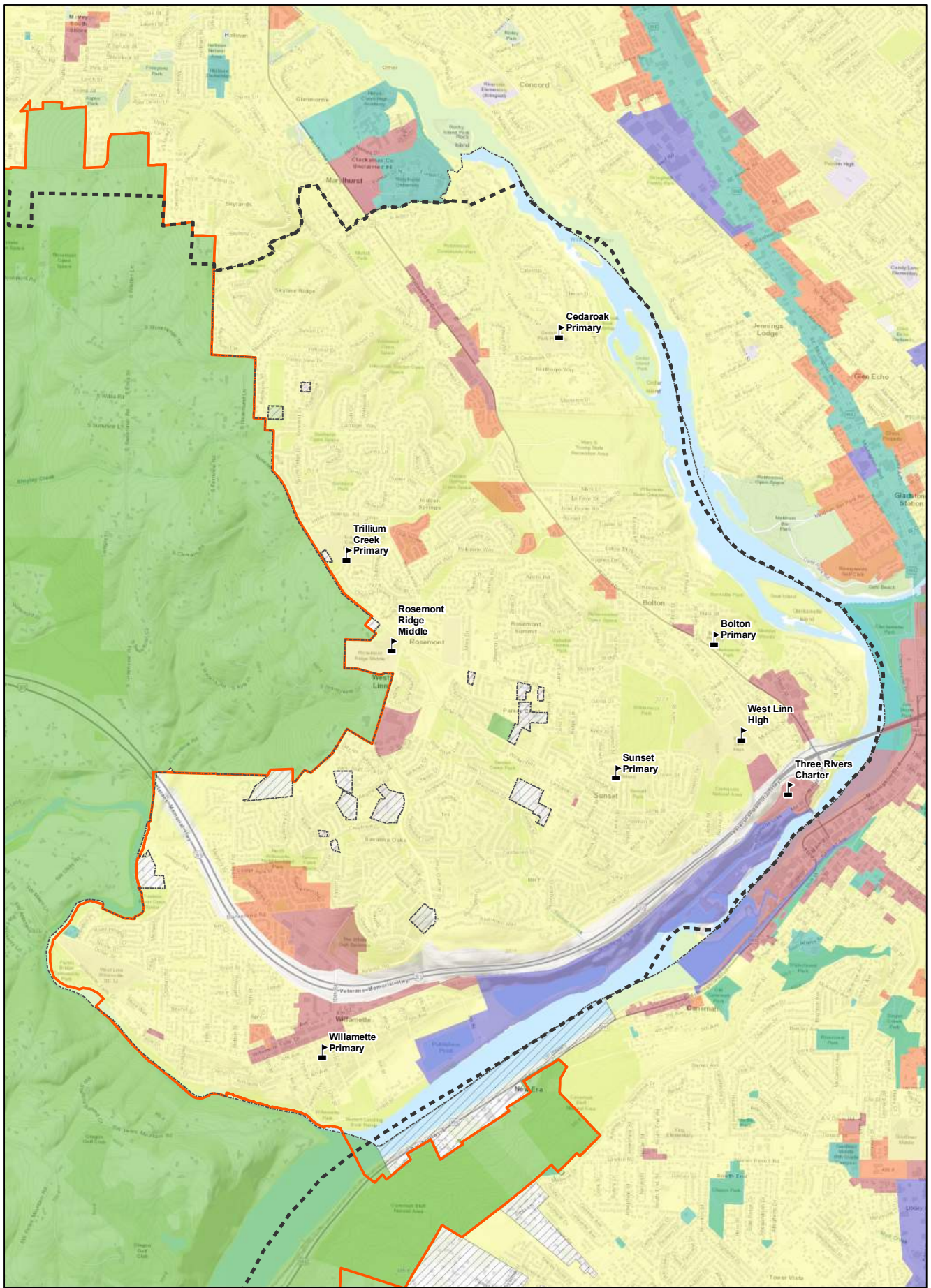
LEGEND



	District Boundary		Student Density per Square Mile		701 - 875
	County Boundary		0 - 175		876 - 1,050
	Municipality		176 - 350		1,051 - 1,225
	Student Household		351 - 525		1,226 - 1,400
			526 - 700		> 1,400

FIGURE 2

Student Density





-  District Boundary
-  School Location

-  City Boundary
-  Urban Growth Boundary
-  Future Urban Development Zoning

- Zoning
-  Commercial
 -  Industrial
 -  Single Family Residential




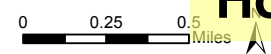
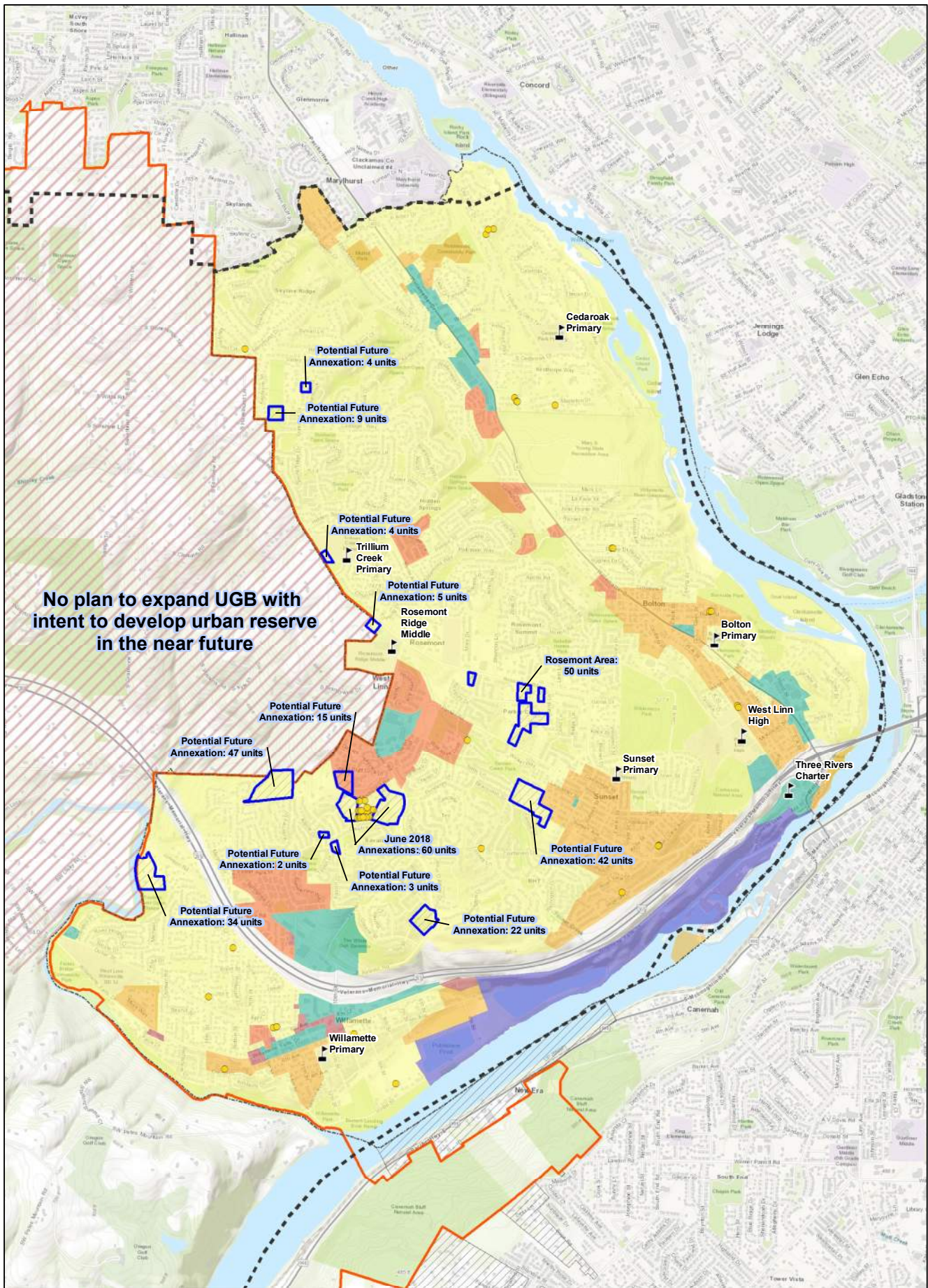
-  Multi-Family Residential
-  Mixed Use - Residential
-  Rural

Figure 3
West Linn
Zoning

Home





- District Boundary
- School Location
- West Linn Single-family Permit (1-unit)
- Planner Meeting Areas-of-Interest R-7 to R-10 zoning Approximately 4 units per acre

- Urban Reserve
- Future Urban Development Zoning
- City Boundary
- Urban Growth Boundary

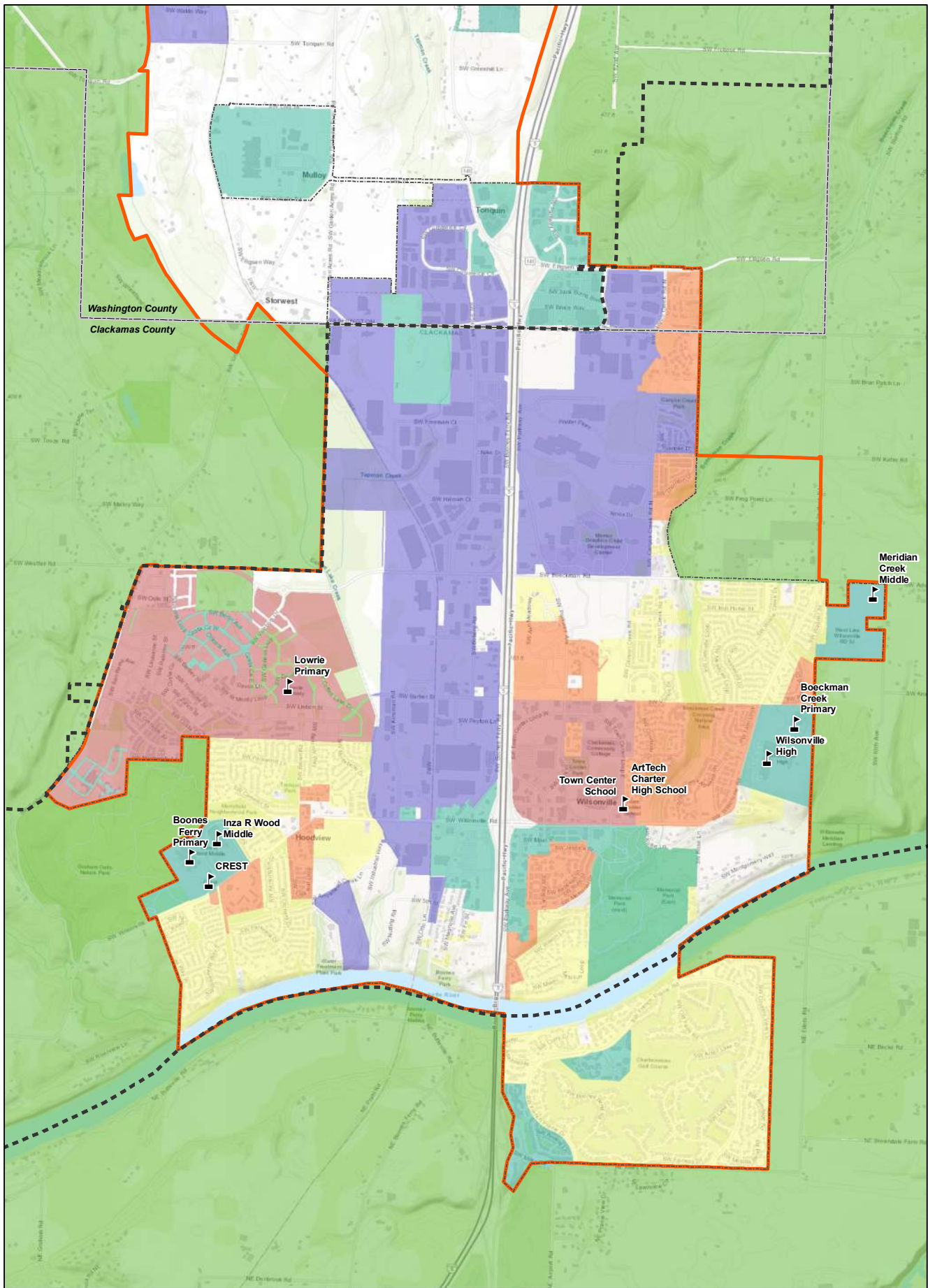
- Comprehensive Plan
- Commercial
 - Industrial
 - Low Density Residential

- Medium Density Residential
- Medium-High Density Residential
- Mixed Use

**Figure 4
West Linn
Comprehensive**

Home

0 0.25 0.5 Miles

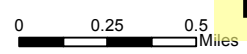


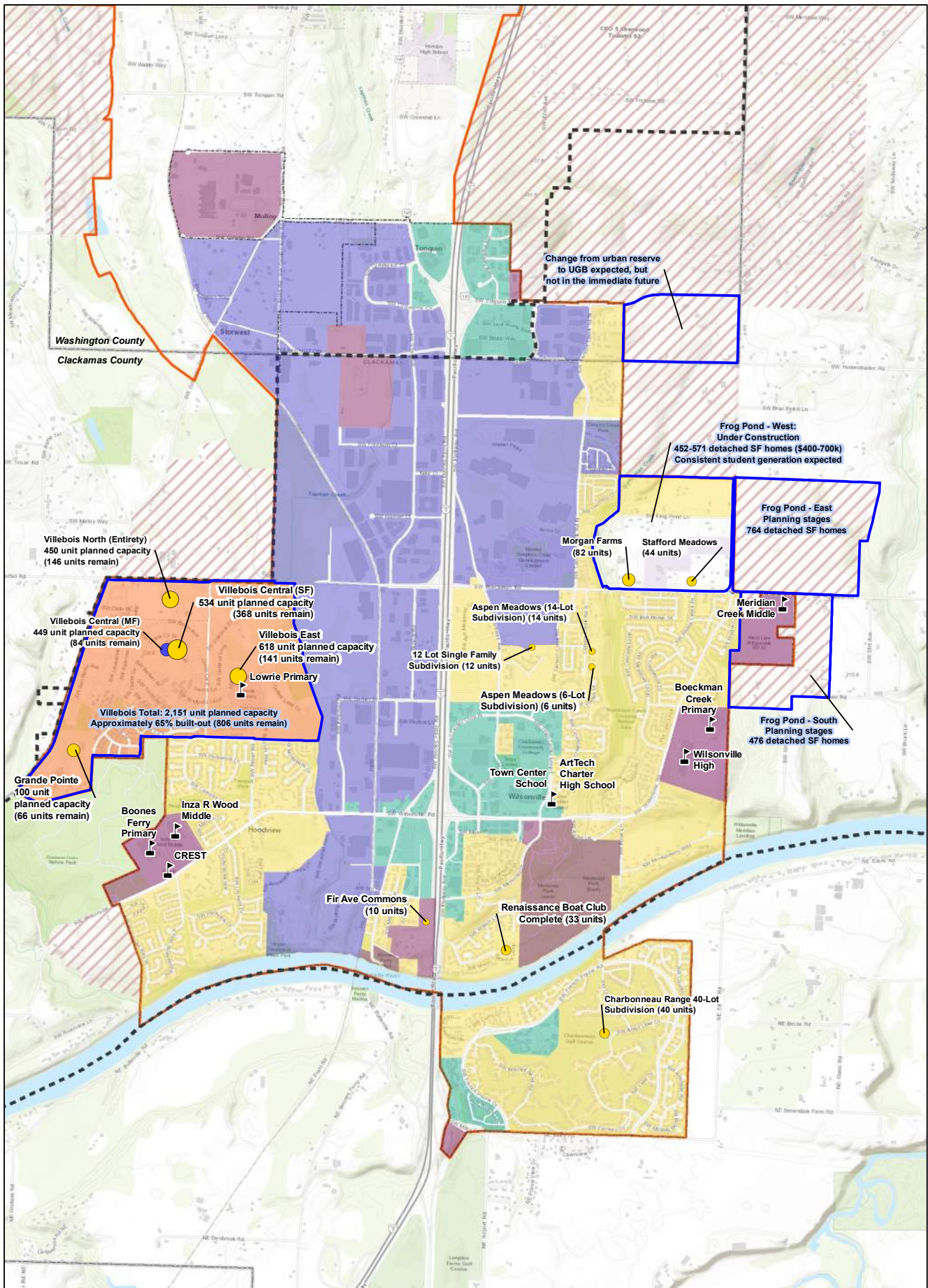
- District Boundary
- County Boundary
- City Boundary
- Urban Growth Boundary
- School Location

- Zoning**
- Commercial
 - Industrial
 - Single Family Residential

- Multi-Family Residential
- Mixed Use - Residential
- Rural

**Figure 5
Wilsonville
Zoning**





Washington County
Clackamas County

Change from urban reserve
to UGB expected, but
not in the immediate future

Frog Pond - West:
Under Construction
452-571 detached SF homes (\$400-700k)
Consistent student generation expected

Frog Pond - East
Planning stages
764 detached SF homes

Villebois North (Entirety)
450 unit planned capacity
(146 units remain)

Villebois Central (SF)
534 unit planned capacity
(368 units remain)

Villebois Central (MF)
449 unit planned capacity
(84 units remain)

Villebois East
618 unit planned capacity
(141 units remain)

Villebois Total: 2,151 unit planned capacity
Approximately 65% built-out (806 units remain)

Grande Pointe
100 unit
planned capacity
(66 units remain)

Boones
Ferry
Primary

Inza R Wood
Middle

CREST

Fir Ave Commons
(10 units)

Aspen Meadows (14-Lot
Subdivision) (14 units)

12 Lot Single Family
Subdivision (12 units)

Aspen Meadows (6-Lot
Subdivision) (6 units)

Town Center
School

ArtTech
Charter
High School

Boeckman
Creek
Primary

Wilsonville
High

Meridian
Creek Middle

Frog Pond - South
Planning stages
476 detached SF homes

Renaissance Boat Club
Complete (33 units)

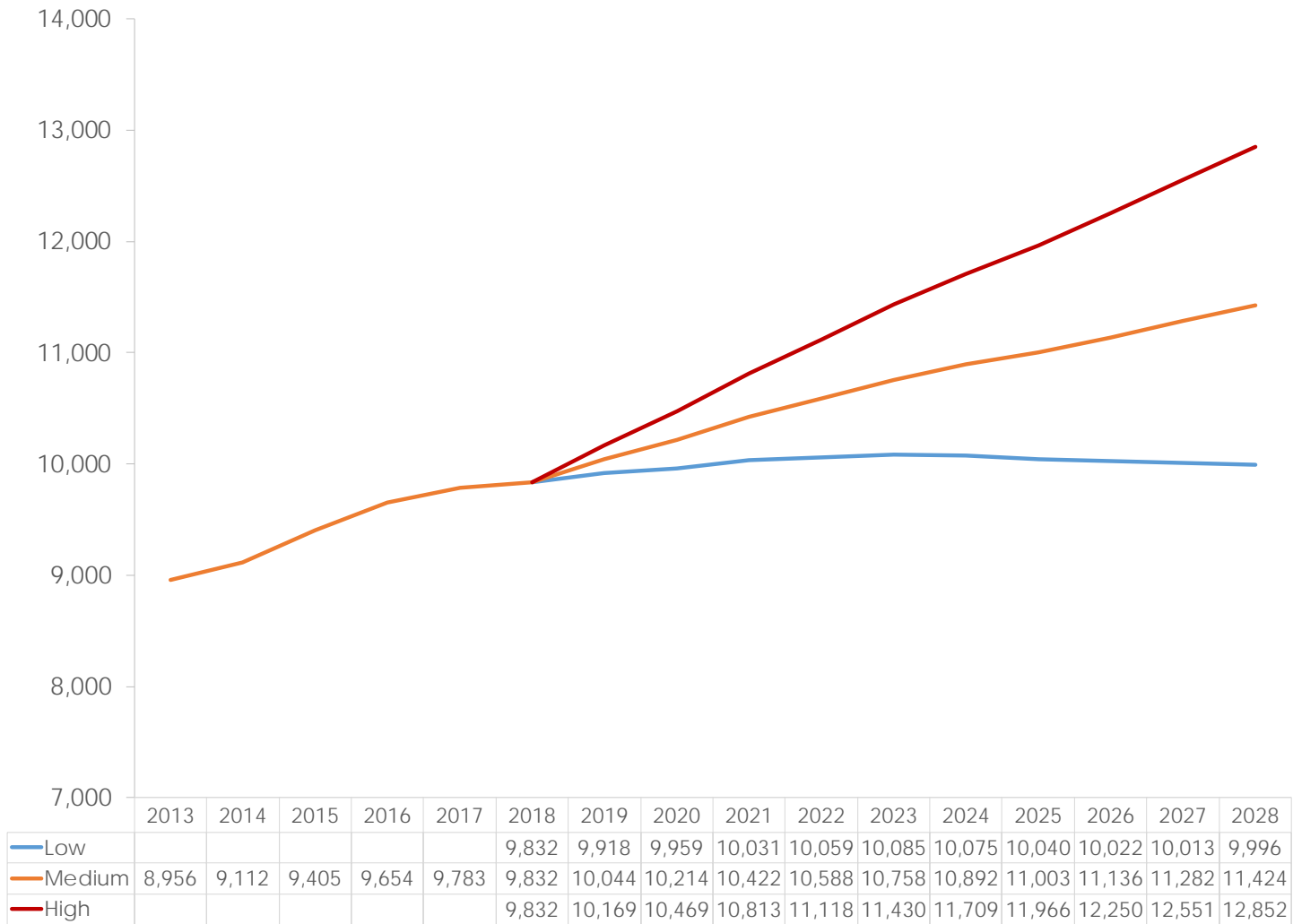
Charbonneau Range 40-Lot
Subdivision (40 units)



Figure 6
Wilsonville
Comprehensive
Plan
Home

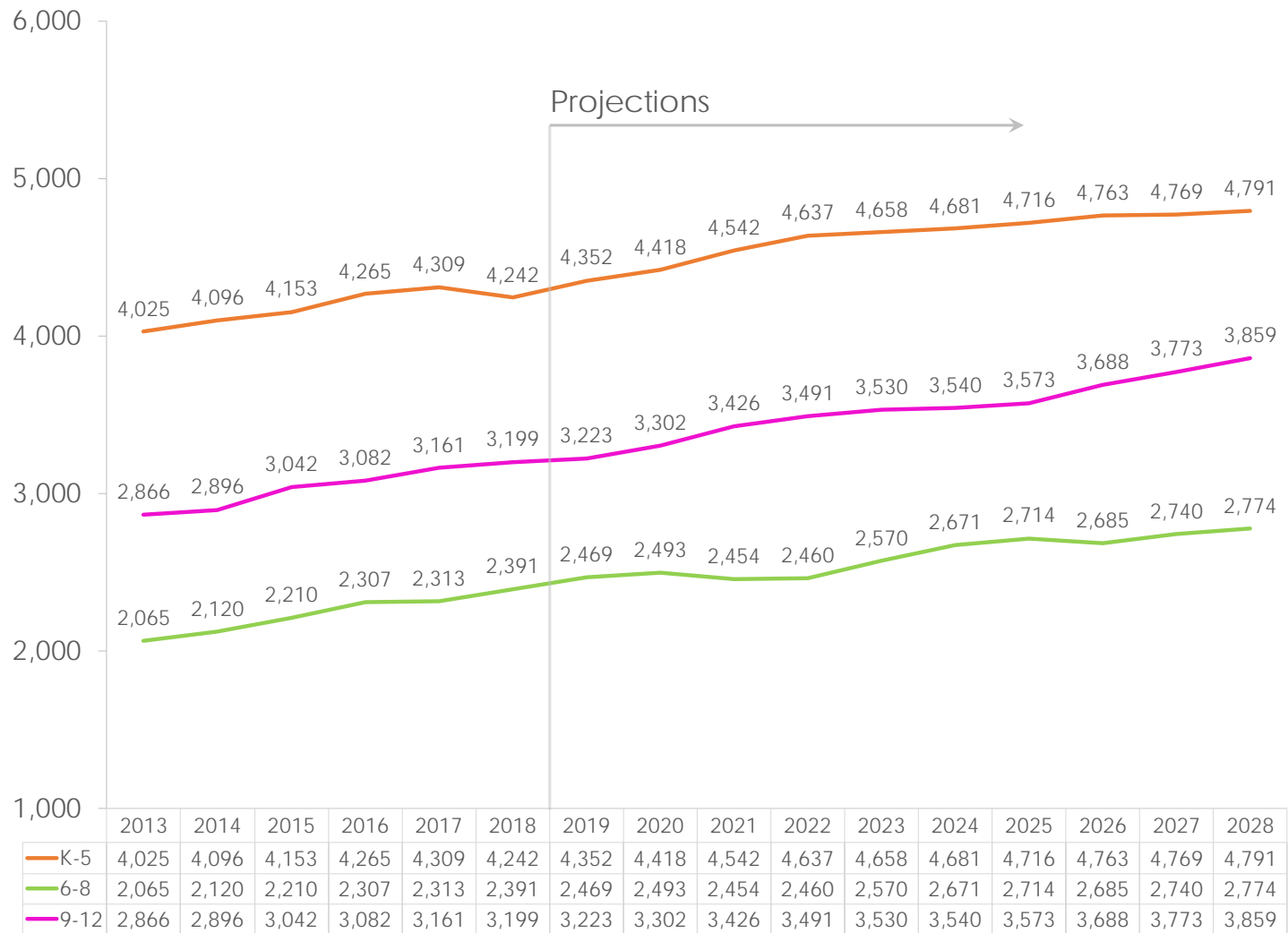
0 0.25 0.5 Miles

Figure 7 – Total District Building Attendance Enrollment Forecasts (Headcount) – Low, Medium (Preferred), and High-Growth Series



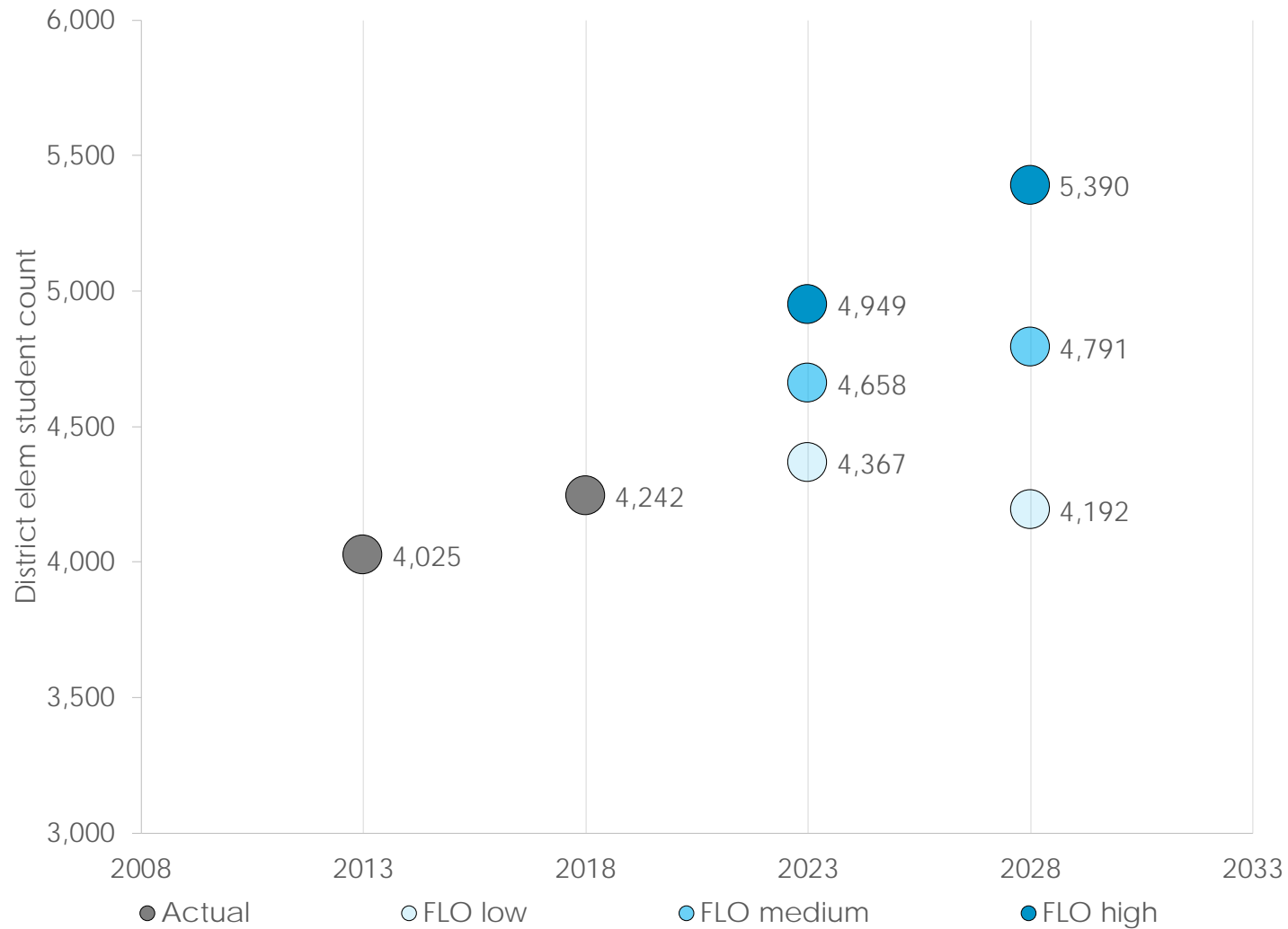
Total District October 1st building attendance enrollment forecasts (headcount) through 2028—low, medium, and high-growth series. Includes all schools except Three Rivers Charter, and students living both within and outside the District. Excludes PS. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment number shown.

Figure 8 – Building Attendance Enrollment Forecasts (Headcount) by Grade Group – Medium Growth Series (Preferred)



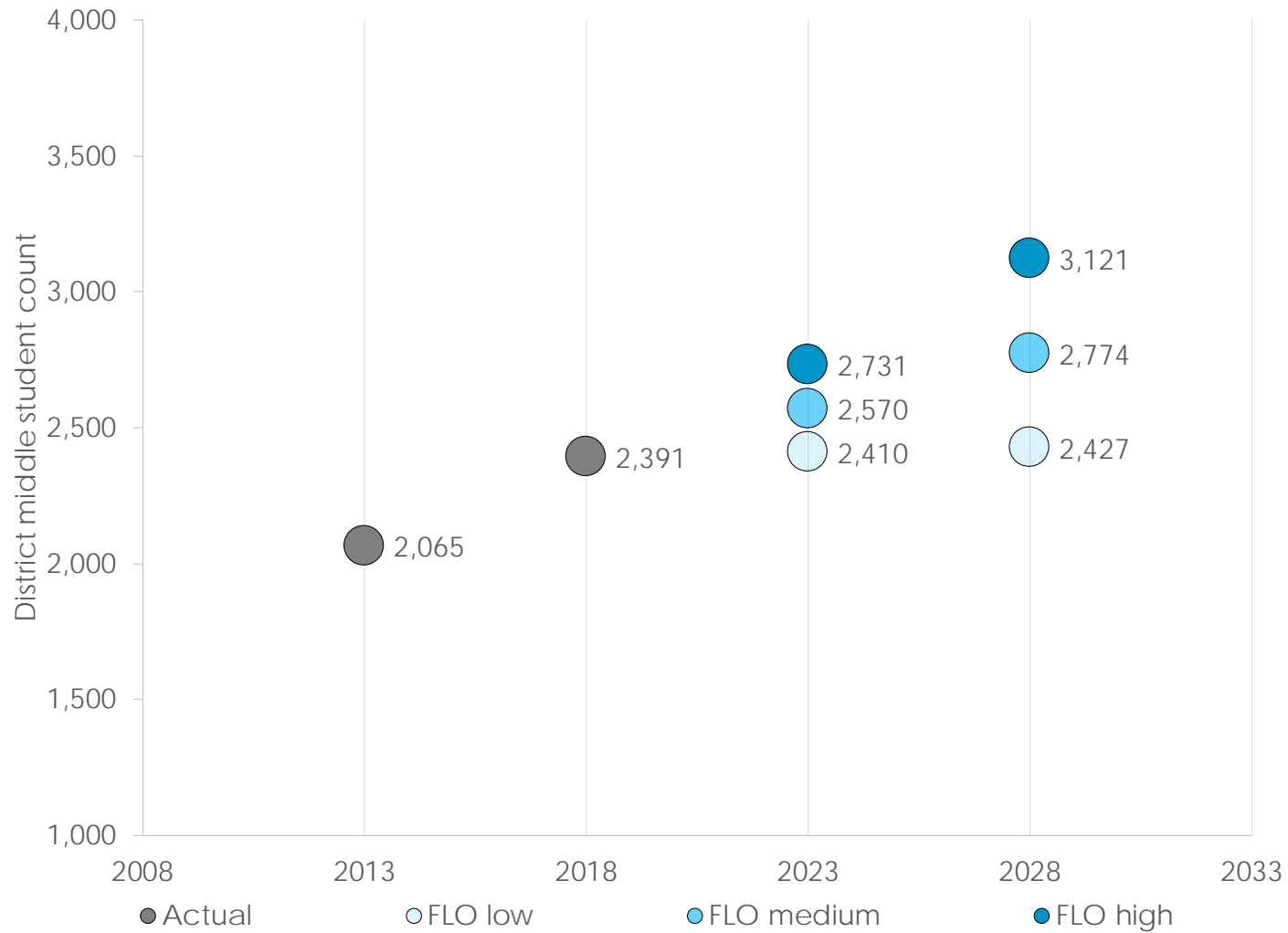
October 1st building attendance enrollment forecasts (headcount) through 2028 by grade group, medium-growth series. Includes all schools except Three Rivers Charter, and students living both within and outside the District. Excludes PS. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 9 – Elementary School Building Attendance Enrollment Forecasts (Headcount) – Low, Medium (Preferred), and High-Growth Series



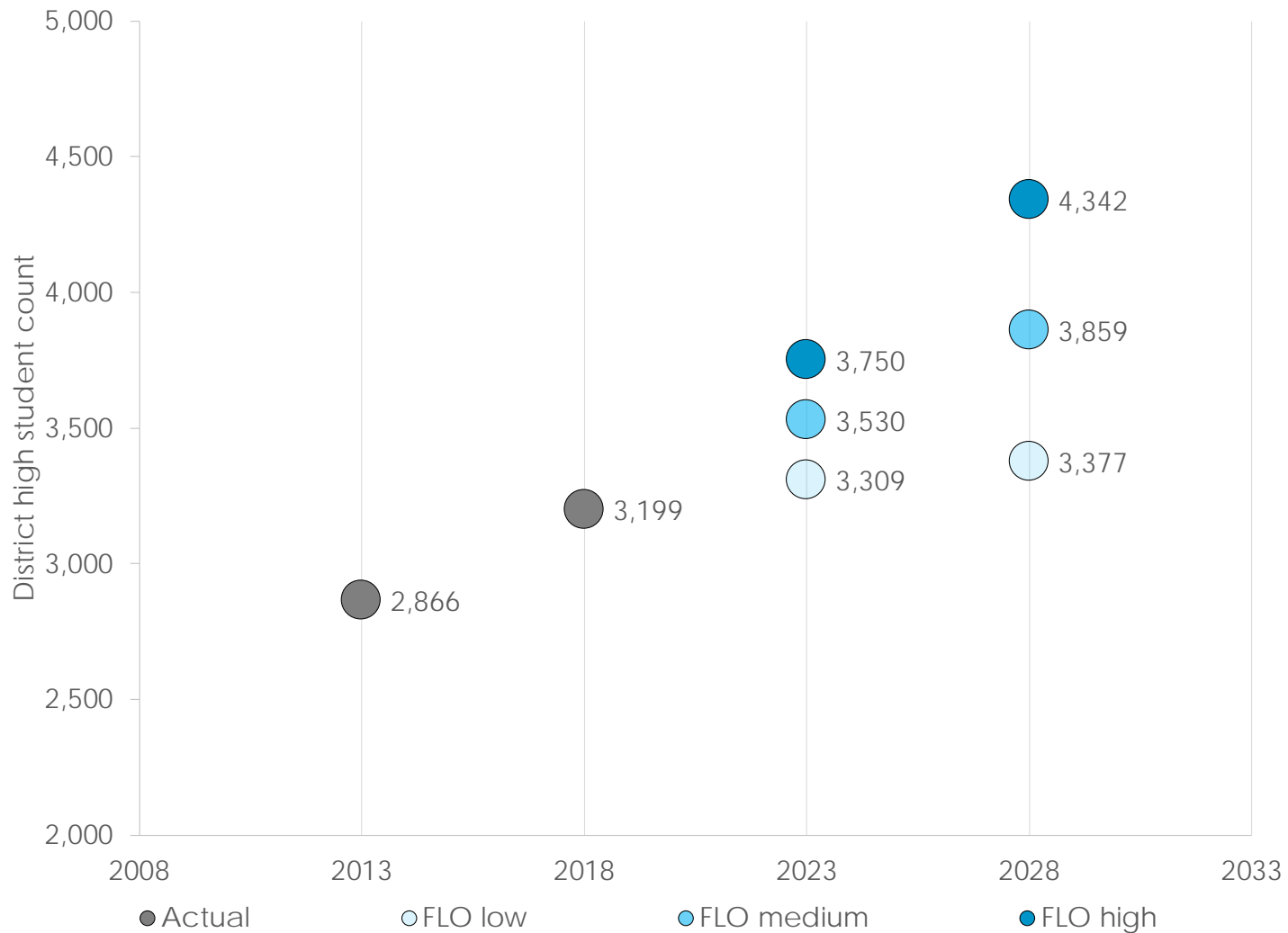
Elementary school October 1st building attendance enrollment forecasts (headcount) for 2023 and 2028—low, medium, and high-growth series. Includes all schools except Three Rivers Charter, and students living both within and outside the District. Excludes PS. Forecasts (2023 and 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment number shown.

Figure 10 – Middle School Building Attendance Enrollment Forecasts (Headcount) – Low, Medium (Preferred), and High-Growth Series

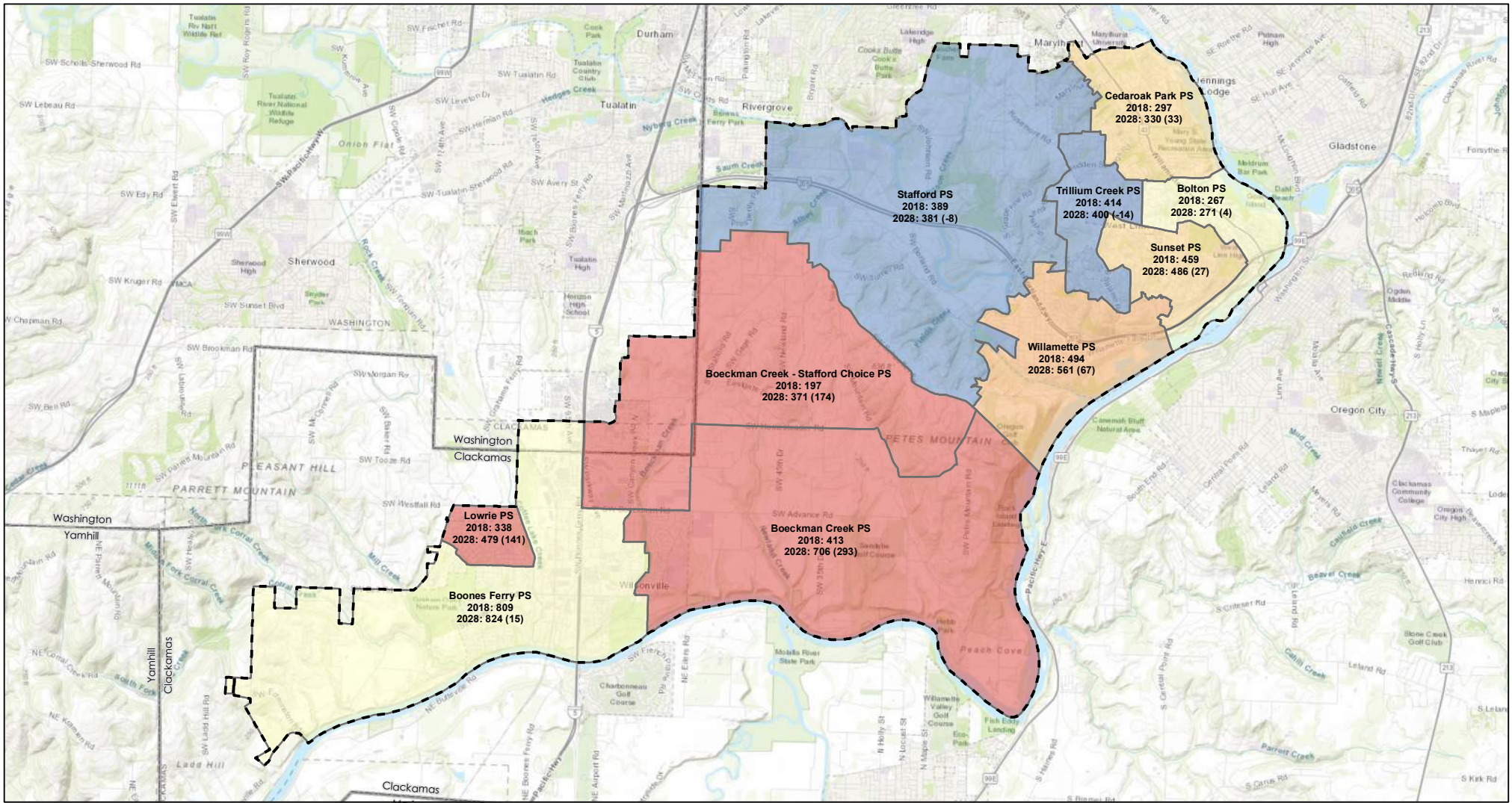


Middle school October 1st building attendance enrollment forecasts for 2023 and 2028—low, medium, and high-growth series. Includes all schools except Three Rivers Charter, and students living both within and outside the District. Forecasts (2023 and 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment number shown.

Figure 11 – High School Building Attendance Enrollment Forecasts (Headcount) – Low, Medium (Preferred), and High-Growth Series



High school October 1st building attendance enrollment forecasts (headcount) for 2023 and 2028—low, medium, and high-growth series. Includes all schools, and students living both within and outside the District. Forecasts (2023 and 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment number shown.



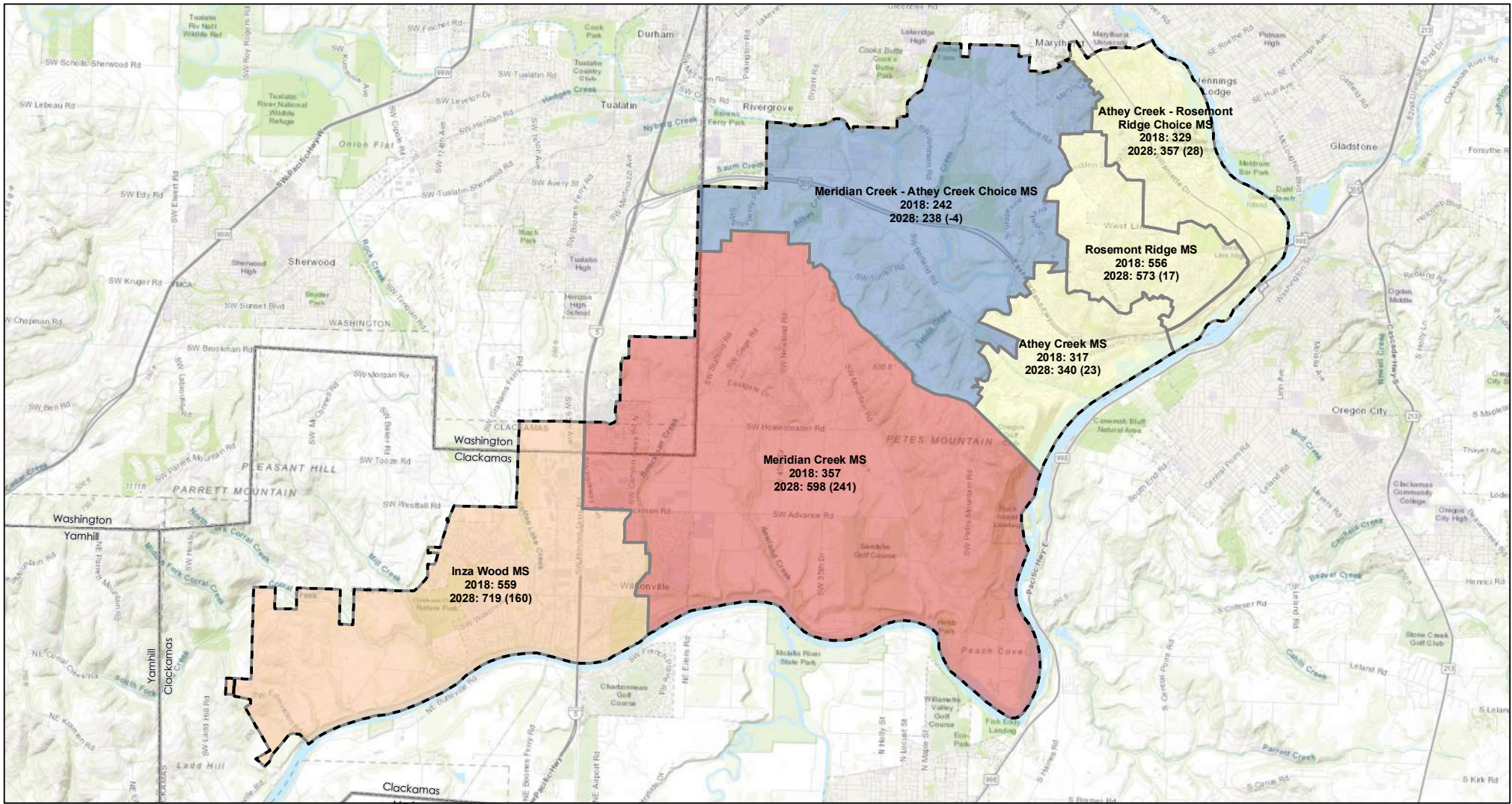
LEGEND

- District Boundary
- County Boundary
- Elementary School Attendance Areas
- 10-year Magnitude of Change
- <= 0
- 1 to 25
- 26 to 50
- 51 to 100
- 101 to 293

FIGURE 12

**Elementary School Residence-based
2018-28 Enrollment Forecasts**





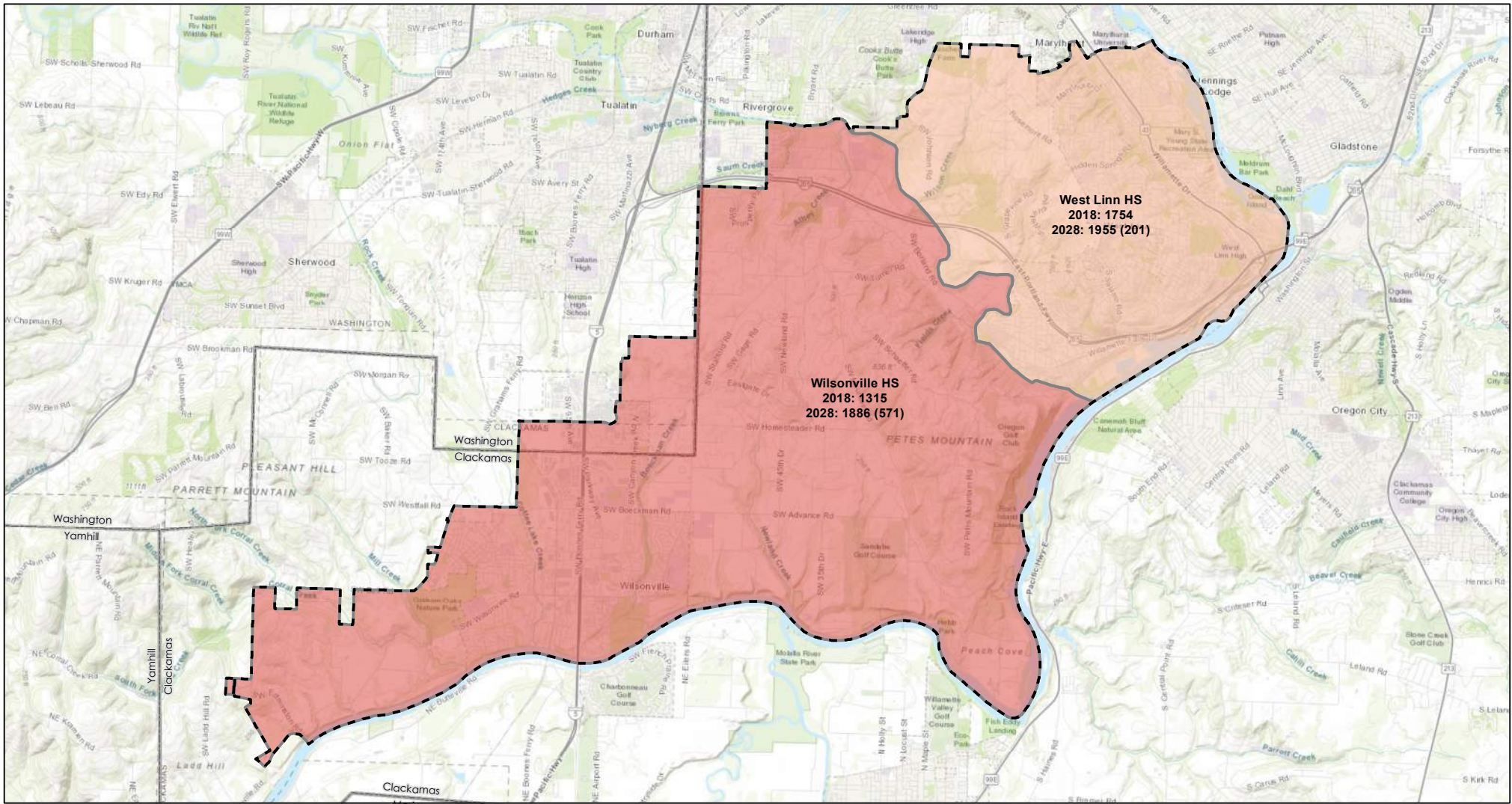
LEGEND

- District Boundary
- County Boundary
- Middle School Attendance Areas
 - 1 to 50
 - 50 to 175
 - > 175
- 10-year Magnitude of Change
 - <= 0



FIGURE 13 Middle School Residence-based 2018-28 Enrollment Forecasts





LEGEND

- District Boundary
- County Boundary
- High School Attendance Areas
- 10-year Magnitude of Change
- 0 to 201
- > 201

FIGURE 14

**High School Residence-based
2018-28 Enrollment Forecasts**



Figure 15 – Elementary School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Boeckman Creek - Stafford Choice PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	30	36	38	41	47	48	49	50	51	51	52	52
1	25	40	40	44	48	51	53	55	56	59	57	57
2	20	33	39	44	47	51	53	54	58	59	61	60
3	23	29	36	45	49	52	54	57	57	63	64	65
4	32	27	28	42	50	54	55	56	60	59	67	66
5	37	32	33	33	49	56	57	58	59	64	61	71
K-5	167	197	214	248	290	312	321	331	341	354	362	371

Boeckman Creek PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	66	70	69	71	74	76	81	85	89	93	96	100
1	73	72	76	77	79	81	86	93	98	104	105	110
2	68	71	76	80	80	84	87	92	100	106	112	113
3	72	62	79	82	86	85	92	98	101	111	118	124
4	76	67	70	80	85	90	92	98	106	107	120	127
5	71	71	80	72	84	91	98	101	106	117	117	132
K-5	426	413	450	462	488	507	537	566	600	638	669	706

Bolton PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	45	35	41	44	45	42	42	42	42	41	41	40
1	48	39	43	43	45	47	44	43	42	43	42	41
2	39	48	51	47	46	47	50	46	46	44	45	45
3	50	41	53	55	51	49	51	53	49	48	46	47
4	48	48	44	54	57	53	51	52	55	51	49	47
5	53	56	51	45	55	59	54	52	54	56	52	50
K-5	283	267	284	288	299	298	291	289	287	283	275	271

Figure 15 (cont.) – Elementary School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Boones Ferry PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	120	131	129	130	133	128	129	129	130	128	128	127
1	135	127	131	134	135	137	130	132	132	133	131	129
2	135	139	125	135	140	140	141	133	136	137	135	134
3	137	150	137	127	138	146	143	145	136	140	141	138
4	120	137	138	138	130	142	148	146	149	139	144	144
5	140	125	143	144	143	137	148	153	153	158	146	151
K-5	787	809	802	807	819	831	839	838	836	834	824	824

CedarOak Park PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	48	44	47	47	50	47	47	48	48	48	48	48
1	59	39	53	52	55	51	51	52	52	54	53	52
2	48	52	57	55	54	56	53	53	54	52	55	55
3	47	41	69	63	61	59	62	59	57	59	56	60
4	73	47	56	70	65	62	61	63	60	56	59	57
5	43	74	53	57	71	66	64	62	64	60	55	60
K-5	318	297	334	345	355	340	338	336	334	329	326	330

Lowrie PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	62	59	72	77	81	78	79	79	79	79	78	78
1	42	63	69	73	77	81	77	76	78	79	80	77
2	57	50	66	72	77	82	81	78	77	80	81	81
3	45	61	51	69	75	81	81	81	79	77	82	81
4	50	47	68	57	74	80	83	82	83	83	80	84
5	45	58	52	71	60	75	77	79	78	79	81	77
K-5	301	338	377	418	444	477	477	475	474	478	482	479

Figure 15 (cont.) – Elementary School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Stafford PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	54	61	55	53	55	53	53	54	54	53	53	53
1	55	61	59	60	58	62	60	59	60	60	58	58
2	52	66	62	61	61	62	63	63	60	64	64	61
3	69	53	61	66	64	65	66	67	68	63	69	69
4	69	75	58	63	69	66	67	67	69	72	65	71
5	86	73	75	62	67	73	71	71	70	73	77	69
K-5	385	389	370	364	374	381	380	380	381	385	387	381

Sunset PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	67	69	64	68	72	68	68	69	69	68	68	68
1	71	71	75	77	80	85	81	79	79	79	77	78
2	87	74	83	81	84	87	89	85	82	82	86	81
3	79	86	77	83	83	87	87	90	87	81	82	86
4	76	85	90	81	86	88	91	89	94	91	82	84
5	91	74	87	95	88	91	94	97	94	100	97	88
K-5	471	459	476	485	492	506	510	509	504	501	492	486

Trillium Creek PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	53	51	55	57	61	59	59	59	59	58	57	57
1	67	55	59	60	63	68	63	62	63	64	63	61
2	75	71	62	63	65	68	71	67	64	67	69	67
3	82	80	70	66	66	69	68	73	69	65	69	70
4	69	87	78	76	73	74	73	73	80	75	70	75
5	77	70	83	78	76	77	75	73	73	82	77	71
K-5	423	414	408	399	405	414	410	407	408	412	406	400

Figure 15 (cont.) – Elementary School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Willamette PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	94	62	89	88	91	84	84	85	85	85	84	84
1	63	90	85	86	85	93	82	81	83	83	88	83
2	95	67	102	96	96	97	105	94	90	95	96	100
3	82	93	76	104	98	98	98	107	98	91	98	99
4	90	90	100	80	107	100	100	101	110	102	93	101
5	105	92	86	101	83	108	101	101	102	111	105	94
K-5	529	494	538	555	559	579	571	568	568	567	565	561

Annual elementary school attendance area residence-based forecasts by grade through 2028. Shown are 2017 and 2018 actual counts of District students residing in each attendance area (October), as well as October 1st projections for each subsequent year. Excludes PS. By definition, the attendance area residence numbers do not include students living outside the District. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 16 – Middle School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Athey Creek - Rosemont Ridge Choice MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	106	105	128	109	106	128	132	122	118	120	118	110
7	110	114	111	133	114	111	135	140	127	122	124	122
8	124	110	112	115	132	115	114	137	142	127	122	124
6-8	340	329	351	357	352	354	381	398	387	370	364	357

Athey Creek MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	98	108	98	91	105	89	114	105	104	106	116	110
7	103	97	116	105	95	110	96	121	109	108	110	121
8	92	112	108	118	107	96	111	99	124	109	107	110
6-8	293	317	323	314	308	295	321	326	337	322	333	340

Inza Wood MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	176	192	187	201	223	210	218	228	234	234	243	231
7	174	188	206	194	205	230	216	224	229	234	236	244
8	178	179	203	223	208	216	242	229	237	238	241	244
6-8	528	559	595	617	636	656	677	681	701	706	720	719

Meridian Creek - Athey Creek Choice MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	68	89	74	79	65	71	77	76	74	73	76	81
7	73	76	93	77	83	69	75	82	81	78	76	80
8	67	77	72	93	77	84	70	77	83	83	78	77
6-8	208	242	239	249	225	224	222	234	238	233	230	238

Figure 16 (cont.) – Middle School Attendance Area Residence-Based Forecasts by Grade (Headcount)

Meridian Creek MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	124	117	131	122	110	144	160	166	173	176	196	192
7	107	128	128	144	134	117	161	174	179	187	188	211
8	133	112	145	135	152	140	127	173	182	185	195	195
6-8	364	357	404	401	396	401	448	513	533	548	579	598

Rosemont Ridge MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	174	184	160	176	179	174	180	180	178	174	193	184
7	192	178	183	170	182	187	186	194	192	188	183	203
8	187	194	186	184	174	182	190	190	200	196	190	186
6-8	553	556	530	530	536	542	556	564	570	558	566	573

Annual middle school attendance area residence-based forecasts by grade through 2028. Shown are 2017 and 2018 actual counts of District students residing in each attendance area (October), as well as October 1st projections for each subsequent year. By definition, the attendance area residence numbers do not include students living outside the District. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 17 – High School Attendance Area Residence-Based Forecasts by Grade (Headcount)

West Linn HS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
9	456	446	486	468	484	472	460	478	496	537	494	479
10	442	455	451	473	450	464	458	447	459	479	520	479
11	419	433	437	445	468	439	458	452	441	447	470	512
12	424	420	453	454	462	488	456	476	470	459	458	485
9-12	1,741	1,754	1,828	1,841	1,865	1,863	1,833	1,854	1,866	1,921	1,942	1,955

Wilsonville HS

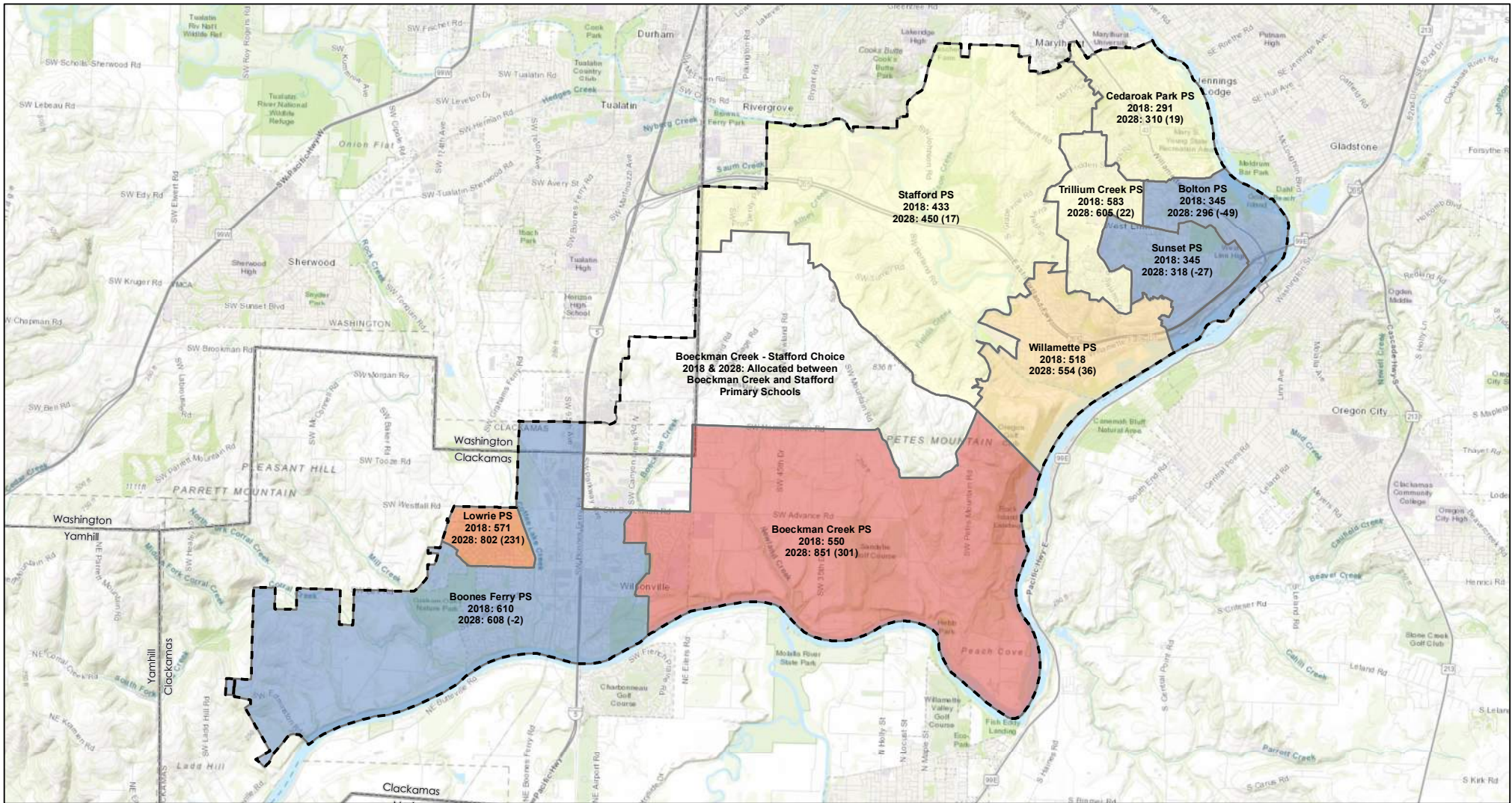
Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
9	325	345	337	399	417	414	413	411	453	475	473	493
10	294	334	344	328	394	414	402	401	404	446	464	464
11	325	304	311	339	325	397	408	397	396	405	446	462
12	309	332	302	324	354	338	412	424	413	411	426	467
9-12	1,253	1,315	1,294	1,390	1,491	1,563	1,636	1,633	1,666	1,738	1,809	1,886

Annual high school attendance area residence-based forecasts by grade through 2028. Shown are 2017 and 2018 actual counts of District students residing in each attendance area (October), as well as October 1st projections for each subsequent year. By definition, the attendance area residence numbers do not include students living outside the District. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 18 – District Grade Totals, Attendance Area Residence-Based Forecasts (Headcount)

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	639	618	659	676	708	685	692	699	705	704	705	708
1	638	657	690	705	725	755	727	732	745	758	755	746
2	676	671	723	732	750	774	795	765	767	786	804	796
3	686	696	709	759	770	791	801	830	800	799	825	839
4	682	686	708	721	774	787	797	805	843	813	807	836
5	722	702	720	733	753	809	816	823	829	877	845	838
6	725	773	757	755	767	794	859	855	858	861	920	887
7	738	758	814	800	791	800	846	911	894	893	893	957
8	759	764	806	847	830	813	834	884	949	917	912	916
9	781	791	824	867	902	886	873	889	949	1,012	967	972
10	736	789	795	802	844	878	861	848	863	925	984	942
11	744	737	749	784	793	836	866	850	837	851	916	974
12	733	752	755	778	817	825	869	901	883	870	884	952
Residing in District (Residence-Based Forecasts)												
K-5	4,043	4,030	4,209	4,326	4,481	4,600	4,628	4,654	4,689	4,736	4,742	4,764
6-8	2,222	2,295	2,377	2,402	2,387	2,406	2,538	2,650	2,700	2,672	2,726	2,760
9-12	<u>2,994</u>	<u>3,069</u>	<u>3,122</u>	<u>3,231</u>	<u>3,356</u>	<u>3,426</u>	<u>3,469</u>	<u>3,487</u>	<u>3,532</u>	<u>3,658</u>	<u>3,752</u>	<u>3,840</u>
K-12	9,259	9,394	9,708	9,959	10,223	10,432	10,636	10,791	10,922	11,066	11,220	11,365
Out-of-District												
K-5	266	212	143	92	61	37	30	27	27	27	27	27
6-8	91	96	92	91	68	54	32	20	14	14	14	14
9-12	<u>167</u>	<u>130</u>	<u>101</u>	<u>71</u>	<u>70</u>	<u>66</u>	<u>60</u>	<u>53</u>	<u>41</u>	<u>29</u>	<u>21</u>	<u>19</u>
K-12	524	438	336	255	199	156	122	100	81	70	62	59
Total Attendance (Building Attendance Forecasts)												
K-5	4,309	4,242	4,352	4,418	4,542	4,637	4,658	4,681	4,716	4,763	4,769	4,791
6-8	2,313	2,391	2,469	2,493	2,454	2,460	2,570	2,671	2,714	2,685	2,740	2,774
9-12	<u>3,161</u>	<u>3,199</u>	<u>3,223</u>	<u>3,302</u>	<u>3,426</u>	<u>3,491</u>	<u>3,530</u>	<u>3,540</u>	<u>3,573</u>	<u>3,688</u>	<u>3,773</u>	<u>3,859</u>
K-12	9,783	9,832	10,044	10,214	10,422	10,588	10,758	10,892	11,003	11,136	11,282	11,424

Annual District attendance area residence forecasts grade totals through 2028. Shown are 2017 and 2018 actual counts of District students residing in each attendance area (October), as well as October 1st projections for each subsequent year. By definition, the attendance area residence numbers do not include students living outside the District. Excludes PS and Three Rivers Charter. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

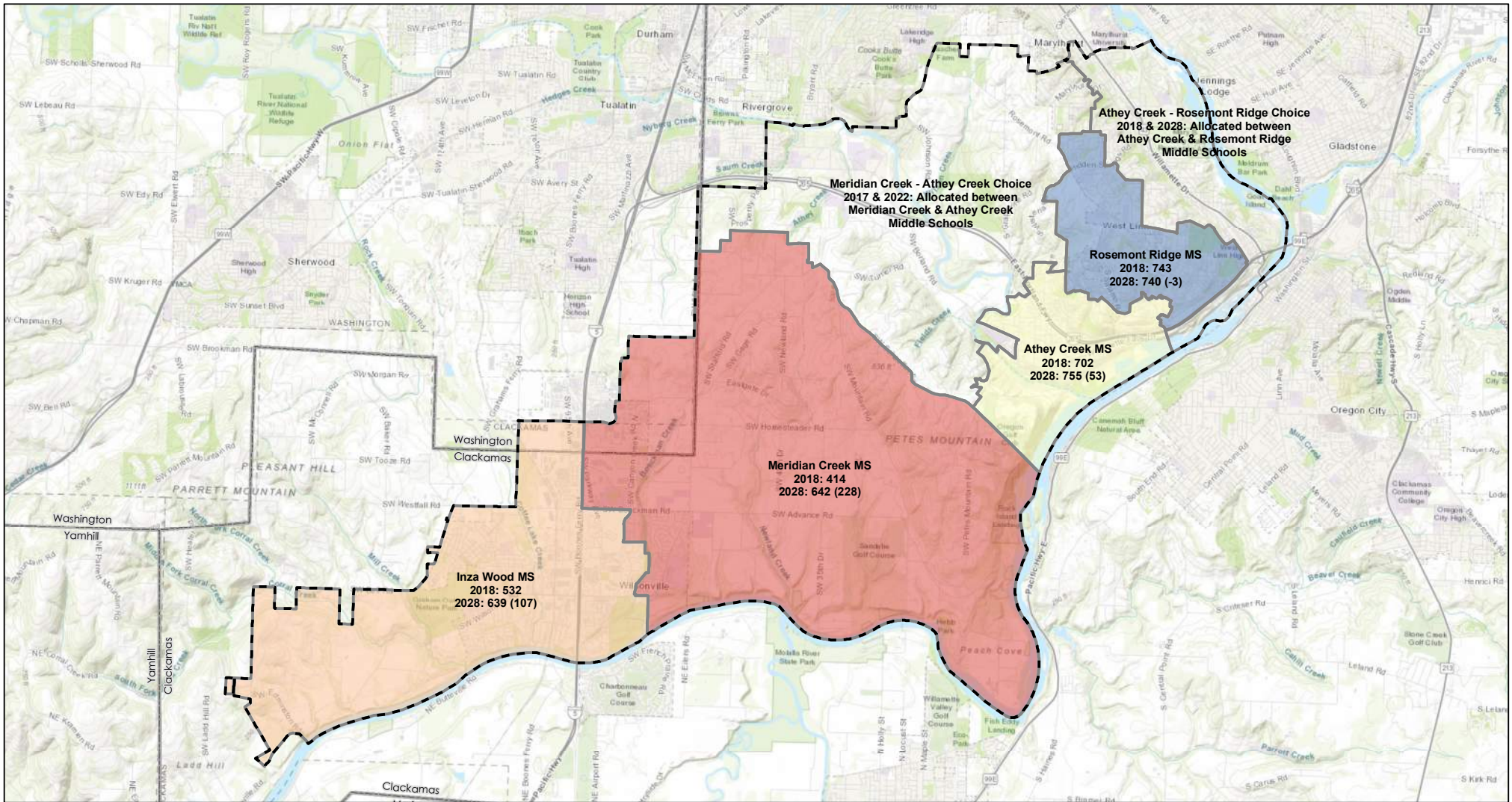


LEGEND

- District Boundary
- County Boundary
- Elementary School Attendance Areas
- 10-year Magnitude of Change
- ≤ 0
- 1 to 25
- 26 to 50
- 51 to 250
- >250
- Choice Zone Students
- Allocated to Schools

FIGURE 19
**Elementary School Building Attendance
 2018-28 Enrollment Forecasts**





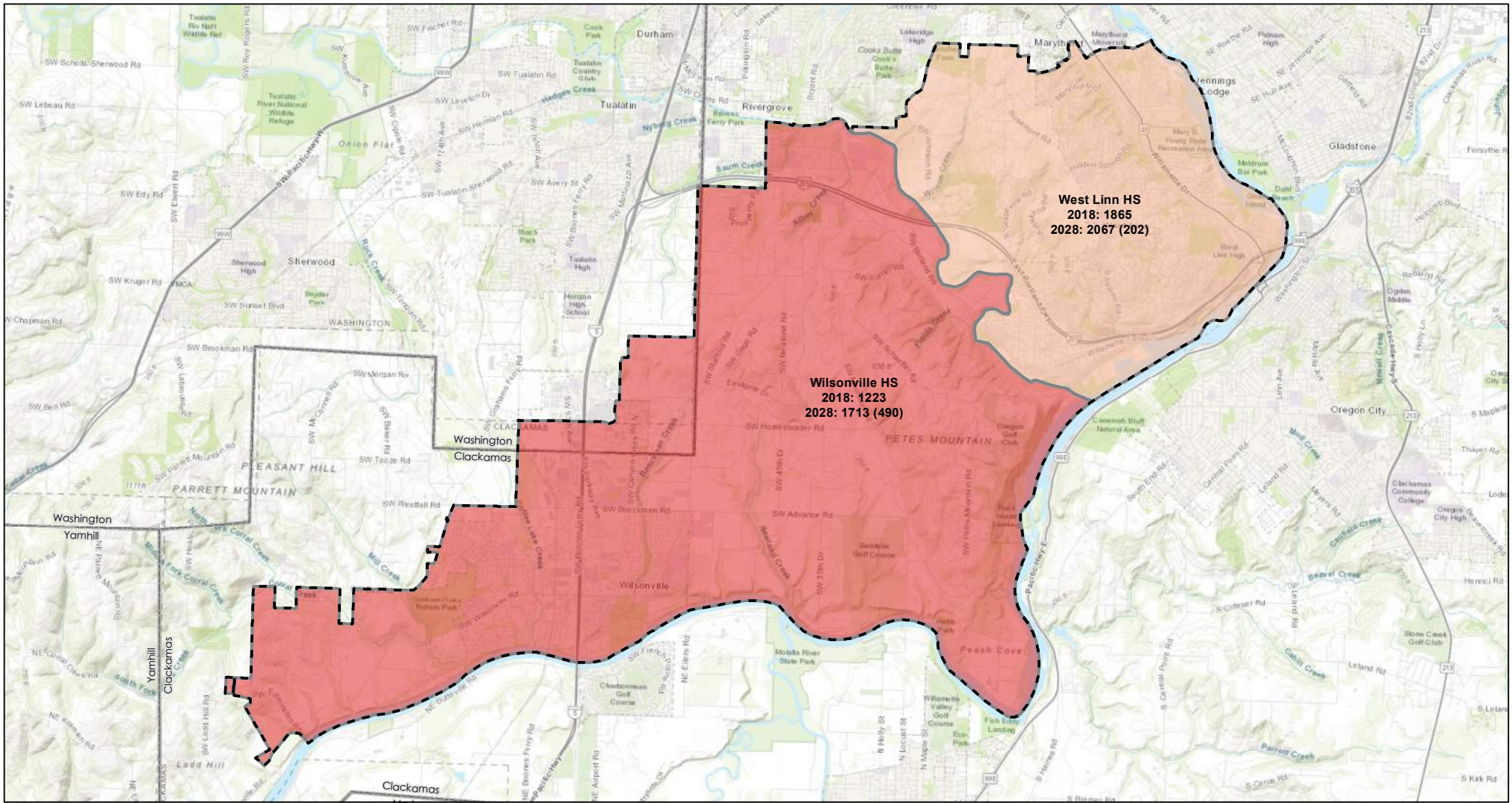
LEGEND

- District Boundary
- County Boundary
- Middle School Attendance Areas
 - 1 to 75
 - 76 to 150
 - > 150
- 10-year Magnitude of Change
 - ≤ 0
- Choice Zone Students Allocated to Schools

FIGURE 20

**Middle School Building Attendance
2018-28 Enrollment Forecasts**





LEGEND

- District Boundary
- County Boundary
- High School Attendance Areas
- 10-year Magnitude of Change
- 0 to 202
- > 202

FIGURE 21

**High School Building Attendance
2018-28 Enrollment Forecasts**



Figure 22 – Elementary School Building Attendance Forecasts by Grade (Headcount)

Boeckman Creek PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	85	90	89	92	98	100	104	108	112	115	118	122
1	89	100	96	99	103	106	111	118	123	129	129	133
2	83	92	95	101	103	109	113	116	126	131	137	138
3	91	90	98	103	109	111	117	124	126	138	144	149
4	81	92	83	99	106	112	115	120	129	129	145	150
5	93	86	97	89	108	116	123	127	131	143	141	159
K-5	522	550	559	584	627	654	683	713	747	786	815	851

Bolton PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	40	44	47	48	49	46	46	46	45	45	44	44
1	69	37	50	49	50	51	48	47	47	48	47	46
2	65	70	57	53	51	52	54	51	50	49	50	49
3	71	62	66	60	56	54	55	57	53	52	51	52
4	67	68	57	64	61	56	54	55	58	54	52	51
5	65	64	67	57	64	63	58	56	57	59	55	54
K-5	377	345	344	331	331	322	315	312	310	307	299	296

Boones Ferry PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	91	99	95	96	98	94	95	95	96	95	95	94
1	99	99	96	98	99	101	96	97	98	99	97	96
2	92	105	92	99	103	103	104	98	100	101	100	100
3	101	111	103	94	102	107	105	107	100	103	104	103
4	88	99	100	100	93	102	105	104	107	100	103	104
5	89	97	108	107	106	101	109	112	112	116	108	111
K-5	560	610	595	594	601	608	613	613	613	613	607	608

Figure 22 (cont.) – Elementary School Building Attendance Forecasts by Grade (Headcount)

CedarOak Park PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	41	38	45	45	47	44	44	45	45	45	45	45
1	62	39	50	49	51	49	48	49	49	50	50	49
2	47	52	54	52	51	53	51	50	51	49	52	51
3	51	42	66	60	57	55	58	56	54	55	53	56
4	73	49	55	67	61	58	57	59	57	54	55	53
5	46	71	55	56	68	62	60	58	60	57	53	56
K-5	320	291	325	329	335	321	318	316	315	310	307	310

Lowrie PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	98	95	115	121	127	124	125	126	127	126	126	126
1	84	97	114	119	125	130	125	126	128	131	130	128
2	110	89	109	119	126	132	132	128	129	133	134	134
3	90	107	98	114	124	133	133	134	131	132	138	137
4	102	84	112	106	121	131	136	135	138	136	137	142
5	107	99	97	114	109	123	129	132	132	137	135	135
K-5	591	571	644	692	731	772	779	781	785	794	800	802

Stafford PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	62	69	64	62	65	63	64	64	65	64	64	64
1	60	71	69	70	68	72	70	70	72	72	70	71
2	62	72	72	71	72	73	75	74	72	76	77	74
3	84	66	73	76	75	76	77	79	79	77	82	82
4	78	79	62	68	72	71	71	72	75	76	72	78
5	106	76	83	69	76	80	79	79	79	83	86	80
K-5	452	433	423	416	428	436	436	438	442	448	452	450

Figure 22 (cont.) – Elementary School Building Attendance Forecasts by Grade (Headcount)

Sunset PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	55	60	43	46	49	46	46	46	47	46	46	46
1	54	59	51	52	54	57	54	53	53	53	52	52
2	59	60	56	55	56	58	60	57	55	55	58	55
3	57	58	53	56	56	58	58	61	58	54	55	58
4	43	62	59	54	56	57	59	58	61	59	53	55
5	52	46	54	58	53	55	57	58	57	61	59	52
K-5	320	345	316	320	324	332	334	333	330	328	323	318

Trillium Creek PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	83	75	84	87	93	89	89	89	89	88	88	87
1	97	80	92	93	97	103	97	95	97	98	96	94
2	105	102	99	98	101	105	109	103	99	102	105	102
3	114	110	105	104	103	106	106	112	106	100	105	108
4	105	110	112	109	110	110	110	110	118	111	104	109
5	110	106	115	112	111	114	112	110	110	120	114	105
K-5	614	583	607	604	614	626	622	619	619	620	612	605

Willamette PS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
K	90	63	88	87	89	83	83	84	84	84	84	84
1	64	93	85	86	85	92	83	81	83	83	88	83
2	95	70	101	95	96	96	103	94	90	94	96	99
3	84	95	80	103	97	97	98	105	97	91	98	98
4	100	93	98	81	102	97	96	97	106	99	90	98
5	110	104	89	99	84	104	98	98	99	108	102	92
K-5	543	518	541	550	553	569	561	559	559	559	557	554

Annual elementary school building attendance forecasts by grade through 2028. Shown are 2017 and 2018 October 1st counts by building and grade of students attending District schools, as well as October 1st projections for each subsequent year. Includes all buildings except Three Rivers Charter, and students living both within and outside the District. Excludes PS students. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 23 – Middle School Building Attendance Forecasts by Grade (Headcount)

Athey Creek MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	189	273	237	230	226	220	248	236	233	234	251	246
7	217	200	271	244	236	232	232	261	246	241	241	260
8	214	229	227	276	250	242	240	242	273	254	247	249
6-8	620	702	735	751	712	694	720	740	752	729	740	755

Inza Wood MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	178	183	166	178	198	186	194	203	208	208	216	206
7	177	177	183	173	183	204	192	199	204	208	209	217
8	201	172	209	198	185	192	215	204	211	211	214	216
6-8	556	532	558	549	565	583	601	606	623	627	640	639

Meridian Creek MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	135	142	158	150	134	163	173	179	185	188	208	203
7	108	150	168	173	165	145	183	192	197	204	206	228
8	103	122	136	171	178	168	153	193	200	202	211	212
6-8	346	414	462	494	476	476	509	564	582	595	624	642

Rosemont Ridge MS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
6	248	220	230	228	228	241	250	242	237	236	250	236
7	273	252	231	238	233	234	253	263	251	244	241	257
8	263	271	255	237	242	235	241	259	272	257	248	246
6-8	784	743	716	702	703	710	743	764	760	737	739	740

Annual middle school building attendance forecasts by grade through 2028. Shown are 2017 and 2018 October 1st counts by building and grade of students attending District schools, as well as October 1st projections for each subsequent year. Includes all buildings except Three Rivers Charter, and students living both within and outside the District. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 24 – High School Building Attendance Forecasts by Grade (Headcount)

West Linn HS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
9	494	485	521	504	527	510	498	512	533	572	531	517
10	471	487	476	497	477	497	487	475	484	507	547	507
11	454	452	458	464	486	461	485	475	464	468	494	535
12	445	441	476	471	479	502	476	499	490	479	477	508
9-12	1,864	1,865	1,930	1,936	1,968	1,971	1,946	1,962	1,971	2,025	2,049	2,067

Wilsonville HS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
9	313	328	328	379	402	395	393	387	426	444	441	459
10	296	301	324	311	367	389	375	373	374	412	427	426
11	309	292	288	311	299	360	374	362	360	365	403	418
12	278	302	273	286	311	297	362	376	363	361	373	410
9-12	1,196	1,223	1,214	1,286	1,378	1,441	1,504	1,498	1,522	1,583	1,644	1,713

Arts & Technology HS

Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
9	0	0	0	0	0	0	0	0	0	0	0	0
10	15	20	14	14	14	14	14	14	14	14	14	14
11	26	34	25	25	25	25	25	25	25	25	25	25
12	33	57	40	40	40	40	40	40	40	40	40	40
9-12	74	111	80	80	80	80	80	80	80	80	80	80

Annual high school building attendance forecasts by grade through 2028. Shown are 2017 and 2018 October 1st counts by building and grade of students attending District schools, as well as October 1st projections for each subsequent year. Includes all buildings, and students living both within and outside the District. Forecasts (2019 through 2028) are based on October 1st, 2017 enrollment, and were prepared prior to realization of—and were not informed by—the reported October 1st, 2018 enrollment numbers shown.

Figure 25 – District-Wide Birth Factors

District-Wide Birth Factors

2019 K	=	106.6%	of	2018 K
2020 K	=	109.3%	of	2018 K
2021 K	=	114.6%	of	2018 K
2022 K	=	110.8%	of	2018 K
2023 K	=	111.9%	of	2018 K
2024 K	=	113.0%	of	2018 K
2025 K	=	114.2%	of	2018 K
2026 K	=	113.8%	of	2018 K
2027 K	=	114.2%	of	2018 K
2028 K	=	114.6%	of	2018 K

Incoming K class estimates were calculated by gathering birth data for the District's three main zip codes (97062, 97068, and 97070) and applying expected capture rates. Shown here are annual comparisons, by percent, to the Fall 2017 K class (born in 2012) as the base year. As of time these forecasts were prepared, birth data was only available through 2016; birth factors for 2022 through 2028 K classes (born from 2017 to 2023) are the product of forecasting assumptions.

Figure 26 – Student Yield Factors Used for New Housing Development

Single-Family (SF) Units				
Grade Groups	K-5	6-8	9-12	K-12
Student Yield Factor	0.285	0.111	0.125	0.521

Multi-Family (MF) Units				
Grade Groups	K-5	6-8	9-12	K-12
Student Yield Factor	0.111	0.055	0.071	0.237

Overall average student yield factors used by FLO for these enrollment forecasts. Factors used for each development were approximated at the neighborhood level by looking at existing student ratios (per SF and MF unit) in all housing units for each of those neighborhoods, and adjusting those ratios using development-specific information provided by planners, as well as educated assumptions about trends specific to new development.

**Figure 27 – 2018-2019 Elementary School Enrollment Patterns
Residence-Attendance Matrix**

Attendance Area	Residence Count	Boeckman Creek PS	Bolton PS	Boones Ferry PS	Cedar oak Park PS	Lowrie PS	Stafford PS	Sunset PS	Trillium Creek PS	Willamette PS	Three Rivers Charter	Non-Residence Attendance Total	Transfer Out Rates
Boeckman Creek PS	413	354	0	6	0	27	16	0	2	3	5	59	14.3%
Bolton PS	267	0	227	0	6	0	2	8	18	2	4	40	15.0%
Boones Ferry PS	809	45	2	548	0	200	6	0	3	0	5	261	32.3%
Cedar oak Park PS	297	0	10	0	245	0	3	2	33	2	2	52	17.5%
Lowrie PS	338	8	0	16	0	314	0	0	0	0	0	24	7.1%
Stafford PS	389	1	6	0	7	0	317	3	25	21	9	72	18.5%
Sunset PS	459	0	15	0	7	3	5	312	92	20	5	147	32.0%
Trillium Creek PS	414	1	9	0	9	2	5	6	374	4	4	40	9.7%
Willamette PS	494	0	3	0	0	0	10	6	32	436	7	58	11.7%
Boeckman Creek - Stafford Choice	197	116	0	6	0	23	42	1	2	1	6	197	100.0%
K-5 Subtotals	4,077	525	272	576	274	569	406	338	581	489	47	--	--
Out of District	212	25	71	34	17	2	25	7	2	29	0	--	--
K-5 Totals	4,289	550	343	610	291	571	431	345	583	518	47	--	--
Attending Non-Resident Total	1,162	196	116	62	46	257	114	33	209	82	47	--	--
Transfer In Rates	28.5%	37.3%	42.6%	10.8%	16.8%	45.2%	28.1%	9.8%	36.0%	16.8%	--	--	--

All values based on the 10/01/2018 Student Information System.

Residence counts are based on current attendance area boundaries, as of the 2018-19 school year.

**Figure 28 – 2018-2019 Middle School Enrollment Patterns
Residence-Attendance Matrix**

Attendance Area	Residence Count	Athey Creek MS	Inza Wood MS	Meridian Creek MS	Rosemont Ridge MS	Three Rivers Charter	Non-Residence Attendance Total	Transfer Out Rates
Athey Creek MS	317	288	0	2	13	14	29	9.1%
Inza Wood MS	559	7	475	66	1	10	84	15.0%
Meridian Creek MS	357	17	38	294	2	6	63	17.6%
Rosemont Ridge MS	556	72	0	2	461	21	95	17.1%
Athey Creek - Rosemont Ridge Choice	329	72	0	0	249	8	329	100.0%
Meridian Creek - Athey Creek Choice	242	207	0	21	8	6	242	100.0%
6-8 Subtotals	2,360	663	513	385	734	65	--	--
Out of District	96	39	19	29	9	0	--	--
6-8 Totals	2,456	702	532	414	743	65	--	--
Attending Non-Resident Total	938	414	57	120	282	65	--	--
Transfer In Rates	39.7%	62.4%	11.1%	31.2%	38.4%	--	--	--

All values based on the 10/01/2018 Student Information System.

Residence counts are based on current attendance area boundaries, as of the 2018-19 school year.

**Figure 29 – 2018-2019 High School Enrollment Patterns
Residence-Attendance Matrix**

Attendance Area	Residence Count	West Linn HS	Wilsonville HS	Arts Technology HS	Non-Residence Attendance Total	Transfer Out Rates
West Linn HS	1,754	1,676	32	46	78	4.4%
Wilsonville HS	1,315	120	1,132	63	183	13.9%
9-12 Subtotals	3,069	1,796	1,164	109	--	--
Out of District	130	70	59	1	--	--
9-12 Totals	3,199	1,866	1,223	110	--	--
Attending Non-Resident	391	190	91	110	--	--
Transfer In Rates	12.7%	10.6%	7.8%	--	--	--

All values based on the 10/01/2018 Student Information System.

Residence counts are based on current attendance area boundaries, as of the 2018-19 school year.

LEARNING SPACE CAPACITY ANALYSIS WORKSHEET AND MEMO



Long Range Plan – 2018 Update

The District currently operates nine primary schools, four middle schools, two comprehensive high schools, one alternative high school, and one charter school. The last evaluation of the learning space capacity of each school was conducted in 2013. In 2014 District voters approved a Capital Improvement Bond that funded additions, improvements, and new facilities, changing the capacity of many school locations. Specifically, Meridian Creek Middle School is a new facility that opened in the fall of 2017 and Sunset Primary school is a new replacement facility that also opened in the fall of 2017. Major remodel and expansion projects took place at four primary schools (Trillium Creek, Lowrie, Bolton, and Boeckman), one middle school (Wood), and both comprehensive high schools.

Since the 2013 capacity analysis, the educational programs offered by the District have evolved in response to various research-based initiatives, state/federal requirements, and local program investments. The programs that effect capacity are outlined in the Long Range Plan.

During the fall of 2018, the District has worked to revise the Long Range Plan. This effort involves an update to all three parts of the plan:

Part A: Framework for Excellence – Describes the values, themes, and educational needs and approaches that are the basis of facility planning and operational decisions.

Part B: School Facilities – Identifies the existing school capacity, potential growth, and educational trends and factors that could impact future facility needs.

Part C: Capital Improvements – Outlines the capital improvement planning process and provides a link between the Long Range Plan and future capital improvement projects that are identified by the Capital Improvement Program.

Learning Space Capacity

District learning space capacity was first studied in 2007 then updated in 2013 and 2018. Over this 11 year period changes in capacity occur due, in part, to construction. Two new primary schools were opened in 2012, and one new middle school in 2017. Major renovations and additions to schools provide additional teaching and support spaces. Changes in capacity also occur due to calculation methodology. In the 2007 and 2013 analysis, learning space capacity was calculated using a class size and room utilization method. In the 2018 analysis, capacity has been calculated using a square-foot-per-student ratio. Although class size and room use were a factor in developing the correct ratio, the analysis resulted in slightly different capacity numbers for each facility. The advantages of calculating building capacity using the sf/student ratio is that, once the ratios are established, they can easily be used to calculate the number of spaces needed in new construction in order to serve a specified population.

Long Range Facility Planning requires knowledge of the student capacity that each school can safely, effectively, and efficiently accommodate. The capacity analysis conducted in the fall of 2018 is based on the size of learning spaces and number of students the spaces can support. This square foot-per-student

ratio is derived through an analysis of many factors: national and regional standards, preferred class size, class schedules, academic programs, and District planning priorities.

The learning space capacity analysis is a planning tool that helps the District compare current enrollment to projected growth and the available capacity of its facilities. The analysis takes into account only those areas used for teaching and learning. At the primary level, that is the classroom. At the middle school level, it includes the gymnasium, music, art, science, general education, and makerspace rooms. At the high school level it includes gymnasium, music, art, drama, science, general education, makerspace, CTE, and weight rooms. There are many spaces necessary for a school building to function that are not considered learning spaces: the cafeteria, kitchen, locker rooms, administrative offices, hallways, boiler rooms, etc. The square-footage needed for these core support spaces differs for each building due to plan layout, site constraints, program priorities during design, etc. The learning space capacity analysis is not intended to be a tool for building design. Instead, during the planning stages for a new school building, the District uses the experience of the effective functioning of its existing facilities and works closely with architects to determine the area needed for each space in order to determine the gross building square footage.

It is also important to recognize that not all learning spaces in the schools are included in the capacity calculation. At the primary school level, one classroom is a designated preschool room. Preschool is currently offered as a tuition-based optional program for resident children, and the current and future enrollment projections are based on populations of students that are between Kindergarten and 12th grade. Therefore, preschool-aged students are not included in the overall K-12 capacity of the District. Additionally, one classroom in primary, middle, and high school buildings is designated as a special education support space. The District's special education program maintains a fully integrated population of students at all levels, but uses one room in each building to provide additional support or instruction to students as needed. Further explanation of these programs and their facility needs are provided in the Long Range Plan.

During September/October 2018, several meetings were held with District operational and administrative staff to discuss how each building was being used. Floor plans of each building were developed that identify each space and assign the current use. The area of these spaces was calculated and square-foot-per-student (sf/student) ratio applied to determine the overall building capacity. Different ratios were used for primary, middle, and high schools due to the different building and educational functions at each level. The sf/student needed is a factor of the types of spaces used for teaching. Therefore at middle and high schools a different ratio is used to calculate the capacity of some teaching spaces due to their particular program needs. For instance, the area needed to safely accommodate a student in a PE class held in the gym is much larger than in a history classroom. The high school buildings had more of these type of large teaching spaces: gymnasiums, black box theaters to teach drama classes, weight rooms for PE class, etc. Although primary schools have gymnasiums, they were not considered an additional teaching space because students remain within their class groupings and attend PE as a support program. In other words, if one first grade class goes to Music, their classroom is left empty. Due to middle and high school schedules, it is possible to have every classroom in full attendance at the same time as PE spaces. As a result, the sf/student ratio is lowest at primary school buildings and highest at high school buildings.

Below is a list of the sf/student ratios used to calculate building capacity:

Primary Schools	37.5 sf/student
Middle Schools	40.6 sf/student
High Schools	46.2 sf/student

Conclusion

It is important to recognize that learning space capacity is a planning tool used by the District to assist in comparing current enrollment and the needs projected by future growth. It is not an indication of the quality of the educational environment or programs provided at each school. Principals and teachers assess the needs of each student and use the building in very unique ways to provide a high quality learning environment while considering enrollment, transfers, schedules, staff availability, and district-wide program balance. As is the practice of every public school, actual students attending any given school will routinely fluctuate. This analysis is done concurrent to a demographic and enrollment projection report. Together, these documents are used by the District to understand the facility needs and plan for capital improvement projects.



District-Wide Capacity Analysis

West Linn - Wilsonville School District

Last Updated: Nov 5, 2018

	School Name	Current Enrollment (2018/19 year)	Building Capacity	Available Capacity	Projected 2022 Enrollment*	Projected 2022 Available Capacity	Projected 10-year Enrollment* (2028)	Projected 10-year Available Capacity
Primary	Boeckman Creek	550	550	0	654	-104	851	-301
	Lowrie	571	575	4	772	-197	802	-227
	Boones Ferry	610	775	165	608	167	608	167
	Wilsonville Enrollment	1731	1900	169	2034	-134	2261	-361
	Cedar Oak Park	291	500	209	321	179	310	190
	Bolton	345	475	130	322	153	296	179
	Stafford	433	525	92	436	89	450	75
	Sunset	345	425	80	332	93	318	107
	Trillium Creek	583	575	-8	626	-51	605	-30
	Willamette	518	525	7	569	-44	554	-29
	West Linn Enrollment	2515	3025	510	2606	419	2533	492
Middle	Meridian Creek	414	490	76	476	14	642	-152
	Inza Wood	532	691	159	583	108	639	52
	Wilsonville Enrollment	946	1181	235	1059	122	1281	-100
	Athey Creek	702	669	-33	694	-25	755	-86
	Rosemont Ridge	743	713	-30	710	3	740	-27
	West Linn Enrollment	1445	1382	-63	1404	-22	1495	-113
High	West Linn	1865	1730	-135	1971	-241	2067	-337
	Wilsonville	1223	1345	122	1441	-96	1713	-368
	Arts & Technology	111	**		80		80	
	Total High School	3199	3075	-13	3492	-337	3860	-705
	Three Rivers Charter	112	**					

Total Enrollment	9836	10562	837	10595	47	11430	-788
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*Building Attendance Forecasts provided by FLO analytics demographic report dated Oct 31, 2018

**Arts & Technology High School and Three Rivers Charter are not included in Building Capacity Analysis

LOCAL PLANNERS MEETING MINUTES

WEST LINN-WILSONVILLE SCHOOL DISTRICT LONG RANGE PLAN UPDATE

December 13, 2018 - 1:00PM

District Operations Center

Planning Meeting Summary Notes

As part of the Long Range Plan (LRP), the District hosted a meeting with planning representatives from local jurisdictions. The following people attended:

Planning Representatives

Dan Pauly, Wilsonville

John Boyd, West Linn

Lorraine Gonzales, Clackamas County

Ken Rencher, Washington County

Steve Koper, Tualatin (invited/could not attend)

Tim O'Brien, Metro (invited/could not attend)

West Linn-Wilsonville School District

Tim Woodley

Remo Douglas

Consultant Team

Rebecca Stuecker, DOWA-IBI Group

Keith Liden, Bainbridge

LRP Update Overview

A digital copy of Part B School Facilities of the LRP was provided to the participants prior to the meeting. Copies of the full LRP update draft, the Capital Improvement Plan draft, ORS compliance methodology, FLO Analytics Enrollment Forecast Report (October 31, 2018) were distributed at the beginning of the meeting.

Tim Woodley provided an overview about the history of the LRP and the proposed update. He indicated the draft update would be reviewed by the district's Long Range Planning Committee on December 19th, and the School Board would conduct a first reading of an ordinance to adopt the update on January 8, 2019 and a second reading on January 28, 2019 to adopt the update of the LRP.

Keith Liden reviewed the long- and short-term enrollment forecasts. The long-term portion includes two scenarios. Scenario 1 assumes that all land within the existing UGB and city limits would be fully developed. Scenario 2 assumes that in addition, all land within the Urban Reserve Areas (URAs) would be fully developed according to Metro estimates. The purpose of the scenarios is to understand what enrollment would be possible in the future. For both the scenarios and the 10-year forecast, current student yield ratios were used to estimate enrollment associated with future residential development.

Discussion followed with the planners noting that perhaps only two categories of residential development (single family and multi-family) may be too broad, and future student yield ratios should take other housing types, such as townhomes (single family attached), cluster housing, and accessory dwelling units into account. The reference to "Single Family Detached Units" in Table 2 should delete the reference to "detached" because the FLO report includes attached and detached single family under the single family category.

Other comments included:

- The rising cost of housing could have implications regarding student yield ratios.
- Clarify that Scenario 2 has a timeline to 2045. There was some agreement that full URA development will probably go beyond 2045.
- URA 5H Southwest Wilsonville should be moved from Scenario 1 to Scenario 2.
- The cities of Wilsonville and West Linn had no definitive future plans to sponsor bringing any of the URAs in the district into the Urban Growth Boundary.

Keith then summarized what the enrollment forecasts meant in terms of new school facilities for both long-term scenarios and the short-term forecast to 2023. He then noted that in addition to potentially increasing the capacity of existing schools, the District has four properties, which could be used for new schools.

Tim indicated that additional evaluation and discussion was necessary with the public, Long Range Planning Committee, and School Board to determine how to meet the expected capacity demands over the next 5 to 10 years. The current lease for the Arts and Technology High School expires in 2022, and it will likely mean the District will need to find an alternative location for this school. With this in mind, the preliminary ideas being considered by the District include:

- Building a new primary school on the Frog Pond – West site. This would be designed as a full-size school (approximately 550 student capacity), but it may not be built to its full size immediately.
- Secure a new location for the Arts and Technology High School.
- Convert Athey Creek Middle School into a high school. This could include the Arts and Technology High School programs at this location in addition to other high school programs.
- Construct a new middle school on the Dollar Street site in West Linn to replace Athey Creek Middle School.

The meeting adjourned at approximately 2:20.

Attachments

- Long Range Plan draft
- Capital Improvement Plan
- FLO Analytics Enrollment Forecasts Report, October 31, 2018
- ORS 195
- ORS 195.110 Compliance Methodology summary
- PowerPoint presentation
- Sign-in sheet

WEST LINN-WILSONVILLE SCHOOL DISTRICT

Long Range Plan Update

December 13, 2018



PLAN UPDATE - SUMMARY

- 1st LRP developed in 1996
- Frequently updated – January 2014 is most recent
- Important tool to forecast facility needs
- School Board adoption – January 2019

PLAN UPDATE – KEY ELEMENTS

Part A – update current educational programs and philosophy

Part B – Updates to:

- School capacity calculation
- Long-term enrollment potential (to 2045)
- Short-term enrollment growth rate (10-yr.)
- Estimates for long- & short-term facility needs

Part C – CIP update

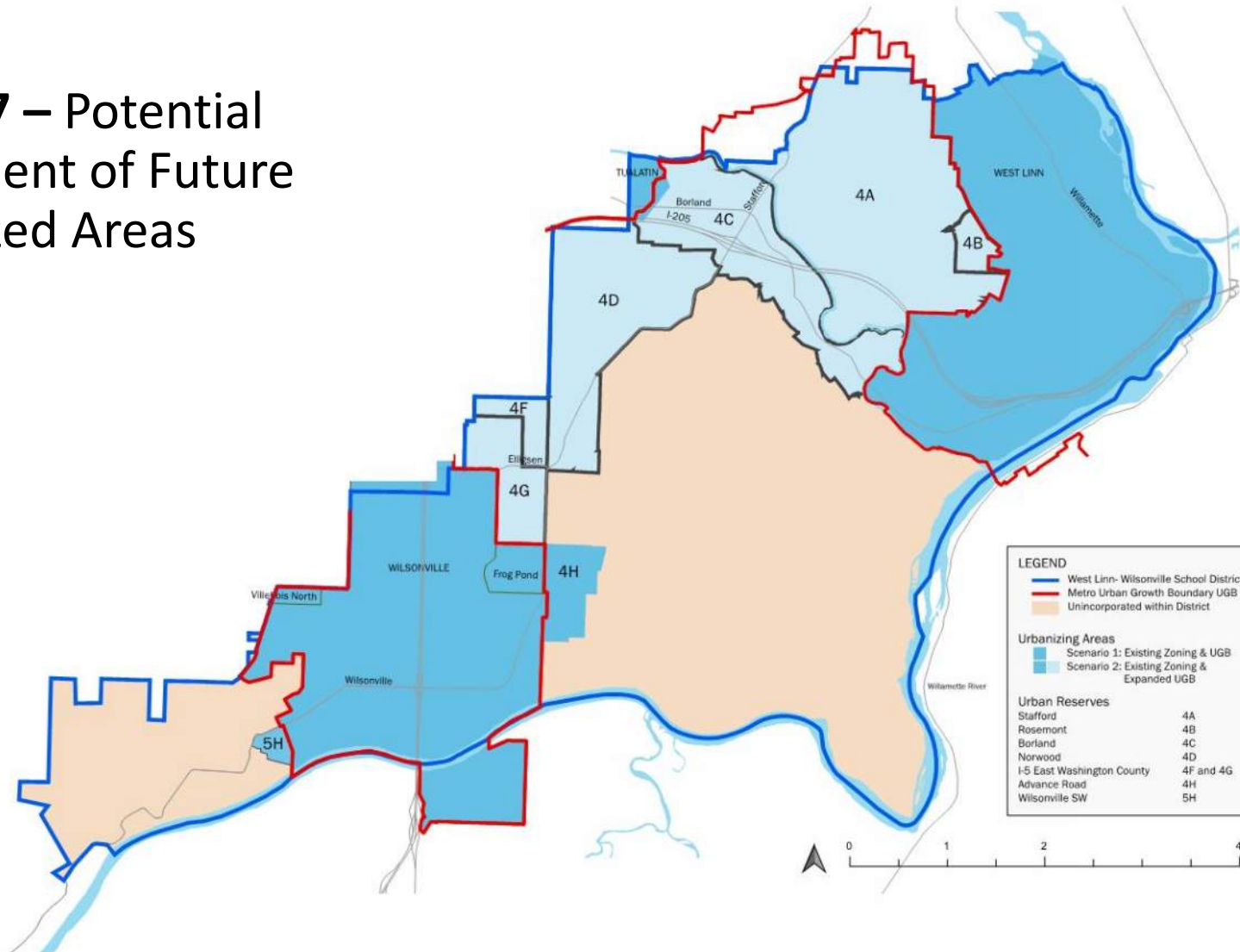
LONG-TERM ENROLLMENT

Scenario 1 – Existing Zoning with existing UGB
(includes Frog Pond – West, East & South)

Scenario 2 – Existing Zoning plus all URAs

LONG-TERM ENROLLMENT

Figure 7 – Potential Enrollment of Future Urbanized Areas



SHORT-TERM FORECAST

10-year forecast

- Based on anticipated development
- Student yield factors (Table 2)

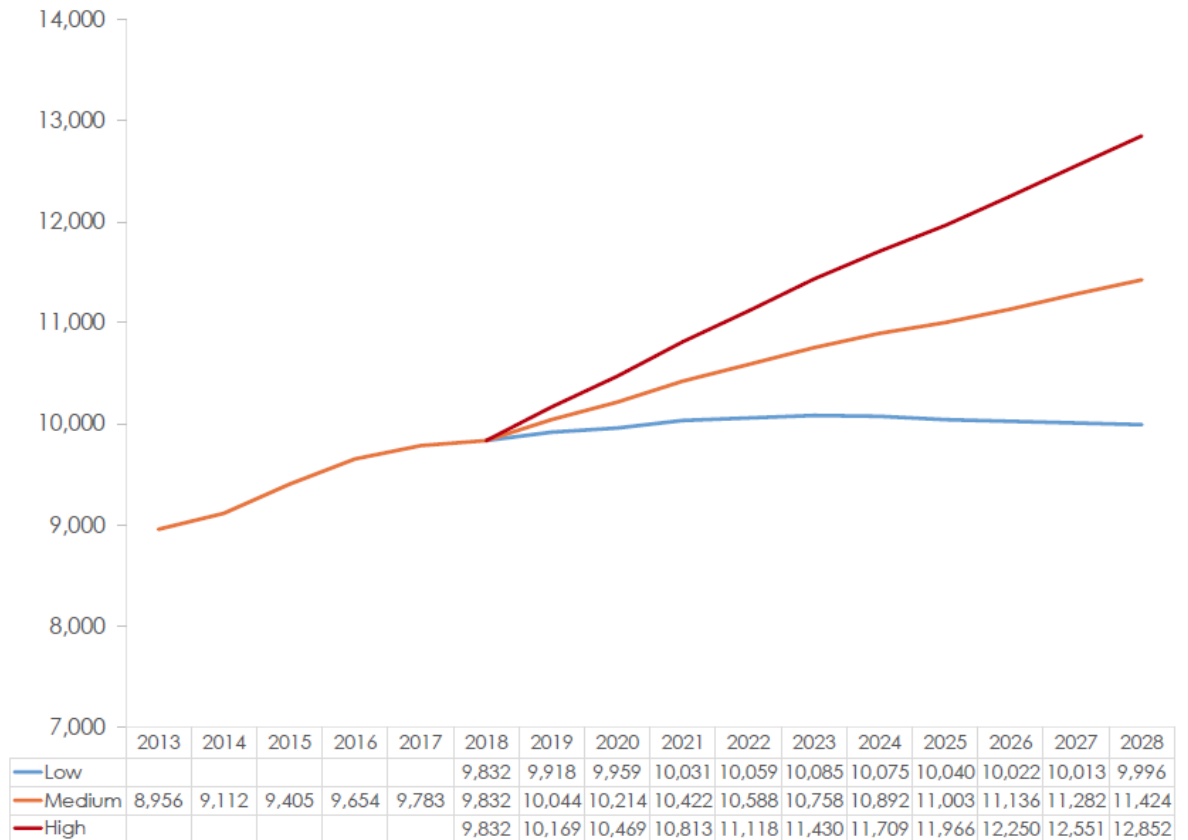
Grade Ranges	K-5	6-8	9-12	K-12
Single Family Detached Units Student Yield Factor	0.285	0.111	0.125	0.521
Multi-family Attached Units Student Yield Factor	0.111	0.055	0.071	0.237
Average Student Yield Factor	0.198	0.083	0.098	0.379

*FLO Analytics evaluation of student ratios related to new development, information from local jurisdictions, and educated assumptions about new development trends.

SHORT-TERM FORECAST

10-year medium student forecast

- 2018 - 9,832
- 2023 – 10,758
- 2028 – 11,424



LONG-TERM SCHOOL NEEDS

Existing – 16 total

- 9 Primary
- 4 Middle
- 3 High

Scenario 1 – 16.5 total

- 9.2 Primary
- 4.2 Middle
- 3.2 High

Scenario 2 – 29.4 total

- 17.9 Primary
- 6.9 Middle
- 4.6 High

SCHOOL DISTRICT PROPERTIES

PROPERTY	TOTAL ACREAGE	LOCATION
Dollar Street	22 acres	Between Dollar Street and Willamette Falls Drive in West Linn
Oppenlander	10 acres	North Side of Rosemont Road in West Linn
Frog Pond West	10 acres	North of Boeckman Road in Wilsonville
Frog Pond South	9 acres	Southern portion of the Meridian Creek Middle School site in Wilsonville

2023 SCHOOL NEEDS

Existing – 16 total

- 9 Primary
- 4 Middle
- 3 High

Additional Capacity Needs

- Primary – 175 students/0.3 primary school
- Middle – 10 students/no capacity increase
- High – 375 students/0.2 high school

Potential Actions

- New primary school in Frog Pond - West
- High school options must be evaluated

QUESTIONS

- Do the long-term scenarios appear reasonable?
- Do you have any opinions about when URAs might be brought into the UGB?
- Does the 10-year forecast appear reasonable?
- Do you have any comments or recommendations regarding the draft plan?

Event: Jurisdiction/Planning Meeting
Date: December 13, 2018 1:00 PM

Name	Company	email	Phone
Tim Woodley	WILKIN	woodleyt@wilvv.k12.or.us	503-572-5444
Rebecca Stueker	OWWA- ISL Group	rebecca.stueker@ibigroup.com	503-226-6950
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John Boro	WEST LINN	JBOYD@WESTLINNOR.US	503.747.6058
Lorraine Gonzalez	Clarkmaet Co.	lorraingop@clarkmaet.com	503.742.4544
Daniel Pauly	Wilsonville	pauly@ci.wilsonville.or.us	503-570-1536
KEITH LINDEN	PAINBRIDGE	KEITH.LINDEN@GMAIL.COM	503.757.5501

MEMO OF COMPLIANCE WITH ORS STATE REQUIREMENTS



Long Range Plan History

The West Linn-Wilsonville School District has a long-standing commitment to planning for the future and collaborating with the cities and counties within its boundaries. The first Long Range Plan, originally titled the Long Range School Facilities Plan, was finalized in 1996. It was the result of a joint planning effort between the District, the cities of West Linn and Wilsonville, and Clackamas County to address residential development in the District and related enrollment issues. An intergovernmental agreement (IGA) was approved by the participants. It called for improved planning coordination and it obligated the District to develop a facilities plan. The Long Range Plan has proved to be an enormously helpful tool to help guide the District in preparing for future student enrollment and school facility needs. The plan was updated in 2000, 2005, and again in 2014. The District is currently conducting its fourth update. The Long Range Plan is developed by the Long Range Planning Committee and adopted by the School Board.

ORS 195.110 Compliance Methodology

The Oregon Legislature in 2007 amended ORS 195.110 to provide additional direction to Large School Districts as they prepare and update facility plans. West Linn-Wilsonville School District currently serves over 9,000 students and therefore falls within the requirements of the law. The following outlines the methodology for compliance and location of each statutory requirement within the 2019 Long Range Plan (LRP) and Capital Improvement Program (CIP) documents. Although these are published by the District as separate documents, they are developed and issued concurrently and together record all of the information required by ORS 195.110.

Part (4)

Regarding selection of district representatives to meet and confer with city and county representatives
December 13, 2018 at the District Operations Center, a meeting was held with District and local planning representatives.

Part (5)

Regarding the requirements of the School District Long Range Plan

- (a) The 2019 Long Range Plan (LRP) covers a period of 10 years
 - (A) The LRP includes population projections by school age group with narrative of projection results in Part B of the narrative. See appendix item for full demographic report.
 - (B) Part B of the LRP indicates large school sites. These are currently owned by the District.
 - (C) The 2019 CIP describes the physical improvements needed to meet the minimum standards in existing schools. A description of the educational program needs and evaluation criteria is indicated in Part A of the LRP.
 - (D) Part B of the LRP describes the financial plans to meet school facility needs.
 - (E) The CIP chapter titled "The Capital Improvement Planning Process" indicates the evaluation criteria for developing a project list, including measures for the efficient use of school sites.
 - (F) The CIP indicates the capital improvements needed to meet the needs of the 10-year plan.
 - (G) There are currently no site acquisitions required to meet the needs of the 10-year plan.

Part (6)

Regarding the requirements for identification of new property

The District owns adequate properties for the capital improvements necessary to meet the needs of the 10-year plan.

Part (7)

Regarding dedication requirements

No City or County land dedication is required to meet the needs of the 10-year plan.

Part (8)

Regarding the identification of school facility needs based on population growth projection.

Part B of the LRP describes the link between population projections and facility capacity and outlines the District's response to growth.

Part (9)

Regarding the development of capacity analysis criteria.

Part B of the LRP describes the methodology developed by the District to determine the capacity of each facility.

OREGON REVISED STATUTE 195.110

State of Oregon Revised Statutes
Vol. 5 State, Government Procedures, Land Use
195. Local Government Planning Coordination

2017 ORS 195.110 School Facility Plan for Large School Districts

- A. **(1)**As used in this section, “large school district” means a school district that has an enrollment of over 2,500 students based on certified enrollment numbers submitted to the Department of Education during the first quarter of each new school year.
- B. **(2)**A city or county containing a large school district shall:
- (a)**Include as an element of its comprehensive plan a school facility plan prepared by the district in consultation with the affected city or county.
 - (b)**Initiate planning activities with a school district to accomplish planning as required under ORS **195.020 (Special district planning responsibilities)**.
- C. **(3)**The provisions of subsection (2)(a) of this section do not apply to a city or a county that contains less than 10 percent of the total population of the large school district.
- D. **(4)**The large school district shall select a representative to meet and confer with a representative of the city or county, as described in subsection (2)(b) of this section, to accomplish the planning required by ORS **195.020 (Special district planning responsibilities)** and shall notify the city or county of the selected representative. The city or county shall provide the facilities and set the time for the planning activities. The representatives shall meet at least twice each year, unless all representatives agree in writing to another schedule, and make a written summary of issues discussed and proposed actions.
- E. **(5)**(a) The school facility plan must cover a period of at least 10 years and must include, but need not be limited to, the following elements:
- **(A)**Population projections by school age group.
 - **(B)**Identification by the city or county and by the large school district of desirable school sites.
 - **(C)**Descriptions of physical improvements needed in existing schools to meet the minimum standards of the large school district.
 - **(D)**Financial plans to meet school facility needs, including an analysis of available tools to ensure facility needs are met.
 - **(E)**An analysis of:
 - (i)**The alternatives to new school construction and major renovation; **and**
 - (ii)**Measures to increase the efficient use of school sites including, but not limited to, multiple-story buildings and multipurpose use of sites.
 - **(F)**Ten-year capital improvement plans.
 - **(G)**Site acquisition schedules and programs.
- (b)**Based on the elements described in paragraph (a) of this subsection and applicable laws and rules, the school facility plan must also include an analysis of the land required for the 10-year period covered by the plan that is suitable, as a permitted or conditional use, for school facilities inside the urban growth boundary.
- F. **(6)**If a large school district determines that there is an inadequate supply of suitable land for school facilities for the 10-year period covered by the school facility plan, the city or county, or both, and the large school district shall cooperate in identifying land for school facilities and take necessary actions, including, but not limited to, adopting appropriate zoning, aggregating existing lots or parcels in separate ownership, adding one or more sites designated for school facilities to an urban growth boundary, or petitioning a metropolitan service district to add one or more sites designated for school facilities to an urban growth boundary pursuant to applicable law.
- G. **(7)**The school facility plan shall provide for the integration of existing city or county land dedication requirements with the needs of the large school district.
- H. **(8)**The large school district shall:
- (a)**Identify in the school facility plan school facility needs based on population growth projections and land use designations contained in the city or county comprehensive plan; **and**
 - (b)**Update the school facility plan during periodic review or more frequently by mutual agreement between the large school district and the affected city or county.

I. **(9)**(a) In the school facility plan, the district school board of a large school district may adopt objective criteria to be used by an affected city or county to determine whether adequate capacity exists to accommodate projected development. Before the adoption of the criteria, the large school district shall confer with the affected cities and counties and agree, to the extent possible, on the appropriate criteria. After a large school district formally adopts criteria for the capacity of school facilities, an affected city or county shall accept those criteria as its own for purposes of evaluating applications for a comprehensive plan amendment or for a residential land use regulation amendment.

(b)A city or county shall provide notice to an affected large school district when considering a plan or land use regulation amendment that significantly impacts school capacity. If the large school district requests, the city or county shall implement a coordinated process with the district to identify potential school sites and facilities to address the projected impacts.

J. **(10)**A school district that is not a large school district may adopt a school facility plan as described in this section in consultation with an affected city or county.

K. **(11)**The capacity of a school facility is not the basis for a development moratorium under ORS **197.505 (Definitions for ORS 197.505 to 197.540)** to **197.540 (Review by Land Use Board of Appeals)**.

L. **(12)**This section does not confer any power to a school district to declare a building moratorium.

M. **(13)**A city or county may deny an application for residential development based on a lack of school capacity if:

(a)The issue is raised by the school district;

(b)The lack of school capacity is based on a school facility plan formally adopted under this section; **and**

(c)The city or county has considered options to address school capacity. [1993 c.550 §2; 1995 c.508 §1; 2001 c.876 §1; 2007 c.579 §1]

PART 2

WEST LINN-WILSONVILLE SCHOOL DISTRICT 2019 CAPITAL IMPROVEMENT PROGRAM

JUNE 10, 2019



[Home](#)



Home



West Linn – Wilsonville Schools

To: Kathy Ludwig, Superintendent
School Board

From: Tim Woodley, Director of Operations

Date: June 10, 2019

Subject: **School Facilities Plan-2019 Edition
Part 2: Capital Improvement Program
Resolution 2018-14**

On January 28, 2019, the school board approved Resolution 2018-2 adopting Part 1 of the district School Facilities Plan-2019 Edition.

At the June 10th Board Meeting, staff will present Resolution 2018-14 that would adopt Part 2- Capital Improvement Program (CIP). Together these documents represent West Linn- Wilsonville School District School Facilities Plan-2019 Edition.

Part 2, (CIP), covers capital improvements in response to growth, equity, student security, CTE/STEM, technology and capital asset replacements at all district sites. While the primary focus is on project needs anticipated in the short term, the document provides a forecast for additional facilities in response to growth over the next 10-years.

This document is the result of a collaborative effort with district administration, district staff, city staff, community members, private partners, the School Board and the Long Range Planning Committee.

ACKNOWLEDGEMENTS

West Linn-Wilsonville School District is deeply appreciative of the generous contributions freely given by patrons and staff.

In particular, we wish to extend recognition and thanks to the following individuals and groups for their tireless efforts in compiling the information contained in this report.

WEST LINN-WILSONVILLE SCHOOL BOARD

Ginger Fitch, Chair Chelsea King Martin
Dylan Hydes, Vice Chair Betty Reynolds
Regan Molatore
Dr. Kathleen Ludwig, Superintendent

LONG RANGE PLANNING COMMITTEE

Michael Jones Kim Jordan
Kent Wyatt Samy Nada
Grady Nelson David Lake
Doris Wehler

WITH PROFESSIONAL ASSISTANCE FROM

Tyler Vick, FLO Analytics Enrollment Forecasting
Keith Liden, Planning Consultant
Jim Fitzpatrick, Dull Olson Weekes - IBI Group Architects, Inc.
Rebecca Stuecker, Dull Olson Weekes - IBI Group Architects, Inc.
Nick Collins, PAE Consulting Engineers, Inc.
Stan Pszczolkowski, Architectural Cost Consultants, LLC
Dennis Lawler, CBRE | Heery
Brent Schafer, Todd Construction

AND THANKS TO

City of West Linn
City of Wilsonville
Clackamas County
Washington County

PART 2 - CAPITAL IMPROVEMENT PROGRAM

WEST LINN-WILSONVILLE SCHOOL DISTRICT

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INTRODUCTION

The West Linn-Wilsonville School District is once again facing school capacity deficiencies due to continued growth in the District. Facility improvements will be necessary to maintain the excellent education programs, which are the District's trademark. The public is invited to help the District determine which improvements should be made and how they should be accomplished. This report is intended to support consideration of a capital bond measure in the near future by providing background information relating to issues facing the District and the potential improvements that could address them.

This report is divided into four key sections:

OVERVIEW

WHAT is the District's mission, what are the challenges, and what is the capital improvement program?

EXCELLENCE IN EDUCATION

WHY does the District's goal for excellence in education serve as the basis for the Capital Improvement Program?

CAPITAL IMPROVEMENT PLANNING PROCESS

HOW is the Capital Improvement Program developed and how will the proposed projects support the District's commitment to excellence?

CAPITAL PROJECTS LIST AND NEXT STEPS

WHEN will the Capital Improvement Program projects be prioritized and implemented?



OVERVIEW





District Commitment to Excellence

The West Linn-Wilsonville School District is committed to excellence in education. We want a high-quality education for all our students – one that provides a personalized education for all students and affords all learners the opportunity to capitalize on strengths, work on challenges, and maximize potential. This unyielding commitment to excellence has produced an exemplary public education system.



VISION THEMES

The District creates learning communities that nurture a growth mindset for great thinking. In this environment, we work to maximize human potential and enable all students to function successfully in a changing world through access to a high-quality education that:

1. Demonstrates personal and academic excellence.
2. Provides a personalized education to improve student performance.
3. Establishes community partnerships and expands the classroom beyond the school.
4. Creates a circle of support for each student.
5. Educates the whole person--intellectually, emotionally, physically, and ethically.
6. Integrates technology in daily learning.

Growth - The Key Challenge

Creating and maintaining a quality educational environment is constantly challenged by enrollment growth, which has increased by approximately 74% from 5,644 students in 1990 to 9,836 students in 2018. In addition to providing the capacity to give each and every student a superior education, the District must also maintain and upgrade existing facilities and constantly look for ways to improve educational programs and techniques.

To meet this challenge, the School Board first created the Long Range Planning Committee (LRPC) made up of District residents in 1988. The committee's key responsibility is to review the capital improvement and facility needs of the District and to advise the School Board regarding these needs and the priorities for addressing them.

To further enhance the District's ability to proactively plan for the future, it developed the West Linn-Wilsonville School District Long Range School Facilities Plan in 1996, the first of its kind in the state. This plan, developed under the guidance of the LRPC, has provided a rational framework for evaluating and addressing future school facility needs as the West Linn and Wilsonville areas grow. The plan was updated in 2000, 2006, 2014, and again in 2019 to retain its value as a planning tool.

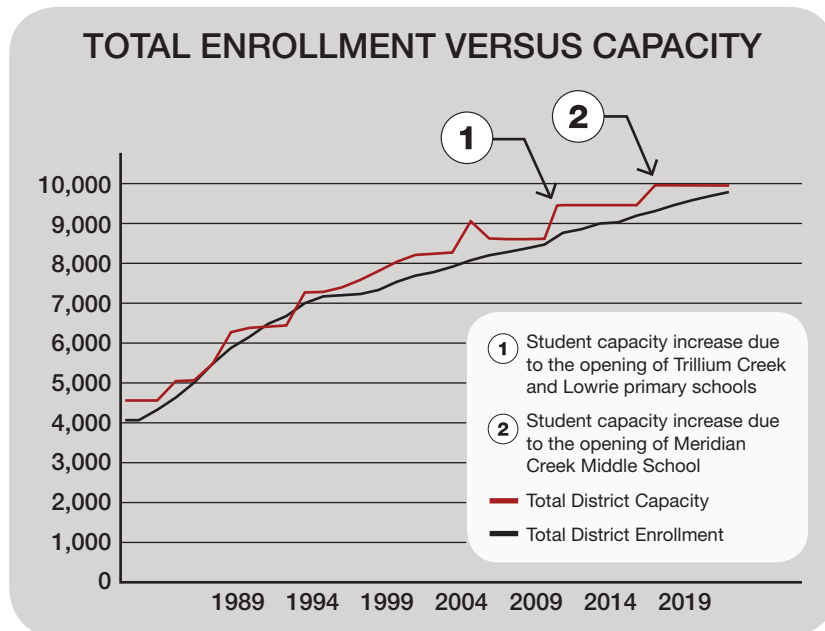


Balancing Enrollment Growth and Capacity

As noted earlier, the District has experienced a steady increase in enrollment over the past 20 years. To provide adequate school facilities for primary, middle, and high school students, the District received voter approval of school bond measures during this same period to construct new facilities and upgrade and maintain existing assets.

The District is committed to providing educational facilities in the most financially prudent manner possible. The key is to balance efficiency with maintaining quality educational environments. The District must balance steady enrollment growth with capacity, which must occur in distinct increments because new facilities, such as a new school or school addition, must be constructed at once, not incrementally. The graph in Figure 1 demonstrates the balance the District must maintain between enrollment growth and capacity. It illustrates how the enrollment has grown steadily and capacity has increased in increments when new schools or school expansions were completed.

FIGURE 1



Facility capacity is directly influenced by educational programs. Following its commitment to provide educational excellence for all students, the District continually seeks to improve its teaching practices. The District has found that an inquiry-based, collaborative, and integrated approach to teaching and learning actively engages students in their education. This well-balanced approach for creating quality education includes the following basic programs:

- Early Childhood Programs
- Inclusive Services: Learning for All
- Cultural Diversity: World Languages
- Health & Wellness
- Science, Technology, Engineering, and Math (STEM) Education
- Career and Technical Education (CTE)
- Visual and Performing Arts
- The Center for Research in Environmental Sciences and Technologies (CREST)
- Co-Curricular Enrichment and After-School Programs
- The Library: A Center for Research and Inquiry

The implementation of these programs has effectively changed the District's capacity because many of them have building space ramifications. Improving educational programs may reduce or increase school capacity, depending on the program. It is important to note that any capacity changes are outweighed by the improved educational results created by these programs.

Capital Improvement Program

With the District committed to educational excellence and efficiently providing quality facilities, the Long-Range Planning Committee continually examines existing functional needs stemming from aging facilities, expected student population growth, and education program equity for all students. This must be treated as an ongoing process for the District to successfully anticipate needs well in advance. Planning and efficiently providing educational services for the community go hand-in-hand. District residents have approved Capital Improvement Program (CIP) bond measures in 1979, 1988, 1989, 1992, 1997, 2002, 2008, and 2014. This pre-planned sequence of smaller bonds (rather than less frequent large bonds) has enabled the District to successfully balance ongoing maintenance, needed facility improvements, and expanding enrollment and capacity in a way that minimizes public debt, maintains a stable tax rate, and provides lasting solutions in real time. The 2019 Capital Improvement Program represents the next step toward fulfilling the District's Long Range Plan first envisioned over 25 years ago.

Potential Bonding Capacity

Since 2001, the District has held to its commitment to keep capital bond levies at or below \$3.00 per \$1,000 of assessed value at any given point in time. With previous bonds expiring in 2019, the District sees an opportunity to present a capital bond to voters in the near future to continue the excellence in education the communities of Wilsonville and West Linn have come to expect.

EXCELLENCE IN EDUCATION



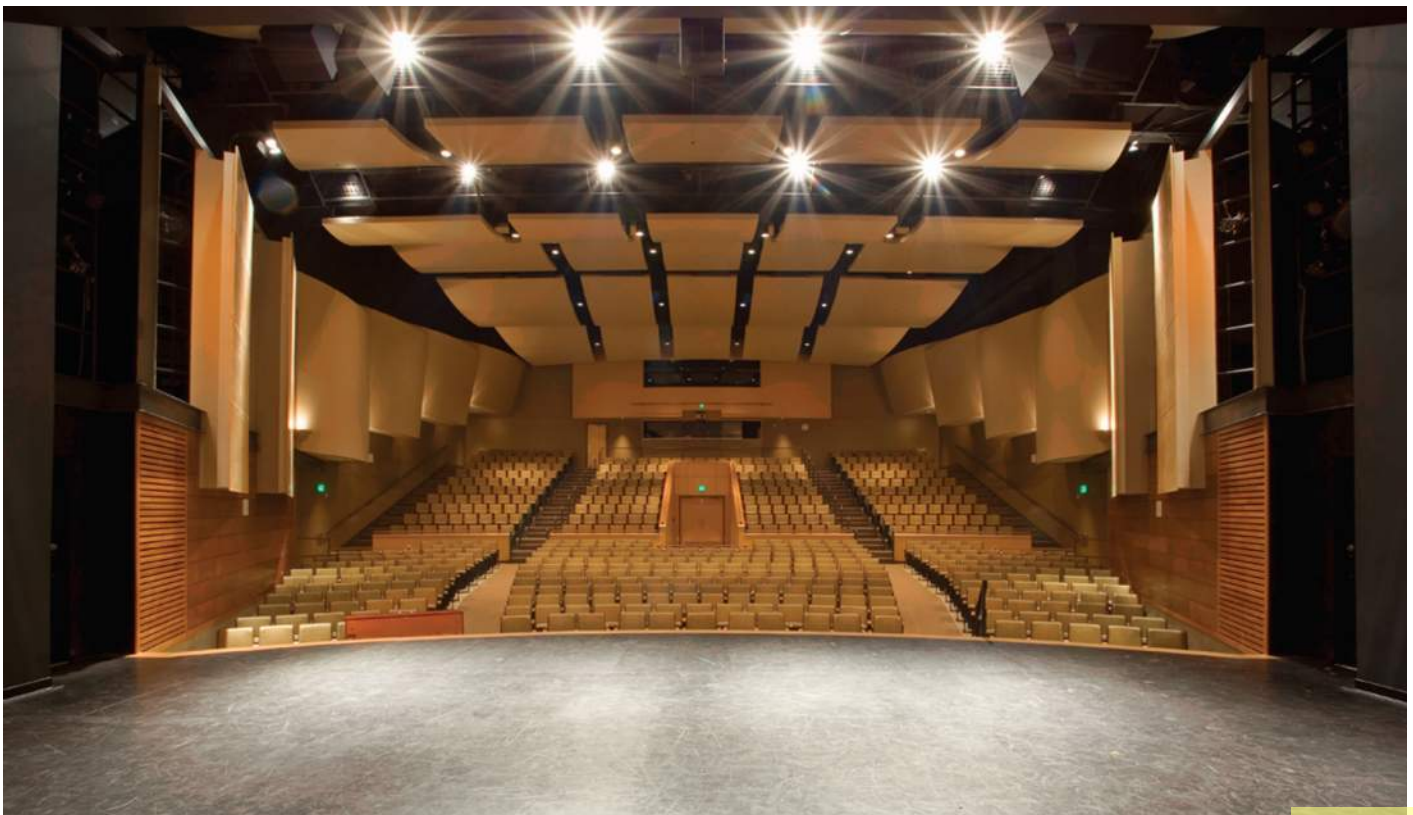


“Be the change
you wish to see in the world”
Gandhi

Programming Affecting School Capacity

Suitable school facilities are an essential prerequisite for providing a quality education. Virtually all educational programs rely on them. The District uses many programs to create a collaborative, integrated approach that provides a high-quality education. While these necessary programs increase the space needs for the District, they significantly enhance the overall quality of education offered to the students. District programs and strategies include:

- Early Childhood Programs
- Inclusive Services: Learning for All
- Cultural Diversity: World Languages
- Health & Wellness
- Science, Technology, Engineering, and Math (STEM) Education
- Career and Technical Education (CTE)
- Visual and Performing Arts
- The Center for Research in Environmental Sciences and Technologies (CREST)
- Co-Curricular Enrichment and After-School Programs
- The Library: A Center for Research and Inquiry



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Programming Affecting Facility Size, Design, and Needs

The District believes school design should create a welcoming and nurturing environment for learning. Schools are a visible and daily symbol to students and teachers of the community's commitment to education. Schools that are well designed and maintained provide a supportive environment for learning and achievement.

In planning for new facilities, the District supports the following design recommendations:

- Design schools to support a variety of learning styles.
- Enhance learning by integrating technology.
- Foster a “small school” culture.
- Support neighborhood schools.
- Create schools as centers of community.
- Engage the public in the planning process.
- Make healthy, comfortable, and flexible learning spaces.
- Consider non-traditional options for school facilities and classrooms.

As the District continues to grow, new and remodeled school facilities will be created that express the values of our community and allow the best environment for teaching all children. In addition to the traditional auxiliary facility needs, such as administrative spaces, libraries, music rooms and gymnasiums to name a few, the following programs have implications for the size and design of future facilities.

- High Performing Schools
- Safe & Welcoming Schools
- Community Partnerships
- Learning With Technology



THE CAPITAL IMPROVEMENT PLANNING PROCESS





Capital Improvement Program (CIP) History

District residents have approved Capital Improvement Program (CIP) bond measures in 1979, 1988, 1989, 1992, 1997, 2002, 2008, and 2014. This pre-planned sequence of smaller bonds (rather than less frequent large bonds) has enabled the District to successfully balance ongoing maintenance, needed facility improvements, and expanding enrollment and capacity in a way that minimizes public debt and provides lasting solutions in real time.

The last CIP bond measure, passed in 2014, represents the most recent step toward fulfilling the District's Long Range Plan first envisioned over 20 years ago. Highlights of the bond included: construction of a new middle school, a replacement primary school, additions to both high schools, new technology district-wide, remodel and modernization of two primary schools, and various athletic and site improvements. The bond provided additional square footage in excess of 95,000 square feet to district facilities, as well as contributing to the local economy.

The District's CIP is based on an over-arching strategy to "capitalize" general fund expenses by incorporating bond planning and spending with daily facility management. This allows regularly occurring bond eligible expenses to be incorporated into the CIP thus preserving general fund monies. Over the bond's 5-year period, including bond eligible expenses in the CIP has freed up over \$6-million in expenses that otherwise would have been paid by the general fund. As a result, more annual resources are available for classroom instruction.

Building on that history, and the commitment to provide quality facilities, the LRPC has examined the existing functional needs of the District stemming from aging facilities, expected student population growth, equity for all students to learn in the most conducive environment and respect for the stewardship required to maintain the facilities we currently utilize. Through this process, the LRPC has compiled and categorized this information into this 2019 Capital Improvement Program.

Responding to Growth

The District currently operates nine primary schools, four middle schools, two comprehensive high schools, one alternative high school, and one charter school. The last evaluation of the learning space capacity of each school was conducted in 2013. In 2014 District voters approved a Capital Improvement Bond that funded additions, improvements, and new facilities, changing the capacity of many school locations. Specifically, Meridian Creek Middle School is a new facility that opened in the fall of 2017 and Sunset Primary school is a new replacement facility that also opened in the fall of 2017. Major remodel and expansion projects took place at four primary schools (Trillium Creek, Lowrie, Bolton, and Boeckman), one middle school (Wood), and both comprehensive high schools.

The enrollment forecast in Table 1 illustrates what the District should expect over the next ten years. As noted above, the most acute capacity problems will be associated with high schools, which are currently operating slightly above capacity. However, this forecast also indicates that a new primary school will be needed in Wilsonville as the Frog Pond west development accelerates. In order to focus on the anticipated school facility needs for a potential school bond, the school capacity needs forecast for 2023 and 2028 are summarized in Table 2.

TABLE 1
2018 SCHOOL CAPACITY & 10-YEAR ENROLLMENT FORECAST*

	School Name	Capacity	Enrollment	5-Year Forecast				
			2018	2019	2020	2021	2022	2023
PRIMARY	Boeckman Creek	550	550	559	584	627	654	683
	Boones Ferry	775	610	595	594	601	608	613
	Lowrie	575	571	644	692	731	722	779
	Wilsonville Subtotal	1,900	1,731	1,798	1,870	1,959	1,984	2,075
	Wilsonville Available Capacity		169	102	30	-59	-84	-175
	Bolton	475	345	344	331	331	322	315
	CedarOak Park	500	291	325	329	335	321	318
	Stafford	525	433	423	416	428	436	436
	Sunset	425	345	316	320	324	332	334
	Trillium Creek	575	583	607	604	614	626	622
	Willamette	525	518	541	550	553	569	561
	West Linn Subtotal	3,025	2,515	2,556	2,550	2,585	2,606	2,586
	West Linn Available Capacity		510	469	475	440	419	439
	Subtotal		4,246	4,354	4,420	4,544	4,590	4,661
	TOTAL AVAILABLE CAPACITY (K-5)	4,925	679	571	505	381	335	264
MIDDLE	Athey Creek	669	702	735	751	712	694	720
	Meridian Creek	490	414	462	494	476	476	509
	Rosemont Ridge	713	739	716	702	703	710	743
	Inza Wood	691	532	558	549	565	583	601
	Subtotal		2,387	2,471	2,496	2,456	2,463	2,573
	TOTAL AVAILABLE CAPACITY (6-8)	2,563	176	92	67	107	100	-10
HIGH	Wilsonville	1,345	1,223	1,214	1,286	1,378	1,441	1,504
	West Linn	1,730	1,865	1,930	1,936	1,968	1,971	1,946
	Arts & Technology	80	111	80	80	80	80	80
	Subtotal		3,199	3,224	3,302	3,426	3,492	3,530
	TOTAL AVAILABLE CAPACITY (9-12)	3,155	-44	-69	-147	-271	-337	-375
Total		9,832	10,049	10,218	10,426	10,545	10,764	
TOTAL AVAILABLE CAPACITY (K-12)	10,643	811	594	425	217	98	-121	

* Projections assume that current school attendance areas remain unchanged.

THE CAPITAL IMPROVEMENT PLANNING PROCESS

School Name	6-10-Year Forecast						
	2024	2025	2026	2027	2028		
Boeckman Creek	713	747	786	815	851	PRIMARY	
Boones Ferry	613	613	613	607	608		
Lowrie	781	785	794	800	802		
Wilsonville Subtotal	2,107	2,145	2,193	2,222	2,261		
Wilsonville Available Capacity	-207	-245	-293	-322	-361		
Bolton	312	310	307	299	296		
Cedar oak Park	316	315	310	307	310		
Stafford	438	442	448	452	450		
Sunset	333	330	328	323	318		
Trillium Creek	619	619	620	612	605		
Willamette	559	559	559	557	554		
West Linn Subtotal	2,577	2,575	2,572	2,550	2,533		
West Linn Available Capacity	448	450	453	475	492		
Subtotal	4,684	4,720	4,765	4,772	4,794		
TOTAL AVAILABLE CAPACITY (K-5)	241	205	160	153	131		
Athey Creek	740	752	729	740	755		MIDDLE
Meridian Creek	564	582	595	624	642		
Rosemont Ridge	764	760	737	739	740		
Inza Wood	606	623	627	640	639		
Subtotal	2,674	2,717	2,688	2,743	2,776		
TOTAL AVAILABLE CAPACITY (6-8)	-111	-154	-125	-180	-213		
Wilsonville	1,498	1,522	1,583	1,644	1,713	HIGH	
West Linn	1,962	1,971	2,025	2,049	2,067		
Arts & Technology	80	80	80	80	80		
Subtotal	3,540	3,573	3,688	3,773	3,860		
TOTAL AVAILABLE CAPACITY (9-12)	-385	-418	-533	-618	-705		
Total	10,898	11,010	11,141	11,288	11,430		
TOTAL AVAILABLE CAPACITY (K-12)	-255	-367	-498	-645	-787		



**TABLE 2
FUTURE POTENTIAL SCHOOL FACILITY NEEDS IN 2023 AND 2028**

		2018	2023		2028		
		CAPACITY	ADDITIONAL CAPACITY NEEDED	NEW SCHOOLS	ADDITIONAL CAPACITY NEEDED*	NEW SCHOOLS	LOCATION AND APPROXIMATE TIMING
PRIMARY SCHOOLS	Wilsonville	1,900	-175	0.3	-361	0.7	Frog Pond West - proposed new 350-student primary school in response to current and projected primary level enrollment on city's east side.
	West Linn	3,025	+439	0.0	+492	0.0	Adequate capacity available in West Linn area.
MIDDLE SCHOOLS	Wilsonville	1,181	+71	0.0	-100	0.1	Meridian Creek Middle School - potential need to build out MCMS by 2028.
	West Linn	1,382	-81	0.1	-113	0.2	Dollar Street Site - proposed new 850-student middle school to replace Athey Creek facility will provide additional 181-student capacity and would respond to minimal growth in West Linn.
HIGH SCHOOLS		3,155	+375	0.2	+705	0.4	Renovate the current Athey Creek Middle School for a Career and Technical Education-focused high school for Arts and Technology High School. Construct a new Performing Arts Theater at Wilsonville High School and convert existing theater area to instructional classroom to increase capacity +/-200 students.
	Total	10,643	560	0.6	1,279	1.4	

*Includes all additional capacity needs based on the 10-year forecast.
Minus (-) indicates capacity needed and plus (+) indicates capacity surplus.

Primary Schools

As demonstrated in Table 1, primary level enrollment today is 169 below capacity in Wilsonville, and 510 below capacity in West Linn. This is due to the recent completion of Lowrie and Trillium Creek primary schools. However, as shown in Table 2, the anticipated development in Wilsonville is expected to turn this available capacity into a deficit of 59 students by 2021, growing to approximately 360 students by 2028. Capacity in West Linn also diminishes, but it is expected to have available capacity for approximately 490 students in 2028.

The Long Range Planning Committee recommends the construction of a new primary school in Frog Pond - West on the site currently owned by the District. This would provide for the rapidly growing enrollment triggered by developing the remainder of Villebois and a large percentage of Frog Pond – West, East, and South.

Middle Schools

Growth at the middle school level is increasing at a similar rate to primary. However, since there are fewer grade levels involved, the growth evidences itself as a smaller number of additional children. The enrollment in Table 1 shows the middle school level is 176 students under capacity as of September 2018. The available capacity is due to the 2018 opening of Meridian Creek Middle School, which is located in Frog Pond – South. This property was brought into the UGB ahead of the remainder of this area (often referred to as Urban Reserve Area 4H Advance) specifically to allow for the construction of this school. After 2023, middle schools are again expected to begin operating over capacity.

High Schools

The District has a growing capacity issue at the high school level. Table 1 shows that the three high schools are operating over capacity by 44 students. Only Wilsonville High School is operating within its 1,345-student capacity. The high schools are anticipated to be over capacity by approximately 375 students in 2023 and by over 700 students in 2028. By 2021, all three high schools are expected to be operating beyond their designed capacity.

In addition to capacity, another critical issue facing the high schools is the location of Arts and Technology High School. The District has leased a facility owned by the City of Wilsonville for several years. The lease for this building has been extended to 2022 only with the understanding that the District will actively seek an alternative accommodation. The District needs to determine a new location for the school along with addressing the overall high school capacity issue, which is expected to intensify district-wide over the next 10 years.

The 2018-2019 High School Study revealed great interest on the part of students, parents, staff and community members in expanding both course offerings and as well complete CTE Course Areas. The uniqueness of these programs requires specific equipment, fixtures, and spaces. As the district develops its pathways and courses of study, the spaces supporting CTE programs will need to be considered.

Expanding Opportunities and Addressing Capacity at Secondary Level

As noted above, both middle school enrollment and high school enrollment will exceed existing capacity in the near term. To respond to this expected growth, district leadership and the Long Range Planning Committee have proposed various solutions to provide adequate school capacity.

As high school enrollment continues to grow beyond the capacity of both West Linn High School and Wilsonville High School; and, the current lease with City of Wilsonville for the Arts & Technology High School will terminate in 2022, district administration brought the issue forward to the public and offered two scenarios as possible solutions:

- Grow both high schools and build/lease a new location for a small ATHS, or;
- Keep both high schools in the 1550 to 1750 enrollment capacity range and grow ATHS to +/-500-students. For this scenario, the options are:
 - Purchase/lease an existing larger facility
 - Build a new larger facility
 - Repurpose an existing school facility

Community Forums were held with district staff, City leadership, community partners and parents to discuss and determine preferred options. Additionally, an on-line survey was conducted over a period of several weeks with responses recorded and summarized. (see appendix “Future High School Possibilities”)



Following a presentation of all materials and deliberation, the Long Range Planning Committee agreed with district patrons and have made the following recommendations for inclusion in the 2019 Capital Improvement Program:

- To accommodate enrollment projections at the high school level, and to expand learning opportunities for students, the proposed project would renovate the current Athey Creek Middle School for a Career and Technical Education-focused high school for Arts and Technology High School. This action would provide additional high school capacity of 500 high school students at the Athey Creek site.
- Construct a new 600-seat performing arts theater at Wilsonville High School similar to the performing arts center at West Linn High School. The theater would be adjacent to the performing arts entrance that was constructed under the 2014 capital bond. The project would convert the existing auditorium, stage, and arena theater into instructional space. This action would provide an additional capacity of +/-200 students bringing the facility total student capacity to 1545 students. The additional space would also lend itself well to Career Technical Education learning.
- An 850-student Athey Creek Middle School replacement facility would be built on the district's Dollar Street property, bringing it into West Linn so that students can walk and bike to school. The 21-acre Dollar Street site would allow for a track, turf field and lights, parking and street frontage improvements, and appropriate site circulation for the new Athey Creek Middle School. Currently, Athey Creek has a student capacity of 669 students. With construction of a new 850-student middle school, capacity would be increased by 181 students and would be responsive to the projected growth in middle school students in the West Linn area for the next 10-plus years.
- While not necessary at this time, projected middle school enrollment increases in the Wilsonville area can readily be accommodated by building out Meridian Creek Middle School from its current capacity of 490 students to 750-850 students as master-planned when the school was originally designed.

PROJECT SELECTION

Identification of Facility Needs

As District enrollment increases, and life-cycle replacement schedules narrow, the Board has provided more detail and direction to the Long Range Planning Committee with the following:

- Review the West Linn-Wilsonville School District Long Range Plan with a specific focus on determining the impact of Villebois growth and potential growth in the Stafford Basin area as well as “infill” development in West Linn and Wilsonville such as the Frog Pond development;
- Develop a list of potential projects/capital items, which could be included in the next bond issue;
- Develop possible strategies for a future bond issue; and
- Re-calibrate student capacity at all schools.

Throughout this study, interviews were held with District administration, principals, building administrators, classified employees, certified employees, the technology leaders, local city planners, and the District’s land-use planner, architect, and mechanical/electrical engineer.

The 2019 edition of the Long Range Plan recognizes the value of community involvement in developing long term vision and positive outcome through collaboration between patrons, the Long Range Planning Committee and the School Board.



Project Evaluation Criteria

Following the District's vision themes, the Operations Department staff routinely canvass the District to determine the current state of existing facilities and perceived near-term (five year) needs. To weigh this information, several evaluation criteria have been developed. Each criterion has unique relevance to District goals and the CIP:

- **Growth:** Primarily related to student enrollment increases; also program and staff growth and expanded offerings.
- **Equity:** The notion that every patron's child should enjoy the same educational experience regardless of which school in the District they attend.
- **Teaching and Learning:** School facilities must be designed and have adequate capacity to accommodate successful educational programs. Part A of the Long Range Plan provides a comprehensive list and description of programs that shape school buildings.
- **Health and Wellness:** New state and federal mandates require a health and wellness policy. The District adopted this new policy in 2006. It impacts health curriculum, physical education and food service.
- **Stewardship:** The strong community support experienced over many years has provided the District with some of the finest public education facilities in the state. Stewardship contemplates measures needed to protect these investments, including capital-level maintenance and life cycle replacement.

In addition, supplemental criteria recognize the role schools play in a larger community ecosystem. They embrace many initiatives that shape the design and use of its facilities to build resiliency within its schools and increase their capacity to adapt to changing conditions.

- **High-Performing Schools:** Buildings must integrate and optimize all major performance attributes including energy efficiency, life-cycle performance, durability, and occupant productivity.
- **Safe & Welcoming:** Structures and systems for safe and welcoming schools are supported by the built environment. Policies and practices rely on those structures and systems to be in place.
- **Community Partnerships:** Joint ventures with in-district groups to further the District's mission and empower community interests to the benefit of all. District athletic facilities remain the primary venue for all organized sports in the District and for many community programs. As schools thrive and grow, so does the community.
- **Learning With Technology:** From classrooms to HVAC systems, every aspect of the District is enhanced with technology. It is integrated into and beyond the learning environment.

DISTRICT-WIDE IMPROVEMENTS PROJECT EVALUATION

This category of projects represents work at all district sites that has been identified over time as improvements that respond to project evaluation criteria. The total list of District-Wide Improvements projects is fairly extensive. In order to organize and prioritize this work two labels are applied to each. The projects are first grouped into one of six types, clarifying the nature of the work involved.

Type I - Site Improvements

These projects include outdoor improvements such as paving, sidewalks, play equipment, athletic venues, irrigation, and landscaping. **Conceptual estimate: \$2,870,000**

Type II - Interior Improvements

These include projects for minor interior remodels, carpeting, painting, finishes, ceiling replacement, doors, hardware, and casework. **Conceptual estimate: \$1,190,000**

Type III - Furniture, Fixtures and Equipment

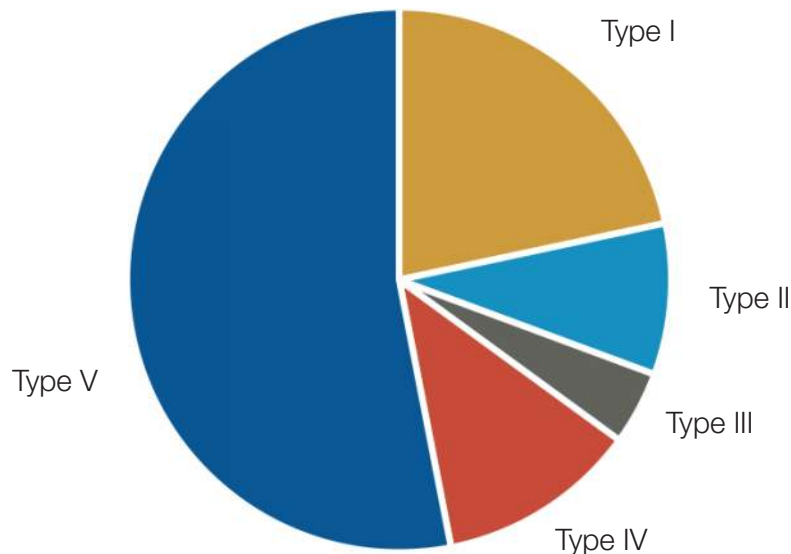
These items are in constant use by students and staff every day and include classroom furniture, projection screens, wall coverings, tackboard/whiteboard, carts, lockers, office furniture/equipment, kitchen equipment, file cabinets, storage systems, etc. **Conceptual estimate: \$580,000**

Type IV - Roofing / Exterior Envelope

Funding is required at many district buildings to ensure waterproof integrity. Also includes some repair/ replacement of identified siding and windows at specific buildings. **Conceptual estimate: \$1,580,000**

Type V - Mechanical / Electrical / Plumbing

Fairly self-explanatory; includes repair/replacement of pumps, motors, boilers, fans, electrical components, plumbing components, digital controls, etc. These projects provide both improved performance and reliability, and also capture energy savings. **Conceptual estimate: \$7,030,000**



Project evaluation criteria are then used to assign each project to one of three categories.

Category A: Mission Critical

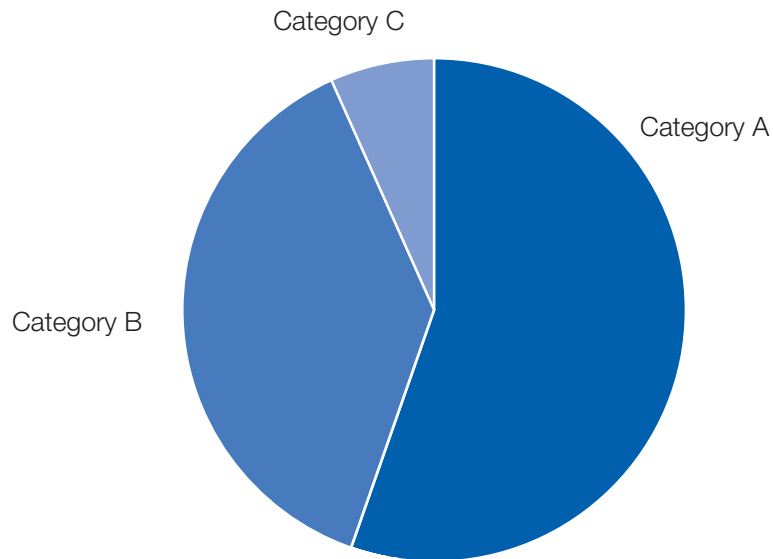
These projects represent work to correct issues that are in/near failure, are out of compliance with code thereby failing to pass critical inspections, cause inordinate labor/repair to keep operational, or otherwise necessary to improve instruction or student performance. **Conceptual estimate: \$7,320,000**

Category B: Mission Important

This Category of work, while not a threat to daily operations, does have significant value toward efficiency and effectiveness in operations and/or curriculum delivery. **Conceptual estimate: \$5,050,000**

Category C: Deferrable

This Category represents work that is not in failure, nor necessary to improve instruction or student performance. This list contains items that are currently functional but may require repair/replacement in the next 10-years or are suggested as upgrades that would be useful but not critical. **Conceptual estimate: \$880,000**



CAPITAL PROJECTS





CAPITAL PROJECTS

The Long Range Planning Committee and operations staff utilized these criteria to bring forward projects that were not funded previously, add new projects, as well as address facilities needs for the next five years.

2019 Capital Improvement List:

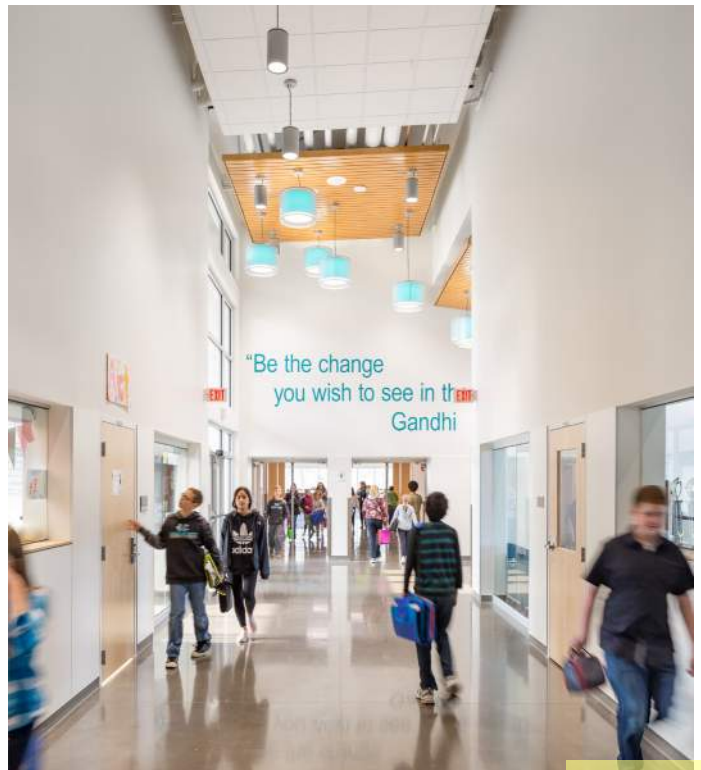
Safe & Welcoming Schools	\$15,250,000
Increasing Access to the Arts - Wilsonville High School Auditorium Addition	\$25,000,000
Expanding Opportunities and Addressing Enrollment Growth at Secondary Level	\$88,000,000
West Linn High School Stadium Improvements and Parking	\$8,300,000
Addressing Growth at Primary Level - New Wilsonville Primary School	\$39,000,000
Learning With Technology	\$18,000,000
District-Wide Improvements	\$13,250,000
 Total Estimated Value:	 \$206,800,000



DOWA-IBI GROUP ARCHITECTS + WEST LINN-WILSONVILLE SCHOOL DISTRICT

SAFE AND WELCOMING SCHOOLS

Location	All District Locations	
Project Summary	<p>Providing the best education possible for our students requires a safe, secure, healthy, and welcoming environment for both students and staff. Over the past several years there has been a heightened awareness regarding school safety and security at the national, state and local levels. West Linn-Wilsonville School District is committed to creating and maintaining safe, secure facilities for students, staff and patrons, including the best environment for optimal student learning. West Linn-Wilsonville prides itself on welcoming schools that provide optimal comfort, allowing students to become the best learners they can be. The following themes and projects have been selected for schools across the district.</p>	
	<ul style="list-style-type: none"> • Secure School Entrances • Classroom Lockdown Hardware • Shelter-in-Place Curtains • Intrusion Limiting Glass • Accessible Playgrounds and Restrooms • Air-Conditioning in Primary School Classrooms • Emergency Power Generators 	<ul style="list-style-type: none"> • Expand Emergency Power Coverage • Replace Fire Alarm Systems • Replace Fire Sprinkler Systems • Site Lighting • Video Monitoring • Communication Upgrades • Replace Electrical Panels • Hazardous Material Management
Conceptual estimate: \$15.25 million		



INCREASING ACCESS TO THE ARTS

WILSONVILLE HIGH SCHOOL AUDITORIUM ADDITION

<p>Location</p>	<p>Wilsonville High School</p>
<p>Project Summary</p>	<p>Performing Arts Theater The major project for this school is a large performance theater with the accompanying support spaces for performing arts including drama instruction and stagecraft. The project would construct a new 600-seat theater (similar to WLHS) adjacent to the new performing arts entrance constructed under the 2014 bond program.</p> <p>Renovated Instructional Space This project will also convert the existing auditorium, stage and arena theater to instructional space, increasing total building capacity of the high school. The nature of the remodeled instructional space will allow for increased Career Technical Education opportunities for Wilsonville High students.</p> <p>Site and Parking Improvements This project also includes appropriate site circulation and additional parking in the existing soccer field adjacent to the gyms.</p>
<p>Conceptual estimate: \$25 million</p>	



West Linn High School Performing Arts Center
 The proposed project would construct a performance theater similar to WLHS.

EXPANDING OPPORTUNITIES AND ADDRESSING ENROLLMENT GROWTH AT SECONDARY LEVEL

RELOCATE AND EXPAND ARTS AND TECHNOLOGY HIGH SCHOOL TO ATHEY CREEK SITE

Location	Current Athey Creek Middle School Site
Project Summary	<p>The concept for this project is to expand the enrollment of the Arts and Technology High School from its current 100 students to approximately 500 students. The new size would still maintain a smaller feel than the other high schools; and, the increased enrollment could allow for expanded courses and programs to be offered at the school.</p> <p>The plan is to relocate this option high school to the current Athey Creek Middle School building site. This would include:</p> <ul style="list-style-type: none"> • An administration suite would be constructed at the front of the school to assure safety and security for students similar to other schools in the District. • The existing area that houses the current administration suite will be converted to learning spaces. • Learning spaces will be designed with Career Technical Education in mind, allowing for diverse programming. • Renovating this existing building for the Arts and Technology High School does not involve a boundary change for middle or high school.

RELOCATE ATHEY CREEK MIDDLE SCHOOL

Location	Dollar Street Site, West Linn
Project Summary	<p>This new facility is proposed to be a replacement building for the existing Athey Creek Middle School that is planned to be converted to a new option high school as indicated in the previous project sheet. The new middle school facility will be designed on the 21-acre District-owned Dollar Street site at the southwestern edge of West Linn and is proposed to accommodate 850 students. Construction of this new school will not affect current middle school boundaries.</p> <p>The site components will include:</p> <ul style="list-style-type: none"> • Modern, contemporary middle school. Due to the size and shape of the site, the building is expected to be designed with two stories. • Track, Turf field with lights, and appropriate site circulation. • Parking and street frontage improvements.
Conceptual estimate: \$88 million	



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WEST LINN HIGH SCHOOL STADIUM IMPROVEMENTS AND PARKING

<p>Location</p>	<p>West Linn High School</p>
<p>Project Summary</p>	<p>Stadium Improvements Increasing the size of West Linn High School’s stadium is needed to accommodate enrollment growth and increase safety. The current stadium size does not accommodate the entire student body of more than 1,800. Enlarging the stadium would provide a place for the entire student population to gather for school events, assemblies and activities. Enlarging the stadium would also increase safety for students during emergency protocols, and increase safety for the greater community during major athletic and performance events.</p> <p>Increased Parking Enlarging the WLHS stadium would require adding additional parking at the WLHS site. Additional parking would benefit the student body during school hours and improve parking lot safety during community events. The number of parking spaces would be determined during the permitting process based on West Linn City code.</p>
<p>Conceptual estimate: \$8.3 million</p>	



ADDRESSING GROWTH AT PRIMARY LEVEL

NEW WILSONVILLE PRIMARY SCHOOL

<p>Location</p>	<p>Frog Pond Site, Wilsonville</p>
<p>Project Summary</p>	<p>New housing developments in this area of Wilsonville are impacting enrollment projections. The construction of a new primary school would allow for this growth and limit the potential overcrowding of other primary schools in the area.</p> <p>As an aid to the planning process, this project is described as a new starter primary school with a capacity of 350 students with room for a future buildout to approximately 550 students. Price includes all construction costs; instructional technology; and furniture, fixtures, and equipment necessary to function at par with any school in the district. The site is 10 acres, relatively flat, and has streets on three sides where utilities are readily available. Demolition of a residential structure and pole barns will be required.</p>
<p>Conceptual estimate: \$39 million</p>	



DOWA-IBI GROUP ARCHITECTS + WEST LINN-WILSONVILLE SCHOOL DISTRICT

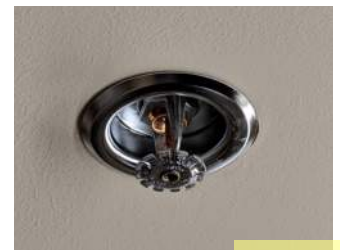
LEARNING WITH TECHNOLOGY

Location	District-Wide
Project Summary	<p>Technology is a vital component of virtually every aspect of the School District. Teaching and learning is enhanced by technology and efficient building operations require a reliable technological infrastructure. Below is a summary list of technology and systems to be upgraded, replaced, or added.</p>
	<ul style="list-style-type: none"> • Re-wiring existing schools • Network electronics • WiFi upgrades • Server environment • Phone system update • District-wide distributed digital signage • MDF/IDF power redundancy • Intercom system enhancement • Video monitoring • Radio network/system • New clock systems • Updated classroom display technologies • Auditorium/commons/MPR AV systems • Student and staff device rollouts
<p>Conceptual estimate: \$18 million</p>	



DISTRICT-WIDE IMPROVEMENTS

<p>Location</p>	<p>District-Wide</p>	
<p>Project Summary</p>	<p>The District works tirelessly to protect the community’s investment in facilities. District-Wide improvements include a wide range of projects that address critical issues such as accessibility upgrades, equitable access and Title IX compliance, energy code and building efficiency upgrades, fire and life safety improvements, and renovations for Career Technical Education (CTE) learning environments. Below is a summary list of highlighted projects.</p> <ul style="list-style-type: none"> • Wet Lab / Classroom addition and site improvements at CREST • Instructional greenhouses at each middle school • Synthetic Turf, lighting, and practice facility at Wilsonville High School women’s softball field • Improved Career Technical Education (CTE) spaces, equipment, and fixtures at all high schools • Replace track surface at multiple schools • Select interior improvements at all schools • Select student furniture replacement • Kitchen equipment replacement • Athletic scoreboard replacement • Select roofing replacement • Select exterior painting • Mechanical equipment life cycle replacements and energy efficiency upgrades 	
<p>Conceptual estimate: \$13.25 million</p>		



DOWA-IBI GROUP ARCHITECTS + WEST LINN-WILSONVILLE SCHOOL DISTRICT

NEXT STEPS





WHERE DO WE GO FROM HERE?

“Today’s understanding leads to tomorrow’s reality. We strive to accomplish for our children that which we did not have for ourselves.”

Continuing conversations between district leaders and our community will focus and prioritize an action plan to cement a vision that leads toward a 2019 Capital Bond Campaign and the creation of a school district that elevates opportunities and success for every child.

2019	BOND PROGRAM: NEXT STEPS
February	Bond Summit
March	Public Surveys
April	Financial Modeling Project Research Project Priorities
May	School Board Study Public Input
June	Bond Election Decision
July	Bond Election Decision
August	Bond Election Decision
September	Bond Campaign
October	
November	General Election

APPENDIX





BOND PLANNING MEETINGS LOG



West Linn – Wilsonville Schools

Bond Planning Meetings

October 26, 2017 – High School Study: Purpose and Setting the Stage
November 27, 2017 – High School Study: Generation Z; Special Guest Karina Ruiz, Architect
December 5, 2017 - High School Study: Study Group Members tour Center for Advanced Learning
December 8, 2017 - High School Study: North Creek High School Skype Virtual Tour
December 11, 2017 - High School Study: Study Group Members tour Beaverton Health and Science School
December 11, 2017 - High School Study: Study Group Members tour Beaverton High School
December 13, 2017 - High School Study: Study Group tours Henrietta Lacks Health and Bioscience High School
January 23, 2018 - High School Study: Research and Study; Debriefing High School Tours
February 28, 2018 - High School Study: Looking at WLWV student trends; current high school structures
March 19, 2018 - High School Study: Reflecting on Student Voice/Survey Data
April 28, 2018 - High School Study: Teacher Summit #1 with Diana Laufenberg
May 4, 2018 - High School Study: Study Group meets with Arts and Technology Student Focus Group
May 7, 2018 – Board Meeting, Board adopts square footage capacity calculation model
May 9, 2018 - High School Study: Study Group meets with West Linn High School Student Focus Group
May 17, 2018 - High School Study: Study Group meets with Wilsonville High School Student Focus Group
May 28, 2018 - High School Study: Study Group Hosts Parent Forum
May 29, 2018 - High School Study: Final High School Study Debrief; Looking Ahead to the Future
May 29, 2018 – CREST Summit
June 8, 2018 – Long Range Plan Update Meeting at DOWA
September 10, 2018 – Capacity Meeting with DOWA-IBI Group
September 10, 2018 – School Board Meeting (4th Board goal)
September 20, 2018 – Jurisdiction Coordination Meeting (DOWA, Keith Liden, Tim)
September 24, 2018 - School Board & Long Range Planning Committee Joint Meeting with Flo Analytics
October 18, 2018 – Long Range Plan Update Meeting
October 22, 2018 – Board Work Session – Report of the Safety Committee Findings
October 24, 2018 – Long Range Planning Committee Meeting
October 31, 2018 – Enrollment Projections for 2018-2028 received from Flo Analytics
November 5, 2018 – School Board Meeting (Capital Bond Capacity Info & Learning Space Capacity Report)
November 9, 2018 – Bonding Capacity (Son Le, Kathy, Tim)
November 13, 2018 – City of West Linn Officials Meeting (Kathy, Tim, Andrew, Eileen Stein)
November 15, 2018 – Capital Projects Meeting (Dylan, Ginger, Kathy, Tim)
November 16, 2018 – City of Wilsonville City Officials Meeting (Kathy, Tim, Andrew, City Staff)
November 19, 2018 – Flo Analytics Future Siting Meeting (Dylan, Ginger, Kathy, Tim, Curt, Andrew)
November 20, 2018 – Jeremy Wright, Public Affairs Consultant (Kathy, Tim, Andrew)
November 28, 2018 – Joint WL/WV Rotary Meeting with Community Input
November 28, 2018 – Long Range Planning Committee Meeting
November 29, 2018 – Review draft updated Long Range Plan (DOWA)

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West Linn – Wilsonville Schools

November 30, 2018 — Progress Update/Principal Talking Points (Joel Sebastian, High School Principals)
December 4, 2018 – Future High School Possibilities Community Forum
December 5, 2018 - Future High School Possibilities Community Forum
December 6, 2018 - Future High School Possibilities Teacher Meeting #2
December 6, 2018 – Districtwide projects estimating meeting (PAE, Pat, Remo)
December 12, 2018 – Art Tech High School Future Meeting
December 13, 2018 – Jurisdictions Meeting (City of Wilsonville Planners, City of West Linn Planner, Clackamas County Planner, Metro)
December 13, 2018 – Project Estimate Review with DOWA-IBI Group
December 13, 2018 – Athey Creek Middle School Relocation Meeting (staff)
December 14, 2018 – Meeting with Jeremy Wright, Public Affairs Consultant
December 19, 2018 – Long Range Planning Committee Meeting
January 8, 2019 – Jeremy Wright, Public Affairs Consultant Meeting
January 9, 2019 – Long Range Planning Committee Meeting
January 14, 2019 – Board Meeting, First Read of updated Long Range Plan & CIP
January 16, 2019 – Bonding Capacity Meeting
January 16, 2019 – Long Range Planning Committee Meeting
January 28, 2019 – Joint Long Range Planning Committee /School Board Meeting – Review Long Range Plan
January 28, 2019 – Board Adopts Resolution 2018-2: Adopt LRP Part I
January 28, 2019 – 3 High Schools Planning Meeting (Saskia, Dan, Greg, Kathy, Andrew, Aaron, Barb, Tim)
January 30, 2019 – Bond Summit Planning Meeting (Kathy, Andrew, Curt, Tim)
January 30, 2019 – Bond Summit Invitations
January 30, 2019 – Future High School Possibility Teachers Meeting #3
February 11, 2019 – Meeting with Jeremy Wright, Public Affairs Consultant
February 11, 2019 – Bond Summit Planning Meeting (DOWA, Tim, Andrew)
February 12, 2019 – Bond Summit Planning Meeting (Kathy, Tim, Andrew, Keith)
February 20, 2019 – Long Range Planning Committee Meeting
February 23, 2019 – Bond Summit
March 12, 2019 – Art Tech Teachers Summit
March 15, 2019 – Conference call with Jeremy Wright, Public Affairs Consultant, Bond Polling
March 19, 2019 – High School Program Renewal Meeting
March 20, 2019 – Long Range Planning Committee Meeting
April 8, 2019 – Board Work Session, Potential Capital Bond Polling Process Update
April 17, 2019 – Long Range Planning Committee Meeting
April 18, 2019 – Meeting about bond polling with Jeremy Wright and Patinkin Research
April 22, 2019 – Board Meeting, LRPC Bond Summit Memo Presented
April 22, 2019 – Board Meeting, Bond Polling results and levy renewal presented by Jeremy Wright Public Affairs and Patinkin Research Strategies
May 1, 2019 – Traffic Study Meeting with DKS and Associates
May 1, 2019 – Jeremy Wright, Public Affairs Consultant Meeting

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West Linn – Wilsonville Schools

May 6, 2019 – Board Meeting - Board asks for resolution to go out for a bond be brought to the next board meeting

May 7, 2019 – Art Tech parents meeting

May 8, 2019 – Bond Finance Meeting

May 9, 2019 – Jeremy Wright, Public Affairs Consultant Meeting

May 14, 2019 – Arts and Technology Community Meeting

May 15, 2019 – Meeting with City of West Linn school site

May 16, 2019 – Long Range Plan/Capital Improvements Plan Meeting

May 22, 2019 – CIP Planning Meeting

June 6, 2019 – Bond Financing Meeting

June 10, 2019 – Board Meeting, Board Adopts Resolution 2018-14: Adopt LRP Part 2



Planning For A Capital Bond

School Board and LRPC: Timeline and Tasks

Timeline	Task
2017-2018 School Year	<input checked="" type="checkbox"/> Update and Calibrate Schools Facility Capacity <input checked="" type="checkbox"/> Update Demographic Data - 10 Year Plan <input checked="" type="checkbox"/> Superintendent High School Study Group
Spring 2018	<input checked="" type="checkbox"/> School Board commissions update of Long Range Plan <input checked="" type="checkbox"/> School Board Safety Advisory Groups (Summer)
Fall 2018 - December 2018	<input checked="" type="checkbox"/> Long Range Plan (LRP) Developed <input checked="" type="checkbox"/> Capital Improvement Plan (CIP) Developed <input checked="" type="checkbox"/> Supt. High School Study Report <input checked="" type="checkbox"/> Safety Advisory Groups Feedback/Report <input checked="" type="checkbox"/> Building Capacity Report <input checked="" type="checkbox"/> Title IX Review of Facilities Report <input checked="" type="checkbox"/> Financial Bond Capacity determined <input checked="" type="checkbox"/> Enrollment Projection Analysis Report <input checked="" type="checkbox"/> Future Schools Siting Study and Report
January 2019	<input checked="" type="checkbox"/> Updated Long Range Plan to School Board for adoption <input checked="" type="checkbox"/> Present CIP Report to School Board
(if determined) 2019 BOND PROGRAM BEGINS	
February	Bond Summit
March	Public Surveys; Public Communication
April	Financial Modeling Project Research Project Priorities
May	School Board Study Public Input; Listening Sessions
June	Bond Election Decision
July - August	Bond Campaign Committee recruitment
September	Bond Campaign
October	Bond Campaign
November	General Election

SUPERINTENDENT'S HIGH SCHOOL STUDY GROUP



West Linn-Wilsonville School District Superintendent's High School Study Group Final Report



West Linn-Wilsonville School District

2018-19

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Summary and Purpose

With the West Linn-Wilsonville School District fast-approaching 10,000 students K-12, the District continues to think about growth and future school needs. With 1,870 students at West Linn High School, nearly 1,200 at Wilsonville High and 90 at Arts and Technology High School, the possibility for future high school learning spaces may be on the horizon. As evolving high school programming precedes and informs instructional practices and learning spaces, it is time to engage the community in high school program and design considerations.

A Superintendent's Study Group was formed for the purpose of exploring the need and range of possibilities for current and future high school program design and learning spaces. This report focuses on instruction and programming in high schools. While the Study Group toured high school facilities throughout the Northwest, the emphasis of this study was less about the type of buildings that might facilitate future high school learning, and more about the type of learning and high school design options that would meet the needs of our students.

This report summarizes the key understandings generated from our study and informs the Superintendent who, in turn, will share the findings with the School Board and Long Range Planning Committee.

Components of the Study

Our study included four components:

- 1) Research that describes optimal current and future learning experiences for high school students as they prepare for college, career, and beyond.
- 2) Visit alternative and innovative high school program designs in and outside Oregon.
- 3) Collect data from our district's high school students, alumni students, and parents regarding current, past, and future high school learning experiences, and what is believed to be essential to a high school program design.
- 4) Examine current and future demographic data and enrollment trends that inform learning space needs.

Study Group Guiding Questions

We strongly believe in the quality and effectiveness of our high school programs, but how can we improve the opportunities we provide for our high school students?

How do we provide a high school education that simultaneously prepares students for both college and career, regardless of which path they choose following their K-12 careers?

Does high school in the future look different than our current model, and how can we position ourselves to stay on the cutting edge, ensuring we're providing the best high school experience possible for our students?

Study Group Participants (20)

Saskia Dresler, Principal of Arts and Technology High School
Will Lee, Teacher from Arts and Technology High School
Emily Plotnick, Parent from Arts and Technology High School
Dan Schumaker, Principal of Wilsonville High School
Christopher Shotola-Hardt, Teacher from Wilsonville High School
Christy Thompson, Parent from Wilsonville High School
Kevin Mills, Principal from West Linn High School
Stacy Erickson, Teacher from West Linn High School
Nicole Hsiao, Parent from West Linn High School
Caitlin Klenz, Assistant Principal from Athey Creek Middle School
Grady Nelson, Long Range Planning Committee Member
Tim Woodley, Director of Operations
Curtis Nelson, Chief Information Officer
Mayra Gomez, Director of College and Career Readiness
Aaron Downs, Assistant Superintendent of Secondary Schools
Barb Soisson, Assistant Superintendent of Teaching and Learning
Jennifer Spencer-Iiams, Assistant Superintendent of Student Services
David Pryor, Assistant Superintendent of Primary Schools
Andrew Kilstrom, Director of Communications
Kathy Ludwig, Superintendent, Co-facilitator of High School Study
Karina Ruiz, BRIC Principal Architect, Co-facilitator of High School Study

High School Process and Timeline

October 26 — Purpose and Setting the Stage
November 27 — Generation Z; Special Guest Karina Ruiz, Architect
December 5 — Study Group Members tour Center for Advanced Learning
December 8 — North Creek High School Skype Virtual Tour
December 11 — Study Group Members tour Beaverton Health and Science School
December 11 — Study Group Members tour Beaverton High School
December 13 — Study Group tours Henrietta Lacks Health and Bioscience High School
January 23 — Research and Study; Debriefing High School Tours
February 28 — Looking at WLWV student trends; current high school structures
March 19 — Reflecting on Student Voice/Survey Data
April 28 — High School Study Teacher Summit with Diana Laufenberg
May 4 — Study Group meets with Arts and Technology Student Focus Group
May 9 — Study Group meets with West Linn High School Student Focus Group
May 17 — Study Group meets with Wilsonville High School Student Focus Group
May 28 — Study Group Hosts Parent Forum
May 29 — Final High School Study Debrief; Looking Ahead to the Future
TBD — The High School Study Group will host a business and industry forum in Fall, 2018

Historical Perspective: Current High School Programs

The Study Group started their year-long study by first reflecting on West Linn-Wilsonville's existing high schools and the programs that students currently participate in at West Linn, Wilsonville, and Arts and Technology high schools.

West Linn High School: Originally built in 1920, with portions of the first building remaining until the late 1990s, West Linn High School was the district's first high school. Major renovations included a new entryway and commons area in 1992, a north classroom wing and administration renovation in 2000, a new gymnasium, cafeteria/kitchen, weight room, dance studio, and performing arts center in 2005, and a revitalized '700' building in 2016. The West Linn High School Master Plan was created in the late 90s and early 2000s, describing the building's capacity at approximately 1,850. Enrollment was 1,547 in 2013, growing by more than 300 students in the past four years. West Linn High School has 68 teaching stations, more than 20 Advanced Placement courses, and more than 100 different course offerings. WLHS fields teams for 21 different sports, girls and boys, and has close to 40 different clubs. Programs include those such as band, choir, mock trial, drama, culinary arts, journalism, computer science, International Science and Engineering Fair, and Youth Transition Program. West Linn High School posted a graduation rate of 97.2 percent in 2016-17, which was second in the State of Oregon.

Wilsonville High School: While the District purchased the site that holds Boeckman Creek and Wilsonville High School in the 1960s, Wilsonville High School wasn't constructed until 1995. The original school was built for 750 students, with a planned buildout to 1,500 that took place in the mid-2000s. Like West Linn High School, Wilsonville's school site is maxed out with little room for added classroom space, but still has a Performing Arts Center like WLHS's planned for the future. Enrollment sits at 1,203 as of Sept. 30, 2017, leaving room for some 200-plus students. Wilsonville High School has 58 teaching stations with an educational capacity of roughly 1,450. Similar to WLHS, Wilsonville High has more than 100 different course offerings, includes proximity to SMART Transit for easy transportation, and offers more than 20 AP courses in areas of English, math, science, social studies, world language, and the arts. Wilsonville High has more than 20 clubs, like the MeCha Club, as well as band, choir, drama, robotics, ISEF, leadership, yearbook, and broadcast journalism. Wilsonville High School posted a graduation rate of 96.3 percent in 2016-17, which was third in the State of Oregon.

Arts and Technology High School: Arts and Technology High School, or Art Tech High School, originated as a charter school in 2004, when the District leased a building located on Wilsonville Road. Following a District Study on Alternative Education in 2008, Art Tech transitioned into a District high school in its fourth year, eventually moving to its current location across the street from Wilsonville City Hall. West Linn-Wilsonville currently leases the building and property. The school has 10 certified staff, 2 counselors, 1 resource teacher, and 1 TOSA. Art Tech's class sizes hover around 10 students with an emphasis on individualized learning. Art Tech houses the District's Adult Transition Program and Youth Transition Program, and focuses on Career Technical Education (CTE) and college and career readiness. Enrollment draws nearly equally

from West Linn and Wilsonville, with unique course offerings such as printmaking, rock band, and college and career readiness. Art Tech also utilizes community partnerships and skill-building opportunities with programs at World of Speed (automotive) and CREST Headquarters (agriculture/farming).

What does today's high school student look like as a learner?

BRIC Principal Architect, Karina Ruiz, served as co-facilitator of the High School Study. Early in the Study, she provided the Study Group with an introduction to Generation Z and how students are evolving as learners. A nationally recognized architect who specializes in school facilities with an emphasis on program integration, Ruiz identified what the next generation of learners looks like, as well as the challenges and obstacles schools will need to overcome in coming years.

Recent research indicates that education today is preparing students for jobs that don't yet exist, using technologies that haven't yet been invented, in order to solve problems that we don't yet know are problems.

The High School Study Group learned that, according to a 2015 study, 70 percent of teens are currently working entrepreneurial jobs, 60 percent expect to have multiple jobs by the time they are 30, and 75 percent of teens believe they can get a good education in ways other than going to college. That being said, 66 percent of teens still plan to attend college. Of those surveyed, 42 percent of students say they intend to work for themselves and 58 percent say that their parents are their best friend. Of note, 48 percent of students surveyed felt hopeful about their future, 34 percent felt stuck, and 18 percent felt discouraged about the future.

The Study Group learned that students become less and less engaged in their schooling as they progress through the public K-12 system. A 2015 Gallup Poll Survey found that 74 percent of fifth-graders felt engaged in school compared to just 34 percent of seniors. Study Group members also learned about the implications of teaching and learning, and what recent research shows is most important. Problem-solving, transfer and application of information, interpersonal relationships, managing change and learning agility, and soft skills that global economy expects of our workforce are vital to our current learners. Personalized learning is similarly important, allowing students to learn at their own pace, learning content that is relevant to them, with rigor determined by evidence of students' ability.

The Study Group also reviewed the International Center for Leadership in Education's Rigor Relevance Framework, which shows that application and adaptation of knowledge and information is how students are now taught, which is a shift from previous teaching methods that instead led to the acquisition and assimilation of knowledge.

The High School Study Group analyzed how these shifts in teaching and learning are being implemented in schools throughout the world through virtual tours led by Ruiz. The High School Study Group explored the Missouri Innovation Campus, Colorado Academy Upper School, Park Hill LEAD Innovation Studio, Civic High School, Pathways Innovation Center, and Orestad

Gymnasium (high school) in Copenhagen, Denmark. Members noted the varying facilities and how they lent themselves to the innovative learning and various program designs.

High School Study Group Tour Summaries:

Members of the High School Study Group toured a diverse set of standout high schools across the Northwest, to learn about various high school models, gaining inspiration and ideas for what West Linn-Wilsonville could consider into the future.

Center for Advance Learning

Enrollment: Roughly 450

School Overview:

The Center for Advanced Learning (CAL) is a two-year charter school for juniors and seniors. The School welcomes students from Reynolds School District, Gresham-Barlow School District, and Centennial School District, with Gresham-Barlow acting as the home school district. In partnership with Mt. Hood Community College, students choose one of five study areas to engage in during their junior and senior year. The five areas are: Computer Information Systems; Dental Health Science; Digital Media and Design; Mechanical Engineering and Manufacturing; and Medical Health Science.

The school has 20 teachers who come from local high schools, Mt Hood Community College, and regional businesses. Students spend half their day at their area high school and the other half at CAL. Students earn nearly one college year of transferable credits during their two years at CAL while simultaneously completing all requirements for their high school diploma.



Other CAL facts/information:

- The school's four core values are: Challenge, Creativity, Innovation, and Relevance.

- Students complete a capstone project in their chosen area at the conclusion of their two-year CAL career.
- According to the CAL website, “CAL programs are designed to help students become professional, ethically-driven collaborators and problem-solvers in the 21st Century workforce. ... Each student’s education is enriched by college-level coursework, hands-on learning, diverse program offerings, and internships.”

To be accepted into the charter school, students must be able to:

Actively explore new ideas, pose questions about their meaning, significance, and implications.

- Recognize patterns and deviations from previously learned patterns.
- Appreciate abstraction and generalization revealed within a subject area.
- Be willing to be challenged as part of the learning process.
- Contribute to and benefit from group problem-solving activities and takes responsibility for own learning.
- Persevere when faced with time-consuming or complex tasks.
- Produce valid oral, written, and/or symbolic arguments to support a position or conclusion.
- Be convinced that effort is an important component of success in any subject area.
- Have completed two years of high school Math and English. For Health Sciences Program: two years of Science (Biology & Chemistry preferred).

High School Study takeaways form CAL tour:

High School study members who toured the Center for Advanced Learning noted the innovation of the school. Learning spaces very much resembled maker spaces that some WLWV schools enjoy, with state-of-the-art equipment. Each pathway also closely resembled a professional workplace, giving students a sense of what it would be like to enter the workforce in each field. The two medical pathways resembled real medical facilities, providing students with hands-on opportunities in addition to classroom learning. The digital media and design lab had top-of-the line computers and design programs, with projects that remind one of assignments students would receive if working for a journalism publication, design company, or digital media platform.

Students were already working on capstone projects, which are designed to provide real-world experience for the pathway of choice. That includes student-created design magazines, student-coded programs, manufactured materials aimed to solve real-world problems, and simulated medical procedures complete with research papers among other projects.

Study Group members also noted the level of engagement they saw from students in the classroom. Members toured all five pathways, getting brief opportunities to speak with teachers and students. CAL noted that the five pathways (dental health science, digital media and design, mechanical engineering and manufacturing, medical health science, and computer information systems) were selected based largely on available resources as well as student interest. Each pathway requires expert instructors and resources, which were somewhat limiting factors but

also helped narrow down focus and planning. Students are encouraged to stick with their chosen pathway through graduation, so it was important that students knew the scope and differences in each pathway before selection.

Study Group members also noted that the program mirrored a college. Students who are at CAL elected to be there, and they are given sizeable amounts of independence and responsibility in managing their time there.

Of particular note was the concept of a charter school that combines three distinct school districts. Because students spend half of their school day at their district-specific high school, CAL has to be centrally located. Districts are responsible for providing their own busing, with many students choosing to drive themselves. Despite coming from three different districts, CAL administration reported some sense of school unity and belonging. Having a strong sense of purpose and relevance has kept students engaged and excited to learn, according to administration.

Beaverton Health and Science High School:



Enrollment: Roughly 700

School overview:

HS2 opened in 2007 and has just over 700 students in grades 6-12. HS2 is a Science, Technology, Engineering, and Mathematics (STEM) school that offers college credit courses at the high school level in engineering, math, Spanish, and writing. Students apply for HS2 if they wish to attend and are accepted based on a lottery system.

The school's mission is to "Prepare students for college success through a highly relevant health- and sciences-based educational experience in a small school environment that fosters

student identity, commitment, and support. The Health and Science High School will act as a community access point for health and science education, serving students and families and ensuring the inclusion of the diverse community within the Beaverton School District." Using the Expeditionary Learning Model, the school's goals include:

1. Students will be college-ready upon graduation.
2. Students will demonstrate advanced critical thinking and communications skills.

3. Students will have taken responsibility for their learning, have confidence and take the opportunity to achieve their full potential.
4. Students and staff will create a collaborative and extended learning environment.
5. Staff will continue as learners as we recognize and celebrate individual growth and achievement for students and staff.

Dual Credit:

HS2 offers many classes that include dual credit, including biology, health, human body systems, medical interventions, biomedical innovations, and chemistry through a partnership with Oregon Tech (Oregon Institute of Technology). Pre-calculus is offered through PCC, and Spanish 201, Spanish 202, Spanish 203, Calculus, and Writing 121 are offered through the Portland State Challenge Link program. Dual Credit courses actually enroll students in college courses and hold them to the same expectation as all other college students.

Internships:

The HS2 Internship Program connects every student with opportunities to explore potential career paths through meaningful partnerships with businesses, agencies, and individuals. Internship partners include American Red Cross, Cedar House Media, Kaiser Permanente, Mentor Graphics, Oregon Department of Transportation, and Tualatin Valley Fire and Rescue.

High School Study Group takeaways from HS2 Tour:

The study group observed that the programming and instruction at HS2 was innovative and “fresh.”

The school’s equipment and student-available resources closely resemble what one might find in a current-day hospital or medical facility. Students receive hands-on training amidst their classroom learning, which correlates to internships that students are required to participate in. Community partnerships are vital in providing students with nearby opportunities to get real-world experience. Proximity, commitment, and reliability have been crucial to making HS2 and its model sustainable.

Administration said the school communicates extensively to students in other Beaverton middle schools and high schools, encouraging a diverse student group to apply for the school. HS2 has provided opportunities for many students who might not have received these types of experiences, serving as inspiration while increasing graduation rates and other assessment measures. Students are able to participate in extra-curricular activities through other BSD high schools, yet still feel strongly connected to their peers at HS2.

Study Group members noted that students have the opportunity to change their pathway track in between their junior and senior year, providing flexibility for students.

Beaverton High School

Enrollment: 1,700

Student/School Breakdown:

Beaverton High School had enrollment of 1,704 in 2015-16. Of those, 45 percent of students were economically disadvantaged, 31 percent were English Language Learners, and 16 percent students with an Individualized Education Plan (IEP).

According to the Beaverton School District website, 87 percent of their 2016 graduates attended college directly after graduation (48 percent of graduates attended 4-year colleges while 39 percent attended community college). Of the remaining 13 percent of graduates, 2 percent attended technical/vocational schools, 4 percent joined the military, and 5 percent went straight into the workforce.

Building History:

Beaverton High School, originally called Beaverton Public School, first opened in 1875, with additions and renovations made in 1885, 1902 and 1910. The school was completely rebuilt in 1916, and while there have been multiple renovations since then, the original building still stands. It is the oldest public high school in the state of Oregon that is in its original location and building.

School philosophy/course offerings:

According to BHS's website, "We strive to create technology-rich, student-centered, and inquiry-based education. Our facilities are being refurbished to offer learning spaces that foster curiosity, flexible thinking, and cooperation."

The school currently boasts three established "Pathways" and two developing Pathways. The three established pathways are digital media, health careers, and marketing. Students are required to complete 2 credits for digital media, 3-4 credits for health careers, and 5 credits for marketing. Courses in those Pathways include options like computer animation, sports and event marketing, personal finance, nurse assisting, introduction to business, video journalism, and health careers-clinic. Of the two developing Pathways (engineering and education), engineering requires 4 credits and education is still being designed. Just under a quarter of Beaverton High School students are enrolled in the Pathway program.

BHS CAREER PATHWAYS	EDUCATION	ENGINEERING	DIGITAL MEDIA	HEALTH CAREERS	MARKETING
	Developing Pathways		Established Pathways		
Required Lower-Level Courses	Child Development (1.0) Required Credits: 1.0	*Engineering 1 (1.0) Required Credits: 1.0	*Graphic Design 1 (0.5) Photography 1 (0.5) *Web Design (0.5) Required Credits: 1.5	Introduction to Health Careers-ELL (1.0) *Anatomy & Physiology (1.0) *Health Careers 1 (1.0) Required Credits: 2.0	*Computer Apps/ MS Office (0.5) *Introduction to Business/ BA 101 (0.5) *Marketing 1 (1.0) Required Credits: 2.0
Required Upper-Level Courses	Advanced Child Development (1.0) Coming in 2019-2020! Required Credits: 1.0	+Engineering 2 (1.0) Engineering 3 (1.0) Required Credits: 2.0	*Graphic Design 2 (0.5) Required Credits: 0.5	*Advanced Health Careers-Core (1.0) *Advanced Health Careers-Clinic (1.0) *Nurse Assisting 1 (1.0) Required Credits: 1.0 or 2.0	*Marketing 2 (1.0) *Marketing Seminar/ BA 205 (1.0) Required Credits: 2.0
Electives	TBA	*Drafting & Design/ CADD 1 (0.5) *Drafting & Design/ CADD 2 (0.5) Comp. Programming 1 (0.5) Comp. Programming 2 (0.5) Required Credits: 1.0	*Computer Apps/ MS Office (0.5) Computer Animation (0.5) Photography 2 (0.5) Video Journalism (0.5)	NONE	*Digital Mktg (1.0) *Mktg Management (1.0) *Sports & Event Mktg (1.0) *Personal Finance/ FIN 218 (0.5) *Graphic Design 1 (0.5) Required Credits: 1.0
Total Required Credits	TBA	4	2	3 or 4	5

All pathways include a culminating experience. *Dual-credit course +AP course

High School Study Group takeaways from Beaverton High School tour:

Members noted that the integration of pathways into a traditional, comprehensive high school. Administration encourages students of all background and ability to participate. Administration also noted that the correlation between academic success and students engaged in Pathways (state test scores and graduation rates among others) was high compared to the BHS school averages.

Administration said that Pathways took some time to establish early on as students familiarized themselves, and programs became established. Initial transition of staffing and program was a challenge but has since stabilized. Student participation has been consistent since the inception.

Study Group members were able to compare Beaverton High’s Pathways to those at HS2 and CAL. At BHS, students receive hands-on, real-world experiences, but maintain a schedule similar to their peers who aren’t enrolled in a Pathway.

Henrietta Lacks Health and Bioscience High School:

Established: 2013

Current Enrollment: 589

Overview:

Henrietta Lacks Health and Bioscience High School, part of the Evergreen School District, serves grades 9-12 and was funded in part by various hospitals, clinics, and research facilities throughout Vancouver. Students choose from one of four program areas, and also participate in job shadows and internships during their junior and senior year. The four programs of study

include Nursing and Patient Services, Biomedical Engineering, Pharmacology, and Biotechnology.

Excerpt from an article published by The Columbian right before the school opened:

“The 60,000-square-foot building was designed by LSW Architects and constructed by Skanska USA. If needed, an additional 20,000 square feet may be added later. Its high-tech design is apparent both inside and out. Two levels of solar panels on the south side will help provide power. The floors on the first level are polished concrete, and in the student commons the floor is heated for comfort.

Students will learn real-world nursing skills in the four-bed nursing station, complete with a simulated, interactive robot patient called SimMan. A simulation pharmacy and well-equipped laboratories will provide more hands-on learning. The library, called the research lab, will be stocked with a combination of electronic books and traditional paper textbooks.

HeLa isn't a traditional high school. It won't have sports teams, so instead of a large gym, the school has a fitness room where students will learn lifelong fitness using resistance training, mats, Pilates and medicine balls. There won't be a marching band or pep band, but a scaled-down music program may offer orchestra or symphony.

The first school year, the student body will consist of about 125 freshmen and 125 sophomores. The next two years, 125 freshmen will be added each year, so that 500 students eventually will be enrolled there. Students interested in attending the school completed an application and are being chosen via a lottery system from the district's comprehensive high schools, with an equal number of students coming from each school.

Classes will be integrated to create an overall focus on health and biosciences, Tumelty said. As an example, she said in English class, students will use informational texts and literature that are science-based.

“The goal is for students to see the connections between the disciplines so that they get a better view of how the real world works,” Tumelty said. “Teachers will be working on creating these connections in authentic ways for students.”

Freshmen and sophomores will take anatomy and physiology along with chemistry and biology “to give them a really good base in science,” said Elisabeth Harrington, the district's director of curriculum and instruction. Before they enter their junior year, students will have to choose one of five pathways: nursing and patient care; health informatics (data processing); biomedical engineering; pharmacy; or biotechnology.

“In the first two years, as they're doing A&P, there will be a heavy emphasis on medical terminology,” Harrington said. “Once they've picked their pathway, as juniors they'll partner with PeaceHealth with job shadowing opportunities. Seniors will have internships at PeaceHealth.””



CREDIT: The Columbian

High School Study Group takeaways from HeLa:

Members noted that, of the schools toured, Henrietta Lacks most closely resembled what it's like to work in the professional world. Facilities mimic hospitals, pharmacies, and medical facilities today, which is especially beneficial when students leave for their nearby internships.

An example is the pharmacy learning center within HeLa, which includes a simulated pharmacy in the classroom. Look-a-like vitamins, antibiotics, and other pills in pharmacy bottles) are organized like they would be in an actual pharmacy, as students learn about prescription drugs, medical terminology, and the inter-workings of pharmacies.

Like HS2, HeLa communicates extensively about its program to students in other district high schools, building awareness of the opportunities it presents students. HeLa administrators meet with middle school and high school students every year to share the career pathways their school provides while encouraging parents to learn more. Administration says these meetings and outreach time-consuming, but result in a strong student enrollment.

HeLa students spend their entire day at the options high school, meaning HeLa provides core programming in addition to pathway courses. They also provide as many electives as possible — those electives that students would expect at a comprehensive high school — which has meant creative scheduling.

Administration noted that it takes a unique commitment from teachers to teach at a school like HeLa. The scheduling structure means teachers have to teach a variety of subjects. Finding staff that embraces the culture and uniqueness of a school like HeLa has been a priority.

Of note, all students are bused or driven by parents. There is no student parking allowed on campus or on nearby neighborhood streets.

North Creek High School

Enrollment: Roughly 1,600

School Breakdown: North Creek High School is a comprehensive high school located in Bothell, Washington. The building was built to accommodate 1,600-plus students. 2017-18 was the first year of operation with reported enrollment of 1,275. Enrollment is expected to jump to 1,700 in the 2018-19 school year.

Building Layout: There are two two-story academic buildings with classrooms on all levels. The third building houses the gym, commons, choral/instrumental music classrooms and practice spaces, performance venue and class/open practice space, two health classrooms, yoga/aerobics room, weight room, art rooms, and an engineering class with a computer lab. While the school offers STEM courses, it is not considered a STEM school.

What makes North Creek High School unique: The building was constructed with a flexible and innovative design, which aids project-based and problem-based learning. Learning is meant to extend beyond the physical classroom and throughout the entire school and campus, giving students real-world knowledge and skills.

The school wants to be known as an “ultra-green learning community” for environmental sustainability. The building and grounds utilize geothermal energy harvesting, rain gardens, natural lighting, and storm water management, which science classes routinely study and monitor by extending their learning outside of the classroom.

The school utilizes a variety of classroom sizes and learning spaces. The school includes “Collaboration Cubes” in the hallways, as well as larger group learning spaces. The Collaboration Cubes can be used for group work and meeting areas. Classrooms were constructed to promote student collaboration, with a glass wall that can be removed to open up the fourth wall of the classroom into the hallway. Classrooms have a flat panel display instead of white board and projector, which is also intended to help teaming and project-based learning.

Outside the school structure, students and staff can access technological resources for outside laboratory study of surrounding wetlands and habitats. Classrooms aren't designed by department, they're largely interchangeable, so that the school is free-flowing. There's a teacher-planning room on every floor to encourage teacher collaboration, as well. The school enjoys a two-floor library/innovation center, which includes a large windowed area and deck, so students can study outside.

High School Study takeaways from North Creek High School:

The school does not have defined pathways, but does have an emphasis on facility and how facility impacts programming, collaboration, and student learning. The building is state-of-the

art, with every wall, staircase, and classroom intentionally placed to maximize student learning. The facility and its landscaping was also planned with environment in mind, for both efficiency and sustainability. Study Group members noted that, through an online virtual tour, the learning spaces integrate and overlap to increase collaboration between students.

Planning for North Creek High School involved both community and students from the onset. Because the school implemented a schedule that was completely new to the district, parents and students were surveyed to look for improvements. Everything from start and end times was discussed, with community input not only gathered but considered as well. Students were tasked with finding the school mascot and colors, giving the greater community and student body a sense of school spirit and ownership before it even opened for the first day of school.

Administration noted that staff transitioning to a new school is often a challenge, as the school is unique. The classrooms are designed to encourage more student activity and discussion rather than a teacher lecture format. Each classroom has a glass wall that looks out into hallway learning spaces, promoting transparency of teaching and learning.

In its first year, administration says staff and students both have adapted to the layout of the school, and their sense is that peer collaboration is taking part on a daily basis. They attribute this to both the building and a shift in culture.

Overall findings from high school tours:

High School Study Group members reported that the innovation of nearby high schools is inspiring, and that implementation of various ideas and program components can occur in WLWV both short-term and long-term.

The High School Study Group made the following observations:

1. There's opportunity for increased real-world and hands-on learning in the West Linn-Wilsonville School District.
2. Career Pathways or increased Career Technical Education (CTE) courses such as those witnessed at other schools could aid in preparing students for career.
3. Many of the high schools have become skilled at integrated internship and dual credit opportunities into their programming and high school schedule.
4. Programming should drive facility, and not the other way around.
5. The high schools that were toured are doing an impressive job of partnering with local industry to provide real-world and career-based educational opportunities for students. Industry experiences provide students with work experience while introducing them to careers they might not otherwise consider.
6. Students learn many skills through pathway programs that prepare them for college as well, including time management, problem-solving, the application of knowledge, and study skills among others.
7. High student engagement was evident at each visited school. There is value in providing pathway opportunities to better connect students to their learning and promote lifelong learners as well as a growth mindset.
8. Scheduling varied at visited schools. How might the district think outside the box, long-term, to provide increased flexibility and options for students? Nontraditional schedules

could maximize learning opportunities, providing increased equity for all students. Evening classes or weekend classes might be worth considering in the future.

9. There was an emphasis and evidence of both student collaboration and teacher collaboration as well as flexibility.
10. A large amount of project-based learning is taking place at the various high schools, building communication and teamwork skills that are vital in the workplace.

Community Feedback

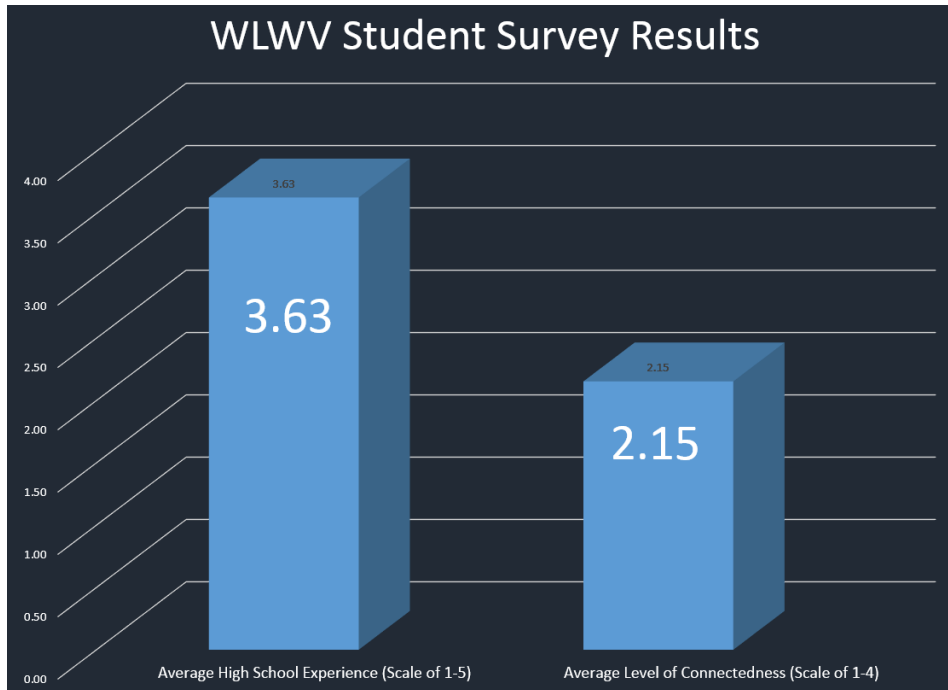
On January 12, Superintendent Dr. Kathy Ludwig hosted a joint meeting of the West Linn and Wilsonville Rotaries, giving a presentation describing Generation Z and innovative high school designs. The gathering was an opportunity to lead together, engaging the broader community in thinking about how high schools have evolved, relevant learning experiences, and how communities could partner with school districts. Rotary members were asked to discuss what skills they believed high school students should be learning to be best prepared for the job force, while brainstorming how high school could better integrate and collaborate with the community.

Recommendations and wonderings from Rotary members included:

1. More **STEM education** and opportunity for ALL students.
2. Introduce **STEM education** at a younger age — not just middle school and high school.
3. **Technical skills and vocational education** is oftentimes just as important as academic knowledge.
4. **Connecting local professionals** to schools in areas such as medical and business industries.
5. **Mentorship programs**, providing students with professional networks in the community while introducing students to the workforce.
6. Grow **partnerships with local colleges** such as Clackamas Community College and Oregon Tech.
7. **Leverage opportunities in high-tech** with local companies such as Mentor Graphics and FLIR.
8. Provide **real-world education** around topics such as financial literacy while building “soft” skills.
9. Build in **“career pathways”** such as health/wellness, entrepreneurship, and marketing.

Student Feedback (Survey Data)

To gather student input, more than 100 juniors and seniors were surveyed about their current high school experiences, what has been beneficial to them as learners, and what areas of their



high school experience could be improved.

The following is summarized feedback from those surveys.

- On a scale of 1-5, with 1 being poor and 5 being outstanding, surveyed students reported an **average high school** experience of 3.63.
- On a scale of 1-4, the average for **coursework connectedness** was reported at 2.15.
- Many students asked for **increased hands-on learning opportunities** and courses that prepared them for specific careers.
- Students reported that they feel prepared for **college**, but not necessarily for their **future**. They reported feeling unprepared for living on their own and traversing life after high school.
- Choice was very important to students. Many responses showed desire for more **flexibility in the high school schedule** and increased chances to study subjects interesting and relevant to students.
- Students reported a desire for **increased collaborative time** and more project-based learning as opposed to lectures and tests.
- Students expressed a desire for more **control over schedule** and less restriction by “bells” and rigidness.
- **Journalism, computer science, STEM, and the arts** were all classes that students mentioned as being particularly helpful or engaging.
- Students report that they have too much on their plates. Students reported that **less homework and school-related stress** would help students succeed.
- Multiple students asked for **more options** for evening and weekend classes.

- Students said the pressures of high school can be significant, and that **increased mental health resources** would be beneficial.

Student Feedback (Focus Groups)

Following student survey data, the High School Study Group met individually with student focus groups from West Linn High School, Wilsonville High School, and Arts and Technology High School. Students were asked about their current high school experience; what parts of their school day are relevant to what they want to do after high school; how prepared they feel for both college and career; what changes they would make to their school and schedule; what they like about their school and schedule; and any other thoughts or feedback they might have. The following are summaries of those discussions.

Arts and Technology High School (7 students, made up of juniors and seniors)

- Strong desire for courses focused on **real-world skills**, including financial literacy, culinary arts, computer science, and engineering among others.
- Students report that **smaller class sizes** enhance learning and the classroom experience.
- **Extra support** is pivotal for students with learning disabilities.
- Desire for **increased one-on-one time** with teachers.
- **Less homework** would allow students to participate in additional extra-curricular activities and also allow for recuperation after long school days. Workloads feel unmanageable at times.
- **Flexibility in course selection** improves engagement and makes students feel more connected to their learning.
- **Individualized learning targets** increase student confidence and likelihood of sticking with challenging material.

West Linn High School (14 students made up of juniors and seniors)

- **Flexibility in course selection** improves engagement and increases student connection to their learning.
- Student desire for courses focused on **real-world skills**. Financial Literacy was a unanimous and strongly-suggested course offering.
- **Schedule flexibility** — the ability to attend evening or weekend classes — would benefit students in a variety of ways, allowing for real-world working and internship opportunities while providing more time for homework and extra-curricular activities.
- Students felt **overworked** and therefore disengaged at times. Students did, however, report a slight decrease in workload in recent years, as teachers have increased communication with one another and made efforts not to overload students.
- Students report an increase in **activity-based and project-based learning**, but unanimously asked for more in all subjects.
- Students value the support system in place but see a benefit in **increased mental health resources**.

- Students desire **increased counseling in finding career-based trades and internships** following high school graduation. Students report strong counseling supports for college exploration, but not career-based exploration.
- Students prefer **shorter class periods** as opposed to longer class periods.
- Students report strong interest in **internship opportunities** for class credit as well as Career Pathway Programs.

Wilsonville High School (6 students comprised of juniors and seniors)

- Strong desire for **real-world skills and knowledge**, particularly in financial literacy.
- Strong interest in **internship opportunities** for credit. Students' main concern would be transportation.
- Strong interest in **CTE Pathways** depending on Pathway options.
- Students report that **rigid credit requirements** are limiting in their course selection. Students felt they **miss out on many learning opportunities** they would take advantage of if their schedule allowed.
- Strong support for **project-based learning**.
- Students felt **overworked with homework**, which negatively affects engagement during the school day.
- Desire for core courses to be made more relevant in terms of **real-world application**.
- Students report indifference to their current class schedule, but recommend a **free period** during the week to get caught up on school work.

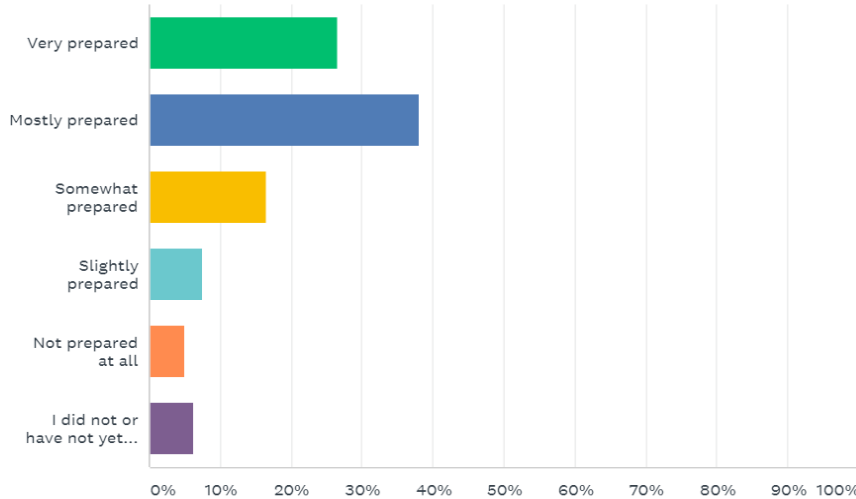
WLWV Alumni Feedback (Survey Data)

The High School Study Group also sought feedback from recent West Linn-Wilsonville alumni. To hear from past high school students, 80 alumni from the past 10 years were surveyed. Alumni were found via email and social media. Of the 80 responses, 49 graduated from West Linn High School and 31 graduated from Wilsonville High School. The following is a summary of those

survey results:

If you attended college after high school, how prepared did you feel from an academic standpoint?

Answered: 79 Skipped: 1



- Reported **high school experience** was an average of 3.89 out of 5.
- Alumni reported feeling **prepared for college** (65 percent reported feeling mostly prepared or very prepared). Only 48 percent of alumni reported feeling mostly or extremely **prepared for the workforce**, however.
- **Time management** was the most widely reported skill that alumni felt they lacked following graduation.
- Students reported that high school coursework felt more **connected to their career** following high school graduation than during their high school experience. Alumni recorded an average connectedness of 3.46 out of 5, with 1 being not at all connected and 5 being very connected.
- **Strong interest in internship opportunities.** Of 78 responders, 59 percent reported they would have been very interested, and 28 percent reported they would have been interested depending on the internship.
- **Even stronger interest in Career Pathways.** Of 80 responders, 73 percent reported that they would have participated, and 25 percent reported they would have depending on the options.
- **Financial Literacy** was the No. 1 offering alumni would have added to their high school experience. Of 69 responses, 47 alumni noted financial literacy. Other suggested courses included professional writing, workplace behavior, culinary, and computer science.
- Alumni suggested **counseling resources for career** in addition to college counseling and resources.

Parent Feedback (Focus Group Forum)

The High School Study Group engaged parents in discussion around high school. The Study Group hosted a Parent Focus Group on May 28, inviting all parents in the district to provide

input, ask questions about the study, and learn about their students as learners. Approximately 20 parents attended. Karina Ruiz introduced parents to Generation Z, answered questions, and Superintendent Dr. Kathy Ludwig provided an overview of the High School Study to date. In groups, parents shared their experiences and observations from their children while providing input on what they would want to see in future high school structure and programming. Parent feedback was also solicited via email, with 12 parents providing in-depth thoughts and input. The following is summarized feedback from West Linn-Wilsonville parents:



- Parents noted their students are oftentimes **overworked** and “drained.”
- Parents value the **integration of learning** so that students **learn to apply knowledge** in a variety of settings.
- Strong desire for embedding **cultural awareness education** into the school day.
- Parents noted that increased emphasis and attention to the **transition from middle school to high school** would accelerate student growth and ensure success.
- **“Life Skills”** are pivotal in today’s society as families have less time to teach students at home.
- Strong desire for **increased low-stakes learning** to decrease stress levels of students.
- Strong interest in **internship opportunities** for students.
- Appreciation for increased **hands-on and project-based learning** in the classroom.
- Parents greatly value West Linn-Wilsonville’s **strong arts and sports programs**, but want to increase student **exposure to the professional world**.
- Openness to an **outside-the-box schedule** for students who would excel with night or weekend course offerings. Also a reported openness to a year-long schedule.
- Interest and desire to learn more about **Career Pathways and CTE**.
- Parents strongly value **small class sizes and one-on-one** learning opportunities with teachers.

[Teacher Summit with Diana Laufenberg](#)

On April 28, West Linn-Wilsonville teachers were invited to participate in a High School Summit with Guest Speaker Diana Laufenberg — a nationally known keynote speaker on transforming high schools and founder of Inquiry Schools. Laufenberg led the morning of learning, introducing teachers to some of the cutting-edge education taking place in high schools across the nation before garnering teacher feedback for the High School Study Group to consider. Teachers then reflected on their own teaching philosophies and methods, learning new

techniques, while envisioning possibilities for the future in West Linn-Wilsonville as well. The following is summarized teacher feedback from the Summit:

- Desire to review and rethink **the high school schedule** to provide more student choice and teacher collaboration.
- Increased partnership with local **universities and industry-based organizations**.
- Teachers felt a need to **increase career-based learning** instead of catering to future college students.
- Consider teaching models and structures that include **individualized student learning** that is feasible in reaching every student.
- Exploration of moving away from **College Board and the GPA model**.
- Interest in increased course options and **Career Pathways**.
- Rethink homework to promote student **health and mental wellness**.
- Desire for **increased collaboration** between the middle and high school levels.
- Teachers note a need to **improve the ninth grade transitional experience** for students.

Summary of Themes from Surveys and Focus Groups

A number of common themes emerged from students, parents, and teachers. While each identified group brought a unique in response to survey questions, there were many reoccurring threads. Those themes include:

- Strong interest in Career Pathways and credit-based Internship opportunities.
- Future exploration of the high school schedule.
- Decrease outside-of-school student workloads (i.e. homework).
- Emphasis on skills-based and project-based classroom learning.
- Adding course offerings and course flexibility for students.
- Improve transition from eighth grade to ninth grade.
- Increased career counseling and resources as well as mental health supports.
- Emphasis on one-on-one learning opportunities with teachers.

Learning Space Needs

The high school study originally included a fourth component, “examine current and future demographic data and enrollment trends that inform learning space needs.” Because the School Board and school district contracted with a different demographer, the data and trends were unavailable during the year of this study. Therefore, this group did not engage in any analysis or conversation regarding learning space needs.

Findings

The High School Study Group acknowledges the district's current high school programming and graduation outcomes to be particularly strong; and, encourages district leadership and staff to continue striving towards improvement, innovation, and unprecedented outcomes.

Based on the research, visitations, and surveys conducted through this study, the High School Study Group offers these findings, which hopefully will serve as key information to guide current and future program decisions, learning models, and facility designs for our community's high school students.

Finding One: High school students value relationships with their teachers and peers, being known and being connected to their school community in at least one or many ways.

Finding Two: Current high school students communicate that their academic and co-curricular activities and responsibilities contribute to a degree of stress.

Finding Three: CTE and career-based opportunities that expand business and industry partnerships and include internships/externships for high school students are of high interest.

Finding Four: Rethinking or adjusting the high school schedule to expand upon current course offerings throughout the day, as well as outside the typical school day, increases student choice while maintaining a priority for teacher collaboration.

Finding Five: Teaching models and structures that promote flexibility of class size; expanded course offerings; access to real-world models, artifacts, and application of learning; and differentiated instruction are highly valued by students, teachers, and parents.

Finding Six: Future high school learning spaces should be designed to promote student-centered learning experiences, accommodate program priorities, support instructional best practices, and facilitate teacher collaboration.

Research/Texts

In addition to primary research, the High School Study Group reviewed research on high school program and design, Generation Z, model facilities, and ways to maximize student engagement. Those texts, articles, and research studies include:

1. Conley, David T. *College and Career Ready: Helping All Students Succeed beyond High School*. Jossey-Bass, 2010.
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FUTURE HIGH SCHOOL POSSIBILITIES



West Linn-Wilsonville
School District



West Linn-Wilsonville Community Forums

Future High School Possibilities

December 4th & 5th, 2018



Agenda for the Evening

Presentation on High School program and facility possibilities.

- Focus Group table talk and recording feedback and questions regarding high school possibilities (group forms).
- Post individual comments (large poster sheets).
- Staff will be available at tables and around the room to hear your questions and comments (clipboards).



Where are we in the process?

- We are at the beginning of the process.
- No decision has been made.
- Your role this evening is to be a “focus group” providing feedback to the Long Range Planning Committee, district staff and the School Board.





District and Board Goals 2018-2019

- 1. Grow student achievement through the use of high leverage instructional strategies that raise rigor and generate equitable outcomes for all students while eliminating opportunity and achievement gaps.**
- 2. Align, evaluate and update integrated systems of professional growth, assessment, inclusive practices and accountability that build competence, confidence and self-efficacy for every student.**
- 3. Operate in an accessible and transparent manner that encourages and fosters community involvement as our parents, students and community partners are an integral and valued voice in our district.**
- 4. Be responsive to community growth and student learning needs of the future by conducting long-range capital improvements and financial planning through processes and practices that lead to long-term financial stability and sustainability.**



Be Responsive to Community Growth

- Recent 10-Year Enrollment Growth Projection by FLO Analytics
- Recent Updated Building Capacity Analysis





District-Wide Capacity Analysis - Secondary

School	Current Enrollment	Projected 10-Year Enrollment	Projected 10-year Available Capacity
Meridian Creek	414	642	-152
Inza Wood	532	639	52
Athey Creek	702	755	-86
Rosemont Ridge	743	740	-27
West Linn	1865	2067	-337
Wilsonville	1223	1713	-368
Arts & Technology	111		



Be Responsive to Student Learning Needs

Primary Schools Renewal

- Program
- Facilities

Middle Schools Renewal

- Program
- Facilities

High Schools Renewal

- Program
- Facilities





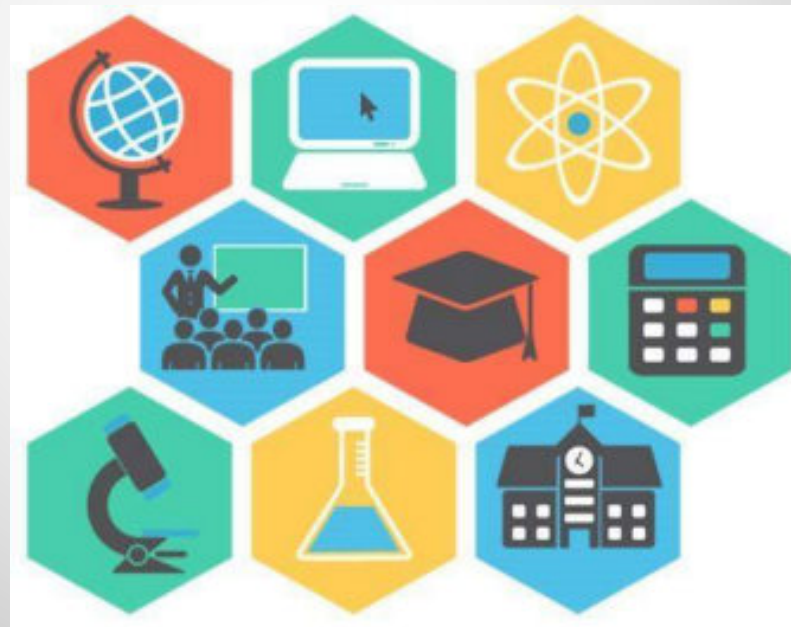
Findings from our High School Study

- Students value being known and having a relationship with teacher(s)
- Career Technical Education (CTE) and career-based opportunities are of high interest
- A high school schedule that can be more flexible with offering more courses (day, evening, weekend) is of interest
- Access to real-world models, business and industry application of learning is of interest
- Academic and co-curricular activities and responsibilities contribute to a degree of stress
- Learning spaces should be designed to promote student-centered learning experiences, support instructional best practices and facilitate teacher collaboration



High School Program: Next Steps

- Sustain Current Exceptional High School Programming
 - Expand course options and educational pathways towards future career opportunities





Career and Technical Education (CTE)

State of Oregon's CTE Areas

- Agriculture, Food and Natural Resource Systems
- Arts, Information and Communication
- Business and Management
- Health and Biomedical Services
- Human Resources
- Industrial and Engineering Systems

WLWV Current CTE Areas

- Arts, Information and Communication
- Industrial and Engineering Systems





Program Moves this year: 2018-2019

- Hired College & Career Readiness Director
- Hired CREST Internship Coordinator
- Participate in the Clackamas CTE Consortium to explore and expand course options
- Increase Dual Credit Options through OIT, CCC, PCC
- Expand AP options
- Link CREST to STEM and pathways options to OSU Extension Program
- Create partnerships with local businesses: access to equipment, internships and hands-on learning

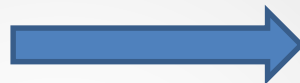


High School Learning Spaces: Next Steps





Future High School Possibility





Or, this Future High School Possibility



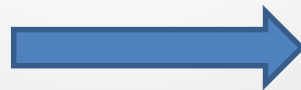


Or, another possibility?





Arts & Technology High School Location Possibilities





West Linn-Wilsonville
School District

Arts & Technology High School Location Possibilities



Lease?



Build?



Relocate?



No High School or Middle School Boundary Changes

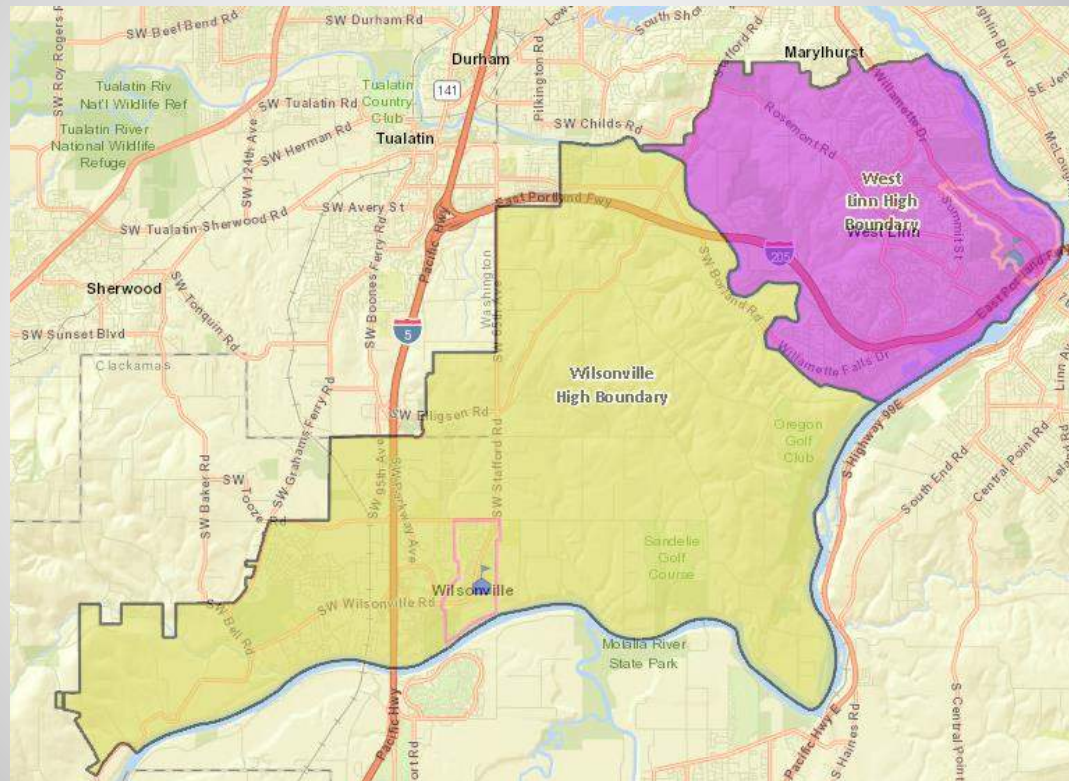




Table Talk: Your Feedback, Thoughts and Questions



Your feedback, thoughts and questions...

<p>On: Increase the building capacity at the two larger high schools; keep A&THS the same</p>	<p>Or: Increase the building capacity of A&THS... keep the two larger high schools the same</p>	<p>Or: another possibility? How? Where?</p>			
<p>New location for Arts & Technology High School</p> <table border="0"><tr><td><p>Lease?</p></td><td><p>Build?</p></td><td><p>Relocate?</p></td></tr></table>			<p>Lease?</p>	<p>Build?</p>	<p>Relocate?</p>
<p>Lease?</p>	<p>Build?</p>	<p>Relocate?</p>			



Next steps...

December: We will collect and synthesize the comments from these evenings.

December/January: Additional opportunities for community feedback (e.g. online survey, email).

Board will consider community feedback in their decision regarding future facility.

February: Communication to the community regarding final decision.





West Linn-Wilsonville
School District



Thank you for coming!

Community Survey Feedback for HS Learning Spaces

As of Jan. 9, there are 121 survey submissions in total (30 additional responses since our last meeting). The survey was comprised of six open-ended questions mirroring those posed to participants at the district's two community forums

Expanding two comprehensive High Schools (Themes)

In total, 22 survey responses indicated a preference to expand the district's two comprehensive high schools, while 80 responses indicated they did not want to expand the two high schools.

Comment themes included:

- Preference to expand the two high schools IF it were deemed feasible and cost-effective (13 comments)
- Concern that expansion is not feasible due to parking restrictions (21 comments)
- Concern that expansion would overload core facilities (9 comments)
- Concern that increased enrollment would compromise community feel and the student experience (17 comments)
- Belief that expansion is not a long-term solution (12 comments)

Increase the building capacity of Arts and Technology High School

In total, 74 survey responses were in favor of expanding Arts and Technology High School, compared to 22 survey responses who were not in favor. Other responses indicated indifference or did not provide a clear preference.

Comment themes included:

- Support for expansion if the school was restructured to offer increased options, particularly with a CTE or STEM focus (14 comments)
- Support for expansion if the district is confident it could attract 400-500 students (12 comments)
- Support for expansion if the new ATHS maintained the community feel that allows current students to be successful (5 comments)
- Belief that expanding ATHS is not the best long-term solution (5 comments)
- Belief that expanding ATHS is not preferable because the school would be too big or it wouldn't draw enough students to alleviate enrollment challenges at the district's two comprehensive schools (6 comments)

Other Possibilities the district has not thought of

There were approximately 20 suggestions in total for additional or alternative possibilities. There were 47 comments suggesting the district build a fourth high school, in addition to ATHS. The only other suggestions that appeared more than once were:

- Merge with or buy Lakeridge High School (3 comments)
- Utilize local community colleges to free up enrollment at district high schools (3 comments)

- Add a fifth middle school and move to grades 6-9. Change the district’s comprehensive high schools to schools that serve grades 10-12 (2 comments)
- A hybrid approach of rebuilding Arts and Technology while also expanding the comprehensive high schools (2 comments)
- Provide students the option to take classes exclusively online (2 comments)

Lease/Purchase New Location for ATHS

In total, 39 survey responses were open to the possibility of leasing or purchasing existing commercial space for a new Arts and Technology location. There were 26 survey responses that opposed this possibility.

Comment themes included:

- Preference for purchasing a building (10 comments)
- Preference for leasing a building (7 comments)
- Either purchasing or leasing is ideal if it’s the cheapest option (6 comments)
- Not cost-effective (4 comments)
- Not the best long-term option (5 comments)

Build

In total, 46 survey responses were open or in favor of building a new Arts and Technology High School. A total of 28 responses were opposed to building a new ATHS high school.

Comment themes included:

- Preferred only if it is cost-effective (13 comments)
- Preferred if the new Arts and Technology is larger than 500 students to better accommodate future enrollment growth (5 comments)
- Too expensive (11 comments)

Relocate

In total, 84 survey responses were in favor or open to relocating Arts and Technology High School to the Athey Creek Middle School site and rebuilding ACMS on the district’s Dollar Street property. In total, 18 survey responses were opposed to the idea of relocating Athey Creek Middle School.

Comment themes included:

- This is the “best” option (38 comments)
- Preferred if ATHS receives program updates and is rebranded (4 comments)
- Preferred if traffic is addressed (2 comments)

Community Forum Feedback for HS Learning Spaces

Note that the number of community comments is not necessarily representative of the total number of responses. Participants were in table groups and often creating one group document.

Expanding two comprehensive High Schools (Themes)

After hearing a district presentation similar to what Long Range Planning Committee heard on Nov. 28, participants shared their thoughts. Overall, there was a strong sense that expanding the district's two comprehensive high schools is not the best long-term solution (15 community comments in total). There were no comments in favor of expanding the district's two comprehensive high schools.

Comment themes included:

- Strain on core facility (6 comments)
- Strain on parking (4 comments)
- Negative impact on school community and student experience (four comments).

Increase the building capacity of Arts and Technology High School

Overall, the majority of participants were open to the idea of expanding Arts and Technology High School, although some were in favor of keeping it at its current size.

Themes included:

- Support of an expanded ATHS if it includes increased opportunities and CTE-type courses (8 comments)
- Belief that ATHS needs some rebranding to highlight CTE opportunities for ALL students (6 comments)
- Desire for ATHS students to have access to co-curricular opportunities at their neighborhood school (4 comments)
- Concern and wonder about the ability to attract the necessary enrollment of 400-500 (3 comments)
- Concern that a 500-student school is too big and would compromise the community feel of ATHS (3 comments)

Other Possibilities the district has not thought of

Participants had a handful of ideas or alternative possibilities the district could employ to address enrollment challenges. Themes of feasible community suggestions included:

- Keep ATHS the same or similar size and build a fourth high school (4 comments)
- Move ATHS inside a wing of an existing school, or build a third high school and embed ATHS as a school within that school (4 comments)
- Combine or purchase Lakeridge High School (4 comments)

- Buy/Lease available commercial space within the district. Suggestions included Marylhurst (2 comments), Albertsons building in WL (2 comments)

Lease/Purchase New Location for ATHS

There was not much discussion from participants around purchasing or leasing a new location for Arts and Technology High School with just 4 total comments. Two comments suggested it could be a short-term solution, but isn't ideal in the long-term.

Build

Overall, there was some level of openness from participants to build a new Arts and Technology High School.

Of 6 total comments, 2 indicated it was the preferred option, 2 were in favor if it was built on property the district already owns, and 2 indicated concerns about cost.

Relocate

Overall, there was strong support from participants regarding the possibility of relocating ATHS at the Athey Creek Middle School site and rebuilding Athey Creek on the district's Dollar Street property. In total, 8 of 10 comments were in support of this possibility. Themes included:

- Relocation benefits both schools (5 comments)
- The new Arts and Technology, if relocated, would have increased opportunity for CTE options (3 comments)
- Questions about transportation for students attending a new ATHS at the Athey Creek site (2 comments)



Long Range Planning Committee Contemplates High Schools and Future Bond Projects

The Long Range Planning Committee (LRPC) discussed potential capital projects during their regular meeting on November 28 in the event that the School Board decides the time is right for a Capital Bond. Most notably, the Long Range Planning Committee discussed possible high school learning spaces to address growing enrollment at West Linn and Wilsonville High Schools.

In preparation for a potential Capital Bond, the School Board commissioned a 10-year enrollment forecast last spring, giving the district and LRPC student growth projections across the West Linn-Wilsonville School District. The Long Range Planning Committee also completed capacity analyses of all of the district's schools this fall to account for changes to school buildings and schedules.

During the meeting, members of the LRPC addressed those two recent reports, noting a clear need for future learning space at the primary level in Wilsonville and at the high school level in both West Linn and Wilsonville. In the School Board's adoption of Board Goal No. 4, the Long Range Planning Committee's purpose is to monitor school and community growth as well as project district facility needs.

LRPC members noted that the need for additional high school learning spaces has been known for a number of years as they have watched enrollment numbers climb across the district and at the two comprehensive high schools. Those factors, in addition to direction from the School Board, caused the LRPC to begin discussing the future of high school in the West Linn-Wilsonville School District.

Possible High School Options

Currently, the district has three high schools — West Linn High School, Wilsonville High School, and a smaller option high school, Arts and Technology High School, that typically has enrollment around 100 students. Enrollment projections show that West Linn High School could eclipse 2,000 students while Wilsonville High School will approach 1,700 students by 2028. Concurrently, the lease for Arts and Technology High School is set to expire in 2022 and a new location will be needed.

Superintendent Dr. Kathy Ludwig laid out two possible options for future high school learning spaces during the November 28 Long Range Planning Committee (LRPC) meeting, adding that there could be other possibilities if the LRPC, School Board, and community have ideas or suggestions.

One possibility: Expand the district's two comprehensive high schools

The district could expand both West Linn and Wilsonville high schools to accommodate for growth. This option includes adding classrooms as an annex or a new floor at either high school. While additional classrooms can be added, LRPC members noted that extra classrooms impact core facilities. At what point would there be a need for another gym, cafeteria, additional parking or more common spaces?

Another possibility: Expand the district's Arts & Technology High School

Another option would involve expanding the enrollment of Arts and Technology High School from its current 100 students to approximately 500 students. The new size would still maintain a smaller feel than the other high schools; and, the increased enrollment could allow for expanded courses and programs to be offered at the school.

New Facility needed for Arts & Technology High School

The current building lease for Arts & Technology High School expires in 2022. Whether the school stays at an enrollment size of 100 students or expands, the Long Range Planning Committee explored three options for a future location:

- **Lease/Purchase.** Lease or purchase a commercial space large enough to house a high school program (100-500 students) and flexible enough to accommodate a variety of learning options.
- **Build.** Find a centrally located 20-40 acre piece of property where the district can build a high school (100-500 students) that would accommodate a variety of learning options and expand for future growth.
- **Relocate.** Relocate Arts & Technology High School into an existing school building facility and build a new school for the one that would be moved. This would only be considered by LRPC and the School Board if clear benefits could be identified for both schools. Such a location may be Athey Creek Middle School. Using its central location for a new and expanded third high school would make more programs available to high school students from across the school district. A new facility for Athey Creek Middle School could be built on the 21-acre lot that the district owns on Dollar Street in West Linn. The Dollar Street site for Athey Creek Middle School allows it to become a neighborhood school, where students could walk or bike to school. A new Athey Creek Middle School could also be built with a larger capacity to accommodate future projected growth at the middle school level.

No Boundary Changes for Middle School or High School with these options

Each of the future high school possibilities and location options for Arts & Technology High School that the Long Range Planning Committee discussed did not involve a boundary change for middle or high school.

Other Potential Capital Projects Under a Future Capital Bond

The Long Range Planning Committee also discussed other major projects that could appear on a Capital Bond. These projects are listed in no prioritized order.

New Performing Arts Center at Wilsonville High School — Wilsonville High School is outgrowing its current performing arts facility. A new theater was considered in past capital improvement project lists. A new performing arts center would also allow for additional classroom space to take over where the current theater resides in the building, increasing enrollment capacity at Wilsonville High School.

Safety and Security Upgrades — Safety and security is the district’s top priority. The School Board’s community-appointed Safety Advisory Committees recently provided a report regarding potential safety upgrades across the district in addition to a number of projects district staff has planned.

Expanded Parking at West Linn High School — Parking at West Linn High School has been discussed in the community for a number of years. There is space for adding parking at the south student lot of the campus.

Primary School in Wilsonville — The recent enrollment data shows a need for another primary school in Wilsonville to accommodate growth in the Frog Pond area. This school would be built on the district’s 10-acre property on Boeckman Road where the CREST Farm was previously located.

Expanded Stadium at West Linn High School — WLHS attendance at athletic events and student activities has outgrown the current stadium’s capacity. An expanded stadium would allow for more seating for the community and students during school events.

Technology Upgrades — The district has a history of using school bonds to keep technology and student learning up-to-date. Money from a future bond would be used to upgrade current district systems and both increase and update existing technology resources for students.

Districtwide Improvements — Districtwide improvements include accessible playgrounds, air conditioning and other upgrades across West Linn-Wilsonville schools.

NEXT STEPS: UPCOMING COMMUNITY FORUMS FOR POSSIBLE HIGH SCHOOL LEARNING SPACES

The community is invited to take part in a “focus group” forum to hear and provide feedback on the possible high school learning spaces including a new facility location for Arts & Technology High School.

The Board will consider all community feedback, including direction from the Long Range Planning Committee, as it continues its exploration of a Capital Bond and potential projects.

December 4 — The first forum will be held Tuesday, Dec. 4 starting at 6 p.m. at Rosemont Ridge Middle School. This forum is expected to end at 7:30 p.m.

December 5 — The second forum will be held Wednesday, Dec. 5 starting at 6 p.m. at Meridian Creek Middle School. This forum is expected to end at 7:30 p.m.

MEMO ON SAFETY ADVISORY GROUP FINDINGS AND NEXT STEPS



WEST LINN / WILSONVILLE SCHOOL DISTRICT

To: West Linn-Wilsonville School Board

From: Kathy Ludwig, Superintendent

Re: Board Safety Advisory Committee Findings, Analysis and Next Steps

Date: December 19, 2018

At the October 22nd, 2018 School Board Work Session, Director Chelsea King Martin provided a summary of the Board Safety Advisory Committees' Findings. To review the process and findings, I have included the summary description presented on October 22nd, 2018:

At the April 2, 2018 School Board Meeting, Board members passed a resolution establishing citizen advisory committees to address Student and School Safety: Emergency Preparedness.

Two committees were formed, one to focus on primary schools and one to focus on secondary schools. The committees were comprised of parents, teachers and a high school student. The committees met during the spring and summer of 2018. Each committee was assigned a Board liaison whose role was to listen and answer questions to clarify the purpose and process for the committees.

In September 2018, these committees convened as one group and discussed their findings. Present were committee members, Board liaisons Chair Ginger Fitch and Chelsea King Martin, Superintendent Dr. Kathy Ludwig and District Communication Director Mr. Andrew Kilstrom.

The following are the findings that the Board liaisons heard from these committees. They are presented in order of priority, as we understood them from our citizen advisory committee. These committees remain active until adjourned by the Board.

The committees identified areas of strength, including:

- Many strong processes are already in place, including a noticeable improvement in communication from the district;*
- Solid training for the processes that we follow;*
- Active and effective relationships with our First Responders;*
- This advisory committee was appreciated and demonstrated an interest in community perspective and experience.*

The committees identified the following areas of concern, including:

- *Uniformity and functionality of door locks with attention to consistency;*
- *Accessibility of information, particularly during a threat assessment;*
- *Focus on Mental Health;*
- *Improve or expand safety tools for in the classrooms;*
- *Entry and Exit points of our schools;*
- *Keep trainings current and keep community informed*

Empowerment was a theme. Information is necessary to be empowered to make informed choices. Tools are necessary in classrooms. Processes that empower students, teachers and parents to play a role in their own safety and security are valued.

At the October 22nd, Board Work Session, staff were directed to take the committees' findings and bring them back with an analysis of:

- a) Current status of safety item mentioned
- b) Possible Next Steps and Cost (if applicable)

Attached [Appendix A] is the analysis of the findings categorized accordingly. For some "next steps" there are costs associated that may be addressed through current or future budget or a future capital bond.

Appendix A

Findings from Board Safety Advisory Groups – Summer 2018		
Safety Item “Finding”	Current Status	Possible Next Steps and Costs
1. Uniformity and functionality of door locks (e.g. auto locks)	Original building locks continue to be in service and are managed and maintained by the district locksmith.	Install “Shelter Lock System” at all schools similar to MCMS, BOPS, BCPS, SUNPS. This would be addressed in the next capital bond. Cost: Approximately \$0.9 M.
2. Secured entry points to our school offices	Six of our 16 schools have secured entry points. The remaining schools have various temporary security solutions (e.g. door chimes, camera monitors, stantions)	This would be a new capital bond expense to scale to remaining schools. Cost: Approximately \$1.8 M for eight schools. \$5.0 M for Athey Creek Middle School.
3. Secured perimeters (e.g. fences, cameras)	All school buildings have secured perimeters. Some school grounds have a fence that secures the perimeter. Primary and middle schools have supervision during recess/outside play. Our high schools do not have fencing around the campus. There are cameras targeted at the perimeter of all schools.	We rely on our schools having secured building perimeters and adults addressing supervision needs, monitoring visitors or unauthorized entry.
4. Safety Glass at main entries	Six of our 16 schools have safety glass at their main entries (at a minimum).	The plan is to scale this safety feature to all of the other schools in the next capital bond. Cost: Approximately \$0.5 M.
5. Emergency supplies in classrooms (backpacks, door barricades)	All 16 schools have an office GO-KIT which contains evacuation and reunification supplies. All primary and middle school classrooms have access to water.	The first level of barricade is always the locked classroom door. This is in place. Additional barricades have not been recommended by Elert or local law enforcement due to possibility of misuse and impeding first responders. It is preferred to train teachers on using resources and materials always available (e.g. creating a portable toilet) than creating and stocking individual backpacks/containers.
6. Emergency binders/protocols in all classrooms	All 16 schools have a School-Emergency Operations Plan that outlines safety and security procedures. All classrooms have Emergency Guides outlining safety procedures.	These are in place.

<p>7. Window coverings</p>	<p>Not all exterior or interior windows across our schools have window coverings (e.g. blinds).</p>	<p>All interior classroom windows should have coverings installed; rather than fitted blinds, these would be similar to a large curtain that can be pulled across a set of windows and/or door quickly. The cost of these would be funded in a new capital bond.</p> <p>Cost: Approximately \$0.8 M.</p> <p>Exterior (on main floors) will be under review with safety consultants.</p>
<p>Trainings for Staff & Students</p>	<p>Current Status</p>	<p>Possible Next Steps and Costs</p>
<p>1. Safety protocols for before/after school; visiting other schools; movement in hallways/bathrooms</p>	<p>Drills do include times during recess, lunch, passing times. Enrichment programs are still considered during the school work day and safety protocols already in place would be utilized.</p> <p>Childcare Providers are responsible for teaching and practicing safety procedures with their clients; during some hours, full building security and intercom may not be viable.</p>	<p>Continue practicing drills that include various times of the day and movement. Review the use of these safety protocols with students when visiting other schools or during evening events.</p>
<p>2. Active Shooter Training for staff & students</p>	<p>There is no Active Shooter Training given in the district at this time.</p>	<p>At this time the District Safety Leadership Team is not recommending mandatory Active Shooter Training for staff & students.</p>
<p>3. Keep evacuation routes clear of environmental hazards and structures</p>	<p>For established evacuation routes, each classroom has posted evacuation route and each school's EOP has specific guidelines and maps that identify safe evacuation routes and locations</p>	<p>These are in place and established and monitored by fire department and district architects.</p>
<p>Mental Health Resources</p>	<p>Current Status</p>	<p>Possible Next Steps and Costs</p>
<p>1. Mental Health resources available to staff</p>	<p>We have district-wide emphasis on building social-emotional skills that are the foundation of positive mental health, K-12. We have increased the number of school counselors, school psychologists, school nurses and school social workers. Our Suicidal Prevention Work Group is revising our comprehensive wellness promotion and plans including our educational components to students, staff and the community and our risk assessment, intervention and post-vention processes. We utilize the Clackamas</p>	<p>As new learning and resources continue to be available to school leaders and staff, these are being vetted as curriculum, workshops or seminars for students and/or staff (e.g. Sources of Strength)</p>

	County Suicide Prevention network of supports. At our primary, middle and high schools we are implementing Circles as well as academic seminars to increase belonging and being known by adults and peers in their community. The physical structures of our schools contribute to visibility and “being seen and known” in our schools.	
2. Mental Health resources available to community	County resources and workshops are available to parents--referred by staff or referred by families’ health providers.	District and county staff (e.g. Clackamas ESD) continue to advocate for further funding and expanding resources for our community.
Communication	Current Status	Possible Next Steps and Costs
1. Is communication accessible to all families	Currently safety information is predominantly provided on website or through online communication. Rights and Responsibilities Handbooks and/or School Handbooks are given as hardcopies.	Add Safety/Security Link to school websites. Follow up with each school office to make sure that families who do not have internet access are getting hardcopies of newsletters (e.g. Safety Updates) or are invited to come in and review all safety information on websites and print needed hardcopies.
2. When potential threats are occurring, more communication is needed	Currently, school communities are informed during and after an emergency or building-level safety incident (e.g. lock out, evacuation). During a Threat Assessment Process, school leaders, together with law enforcement, determine how much information is given to the school community before, during and after the process keeping in mind active investigations, accuracy of information, and FERPA.	The District Safety Leadership Team, school leaders and legal counsel continue to monitor, prepare and approve communication messages that we can send to school communities to inform, reduce concern, while supporting law enforcement’s investigation and children’s right to privacy.
3. More information about SafeOregon (or Safe2Tell?) to increase awareness	We continue to advertise SafeOregon on the district website and through list serve newsletters. We continue to emphasize the value of students’ reporting to trusted adults in their school (e.g. See something, say something).	This year we are asking our high school students to develop social media messages and print materials to increase awareness among students.
Other	Current Status	Possible Next Steps
1. Additional SROs	We have two SROs: one sponsored by West Linn and one sponsored by Wilsonville (Clackamas County).	Possibility for additional SRO staff would need to be discussed during the Budget Process.

INITIAL RECOMMENDATIONS FOR CREST PROGRAMS AND STAFFING



WEST LINN - WILSONVILLE SCHOOL DISTRICT

To: Kathy Ludwig

From: Barb Soisson

Re: Initial Recommendations for CREST Programs and Staffing

July 19, 2018

Serving as the district office liaison to CREST, observing programs and practices as the director's supervisor, meetings with staff and community members and organizing the CREST Summit have affirmed that CREST is a unique and valuable resource for learning and that there are opportunities to improve on current programs. These recommendations are preliminary suggestions for specific programs, staffing and facilities. They are based on the district's mission question, Vision Themes and approaches to learning.

1. Prioritize K-12 Science learning as it is described through the engineering practices, crosscutting concepts and building an understanding of phenomena through modeling and storylines in the NGSS. This means that applications will be developed for primary, middle and high school courses so that teachers will use CREST-developed applications in their courses. There will be a "gradual release" approach with teachers so that they have resources and initial learning that they can use at CREST or at their school sites but will take on ownership of teaching specific lessons. Replace the CREST Director position with a CREST Science TOSA position that includes extra days/extra duty so that there can be summer learning for students and teachers.
2. Include science fairs at each level, including ISEF, in the prioritization of K-12 science. The CREST TOSA will work with ICs and teacher representatives from each school at the primary level, with teacher representatives and assistant principals at the middle school level and with assistant principals and representative teachers at the high school to revise the current structure, connect the fairs to classroom science and provide after school Enrichment class support for students. The organizing role of the CREST TOSA is the only direct connection that CREST will have to ISEF.

3. Develop school gardens as NGSS science application sites. Create a classified School Garden Coordinator position for the nine primary schools. The Coordinator will recruit and train volunteer teams for each school. With the CREST TOSA, the Coordinator will provide several after school NGSS Garden Workshops for teachers.

4. Strengthen the curriculum and experiences that high school students have with agricultural or environmental or teaching internships so that credit could be offered and there are direct ties to college/career pathways as defined in high school course statements. Offer these internships in addition to the current Youth Transition Program and high school internships for students working towards modified diplomas. Include Student Services Assistant Superintendent in revising YTP and internship programs. Design internships to offer alternative ways of showing understanding and applying academic and social-emotional skills. If there is a CTE program developed and approved in the Agriculture, Food and Natural Resources, which will be done through the district CTE group comprised of assistant principals, teachers and Student Success TOSAS, then adding a culinary program or further developing internships will follow. To work immediately with expanded internship options, develop a CREST Internship Coordinator position, similar to the current Coordinator position for non-certified employees who are working with ISEF students.

5. Allow the CREST Farm to go dormant. If the above mentioned CTE program becomes a priority and is developed, create a plan for relocating the farm to the Meridian Creek property and revise the purpose and use of the farm to be aligned with the CTE requirements and the internship program.

6. Enrichment and/or Learning On the Go classes will be reviewed individually in terms of enrollment and purpose. The district will explore partnerships with the Cities of Wilsonville and West Linn and/or offer a reduced program through an extra duty contract for one of the CREST staff members.

CREST Summit: Feedback Summary, May 2018

Programs	Feedback/Questions
K-12 Science Support and NGSS Applications	<ul style="list-style-type: none"> • Use CREST to create teacher connections, common vocabulary, understanding of crosscutting concepts within NGSS • Develop core set of CREST experiences and trajectory of science units for K-5 to ensure that all grade levels have access, articulate the key experiences • Develop a pre-K to 21 program so there are high school and beyond experiences • Develop series of interactions and field experiences that occur over time in students' K-12 education • Focus on NGSS to link programs and community • Create models for the NGSS crosscutting concepts through CREST • Implement teacher workshops
Science Fairs and ISEF	<ul style="list-style-type: none"> • Establish dual-credit pathway for ISEF student participants • Expand/extend so there is learning-centered and NGSS focused science fair experience at all grade levels • Ensure that there are structures in place so all students can participate in science fairs and ISEF • Increase diversity in ISEF participation • Make ISEF at the middle level a 3-year process that culminates with all students participating by 8th grade
Youth Transition Program	<ul style="list-style-type: none"> • Deepen collaboration with trade professionals • Build culinary program
CTE/Pathways Internships	<ul style="list-style-type: none"> • Create college student links • Student intern team manages publications, market through social media, updates website • Continue to develop high school internship roles for student summer programs • Connect with High School Connections to develop young educators • Culinary pathways program • Host farm to table dinners for school board events • Collaborate with Journalism and Photography programs at high schools • Connect with OIT to build a tiny house • Develop student-run business opportunities through CREST • Collaborate with Northwest Youth Corp to become site where students gain paid summer work experience
School Gardens	<ul style="list-style-type: none"> • Add Garden Coordinator position for primary schools to develop school site learning • Current CREST staff is too stretched to adequately support school gardens • Each primary school has school garden coordinator so maintenance and use are defined • Connect garden curriculum to NGSS • Engage OSU Master Gardeners • Start school gardens with a CREST base • Connect to farmers' markets
Learning On the Go / Enrichment Classes	<ul style="list-style-type: none"> • Add culinary classes so kids learn to cook and preserve, create value added products • Add pre-K summer camps; these were in place 8 years ago • Add woodworking and construction workshops • Allow volunteer hours to pay for LOTG and enrichment classes • Continue high school counselor role in enrichment and summer camps • Continue scholarships to encourage diverse participation

Flexible Learning for Students with Unique Needs	<ul style="list-style-type: none"> • Increase access to science learning in all programs • Use CREST as incubator to grow instructional practices and pilot differentiated learning experiences
Community Connections	<ul style="list-style-type: none"> • Involve civic groups, e.g. Lions and Kiwanis • Link community and school work through the NGSS • Set up goal-based volunteer days • Recruit volunteers from Concordia and PSU, some could use hours for their programs • Increase partnerships to build capacity for CREST staffing
Service Learning	<ul style="list-style-type: none"> • Connect HS students to meaningful service jobs in the community, e.g., “Ant Farm” in Sandy • Donate food grown in gardens to food banks • Develop water testing program, learned and carried out by students then provided to cities of WL and WV • Work with Riverkeepers and SWERP
Farm to School	<ul style="list-style-type: none"> • Need separate summit to identify and articulate how the farm supports and embodies NGSS and then identify funding and personnel to ensure that teachers can use this invaluable resource • Add paid teacher training about using the farm to teach to NGSS • Ensure that WL and WV students experience the farm, use this as opportunity to connect the communities • Use the CSA to engage community • Make use of DIAK grants (small, environmentally-focused grants) to support farm • Consider sustainable water source and infrastructure • Develop food storage • Add farmers’ market stand • Create meeting and lab space • Increase learning and accessibility
Maintenance of CREST site and core existence	<ul style="list-style-type: none"> • Add volunteer coordinator and grant writer as administrative position • Publicize events, programs and services • Hold job and volunteer fairs • CREST story must be told by students and adults • Need dedicated maintenance staff for facility in addition to the individual who runs the programs • Hold new teacher tours of CREST and the farm before the school year begins so teachers can plan in advance to use them • Provide paid teacher training during the summer to educate about science kits • Create district level stewardship committee • Need dedicated volunteer manager • How do we create a mini-CREST at every school? • Increase teacher participation and engagement in sustainability • Strengthen CREST “satellites” at every school • Focus on student engagement and the unique factors for engagement at each level of schooling • Develop a diversity of staff roles to address grants, curriculum and administration • Re-imagine space to accommodate more students and adults at CREST headquarters

Planning for CREST

Current Programs	Facilities / Land - Current	Current Staff
K-5 Classroom Science Unit/Lesson Support Middle School Wellness and Science Support Youth Transition Program Service Learning High School Class Period Internships High School Summer Internships Science Unit Field Trips School Garden Support ISEF Support Primary and Middle School Science Inquiry Fair Support District Farm Events Farm-to-School Learning On the Go Summer Camps Community Supported Agriculture	CREST Facility: Workshop or Seminar Space CREST Gardens CREST House (Parker house) Farm House Farm Growing Space	Bob Carlson – Director Becky Hancock – Youth Transition Specialist Amy Schauer – Program Coordinator Danielle Grenier – Program Coordinator HS Mark Parrish – Program Coordinator MS Devid Grebner – Farm Manager Helena Kreb – Farm Educator

Future: Some Starting Questions

1. How does the vision and planning for CREST align with district goals and continual renewal of programs?
2. How could CREST support inclusive practices, STEM, CTE / Pathways / Career Learning Areas?
3. What should the focus be and what programs support that focus?
4. What positions need to be part of CREST to implement the new goals and focus?
5. What facilities and land are needed to support the goals and focus?

CREST Wet Lab Renovation – an informal proposal

19 November 2018, Amy E. S. Schauer/CREST

The performance expectations of the Next Generation Science Standards embody the idea that children learn to think scientifically by doing the work of scientists. The knowledge and skills required for understanding the core ideas and cross-cutting concepts of science are best gained through iterative practice which increases in sophistication by grade level. While much learning can, and should, involve working with data sets and simulation models in a “dry” lab setting, the “wet” lab – where investigations into properties and interactions of matter which require water or possibly other liquids, biology and ecology can be carried out, and readily cleaned up without disruption to other classroom/learning activities – is an essential resource for science education. Students perceive wet lab work as an important aspect of “real” science, and activities performed in that setting promote engagement and inspire curiosity, and lay the foundation for understanding and more abstract modeling (Munn et al., 2017). Children can use a wet lab setting, like a maker space, for constructing models of observed phenomena as well as exploring the phenomena directly.



The current wet lab area at CREST is in a converted garage semi-attached to the house. Through the years it has hosted many small groups and classes, primarily primary grades but sometimes grades 6-8, for investigations into anatomy, soil science, aquatic life/adaptations, modeling landforms and processes, fossils, and interdependent relationships & ecosystems (such as pollinator studies). There is a large white board which can be used for instruction if the group size is small enough to permit furniture to be arranged to give access to it. Water is available in the bathroom sink, or at an outside hose which is accessible through the large overhead garage door. ADA access is provided via the overhead garage door also. Though electric lighting is very limited, there is good natural light from windows on the northerly side of the room. Heating is limited to an overhead garage heater, and there is little insulation. The concrete floor is well-suited to “messy” lessons. There are no floor drains, so clean-up after anatomy or stream table investigations, for example, is done by bucket mopping and sweeping, vs. spray to floor drains. Tables and chairs are repurposed from school classrooms and libraries; tables are large and heavy and tops are not level. To set up for a lab, furnishings must be moved out to the adjacent patio. There is insufficient electrical support for lab tables to set up plug-in light microscopes for individual or small-group work, so electricity is provided by extension cord and power strips for those situations, limiting room configuration. There is a large storage closet with acid/base/flammable lockers, and built-in wooden drawers and cabinets along one wall.



There's a large boot rack to store rubber boots for student use in pond investigations and rainy weather. The access to the outdoors through the overhead garage door is an asset to many lessons.

I believe we should consider updating and improving the CREST wet lab to serve more students with an inquiry and engineering space to support NGSS-aligned learning experiences that are not feasible within their regular classroom and school settings. There is already established use of this facility, which could be extended and enhanced by this project. Renovation would not only allow increased and new uses, but would make set-up and clean-up more efficient and allow adequate lighting, temperature control, storage and access for whole classes with diverse needs. I propose we renovate the existing garage and, if possible, build outward onto the patio to provide additional sheltered space to conduct lessons in rainy weather, either as a sheltered outdoor classroom or an extension of the indoor space. We should also equip the wet lab with class-size sets of equipment necessary to carry out investigations, such that teachers could use the space independently with their whole class present.

Some features the renovated CREST Wet Lab (could have a different name) should include:

- Deep sinks, hot and cold water available
- Floor drains
- Presentation/demonstration station
- Adequate overhead and task lighting
- Tables for a full class, either all low or combination of low/high/adjustable
- Chairs that stack, clean easily, are high enough for lab work
- Class sets of equipment for microscopy, plant/insect/soil science, landform/erosion study, environmental chemistry, air quality, basic engineering (e.g., microscopes, trays, hand lenses, forceps, labware (e.g. basic lab dishes, culture dishes, beakers), hand tools, organization for basic engineering materials, stream tables, to name a few). We have some of these things.
- Purpose-built storage for equipment and supplies, including chemicals
- Furnishings should be movable and configurable for collaborative learning, scaling experiments, and ease of supervision.
- Connects to the outdoors, via access and availability to natural light

We would develop the plans and needs for this space collaboratively, including ideas and input from primary-level teachers, and also possibly middle-level teachers who might either use the space with their classes, or provide perspective on skills and learning experiences important for progression into grades 6-8. Information-gathering about similar facilities at other primary schools, school districts and environmental education centers would also be important.

Munn, M., Knuth, R., Van Horne, K., Shouse, A. W., & Levias, S. (2017). How Do You Like Your Science, Wet or Dry? How Two Lab Experiences Influence Student Understanding of Science Concepts and Perceptions of Authentic Scientific Practice. *CBE life sciences education*, 16(2), ar39.



Example of a table type for easily-configured collaborative learning and investigations at multiple size scales.

Microscopy lab – just a placeholder (microscopy would be a set-up configuration in the Wet Lab)



CREST Wet Lab Prospectus – preliminary design considerations / notes

1. Overview

- a. The CREST Wet Lab would be a unique facility for the purpose of intensification of experiences supporting NGSS-based science learning for all grade levels, with particular emphasis on primary grade levels where laboratory facilities are less formalized.
- b. NGSS-aligned instruction is founded on the learner’s exploration of phenomena, in order to construct reliable scientific explanations. In this learning, students engage in modeling, collection and exploration of evidence to support and revise their thinking.
- c. Authentic scientific exploration can be messy, and can benefit from space, equipment and facilities designed to support inclusion of those activities in any given school day, throughout the entire school year, without disruption to other curricula or learning activities. In addition, it is impractical for every school to own resources that are expensive or difficult to store and deploy, but relatively easy to share in a commonly accessible setting.

2. Overview of features, resources this facility could include (note – this is a preliminary list):

- a. Large-scale graduated-media stream table – addresses multiple NGSS standards grades K-8; one example is seen here: <https://emriver.com/> We could adapt it for use as an augmented reality sandbox (middle school teachers have asked for this and the open-source software is available: <https://arsandbox.ucdavis.edu/instructions/installation/>).
- b. Shake table (could combine with the stream table) for earthquake and wave studies
- c. One erasable writing wall for modeling at different scales, could double as a projection surface for instruction/presentation
- d. Living wall/aquaponics system for year-round food production and inquiry
- e. Student tables and chairs that can be moved into different configurations and different heights, which would be used for dissection, compost studies, plant studies, insect studies, investigations involving water/soil/biota, pond macroinvertebrate study, food preparation using garden produce, nature-inspired art and more.
- f. Class set of microscopes on a cart for deployment for pond, insect, and plant studies
- g. Sinks at varied depths and heights with hot and cold water
- h. Storage cabinet for safety goggles and eyewash station
- i. Solar exposure for investigations involving daylight, and also to provide views and access to outdoors.
- j. Teacher demonstration station, with projection capabilities (visual media, overhead projection of work in process)
- k. Storage for CREST class sets of scientific sensors/probeware, laptops, and handheld data collection devices
- l. Refrigeration for biological samples, garden produce, and ice storage
- m. Flexible food preparation space and appliances to support nutrition, cooking and preserving classes connected to the CREST garden
- n. Floor drain for wet activities and cleaning

3. Area requirements

- a. Existing interior area is approximately 843 ft² not including the restroom
- b. Existing exterior patio area immediately adjacent is approximately 360 ft² not including bricked area
- c. If we need 3 ft clearance along 3 walls and 5 ft along 1 wall to enable circulation around the room, this reduces the usable existing and potential interior area to 620 ft² (existing and potential as described above)
- d.

Square feet per student	Total number of students served
16	38
25	25
36 ¹	17
60 ²	10

It would be ideal to look for another 500-600 ft² if possible, to get closer to the 36 ft² per student space allocation and be able to accommodate a full primary class.

¹ Per-student space requirement guideline from *School improvement in Maryland, chapter 5: Design considerations* http://mdk12.msde.maryland.gov/instruction/curriculum/hsa/science_facility/chapter5.html

² Space requirement guideline from National Science Teachers Association: <http://static.nsta.org/pdfs/OvercrowdingInTheInstructionalSpace.pdf>

4. Accessibility

- a. Current access for students in wheelchairs is through the large garage door on the east side of the space. This has proved to be a workable solution though it requires a longer route through areas exposed to the weather. This is also how we take larger equipment into the wet lab space.
- b. It's anticipated that this renovation would provide for ADA access through weather-sheltered routes and related improvements to the restroom facilities. If this involves ramp vs. step access this would also facilitate access for teaching carts and materials.
- c. Restroom facilities in the wet lab and throughout CREST need to be assessed for accessibility (door usability, sink height, etc.).

5. Safety

- a. Sterilizing cabinet for goggles, for eye protection when doing soil labs, dissections
- b. Eyewash station for possible foreign object removal/first aid
- c. Not anticipating use of hazardous chemicals in this lab so do not see a need for a safety shower or specialized ventilation

6. Interior/Exterior Relationship

- a. Access to outdoors should be easily managed through two sides and on one side it would be helpful to have a large garage-style door, similar to those on classrooms in the West Linn High School 700 Building.
- b. Envision that the extension out onto the patio area could include large glass panes on the north and south exposures to allow for daylight in the space and visual connection to the outdoors.

7. Presentation and Display

- a. A teacher/presenter station with a surface for demonstration, and projection capabilities should be included. This can also be used for professional trainings.
- b. Students should be able to record their work digitally for future analysis, reflection and sharing.

8. Equipment, furnishings

- a. Most furnishings, with the probably exception of storage, should be movable and adaptable to various uses and users as well as room configurations.
- b. Work tables which can be powered by ceiling drops for task lighting and microscopes. Tables should be easy to clean and water and scratch resistant. These tables could include storage spaces. Should accommodate up to 36 students. Height adjustability should take into account possibility of teacher training in this space as well as various ages of students.
- c. Storage to adequately organize environmental science equipment, scientific sensors and probeware, class sets of materials owned and circulated by CREST, and supplies – fixed location and lockable.
- d. Microscope cart – e.g.



This style stores 24 microscopes with 2-sided locking access.

9. Utilities

- a. Hot and cold water to sinks
- b. Ability to supply electricity to microscopes, labware, computers and presentation equipment

10. Interior environment

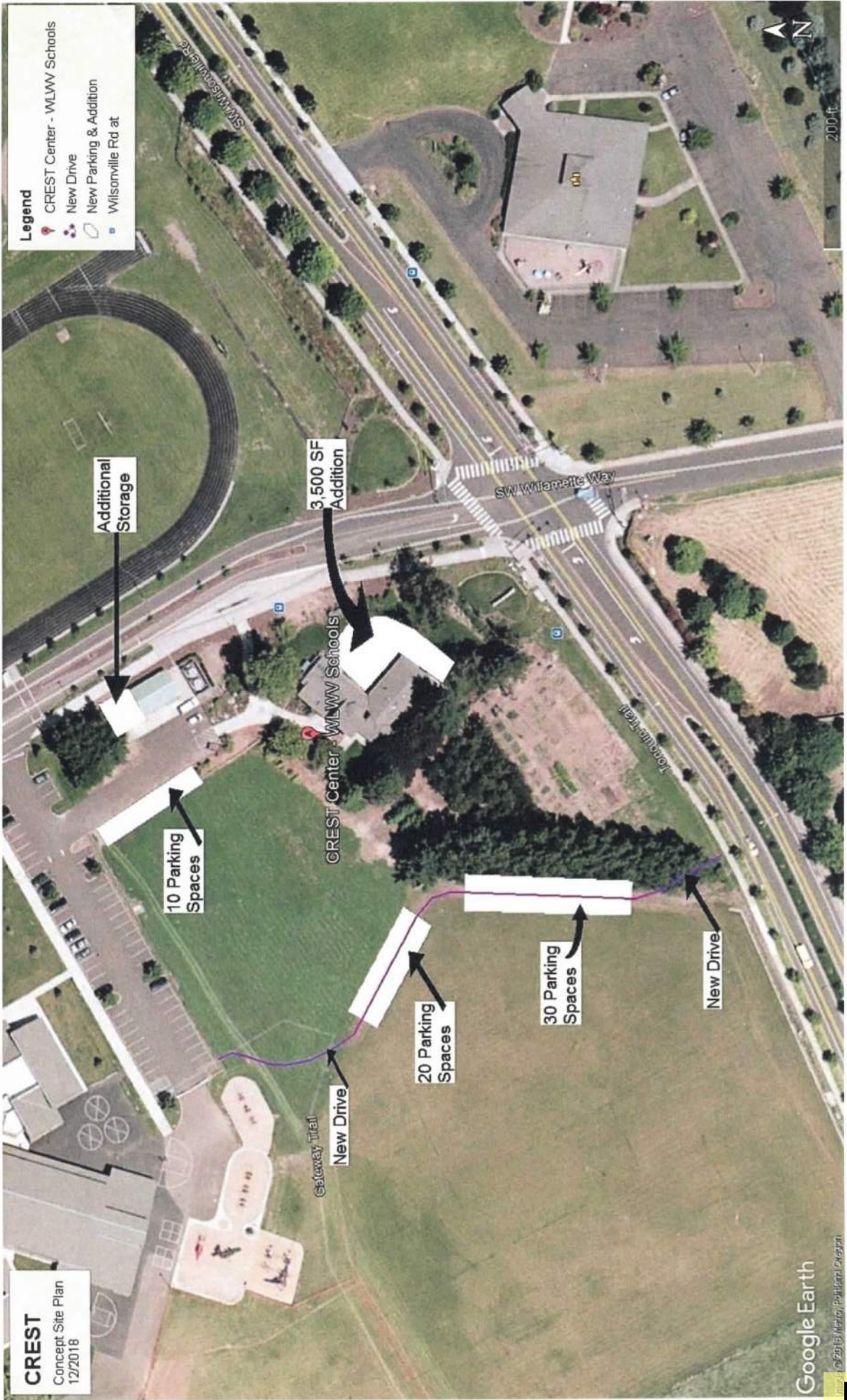
- a. HVAC – currently a garage ceiling unit, not very efficient and very noisy. Adequately heats the space when needed, does not work well for class discussion.
- b. Ventilation – Would probably need additional, not sure about volume at this time but based on information about laboratory design from the sources cited in part 3(d) above, would need at least 20 cfm for general dilution, negative air pressure
- c. Lighting – should be up to 75-100 footcandles with strategies to reduce glare. Flexible lighting for different tasks and activities would be preferred.
- d. Acoustics – A lot of room for improvement here to reduce reverberations and acoustical interference with group activities.

11. Information technology

- a. A 1:1 set of computers isn't needed, but students would greatly benefit from access to technology for probeware, image capturing and variable rate playback (e.g., looking at modeled changes in landforms in slow-motion video), data collection and analysis, and presentation/sharing ideas. Equipment should support various means of modeling and comparison of different models and simulations.
- b. Ideally, IT equipment which would also support professional learning would be included.

12. Building ecology

- a. CREST is founded on principles of sustainability and environmental stewardship. Design and materials decisions for this remodel should take into account resource conservation criteria, indoor environmental quality, energy conservation including embodied energy analysis, social justice implications, and full-life analysis of materials and systems for impacts due to transportation, installation, recycling and disposal, maximizing cradle-to-cradle potential whenever possible to minimize waste and environmental impact.



CREST
Concept Site Plan
12/2018

Legend
CREST Center - WLWV Schools
New Drive
New Parking & Addition
Wilsonville Fd at

Google Earth
Image © 2018 Mapbox (Portland, Oregon)

OVERVIEW OF LAND HISTORY

Overview of WLWV's Land History

Growth triggers new elementary schools

Cedarok Park was constructed in 1958, joining Sunset Primary (1890), Willamette Primary (1949), and Bolton Primary (1955). Stafford Primary was constructed in 1967, meanwhile, followed by the purchase of the Oppenlander site in 1973, which has housed youth baseball ever since.

Addition of Inza Wood

Inza Wood Middle School was constructed by 1980, a full 10 years before Boeckman Creek and more than 20 years before Boones Ferry Primary, which was built adjacent to the middle school in 2001. The District purchased the Boones Ferry property from the State School Land Trust.

The West Linn-Wilsonville School District has maintained a "Land Bank" for the purpose of Long Range Planning. This document gives a rough outline of the District's purchasing and building decisions over the years.

RRMS becomes third middle school

Rosemont Ridge Middle School was originally planned to be built on the District's Dollar Street property in Willamette, but was instead built in its current location after the District purchased three tax lots in 1997. The school opened in 1999, becoming the District's third middle school. Also near this time, the District purchased its Frog Pond properties back in 1998.

Lowrie, Trillium come to life

Lowrie and Trillium Creek primaries successfully opened their doors in 2012. Lowrie was built to accommodate Villebois in Wilsonville, and the City deeded the property to the District upon the completion of construction. Trillium Creek was built on its current site, with the District selling approximately 3 acres of excess land to Tualatin Valley Fire and Rescue in 2016.

MCMS makes four

Meridian Creek Middle School opened for the start of the 2017-18 school year, bringing the District's middle school total to four. The re-imagined Sunset Primary also opened in 2017-18. The school was rebuilt on its original site adjacent to the old Sunset building.

WLWV Construction Time Line

1958

1966

District buys WHS site

West Linn-Wilsonville purchased the 63-acre property that now houses Wilsonville High School and Boeckman Creek Primary in 1966. The District would build Boeckman in 1990 and Wilsonville High in 1995 as Wilsonville's population began to grow. Wilsonville students had largely attended then-Wilsonville Primary, Wood Middle School, and West Linn High School until the construction of the two schools. Wilsonville High School also received a major addition in 2006, essentially doubling the school's capacity while maxing out the site.

1980

1990

Construction of ACMS

Athey Creek Middle School was constructed in 1990 in its current location. Originally the school was slated to be built on the Erickson Property, where Trillium now resides, but the Board made the decision to build adjacent to Stafford Primary. The District purchased the Erickson property in 1988.

1999

2003

District Buys Most Recent Property

West Linn-Wilsonville's last major land purchase was the site that now holds Meridian Creek Middle School all the way back in 2003. The property has room for a future school, as well as a Wilsonville City Park. This is around the same time that WLWV opened the CREST Center adjacent to Boones Ferry Primary. The CREST property was purchased in 1999 and opened in 2002.

2012

2017

DISTRICT TURF HISTORY



West Linn – Wilsonville Schools

Synthetic Turf Field Inventory & History

January 2019

Location						
Field	Original Installation	Original Brand	Replacement Date	Replacement Brand	Has Lighting	
Wilsonville High School						
Football	2003	Sprinturf	2014	Sprinturf	Yes	
Varsity Baseball	2003	Sprinturf	2018	Sprinturf	Yes	
JV Baseball	2003	Sprinturf	2018	Sprinturf	Yes	
Varsity Softball	2009	Sprinturf	-	-	Yes	
West Linn High School						
Football	2003	Astro Play	2014	Sprinturf	Yes	
Baseball	2003	Sportex	2018	Sprinturf	Yes	
Rosemont Ridge Middle School						
Football	2010	Pro Grass	-	-	Yes	
Varsity Softball	2009	Sprinturf	-	-	Yes	
Baseball Infield*	2018		-	-	No	
Wood Middle School						
Football	2018	Sprinturf	-	-	Yes	
Oppenlander Field						
Baseball Infield*	2014	Field Turf	-	-	No	
Baseball Partial Infield*	2017		-	-	No	
Willamette Primary School						
Play Field Phase 1	2009	Sprinturf	-	-	No	
Play Field Phase 2	2012	Sprinturf	-	-	No	
Trillium Creek Primary School						
Small Playground Area	2012	Act Global	-	-	No	
Lowrie Primary School						
Small Playground Area	2012	Act Global	2016	Shaw Grass	No	

*Field installed by West Linn Youth Baseball

Home

TECHNOLOGY PLAN



West Linn – Wilsonville School District

Spring 2019



District Technology Plan

This Technology Plan is the collective work of the Staff of West Linn – Wilsonville School District.

Representation provided by:

The District Information Technology Staff

The District Teacher-Librarians

District and School Administration

All District Staff as brought forward formally through the groups above as well as in various and abundant conversations.

In addition to bringing their own voice and perspective to this work, each member was additionally charged with representing all groups that they associate with as well. Ongoing conversations with all staff, and with students by extension inform this plan. And finally, all initiatives of the school district – curriculum adoptions, safety and security plans, data management, operations, business processes, and more – inform this plan.

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INTRODUCTION

The West Linn – Wilsonville community has supported the evolution and updating of our instructional technology and technology systems through passage of capital and facilities improvement bonds in 1997, 2002, 2008, and 2014. As the district continues its inventory and needs assessment to inform our ongoing technology-related initiatives and beyond, we find that we have been able to keep the network and hardware robust. Yet, as with all technologies, they become dated and must be continually renewed and refreshed. As we do this we simultaneously keep abreast of new standards, applications, developments, innovative teaching and learning systems, wireless applications, new specialized hardware and software, and the changing nature of supportive facilities.

The results include the creation of an agile and adaptable networked district. The district supports an infusion of new computers, fully supported data, voice, and video systems, upgraded electrical and network wiring at each school, the creation of a telephone system with its own prefix and telephone numbers, video systems that support a growing application for video productions, everywhere-available wireless networking, enhanced and accessible web presence.... The technology network and systems are fully supported through the district Information Technology Department and building technology experts support the network and applications at each school.

Technology integration to support student learning, STEM education explain STEM, and CTE explain CTE programs/pathways is ever-evolving and planning must be dynamic in support of curriculum applications to enhance teaching and learning for students and staff. Professional development is provided in an ongoing and “in-time” fashion to enhance appropriate and productive staff and student use of technology. Curriculum for instructional technology has been aligned to the International Society for Technology in Education standards, the Common Core, the Next Generation Science Standards, and as adapted from CommonSenseMedia.

There are significant new technological application developments and research on effective teaching and learning with technology that are influencing future network, hardware, software, and curricular needs. These trends include wireless applications, mobile technology, digital curriculum, on-line data bases and resources, blended learning, content specific technologies, research and data retrieval systems, assessment systems, one to one environments, assistive technology for children with special needs, and increasingly specialized applications in teaching, learning, and management. Each of these trends influence and are addressed in the technology initiatives laid out in this document.

It is important to note a couple of distinguishing characteristics of this plan:

- 1) This plan is intended to be more than the purchase and infusion of technology – the concepts incorporated in this plan embrace an evolving classroom environment characterized by the district’s six vision themes listed below. We believe that instructional strategies and learning environments are undergoing rapid and exciting improvements and that technology is a core piece of these new environments.
- 2) This plan provides our district with a path for moving forward with these new environments. It creates the path, provides methods, and creates the organizational culture for opportunity and growth in teaching and learning. There will be a renewal process to continue to move ahead even as we implement new technologies.

District Vision and Vision Themes

The Vision of the West Linn - Wilsonville School District is an inquiry: ***How do we create learning communities for the greatest thinkers and most thoughtful people for the world?***

The West Linn - Wilsonville School District community shapes our children's future by generating knowledge and hope, and with tradition and vision. We envision a school learning community that allows for:

- The demonstration of personal and academic excellence.
- A personalized education to improve each and every child's performance.
- The establishment of community partnerships that expand the classroom beyond the school.
- The creation of a "Circles of Support" for each child.
- The education and development of the whole child.
- The integration of technology into our daily learning and our work.

TECHNOLOGY LEADERSHIP & VISION

Leaders of technology will inspire and lead development and implementation of a shared vision of comprehensive integration of technology to promote excellence and support transformation throughout the organization. We will create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students. We will promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources. We will provide digital age leadership and management to continuously improve our organization through the effective use of information and technology resources. We will model and facilitate understanding of social, ethical, and legal issues and responsibilities related to an evolving digital culture.

Technologies should be integrated through all district areas, levels, and functions; be accessible and available to all at the level and magnitude needed; and, be a powerful and exciting enhancement to teaching, learning, and leadership.

Leadership goals for the implementation of the district vision are to:

1. Empower leaders at each level to ensure that curriculum design, instructional strategies and learning environments integrate appropriate technologies to maximize learning and teaching.
2. Provide ongoing professional learning and as-needed support; and gather, communicate, and provide venues for the implementation of contemporary research on use of technologies to enhance professional practices, student learning, and effective and efficient management systems.
3. Integrate the use of technologies to support productive systems for learning, teaching, administration, management, and operations and ensure equitable access.
4. Use technologies to plan and implement comprehensive systems of effective assessment and evaluation.
5. Promote ethical and responsible use, digital citizenship, and model responsible decision-making in the use of technologies.
6. Promote policies and financial plans that support the use of information and communication technologies and other digital resources for learning and in district/school operations.

A Technology Advisory Committee was originally established in 1994 as part of the stewardship of the district vision theme: **Integrating Technology into Daily Learning.**

Over the years, this committee has evolved into several groups that together play the original role of that single committee with broader and more diverse representation that can occur more often, both formally and informally. These include the district administration, each school's leadership team, the district instructional leadership groups, the District Safety Leadership Team, the district IT staff, district operations and maintenance staff, and the Teacher-Librarians.

Each of these groups meets at least once a month, often more. The administration of the schools as well as the teacher-librarians work regularly with classroom teachers and with students and bring those perspectives and desires to every conversation. It is very common to hear "I have a teacher who wants to..." from any of these groups.

These leadership groups have been instrumental in developing, and implementing the technology plan used to guide the technology-related capital improvement efforts ever since and have subsequently provided extensive guidance and leadership in the implementation of the plan.

These groups have collectively also engaged in development of the district's web pages, created software purchase guidelines, prepared hardware purchase guidelines and procedures, studied aspects of distance learning, conducted surveys of current and needed skills, and studied issues of technology support, technology standards, instructional strategies, and safety and security issues related to technology.

Goals

- 1) Meet regularly to monitor and update the implementation of the technology plan through the systematic review of current research on technological applications that enhance teaching, learning, and operations.
- 2) Create and support professional development programs that support the ongoing integration of the standards within the technology plan.
- 3) Provide guidance and support in the development and use of specialized applications as well as universal applications.
- 4) Develop systems to monitor progress and provide support for all students and teachers in continually improving technology and information literacy skills.
- 5) Evaluate progress toward the achievement of the goals in the district technology plan.
- 6) Create partnerships with technology and business corporations (such as our South-Metro STEM partnership) in ways that enhance integration of technology into daily instruction and work flow.
- 7) Develop and implement a system-wide, collaborative process to provide recommendations for routine technology plan review.
- 8) Make recommendations for the planning and implementation of technologies in both the instructional and operations of the district.
- 9) Support the development of leadership, technical expertise, knowledge, and systems that successfully support and integrate technology into school organizations.
- 10) Develop guidelines for cycles of equipment purchasing and consider specifications that maximize life and minimize maintenance requirements.

LEARNING AND TEACHING FOR STUDENTS

Curriculum and Instruction

The West Linn-Wilsonville School District has a well-developed curriculum framework defined by:

- major conceptual themes
- specific content knowledge
- academic research skills
- intellectual skills for inquiry, analysis, and innovative thought

The curriculum is embedded in instruction that is both integrative and inquiry-based. In our classrooms, curriculum arising from children's questions is a way of learning and a way of teaching. It is open, flexible, and responsive to children's interests and developing capabilities. Assessment is authentic and formative, giving children the keys to their own improvement in learning.

Such an approach to learning draws upon children's concerns and questions, actively involving them in planning, executing, presenting, and evaluating a negotiated learning experience. These investigations provide meaningful and purposeful contexts in which reading, writing, and mathematics are authentically used and developed in a personally-relevant context. Technology provides a means of discovering and communicating the results of study.

- Classroom work with technology broadens children's experience and knowledge of the subject or area of study.
- Technology tools allow and encourage children to control and direct their own learning, including their linguistic, numeric, and manipulative skills.
- Children build concepts that enable them to generalize, organize and relate ideas, and make informed judgments.
- Attitudes, or dispositions, which foster a growth mindset are developed, including the willingness to question, listen and observe, concentrate on a task in hand, and deal with ambiguity and complexity.
- Children learn to work individually and cooperatively, engage in multiple revisions, celebrate successes, and use their experience as springboards to further inquiry.

Instruction occurs in complex ways. After posing questions, children embark on an information search. They learn, within the context of the study, to locate, extract, record, interpret, interrogate, and integrate information leading to the construction of knowledge. With a purpose in mind, children explore organizational patterns and select formats that most closely and powerfully match their identified audience and message. They work through draft, revision, and editing phases, completing their efforts with reflection, evaluation, and presentation of their thinking.

These ideals incorporate more than simple technology skills or knowledge. Children are invited to engage in higher-order *expert thinking*. *Expert thinking* requires sustained reasoning, managing complexity, testing solutions, evaluating information, and collaborative thinking in team learning environments. Students are increasing their ability to *use computers as tools that facilitate expert thinking and complex communication* (Levy and Murnane, 2004).

Technology enables the development of learning environments in which these ideals can be attained. In these learning environments each student's personal access to technology facilitates communication, analysis,

creativity, thinking, and decision-making. Educational technologies and relevant curriculum content are interwoven to create the conditions for deep understanding and powerful learning. Students practice thinking within the disciplines and making connections across disciplines throughout the school experience. An educational experience crafted with these ideals provides students with the key cognitive strategies, key content knowledge, key learning skills and techniques, and key transition knowledge and skills that define a student who is prepared for success in college and future careers (Conley, 2012).

Toward Powerful Learning and a Personalized Education

Since the 1990s, the WLWV school district has been moving toward more democratic, student-centered schools. Constructivist learning engages children in a process for making meaning. Children develop personal schema and the ability to reflect on their experiences through shared inquiry. Unique outcomes are expected and encouraged as children find their passions, and develop their own voices. Assessment is integral to the learning process and most effective when children are supported in taking control of their journey toward high standards of performance, valuing craftsmanship in thinking and the production of *beautiful work* in every setting. Children increasingly learn to place a personal signature on their own learning.

This approach to learning and the redefinition of roles and responsibilities emerges from and contributes to the district vision for **Personalized Education**. In this environment, student achievement is soaring. The following chart shows the movement that now exemplifies most classrooms in West Linn-Wilsonville schools.

<u>Traditional Classroom</u>	<u>West Linn-Wilsonville Classrooms</u>
Teacher centered instruction.....	Student-centered instruction
Serious, regimented drill.....	Challenging, purposeful, complex, joyful investigation
One perspective	Culturally responsive curriculum
Fixed Mindset	Growth Mindset
A single story.....	Culturally rich perspectives
Rule based tasks.....	Sustained reasoning, managing complexity, testing solutions
Compartmentalized instruction	Integrative instruction
Part to whole	Whole to parts to whole
Assigning work	Workshop strategies
Single sources/textbooks	Multiple resources/books/digital content
Single entry points	Multiple points of access
Isolated work	Individual and collaborative work
Passive learning	Active, inquiry-based learning
Factual knowledge based.....	Knowledge creation, research, critical thinking
Single way of learning	Multiple intelligences
Individual classroom focus.....	School/community focus
Separated environments	Inclusive environments
Autocratic classrooms.....	Democratic classrooms
Private work completion.....	Public demonstrations of learning/portfolios
Rules/punishment.....	Rules/Inclusive and Restorative Practices

Learning with Technology

Technology has the potential to change the learning and the learner. In the earliest days with computers in schools, the workbook style activity was transferred to the computer format. Very little changed in the learning, in fact, research showed that basic facts practice using a computer did nothing to increase the quick recall of facts.

Technology is now widely used by our students for research, close reading and production. Students use the technological tools available to calculate, to read and write, to tap into streams of live information, to communicate with others, and to do so from school and from home.

Teachers and students in West Linn-Wilsonville schools are harnessing the power of technology to collect data, and for analysis and synthesis. The morphological chart can now be drawn on screen then converted to a database where sorting and analysis take the student to a more complex form of thinking.

Multimedia presentations are already common in our classrooms, and becoming increasingly complex with a progression from bulleted text to video, audio, and graphical representations. When children are invited to make public presentations of complex learning, the products become exemplars for the next student, the next class. In this way, a rising standard of student performance is emerging in the learning community.

Learning with technologies allows children to do what they could not otherwise do. Well-designed software coaches children in mathematics. Video sources provide a window to worlds the student cannot visit, a seat in the great lecture halls of the world, and quick reference for review or expansion of concepts. Computer adaptive tools allow students to explore mathematics they do not yet understand, test ideas, fail, and construct a useful understanding of the concept. Web quests and research link questions to resources and help students juggle the use of multiple sources in a recursive research process. The interactive, collaborative tools of the Google Suite allow students to work with each other to refine their writing and presentation of ideas.

Simulations allow children to manipulate and tweak the parameters of the variables in complex situations gaining an understanding of the principles of mathematics, science and the social sciences. Graphic design tools, including 3D printers, allow children to take on design challenges in robotics, geometry, graphic arts, art, and architecture. Quick access to references on line allows students to read dense text with more understanding. Online reading tools and resources allow students access to curriculum without the limitations of their own developing reading skill.

Assessment with technology escapes the boundaries of time, becoming timely, personalized, and adaptive. Computer adaptive assessment has greater power to yield useful assessment information for teachers to use as feedback and actionable data to aid in planning and, particularly in a low stakes environment, has the power to provide students with effective feedback on the learning.

Access... to Information, Resources, Devices

It has been argued that access to information and resources, levels the playing field of educational opportunity. Students who are deprived of this access suffer from limited exposure to information, especially that of differing viewpoints. In a very real sense, we all have the ability to carry the enormity of access to virtually any piece of information in our pocket. Think about that – the resources of the Library of Congress at your fingertips. And yet, it is actually even way more than that. In our society, anyone with the right tool can access just about any piece of information desired and often within seconds.

Where the labor of that information retrieval consumes valuable time and energy, there is an inability to raise education beyond algorithm processing and information recollection. However, where the barriers to that

information are removed, deeper analysis and synthesis of information can be achieved, additional points of view can be accessed and scrutinized, and collaborative opportunities can widen perspective and connections.

In order to reach these realities, students and staff must have access to the tools needed and also must have access to connect. The infrastructure as outlined in the previous section of this plan provides stable, high-speed access within our buildings. The prophecy of every student having access to a device when and where they need it has largely been achieved while students are at school.

In order to ensure that all students can continue their educational opportunities even outside of school time, the district wants to identify methods of offering services and tools for students while away from school. Sending computing devices home with students has long been available as an option for students. Take-home, cellular based hotspots hold some potential to help with access to data. There is ongoing conversation about providing Internet access in some broader way perhaps with the inter-agency help of a variety of governmental organizations. Identifying the situations of need is a challenge that we continue to work on.

When technology is deployed in a 1-to-1 fashion, the power of serendipity and immediacy can take effect. The power of having a question now, and being able to pursue that question now cannot be overstated.

With a technology tool in-hand, students can also become more active in their education. Consider the task of reading a chapter in a book. With hard copy, the student is constricted by the media. We have developed lots of strategies to become a more active reader. For example, students learn to use context to build vocabulary.

However, with a multi-purpose tool in hand, a student can actively access multiple definitions of a word and beyond. Imagine reading a passage that refers to the Leaning Tower of Pisa. Within a few clicks, students can access a picture of it along with some quick facts. These insights bring deeper meaning and relevance to the original text.

In the science classroom, experiments can be simulated by simply adjusting variables. More simulations create better insight.

In the social sciences, students can access varying viewpoints. They can research the history of a situation and gain deeper understanding.

In the math classroom, technology can bring greater synthesis to the application of the theories being learned. For example, we can be told that linear algebra is actually the basis to most computer animation, but with a technology tool in hand, they can be given tasks that cause them to manipulate the mathematical model to create specific results in an animation.

In Wellness, students can track their diet and exercise habits in order to influence their physical well-being.

Technology allows the engineering in STEM to come alive. When posed with a real-world problem – for example, program this robot to navigate through a maze of unknowns – the significance of doing something real causes the learning to come alive.

The research and inquiry aspects provided by access to technology are clear as well and so too are the communication and collaboration opportunities provided by these resources.

Near real-time assessment tools, like NWEA MAP, provide the opportunity for quick results to be obtained and discerning teaching adjustments to take place.

The debrief of our Studio Classroom projects often bring forward some aspect of the classroom experience that was either enriched by the insightful deployment of a technology resource or that could have been.

The possibilities are endless. Teachers need to come to understand these types of activities and others like them, and then allow/encourage them to be appropriately and masterfully used in their classrooms. As a district, we will continue to provide opportunities for our staff to learn of these types of activities from experts, but also from ourselves. As a leadership group extending to include the IT staff and Teacher-Librarians, we will foster this environment of exploration and innovation. While there may certainly be value to doing some things the “old way”, access to technology opens new opportunities.

The focus is on the experiences and outcomes that lead to better teaching and learning through inquiry and synthesis.

It is important to note that this plan is not about the technology itself. While much thought needs to be put into the selection of devices, it is not the device that should drive this. The improvement and enhancement of the pedagogical practices in the classroom that enhance the educational experiences of students toward the achievement and surpassing of initiatives like the Common Core Standards or the Next Generation Science Standards is the ultimate goal.

Our Strength Lies in Learning Expertise and Teaching Expertise

Some of the very best teachers in the world are right here in West Linn – Wilsonville schools. The wealth of expertise in the complex endeavor of learning is a source of great pride for the students, the faculty, the administration, and the community. In the hands of an expert teacher, our technology-enhanced environment allows learning to achieve unprecedented results.

Teachers and staff have a wide array of support structures and resources available to them. School administration bring leadership and vision to the initiatives and curriculum of the school district. District and school IT staff bring the real-time help with a stuck-point of the moment and also create the technological core environment where these tools can operate to their fullest capacity. Teacher-Librarians merge the complex environment of classrooms with the vast array of information and resources available to students. Instructional leaders provide the curriculum-specific insights essential to the insightful and effective use of technology.

Staff meetings, professional growth opportunities, in-service days, and PLC? group gatherings in and across our schools are all characterized by the highly intellectual collaborative classroom environment we are practicing with students. Effective learning for staff parallels the elements of learning and teaching for students, and can be enhanced with insightful use of technology just as it does in the classroom.

And yet, boxes and wires do not educate. Integration of technologies creates a compelling need for more highly educated teachers – teachers who know how to personalize student learning. In this pursuit, teachers select technologies that provide integrative learning opportunities that were not previously available.

Teaching in this way is complex, sophisticated, challenging, and intensely intellectual work. The role of each individual teacher has become extraordinarily significant.

TECHNOLOGY-ENHANCED CURRICULUM

Blended Learning

Our buildings are constructed with learning porches, living rooms, and spaces that allow for various types of groupings and projects. This works well in a technology-rich environment in which varying and evolving tools take advantage of different settings. It has also further opened the door to various forms of blending learning environments.

A blended learning environment is a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and pace, AND at least partly at a supervised location away from home. Of significance here is that a blended learning environment is not a virtual school, at least not entirely.

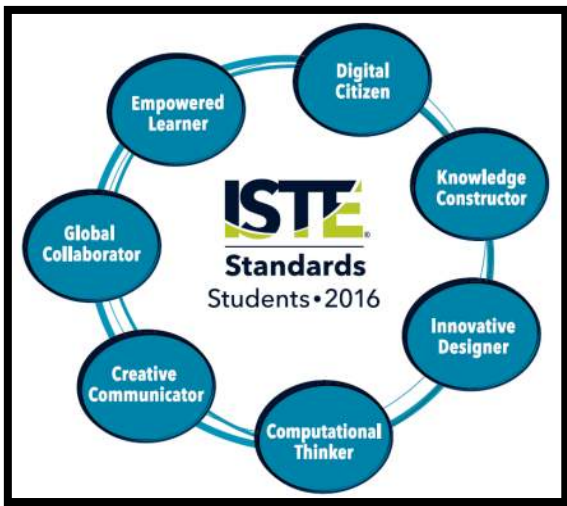
In our schools, we have many variations of blended learning environments. At the younger ages, technology use is purposeful and often teacher-directed. As students get into the upper primary grades, they use technology tools more often and productively. Open-ended projects that incorporate technology begin. Students use technology to produce products of their learning.

As students enter middle school, technology begins to be used for more personal organization, a skill that is difficult to learn. They continue to use technology to perform research and produce products. However, they also begin to use technology tools to organize their contacts, maintain to-do lists, keep track of class assignments, and maintain a personal schedule. Students engage in peer review and collaborative activities using a variety of tools.

Teachers have increasingly begun to use online management tools for class activities. Such a system provides the ability to automate and enhance many of the traditional classroom processes of assigning activities, soliciting feedback, assessment, and various interactive and collaborative activities. For primary age students with only a single teacher, different teachers using different such systems is not a real big issue from the standpoint of the student or the parent. However, this becomes a problem in middle and high school as students have multiple teachers. A district-adopted learning management system would help to overcome this and is something that will be pursued in the future.

In this new environment, the value of teachers is heightened. While students will have more access to data and information, they'll still need direction in creating meaning from and interpreting the value of this information. Teachers will need to stay with students as they explore topics and materials that are sometimes new to the teachers themselves. They will need to help students at the learning moments that occur. They will need to creatively frame inquiry and help students establish pathways for learning. The effective, innovative teacher will be willing and able to adjust and adapt as new opportunities become available and understood. The teacher's ability to continually assess the effectiveness and availability of these tools will be paramount.

ISTE Standards for Students



In 2016, ISTE (International Society for Technology in Education) released updated standards in relation to technology. The updated “Standards” are not defined in a fashion that provides an easy way to “achieve” them. Instead, they are more thematic in regard to the desirable characteristics of modern learners.

Classrooms in West Linn-Wilsonville schools create classroom environments and structures that model and promote these standards as a normal part of activities.

Similarly, our libraries overflow with structures and activities that promote and inspire these ideals. In fact, the themes of school activities, the inquisitive methods of

exploration, the wisdom of expert guidance, the joy of reading, the seamless integration of technology, the self-initiated investigation of a question of the moment, the fun of learning, the collaboration of students and staff – all of which characterize our libraries – all promote the ISTE standards individually and collectively. Indeed, the pursuit of these ideals is unmistakable in the library and resonating from the library.

Ironically, none of the ISTE standards specifically mention technology in their titles; however, each of the standards is best pursued through the employment of technology-rich tools, resources, and opportunities, and most effectively practiced as a whole in all learning activities.

The standards are:

- 1. Empowered Learner**
- 2. Digital Citizen**
- 3. Knowledge Constructor**
- 4. Innovative Designer**
- 5. Computational Thinker**
- 6. Creative Communicator**
- 7. Global Collaborator**

Digital Citizenship

Students need to understand the concepts of Digital Citizenship, in its various domains. Students need to learn how to be safe in their digital activities. They also need to learn how to perform intricate web searches and be able to critically scrutinize sources. They need to be aware of copyright. They need to understand the etiquette of online collaboration. Students should realize that they can leave a digital footprint. We have used a resource called “Common Sense Media” (www.commonsensemedia.org) to help us develop a scope and sequence that will steer us.

Digital citizenship compels attention to the ethical and safe use of technologies and a strong family and school dialogue about what one ought to do with technology. Students’ digital life reaches beyond classroom time into their home and beyond the school year. We attend to a process for creating the conditions for students to develop as safe and productive digital citizens. This learning advances and is nurtured by a strong partnership between the children, their parents and school. The conversation about digital safety and

productive use of technologies is guided by the same values that guide other school and family behavior. Lessons at school and communication with families assist students as they consider the implications of decisions they will make with technology. In the classroom they practice citing sources, selecting appropriate language, following protocols of civility and demonstrating good judgment, respect, responsibility and courage. A coherent curriculum is defined to articulate the development from early years to more sophisticated uses of technology.

Learning Into The Future

We live in a time of vast changes that include the accelerating globalization, mounting quantities of information, the growing hegemony of science and technology, and the clash of civilizations. These changes call for new ways of learning and thinking in school, business, and the professions. -Howard Gardner

Gardner suggests five capacities, five minds, needed by professionals in the future:

- *The disciplinary mind* – mastery of major schools of thought (including science, mathematics, history) and of at least one professional craft.
- *The synthesizing mind* – ability to integrate ideas from different disciplines or spheres into a coherent whole and to communicate that integration to others
- *The creating mind* – capacity to uncover and clarify new problems, questions, and phenomena
- *The respectful mind* – awareness of and appreciation for differences among human beings
- *The ethical mind* – fulfillment of one’s responsibilities as a worker and a citizen

To prepare children for the world they will inherit, the learning experiences we design for them should cultivate facility with the major disciplines. Students should be invited into integrative and creative thinking within and between disciplines. Students’ experiences at school and in their wider life should develop the skills and dispositions to use ideas and information for worthy purposes to accomplish *beautiful work*.

A Convergence of Standards

Our schools are educating learners to be technology-capable and information-literate digital citizens. We are educating children to be literate readers, writers, researchers, and creative and critical thinkers. We are educating children to be capable mathematicians and scientists. Schools live, learn, and work in an increasingly complex and information-rich society where standards for students are defined by the Common Core State Standards, The Next Generation Science Standards, and State standards in the Arts, Social Studies, World Language, Physical Education and Health.

Career/Technical Education (CTE) programs are being employed at our high schools with significant potential expansion into additional pathways on the horizon, including some high-tech endeavors in programming, robotics, and digital design.

The natural interconnectedness of four disciplines – Science, Technology, Engineering and Mathematics (STEM) – is enhanced through thoughtful implementation of MakerSpaces, where experimentation is encouraged, in all of our schools but especially at the primary level. MakerSpace areas provide specific activities, perhaps with a posted challenge of some sort (eg: make the tallest structure possible that will then have a light on top that turns on from the bottom) and then provide some method for students to document their results and activities.

Today's world calls for an expanded sense of "literacy" that touches into concepts of visual literacy, media literacy, historical literacy, digital literacy, information literacy, civic literacy, global literacy, economic literacy, data literacy, health literacy, and much more. Learning about these literacies happens within the daily and ongoing activities of all classrooms and within the school and is often achieved through appropriate and integrated use of technology.

OPERATIONS & MANAGEMENT

The “business” of operating and managing a modern high-performance public school system requires the professional application of technological tools at a level equal to or higher than that associated with any successful business enterprise.

To support necessary and expected educational and curriculum goals, school districts must create and implement basic business strategies including but not limited to the areas of:

<i>Finance</i>	<i>Personnel</i>	<i>Inventory</i>
<i>Printing & Publishing</i>	<i>Technology Infrastructure Management</i>	<i>Food Service</i>
<i>Transportation</i>	<i>Geographic Distribution</i>	<i>Data Management</i>
<i>Facility Management</i>	<i>Energy Conservation</i>	<i>Environmental Safety</i>
<i>Capital Construction</i>	<i>Public Law</i>	<i>Public Relations</i>
<i>Communications</i>	<i>Safety/Security</i>	<i>Student Records</i>

These fundamental imperatives must be carried out in the most efficient and effective way possible. Advanced technology, as a tool, provides the best, and possibly the only, means by which the public’s business can be routinely assured.

Software Applications

Each of the various operational functions of the school district relies on technology to carry out individual department goals in coordination with the district wide vision including:

- Boundary software that enables forecasting and planning for school attendance boundaries.
- Direct Digital Control software that monitors, manages, and troubleshoots all HVAC equipment district wide.
- Food Service software that keeps track of lunch tickets and accounts receivable.
- Scheduling Software for extra-curricular and Community Ed building use.
- Student Information Databases for Attendance and Grading, Special Education Tracking, and Standardized Test Score Tracking.
- Project Management software for maintenance and capital construction.
- Work Order software to manage and record daily maintenance activity.
- Variety of financial, personnel, and business programs tailored to specific functions.

Each of these applications requires a process for purchasing, training, daily usage, licensing and upgrading over time. Budgets to support current applications as well as future opportunities must be accommodated.

System Hardware

Besides the standard tech tools of computers and modern phones, specialized hardware also characterizes a number of our operational systems including:

- Security system hardware
- Fire alarm system hardware
- Video cameras for safety and security
- Intercom/Paging speakers and components
- Emergency Door-Locking mechanisms
- HVAC integration appliances

INFRASTRUCTURE

Related to all technology is the built environment in which it is installed and operated.

Furnishings, floor space, voice/data/video connections, electrical power, and cooling/ventilation are necessitated by each hardware purchase.

Architectural Design and Construction

Since 1989, the district has been in an almost constant state of construction due to increased enrollment. For this reason, the district has become fairly sophisticated in regard to contemporary design for K-12 educational facilities and has led the Pacific Northwest in cutting-edge design. A significant amount of energy and time has been devoted to integrating technology into the architectural design of all buildings, whether new or remodeled.

Classrooms, Libraries, Offices and general building spaces have been designed such that technology is a central theme. Examples of successful building design that supports technology based curriculum includes all district libraries. Most schools take advantage of classrooms clustered around versatile “porches” that facilitate collaborative teaching and learning and promote a constructivist educational approach to education.

As the district expands and is renovated, unique and innovative architectural design solutions that respond to technology use should continue.

Data Cabling

Much of the school district’s existing cabling was originally installed in 1998-99. While still mostly functional, it is increasingly in need of updating. The 20+ year life of this core technology has provided an immeasurable value over the years. Recent updates to the main in-building backbones of our facilities has already provided higher capacity between wiring closets where most significant bottlenecks occur.

Recently, the district hired an electrician with specialized expertise in low-voltage applications. Having this capability on staff allows the district to adapt and adjust in more real-time, cost effective ways.

Wireless Networking

Wireless access to the system is in place throughout all district facilities. There are currently nearly 800 WAPs (wireless access points) deployed around the district’s facilities. These are managed through redundant wireless controllers. The wifi network uses a combination of the 802.11a, b, g, n, and ac standards. A regular school day is characterized with around 7,000 devices connected to our wifi system at any specific point in time, with peaks approaching 10,000.

Wide Area Network

The district’s local area networks are interconnected via Clackamas County (CBX) dark fiber. The costs of installation were shared with various agencies including city governments, Tri-Met, PGE, and others. Initial installation costs were also defrayed by use of e-Rate rebates. With associated upgrades to electronics, these circuits provide a virtually unlimited capacity at about 1/3 of the ongoing costs. This cost reduction provides a direct savings to the General Fund.

Electrical Power

Because we use so much technology for the core operations of the district, there is a need to monitor and potentially increase the electrical capacity of the various central wiring closets around the district. And,

because our technology systems would help us respond, redundant always-available electrical power must be introduced so as to remain operational even during a power outage.

Heating/Ventilation/Air-conditioning

The district operations staff continues to manage the ventilation and temperature control needs associated with our core technology systems. At this time, these are adequate and well-maintained.

Intercom Systems

Each of our schools has an intercom system that is used for announcements, daily bell schedules, and emergency notifications. These systems are all of the same vintage and implemented in a district-wide fashion that integrates with our phone system. Speakers are placed in classrooms and most commonly occupied spaces. There are areas – such as restrooms – in which additional speaker locations and zoning would be helpful. With some investment in components, the ability to manage speaker volume and individual zones/speakers would be possible.

District Radio System

With the problematic cell phone coverage in our district which would be intensified during a potential local emergency circumstance, we have recently implemented a district-wide, IP based radio system. The system consists of radios for communicating emergencies across all district facilities, as well as localized radios at each location for the ongoing operations, including during emergency circumstances, of the facility. The expansion of this system along with the need to keep it functional and optimal is now an absolute need.

Capital and Operating Budgets

Fiscal 2001-2002 was the first year the district identified specific General Fund budget line items for technology, including funding for technology support personnel, supplies and materials, and minimal equipment maintenance. In Fiscal 2004-05, additional funds were budgeted for expansion of the tech support staff. In Fiscal 2005-06, additional budgetary items were added for software license renewal.

Capital funds come to the district primarily through local bond elections. The 1997 bond provided the infrastructure and some of the hardware/software components in use today. Major upgrades to those components began in 2003 via funds from the 2002 bond with district-wide refreshment between 2009-2012 from the 2008 bond and subsequently in 2015 from the 2014 bond. As is typical of all technology, obsolescence is inherent in the industry. As the district expands in both enrollment and capacity to use technology, capital funds for upgrades, enhancement, expansion and system component replacement will be necessary on a regular basis.

TECHNOLOGY-RICH SYSTEMS & SOLUTIONS

District-Provided Tools

As instructional tools, it is effective for students to be accessing digital classroom resources using the same device (hardware). This provides a conformity and consistency of device and the abilities they provide. For example, if you have various devices and form-factors in play, a simple instruction such as “Turn to page 37” can mean vastly different things depending on the pagination methodologies of the particular tool. As such, classroom technology is typically deployed in charging carts that contain enough devices for all students in the classroom at any time.

As we move ahead, we intend to:

- Pursue one-to-one deployment models of devices to students
- Implement lab-based environments for certain activities
- Update/replace core teaching and office systems
- Update the infrastructure of the district to keep the core system robust and stable

Our intent is to have 3 rollouts of technology tools over next 6 years following a bond passage. If a bond is pursued and passed in November of 2019, the first would occur in summer/fall of 2020 with subsequent purchases in the summers of 2022 and then 2024. The specifics of each will be determined just before the actual purchases. In this way, we are most able to capitalize on the latest technological developments.

A Vision of Use of Technology in Classrooms

In every classroom in the district, the teacher has a multimedia capable setup that includes projection of computer images as well as still and motion video on a display at least 60 inches in diagonal size. The room has adequate speakers for ease of listening and appropriate volume. Wherever possible, wireless technology is employed so as to reduce clutter and potential hazards.

Our core technology system is robust and strong. We provide students and staff with on-site personal and shared storage space that is secure and backed up. Our unique WLWV Cloud along with its related tools allows Macintosh and PC computers access to these locations. Third party tools allow similar access to these systems from iOS and Android devices as well.

As parents approve, students are provisioned with a Google account that provides Google cloud-based storage as well as email accounts. These accounts, or the WLWV-Cloud account, provide single-sign-on authentication to most systems used by students.

Students can print things in both color and black-and-white. Teachers can distribute and collect notes, worksheets, and other materials to students electronically in a variety of fashions. Teachers can email their entire class with a single address. Teachers can email all parents of the students in their class with a single address. Schools send periodic newsletters and announcements to the students and to the homes via email.

Our technology resources are plentiful and robust. They have become ubiquitous – they are virtually transparent to the ongoing activities of learning, teaching, and operations – collaboration opportunities, access to information, the ability to collect data in real-time, the reality of real-time documentation of processes and steps, and much more.

Technology tools have evolved to the point where desktop, stationary computing tools are uncommon and mainly in use only in office spaces.

Our phone system includes wired, VoIP-based phones in every occupied room of every district facility with additional in shared office spaces. The phone system is integrated with the intercom and email systems for notifications of various types. Phone system changes, modifications, and additions are managed by our IT staff via a web-based configuration system.

Our video system is used for video storage and retrieval and is the course of most of our digital signage. The system is accessible via a web browser and large displays are strategically placed in schools. We have come to realize that these systems can be a very effective communication tool for events and other announcements as well as student-created video productions.

Access to our resources is 24 by 7 by 365. This is accomplished through redundancy of systems, connections, and power supply. File Servers are centrally located and managed taking advantage of virtualization technologies to reduce power use.

Technology Tools and Resources

As we expand and enhance our use of technology, our reliance on stable networking will continue to explode, especially in the wireless technologies. Our core server environment remains vital to our operation for self-hosted systems.

All schools and district facilities are interconnected via Clackamas County fiber services (CBX). These services are “dark” – translated, that means that they provide wires but do not put any data on the wires. Since the service is dark, we put data on the wire and it is into a closed point-to-point connection between our facilities. This also allows us to expand the capacity simply by connecting the wires with higher grade electronics on each end.

Currently all connections between schools and between wiring closets of our schools run at 10 Gbit. And, as this document was being completed, a second connection to all facilities was being installed that takes a different point-to-point path and thus allows for fail-over functionality in the event of damage or sabotage.

We will continue our every other year plan of updating/replacing approximately 1/3 of our inventory of computing devices with expansion during each rollout as much as possible.

Expanded Technology-Based Solutions

Safety is always a paramount focus of our schools, and technology’s role in that focus is even bigger than it ever has been before. Our need to communicate within our schools has never been higher. We now have an integrated intercom system in all of our schools. The system allows for district-wide announcements and emergency notifications. It can be accessed in a variety of ways both at school and away from school.

The district has installed video cameras in all schools and other facilities in order to enhance security and provide the means to investigate activities.

We have also invested in a robust and comprehensive radio system that is a key piece of our emergency operations.

The Need for Ongoing Support

The district currently has approximately 12,500 computing devices in total; roughly 750 of those are primarily used by staff. There are about 8,000 Chromebooks, 2,750 laptops, 1,500 iPads, and 250 desktops. There are about 500 data projectors and 475 document cameras. Our core infrastructure consists of nearly 800 wireless access points and about 80 network switches with about 300 module inserts and nearly 7000 ports. We have over 1000 phones and about 250 printers. We have recently begun an exploration of classroom deployment of flat screen technology.

There are several important things that we have done that make such an inventory of equipment continue to thrive:

1. We have an outstanding staff of well-versed IT support people,
2. We have held strong to hardware and software standardization whenever possible,
3. We maintain a hard drive imaging system which dramatically reduces implementation timelines and support demands, and
4. We have had stability and consistency in our system.

Our frontline IT support staff of 8 full-time employees supports these devices. Our district-level staffing of 5 people supports the electronics, systems, and data management that make everything else work. These staffing levels were basically created via a board level initiative from 2003. Growth in the IT staff has only gradually occurred since then, mostly only as additional facilities have opened.

The efficiency of our system, the stability of the IT staff, the evolution of technology to be more centrally manageable, and the overall technology savvy of all staff have allowed us to move from an environment with 12 schools and about 3000 computers, to an environment with 16 schools and over 12,000 devices without a comparable growth in IT staff and support.

However, as the district continues to grow with more schools and more devices, as users continue to develop their complex and creative use of technologies, as more systems of data collection and analysis are employed, as IT's responsibilities expand into additional realms of operations and safety/security, as cyber-based misbehavior and vulnerabilities continue to explode, and as existing IT staff with their vast cultural and physical knowledge begin to move into retirement or other endeavors, the district's need to adequately address these realities with expanded expert support and management staffs is paramount.

SOME BASIC TENETS OF IT IN THE DISTRICT

Students should have access to technology tools that can enliven and enrich their learning experiences, bringing more relevance and currency, and reinforcing the educational objectives of each student, when they need it, where they need it.

The district's long-standing pedagogical constructivist approach fits well with our use of technology.

Technology allows students to move beyond simple fact retrieval, retention, and knowledge into higher order thinking skills associated with reasoning, drawing analogies, application, synthesis, and analysis.

Technology use and the mastery of technology tools is not a heavy curriculum in our schools. While some degree of introduction to resources and tools is needed, ongoing development of those skills and that knowledge should take place within the ongoing, appropriate, and productive use within the curriculum areas.

For some populations of students, technology-rich pathways are an absolutely appropriate and positive means to pursuing their goals. As programs of study move into CTE and other technology-rich career-related realms, our technology system should expand to include those tools and resources.

We fully embrace the ISTE standards as ideals. However, we see them more as desirable attributes we want to develop in all children. And we believe that they can be achieved best by appropriate use of technology tools and resources.

We believe in educating the whole child and acknowledge the potential impacts of too much screen time. However, we also note that many technology tools are not based in viewing a screen and that the nature and specifics of a screen-experience raise or lower its value.

Curriculum-based initiatives that require technology should be considered in the context of available tools, but not limited in this way. If a particular resource is "valuable enough", then the needed technology tools should be obtained whenever possible.

Students should be gradually eased into increasingly independent technology use over their primary school years and even beyond. A rich and broad Digital Citizenship curriculum is vital.

Being able to project websites and other resources within the classroom should be smooth and easy, and should be a common occurrence in most classrooms. The tools should be as invisible as possible.

Display and amplification technologies should be available within each school in a central location in order to support the greatest portion of the student population at one time in one place as possible.

Improving the operational processes of the classroom (delivering curriculum, giving assignments, collecting assignments, assessments, progress, online dialog) should be enhanced with technology whenever possible.

The ability to improve communication between all stakeholders should be enhanced with modern technology tools whenever possible. This includes traditional means of communication – amplification, email, websites – but also additional types of communication – increased digital signage and video displays. The District must take appropriate action to follow required records retention guidelines.

Technology should only be employed in the direct or general support of the district’s initiatives. General network connectivity, access to the Internet, wifi are all things that have no singular or specific agenda, but very much support all other technology initiatives of the district.

Core technologies of network, wifi, and Internet access should be open and accessible, and safe-guarded.

Technology tools can be used to enhance Safety and Security agendas via the district’s Safe and Welcoming Schools initiatives.

Student data of all kinds (demographics, personally identifiable information, educational records, student work) AND staff/personnel data – should be kept in highly secure systems and protected steadfastly.

Systems should be always available, especially systems that promote safe operations, communications (both internal and external), and the reasonable disposition of an emergency situation. This needs to cover power needs, data connectivity needs, environmental conditioning of appropriate spaces, and the ability to provide nearly-as-good operational redundancy in case of major damage to core systems.

All other things being equal, technology systems that are self-hosted can be maintained and secured in a more predictable and effective fashion than systems hosted elsewhere.

Reliable, stable, and long-lasting technology tools should be a high priority. When possible, standardization of systems should be maintained so as to gain component interoperability and improved ability to provide ongoing support. Devices should provide the broadest stable range of resource access while providing a reasonably non-disruptive continuity of system support.

Technologies and supporting systems that allow the minimization of ongoing support needs should be used whenever possible within the cost-benefit analysis of the circumstance.

No specific system or technology is set in stone. All systems are subject to change at any time based on the overall “good” of the district.

Data Systems should provide access to actionable data, and present it in near-real-time understandable ways.

Systems that support the operations of the school district – HVAC, lighting, intercoms, alarms, bells, door locks, audio sensors, security cameras, lighting as well database systems for student information maintenance & analysis, food service management, library management, and so on – should be technology-enabled in a centralized management environment as much as possible and appropriate, but stability and functionality of these systems is paramount.

At-home access to resources should be “as similar” as possible to at-school access.

Technology tools sent home should be provided and used through a partnership with the home.

TECHNOLOGY PROJECTS

Planned for Potential Fall 2019 Bond

All aspects of our system are ultimately designed to positively impact the experiences of our students. The items listed below are not listed in any particular order, except that the first item is the most direct impact on the ultimate goal.

Other projects listed directly or indirectly support the first item in a variety of ways.

Student & Staff Device Rollouts: With over 10,000 students and over 1000 staff, and with the advent of a greater than 1-to-1 reality, end-user devices continue to be in high demand. We have to keep these devices current and operational. Through today's eyes, this would include a mix of traditional Mac and PC computers, iPads, and Chromebooks. However, these rollouts could also include sensors, calculators, cameras, audio/video recording devices, drones, and who knows what as we move forward. As we have done for the last 18 years, we would plan to have at least three "rollouts" of new end-user technology that would be spaced two years apart.

Cost Estimate: \$6,000,000

Re-wiring Existing Schools: Back in 1998, most of our schools were wired with a grade of cabling called Cat5E. At the time, we actively "joked" that it would be great if the wiring would last 17 years as some estimates suggested. Most of us, at the time, expected to have to be replacing it within 10 years. Well, it has lasted 20 years! But, this cabling has a capacity of performance that we are now routinely experiencing as limiting.

As we move forward, we see an increasing need to have this wiring replaced/upgraded. And, perhaps even re-engineered. There are two basic approaches:

- 1) MDF/IDF: This is our current approach. MDF stands for Main Distribution Frame. IDF is Intermediate Distribution Frame. This approach would continue to utilize a mix of MDF's and IDF's. These are "rooms" from which wiring goes to jacks in the walls/floors/ceilings. They are located such that they are within approximately 200 feet of any destination jack. The IDF's in each building are connected back to the MDF of each building in a star-configuration via fiber optic cabling.

In this configuration, in order to keep all services fully functional during power disruptions, we would need to provide emergency generator power to all IDF's and MDF's. Currently, most MDF's have this, but very few IDF's do. This means that a power outage causes an outage to segments of a building. Locally provided battery power has a relatively short finite life.

The fiber optic cabling that connects the MDF and IDF's has already been upgraded to handle greater bandwidth, but the station-cabling to the jacks in classrooms and other locations is still just Cat5E. Cat6A or Cat7 is the current standard.

- 2) GPON Implementation: GPON stands for Gigabit Passive Optical Network. Basically, it eliminates the need for IDF's by allowing fiber optic cabling to run to every "space", generally in the ceiling. In the ceiling, a device needs always-on power (generator-provided) – this device accepts the fiber optic cabling and passes the data signal to copper wiring that can be split into multiple connections. Because fiber optic cabling is not subject to the same length constraints as copper wiring, we can run all of the fiber wiring back to the one MDF for the location. This is how most Internet providers are beginning to offer their services to homes. It is a well-known strategy.

Backfitting a GPON model into existing schools would be very expensive as dealing with PoE needs and finding pathways for every location to stretch back to a single MDF could be near-impossible. At least as of this writing, we believe the best approach would be upgrade the Cat5e cabling to Cat6A. There are 10 schools that would need this upgraded wiring. In addition, CREST and DOC Operations would need it as well.

However, we believe it would be wise to potentially use the GPON model in any new construction where adequate pathways and power-needs can be more easily addressed. As with all other technology aspects of new construction, the construction budget (not the technology bond budget) will cover these costs.

Cost Estimate: \$2,000,000

Network Electronics: Our current network electronics (layer 3 switches in the MDF/IDFs) were originally acquired in 2009. In this realm, a lot has changed since 2009 in particular in the areas of safety and security around systems and the data that they carry. New electronics are also needed in order to handle the additional high-bandwidth applications used across the district. There are approximately 75 such devices across the district.

While it is true that many of our devices do run via wifi, we will continue to need actual wiring for a variety of tools into the future including phones, printers, intercom paging modules, wireless access points, HVAC controls, and many other devices, most of which are central to the operation of the district.

Cost Estimate: \$1,000,000

Wifi Upgrades: Our recent wifi upgrades took our wifi environment into the realm of higher bandwidth and more "MIMO" (multiple in, multiple out) connectivity of the 802.11AC world. As things continue to progress in the wifi world, the need to support an even higher density of devices is coming. A new standard – 802.11ax or Wifi 6 – has been developed. While no client devices have been launched that can use this new standard yet, it is only a matter of time. We expect this to occur during the "life" of the next bond.

Cost Estimate: \$1,000,000

Server Environment: We currently house approximately 70 virtual machines in our VMWare environment. These virtual machines host a number of our resources and tools that are vital to our operation and that we prefer to keep close to us for maintenance and for security of data. This environment includes 3 hosts and 100 terabytes of storage across 3 "tiers" of access. It is a highly robust environment.

In addition, our data center houses another 10-15 physical machines that augment the 70 with additional, usually specialized, capabilities. Our data center also houses core components of our phone system as well as our firewalls, ISP uplinks, and other vital services. We don't believe an overhaul of the data center (the room) itself is needed. However, in order to stay current with hardware, we do need to update/replace the server environment (virtual and physical).

Cost Estimate: \$1,000,000

Phone System Update: Our phone system was installed in 2009 and has worked very well for us. However, like other components of our environment, it is very old. Since the installation in 2009, the owners/developers of our system have been bought out and are merging product offerings. This could mean having to replace all components of our system. Even if some pieces can survive, there is a logic to updating to a new system, or at least the newer version of the same system. With over 1000 handsets and a potential need to provide VoIP via wifi, some potentially significant work is needed in this realm as well.

Cost Estimate: \$1,000,000

New Student Information System: We have enjoyed a very stable student information system for 18 years. It is un-heard of for a software package to stand that test of time. Yet, our system – Schoolmaster – has withstood that. Several years ago, the Schoolmaster system was purchased by TylerTechnologies. Tyler has continued general support and state-reporting support of Schoolmaster and has not announced an end to that. But, a software package of this age cannot have a long life left to it.

Tyler has been developing a new more modern system. And there are other competitors out there as well. We need to move a more contemporary system that provides a more robust interface, support for “cutting-edge” educational objectives (for example, learning target based grading), more graphical display of information, and true analytical capabilities. Acquiring such a system will come with a lot of costs. Of course, there is the hardware cost and the software itself. However, there will also be costs for training. And there will be “costs” in the transition that will be experienced by all aspects of our educational environment. Schoolmaster is touched by 100's of staff and 1000's of students and potentially over 10,000 parents and guardians daily.

A new system is needed soon. But, this will almost certainly be the most impactful and wide-ranging technology transition involved in this or even recent capital bond projects.

Cost Estimate: \$500,000

Districtwide Distributed Digital Signage: Standing displays are becoming more and more the norm for a variety of purposes. Visit virtually any college campus and you will see/experience digital displays used for announcements, directions, alerts, and lots of other communication. We currently have such a system, but its use is limited due to cost and definition of roles about updating content. However, we believe that there is great potential in expanding such a system's use.

These visual displays are a very effective tool in increasing communication to many stakeholders. Visitors, staff, and students can all more easily learn of upcoming events and activities using this technology.?

Cost Estimate: \$1,000,000

MDF/IDF Generator Power (Power Redundancy): So many of our core tools rely on our network and its connectivity. Phones, intercoms, radios, email, websites, HVAC, lighting... Having these tools remain functional at all times is crucial to the ongoing activities of modern classrooms. In the event of many emergency situations, the availability of power from the street cannot be assumed. And these events can strike with literally no notice. If we are to manage these events and communicate about them in reliable ways, we have to do everything we can in order to keep these systems operational even when there is no power from the street. This is accomplished by a combination of UPS devices and emergency/standby power. Simply put, the UPS would detect an outage, provide power for that brief period of time (one minute or less) in which an on-site generator would spin up and begin providing power. The UPS would get the generator-provided power and switch off of its battery at that point. In short, the UPS handles the transition from one power source (the street) to another (the building's generator). Emergency generators have historically focused on emergency lighting and consumed minimal power. However, more and more devices are able to draw their power over the Ethernet cabling using Power-over-Ethernet. While these devices consume relatively small amounts of power individually, they end up consuming a lot of power collectively. As such, we need the added capacity of 220 power as well. Extending and enhancing that power draw to all IDF's will require additional power and engineering.

Cost Estimate: \$1,000,000

Intercom System Enhancement: We have now lived with intercom systems in all schools for several years. They have become a vital part of our emergency operations. As we move forward, we would like to add some locations that announcements can be heard that were initially left out (bathrooms, workspaces that are only sometimes occupied, etc). We would also like to add some limited two-way communication via the intercoms. And, over the potential 6-year life of a bond, we anticipate needed upgrades.

Cost Estimate: \$500,000

Video Monitoring: We have over 200 camera views that we have implemented now. At West Linn High, we used cameras from their "old" system which were adequate. However, they are not state-of-the-art like the cameras we have installed otherwise. We need to replace all of these cameras and a small number of similar-age cameras at Wilsonville High as well. There were a small number of locations that were deemed desirable but were simply too expensive to install in phase one of this project. And we will surely discover additional locations that are needed (as has already happened). We may also want/need to look into server updates associated with the camera systems.

Cost Estimate: \$500,000

Radio Network/System: Our radio system and network is new and quite robust. However, like all technologies, we will need to be ready to respond to innovations and we also expect to expand our deployment to keep it current and robust.

Cost Estimate: \$350,000

New Clock Systems in all Schools: Having a synchronized clock system is vital to the smooth operation of a school and district. Not long ago, we replaced all clocks at a few schools that had problems with their old existing systems. We would like to standardize all schools on the same system. This system is wireless in syncing to a master controller via radio waves, and runs on batteries. Deploying such a system is quick and

relatively easy and requires no wiring. Having a standard system will reduce maintenance costs and allow for more cost effective spare-and-repair strategies.

Cost Estimate: \$350,000

Updated Classroom Display Technologies: Our current classroom display technology employs data projectors that are generally not mounted as this allows the greatest flexibility of the classroom space whether for short term or long term desires. However, projector-based technology is problematic in that the image is not sharp or bright as newer alternatives. It also requires some room space for the purpose of the projection, even if it is done via “short-throw” projectors.

While we believe that large flat screen technology is taking over, we have watched neighbors struggle with this type of display due to its fixed-size screen. Simply put, a flat screen mounted on the wall is often just not big enough in a lot of cases. Many schools are going to 2 or even 3 large screen displays in a single room. Certainly, this would increase viewability but at what cost?

We are experimenting with mobile flat screen technology and see some promise in this. By being mobile, a teacher could move the display closer to the students (to increase viewability) and could also locate the display wherever desired at a moment’s discretion. Another “upside” is that it does not consume valuable wall space or white board space. A downside is that the “system” would consume some amount of floor space.

So, it is not particularly clear what the best classroom display solution is. However, what we do know is that we will need to be updating our existing systems with something. Exactly what that is will be determined “at the time” of acquisition, most likely as a part of a phased-in rollout process. A million dollars for something undetermined...

Cost Estimate: \$1,000,000

Updated Printer Fleet: We last purchased printers across the district in 2009. These printers have worked very well, but are aging and in need of replacement. Printing is not the “need” that it has been in the past. However, there is a high-desire around keeping printing convenient.

Cost Estimate: \$300,000

Auditorium/Commons/MPR AV Systems: We have a large and wide disparity of AV systems for school-level activities. We want to bring more consistency to these systems as well as ensuring that they are “adequate” for the needs of the school. Across the range of schools, this could range anywhere from a whole new system to replacing an old one to enhancement of an existing system.

Cost Estimate: \$500,000





CRESS

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