CITY OF MILWAUKIE

PLANNING COMMISSION MINUTES

City Hall Council Chambers
10722 SE Main Street
www.milwaukieoregon.gov

March 13, 2018

Present:	Kim Travis, Chair Adam Argo Joseph Edge Sherry Grau Scott Jones	**Staff:**	Denny Egner, Planning Director Brett Kelver Associate Planner Dan Olsen, City Attorney
Absent:	John Henry Burns, Vice Chair Greg Hemer		

1.0 Call to Order – Procedural Matters*

Chair Travis called the meeting to order at 6:30 p.m. and read the conduct of meeting format into the record.

***Note**: The information presented constitutes summarized minutes only. The meeting video is available by clicking the Video link at http://www.milwaukieoregon.gov/meetings.*

2.0 Planning Commission Minutes — None

3.0 Information Items

Denny Egner, Planning Director, noted that the Volunteer Appreciation Dinner was scheduled for March 29th.

On March 20th, there would be a City Council work session for the Monroe Street Neighborhood Greenway as a review of the impacts of some of the diverters proposed in the Monroe Street Greenway Concept Plan would require additional signals on Harrison St.

4.0 Audience Participation –This is an opportunity for the public to comment on any item not on the agenda. There was none.

5.0 Public Hearings

5.1 Summary: Milwaukie High School Renovation
Applicant/Owner: 3J Consulting/North Clackamas School District
Address: 2301 SE Willard St
File: CSU-2017-007, VR-2017-012
Staff: Brett Kelver, Associate Planner

Chair Travis called the hearing to order and read the conduct of quasi-judicial hearing format into the record.

Brett Kelver, Associate Planner, presented the staff report via PowerPoint and reviewed the proposal, project site, and vicinity. The Milwaukie High School site is a nearly 15-acre campus

consisting of athletic fields, tennis court facility, main classroom building, performing arts center, commons building, gymnasium and grandstand facility, and parking lots. Although there was some off-street parking, there were also shared parking agreements with nearby churches. The zoning was primarily residential with some commercial edges, but the renovation area was focused in the R-2 zone.

Mr. Kelver reviewed the primary project elements, including the demolition and replacement of the main classroom building, reconfiguration and additions to parking areas; as well as other improvements including a remodel of the commons building, a new entry plaza, pedestrian and vehicular circulation improvements, improvements to the athletic facilities, and new landscaping. The students would be temporarily located in modular classrooms located on the football field during construction. There would be improvements to pedestrian connections at Lake Rd and 23rd Ave, including wider sidewalks and bike paths, and a pedestrian connection to Adams St as well. The project would also involve street improvements; Northwest Housing Alternatives (NHA), adjacent to the site across Willard St, would also provide street improvements through its own reconstruction project.

Mr. Kelver noted the key issues: sufficient parking facilities, sufficient landscaping and buffering, and whether there would be safe and efficient access during construction. He reviewed the proposal details in relation to the key issues.

- Staff recommended for the school to reinvigorate the transportation demand management (TDM) program to find ways to reduce demand and trips after construction was complete.
- Regarding landscaping, the primary concern was buffering along the eastern edge of the site where a parking lot would be constructed in place of the existing softball field.
- The proposal included paved and fenced pathway connections between the modular classrooms and the commons/performing arts center. However, more information was needed regarding pedestrian, bike, and vehicle access; drop-off and pick-up areas and routes; and how construction would impact the surrounding properties. **Mr. Kelver** noted the proposed improvements for ped/bike connections and drop-off/pick-up areas.

The staff recommendation was for approval of the application with the findings and conditions as presented, and **Mr. Kelver** reviewed the decision-making options.

Mr. Kelver and **Alex Roller, Engineering Technician II**, answered questions from the Commission as follows:

- Regarding the school's ability to follow a TDM program, the recommendation was for the district to bring a TDM proposal back to the Commission for review. Ongoing review or an update timeline would be determined at that time.
- The new building roof, new parking lot, and modifications to the existing parking lot would trigger the predevelopment requirements for stormwater management. The proposal addressed these requirements sufficiently.
- The trip generation was calculated based on the square footage of the building and was not based on enrollment or staff numbers.
- Since the project did not include changes to the accessways on Washington St, those particular nonconformities were allowed to remain as-is.

Chair Travis called for the applicant's testimony.

Andrew Tull, 3J Consulting, 5075 SW Griffith Parkway Ste. 150, Beaverton OR 97005, and **Matt Jacoby, BRIC Architecture, 1233 NW Northrup Ste. 100, Portland OR 97209**, presented for the applicant.

Mr. Tull noted the other applicant team members in the audience and thanked the Commission and staff for their time. The project was a part of a bond measure passed to fund improvements to schools and facilities throughout the North Clackamas School District.

Mr. Jacoby presented the proposal and schematic images of the site plan and site circulation plan during construction, and explained the general timeline of the project. All classrooms would be relocated to a "Mod City" of modular buildings on the football field. The project would provide a new high school and renovated commons that were seismically to code, would include new technology and a maker space, a new secure entry point and vestibule for visitors and secure entries elsewhere, and open connections between the new building and the commons. He noted that a large cedar tree near the new entrance would be removed; although the team tried to design around it, it was not possible to preserve the tree due to grade challenges. A possible heritage tree marker could be incorporated into the entrance courtyard, and materials from the tree could be incorporated elsewhere in the project such as beams, benches, artwork, etc. The original building was built in 1925; however, it had been remodeled and added onto many times and so was difficult to determine what was historic and what was not. The identified historic features would be incorporated or represented throughout the new building, including doorways, beams and woodwork, historic photos, etc.

Mr. Tull noted the team's excitement about this project and added that the School District agreed with the findings and conditions of approval and respectfully requested that the Commission approve the applications.

The applicant answered questions from the Commission.

- The landscaping plan would meet all City requirements for density, including the southeast corner near the new parking lot.
- Due to site constraints, the trash receptacle would be located on the eastern edge of the new parking lot and would include a full enclosure that matched the style of the new building.
- It was assumed that the shared parking agreements between the school and the 2 nearby churches would continue.
- The applicant looked forward to the results of a TDM and would work with staff to continue a possible program.

Chair Travis called for public testimony.

Gary Klein, 10795 SE Riverway Ln Milwaukie, noted the large amount of construction projects in downtown Milwaukie, including this project, the NHA reconstruction project, the Axletree mixed-use development, etc. He reminded the Commission that this project was in a residential neighborhood and asked that consideration be taken with regard to the neighbors and safety. He appreciated the effort by the applicant to incorporate historic elements into the project.

Mr. Egner noted that Leila Aman, the City's new Development Manager, was coordinating between the various projects occurring in downtown and was working with stakeholders, neighbors, etc., to ensure that everything continued smoothly.

Ray Bryan, 11416 SE 27th Ave Milwaukie, Historic Milwaukie Neighborhood District Association Chair, thanked the School District for being great to work with. He noted that the proposal had changed after the NDA had submitted their comments, some of which had been incorporated into the revised plans. He was concerned about the possibility of widening Lake Rd

and would prefer to avoid that for the sake of the neighborhood and the trees along Lake Rd. He asked if the proposed sidewalk design along Willard St would reduce on-street parking for the nearby apartments. He also was concerned about the noise impacts of the trash enclosure location, particularly in terms of pick-up times. One item that the NDA had requested in their comments that was not included in the revised proposal included a proposal for flashing beacon crosswalks on Washington St at 27th Ave, Lake Rd at 27th Ave, and Lake Rd at 23rd Ave. He believed that with better pedestrian facilities, more students would walk to school. Other NDA requests included a good neighbor agreement for the construction and for emergency preparedness measures to be included at the school, as it would be the most seismically-sound building in the area.

Staff answered questions from the Commission.

- **Mr. Roller** stated that a striped crosswalk would be installed across Lake Rd at the east side of 23rd Ave as part of the NHA project. He would look into what triggered a flashing beacon crosswalk rather than a standard striped crosswalk.
- **Mr. Kelver** noted that in past applications, a condition called for the applicant to make an effort toward a good neighbor agreement with the NDA, but that was the extent of the condition.
- Construction could occur on the weekends but within allowable hours.
- The TDM process would involve the applicant returning to the Commission with a proposal that would include a comprehensive look at the onsite parking and programs for students and staff to bike, rideshare, use public transportation, etc., and how to track the progress of the programs.
- **Mr. Egner** noted that, with respect to including on-street parking in the TDM, the City conducted an annual downtown parking study and was also currently developing a downtown parking strategy. Although in the past the high school had not been included in the downtown study, he proposed that school be added so the City could assess the need.
- The right-of-way dedication along Lake Rd to allow for a center left-turn lane was part of both this project and the NHA project and would move Lake Rd toward the cross section identified in the Transportation System Plan (TSP).
- The right-turn-only regulation on Willard St at 27th Ave would remain, and the exit of the southwest parking lot would also be right-turn-only.

Chair Travis called for the applicant's rebuttal.

Mr. Tull responded to testimony as follows:

- The applicant would work with the City on alternatives for the Lake Rd cross section, but at this point the design was what was required by the TSP.
- With regard to the sidewalk along the north side of Willard St, it appeared that it would not result in a loss of parking spaces; however, a survey would be needed to verify this.
- There was little option for a specific pick-up time by the garbage haulers.
- There was a condition to remove barriers to ADA crossings around the site; therefore, a number of the connections and crosswalks would be evaluated and likely improved.
- The School District and project team were being proactive in communication with the neighbors and were available should there be any issues. **Mr. Jacoby** reviewed the communication flyers that would be sent out this week.
- Emergency preparedness was a good consideration for the possible future use of the site, but at this point the primary task was to complete the school project. **Mr. Jacoby** added that there were resiliency-related features included in the project such as an oversized backup generator, flexible waterlines, etc.

- The sidewalk design for Lake Rd and 23rd Ave was flexible in order to preserve the trees at that intersection.

Chair Travis closed public testimony.

Planning Commission Deliberation

The Commission supported the application with the proposed conditions and appreciated that the key issues were adequately addressed. They also appreciated the neighborhood outreach and the historic elements that were included in the design, and believed that the new high school would be a state-of-the-art, forward-thinking resource for the community. **Chair Travis** was confident that any possible concerns or issues would be handled appropriately by the applicant, staff, and neighbors.

Commissioner Edge moved and Commissioner Argo seconded to approve land use applications CSU-2017-007 and VR-2017-012 for the Milwaukie High School Renovation Project at 2301 SE Willard St with the recommended findings and conditions as presented. The motion passed unanimously.

6.0 Worksession Items — None

7.0 Planning Department Other Business/Updates

8.0 Planning Commission Discussion Items

Chair Travis noted the Comprehensive Plan Advisory Committee meeting was the previous week. The group was working on Block 1 goals that included Citizen Involvement, Economic Development, Urban Growth Management Area, and Arts and Culture. A town hall was scheduled for April 4th and would help to provide further feedback from the community.

Commissioner Edge stated that Clackamas County was awarded a Metro 2040 grant for a planning project in the Oak Grove area just south of the Island Station neighborhood. He was on the project management team for the grant and offered to provide updates to the Commission as the project progressed.

9.0 Forecast for Future Meetings:

March 27, 2018	1. Public Hearing: CPA-2018-001 Scott Park Master Plan Removal
April 10, 2018	1. Public Hearing: CSU-2018-002 Ledding Library Reconstruction

Meeting adjourned at approximately 8:43 p.m.

Respectfully submitted,

Alicia Martin, Administrative Specialist II

Kim Travis, Chair

CITY OF MILWAUKIE

AGENDA

March 13, 2018

PLANNING COMMISSION

City Hall Council Chambers
10722 SE Main Street
www.milwaukieoregon.gov

1.0 **Call to Order - Procedural Matters** — 6:30 PM

2.0 **Planning Commission Minutes** — None

3.0 **Information Items**

4.0 **Audience Participation** – This is an opportunity for the public to comment on any item not on the agenda

5.0 **Public Hearings** – Public hearings will follow the procedure listed on reverse

5.1 Summary: Milwaukie High School Renovation
Applicant/Owner: North Clackamas School District
Address: 2301 SE Willard St
File(s): CSU-2017-007, VR-2017-012
Staff: Brett Kelver, Associate Planner

6.0 **Worksession Items**

7.0 **Planning Department Other Business/Updates**

8.0 **Planning Commission Committee Updates and Discussion Items –** This is an opportunity for comment or discussion for items not on the agenda.

9.0 **Forecast for Future Meetings:**

March 27, 2018	1. Public Hearing: CPA-2018-001 Scott Park Master Plan Removal
April 10, 2018	1. Public Hearing: CSU-2018-002 Ledding Library Reconstruction

Milwaukie Planning Commission Statement

The Planning Commission serves as an advisory body to, and a resource for, the City Council in land use matters. In this capacity, the mission of the Planning Commission is to articulate the Community's values and commitment to socially and environmentally responsible uses of its resources as reflected in the Comprehensive Plan

1. **PROCEDURAL MATTERS.** If you wish to speak at this meeting, please fill out a yellow card and give to planning staff. Please turn off all personal communication devices during meeting. For background information on agenda items, call the Planning Department at 503-786-7600 or email planning@milwaukieoregon.gov. Thank You.
2. **PLANNING COMMISSION MINUTES.** Approved PC Minutes can be found on the City website at www.milwaukieoregon.gov.
3. **CITY COUNCIL MINUTES** City Council Minutes can be found on the City website at www.milwaukieoregon.gov/meetings.
4. **FORECAST FOR FUTURE MEETING.** These items are tentatively scheduled, but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.
5. **TIME LIMIT POLICY.** The Commission intends to end each meeting by 10:00pm. The Planning Commission will pause discussion of agenda items at 9:45pm to discuss whether to continue the agenda item to a future date or finish the agenda item.

Public Hearing Procedure

Those who wish to testify should come to the front podium, state his or her name and address for the record, and remain at the podium until the Chairperson has asked if there are any questions from the Commissioners.

1. **STAFF REPORT.** Each hearing starts with a brief review of the staff report by staff. The report lists the criteria for the land use action being considered, as well as a recommended decision with reasons for that recommendation.
2. **CORRESPONDENCE.** Staff will report any verbal or written correspondence that has been received since the Commission was presented with its meeting packet.
3. **APPLICANT'S PRESENTATION.**
4. **PUBLIC TESTIMONY IN SUPPORT.** Testimony from those in favor of the application.
5. **NEUTRAL PUBLIC TESTIMONY.** Comments or questions from interested persons who are neither in favor of nor opposed to the application.
6. **PUBLIC TESTIMONY IN OPPOSITION.** Testimony from those in opposition to the application.
7. **QUESTIONS FROM COMMISSIONERS.** The commission will have the opportunity to ask for clarification from staff, the applicant, or those who have already testified.
8. **REBUTTAL TESTIMONY FROM APPLICANT.** After all public testimony, the commission will take rebuttal testimony from the applicant.
9. **CLOSING OF PUBLIC HEARING.** The Chairperson will close the public portion of the hearing. The Commission will then enter into deliberation. From this point in the hearing the Commission will not receive any additional testimony from the audience, but may ask questions of anyone who has testified.
10. **COMMISSION DISCUSSION AND ACTION.** It is the Commission's intention to make a decision this evening on each issue on the agenda. Planning Commission decisions may be appealed to the City Council. If you wish to appeal a decision, please contact the Planning Department for information on the procedures and fees involved.
11. **MEETING CONTINUANCE.** Prior to the close of the first public hearing, *any person* may request an opportunity to present additional information at another time. If there is such a request, the Planning Commission will either continue the public hearing to a date certain, or leave the record open for at least seven days for additional written evidence, argument, or testimony. The Planning Commission may ask the applicant to consider granting an extension of the 120-day time period for making a decision if a delay in making a decision could impact the ability of the City to take final action on the application, including resolution of all local appeals.

The City of Milwaukie will make reasonable accommodation for people with disabilities. Please notify us no less than five (5) business days prior to the meeting.

Milwaukie Planning Commission:

Kim Travis, Chair
John Henry Burns, Vice Chair
Adam Argo
Joseph Edge
Sherry Grau
Greg Hemer
Scott Jones

Planning Department Staff:

Denny Egner, Planning Director
David Levitan, Senior Planner
Brett Kelver, Associate Planner
Vera Kolias, Associate Planner
Mary Heberling, Assistant Planner
Alicia Martin, Administrative Specialist II

CITY OF **MILWAUKIE**

To: Planning Commission

Through: Dennis Egner, Planning Director

From: Keith Liden, Consulting Planner
Brett Kelver, Associate Planner

Date: March 7, 2018, for March 13, 2018, Public Hearing

Subject: **File:** CSU-2017-007 (master file), with VR-2017-012

Applicant/Owner: North Clackamas County School District

Address: Milwaukie High School, 2301 Willard St

Legal Description (Map & Tax Lot): 1S1E36BC 05600

NDA: Historic Milwaukie (and within 300 ft of Lake Road NDA boundary)

ACTION REQUESTED

Approve the application and adopt the recommended Findings and Conditions of Approval found in Attachments 1 and 2, respectively, which will be provided separately with a supplemental report. This would result in approval of a major modification to a Community Service Use (master file #CSU-2017-007) for remodeling and major renovation of Milwaukie High School. The application includes a variance request for the carpool parking standard (file #VR-2017-012). An earlier request for a parking determination (file #P-2017-001) has been withdrawn. This application requires a Type III review by the Planning Commission.

BACKGROUND INFORMATION

A. Site and Vicinity

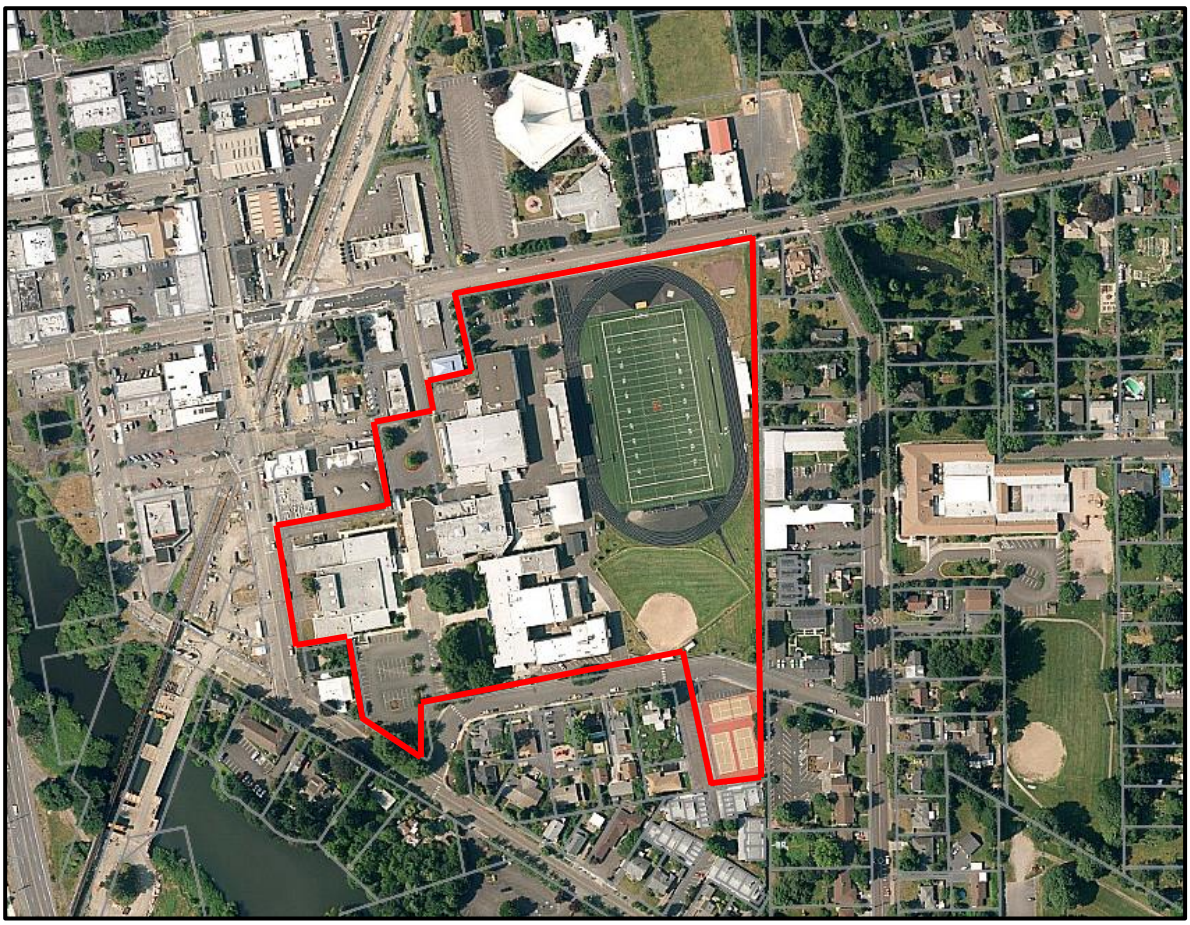
The 14.7-acre site is located on the north side of Willard St. The property contains the main classroom building, Commons building, and Performing Arts Center in the approximate center; and the gymnasium, grandstand, and track and athletic field on the north side. There are parking lots in the southwest and northwest corners of the site, and a softball field and tennis courts in the southeast corner.

The site has frontage on Willard St, 23rd Ave, and 25th Ave (local streets); Washington St (a collector street); and Lake Rd and 21st Ave (arterial streets). Access to the school is provided by two driveways on the north side of Willard St, as

well as by additional driveways from Washington St, 23rd Ave, and 21st Ave. Those street frontages are improved, including with curb and sidewalk on all three, plus a bike lane on Lake Rd. The site is served by TriMet bus route #32, which has a stop on Lake Rd near the Willard St intersection; as well as by TriMet bus route #29, which has a stop on Washington St adjacent to the school track. To the west, the Milwaukie station for the Orange line MAX is within 400 to 500 ft walking distance of the main school entrance.

As shown in Figure 1, the land uses and development adjacent to the site are mixed and include institutional (schools, churches), multi-family residential (apartments and condominiums), single-family residential and duplex dwellings, and office buildings (both purpose-built and converted dwellings). The surrounding properties range from small single-family lots to multiple-acre school and church grounds.

Figure 1. Aerial Photo



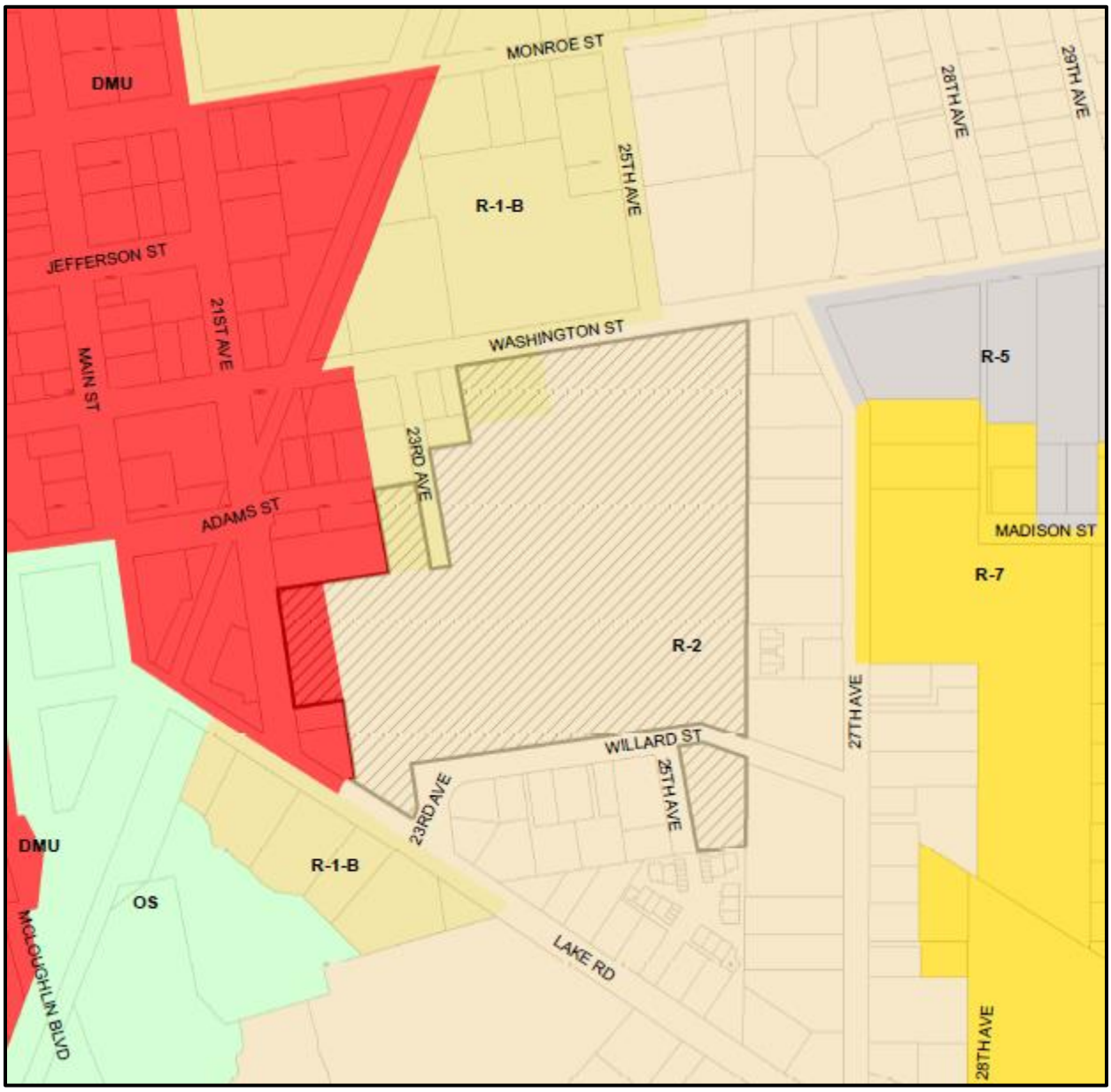
Source: Metro

B. Zoning Designation

The school property is primarily zoned R-2 Residential. This district allows medium and high-density residential development. The northwestern and western portions of the site are zoned R-1-B Residential-Business Office and DMU Downtown Mixed-Use, respectively. Schools are allowed subject to Community Service Use approval.

East and south of the site are properties also zoned R-2, with properties to the north zoned a combination of R-2 and R-1-B. Properties to the west are zoned DMU. The zoning in the vicinity of the school is shown in Figure 2.

Figure 2. Existing Zoning



Source: City of Milwaukie

C. Comprehensive Plan Land Use Designation

The primary land use designation of the site is Public (P), though it also includes small portions designated Town Center (TC), High Density (HD), and Mixed Use (C/HD).

D. Land Use History

- **Original development:** The main classroom building of Milwaukie High School was first constructed in 1925. A grandstand and athletic fields were added in 1938. The gymnasium was rebuilt after a fire destroyed the original in 1963. The fine arts building was built in 1970-71 when the high school itself was remodeled to meet current fire and safety codes.
- **1986**: CSO-86-04, approval of additional off-street parking.
- **1988:** CSO-88-02, approval of temporary modular classrooms.
- **1993:** CSO-93-02, approval to construct a new commons area.
- **1999**: CSO-99-05, approval to remodel the entire school.
- **2007**: CSU-07-05, approval to significantly upgrade the fine arts building, gymnasium, and athletic fields.
- **2009**: CSU-09-07, a minor modification was approved to allow the replacement and expansion of an equipment shed near the athletic fields.
- **2011**:CSU-11-10, a minor modification was approved to replace the scoreboard at the softball field.
- **December 2017**: CSU-2017-008, a minor modification was granted to allow temporary storage of 33 modular classrooms on the athletic field, in advance of the project described in this application.
- **February 2018:** HR-2017-002, an Historic Review to delete the Milwaukie High School from the City's inventory of historic properties. This application was approved by the City Council on February 20, 2018 (Ord. 2159).

E. Proposal

The applicant is proposing a major renovation of Milwaukie High School. The project requires approval of a Community Service Use (CSU) application. Attachment 4 (Applicant's narrative and supporting documentation) provides a summary description of the proposal, which includes the following:

- A new main classroom building, including demolition of the original school structure built in 1925. The overall student capacity of the new building will not change (1,500 students), though the expansion is designed to accommodate an increase in the number of staff, from 110 currently to 140 in the future.
- Remodeling of the existing Commons building, including a new connection to the main building.
- Various site improvements, including a new main entry plaza, new parking lot in the southeast portion of the site, pedestrian and vehicular circulation improvements, athletic field turf replacement, track resurfacing, replacement scoreboard, and new landscaping.
- Increasing the total number of on- and off-site parking spaces from 259 to 334, with a variance request for relief from the carpool/vanpool parking requirements of MMC Section 19.610.

- Modular buildings (27 classroom structures and 6 restroom/custodial structures) will be temporarily located on the athletic field, with pedestrian walkway connections to the Commons building, existing gymnasium, and Performing Arts Center, all of which will remain in use during construction.
- During construction, bus and vehicular traffic will be provided via the drop-off area that currently exists along 23rd Ave (off of Washington St).
- A proposal to replace the existing tennis courts on Willard St and 25th Ave with a new off-street parking area is not part of the proposed development and will be considered under a separate review process in the future. Likewise, the proposal for an electronic reader board sign facing Willard St will be considered under a separate review process.

KEY ISSUES

Summary

Staff has identified the following key issues for the Planning Commission's deliberation. Aspects of the proposal not listed below are addressed in the Findings (see Attachment 1) and generally require less analysis and discretion by the Commission.

A. Will the school provide adequate parking facilities?

B. Will the school continue to provide sufficient landscaping and buffering from adjacent properties?

C. Will safe, convenient, and safe access be provided for all modes, both during and after construction?

Discussion

A. Will the school provide adequate parking facilities?

Based on the student capacity and staffing of the new main classroom building (1,500 students and 140 staff), the City's parking code requires a minimum of 515 off-street spaces. With the 25% reduction allowed because of the site's proximity to light rail transit, the minimum required number goes down to 386. As proposed, the school will provide a total of 333 parking spaces, consisting of 243 on-site spaces and an additional 90 spaces available through shared parking agreements with St. John the Baptist Catholic Church and St. Stephens Serbian Orthodox Church. While still not reaching the minimum number, the proposed development will move much closer to conformance by adding 74 spaces.

As per MMC Section 19.610, carpool and vanpool parking is required at a rate of 10% of the minimum parking standard. Considering the 25% parking reduction for proximity to light rail (from 515 spaces down to 386), 38 carpool/vanpool spaces are required as per MMC Subsection 19.610.2. The applicant has requested a variance to this standard. The applicant indicates that students informally carpool at present and there is no need to have designated carpool/vanpool spaces. The applicant has also indicated that enforcement and maintenance would represent significant challenges that would not have a corresponding benefit. The site has proximity to

bus and light rail transit, the District provides busing to and from the site, and there is ample bike parking on campus.

Planning staff is supportive of this variance request but notes it is possible that students or staff that had previously been carpooling, parking on-street in the neighborhood, or using an alternative mode of transportation may decide to drive alone since there will be more parking available on the school site. An increase in the number of single-occupancy vehicle trips to and from the site could have a negative impact on the surrounding neighborhood.

The 2007 approval of the last significant campus renovation (master file #CSU-07-05) included a condition of approval requiring the school to develop a Transportation Demand Management (TDM) program to improve the function of the existing parking situation and reduce demand for limited off-street parking. At a minimum, the TDM program was to include a plan for establishing a Transportation Committee composed of students, faculty, and staff; and was to be responsible for studying parking demand, developing and promoting alternative transportation options (including carpooling), and establishing a Transportation Resource Center on the campus. The school did develop a TDM plan that was reviewed and approved by the Planning Director, though annual reporting on the program has not been consistent over time.

The continuation of the school's TDM program would help avoid or minimize the potential impacts of the requested variance to not designate carpool/vanpool spaces. Staff has recommended a condition to require that an updated TDM plan be developed and provided to the Planning Commission at a subsequent hearing for review and approval.

B. Will the school continue to provide sufficient landscaping and buffering from adjacent properties?

The basic layout of the campus and building footprint of the high school will remain fundamentally as they are today. Landscaped areas and buffers will likewise remain essentially unchanged. The most significant modifications to landscaping and buffering will occur along the Willard St frontage. The street frontage landscaping will be improved with landscaped areas and street trees, which conform to current City standards. The required street improvements along the school's Lake Rd frontage can be designed to avoid the existing mature trees near the intersection with 23rd Ave.

The new parking lot to the southeast of the building will replace the existing softball field. While some open space will be converted to parking, the parking lot is proposed to be landscaped with trees and shrubs to provide an appropriate buffer between the vehicular areas and the street frontage. The City's parking code requires screening along the perimeter of parking lots sufficient to shield vehicle lights from 1 to 4 ft above grade. The specifics of the landscape design will be subject to further review during the Type I Development Review process.

Invasive plants have begun to multiply within the existing landscaping area along the eastern boundary of the campus. A condition is recommended to require removal and re-vegetation with non-nuisance species. Unless new public input

suggests otherwise, tall-growing tree species are not recommended along the eastern boundary north of the new parking lot, out of consideration for the desires expressed in 2007 of neighbors to maintain views onto the athletic field.

Where a new garbage and recycling area is proposed at the northeast corner of the new parking lot, staff has recommended a condition to require the applicant to either explore options for relocating it farther from the eastern boundary or provide sufficient landscaping to screen it from view by neighboring properties to the east.

C. Will safe, convenient, and safe access be provided for all modes, both during and after construction?

Because the school will be under construction for a significant time (approximately 2 years), the question regarding access pertains to both the interim construction period and the proposed new campus facilities. These considerations include accessibility impacts on the school property as well as impacts on surrounding properties.

Access during Construction

There are five basic areas of consideration while the school is under construction:

1. *Pedestrian access*. The students will be using modular classrooms located on the football field as well as some of the other buildings on campus that will remain open during construction. The applicant proposes to have fenced pathways to provide safe linkages between these different areas.
2. *Transit and school bus access*. The application does not provide information about how access to transit (TriMet bus routes 29 & 32 and MAX) will be maintained during construction. Routes to transit stops should be identified and maintained throughout the construction process to provide safe and efficient access for transit users. Likewise, the proposed areas and method for school bus drop-off and pick-up during the construction phases are also not identified. Staff encourages the applicant to provide information about these issues at or before the public hearing, for consideration as part of the CSU review.
3. *Auto access*. Similar to school bus drop-off and pick-up, the method for auto access needs to be identified during the construction phases.
4. *Construction staging and access*. A detailed plan for construction staging and access to school and construction activities should be developed and approved as part of the CSU review. Staff is strongly encouraging the applicant to make this information available at or before the public hearing so the immediate neighbors and others who will be impacted can comment and be prepared for the changes in traffic and access management as the construction moves to completion.
5. *Potential impacts on neighboring properties*. The traffic flows and school-related traffic routes will clearly change during construction. Consideration will need to be given to potential adverse impacts on neighboring residents and businesses. Temporary location of the modular classrooms on the athletic field will bring activity closer to the neighboring properties to the east. However, the structures are single-story and much of the new activity will be inside. During the

construction period, athletic events will be held elsewhere, so impacts from those activities will be temporarily averted. The existing field lights are not proposed to be used during the construction period except for emergencies.

Access at Project Completion

There are four basic areas of consideration regarding the final design of the school's transportation facilities:

1. *Pedestrian access*. The proposed pedestrian access within the school campus will feature an enhanced walkway system connecting destinations within and near the campus, including transit. The main school entry will be more open to Willard St and destinations to the west, including the MAX station.
2. *Transit and school bus access*. The proposed school bus drop-off and pick-up area along the Willard St frontage is expected to provide logical and orderly means to safely allow students to walk between the building entrances and the buses without causing traffic issues on Willard St. The Engineering Department has reviewed the plans and is comfortable with the proposal.
3. *Auto access.* The southwestern parking area is also proposed to be the primary auto drop-off and pick-up location. Staff is not aware of queuing problems on Willard St or other concerns related to drop-off and pick-up activity at the school, which is different in nature than at an elementary or middle school. Staff feels it is likely that users of the site will determine the most effective places and methods for drop-off and pick-up at the school.
4. *Potential impacts on neighboring properties*. With the establishment of a new parking lot at the southeastern corner of the site, there will be more vehicle trips on Willard St and 27th Ave, most likely by school staff and in conjunction with the regular school schedule. School buses (15 or more) will also queue along the north side of Willard St, as they have in the past. Overall, the proposed improvements should not result in significant impacts to neighboring properties. There is no new building massing proposed near the eastern boundary of the campus, the addition of off-street parking on the site will reduce on-street parking in the neighborhood, and the new classroom building will have largely the same footprint and scale as the existing structure.

CONCLUSIONS

A. Staff recommendation to the Planning Commission is as follows:

1. Approve the Community Service Use application (file #CSU-2017-007) to allow the replacement of the main school building and remodeling of other portions of the school campus.
2. Approve the requested variance to the carpool parking standard (file #VR-2017-012).
3. Adopt the attached Findings and Conditions of Approval.

B. Staff recommends the following key Conditions of Approval (see Attachment 2 for the full list of recommended conditions)**:**

1. Off-site street improvement—6-ft curb-tight sidewalk with curb and gutter on north side of Willard St, from school property east to 27th Ave.
2. Update the school's Transportation Demand Management (TDM) program.
3. Provide adequate walkways for southeastern parking lot.
4. Relocate the garbage/recycling facility proposed in NE corner of southeastern parking lot, or screen with landscaping.
5. Remove invasive plants within the landscaping areas along the eastern boundary of campus.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC Section 19.1006 Type III Review
- MMC Section 19.904 Community Service Uses
- MMC Chapter 19.302 Medium and High Density Residential Zones (incl. R-2 zone)
- MMC Chapter 19.500 Supplementary Development Regulations
- MMC Chapter 19.600 Off-Street Parking and Loading
- MMC Chapter 19.700 Public Facility Improvements
- MMC Section 19.911 Variances
- MMC Title 12 Streets, Sidewalks, and Public Places

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

The Commission has 4 decision-making options as follows:

A. Approve the application subject to the recommended Findings and Conditions of Approval.

B. Approve the application with modified Findings and Conditions of Approval. Such modifications need to be read into the record.

C. Deny the application upon finding that it does not meet approval criteria.

D. Continue the hearing.

The final decision on these applications, which includes any appeals to the City Council, must be made by May 25, 2018, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed zone change was given to the following agencies and persons: City of Milwaukie Building and Engineering Departments, Historic Milwaukie and Lake Road Neighborhood District Associations (NDAs), Clackamas Fire District #1 (CFD#1), Clackamas County Department of Transportation and Development (DTD), Metro, TriMet, ODOT, and properties within 300 ft of the subject site.

The following is a summary of the comments received by the City, which are included as Attachment 5:

- **Michelle Wyffels, Planner II, TriMet:** TriMet operates an eastbound bus stop on Washington St approximately 390 ft west of 27th Ave, along the frontage of the subject property. To accommodate the average daily ridership at this stop, the proposed development should provide front and back door landing pads to allow for an ADA-compliant boarding area that meets TriMet's design standards.

  Staff Response: *MMC Subsection 19.708.6 requires that projects shall upgrade existing transit stops in reflection of a reasonable and proportionate share of the development's impacts. The improvements requested by TriMet are well within the range of proportionality warranted by the impacts of the proposed development, and a condition has been established accordingly.*

- **Matt Amos, Fire Inspector, CFD#1:** No comments.

- **Ray Bryan, Chair, Historic Milwaukie NDA:** The NDA raised a host of questions regarding several elements of the project:
  - Details of nature and operation of proposed readerboard sign on Willard St
  - Impacts related to new parking lot proposed in southeast corner of site (screening of headlights, garbage/recycling area, invasive species on eastern hillside)
  - Questions about nature and function of proposed loading area on Willard St (stormwater management, landscaping, pedestrian crossings) and transition of new street improvements to existing conditions beyond school frontage on Willard St
  - Nature of improvements on Lake Rd (bike lanes, landscape strip, tree preservation)
  - Traffic impacts and opportunities to improve pedestrian and bicycle safety
  - Concern about accuracy of assumptions in transportation memo
  - Recommendations for good-neighbor agreement during construction period and storage of emergency-response equipment and supplies

  Staff Response: *The discussion of key issues addresses many of the concerns raised by the NDA. Details of the proposed readerboard sign have not been provided to date. A Traffic Impact Study was not required but transportation impacts are evaluated as part of the overall application and are addressed in the findings for MMC 19.700. Storage of emergency-response equipment and supplies in the new school building is a good idea for the community, one that can be explored*

through conversations between the NDA and the District; however, there is no reasonable link between impacts of the proposed development and a requirement to store emergency-response materials.

- **Thomas Bachhuber, Jr., DMD, business/property owner at 2236 SE Washington St:** Concerns related to potential impacts to nearby medical and dental offices on 23rd Ave and Washington St during construction, primarily the need to maintain safe, ADA-compliant access to those sites 24 hours a day, 7 days a week.

  Staff Response: *The comment has been shared with the applicant, and a general condition of approval has been established to ensure that the applicant takes all practicable measures to minimize impacts to surrounding properties throughout the construction process.*

- **Alex Roller, Engineering Tech II, Milwaukie Engineering Department:** Findings related to the proposal's compliance with MMC Chapter 19.700 Public Facility Improvements and Title 12 Streets, Sidewalks, and Public Places, with relevant recommended conditions of approval and additional requirements.

  Staff Response: *The Engineering Department's memo has been incorporated into the recommended findings, conditions, and additional requirements as appropriate.*

- **Joshua Brooking, Planner, ODOT Region 1:** No comments on the proposal.

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

	Early PC Mailing	PC Packet	Public Copies	E-Packet
1. Recommended Findings in Support of Approval	☐	☒	☒	☒
2. Recommended Conditions of Approval	☐	☒	☒	☒
3. Additional Requirements	☐	☒	☒	☒
4. Applicant's Narrative and Supporting Documentation, stamped received January 25, 2018.				
A. Letter Addressing Approvability Items	☒	☐	☒	☒
B. Narrative *(revised February 13, 2018)*	☒	☐	☒	☒
C. Appendix A: Application Forms	☒	☐	☒	☒
D. Appendix B: Pre-Application Notes	☒	☐	☒	☒
E. Appendix C: Technical Reports	☒	☐	☒	☒
1) Transportation Memo				
2) Preliminary Stormwater Report *(received February 13, 2018)*				
F. Appendix D: Plan Sheets	☒	☐	☒	☒
5. Comments Received	☐	☒	☒	☒

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at https://www.milwaukieoregon.gov/bc-pc/planning-commission-1.

Recommended Findings in Support of Approval
File #s CSU-2017-007
North Clackamas School District – Milwaukie High School

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicant, the North Clackamas School District, has applied for approval of a major renovation of the Milwaukie High School campus. The site consists of 1 tax lot (totaling approximately 14.7 acres) located northeast of the intersection of Lake Rd with 23rd Ave and Willard St. The subject property was recently assigned a new address of 2301 SE Willard St, though it had been addressed as 11300 and/or 11200 SE 23rd Ave in the past.

   The site is in the Residential R-2 zone, though a portion of the Performing Arts Center on the southwestern portion of the campus is zoned DMU Downtown Mixed Use and a parking lot at the northwestern corner of the site is zoned R-1-B Residential-Business Office. The school is currently approved as a Community Service Use (CSU), and the proposed development represents a major modification to the CSU. The land use application master file number is CSU-2017-007, with VR-2017-012 for a variance request for the carpool parking standard. An earlier request for a parking determination (P-2017-001) was withdrawn.

2. The applicant has proposed the following improvements:

   a. A new main classroom building, including demolition of the original school structure built in 1925. This will result in a floor area increase from approximately 94,500 sq ft to 138,000 sq ft. The overall student capacity of the new building will not change (1,500 students), though the expansion is designed to accommodate an increase in the number of staff, from 110 currently to 140 in the future.

   b. Remodeling of the existing Commons building, including a new connection to the main building.

   c. Various site improvements, including a new main entry plaza, replacement of the existing softball field with a new parking lot in the southeast corner of the site, reconfiguration of the existing parking lot in the southwest corner pedestrian and vehicular circulation improvements, athletic field turf replacement, track resurfacing, replacement scoreboard, and new landscaping.

   d. Increasing the total number of on- and off-site parking spaces from 259 to 334, with a variance request for relief from the carpool/vanpool parking requirements of MMC Section 19.610

   e. Temporary use of modular buildings (27 classroom structures and 6 restroom/custodial structures) will be located on the athletic field, with pedestrian walkway connections to the Commons building, existing gymnasium, and Performing Arts Center, which will all remain in use during construction.

   f. During construction, bus and vehicular traffic will be provided via the drop-off area that currently exists along 23rd Ave (off of Washington St).

   g. A proposal to replace the existing tennis courts on Willard St and 25th Ave with a new off-street parking area is not part of the proposed development and will be considered under a separate review process in the future. Likewise, the proposal for an electronic

reader board sign facing Willard St will be considered under a separate review process.

2. The components of the proposed development represent a major modification of a Community Service Use (CSU) approval, subject to a Type III review process. The requested variance also require Type III review. A formal Transportation Impact Study was not required because the student capacity of the school is not proposed to increase, and the impacts to transportation facilities are being reviewed as part of the associated land use applications. A subsequent Type I review process will be conducted to evaluate the development permits required for the project elements listed above in Finding 2.

3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):

   - MMC Section 19.1006 Type III Review
   - MMC Section 19.904 Community Service Uses
   - MMC Section 19.302 Medium and High Density Residential Zones (incl. R-2 zone)
   - MMC Chapter 19.500 Supplementary Development Regulations
   - MMC Chapter 19.600 Off-Street Parking and Loading
   - MMC Chapter 19.700 Public Facility Improvements
   - MMC Section 19.911 Variances
   - MMC Title 12 Streets, Sidewalks, and Public Places

4. MMC Section 19.1006 Type III Review

   The application has been processed and public notice provided in accordance with MMC 19.1006. A public hearing was held by the Planning Commission on March 13, 2018, as required by law.

5. MMC Section 19.904 Community Service Uses

   MMC 19.904 provides standards and procedures for review of applications for community service uses. These are uses that are not specifically allowed outright in most zoning districts but that address a public necessity or otherwise provide some public benefit. Community service uses include schools and accompanying sports facilities.

   a. MMC Subsection 19.904.2 Applicability

      MMC 19.904.2 establishes applicability of the Community Service Use (CSU) regulations.

      The application does not represent a change in use, and the improvements will increase the ability of Milwaukie High School to serve the community with improved educational and sports facilities. Schools and "their accompanying sports facilities" are identified as a community service use in MMC Subsection 19.904.2.A.

      The Planning Commission finds that the standards of MMC 19.904 are applicable to the proposed development.

   b. MMC Subsection 19.904.3 Review Process

      MMC 19.904.3 establishes the review process for CSUs. Except for wireless communication facilities and minor modifications to existing CSUs, applications for CSUs are subject to Type III review (MMC 19.1006).

The proposed development will increase the intensity of the use and result in some negative impacts to nearby properties during the construction phase; therefore, it does not quality as a minor modification to the existing CSU as per MMC Subsection 19.904.5.C. The proposed development constitutes a major modification of the existing school and sports facilities.

The Planning Commission finds that the proposed activity is subject to the procedures for Type III review.

c. MMC Subsection 19.904.4 Approval Criteria

MMC 19.904.4 establishes the following approval criteria for CSUs:

(1) The building setback, height limitation, and off-street parking and similar requirements governing the size and location of development in the underlying zone are met. Where a specific standard is not proposed for a CSU, the standards of the underlying zone must be met.

The subject property is primarily zoned Residential R-2, with small portions zoned R-1-B Residential-Business Office and DMU Downtown Mixed Use. The proposed development's compliance with the applicable standards of the primary R-2 base zone are addressed in Finding 7.

The Planning Commission finds that this standard is met.

(2) Specific standards for the proposed uses as found in MMC 19.904.7-11 are met.

The proposed improvements are subject to the standards provided in MMC Subsection 19.904.7 for schools. The standards of MMC 19.904.7 are addressed as follows:

(a) MMC Subsection 19.904.7.A requires public elementary or secondary schools to provide a site area/pupil ratio as required by state law. Neither City staff nor the applicant has been able to locate this standard. Therefore, the alternate standard 1 acre of site area per 75 pupils of capacity or for each 2.5 classrooms, whichever is applicable, is applicable.

The school currently has an enrollment capacity of approximately 1,500 students. The site is approximately 14.7 acres, and the high school has access to other outdoor sports fields and facilities on Lake Rd. At a ratio of 1 acre per 75 students, a minimum site area of 20 acres would be required for a capacity of 1,500 students. At a ratio of 1 acre per 2.5 classrooms, a minimum site area of approximately 18 acres would be required for the 45 classrooms indicated in the architectural plans. The Lake Rd sports field property is 15.3 acres, which makes a total of 30 acres available to the high school. This standard is met.

(b) MMC Subsection 19.904.7.B has outdoor play area requirements for preschools, nursery schools, day-care centers, or kindergartens.

This subsection is not applicable to a high school.

(c) MMC Subsection 19.904.7.C requires walkways, both on and off the site for safe pedestrian access.

The school campus currently has complete sidewalks along the Willard St, 23rd Ave, and Washington St frontages, which connect with the on-site sidewalk system serving the high school campus. Crosswalk access is

provided to allow safe crossing of Washington St to the north side of the campus and crossing of Willard St to the south side of the campus. Finally, the campus has sidewalks connecting building entrances, parking areas, bus and automobile pick-up and drop-off areas, and outdoor sports facilities. This standard is met.

(d) MMC Subsection 19.904.7.D requires sight-obscuring fencing of 4 to 6 ft in height to separate play areas from adjacent residential uses.

This standard applies to playgrounds and not to outdoor sports fields and facilities. This standard is not applicable to the proposed development.

(e) MMC Subsection 19.904.7.E requires adequate public facilities to serve the school.

The school site is currently served with full street improvements along the frontages of Willard St, 23rd Ave, and Washington St. As addressed in Finding 9, street improvements are required along the Lake Rd frontage to bring that frontage up to City standards. In addition, improvements to the existing stormwater system in Lake Rd are also required. Conditions have been established to ensure that public facilities are adequate to serve the school. As conditioned, this criterion is met.

(f) MMC Subsection 19.904.7.F safe loading and ingress and egress on and to the site.

As noted above, sidewalks are currently provided in a manner that meets this requirement. As proposed in the applicant's narrative and construction plans, the existing vehicle and pedestrian circulation system will be improved to enhance pedestrian safety in and around the site. The primary improvements pertain to the modified bus loading arrangement along Willard St and the car drop-off/pick-up and parking arrangement for the southwestern parking lot and driveway. Pedestrian crosswalks will be provided at the intersection of 23rd Ave and Lake Rd, at 23rd Ave and Washington St, and on Willard St at 25th Ave near the existing tennis courts. The pedestrian access points on the north and west sides of the campus are proposed to remain as they are today.

This standard is met.

(g) MMC Subsection 19.904.7.G requires compliance with the parking standards in MMC 19.600.

These standards are addressed in Finding 8.

(h) MMC Subsection 19.904.7.H requires minimum yard setbacks of 20 ft.

The replacement building will have a setback of approximately 30 ft along Willard St and is well over 20 ft from any other property line. No changes are proposed to any other buildings on the campus. This standard is met.

(i) MMC Subsection 19.904.7.I requires bicycle facilities which "adequately serve the site."

As noted in the discussion of Finding 8 related to MMC 19.600, bicycle parking standards will be satisfied by retaining the existing bicycle parking facility located at the south end of 23rd Ave near the Performing Arts Center. Local streets and bike lanes along the Lake Rd frontage all

contribute to accommodating bicycle access to and from the site. This standard is met.

(j) MMC Subsection 19.904.7.J requires a minimum landscaped area of 15%.

Currently, well over half of the site is landscaped area and sports fields. The stadium field is artificial turf, which does not meet the definition of landscaping in MMC Section 19.201 and so is not included in the calculation of landscaping.

The proposed development includes removal of the existing natural turf softball field and replacement with a parking lot, but other landscaping areas will be added or will remain in place. As proposed, the proposed development will provide a total of approximately 120,250 sq ft of landscaping on the overall site (approximately 640,000 sq ft), for a total of just under 19%.

This standard is met.

As conditioned, the Planning Commission finds that the proposed activity meets the applicable standards of MMC 19.904.7.

(3) MMC Subsection 19.904.4.C requires the hours and levels of operation of the proposed use to be reasonably compatible with surrounding uses.

The school will retain its normal hours of operation, which have proven to be compatible with neighboring residential properties. The outdoor sports facilities will continue to be used as they have in the past. During construction, the project will be subject to the standard limitations on noise and hours of operation as apply throughout the city.

The Planning Commission finds that this standard is met.

(4) MMC Subsection 19.904.4.D requires that the public benefits of the proposed use be greater than the negative impacts, if any, on the neighborhood.

The character of the school will not change appreciably, and no adverse impacts to the neighborhood are anticipated. In addition, all applicable code standards that ensure compatibility between different land uses, such as building heights, setbacks, and landscaping, will be satisfied. The new parking lot proposed in the southeastern corner of the site should reduce the number of vehicles parking on local streets throughout the neighborhood. The new parking lot will replace the existing softball field, so no new building mass will be inserted into what serves as a spatial buffer between the main classroom building and the neighboring properties to the east. The requirements for screening along the parking lot perimeter will prevent impacts from vehicle lights, and the existing landscaping buffer along the eastern boundary of the campus will remain. To ensure the long-term survival of existing and proposed landscape plantings, a condition has been established to require removal of the invasive plants that have begun to establish themselves within this landscaped area.

The required improvements on Willard St, including new sidewalk from the school property east to 27th Ave will be sufficient to accommodate the increase in trips by vehicles accessing the new parking lot. The City has a process in place for establishing a residential parking permit program, in the event that on-street parking conflicts emerge within the neighborhood.

As conditioned, the Planning Commission finds that this standard will be met.

(5) MMC Subsection 19.904.4.E requires the location to be appropriate for the type of use proposed.

The school has functioned appropriately at this location for many years without negatively affecting the neighborhood. The site has good transit access to TriMet bus and MAX service. The enrollment capacity of the school will remain unchanged at 1,500 students and the general building envelope of the existing school will remain essentially the same. The proposed improvements will not encroach upon neighboring properties or significantly affect the character of the school or the use of the sports facilities.

The Planning Commission finds that this standard is met.

As conditioned, the Planning Commission finds that the proposed activity meets the approval criteria of MMC 19.904.4.

d. MMC Subsection 19.904.5 Procedures for Reviewing a CSU

(1) MMC 19.904.5.A requires the Planning Commission to hold a public hearing to consider the establishment of new CSUs or the major modification of existing CSUs. The Planning Commission shall determine whether the proposed use meets the approval criteria of MMC 19.904.4.

The proposed activity represents a major modification to a CSU because of the nature of the improvements proposed. With this application, the Planning Commission will determine if the relevant

(2) MMC Subsection 19.904.5.B establishes the types of conditions that the Planning Commission may impose on CSUs to ensure compatibility with other uses in the vicinity. Conditions may involve such aspects as hours or intensities of operation, measures to limit noise or glare, special yard setbacks, design of vehicle access points, and size or location of a building.

As proposed, the existing school will remain compatible with other uses in the vicinity. This standard is met.

(3) MMC Subsection 19.904.5.C authorizes the Planning Director to approve minor modifications to an approved CSU through the Type I review process, subject to compliance with specific criteria.

The proposed activity represents a major, not minor, modification to the existing CSU because the intensity of the use will increase. Therefore, this subsection is not applicable.

The Planning Commission finds that the applicable standards of MMC 19.904.5 are met.

e. MMC Subsection 19.904.6 Application Requirements

MMC 19.904.6 establishes the application requirements for CSUs, including a narrative describing the proposed use, maps showing the vicinity and existing uses, and detailed plans for the project.

The applicant's submittal materials include site plans and a narrative description of the proposed activity. The application was reviewed by Planning staff and deemed complete on January 25, 2018, at the applicant's request. This standard is met.

As conditioned, the Planning Commission finds that the proposed activity meets all applicable standards of MMC 19.904 to be approved as a major modification of a community service use.

6. MMC Section 19.302 Medium and High Density Residential Zones

   MMC 19.302 establishes standards for several residential zones, including the R-2 Zone. The subject property includes areas zoned R-1-B and DMU, but the proposed development does not involve those portions of the site.

   a. MMC Subsection 19.302.2 Allowed Uses in Medium & High Density Residential Zones

      MMC 19.302.2 lists the permitted and conditional uses in the R-2 Zone. Community service uses, which include schools, are allowed through CSU review.

      The proposed major modification to a CSU is allowable in the R-2 and R-1-B Zones, subject to city approval.

   b. MMC Subsections 19.302.4 and 19.302.5 Development Standards

      MMC 19.302.4 and 19.302.5 provide applicable development standards for the R-2 Zone, the primary zone designation for the site, summarized in Table 7:

Table 7
Applicable R-2 Development Standards

Standard	R-2 Requirement	Proposed Development
Front Yard	15 ft	>28 ft (measured from Willard St property line)
Side Yard	5 ft	>250 ft on both sides
Rear Yard	15 ft	>450 ft
Maximum Building Height	3 stories or 45 ft (whichever is less)	Proposed new building is 3 stories and approximately 44 ft tall, as measured from the highest adjoining ground surface within 5 ft of the exterior wall, as per MMC Subsection 19.202.2.B, because the base point is less than 10 ft above the lowest grade point.
Maximum lot coverage	45%	<25%
Minimum vegetation	15%	>18%
Front yard minimum vegetation	40%	>50%

      The Planning Commission finds that the applicable development standards of these subsections are met.

   The Planning Commission finds that the proposed development meets all applicable standards of MMC 19.302 for the underlying R-2 Zone.

7. MMC Chapter 19.500 Supplementary Development Regulations

   MMC 19.500 provides additional standards for a variety of development types and locations. The applicable portions of this section are addressed below.

a. MMC Subsection 19.501.2 Yard Exceptions

MMC 19.501.2 requires additional building setbacks from the centerline of several streets in the city including Lake Rd and Washington St, which require an additional yard area of 30 ft from centerline plus the applicable yard requirement.

A 30-ft setback from centerline plus the required yard area of 15 ft will continue to be exceeded. This additional yard area requirement is met.

b. MMC Subsection 19.504.1 Clear Vision Areas

MMC 19.504.1 refers to clear vision area requirements in MMC 12.24.

The proposal will not have any impact on the current vision clearance along Washington St because no driveway or landscaping changes are proposed along that frontage. Along Willard St, the existing driveway to the southwestern parking lot will be modified, but the proposed improvements, along with the proposed landscaping, will continue to comply with clear vision standards. The driveway for the new southeastern parking lot will be located and landscaped in a manner that will also satisfy these standards. As proposed, the applicable clear vision requirements are met.

c. MMC Subsection 19.504.7 Minimum Vegetation

MMC 19.504.7 requires that no more than 20% of the required vegetation area may be covered with bark mulch.

This standard is satisfied as proposed and will be confirmed by the Planning Director during the subsequent Type I Development Review.

d. MMC Subsection 19.504.9 On-Site Circulation and Walkways

MMC 19.504.9 contains several applicable requirements related to the provision of on-site circulation and walkways:

(1) MMC Subsection 19.504.9.A requires a system of on-site walkways to provide safe and convenient pedestrian movement within and through the development.

The walkway system will remain fundamentally as it is today, with sidewalk connections to the adjoining streets. The existing campus has several walkways and pedestrian routes. A series of changes are proposed along the site's southern boundary, in response to the placement and positioning of the new building. The newly proposed pedestrian circulation system provides convenient and direct routing from the site's Willard St and Lake Rd frontages to the new building entrances. The existing walkway system on the north side of the site will continue to provide connections with Washington St.

The newly proposed walkways have also been designed to connect to the site's existing pedestrian network where applicable.

(2) MMC Subsection 19.504.9.B requires a walkway into the site for every 300 ft of frontage.

The new permanent improvements are located mainly in the southern portion of the site. The new replacement building will have frontage and primary access along Willard St. With approximately 800 linear ft of frontage on Willard St, at least 2 walkways into the site are required. The proposed plan has 2 direct walkways leading to the school entry/exit doors. In addition, walkway access is available to the tennis courts along 25th Ave in the extreme southeastern portion

of the site. The site will also provide a nearly continuous expanded pedestrian sidewalk along the new bus drop-off area. On the north, the Washington St frontage is approximately 450 ft in length, with 1 walkway access plus a second provided by 23rd Ave.

The proposed pedestrian connection system meets this standard.

(3) MMC Subsection 19.504.9.C requires connections between building entrances and other destinations on adjacent properties.

As proposed, the new main classroom building will retain the location and orientation of the existing building. The pedestrian connections that currently exist between the main building, the site's parking lots, the bus drop-off area, and the Commons building and Performing Arts Center will continue to function as they do today. A large pedestrian plaza is proposed between the Performing Arts Center, Commons building, southwestern parking lot, and the new main building. All existing and proposed walkways are designed to meet at the main plaza. All new walkways on the site, primarily south of the new building, will also be connected to the plaza and the other on-site walkways, including those that connect to Washington Ave. The applicant has proposed to dedicate a strip of public right-of-way to extend a pedestrian walkway from Adams St to 23rd Ave.

The proposed pedestrian connection system to the site's existing buildings meets this standard.

(4) MMC Subsection 19.504.9.D requires that pedestrian routes are reasonably direct.

All proposed walkways are logically arranged to provide reasonably direct access between the main building entries, nearby transit (TriMet bus route #32 and the downtown MAX station), street sidewalks, and parking areas. Wherever possible, driveway crossings have been minimized. Two new ADA-compliant curb ramps are proposed on the northern corner of the intersection of Lake Rd and 23rd Ave. These curb connections will be part of a continuous public sidewalk and private walkway system that lead to the entrance and exit doors of the new building.

The proposed pedestrian connection system meets this standard.

(5) MMC Subsection 19.504.9.E requires a hard-surface but permeable material for walkways, with a minimum width of 5 ft and minimum lighting level of 0.5 footcandles.

The proposed improvements to the site's new pedestrian walkways will be constructed using a mixture of concrete and pervious concrete. Plan sheets C200, C201, C202, and C203 illustrate the location and type of materials proposed for the site's new walkways. Each proposed walkway has a minimum width of 5 ft. Where walkways have been proposed along parking lots, wheel stops or wider landscape buffers or walkway widths will be used to prevent vehicle encroachment into the minimum walkway. As shown on the lighting and photometric plans submitted, all new walkways on site will be illuminated at levels between 1.42 and 15.7 footcandles. The placement of light fixtures has been designed to provide the highest levels of lighting along the primary pedestrian routes.

The proposed pedestrian connection system meets these walkway standards.

As proposed, the applicable standards of MMC 19.504.9 are met.

e. MMC Subsection 19.504.10 Setbacks Adjacent to Transit

MMC 19.504.10 requires new commercial, office, or institutional development adjacent to a transit route to be set back no more than 30 ft from the right-of-way that is providing transit service. Subsection 19.504.10.C allows flexibility for institutional campuses if enhanced sidewalk connections are provided.

TriMet bus route #29 travels along Washington St, with a stop near the school track. TriMet bus route #32 travels along Lake Rd, with a stop at the Lake Rd intersection with 23rd Ave and Willard St. The site has a very limited amount of frontage on Lake Rd, and given the current configuration of the school campus, it would be impractical to have a setback of 30 ft or less along Lake Rd. As shown in the site plans, the new replacement building will be set back approximately 30 ft from Willard St, which leads directly to the TriMet bus stop on Lake Rd. The proposed development will improve upon the existing pedestrian connections and overall environment to support walking and transit use.

This standard is met.

f. MMC Subsection 19.504.11 Preliminary Circulation Plan

MMC 19.504.11 requires provision of a preliminary circulation plan for street, pedestrian, and bicycle facilities.

Site circulation facilities are described and illustrated in the submittal materials, including a traffic memorandum prepared by Lancaster Engineering (Appendix D in the applicant's submittal). As discussed in Finding 8-e(3)(d), the proposed development will enhance the pedestrian walkway system. Bus pick-up and drop-off will occur in a more organized fashion along Willard St than under current conditions, which will reduce conflicts with automobile traffic. Auto pick-up and drop-off will occur primarily in the southwestern parking lot, as well as on 23rd Ave near the gymnasium.

The proposed circulation plan satisfies the requirements of this section. This standard is met.

g. MMC Subsection 19.505.8 Building Orientation to Transit

MMC 19.505.8 applies to new development within 500 ft of an existing or planned transit route measured along a public sidewalk and requires that new buildings have their primary orientation toward an adjacent transit street or toward a public right-of-way leading to a transit street.

As proposed, the primary entrance for the new main building will continue to be located within 400 to 500 ft of the nearest transit stop location. The new entrance will be visible from the TriMet's #32 bus stop on Lake Rd and 23rd Ave. This standard is met.

As proposed, the Planning Commission finds these provisions are met.

8. MMC Chapter 19.600 Off-Street Parking and Loading

MMC 19.600 regulates off-street parking and loading areas on private property outside the public right-of-way. The purpose of these requirements includes providing adequate space for off-street parking, minimizing parking impacts to adjacent properties, and minimizing environmental impacts of parking areas.

a. MMC Section 19.602 Applicability

MMC 19.602 establishes the applicability of the provisions of MMC 19.600.

(1) MMC Subsection 19.602.1 General Applicability

MMC 19.602.1 provides that the regulations of MMC 19.600 apply to all off-street parking areas, whether required by the City as part of development or voluntarily installed for the convenience of users. Activity that is not described by MMC Subsections 19.602.3 or 19.602.4 is exempt from compliance with the provisions of MMC 19.600.

The proposed improvements to the school will increase the total number of off-street parking spaces from 259 to 333 through the addition of one new lot replacing the existing softball field and with the reconfiguration of other existing parking facilities. The provisions of MMC 19.602.3 are applicable because the proposed redevelopment of the site will increase the floor area of buildings on the school site.

(2) MMC Subsection 19.602.2 Maintenance Applicability

MMC 19.602.2 provides that property owners shall ensure conformance with the standards of MMC 19.600 regarding ongoing maintenance, operations, and use of off-street parking areas. Any change to an existing off-street parking area shall not bring the area out of conformance, or further out of conformance if already nonconforming.

The on-site parking facilities are reviewed as part of this application and required to comply with applicable standards. No changes are proposed that would bring the site further out of or conformance with any applicable standards. In fact, the proposed development will bring many aspects of the existing parking situation (e.g., parking quantity, parking lot landscaping) closer to conformance.

(3) MMC Subsection 19.602.3 Applicability for Development and Change in Use Activity

MMC 19.602.3 establishes thresholds for full compliance with the standards of MMC 19.600 as well as for bringing existing off-street parking areas closer to conformance. Development that results in an increase of less than 100% of the existing floor area or that does not involve a change in use is required to bring existing nonconforming parking areas closer to conformance in accordance with the provisions of MMC Subsection 19.602.5.

The proposed development does not represent a change in use but does involve replacing the existing main classroom building with a new building that represents less than 100% of the total existing floor area of all the buildings on the site. Existing nonconforming off-street parking areas on the site are subject to a requirement for improvement.

(4) MMC Subsection 19.602.4 Applicability not Associated with Development or Change in Use

MMC 19.602.4.A addresses applicability for parking projects developed to serve an existing use but not associated with other development activity or change in use. Such activity shall conform to the requirements of MMC Sections 19.604 and 19.606-19.611. In addition, the total number of new spaces in the existing

and new parking areas shall not exceed the maximum allowed quantity of parking as established in MMC Section 19.605.

The proposed development includes a new off-street parking area in the southeast corner of the site that would serve the existing school use. The new parking area is subject to the applicable requirements of MMC Sections 19.604 and 19.606-19.611. As proposed, the total number of new spaces will not exceed the maximum allowed quantity as discussed in Finding 9-d.

(5) MMC Subsection 19.602.5 Improvements to Existing Off-Street Parking and Loading Areas

MMC Subsection 19.602.5.A requires improvement of nonconforming off-street parking and loading as redevelopment occurs. MMC Subsection 19.602.5.B provides that the cost of materials for any required parking improvements shall not exceed 10% of the total development cost.

The proposed improvements include voluntary adjustments to the existing parking lot in the southwest corner of the site to improve its functionality, as well as a new parking lot to replace the existing softball field in the southeast corner of the site. As the site has historically been nonconforming with respect to providing the minimum required number of parking spaces and the proposed development addresses this situation with substantial voluntary improvements, this standard is met.

The Planning Commission finds that the provisions of MMC 19.600 are applicable to the proposed development as discussed above.

b. MMC Section 19.603 Review Process and Submittal Requirements

(1) MMC Subsection 19.603.1 Review Process

MMC 19.603.1 establishes the Planning Director as the entity with authority to apply the provisions of Chapter 19.600 unless an application is subject to a quasi-judicial review or appeal, in which case the body reviewing the application has the authority.

This CSU application is subject to Type III review by the Planning Commission, which is the body with authority to apply the provisions of Chapter 19.600.

(2) MMC Subsection 19.603.2 Submittal Requirements

MMC 19.603.2 establishes the requirements for submittal of a parking plan, including the various details that must be presented.

The applicant has submitted a parking plan and supporting information with sufficient detail for the CSU application to demonstrate compliance with the applicable standards of this subsection.

The Planning Commission finds that these requirements are met.

c. MMC Section 19.604 General Parking Standards

MMC Subsections 19.604.1 to 19.604.4 establish general standards for off-street parking areas, including requirements related to the provision of parking in conjunction with development activity, the location of accessory parking, and use and availability of parking areas, and the prohibition of using parking areas for storage.

The applicant proposes to increase the total number of parking spaces by reconfiguring one parking lot and constructing one new lot. As proposed, the existing number of off-site parking spaces available to the school will be retained and all spaces will continue to be available to support the existing school use.

The Planning Commission finds that the standards of this section are met.

d. MMC Section 19.605 Vehicle Parking Requirements

MMC 19.605 establishes standards to ensure that development provides adequate vehicle parking based on estimated parking demand. The section establishes processes for modification and determination of parking requirements, exemptions and reductions to the required ratios, and provisions for shared parking.

(1) MMC Subsection 19.605.1 Minimum and Maximum Requirements

MMC Table 19.605.1 provides minimum and maximum quantity requirements for high schools of 1 space per 0.25 and 0.33 students, respectively. In addition, one space per staff person is required.

According to MMC Table 19.605.1, the existing capacity of 1,500 students and 110 staff requires a minimum of 485 spaces and allows a maximum of 605 spaces. With the proposal to maintain a 1,500-student capacity and increase to 140 staff, the parking requirements for the school rise to a minimum of 515 and maximum of 635 spaces. The school currently provides a total of 259 off-street spaces on site and through off-site shared parking agreements. The proposed development will increase the number of available spaces by 74, for a total of 333. See below for discussion of the reductions available to the proposed development.

(2) MMC Subsection 19.605.3 Exemptions and By-Right Reductions to Quantity Requirements

MMC 19.605.3 allows a variety of options for reducing the minimum number of required spaces, up to a maximum reduction of 25%. Specifically, MMC Subsection 19.605.3.B allows a 25% reduction for development that is within 1,000-ft walking distance of a light rail transit stop.

The western side of the campus is directly across 21st Ave from the Orange line MAX light rail stop for downtown Milwaukie and so qualifies for a 25% reduction. The reduction brings the minimum required number of spaces for the school down from 515 to 386.

(3) MMC Subsection 19.605.4 Shared Parking

MMC 19.605.4 establishes standards for utilizing shared off-premises spaces to meet the minimum parking requirement, including a requirement that the nearest parking spaces be no further than 1,000 ft from the principal structure or use.

The school has recorded shared parking agreements with the St John the Baptist Catholic Church (Washington St and 25th Ave) and the St Stephens Serbian Orthodox Church (Willard St and 27th Ave), for a total of 90 shared spaces. Both shared sites are within 1,000 ft of the school campus and main classroom building.

The proposed development will increase the total number of parking spaces available on site and through shared parking agreements from 259 to 333. With the allowed reduction, a total of 386 spaces are required, so the school's off-street parking

situation will remain out of conformance with the minimum quantity requirement. However, on a percentage basis, the 6% increase in parking demand (from 485 to 515) will be accompanied by a 29% increase in the amount of parking provided.

The Planning Commission finds that the proposed development will bring the site closer to conformance with the applicable parking quantity standards of MMC 19.605.

e. MMC Section 19.606 Parking Area Design and Landscaping

MMC 19.606 establishes standards for parking area design and landscaping, to ensure that off-street parking areas are safe, environmentally sound, and aesthetically pleasing, and that they have efficient circulation.

(1) MMC Subsection 19.606.1 Parking Space and Aisle Dimension

MMC 19.606.1 establishes dimensional standards for required off-street parking spaces and drive aisles. For 90-degree-angle spaces, the minimum width is 9 ft and minimum depth is 18 ft, with a 9-ft minimum curb length and 22-ft drive aisles. Parallel spaces require with 22-ft lengths and a width of 8.5 ft.

The applicant has submitted a parking plan that satisfies these dimensional standards.

(2) MMC Subsection 19.606.2 Landscaping

MMC 19.606.2 establishes standards for parking lot landscaping, including for perimeter and interior areas. The purpose of these landscaping standards is to provide buffering between parking areas and adjacent properties, break up large expanses of paved area, help delineate between parking spaces and drive aisles, and provide environmental benefits such as stormwater management, carbon dioxide absorption, and a reduction of the urban heat island effect.

(a) MMC Subsection 19.606.2.C Perimeter Landscaping

In all but the downtown zones, perimeter landscaping areas must be at least 6 ft wide where abutting other properties and at least 8 ft wide where abutting the public right-of-way. At least 1 tree must be planted for every 40 lineal ft of landscaped buffer area, with the remainder of the buffer planted with grass, shrubs, ground cover, mulch, or other landscaped treatment. Parking areas adjacent to residential uses must provide a continuous visual screen from 1 to 4 ft above the ground to adequately screen vehicle lights.

As proposed, the existing perimeter landscaping areas in the southwestern parking lot are significantly greater than the minimum where abutting the public rights-of-way on Lake Rd, Willard St, and 23rd Ave, and the existing landscaping materials will be retained. The new southeastern parking lot will exceed the required standard for buffer width, but the required trees are not shown in the landscaping plan. A condition has been established to require a detailed landscaping plan as part of the subsequent Type I Development Review, to include more information regarding plant materials.

As conditioned, this standard will be met.

(b) MMC Subsection 19.606.2.D Interior Landscaping

At least 25 sq ft of interior landscaped area are required for each parking space. Planting areas must be at least 120 sq ft in area, at least 6 ft in

width, and dispersed throughout the parking area. For landscape islands, at least 1 tree shall be planted per island, with the remainder of the buffer planted with grass, shrubs, ground cover, mulch, or other landscaped treatment.

As proposed, the interior landscaping in the new southeastern parking lot will meet the required standards for area and dimension, though the landscaping plan does not include specific information on the required trees. A condition has been established to require a detailed landscaping plan as part of the subsequent Type I Development Review, to include more information regarding plant materials.

As conditioned, this standard will be met.

(c) MMC Subsection 19.606.2.E Other Parking and Landscaping Provisions

Preservation of existing trees in off-street parking areas is encouraged and may be credited toward the total number of trees required. Parking area landscaping must be installed prior to final inspection, unless a performance bond is posted with the City. Required landscaping areas may serve as stormwater management facilities, and pedestrian walkways are allowed within landscape buffers if the buffer is at least 2 ft wider than required by MMC 19.606.2.C and 19.606.2.D.

The site and landscaping plans indicate that trees will not be removed to accommodate the new southeastern parking lot or the reconfiguration of the southwestern lot. Proper installation of landscaping will be confirmed as part of the Type I development review and final inspection.

This standard is met.

As conditioned, the Planning Commission finds that the applicable standards of MMC 19.606.2 will be met.

(3) MMC Subsection 19.606.3 Additional Design Standards

MMC 19.606.3 establishes various design standards, including requirements related to paving and striping, wheel stops, pedestrian access, internal circulation, and lighting.

(a) MMC Subsection 19.606.3.A Paving and Striping

Paving and striping are required for all required maneuvering and standing areas, with a durable and dust-free hard surface and striping to delineate spaces and directional markings for driveways and accessways.

The plans submitted indicate that all parking areas will be paved and striped.

This standard is met.

(b) MMC Subsection 19.606.3.B Wheel Stops

Parking bumpers or wheel stops are required to prevent vehicles from encroaching onto public right-of-way, adjacent landscaped areas, or pedestrian walkways. Curbing may substitute for wheel stops if vehicles will not encroach into the minimum required width for landscape or pedestrian areas.

The plans submitted indicate that wheel stops will be installed as needed.

This standard is met.

(c) MMC Subsection 19.606.3.C Site Access and Drive Aisles

Accessways to parking areas shall be the minimum number necessary to provide access without inhibiting safe circulation on the street. Drive aisles shall meet the dimensional requirements of MMC 19.606.1.

As proposed, one driveway each will provide access from Willard St to the southwestern and southeastern parking lots, which the Engineering Department has deemed adequate to allow safe circulation on the street. The existing and proposed drive aisles meet the minimum applicable dimensional requirements.

This standard is met.

(d) MMC Subsection 19.606.3.D Pedestrian Access and Circulation

Pedestrian access shall be provided so that no off-street parking space is farther than 100 ft away, measured along vehicle drive aisles, from a building entrance or a walkway that is continuous, leads to a building entrance, and meets the design standards of MMC Subsection 19.504.9.E.

Many of the spaces in the existing southwestern parking lot and proposed new southeastern lot are farther than 100 ft from a building entrance or approvable walkway. There is no good opportunity to improve this nonconforming situation in the southwestern lot without significantly modifying the existing configuration and losing parking spaces. For the new southeastern lot, however, a condition has been established to require revisions to the plans for the southeastern lot to establish walkways or connections to walkways as needed to meet this standard.

As conditioned, this standard will be met.

(e) MMC Subsection 19.606.3.E Internal Circulation

The Planning Director has the authority to review the pedestrian, bicycle, and vehicular circulation of the site and impose conditions to ensure safe and efficient on-site circulation. Such conditions may include, but are not limited to, on-site signage, pavement markings, addition or modification of curbs, and modification of drive aisle dimensions.

The Planning Director has reviewed the plans and confirmed that, as proposed, on-site circulation will be safe and efficient.

This standard is met.

(f) MMC Subsection 19.606.3.F Lighting

Lighting is required for parking areas with more than 10 spaces and must have a cutoff angle of 90 degrees or greater to ensure that lighting is directed toward the parking surface. Lighting shall not cause a light trespass of more than 0.5 footcandles measured vertically at the boundaries of the site, and shall provide a minimum illumination of 0.5 footcandles for pedestrian walkways in off-street parking areas.

The lighting and photometric plans submitted show that the lighting for the southwestern and southeastern parking lots will provide the minimum 0.5-footcandle level for pedestrian walkways, with less than 0.5-footcandle spill onto adjacent properties.

This standard is met.

As conditioned, the Planning Commission finds that the applicable standards of MMC 19.606.3 will be met.

As conditioned, the Planning Commission finds that the applicable design and landscaping standards of MMC 19.606 are met.

f. MMC Section 19.608 Loading

MMC 19.608 establishes standards for off-street loading areas and empowers the Planning Director to determine whether or not loading spaces are required.

The site currently has at least 1 designated loading space on the west side of the campus. Because the size of the school will not change appreciably, the Planning Director has determined that 1 loading space will continue to be sufficient.

The Planning Commission finds that this requirement is met.

g. MMC Section 19.609 Bicycle Parking

MMC 19.609 establishes standards for bicycle parking for new development of various uses, including CSUs. MMC Subsection 19.609.2 requires bicycle parking at a rate of 10% of the minimum number vehicular parking spaces, with cover for a minimum of 50% of the bike spaces when the required number exceeds 10 spaces. MMC Subsection 19.609.3 A provides that each bicycle parking space shall have minimum dimensions of 2 ft by 6 ft, with 5-ft-wide aisles for maneuvering. MMC Subsection 19.609.4 requires bike racks to be located within 50 ft of a main building entrance.

With a minimum parking requirement of 515 vehicular spaces reduced to 386, the minimum bike parking requirement for the school is 38 spaces (rounded down as per MMC Subsection 19.605.1.D). The applicant proposes to retain the existing covered bike parking spaces at the south end of the turnaround on 23rd Ave near the Commons building and Performing Arts Center. A total of 48 covered bike spaces were required as part of the school's 2007 CSU approval; they were installed and remain in place.

The Planning Commission finds that this standard is met.

h. MMC Section 19.610 Carpool and Vanpool Parking

MMC 19.610 establishes parking standards for vehicles used to carpool. The standards apply to new development, including institutional uses. MMC 19.610.2 requires that based upon the minimum parking requirement, at least 10% must be for carpool/vanpool use.

With a minimum parking requirement of 515 vehicular spaces reduced to 386, the minimum carpool/vanpool parking requirement for the school is 38 spaces. The site does not currently provide any designated carpool spaces and is nonconforming with respect to this standard. The applicant has requested a variance to not provide any carpool or vanpool spaces to bring the site closer to conformance. The variance request, with a recommendation for approval, is discussed in Finding 10.

As per the approved variance discussed in Finding 10, the Planning Commission finds this standard is met.

As conditioned and as per the variance discussed in Finding 10, the Planning Commission finds that the proposed development meets all applicable standards MMC 19.600 for off-street parking.

9. MMC Chapter 19.700 Public Facility Improvements

MMC 19.700 is intended to ensure that development, including redevelopment, provides public facilities that are safe, convenient, and adequate in rough proportion to their public facility impacts.

a. MMC Section 19.702 Applicability

MMC 19.702 establishes the applicability of the provisions of MMC 19.700, including new construction and modification or expansion of an existing structure or a change or intensification in use that result in any projected increase in vehicle trips or any increase in gross floor area on the site.

The applicant proposes to demolish the existing classroom building, construct a building that is significantly larger, and reconfigure the uses on the site, all of which result in an intensification of use of the site and a projected increase in vehicle trips. The development triggers the requirements of MMC 19.700.

The Planning Commission finds that the standards and requirements of MMC 19.700 are applicable to the proposed development.

b. MMC Section 19.703 Review Process

MMC 19.703 establishes the review process for development that is subject to MMC 19.700.

(1) MMC Subsection 19.703.1 Preapplication Conference

MMC 19.703.1 establishes that all proposed development that is subject to MMC 19.700 shall schedule a preapplication conference with the City prior to submittal of the land use application.

A preapplication conference was held prior on June 12, 2017, prior to the initial submittal of the land use application on October 10, 2017.

(2) MMC Subsection 19.703.2 Application Submittal

MMC 19.703.2 requires that all proposed development that is subject to MMC 19.700 and that requires a land use application shall submit a Transportation Facilities Review (TFR) application. For projects that do not require a Transportation Impact Study (TIS) as per MMC Section 19.704, a separate TFR application is not required and compliance with MMC 19.700 will be reviewed with the other concurrent land use application(s).

A TIS was not triggered as discussed in Finding 10-c, other land use applications are required and so compliance with MMC 19.700 will be reviewed as part of this land use application submittal.

(3) MMC Subsection 19.703.3 Approval Criteria

MMC 19.703.3 establishes approval criteria for development subject to MMC 19.700, including requirements for transportation facility improvements and

mitigation at the time of development in rough proportion to the potential impacts of the development as per MMC Section 19.705.

As discussed elsewhere in Finding 10, the applicant will provide transportation improvements and mitigation in accordance with the standards in 19.700 and the Public Works Standards. Required improvements and mitigation will be in rough proportion to the potential impacts of the development as per MMC 19.705.

(4) MMC Subsection 19.703.4 Determinations

MMC 19.703.4 establishes the 4 key determinations related to transportation facility improvements that occur during the processing of a land use application. These include impact evaluation, street design, proportional improvements, and fee in lieu of construction.

The Engineering Director has determined that the proposed development would result in impacts to the transportation system. The applicant has provided sufficient information for the Engineering Director to determine the Impacts to the transportation system.

The applicant's proposal for an 18-ft half street design does not fully comply with City standards. The additional proposal to allow on-street loading and unloading on Willard St through a combination of designated loading area and utilization of on-street parking can be accomplished through additional mitigation requirements.

The Planning Commission finds that the appropriate review procedures have been followed, and the relevant criteria have been addressed.

c. MMC19.704 Transportation Impact Evaluation

MMC 19.704 establishes the process and requirements for evaluating development impacts on the surrounding transportation system, including determining when a formal TIS is necessary and what mitigation measures will be required.

The Engineering Director has determined that the applicant has provided enough information for the Engineering Director to properly evaluate the proposed development's impacts, and the Engineering Director has determined there is an impact to the transportation system by the proposed development.

Although the existing site use is a high school and will continue to remain a high school, there is an expected trip increase of 42 PM peak-hour trips from construction of the new main building, which includes an additional 43,376 sq ft beyond the floor area of the existing building. The Engineering Director has determined that there is enough data to determine the new impact to the surrounding transportation system, based on the preapplication information; therefore, a TIS was not required.

The Planning Commission finds that this standard is met.

d. MMC Section 19.705 Rough Proportionality

MMC 19.705 requires that transportation impacts of the proposed development be mitigated, as determined by the Engineering Director. Specifically, MMC Subsection 19.705.2 establishes the following guidelines for consideration when determining proportional improvements:

(1) Condition and capacity of existing facilities within the impact area in relation to City standards. The impact area is generally defined as the area within a ½-mile radius of the proposed development. If a TIS is required pursuant to Section 19.704, the impact area is the TIS study area.

(2) Existing vehicle, bicycle, pedestrian, and transit use within the impact area.

(3) The effect of increased demand associated with the proposed development on transportation facilities and on other approved, but not yet constructed, development projects within the impact area.

(4) The most recent use when a change in use is proposed that does not involve new construction.

(5) Applicable Transportation System Plan (TSP) goals, policies, and plans.

(6) Whether any route affected by increased transportation demand within the impact area is listed in any City program including, but not limited to, school trip safety, neighborhood traffic management, capital improvement, and system development improvement.

(7) Accident history within the impact area.

(8) Potential increased safety risks to transportation facility users, including pedestrians and cyclists.

(9) Potential benefit the development property will receive as a result of the construction of any required transportation facility improvements.

(10) Other considerations as may be identified in the review process.

The Engineering Director has determined that the proposed development triggers mitigation of impacts beyond the required frontage improvements. The proposed development has potential impacts to Washington St, 23rd Ave, Adams St, 21st Ave, 27th Ave, Willard St, 25th Ave, and Lake Rd. The impacts are significant; however, the surrounding transportation system is anticipated to continue to operate at the level of service prior to the proposed development.

The majority of the impacts are anticipated on Willard St, 25th Ave, Lake Rd, and 27th Ave, primarily due to the reconfiguration of available parking for the development. The existing pedestrian circulation system is incomplete and has barriers, non-compliant ramps and sidewalks, and gaps within the existing system. The bicycle system is incomplete or non-existent. All surrounding streets are identified on the City's adopted Bicycle and Pedestrian Program. Lake Rd is identified within the Bicycle Master Plan. The transportation system is based on residential, local traffic with the exception of Lake Rd, which is identified in the City's TSP and Metro's Regional Transportation Plan for capital improvements; and Washington St, which is designated a collector street. The addition of expanded bus loading and unloading utilizing the public right-of-way creates additional impacts to Willard St, and the construction of new parking facilities creates impacts to Willard St, 23rd Ave, and 25th Ave. In addition, the intersections of 27th Ave and Willard St, Willard St and Lake Rd, and 27th Ave and Lake Rd will also be impacted.

The applicant is proposing a half-street improvement of 18-ft only along a portion of the development's frontage. The applicant has indicated that a 9-ft parking area is necessary for the proposed bus loading and unloading, which extends past the applicant's frontage on Willard St to 27th Ave.

Without mitigation, the proposed CSU is not consistent with the traffic impacts associated from the underlying residential use. The Engineering Director has determined that rough proportionality guidelines 1, 2, 3, 5, 6, 8, 9, and 10 apply. As discussed in Finding 9-f, conditions have been established to ensure that adequate mitigation is provided.

As conditioned, the Planning Commission finds that the proposed development meets the minimum requirements to provide for mitigation to be consistent with MMC 19.705.

e. MMC Section 19.707 Agency Notification and Coordinated Review

MMC 19.707 establishes provisions for coordinating land use application review with other agencies that may have some interest in a project that is in proximity to facilities they manage.

The application was referred to the Oregon Department of Transportation (ODOT), Clackamas County, Metro, and TriMet for comment. TriMet provided comments that have been incorporated into these findings and the associated conditions of approval. ODOT responded that it had no comments on the proposal.

f. MMC Section 19.708 Transportation Facility Requirements

MMC 19.708 establishes the City's requirements and standards for improvements to public streets, including pedestrian, bicycle, and transit facilities.

(1) MMC Subsection 19.708.1 General Street Requirements and Standards

MMC 19.708.1 requires that all development comply with access management, clear vision, street design, connectivity, and intersection design and spacing standards.

(a) MMC Subsection 19.708.1.A Access Management

Access requirements shall comply with access management standards contained in MMC Chapter 12.16 Access Management.

(i) MMC Section 12.16.040 Access Requirements and Standards

MMC 12.16.040 establishes standards for accesses (driveways).

- MMC 12.16.040.A requires that all properties be provided street access with the use of an accessway.

  The proposed development is consistent with MMC 12.16.040A.

- MMC 12.16.040.B establishes standards for access spacing onto arterial and collector streets.

  The proposed development is not modifying its access onto Washington St. The proposed development is consistent with MMC 12.16.040.B.

- MMC 12.16.040.C establishes standards for accessway locations, including double frontage, distance from property line, and distance from intersection.

  The site is maintaining its existing accessway on Washington St, which is a collector street. Other accessways are proposed on

Willard St and 23rd Ave, which are local streets. The proposed development is consistent with MMC 12.16.040.C.1.

A condition has been established to ensure that proposed driveways will conform to MMC 12.16.040.C.3.

The proposed site plan includes accessways that are outside of the 45-ft spacing requirement from adjacent intersections. The proposed development is consistent with MMC 12.16.040.C.4.a.

The existing accessway on Washington St is currently not conforming to the accessway spacing requirement for a collector. However, the proposed development is not modifying this accessway; therefore, the proposed development is consistent with MMC 12.16.040.C.4.c.

- MMC 12.16.040.D establishes standards for the number of accessway locations.

  The proposed accessway for the southwest parking lot will direct traffic towards Lake Rd and away from the other accessways serving the site. The new driveway to the southeast parking lot shall be located directly opposite the approved alignment of 25th Ave; a condition has been established to ensure that the proposed new driveway will conform with MMC 12.16.040.D.1.

  MMC 12.16.040.D.2 and D-3 do not apply to this development, as no new accessways onto arterials or collectors are proposed.

- MMC 12.16.040.E and 12.16.040.F establish standards for accessway design and size, respectively.

  Proposed driveways will conform to MMC 12.16.040.E and 12.16.040.F through compliance with the Public Works Standards.

As conditioned, the Planning Commission finds that the proposed development complies with the applicable criteria of MMC Chapter 12.16 and MMC 19.708.1.A.

(b) MMC Subsection 19.708.1.B Clear Vision

MMC 19.708.1.B establishes standards for maintaining clear vision as required in MMC Chapter 12.24 Clear Vision at Intersections.

(i) MMC Section 12.24.030 Requirements

Proposed driveways, accessways, and intersections will conform to MMC 12.24.030 through compliance with the Public Works Standards.

The Planning Commission finds that the proposed development complies with the applicable criteria of MMC Chapter 12.24 and MMC 19.708.1.B.

(c) MMC Subsection 19.708.1.D Development in Non-Downtown Zones

MMC 19.708.1.D establishes standards for frontages in non-downtown zones that are not on street sections shown in the Public Area Requirements.

Dedication requirements are addressed in this section. All required improvements are addressed under the findings for MMC Subsection 19.708.2 (see Finding 9-f(2)).

The majority of the transportation system consists of local network. The proposed CSU is not consistent with local street standards without additional mitigation of impacts.

The existing right-of-way width of Willard St fronting the majority of the proposed development is 50 ft. The Milwaukie TSP and Transportation Design Manual classify the fronting portions of Willard St as a local street. According to MMC Table 19.708.2 Street Design Standards, the required right-of-way width for a local street is between 20 ft and 68 ft depending on the required street improvements. The required improvements for Willard St (as determined by the Engineering Director) will fit in a 50-ft right-of-way. The applicant is not responsible for any right-of-way dedication along the north side of Willard St fronting the development property. The applicant is electing to dedicate 13 ft for a portion of the north side of the right-of-way to accommodate a bus loading lane and still maintain curb-tight sidewalk. The applicant is also proposing to dedicate 2.5 ft of right-of-way to accommodate bus parking along the remainder of Willard St. This design will comply with City standards. The applicant is responsible for a dedication of right-of-way along that portion of the property that is on the south side of Willard St that currently has tennis courts on it. The right-of-way along this portion is undetermined. The applicant will need to dedicate right-of-way to provide for a 25-ft half right-of-way.

The existing right-of-way width of 25th Ave fronting the proposed development is 50 ft. The Milwaukie TSP and Transportation Design Manual classify the fronting portions of 25th Ave as a local street. According to MMC Table 19.708.2, the required right-of-way width for a local street is between 20 ft and 68 ft depending on the required street improvements. The required improvements for 25th Ave (as determined by the Engineering Director) will fit in a 50-ft right-of-way. However, since 25th Ave is a permanent dead-end street without an approved turnaround, additional right-of-way for construction of a turnaround will be required at the south end of 25th Ave. The applicant will be responsible for dedication to accommodate a turnaround that will fit in a 60-ft right-of-way width.

The existing right-of-way width of Lake Rd fronting the proposed development is undetermined, as there are discrepancies between the tax map, site plan, and surveys. The Milwaukie TSP and Transportation Design Manual classify the fronting portions of Lake Rd as an arterial street. According to MMC Table 19.708.2, the required right-of-way width for an arterial street is between 54 ft and 89 ft depending on the required street improvements. The required improvements for Lake Rd (as determined by the Engineering Director) will fit in a 73-ft right-of-way. The applicant is responsible for a dedication to provide for a 36.5-ft half right-of-way on the Lake Rd frontage.

The applicant is also proposing the dedication of a half right-of-way, 25 ft, for Adams St on the west side of the property in accordance with the requirements of MMC 19.708. This is to connect the end of 23rd Ave with

Adams St for pedestrian access. A condition has been established to ensure that the proposed development conforms to the dedication requirements established in MMC Subsection 19.708.1.D.3.

The applicant has proposed a right-of-way vacation along the intersection of 23rd Ave and Willard St. This can comply with the minimum requirements, provided that a 50-ft right-of-way width is maintained on 23rd Ave and Willard St. The City also has identified the possible vacation of right-of-way south of Adams St, approximately 154 ft of 23rd Ave's right-of-way.

As conditioned, the Planning Commission finds that the proposed development is consistent with the applicable standards of MMC 19.708.1.D.

(d) MMC Subsection 19.708.1.E Street Layout & Connectivity

MMC 19.708.1.E establishes standards for street layout and connectivity, including required turnarounds.

The existing 25th Ave is a permanent dead end, and an extension of this street through to Lake Rd would violate minimum intersection spacing on arterial streets. The applicant will be required to construct a turnaround at the south end of 25th Ave as per MMC Subsection 19.708.1.E.4, and conditions have been established to ensure that this standard is met.

Adams St and 23rd Ave dead end to the site. The applicant has proposed a dedication to connect these two street with pedestrian access.

As conditioned, the Planning Commission finds that the proposed development conforms to the applicable standards of MMC 19.708.1.E.

(e) MMC Subsection 19.708.1.F Intersection Design and Spacing

MMC 19.708.1.F establishes design and spacing standards to ensure that intersections are connected to provide for adequate traffic flow, safety, and turning movements.

Currently, the site does not provide the required connection between 23rd Ave and Adams St. The proposed development does not resolve the current nonconformity, but the proposed Adams St dedication does bring the site closer to compliance.

The Planning Commission finds that the proposed development conforms to the applicable standards of MMC 19.708.1.F.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable standards of MMC 19.708.1.

(2) MMC Subsection 19.708.2 Street Design Standards

MMC 19.708.2 establishes standards for street design and improvement.

The proposal includes several nonconforming elements that require additional mitigation.

The applicant is proposing to construct frontage improvements on the north side of Willard St along the site's frontage, in accordance with MMC 19.708 and consisting of a 10.5-ft curb-tight sidewalk, curb and gutter, and 9-ft widening of

the roadway to accommodate a bus loading zone. This design exceeds local minimum street standards. The remaining Willard St frontage with on-street bus parking is proposed with 5-ft sidewalk, curb and gutter, and 4-ft landscape strip. This satisfies minimum street standards.

However, the proposed frontage improvements do not provide for any connectivity to the existing pedestrian system on 27th Ave, as City-standard improvements are not present east of the development. The applicant is also proposing to include bus parking east of the development without City-standard improvements. The applicant shall provide a 6-ft curb-tight sidewalk with curb and gutter to establish an 18-ft half street along the remaining north side of Willard St to 27th Ave to mitigate for these impacts.

The applicant is proposing to construct frontage improvements on the west side of 23rd Ave between Willard St and Lake Rd along the site's frontage, in accordance with MMC 19.708. The applicant is proposing to construct a 5-ft sidewalk, curb and gutter, and 4-ft landscape strip. This satisfies minimum street standards.

The applicant is proposing to construct frontage improvements on the north side of Lake Rd along the site's frontage, consisting of an 8-ft curb-tight sidewalk with an 18-ft half street. This does not satisfy the minimum street standards for Lake Rd. The required improvements are as follows: 6-ft setback sidewalk and 5-ft landscape strip (or 8-ft curb-tight sidewalk), curb and gutter, with a curb location that will vary to accommodate the taper for a left turn lane at 23rd Ave (24.5-ft half street width).

The applicant is not proposing to construct frontage improvements in front of the southeast portion of the parcel that currently has tennis courts on it. The required improvements for the Willard St and 25th Ave frontages are as follows: 5-ft setback sidewalk and 5-ft landscape strip (or 6-ft curb-tight sidewalk), curb and gutter. This will also include ADA ramps at the intersection of 25th Ave and Willard St. On-street parking can be waived on the east side of 25th Ave to align the travel lanes with the driveway at south end of 25th Ave. The improvements at the south end of 25th Ave will include a turn-around that will fit in a 60-ft right-of-way.

A condition has been established to ensure that the necessary right-of-way improvements are provided.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable standards of MMC 19.708.2.

(3) MMC Subsection 19.708.3 Sidewalk Requirements and Standards

MMC 19.708.3 requires sidewalks to be provided on the public street frontage of all development.

The proposed construction of sidewalks along the subject property abutting all public rights-of-way is included in the street frontage requirements, except as follows:

- *The applicant is proposing to provide for a pedestrian connection from 23rd Ave to Adams St.*

- *The applicant is not proposing any sidewalk work along 23rd Ave (north of Adams St) or along the Washington St frontage.*

A condition has been established to ensure that the proposed pedestrian connection from 23rd Ave to Adams St is constructed.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable standards of MMC 19.708.3.

(4) MMC Subsection 19.708.4 Bicycle Facility Requirements and Standards

MMC 19.708.4 establishes standards for bicycle facilities.

The portion of Lake Rd fronting the proposed development is classified as a bike route in the Milwaukie TSP. As a result, bicycle facility improvements on the Lake Rd frontage are required for the proposed development.

23rd Ave and Willard St are designated within the City's Bicycle and Pedestrian Accessibility program and Safe Routes to Schools. The applicant shall provide accommodation for bicycle facility improvements within this portion of 23rd Ave and Willard St and indicate the circulation route to the bicycle parking provided on-site. This will require the elimination of parking along the north side of Willard St and 23rd Ave west of 25th Ave and along the south side of Willard St east of 25th Ave. A condition has been established to ensure that these standards are met.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable standards of MMC 19.708.4.

(5) MMC Subsection 19.708.5 Pedestrian/Bicycle Path Requirements and Standards

MMC 19.708.5 establishes standards for pedestrian and bicycle paths.

The applicant has not proposed any public pedestrian and bicycle path through the site.

MMC 19.708.5 states that a pedestrian/bicycle path shall be required at least every 300 ft when a street connection is not available. The applicant has provided site improvements that meet the minimum requirements to comply with this standard.

The Planning Commission finds that this standard is met.

(6) MMC Subsection 19.708.6 Transit Requirements and Standards

MMC 19.708.6 establishes standards for transit facilities, including a reference to current TriMet standards.

TriMet has requested that the applicant provide front and back door landing pads for the existing bus stop on Washington St to allow for an ADA-compliant boarding area. A condition has been established to ensure that the required facilities are provided.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable standards of MMC 19.708.6.

As conditioned, the Planning Commission finds that the proposed development will provide adequate transportation facilities in accordance with the standards of MMC 19.708.

As conditioned, the Planning Commission finds that the proposed development

10. MMC Chapter 19.911 Variances

MMC Section 19.911 establishes the variance process for seeking relief from specific code sections that have the unintended effect of preventing reasonable development or imposing undue hardship.

a. MMC Subsection 19.911.2 Applicability

MMC 19.911.2 establishes applicability standards for variance requests.

Variances may be requested to any standard of MMC Title 19, provided the request is not specifically listed as ineligible in MMC Subsection 19.911.2.B. Ineligible variances include requests that result in any of the following: change of a review type, change or omission of a procedural step, change to a definition, increase in density, allowance of a building code violation, allowance of a use that is not allowed in the base zone, or the elimination of restrictions on uses or development that contain the word "prohibited."

The applicant has requested a variance from the requirement to provide carpool/vanpool parking (10% of the minimum required vehicle parking). The requested variance meets the eligibility requirements.

The Planning Commission finds that request is eligible for a variance as per MMC 19.911.2.

b. MMC Subsection 19.911.3 Review Process

MMC 19.911.3 establishes review processes for different types of variances. MMC Subsection 19.911.3.B establishes the Type II review process for limited variations to certain numerical standards. MMC Subsection 19.911.3.C establishes the Type III review process for larger or more complex variations to standards than those allowed through the Type II review process as per MMC Subsection 19.911.3.B, variations that require additional discretion and warrant a public hearing.

The variance request for carpool/vanpool parking is not eligible for a Type II variance, as MMC Subsection 19.911.3.B does not address parking standards. Therefore, the carpool/vanpool variance is subject to the Type III approval criteria established in MMC Subsection 19.911.4.B.

c. MMC Subsection 19.911.4 Approval Criteria

MMC 19.911.4 establishes approval criteria for variance requests. Specifically, MMC Subsection 19.911.4.B.1 provides the following approval criteria for Type III variances where the applicant elects to utilize the Discretionary Relief Criteria:

(1) The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.

As required by MMC Subsection 19.610.2, the school is required to provide a minimum of 38 carpool/vanpool parking spaces, representing at least 10% of the total minimum number of required vehicle spaces (386). The school currently provides no designated carpool/vanpool spaces, and none are included as part of the proposed development.

The applicant asserts that a significant number of students already use informal carpool methods to get to and from school, so carpools are already happening

without the need for formal designation. The alternative of designating certain parking stalls as carpool/vanpool spaces would require monitoring, enforcement, and maintenance, at some expense to the District and without the expectation of much change in carpool activity.

The proposed development includes the net addition of 74 on-site parking spaces, which will greatly improve the nonconforming parking situation that exists for the school today. The site has proximity to bus and light rail transit, the District provides busing to and from the site, and there is ample bike parking on campus.

The Planning Commission finds that the applicant's submittal provides an adequate analysis of the impacts and benefits of the requested carpool/vanpool parking variance as compared to the baseline requirement. This criterion is met.

(2) The proposed variance is determined to be both reasonable and appropriate, and it meets one or more of the following criteria:

(a) The proposed variance avoids or minimizes impacts to surrounding properties.

(b) The proposed variance has desirable public benefits.

(c) The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.

As the school does not currently provide any designates carpool/vanpool parking spaces on the site, the request to continue not to provide any designated spaces does not itself result in any new impacts to surrounding properties. However, together with the construction of a new parking lot in the southeastern corner of the property and the proposed net increase of 74 off-street parking spaces, the continuation of the practice of not designating spaces for carpool/vanpool use may result in some impacts.

It is possible that students or staff that had previously been carpooling, parking on-street in the neighborhood, or using an alternative mode of transportation may decide to drive alone since there will be more parking available on the school site. An increase in the number of single-occupancy vehicle trips to and from the site would have a negative impact on the surrounding neighborhood.

The 2007 approval of the last significant campus renovation (master file #CSU-07-05) included a condition of approval requiring the school to develop a Transportation Demand Management (TDM) program to improve the function of the existing parking situation and reduce demand for limited off-street parking. At a minimum, the TDM program was to include a plan for establishing a Transportation Committee composed of students, faculty, and staff; and was to be responsible for studying parking demand, developing and promoting alternative transportation options (including carpooling), and establishing a Transportation Resource Center on the campus. The TDM condition was upheld in the 2009 approval of a variance granted to allow the school to count the parking spaces at the Lake Rd sports complex toward the minimum quantity required, despite being more than 1,000 ft from the school campus (file #VR-09-01). The school did develop a TDM plan that was reviewed and approved by the Planning Director, though annual reporting on the program has not been consistent over time.

The continuation of the school's TDM program would help avoid or minimize the potential impacts of the requested variance to not designate carpool/vanpool spaces. A condition has been established to require that an updated TDM plan be developed and provided to the Planning Commission for review and approval.

As conditioned, the Planning Commission finds that the requested carpool/vanpool parking variance is reasonable and appropriate and meets one or more of the criteria provided in MMC Subsection 19.911.B.1.b.

(3) Impacts from the proposed variance will be mitigated to the extent practicable.

As discussed above, a condition has been established to require that an updated TDM plan be developed, which will mitigate any negative impacts from the requested variance.

As conditioned, the Planning Commission finds that the requested carpool/vanpool parking variance will not result in any impacts that require further mitigation.

As conditioned, the Planning Commission finds that the requested carpool/vanpool parking variance meets the approval criteria for Discretionary Relief for a Type III variance request, as provided in MMC 19.911.4.B.1.

The Planning Commission finds that, as proposed and conditioned, the requested variance is allowable as per the applicable standards of MMC 19.911.

11. The application was referred to the following departments and agencies on January 26, 2018:
    - Milwaukie Building Department
    - Milwaukie Engineering Department
    - Historic Milwaukie Neighborhood District Association (NDA), Chairperson and Land Use Committee (LUC)
    - Lake Road NDA, Chairperson and LUC
    - Clackamas Fire District #1 (CFD#1)
    - Clackamas County Department of Transportation and Development (DTD)
    - Metro
    - TriMet
    - Oregon Department of Transportation (ODOT)

    The comments received are summarized as follows:

    - **Michelle Wyffels, Planner II, TriMet:** TriMet operates an eastbound bus stop on Washington St approximately 390 ft west of 27th Ave, along the frontage of the subject property. To accommodate the average daily ridership at this stop, the proposed development should provide front and back door landing pads to allow for an ADA-compliant boarding area that meets TriMet's design standards.
    - **Matt Amos, Fire Inspector, CFD#1:** No comments.
    - **Ray Bryan, Chair, Historic Milwaukie NDA:** The NDA raised a host of questions regarding several elements of the project:
        - Details of nature and operation of proposed readerboard sign on Willard St

  - Impacts related to new parking lot proposed in southeast corner of site (screening of headlights, garbage/recycling area, invasive species on eastern hillside)
  - Questions about nature and function of proposed loading area on Willard St (stormwater management, landscaping, pedestrian crossings) and transition of new street improvements to existing conditions beyond school frontage on Willard St
  - Nature of improvements on Lake Rd (bike lanes, landscape strip, tree preservation)
  - Traffic impacts and opportunities to improve pedestrian and bicycle safety
  - Concern about accuracy of assumptions in transportation memo
  - Recommendations for good-neighbor agreement during construction period and storage of emergency-response equipment and supplies

- **Thomas Bachhuber, Jr., DMD, business/property owner at 2236 SE Washington St:** Concerns related to potential impacts to nearby medical and dental offices on 23rd Ave and Washington St during construction, primarily the need to maintain safe, ADA-compliant access to those sites 24 hours a day, 7 days a week.
- **Alex Roller, Engineering Tech II, Milwaukie Engineering Department:** Findings related to the proposal's compliance with MMC Chapter 19.700 Public Facility Improvements and Title 12 Streets, Sidewalks, and Public Places, with relevant recommended conditions of approval and additional requirements.
- **Joshua Brooking, Planner, ODOT Region 1:** No comments on the proposal.

Recommended Conditions of Approval
File #s CSU-2017-007
North Clackamas School District – Milwaukie High School

Conditions

1. At the time of submittal of the associated development permit application(s), the following shall be resolved:
    a. Final plans submitted for development permit review shall be in substantial conformance with plans approved by this action, which are the plans stamped received by the City on January 25, 2018; and modified by the stormwater management plan received on February 13, 2018; except as otherwise modified by these conditions of approval.
    b. Provide a narrative describing all actions taken to comply with these conditions of approval. In addition, describe any changes made after the issuance of this land use decision that are not related to these conditions of approval.
    c. The modifications required by these conditions of approval include the following revisions to all relevant plan sheets:
        (1) As per Finding 8-e(2), provide a detailed final landscaping plan that provides more information regarding plant materials, particularly for landscaping areas related to new and modified parking areas.
        (2) As per Finding 8-e(3)(d), revise the plans for the southeastern parking lot to provide walkways that meet the standards of MMC Subsection 19.606.3.D.
2. As per Finding 10-c(2), update the school's Transportation Demand Management (TDM) plan, with review and approval by the Planning Commission within the first month of the new school year after construction begins. One criterion for approval will be evidence of carpooling activity.
3. Prior to issuance of a certificate of occupancy the following shall be resolved:
    a. As per Finding 5-c(4), remove all invasive species vegetation from the landscaping areas along the eastern boundary of the subject property.
4. Right-of-way Requirements
    a. Dedicate right-of-way on the south frontage of Willard St fronting the subject property to align with existing right-of-way or to provide for 50 ft of right-of-way, whichever is greater, with appropriate offset radius and sufficient radius on the intersection of Willard St and 25th Ave to accommodate an ADA ramp(s).
    b. Dedicate sufficient right-of-way on the south end of 25th Ave to accommodate a turnaround meeting the Public Works Standards (60-ft right-of-way).
    c. Dedicate right-of-way to achieve a 36.5-ft half right-of-way on the Lake Rd frontage, and sufficient radius at the intersection of Lake Rd and 23rd Ave to accommodate school buses and an ADA ramp(s).
    d. Dedicate right-of-way to achieve a 25-ft half right-of-way at the east end of Adams St to connect 23rd Ave to Adams St.
    e. Provide for right-of-way vacation of that portion of 23rd Ave/Willard St to provide for a 50-ft right-of-way.

f. Provide for right-of-way vacation of that portion or 23rd Ave, south of Adams St. Easements will be maintained for utilities and vehicular turnaround.

5. Frontage Improvements

   a. Construct the frontage improvement proposed along Willard St/23rd Ave.

   b. Construct a 6-ft curb-tight sidewalk, curb and gutter, and 18-ft half-street travel way for the remaining portion of Willard St along the north side to 27th Ave.

   c. Construct a 5-ft set-back sidewalk, minimum 3-ft planter strip, curb and gutter, and 32-ft full street for the 23rd Ave frontage between Lake Rd and Willard St.

   d. Construct an 8-ft curb-tight sidewalk, curb and gutter, and varying width roadway that will accommodate a left turn lane for the intersection of 23rd Ave and Lake Rd along the Lake Rd frontage.

   e. Construct 5-ft set-back sidewalks, 4-ft planter strips, curb and gutter, and 28-ft full street for the 25th Ave frontage.

   f. Construct a turnaround meeting the Public Works Standards (60-ft right-of-way) at the south end of 25th Ave.

   g. Construct stairs and a pedestrian connection from the end of 23rd Ave (the northern frontage of 23rd Ave on the subject property) to the east end of Adams St.

6. Construct landing pads in accordance with TriMet standards at the existing TriMet bus stop on Washington St.

7. Remove ADA barriers and reconstruct noncompliant sidewalk access ramps along the applicant's frontage on Washington St and 23rd Ave.

8. Align the new driveway serving the new southeastern parking lot with the approved alignment of 25th Ave.

ATTACHMENT 3

Additional Requirements
File #s CSU-2017-007
North Clackamas School District – Milwaukie High School

The following items are not conditions of approval necessary to meet applicable land use review criteria. They relate to other development standards and permitting requirements contained in the Milwaukie Municipal Code and Public Works Standards that are required at various points in the development and permitting process.

1. Prior to issuance of building permits, the following shall be resolved:
    a. Provide an erosion control plan and obtain an erosion control permit. One permit will cover on-site as well as right-of-way work. If the total disturbed area is over 5 acres, that applicant must obtain a 1200C from the Oregon Department of Environmental Quality (DEQ).
    b. Submit a stormwater management plan to the City of Milwaukie Engineering Department for review and approval. The plan shall be prepared in accordance with Section 2 – Stormwater Design Standards of the City of Milwaukie Public Works Standards. Private properties may only connect to public storm system if percolation tests show that infiltration cannot be obtained on site. In the event the storm management system contains underground injection control devices, submit proof of acceptance of the storm system design from DEQ.
    c. Submit full-engineered plans for construction of all required public improvements, reviewed and approved by the Engineering Department; or provide a performance guarantee for all required public improvements, reviewed and approved by the Engineering Department.
    d. Installation of all underground utilities, including stubs for utility service, must be done prior to surfacing any streets.
    e. Obtain a right-of-way permit for construction of all required public improvements listed in these recommended conditions of approval; or provide a performance guarantee for all required public improvements, reviewed and approved by the Engineering Department.
    f. Pay an inspection fee equal to 5.5% of the cost of the public improvements.
    g. Provide a payment and performance bond for 100% of the cost of the required public improvements.
2. Prior to issuance of a certificate of occupancy the following shall be resolved:
    a. Construct all crosswalks, sidewalks and driveway approaches to meet all guidelines of the Americans with Disabilities Act (ADA). The driveway approach aprons shall be between 12 ft and 36 ft in width and least 7.5 ft from the side property line, in accordance with the Public Works Standards.
    b. Provide a final approved set of Mylar and electronic PDF “As Constructed” drawings to the City of Milwaukie prior to final inspection.
    c. Provide a report confirming that all landscaping has been installed as per the approved plans.

3. Clear Vision

   a. Clear vision areas shall be constructed and maintained at all driveways and accessways and on the corners of all property adjacent to an intersection in accordance with the Public Works Standards. Remove all signs, structures, or vegetation in excess of 3 ft in height located, except approved street trees, in "vision clearance areas" at intersections of streets, driveways, and alleys fronting the proposed development.

4. Development Review

   An application for Type I development review is required in conjunction with the submittal of the associated development permit application(s).

5. Limitations on Development Activity

   Development activity on the site shall be limited to 7:00 a.m. to 10:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday and Sunday, as per MMC Subsection 8.08.070(I).

6. Expiration of Approval

   a. As per MMC Subsection 19.1001.7.E.1.a, proposals requiring any kind of development permit must complete both of the following steps:

      (1) Obtain and pay for all necessary development permits and start construction within two (2) years of land use approval.

      (2) Pass final inspection and/or obtain a certificate of occupancy within four (4) years of land use approval.

   b. As per MMC Subsection 19.1001.7.E.2.b, land use approvals shall expire unless both steps noted above have been completed or unless the review authority specifies a different expiration date in the land use decision to accommodate large, complex, or phased development projects.

ATTACHMENT 4

3J CONSULTING
CIVIL ENGINEERING | WATER RESOURCES | LAND USE PLANNING

BRIC ARCHITECTURE, INC.

CBRE | HEERY

NORTH Clackamas Schools

MILWAUKIE HIGH SCHOOL

11300 SE 23RD AVENUE, MILWAUKIE, OR 97222

APPLICANT:

NORTH CLACKAMAS SCHOOL DISTRICT
1245 SE FULLER ROAD
MILWAUKIE, OR 97222
CONTACT: DAVID HOBBS

PLANNING CONSULTANT

3J CONSULTING, INC.
5075 SW GRIFFITH DRIVE, SUITE 150
BEAVERTON, OR 97005
CONTACT: ANDREW TULL
PHONE: (503) 545-1907

APPLICATION TYPE

TYPE III COMMUNITY SERVICE USE MODIFICATION

SUBMITTAL DATE

OCTOBER 2017

3J CONSULTING
5075 SW GRIFFITH DRIVE, SUITE 150
BEAVERTON, OREGON 97005
PH: (503) 946.9365
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RECEIVED
JAN 25 2018
CITY OF MILWAUKIE
PLANNING DEPARTMENT

January 24, 2018

Brett Kelver
Associate Planner
6101 SE Johnson Creek Blvd.
Milwaukie, OR 97206

SUBJECT: #CSU-2017-007
SITE: Milwaukie High School (11200 SE 23rd Avenue)

Dear Brett,

3J Consulting has reviewed the City's November 9, 2017 correspondence regarding our client's application for a modification to Milwaukie High School' Community Service Use. Over the course of the last several months, we have prepared several additional materials in support of the application in our effort to address each of the issues raised within the City's request for additional information. The plans for the school's proposed improvements have also been modified with several minor changes to the roadway improvements and the

Submitted herewith is a revised land use narrative and SPHO Memorandum. The plans and submission materials have been revised to reflect the information requested to initiate the City's formal review of the application. As the District is striving to meet a summer construction schedule, the District requests that the City deem this application complete upon receipt and that a public hearing for the improvements be scheduled for the soonest possible public hearing. While the District has requested that the application be deemed complete, the District and the entire project team will be available to respond to any requests for further information or additional plans in support of the application.

The following sections of this letter provides a description of the information requested by the City and then a response which describes the changes that that have been completed to address each request.

Completeness Items

1. **Forms and documentation:**
   a. **Provide a hard copy of the land use application form for this proposal, noting the Community Service Use, Variance Request, and Parking Modification components. (Note: The application form included with the submittal was for the Historic Resource Deletion request.)**
   b. **Provide some form of authorization for the submittal from the North Clackamas School District as the property owner. A letter or e-mail from the District acknowledging the submittal is sufficient. (Note: It is not clear whose signature is on the application form.)**

Applicant's Response: The requested forms have been updated and the district has provided an authorization letter identifying Mr. David Hobbs as the authorized representative.

2. **MMC Chapter 19.500 Supplementary Development Regulations**
   a. **MMC Subsection 19.504.9 On-Site Walkways and Circulation**

MMC 19.504.9 requires on-site walkways that link the site with the public sidewalk system to be constructed with pervious materials at least 5 ft in width, and lit to a minimum of 0.5 footcandles. Revise the narrative and site plan accordingly to explain how these various standards will be met.

b. **MMC Subsection 19.504.10 Setbacks to Adjacent Transit**

Note the setback limitations established in MMC 19.504.10 for sites like the subject property that are within 500 ft of an existing transit route. The proposed development is within 500 ft of the MAX Orange Line station and TriMet's #32 bus route on Lake Rd. Adjust the narrative to describe how the new high school building will comply with this section.

c. **MMC Subsection 19.504.11 Preliminary Circulation Plan**

The site plan (Sheet C2.0A) shows the building entrances, sidewalks, crosswalks, and vehicular drives and parking for the southern portion of the site. Expand the scope of information provided to include the entire site and the off-site parking lots and to show the following elements: (1) vehicular and pedestrian circulation between the off-site parking lots and the school/athletic field entrances, (2) the new pedestrian access within the Adams St right-of-way, and (3) access to nearby transit on Lake Rd and 23rd Ave. In addition, the scope of the Technical Memorandum by Lancaster Engineering should be expanded to provide an analysis of circulation for the entire site.

d. **MMC Subsection 19.505.8 Building Orientation to Transit.**

MMC 19.505.8 requires new development within 500 ft of an existing or planned transit route to have its primary orientation toward the transit street or route. As noted in Completeness Item 2-b, adjust the narrative to describe how the new high school building will comply with this section. In addition, the circulation plan (referenced in Completeness Item 2-c) should address how transit riders will walk between the school entrances and the MAX station and bus stop.

Applicant's Response: The narrative has been expanded to address the approval criteria provided in MMC 19.500 Supplementary Development Regulations

3. **MMC Chapter 19.600 Off-Street Parking and Loading**

a. **MMC Subsection 19.603.2 Submittal Requirements**

This subsection contains a list of required information for parking design, including relevant details (e.g., delineation of wheel stops, pedestrian pathways and circulation, landscaping and lighting details) that have not been provided in the narrative or site plan.

Applicant's Response: The Applicant's site plans and narrative has been expanded to address the approval criteria provided in MMC 19.600 Supplementary Development Regulations.

b. **MMC Section 19.605 Vehicle Parking Quantity Requirements**

MMC Subsection 19.605.2 establishes the procedures for modifying minimum and/or maximum parking ratios. MMC Subsection 19.605.3 establishes by-right reductions to minimum parking requirements. Note that reductions are limited to no more than 25% of the minimum parking requirement and cannot be utilized to further modify ratios that are modified through MMC 19.605.2. Revise the narrative to indicate whether a modification (MMC 19.605.2) or reduction (MMC 19.605.3) is proposed and address the relevant criteria accordingly.

Applicant's Response: The narrative has been expanded to address the approval criteria provided in MMC Subsection 19.605. The Applicant's proposed parking plan appears to meet the criteria for of-street parking with a 25% by-right reduction to the parking enabled by the school's proximity to the Orange MAX Light Rail Station.

c. **MMC Section 19.606 Parking Area Design and Landscaping**

(1) **The parking lot dimensional requirements are addressed in the narrative but are not clearly shown on the site plan.**

(2) **Provide more detail regarding the required landscape buffering, particularly for the perimeter landscaping of the two southern/southeastern parking areas (eastern and southern perimeters of both) and the southwestern parking area (western perimeter). Be advised that the school site does not have a downtown zone designation, so the perimeter landscaping requirement where abutting the public right-of-way is 8 ft and not 4 ft.**

(3) **Address the various applicable standards of MMC Subsection 19.606.3, such as for wheel stops, pedestrian access, and lighting.**

Applicant's Response: The narrative has been expanded to address the approval criteria provided in MMC Subsection 19.606. Updated site and landscape plans have been provided to clearly document the site's compliance with the requirements of these sections.

d. **MMC Section 19.608 Loading**

The narrative notes that 2 new loading spaces will be provided (page 33), but they are not shown on the site plan. Revise the site plan accordingly.

Applicant's Response: The narrative has been expanded to address the approval criteria provided in MMC Subsection 19.608. Updated site and landscape plans have been provided to clearly document the site's compliance with the requirements of these sections.

e. **MMC 19.609 Bicycle Parking**

The narrative notes that the existing bike parking will remain, but it does not address Subsections 19.609.3 and 19.609.4 pertaining to rack design and location. Revise the site plan to show the bike parking location(s), and revise the narrative to address the relevant requirements of this section.

Applicant's Response: No new bicycle parking has been proposed therefore the sections regarding rack design and location have not been addressed.

4. **MMC Chapter 19.700 Public Facility Improvements**

   a. **Provide a plan showing proposed public improvements, consistent with the narrative description on pages 39-41.**

   b. **MMC Subsection 19.708.1 General Street Requirements and Standards**

      (1) **As per MMC Subsection 19.708.1.A, all development subject to Chapter 19.700 shall comply with access management standard contained in Chapter 12.16. Revise the narrative to address this code section.**

      (2) **MMC Subsection 19.708.1.D establishes requirements and standards for development in non-downtown zones. The narrative indicates that there will be 25 ft of right-of-way dedication on Adams St for a pedestrian connection (page 41), but the plans do not show any dedication. In addition, the site plan (Sheet C2.0A) does not show parking lot improvements on 25th Ave as described on page 41 of the narrative. Revise the submittal accordingly.**

Applicant's Response: Several new plans have been provided showing the public improvements and dedication described on pages 39-41 of the land use narrative. Additionally, the narrative has been expanded to address the City's Access Management Standards in 12.16.

   c. **MMC Section 19.709 Public Utility Requirements**

      (1) **Per MMC Subsection 19.709.1.B, the development must conform to the City's Public Works Standards. These require the submittal of a preliminary stormwater plan showing that the new proposed stormwater facilities can accommodate the new flow from the impervious areas.**

      (2) **MMC Subsection 19.709.2 requires public utility improvements for proposed development that would cause capacity problems for existing public utilities. Milwaukie's 2010 Water System Master Plan indicates that the water line running up the fire lane to the east of the existing main building has deficient fire flow. Fire flow tests must be conducted if this line will continue to be used for fire flows. The master plan currently recommends upsizing this line to achieve fire flows. The new building will be sprinkled and so will have a different fire requirement. Expand the narrative to address in detail how the new building as well as the existing buildings will have adequate fire protection.**

Applicant's Finding: The Applicant has provided an updated stormwater management plan and report documenting that the proposed stormwater facilities can accommodate the new flows anticipated from the site's impervious areas.

The District has provided the results of a fire flow test for the line located to the east of the main building The test documents that adequate pressure for fire flows are present. No upsizing of the line is currently proposed.

5. **MMC Chapter 19.800 Nonconforming Uses and Development**

The replacement of the main high school building would exceed 50% of the replacement value of the school. In such cases, MMC Subsection 19.805.1 B. requires new development to conform with current code standards. Revise the narrative to address this section, even if simply to state that newly built or rebuilt areas will meet the relevant code standards or to indicate whether a variance(s) has been requested.

Applicant's Response: The Applicant has updated the narrative to address MCC Chapter 19.805.1.B.

6. **MMC Section 19.904 Community Service Uses**

a. **MMC Subsection 19.904.6 Application Requirements**

MMC Subsection 19.904.6.H requires "detailed plans for the specific project." The application submittal includes a series of Existing Conditions Plan sheets (C101-C109), a Schematic Design site plan (C2.0A), floor plan sheets, and a site plan for the temporary portable classrooms. However, the submittal is lacking important detailed information required by this section, including:

(1) **Detailed site plan – Sheet C2.0A provides a good overview of the improvements, but it lacks the necessary detail and dimensions for the proposed improvements. For example, the 2 new loading spaces noted on page 33 of the narrative are not clearly shown. Provide a revised site plan (or additional plan sheets) to show more detail.**

(2) **Grading plan – Provide a grading plan for all portions of the site that are proposed to be modified. This is particularly important near the front (west side) of the school, where the existing grade is proposed to be significantly changed.**

(3) **Landscaping plan – An illustrative landscaping concept has been provided (DOWA-IBI Site Study), but more detailed landscaping plans are required. For example, the submittal includes tree inventory information but a site plan identifying the existing trees and the trees proposed for removal is not provided. Revise the submittal materials accordingly.**

(4) **Location of off-site vehicular parking – Revise the submittal materials to show all existing off-site parking areas that will be retained.**

(5) **Location and design of existing bike parking – Revise the submittal materials to show all the location(s) of existing bike parking that will be retained.**

(6) **Exterior lighting plan – Provide an exterior lighting plan, including photometric data sufficient to demonstrate minimum lighting levels and limited light spill across property boundaries. If the lights for the sports field are to be changed, please address this in the exterior lighting plan.**

(7) **Circulation – Provide a circulation plan for the entire site, including the off-site parking lots, TriMet #32 bus stop, and downtown MAX station.**

Applicant's Response: The Applicant has provided a series of updated plans and reports which better illustrate the details of the site plan. All of the information required within section 19.904 should be provided within the revised plans.

b. **MMC Subsection 19.904.7 Specific Standards for Schools**

Address the relevant site area/pupil ratio, whether a specific ratio required by state law or the standard established in MMC Subsection 19.904.7.A. It may be necessary to add a variance request to address this standard.

Applicant's Response: The narrative has been revised to state that the school is currently unable to conform to the site area/pupil ratio based upon the existing size of the campus and the urban development patterns currently in place surrounding the District's property. As there is no room for future expansion of the campus, the District's non-conforming status can not be altered.

c. **Describe how the school will operate while the modular classrooms are in place on the athletic field as the new facilities are being constructed. Of particular interest are pedestrian and vehicle circulation, parking, and construction staging. It might be most effective to provide a separate section or appendix that includes the modular classroom layout—at present, the layout is buried within the plans grouped within Appendix E.**

Applicant's Response: The Applicant has expanded the narrative to explain how the School will conduct operations while the modular classrooms are in place.

Approvability Items

1. **General Note – It is not necessary to include so much existing code language in the narrative. To reduce the bulk of the narrative and improve its readability, consider simply listing the relevant section or subsection numbers and headings and then providing a response to the appropriate criteria. This would make the narrative more accessible to the decision-makers, the public, and other reviewers.**

Applicant's Finding: The applicant acknowledges that is not necessary to repeat the relevant existing code language, however it is the preference of the applicant to include all applicable code language within the narrative for easy reference to the applicable standards.

2. **Plan sheets – The application would be strengthened by providing information relevant to the applicable code standards on the plan sheets (to the maximum extent possible) and not relying solely on the narrative to substantiate compliance. The narrative could then cross-reference the relevant plan sheets to emphasize or illustrate relevant points.**

Applicant's Finding: Where possible, the plans have been cross referenced in the narrative with the plans sheets showing how the applicable approval criteria and standards have been addressed through the site's design.

3. Vehicle parking

   a. **As noted in Completeness Item 3-b, either a modification or a reduction should be the focus of the request. The narrative regarding the revised number of vehicle parking spaces (MMC Section 19.605) would be significantly clarified if accompanied by notations on a site plan showing all proposed new parking and deleted parking for the entire site. If a parking modification is proposed (as per MMC Subsection 19.605.2), the justification could be strengthened by considering such factors as current parking usage, enrollment and staffing projections, access to transit (for staff and students), a potential Transportation Demand Management program, etc.**

   b. **It would help to have more clarity about whether or how a request for parking quantity modification accounts for the potential increase in capacity for the remodeled facility. The narrative uses the current numbers of students and staff as the basis for all calculations, but it seems fair to ask whether a potential increase in capacity should be planned for in addressing future parking needs. One suggestion is to expand the narrative with more discussion about current enrollment levels versus future projections and how the school will address parking demand with these considerations in mind.**

   c. **If a parking reduction is requested instead of a parking modification, be advised that school buses are not considered transit, so the proposed bus pull-out area on Willard St does not count as a transit facility improvement and does not qualify for a reduction. However, the site is eligible for the maximum 25% reduction for being within 1,000 ft (walking distance) of a light rail transit stop.**

   d. **The narrative does not provide a clear description of the proposed new or reconfigured parking areas. On page 17, there are notes about the "improved" southeastern lot and a "new" southwestern lot, but these characterizations appear to be reversed, if the existing southwestern lot will be reconfigured and the softball field will be replaced with a new parking lot. Consider providing names or labels for the various on-site parking areas to more clearly distinguish them from one another (e.g., "A," "B," and "C;" alternately, "SW" or "W," "S" or "E," and "SE;" or some other convention).**

   e. **The tally of current parking spaces does not align with the figures presented in earlier land use applications. When the new athletic field was established in 2007, information from the District indicated a total of 341 off-street spaces: 198 parking spaces on the school campus and 143 off-site shared spaces at the St. John's Catholic and St. Stephen's Serbian churches. On-street spaces, such as those along 25th Ave, were not included (land use file #CSU-07-05). When a variance was requested in 2009 to allow the 39 off-street spaces at the Lake Road athletic fields to count as shared parking for the high school, the tally was for 200 on-site spaces**

and 102 off-site shared spaces at the churches (file #VR-09-01). The current count of 279 spaces appears to include the on-street spaces on 25th Ave and is significantly higher than previous figures. These apparent discrepancies need some explanation.

f. **The City's suggestion for the new parking area that will replace the tennis courts was that it be designed to incorporate the 25th Ave right-of-way, with a variance to the standard requiring a perimeter landscaping buffer. The design presented on Sheet C2.0A appears to show a landscaped buffer and sidewalk between the parking area and 25th Ave, with no vehicular connection to 25th Ave. Be advised that, if the applicant opts not to design this parking area to physically incorporate the 25th Ave right-of-way, the parking spaces in the right-of-way will not count toward meeting the school's minimum requirement for off-street parking.**

Applicant's Finding: The Applicant has updated the plans for the new campus improvements to remove any improvements to the southern parking area. The Application materials have been updated to clarify that the District is entitled to and can meet the City's parking requirements with a 25% by-right reduction to the City's parking standards due to the site's proximity to the Orange MAX Light Rail Station. While the district may have, in the past, had entitlement to utilize additional off-street parking, the district has affirmed that the current shared parking agreements with the neighboring properties enable the use of 90 shared parking stalls. All other parking calculations have been based upon current survey data.

4. **Traffic memo**

a. **It is confusing to include the Lake Rd athletic fields in the analysis but not to include the entire high school site. It might be better to reorganize the memo to look at the two projects separately (main campus redevelopment versus improvements at Lake Rd fields), especially since it will be important to look at trip generation estimates for the Lake Rd fields facility itself in a separate land use application.**

b. **Have any of the recommendations from the traffic memo been incorporated into the proposal?**

c. **The characterization of "new" versus "reconfigured" lots is somewhat confusing. The memo notes 3 new lots, but the southwestern lot is existing and will be reconfigured.**

d. **The text on page 3 of the memo is not clear where it explains the trip generation forecasting. There is a reference to a "proposed shared access," which is not clearly indicated on the plan sheet or otherwise described. The estimates in Table 1 appear to be based on a student count of 300 instead of 1,200 or 1,500, which suggest that the intent is to discuss the potential increase in student population, but this is not clear.**

Applicant's Finding: The Applicant has provided a stand-alone, updated traffic memorandum addressing improvements proposed for the site, trip generation, and site circulation.

5. **Public facility requirements**

a. **The traffic memo mentions that a minimum of 100 ft is required between driveways on local roads, citing MMC Section 19.708. However, the spacing requirement in MMC 19.708 is for intersection spacing; the requirements for driveway spacing are in MMC Section 12.16.040. The only limit on driveway spacing is provided in MMC Subsection 12.16.040.C.4.a, requiring a minimum of 45 ft from intersections. The plans submitted do not show modifications to 25th Ave, so compliance with driveway spacing requirements cannot be determined at this time. If the spacing requirements cannot be met, a variance request may be necessary.**

b. **As proposed, the driveway approach for the southwestern parking lot is approximately 40 ft wide. Per MMC Subsection 12.16.040.F.6, the maximum driveway width is 36 ft but may be increased with a request to the Engineering Director as per MMC Subsection 12.16.040.F.8.**

Applicant's Finding: The Applicant has provided a stand-alone, updated traffic memorandum addressing improvements proposed for the site, trip generation, and site circulation.

6. **Variance Requests**

a. **The argument for a variance from the perimeter landscaping standard could be strengthened by showing the area in question on the landscaping plan, along with the location of adjacent development and uses.**

b. **At the bottom of page 61 of the narrative, the language of MMC Subsection 19.911.3.C is listed but no response is provided. The conclusion should be that both proposed variances require Type III review.**

Applicant's Finding: The request for a variance for perimeter landscaping has been removed from the application.

We trust that the materials provided herewith will be useful to the City in reviewing the District's Application. Please feel free to give me a call if you have any questions or need any additional clarification.

Sincerely,

Andrew Tull
Principal Planner
3J Consulting, Inc.

copy: Mr. David Hobbs – North Clackamas School District
Mr. Steve Nicolas – Heery International
Mr. Matt Jacoby – BRIC Architects
File

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GENERAL INFORMATION

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SITE INFORMATION

Parcel Number:	11E36BC 5600
Address:	2301 SE Willard Street
Size:	14.7 acres
Zoning Designation:	R-2 and R-1-B
Existing Use:	Milwaukie High School
Street Functional Classifications:	SE Washington Street is classified as a collector. SE 23rd Avenue, SE Willard Street and SE 25th Avenue are classified as local roads.
Surrounding Zoning:	The properties to the south and east are zoned R-2. The properties to the west are zoned R-1-B and DMU. The properties to the north are zoned R-1-B and R-2.

INTRODUCTION

APPLICANT'S REQUEST

The North Clackamas School District is proposing to construct a new High School on the existing Milwaukie High School Campus and seeks approval of an application for a Type III Community Service Use (CSU) Modification and a variance to allow for an exception to the City's van and carpool parking requirements. This narrative has been prepared to describe the proposed development and to document compliance with the relevant sections of Milwaukie's Development Code.

SITE DESCRIPTION/SURROUNDING LAND USE

Milwaukie High School is located at 11300 SE 23rd Avenue within the City of Milwaukie. The site consists of one tax lot, 1S1E36BC 5600, which is traversed by SE Willard Road. The site is approximately 14.7 acres and is primarily zoned R-2, with a small portion of the site west of 23rd avenue zoned R-1-B. The existing school consists of a primary academic and administrative building, with several connecting additions made to the campus over the years.

The existing building was established as a school facility in 1907. The school was built long before the CSU section of the City's zoning code was developed so no Community Service Use was originally issued for the facility. The City eventually issued a Community Service Permit for the site and the City has approved major modifications to the School's campus in 1986, 1988, 1993, 1999, and 2007. The most recent application to the City was a proposal to place a new scoreboard at the Softball fields in the southeastern corner of the site.

PROPOSAL

The North Clackamas School District is proposing to construct a new High School on the existing Milwaukie High School Campus. The proposed changes to the school will include the demolition of the original school structure built between 1925 and 1949, which is designated as a Historic Resource on the City's Comprehensive Plan Map and Zoning Map. A new main building will be constructed in place of the existing building, which will contain the academic and administrative functions. The existing Commons Building will remain and will be extensively remodeled. The new school will be physically joined to the Commons to provide a more cohesive and connected campus.

Proposed building improvements will provide improvements to technology, seismic upgrades, food service/kitchen remodel and improvements, accessibility (ADA) improvements, emergency generator replacement, re-roofing of the auditorium and Commons Building, and exterior and interior painting. Proposed site improvements will include a new main entry plaza, parking lot repairs and improvements, stadium field turf replacement, athletic track resurfacing, new stadium scoreboards, a new electronic reader board facing Willard Street, improved pedestrian circulation, improved vehicular circulation and new landscaping.

TEMPORARY IMPROVEMENTS

The North Clackamas School District is planning to complete the demolition of the existing school, reconstruction of the new main building, and improvements to the site and parking areas over the course of the next three years. Construction activities are anticipated to begin at the close of the 2017/2018 school year and are anticipated to achieve substantial completion in the fall of 2020. Because students will

be on campus throughout construction, the District is proposing to install modular classrooms and restrooms atop of the school's existing football field.

As shown on the attached modular plan, the District plans to install 27 new classroom modular buildings and six (6) new restroom/custodial buildings. The District's High School operations and faculty will operate out of the modular classroom center, existing Commons Building, existing Gymnasium, and existing performing Arts Center until the new building is constructed and ready for occupancy. Following the opening of the new building, the modular classroom center will be removed and the field will be re-surfaced and repaired.

Access to the modular buildings will be provided via a series of fenced pedestrian walkways which will lead west to the Gym and Commons. As the south side of the campus will be under construction, bus and vehicular traffic will be provided via the drop-off lane which currently exists along SE 23rd Avenue. Emergency vehicles will have access to the area via use of the existing track surrounding the football field. All utilities will be provided via new underground connections which will be abandoned upon the closure of the village.

NEIGHBORHOOD MEETING

The Applicant held a neighborhood meeting to discuss the proposed development on June 27, 2017. Invitations were mailed to members of the City Council and Planning Commission, the Design and Landmarks Committee, Milwaukie Museum members, the Clackamas County Historical Society, the chairs of several surrounding neighborhood associations, and property owners within 400 feet of the site. All total, more than 400 invitations to the community meeting were sent via mail and 63 invitations were sent via email. The materials from the neighborhood meeting are included with this application.

APPLICABLE CRITERIA

The following sections of the City of Milwaukie's Zoning and Development Ordinance have been extracted as they have been deemed to be applicable to the proposal. Following each **bold** applicable criteria or design standard, the Applicant has provided a series of draft findings. The intent of providing code and detailed responses and findings is to document, with absolute certainty, that the proposed development has satisfied the approval criteria for a Type III Community Service Use Modification, a Modification to the minimum required parking standards, and a Variance to allow for an exception to the City's carpool/van-pool parking requirements.

CHAPTER 19.300 BASE ZONES

19.302 MEDIUM AND HIGH DENSITY RESIDENTIAL ZONES

The medium and high density residential zones are Residential Zone R-3, Residential Zone R-2.5, Residential Zone R-2, Residential Zone R-1, and Residential-Business Office Zone R-1-B. These zones implement the Medium Density and High Density residential land use designations in the Milwaukie Comprehensive Plan.

19.302.1 Purpose

The medium and high density residential zones are intended to create and maintain higher density residential neighborhoods that blend a range of housing types with a limited mix of neighborhood-scale commercial, office, and institutional uses.

19.302.2 Allowed Uses in Medium and High Density Residential Zones

Uses allowed, either outright or conditionally, in the medium and high density residential zones are listed in Table 19.302.2 below. Similar uses not listed in the table may be allowed through a Director's Determination pursuant to Section 19.903. Notes and/or cross references to other applicable code sections are listed in the "Standards/Additional Provisions" column.

See Section 19.201 Definitions for specific descriptions of the uses listed in the table.

Table 19.302.2 Medium and High Density Residential Uses Allowed		
Use	**R-2**	**Standards/Additional Provisions**
Accessory and Other Uses		
Community Service Use	**CSU**	**Section 19.904 Community Service Uses**

CSU = Permitted with Community Service Use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.

Applicant's Facts and Findings: The site consists of approximately 14.7 acres. All proposed improvements are located within the R-2 zoned portions of the property. School facilities are permitted within the City's R-2 zoning district when approved through a Community Service Use Application. The Applicant has submitted a Community Service Use Application and has addressed the applicable approval criteria for the base zone and the Community Service Use.

19.302.4 Development Standards

In the medium and high density residential zones, the development standards in Table 19.302.4 apply. Notes and/or cross references to other applicable code sections are listed in the "Standards/Additional Provisions" column. Additional standards are provided in Section 19.302.5.

The standards in Subsection 19.302.4 are not applicable to cottage cluster development except where specifically referenced by Subsection 19.505.4.

See Sections 19.201 Definitions and 19.202 Measurements for specific descriptions of standards and measurements listed in the table.

Table 19.302.4 **Medium and High Density Residential Development Standards**		
Standard	**R-2**	**Standards/ Additional Provisions**
A. Lot Standards		
1. Minimum lot size (sq ft) **a. Rowhouse** **b. Duplex** **c. All other lots**	**2,500** **7,000** **5,000**	**Subsection 19.501.1 Lot Size Exceptions** **Subsection 19.505.4 Cottage Cluster Housing** **Subsection 19.505.5 Rowhouses**
2. Minimum lot width (ft) **a. Rowhouse** **b. All other lots**	**25** **50**	
3. Minimum lot depth (ft) **a. Rowhouse** **b. All other lots**	**80** **80**	
4. Minimum street frontage requirements (ft) **a. Rowhouse** **b. Standard lot** **c. Flag lot** **d. Double flag lot**	**25** **35** **25** **35**	
B. Development Standards		
1. Minimum yard requirements for primary structures (ft) **a. Front yard** **b. Side yard** **c. Street side yard** **d. Rear yard**	**15** **See Subsection 19.302.5.A** **15** **15**	**Subsection 19.302.5.A Side Yards** **Subsection 19.501.2 Yard Exceptions** **Subsection 19.504.8 Flag Lot Design and Development Standards**
2. Maximum building height for primary structures	**3 stories or 45 ft, whichever is less**	**Subsection 19.302.5.E Height Exceptions** **Subsection 19.501.3 Building Height and Side Yard Height Plane Exceptions** **Subsection 19.302.5.I Transition Measures**
3. Side yard height plane limit **a. Height above ground at minimum required side yard depth (ft)** **b. Slope of plane (degrees)**	**25** **45**	**Subsection 19.501.3 Building Height and Side Yard Height Plane Exceptions**
4. Maximum lot coverage (percent of total lot area)	**45%**	**Section 19.201 "Lot coverage" definition**
5. Minimum vegetation (percent of total lot area)	**15%**	**Subsection 19.504.7 Minimum Vegetation** **Subsection 19.302.5.D Front Yard Minimum Vegetation** **Subsection 19.302.5.C Minimum Vegetation**
C. Other Standards		

1. Density requirements (dwelling units per acre) **a. Minimum** **b. Maximum**	**11.6** **17.4**	**Subsection 19.202.4 Density Calculations** **Subsection 19.302.5.F Residential Densities** **Subsection 19.501.4 Density Exceptions**

Applicant's Facts and Findings:

The Applicant has not proposed any residential development therefore the standards of the underlying zone associated with residential developments do not apply to this proposal.

The standards which do apply are listed in *Table 19.302.4 Medium and High Density Residential Development Standards:*

Base Zone Standard	As Required	As Proposed
1. Minimum Yard Requirements	Front: 15' Side: 15' Street Side: 15' Rear: 15'	Front: 15' Side: 15' Street Side: 15' Rear: 15'
2. Maximum Height for Primary Structures	45' or 3 stories, whichever is less	45' along SE Willard Street – 3 stories.
3. Side yard height plane limit a. Height above ground at minimum required side yard depth (ft) b. Slope of plane (degrees)	 25 45	See response to section 19.501.3
Maximum Lot Coverage	45%	23% +/-

As shown above, the Applicant meets all of the underlying standards of the base zone.

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.501 GENERAL EXCEPTIONS

The exceptions listed in Subsections 19.501.1–4 below are "by right" exceptions. "By right" exceptions require no special review or approval by the City to implement.

19.501.3 Building Height and Side Yard Height Plane Exceptions

A. Projections such as chimneys, spires, domes, elevator shaft housings, flagpoles, and other similar objects not used for human occupancy are not subject to the building height and side yard height plane limitations of the Zoning Ordinance, except as provided in an L-F Zone.

B. The following encroachments into a side yard height plane are allowed:

1. Roof overhangs or eaves, provided that they do not extend more than 30 in horizontally beyond the side yard height plane.

2. **The gable end of a roof, provided that the encroachment is not more than 8 ft high above the side yard height plane or more than 40 ft wide.**
3. **Dormers, with the following limitations:**
    a. **The highest point of any dormer is at or below the height of the primary roof ridge.**
    b. **The encroachment is not more than 6 ft high above the side yard height plane or more than 8 ft wide.**
    c. **The combined width of all dormers does not exceed 50% of the length of the roof on which they are located.**

Applicant's Facts and Findings: No exceptions to the building height and side yard planes are proposed. The requirements of this section do not apply.

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.504 SITE DESIGN STANDARDS

19.504.9 On-Site Walkways and Circulation

A. Requirement

All development subject to Chapter 19.700 (excluding single-family and multifamily residential development) shall provide a system of walkways that encourages safe and convenient pedestrian movement within and through the development site. Redevelopment projects that involve remodeling or changes in use shall be brought closer into conformance with this requirement to the greatest extent practicable. On-site walkways shall link the site with the public street sidewalk system. Walkways are required between parts of a site where the public is invited to walk. Walkways are not required between buildings or portions of a site that are not intended or likely to be used by pedestrians, such as truck loading docks and warehouses.

Applicant's Facts and Findings: The existing MHS Campus has several walkways and pedestrian routes. The Applicant has proposed to make a series of changes along the site's southern boundaries, in response to the placement and positioning of the new building. The newly proposed pedestrian circulation system provides convenient and direct routing from the site's SE Willard and SE Lake Road frontages to the proposed building's access. Points. The proposed circulation system's walkways have also been designed to connect to the site's existing pedestrian network where applicable.

B. Location

A walkway into the site shall be provided for every 300 ft of street frontage.

Applicant's Facts and Findings: The permanent improvements to the site fall mainly along the site's southern boundary. The replacement building has frontage and primary access along SE Willard and in part SE Willard Road has approximately 800 linear feet of frontage, necessitating at least two (2) walkways into the site. The proposed plan has two direct walkways leading to the entry/exit doors on the property, one on the east side and one on the west. The site also has a nearly continuous expanded pedestrian sidewalk along the bus drop off area. The proposed pedestrian

connection system from the site's southern frontage meets the requirements of this code.

C. Connections

Walkways shall connect building entrances to one another and building entrances to adjacent public streets and existing or planned transit stops. On-site walkways shall connect with walkways, sidewalks, bicycle facilities, alleys, and other bicycle or pedestrian connections on adjacent properties used or planned for commercial, multifamily, institutional, or park use. The City may require connections to be constructed and extended to the property line at the time of development.

Applicant's Facts and Findings: The permanent improvements to the site fall mainly along the site's southern boundary. The new high school main building has been placed essentially on the footprint of the old building. Pedestrian connections currently exist between the main building, the site's parking lots, the bus drop off area, and the Commons and Performing Arts buildings. The Applicant has proposed to place a large pedestrian plaza between the Performing Arts building, Commons building, parking lot and the new High School Main building. All existing pedestrian walkways which will not be affected by the proposed improvements will be connected to new pedestrian walkways which will meet at the main plaza. All new walkways on site, primarily south of the proposed building, will also be connected to the plaza and the other walkways on site. The proposed pedestrian connection system to the site's existing buildings meets the requirements of this code.

D. Routing

Walkways shall be reasonably direct. Driveway crossings shall be minimized. Internal parking lot circulation and design shall provide reasonably direct access for pedestrians from streets and transit stops to primary buildings on the site.

Applicant's Facts and Findings: All proposed walkways have been logically arranged to provide direct access to the new building's primary entry and to the main entries of the surrounding existing buildings and parking areas. Wherever possible, driveway crossings have been minimized. Trimet provides bus service from two bus stops located to the south of the intersection of SE 23rd Avenue and SE Lake Road. The applicant is proposing to create two new ADA compliant curb ramps on the northern corner of the intersection of Lake and 23rd. These curb connections will connect to a continuous public sidewalk and private walkway system which will lead to the school's proposed entrance and exit doors. The proposed pedestrian connection system meets the requirements of this code.

E. Design Standards

Walkways shall be constructed with a hard surface material, shall be permeable for stormwater, and shall be no less than 5 ft in width. If adjacent to a parking area where vehicles will overhang the walkway, a 7-ft-wide walkway shall be provided. The walkways shall be separated from parking areas and internal driveways using curbing, landscaping, or distinctive paving materials. On-site walkways shall be lighted to an average 5/10-footcandle level. Stairs or ramps shall be provided where necessary to provide a direct route.

Applicant's Facts and Findings: The proposed improvements to the site's new pedestrian walkways will be constructed using a mixture of concrete and pervious concrete. Plans C200, C201, C202, and C203 illustrate the location and type of materials proposed for the site's new walkways. Each proposed walkway will have a width of no less than five (5) feet. Where walkways have been proposed along parking lots, no overhangs have been anticipated due to the installation of wheel stops. The walkways along the site's parking areas still meet the standard for potential over-hanging vehicles as each walkway has been proposed to be wider than seven (7) feet. As shown on the attached lighting and photometric plans, all new walkways on site will be illuminated at levels between 1.42 and 15.7 foot candles. The placement of light fixtures has been deliberately considered in order to provide the highest levels of lighting along the primary pedestrian routes. The proposed pedestrian connection system meets the requirements of this code.

19.504.10 Setbacks Adjacent to Transit

The following requirement applies to all new commercial, office, and institutional development within 500 ft of an existing or planned transit route measured along the public sidewalk that provides direct access to the transit route:

When adjacent to a street served by transit, new commercial, office, or institutional development, including uses authorized under Section 19.904 Community Service Uses, shall be set back no more than 30 ft from the right-of-way that is providing transit service.

A. An individual building may be set back more than 30 ft, provided the building is part of an approved phased development that will result in a future building(s) that complies with the 30-ft setback standard.

B. For sites with multiple buildings, the maximum distance from a street with transit to a public entrance of the primary building shall be no more than 100 ft.

C. If the proposed building is part of an institutional campus, the Planning Director may allow flexibility in the setback and orientation of the building. As a trade-off for this flexibility, enhanced sidewalk connections shall be provided between the institutional building(s) and nearby transit stops.

D. If the site abuts more than 1 street served by transit, then the maximum setback requirement need only apply to 1 street.

Applicant's Facts and Findings: The proposed development is within 500 ft of the MAX Orange Line station and TriMet's #32 bus route on Lake Rd. The improvements located on the site are not physically able to be located along the frontages of either Lake Road or SE 21st Avenue because of the existing development patterns and buildings which are already located on the campus. The application therefore requires the flexibility in building siting and placement afforded through subsection C of this requirement. The placement of the school in over its existing footprint provides the best overall access to student drop-off areas and provides for logical connections to pedestrian routes to the site's surrounding transit facilities and other buildings and amenities on site.

The Applicant is proposing to create enhanced pedestrian facilities both on site and within the public rights-of-way for SE Willard and SE Lake Road. The Applicant is also proposing to install a new set of concrete stairs in the north-western portion of the improvement package to allow for a better pedestrian

connection to the SE Adams Street right-of-way. The District anticipates that users arriving on the Orange Max line will be able to use SE Adams to connect to the MAX platform. While the proposal does not explicitly meet the setback standards within this section, the Director can find that with the planned improvements to pedestrian connectivity, the requirements of this section have been met.

19.504.11 Preliminary Circulation Plan

A preliminary circulation plan is intended to guide site development by establishing a plan for multimodal access, connectivity, and circulation. A preliminary circulation plan is a conceptual plan, in that it does not establish a precise alignment for street, pedestrian, or bicycle facilities.

A. Applicability

A preliminary circulation plan is required for nonresidential development on sites 3 acres and larger that are subject to development review per Section 19.906 and where any of the following is true:

1. The site is vacant.

2. The proposed new development or redevelopment will result in reconfiguration of the transportation and development pattern for > 50% of the site.

3. The development is in the Flex Space Overlay Zone.

B. Plan Contents

1. The preliminary circulation plan shall include a site plan, showing land uses; building envelopes and other structures; the pedestrian, bicycle, and vehicle circulation system; vehicle and bicycle parking areas; open areas; existing trees to be preserved; and utility connections. The site plan must also include the following:

a. All existing improvements that will remain after development of the proposed use.

b. All improvements planned in conjunction with the proposed use.

c. Conceptual plans for possible future uses.

d. Pedestrian and bicycle facilities, including safe pedestrian and safe bicycle circulation between the following:

(1) Major buildings, activity areas, and transit stops within the site plan boundaries and adjacent streets, pathways, and transit stops.

(2) Adjacent developments and the proposed development.

2. The preliminary circulation plan shall include a public right-of-way/easement plan depicting the following, if applicable:

Reservation, dedication, or use of the proposed site for public purposes, including, but not limited to the following: rights-of-way, showing the name and location of all existing and proposed public and private access drives within or on the boundary of the proposed site; the right-of-way and paving dimensions; the

ownership and maintenance status, if applicable; the location, width, and construction material of all existing and proposed sidewalks; pedestrian accessways and trails; and bicycle accessways and trails.

Applicant's Facts and Findings: The Applicant has provided preliminary circulation plans which describes the walkable and navigable areas of the site for pedestrians, vehicles and busses. The circulation plan is included within the traffic memorandum prepared by Lancaster Engineering, attached within appendix D.

C. Approval Criteria

In reviewing a proposed preliminary circulation plan, the Planning Director shall find compliance with the relevant portions of the Comprehensive Plan, Transportation System Plan, and Section 19.708 Transportation Facility Requirements.

Applicant's Facts and Findings: The Applicant has provided preliminary circulation plans showing the walkable and navigable areas of the site for pedestrians, vehicles and busses. The circulation plan is included within the traffic memorandum prepared by Lancaster Engineering, attached within appendix D. The circulation plan proposed by the applicant is consistent with the City's Comprehensive Plan and Transportation System Plan. Consistency with the Transportation System plan and Comprehensive plan has been achieved through a series of dedications and proposed roadway improvements which are aligned with the requirements for each of the roads which front the property based upon their functional classifications. The improvements proposed are described in detail in response to section 19.708.

19.505 BUILDING DESIGN STANDARDS

19.505.8 Building Orientation to Transit

The following requirement applies to all new commercial, office, mixed-use, and institutional development within 500 ft of an existing or planned transit route measured along the public sidewalk that provides direct access to the transit route:

New buildings shall have their primary orientation toward a transit street or, if not adjacent to a transit street, a public right-of-way which leads to a transit street. The primary building entrance shall be visible from the street and shall be directly accessible from a sidewalk connected to the public right-of-way. A building may have more than 1 entrance. If the development has frontage on more than 1 transit street, the primary building entrance may be oriented to either street or to the corner.

Applicant's Facts and Findings: The Applicant is proposing to reconstruct the High School's main building in the area where the current building stands. The primary entrance for the school is located approximately 500 feet from the nearest transit drop-off location. The new entrance should be visible from the drop off locations for TriMet's #32 bus route at its stops on Lake Road and 23rd Avenue.

CHAPTER 19.600 OFF-STREET PARKING AND LOADING

19.601 PURPOSE

Chapter 19.600 regulates off-street parking and loading areas on private property outside the public right-of-way. The purpose of Chapter 19.600 is to: provide adequate, but not excessive, space for off-street parking; avoid parking-related congestion on the streets; avoid unnecessary conflicts between vehicles, bicycles, and pedestrians; encourage bicycling, transit, and carpooling; minimize parking impacts to adjacent properties; improve the appearance of parking areas; and minimize environmental impacts of parking areas.

Regulations governing the provision of on-street parking within the right-of-way are contained in Chapter 19.700. The management of on-street parking is governed by Chapter 10.20. Chapter 19.600 does not enforce compliance with the Americans with Disabilities Act (ADA). ADA compliance on private property is reviewed and enforced by the Building Official.

19.602 APPLICABILITY

19.602.1 General Applicability

The regulations of Chapter 19.600 apply to all off-street parking areas and off-street loading areas, whether required by the City as part of development or a change in use, per Subsection 19.602.3, or voluntarily installed for the convenience of users, per Subsection 19.602.4. Activity that is not described by Subsections 19.602.3 or 4 is exempt from compliance with the provisions of Chapter 19.600. Changes to nonconforming off-street parking and loading are addressed through Chapter 19.600 and not through the provisions of Chapter 19.800.

19.602.2 Maintenance Applicability

Property owners shall comply with the regulations of Chapter 19.600 by ensuring conformance with the standards of Chapter 19.600 related to ongoing maintenance, operations, and use of off-street parking and loading areas. Changes to existing off-street parking or loading areas that bring the area out of conformance with Chapter 19.600, or further out of conformance if already nonconforming, are prohibited.

19.602.3 Applicability for Development and Change in Use Activity

The provisions of Chapter 19.600 apply to development and changes of use as described in Subsection 19.602.3.

- **A. Development of a vacant site shall have off-street parking and off-street loading areas that conform to the requirements of Chapter 19.600. Development of a site that results in an increase of 100% or more of the existing floor area and/or structure footprint on a site shall also conform to the requirements of Chapter 19.600. The floor area and/or footprint of structures demolished prior to development or redevelopment on the site shall not be considered when calculating the increase in floor area and/or structural footprints.**
- **B. Existing off-street parking and loading areas shall be brought closer into conformance with the standards of Chapter 19.600, per Subsection 19.602.5, when the following types of development or change in use occur:**
  1. **Development that results in an increase of less than 100% of the existing floor area and/or structure footprint.**
  2. **Changes of use, as defined in Section 19.201.**

Applicant's Facts and Findings: The applicant is proposing to demolish the main building at the Milwaukie Campus. The existing main building is approximately 94,437 square feet. The proposed replacement is approximately 137,813 square feet. The Square footage of the primary building has been approximated at this stage however the change in the development's square footage represents a 145% increase over the existing floor area.

The Applicant has addressed the standards of Section 19.602.5 below and has documented that the Applicant has brought the proposed parking and loading areas closer into conformance with the City's parking and loading standards.

19.602.4 Applicability not associated With Development or Change in Use

A. Any parking or loading area developed to serve an existing use(s) that is not associated with development activity or a change in use described in Subsection 19.602.3 shall conform to the requirements of Sections 19.604 and 19.606-19.611. The total number of spaces in the existing parking area and new parking area shall not exceed the maximum allowed quantity of parking as established in Section 19.605.

B. Any parking or loading area that is not developed to serve an existing use and is not associated with development activity or a change in use as described in Subsection 19.602.3 shall conform to the requirements of Sections 19.604 and 19.606-19.611. The requirements of Section 19.605 do not apply to parking areas described under Subsection 19.602.4.B.

Applicant's Facts and Findings: The Applicant has addressed the requirements of Sections 19.604, 19.605, and 19.606-19.611 as they apply to this project.

19.602.5 Improvements to Existing Off-Street Parking and Loading Areas

A. Purpose

The purpose of Subsection 19.602.5 is to improve nonconforming off-street parking and loading areas as redevelopment occurs. These improvements should occur in conjunction with a development or change in use.

Applicant's Facts and Findings: The Milwaukie High School site improvement package includes the development of a new parking area located to the east of the main school building, over the top of the existing softball field.

The existing parking lot located to the southwest of the main building will also be improved as part of this project. All proposed parking areas will be designed to conform to the City's parking standards.

The requirements of this section are met.

B. Limitations on Required Improvements

The cost of materials for any required improvements shall not exceed 10% of the development permit value of the associated development, redevelopment, and/or tenant improvements associated with a change in use. The cost of capital equipment such as manufacturing or operational equipment is exempt from the building permit value for purposes of this regulation. This exemption does not include building

infrastructure such as electrical, plumbing, heating, venting, or air conditioning equipment.

Applicant's Facts and Findings: The North Clackamas School District's proposal includes several significant improvements to the Milwaukie High School's campus and parking facilities. Because the district's proposal addresses several existing non-conforming parking areas and proposed improvements which meet the City's standards for parking and loading, the City is not compelled to ask for improvements beyond those proposed by the District.

C. Areas of Required Improvement

The Planning Director will evaluate the applicant's parking plan and use the prioritized list below when determining what improvements will be required.

1. **Paving and striping of parking areas, per Subsection 19.606.3.A.**
2. **Minimum required vehicle parking spaces, per Section 19.605.**
3. **Minimum required bicycle parking spaces, per Section 19.609.**
4. **Landscaping of existing buffers, islands, and medians, per Subsection 19.606.2.D.**
5. **New perimeter landscape buffers, islands, and medians, as applicable, per Subsection 19.606.2.E.**
6. **Other applicable standards within Chapter 19.600, as determined by the Planning Director.**

Applicant's Facts and Findings: The District's proposal includes significant improvements to the parking areas associated with the southern portions of the Milwaukie High School Campus. As each of the three parking areas affected will be redesigned and reconstructed in accordance with the City's standards, no additional improvements to these parking areas are required to address any non-conforming status.

19.603 REVIEW PROCESS AND SUBMITTAL REQUIREMENTS

19.603.1 Review Process

The Planning Director shall apply the provisions of Chapter 19.600 in reviewing all land use and development permit applications, except when an application is subject to a quasi-judicial land use review or appeal, in which case the body reviewing the application or appeal has the authority to implement and interpret the provisions of Chapter 19.600.

19.603.2 Submittal Requirements

Except for single-family dwellings, a development or change in use subject to Chapter 19.600 as per Section 19.602 shall submit a parking plan, drawn to scale. The parking plan shall show that all applicable standards are met, and shall include but not be limited to the items listed below, unless waived by the Planning Director.

- **A. Delineation of individual spaces and wheel stops.**
- **B. Drive aisles necessary to serve spaces.**
- **C. Accessways, including driveways and driveway approaches, to streets, alleys, and properties to be served.**
- **D. Pedestrian pathways and circulation.**
- **E. Bicycle parking areas and rack specifications.**
- **F. Fencing.**

G. Abutting land uses.
H. Grading, drainage, surfacing, and subgrading details.
I. Location and design of lighting fixtures and levels of illumination.
J. Delineation of existing and proposed structures.
K. Parking and loading area signage.
L. Landscaping, including the following information.
1. The location and area of existing and proposed trees, vegetation, and plant materials, including details about the number, size, and species of such items.
2. Notation of the trees, plants, and vegetation to be removed, and protection measures for existing trees and plants to be preserved.

Applicant's Facts and Findings: The Applicant has provided detailed site and landscape plans which contain the information required within this section.

19.604 GENERAL PARKING STANDARDS

19.604.1 Parking Provided with Development Activity

All required off-street parking areas shall be provided at the time the structure is built; at the time a structure or site is enlarged; or when there is change in use or an increase in density or intensity. All required off-street parking areas shall be provided in conformance with the standards of Chapter 19.600 prior to issuance of a certificate of occupancy, or final development permit approval, or as otherwise specified in any applicable land use decision.

Applicant's Facts and Findings: The Applicant has proposed to construct several new parking areas along with the newly proposed building. All parking proposed for this use has been designed in accordance with the requirements of Chapter 19.600. This standard has been met.

19.604.2 Parking Area Location

Accessory parking shall be located in one or more of the following areas:

A. On the same site as the primary use for which the parking is accessory.
B. On a site owned by the same entity as the site containing the primary use that meets the standards of Subsection 19.605.4.B.2. Accessory parking that is located in this manner shall not be considered a parking facility for purposes of the base zones in Chapter 19.300.
C. Where shared parking is approved in conformance with Subsection 19.605.4.

Applicant's Facts and Findings: The District is proposing to create a new parking plan for the new Milwaukie High School Building. The redesigned parking lots are located on the same site as the primary use for which the parking is accessory and on property owned by the District. This standard has been met.

19.604.3 Use of Parking Areas

All required off-street parking areas shall continually be available for the parking of operable vehicles of intended users of the site. Required parking shall not be rented, leased, sold, or otherwise used for parking that is unrelated to the primary or accessory use of the site, except where a shared parking agreement per Subsection 19.605.4 has been recorded. Subsection

19.604.3 does not prohibit charging fees for parking when the parking serves the primary or accessory uses on site.

Applicant's Facts and Findings: The District intends to make all proposed parking areas continually available for the parking of operable vehicles related to the operation of the site as a High School. The District does not intend to rent, lease, or sell parking stalls. This standard has been met.

19.604.4 Storage Prohibited

No required off-street parking area shall be used for storage of equipment or materials, except as specifically authorized by Subsection 19.607.2 Commercial Vehicle, Pleasure Craft, and Recreational Vehicle Parking.

Applicant's Facts and Findings: The District does not intend to utilize any portion of the proposed parking areas on site for storage of equipment or materials following the completion of construction activities. Parking areas may be utilized for temporary staging or storage during various phases of construction. This standard has been met.

19.605 VEHICLE PARKING QUANTITY REQUIREMENTS

The purpose of Section 19.605 is to ensure that development provides adequate, but not excessive, vehicle parking based on their estimated parking demand. Subsection 19.605.1 establishes parking ratios for common land uses, and Subsection 19.605.3 allows certain exemptions and reductions to these ratios based on location or on-site amenities. Modifications to the established parking ratios and determinations of parking requirements for unique land uses are allowed with discretionary review per Subsection 19.605.2.

Nonresidential development in the Downtown Mixed Use (DMU) and Open Space (OS) Zones is exempt from the requirements of Section 19.605.

19.605.1 Minimum and Maximum Requirements

- **A. Development shall provide at least the minimum and not more than the maximum number of parking spaces as listed in Table 19.605.1. Modifications to the standards in Table 19.605.1 may be made as per Section 19.605. Where multiple ratios are listed, the Planning Director shall determine which ratio to apply to the proposed development or use.**
- **B. When a specific use has not been proposed or identified at the time of permit review, the Planning Director may elect to assign a use category from Table 19.605.1 to determine the minimum required and maximum allowed parking. Future tenants or property owners are responsible for compliance with Chapter 19.600 per the applicability provisions of Section 19.602.**
- **C. If a proposed use is not listed in Table 19.605.1, the Planning Director has the discretion to apply the quantity requirements of a similar use listed in the table upon finding that the listed use and unlisted use have similar parking demands. If a similar use is not listed, the quantity requirements will be determined per Subsection 19.605.2.**
- **D. Where the calculation of minimum parking spaces does not result in a whole number, the result shall be rounded down to the next whole number. Where the calculation of**

maximum parking spaces does not result in a whole number, the result shall be rounded to the nearest whole number.

E. Parking spaces for disabled persons, and other improvements related to parking, loading, and maneuvering for disabled persons, shall conform to the Americans with Disabilities Act and shall be subject to review and approval by the Building Official. Spaces reserved for disabled persons are included in the minimum required and maximum allowed number of off-street parking spaces.

F. Uses that have legally established parking areas that exceed the maximum number of spaces allowed by Section 19.605 prior to June 17, 2010, the effective date of Ordinance #2015, shall be considered nonconforming with respect to the quantity requirements. Such uses shall not be considered parking facilities as defined in Section 19.201.

Table 19.605.1 Minimum to Maximum Off-Street Parking Requirements		
Use	**Minimum Required**	**Maximum Allowed**
B. Community Service and Other Public Uses		
4. School—senior high.	**0.25 spaces per student, plus 1 space per staff.**	**0.33 spaces per student, plus 1 space per staff.**

Applicant's Facts and Findings:

The school district currently provides service to approximately 1,200 students and employs approximately 110 staff members. A 2007 CSU decision by the City referenced a maximum capacity of 1,500 students and 110 staff members within the existing building. The new school has been designed to accommodate up to 1500 students and 140 staff. This design results in a required increase to the amount of parking which must be provided on site due to the increased intensity of the use. A total of 30 new parking spaces are required to accommodate the additional staff members who may use the site.

In its existing condition, the High School is required to provide parking within the following range:

- Minimum Required Off-street Parking Requirement – 485 Stalls
- Maximum Permitted Off-street Parking Requirement – 605 Stalls

As the proposed, High School building is required to provide parking within the following range:

- Minimum Required Off-street Parking Requirement – 515 Stalls
- Maximum Permitted Off-street Parking Requirement – 635 Stalls

The District currently provides 259 parking stalls for students and staff. The Milwaukie Campus has three parking areas located to the south of the main campus building. These consist of 12 diagonal spaces along the southern side of the existing building, 71 parking stalls within the parking lot located to the southwest of the main school building and approximately 20 spaces located within the SE 25th Avenue right-of-way and adjacent to the existing tennis courts south of Willard. Another 86 parking spaces are available in the four parking lots located on the northern side of the campus. The District also currently uses two existing

parking lots for offsite parking as part of two shared parking agreements. The first shared parking lot is located southwest of the campus, within the parking lot for the St Stephens Serbian Orthodox Church. The second shared parking lot is located north of SE Washington Street within the parking lot for the St. John the Baptist Church. A total of 90 off-street parking stalls are available to the school district for use through a series of existing shared parking agreements.

The proposed improvements to the southeastern side of the existing building will include a reconfiguration of the existing parking areas and the construction of one new parking lot where the existing baseball field. The new southeastern parking lot will provide 94 new parking stalls.

The reconfiguration of the southwestern parking lot will provide for better access to the parking area from SE Willard Street and will provide a drop-off area near the school's main entrance. A total of 63 stalls will be provided within the reconfigured southwestern parking lot.

The reconfiguration of the southwestern parking areas and the addition of the new southeastern parking area will represent an increase of 74 new parking stalls. While not in full compliance with the requirements of this section, the District's proposed improvements move the facilities on campus closer to compliance with the underlying standards.

The table below summaries the parking provided before and after the proposed construction:

Parking Area	Current Parking	Proposed Parking	Net Gain or (Loss)
South side of building	12 stalls	0 stalls	(12)
Southwestern parking lot	71 stalls	63 stalls	(8)
Northern Parking Lots	86 stalls	86 stalls	0
Southeastern Lot	0 stalls	94 stalls	94
Off-site parking lots	90 stalls	90 stalls	0
Total	**259 stalls**	**333 stalls**	**74**

The Milwaukie High School Campus currently provides fewer than the minimum required parking stalls. This is an existing non-conforming use. The District has proposed to bring the site closer into conformance through the proposed installation of several additional parking spaces. The spaces provided will not only cover the new demands generated by adding capacity for additional staff, but will also provide additional general parking spaces for students and visitors. The Campus' urban location allows for superb access to several options for public transit, including bus service and light rail.

Because the District is moving the property closer into conformance with the applicable standard, this standard is met, as permitted within MMC 19.804.

19.605.3 Exemptions and By-Right Reductions to Quantity Requirements

The following exemptions and by-right reductions cannot be used to further modify any parking modification or determination granted under Subsection 19.605.2.

A. Exemptions to Maximum Quantity Allowance

The following types of parking do not count toward the maximum amount of parking allowed on a site. This exemption applies only to the quantity requirements of Section 19.605 and not to the other requirements of Chapter 19.600. The City may impose conditions to ensure that parking spaces associated with these parking types are appropriately identified and used for the intended purpose.

1. **Spaces for a parking facility.**
2. **Spaces for a transit facility or park and ride facility.**
3. **Storage or display areas for vehicle sales.**
4. **Employee carpool parking, when spaces are dedicated or reserved for that use.**
5. **Fleet parking.**
6. **Truck loading areas.**

B. Reductions to Minimum Parking Requirements

Applicants are allowed to utilize multiple reductions from Subsections 19.605.3.B.2-7, provided that the total reduction in required parking does not exceed 25% of the minimum quantity requirement listed in Table 19.605.1. The total reduction in required parking is increased to 30% in the Downtown Mixed Use Zone DMU. Applicants may not utilize the reduction in Subsection 19.605.3.B.1 in conjunction with any other reduction in Subsection 19.605.3.B.

1. **Reductions for Neighborhood Commercial Areas**

   The minimum parking requirements of Table 19.605.1 shall be reduced by 50% for the properties described below:

   a. **Properties zoned Commercial Limited (C-L).**
   b. **Properties zoned Commercial Neighborhood (C-N).**
   c. **Properties in the Neighborhood Mixed-Use (NMU) Zone in the area bounded by 42nd Avenue, King Road, 40th Avenue, and Jackson Street.**
   d. **Properties in the Neighborhood Mixed-Use (NMU) Zone in the area bounded by 42nd Avenue, Harrison Street, 44th Avenue, and Jackson Street.**

2. **Proximity to Public Transit**

   a. **Parking for commercial and industrial uses may be reduced by up to 10% if the development is within 500-ft walking distance, as defined in Subsection 19.605.3.B.2.d, of a transit stop with a peak hour service frequency of 30 minutes or less.**
   b. **Parking for multifamily uses may be reduced by up to 20% if the development is within 500-ft walking distance, as defined in Subsection 19.605.3.B.2.d, of a transit stop with a peak hour service frequency of 30 minutes or less.**
   c. **Parking for all uses except single-family attached and detached dwellings may be reduced by 25% if the development is within 1,000-ft walking distance, as defined in Subsection 19.605.3.B.2.d, of a light rail transit stop, or if it is located in the Downtown Mixed Use Zone DMU.**

Applicant's Facts and Findings: The Milwaukie High School Campus qualifies for a 25% reduction in the minimum required parking standards due to the site's distance from Public Transit. The site is located within 1000 feet of the Orange MAX Line Station. The total required

minimum parking is 515 stalls based upon current employment and student enrollment. The permitted reduction through the provision of qualifying reductive improvements is 128 parking stalls. The minimum number of stalls required based upon the site's proximity to the light rail station is 387 parking stalls.

d. In determining walking distance, the applicant shall measure the shortest route along sidewalks, improved pedestrian ways, or streets if sidewalks or improved pedestrian ways are not present. Walking distance shall be measured along the shortest course from the point on the development site that is nearest to the transit stop.

Applicant's Facts and Findings: The walking distance from the campus to the Orange MAX Line Station is less than 500 feet.

19.606 PARKING AREA DESIGN AND LANDSCAPING

The purpose of Section 19.606 is to ensure that off-street parking areas are safe, environmentally sound, aesthetically pleasing, and that they have efficient circulation. These standards apply to all types of development except for cottage clusters, rowhouses, duplexes, single-family detached dwellings, and residential homes.

19.606.1 Parking Space and Aisle Dimensions

A. The dimensions for required off-street parking spaces and abutting drive aisles, where required, shall be no less than in Table 19.606.1. The minimum dimensions listed in Table 19.606.1 are illustrated in Figure 19.606.1.

Table 19.606.1
Minimum Parking Space and Aisle Dimensions

Angle (A)	Width (B)	Curb Length (C)	1-Way Aisle Width (D)	2-Way Aisle Width (D)	Depth (E)
0° (Parallel)	8.5′	22′	12′	19′	8.5′
30°	9′	17′	12′	19′	16.5′
45°	9′	12′	13′	19′	18.5′
60°	9′	10′	17′	19′	19′
90°	9′	9′	22′	22′	18′

Applicant's Facts and Findings: All proposed parking stalls within the newly created parking lots have been designed to meet the minimum standards for 90 degree parking. All proposed parking stalls are at least nine feet wide and at least 18 feet deep. Proposed drive aisles are all at least 22 feet in width. The requirements of this section have been met.

B. The dimension of vehicle parking spaces provided for disabled persons shall be according to federal and State requirements.

Applicant's Facts and Findings: Parking for disabled or limited mobility individuals will be provided in accordance with the requirements of the Americans with Disabilities Act (ADA) in accordance with the requirements of the Oregon Structural Specialty Codes (OSSC). The requirements of this section have been met.

C. Parking spaces shall be provided with adequate aisles or turnaround areas so that all vehicles may enter the street in a forward manner.

Applicant's Facts and Findings: All proposed parking areas contain sufficient maneuvering areas to allow vehicles to enter the street in a forward manner. The requirements of this section have been met.

D. Drive aisles shall be required in parking areas greater than 5 spaces. Drive aisles shall meet the minimum width standards of Subsection 19.606.1. Where a drive aisle or portion thereof does not abut a parking space(s), the minimum allowed width for a one-way drive aisle shall be 8 ft and the minimum allowed width for a two-way drive aisle shall be 16 ft.

Applicant's Facts and Findings: All proposed drive aisles have been designed to meet the minimum width requirements for two-way traffic. The requirements of this section have been met.

19.606.2 Landscaping

A. Purpose

The purpose of the off-street parking lot landscaping standards is to provide vertical and horizontal buffering between parking areas and adjacent properties, break up large expanses of paved area, help delineate parking spaces and drive aisles, and provide environmental benefits such as stormwater management, carbon dioxide absorption, and a reduction of the urban heat island effect.

B. General Provisions

1. Parking area landscaping shall be required for the surface parking areas of all uses, except for cottage clusters, rowhouses, duplexes, and single-family detached dwellings. Landscaping shall be based on the standards in Subsections 19.606.2.C-E.

2. Landscaped areas required by Subsection 19.606.2 shall count toward the minimum amount of landscaped area required in other portions of Title 19.

3. Parking areas with 10 or fewer spaces in the Downtown Mixed Use Zone are exempt from the requirements of Subsection 19.606.2.

Applicant's Facts and Findings: The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

C. Perimeter Landscaping

The perimeter landscaping of parking areas shall meet the following standards which are illustrated in Figure 19.606.2.C.

1. Dimensions

The minimum width of perimeter landscape areas are shown in Table 19.606.2.C.1. Where a curb provides the border for a perimeter landscape area, the dimension shall be measured from the inside of the curb(s). The Planning Director may reduce

the required minimum width of a perimeter landscaping area where existing development or site constraints make it infeasible to provide drive aisles, parking spaces, and the perimeter landscaping buffer width listed in Table 19.606.2.C.1.

Table 19.606.2.C.1 Minimum Perimeter Landscape Strip Dimensions		
Location	**Downtown Zones**	**All Other Zones**
Lot line abutting a right-of-way	**4′**	**8′**
Lot line abutting another property, except for abutting properties that share a parking area	**0′**	**6′**

Applicant's Facts and Findings: The site's two new parking lots have been separated from the public right-of-way line and provided with a minimum planted area of at least eight (8) feet. The single exception to this requirement is within the southwestern parking lot where a section of the SE Willard Street right-of-way extends into the parking area. The Applicant understands that the City plans to initiate a Right-of-way vacation in order to allow the right-of-way associated with Willard to better follow the planned alignment of the street. The requirements of this section have been met.

2. Planting Requirements

Landscaping requirements for perimeter buffer areas shall include 1 tree planted per 40 lineal ft of landscaped buffer area. Where the calculation of the number of trees does not result in a whole number, the result shall be rounded up to the next whole number. Trees shall be planted at evenly spaced intervals along the perimeter buffer to the greatest extent practicable. The remainder of the buffer area shall be grass, ground cover, mulch, shrubs, trees, or other landscape treatment other than concrete and pavement.

Applicant's Facts and Findings: The new southeastern parking area has a perimeter of approximately 530 feet. This necessitates the planting of 14 new trees. As shown on the proposed landscape plans, this parking lot will be landscaped with 15 new trees.

The southeastern parking area has a perimeter of approximately 650 feet. This necessitates the planting of 16 new trees. As shown on the proposed landscape plans, this parking lot will be landscaped with 19 new trees. As this parking lot serves as the primary drop-off location for students receiving rides to school, much of the area immediately surrounding the parking lot is paved. Trees will be provided as close as possible to the parking lot along the eastern and northern side of the parking area.

The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

3. Additional Planting Requirements Adjacent to Residential Uses

In addition to the planting requirements of Subsection 19.606.2.D.2, all parking areas adjacent to a residential use shall have a continuous visual screen in the landscape perimeter area that abuts the residential use. The area of required screening is illustrated in Figure 19.606.2.C.3. The screen must be opaque throughout the year from 1 to 4 ft above ground to adequately screen vehicle lights. These standards must be met at the time of planting. Examples of acceptable visual screens are a fence or wall, an earth berm with plantings, and other plantings of trees and shrubs.

Applicant's Facts and Findings: The southeastern parking lot abuts residential properties to the east. Along these boundaries. The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

D. Interior Landscaping

The interior landscaping of parking areas shall meet the following standards which are illustrated in Figure 19.606.2.D.

1. General Requirements

Interior landscaping of parking areas shall be provided for sites where there are more than 10 parking spaces on the entire site. Landscaping that is contiguous to a perimeter landscaping area and exceeds the minimum width required by Subsection 19.606.2.C.1 will be counted as interior landscaping if it meets all other requirements of Subsection 19.606.2.D.

2. Required Amount of Interior Landscaped Area

At least 25 sq ft of interior landscaped area must be provided for each parking space. Planting areas must be at least 120 sq ft in area and dispersed throughout the parking area.

Applicant's Facts and Findings: The proposed design for the southwestern parking lot includes plans to provide 63 new parking spaces. A total of 1,575 square feet of new landscape area is required. Approximately 2,118 square feet has been provided with planting areas which all exceed the minimum 120 square foot sizing requirements.

The new southeastern parking lot, provided where the existing baseball fields are located, will provide a total of 94 new parking spaces. A total of 2,350 square feet of new landscape area is required. A total of 2,976 square feet has been provided with planting areas which all exceed the minimum 120 square foot sizing requirements.

The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

3. **Location and Dimensions of Interior Landscaped Areas**
   a. **Interior landscaped area shall be either a divider median between opposing rows of parking, or a landscape island in the middle or at the end of a parking row.**

Applicant's Facts and Findings: All interior parking lots have been provided with divider medians or landscape islands along the ends. The requirements of this section have been met.

   b. **Interior landscaped areas must be a minimum of 6 ft in width. Where a curb provides the border for an interior landscape area, the dimension shall be measured from the inside of the curb(s).**

Applicant's Facts and Findings: As conceptually prepared, all interior parking lot landscape areas have been designed to be at least six (6) feet in width. The requirements of this section have been met.

4. **Planting Requirements for Interior Landscaped Areas**
   a. **For divider medians, at least 1 shade or canopy tree must be planted for every 40 linear ft. Where the calculation of the number of trees does not result in a whole number, the result shall be rounded up to the next whole number. Trees shall be planted at evenly spaced intervals to the greatest extent practicable.**
   b. **For landscape islands, at least 1 tree shall be planted per island. If 2 interior islands are located contiguously, they may be combined and counted as 2 islands with 2 trees planted.**
   c. **The remainder of any divider median or landscape island shall be grass, ground cover, mulch, shrubs, trees, or other landscape treatment other than concrete and pavement.**

Applicant's Facts and Findings: Conceptual Landscape plans show that at least 1 tree has been planted per landscape island. The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

5. **Additional Landscaping for Large Parking Areas**
   Parking areas with more than 100 spaces on a site shall not have more than 15 spaces in a row without providing an interior landscaped island. See Figure 19.606.2.D.5.

Applicant's Facts and Findings: No parking areas on site will have more than 100 parking spaces. The requirements of this section do not apply.

E. Other Parking Area Landscaping Provisions

1. **Preservation of existing trees is encouraged in the off-street parking area and may be credited toward the total number of trees required, based on staff's review.**

2. **Installation of parking area landscaping shall be required before a certificate of occupancy is issued, unless a performance bond is posted with the City. Then landscaping shall be installed within 6 months thereafter or else the bond will be foreclosed and plant materials installed by the City.**
3. **Parking area landscaping shall be maintained in good and healthy condition.**
4. **Required parking landscaping areas may serve as stormwater management facilities for the site. The Engineering Director has the authority to review and approve the design of such areas for conformance with the Public Works Standards. This allowance does not exempt the off-street parking landscape area from meeting the design or planting standards of Subsection 19.606.2.**
5. **Pedestrian walkways are allowed within perimeter and interior landscape buffer if the landscape buffer is at least 2 ft wider than required in Subsections 19.606.2.C.1 and 19.606.2.D.3.b.**

Applicant's Facts and Findings: The Applicant has prepared only a conceptual landscape plan for the property at this time. The Applicant is willing to accept conditions of approval requiring the final construction plans to conform to the requirements of the City's landscape standards for parking areas and interior landscaping prior to the issuance of building permits. The requirements of this section can be met through a condition of approval.

19.606.3 Additional Design Standards

A. Paving and Striping

Paving and striping are required for all required maneuvering and standing areas. Off-street parking areas shall have a durable and dust-free hard surface, shall be maintained for all-weather use, and shall be striped to show delineation of parking spaces and directional markings for driveways and accessways. Permeable paving surfaces may be used to reduce surface water runoff and protect water quality.

Applicant's Facts and Findings: The proposed parking areas will be striped with asphalt surfaces and are striped to show all parking spaces and directional marking. No permeable asphalt has been proposed. The requirements of this section have been met.

B. Wheel Stops

Parking bumpers or wheel stops, of a minimum 4-in height, shall be provided at parking spaces to prevent vehicles from encroaching on the street right-of-way, adjacent landscaped areas, or pedestrian walkways. Curbing may substitute for wheel stops if vehicles will not encroach into the minimum required width for landscape or pedestrian areas.

Applicant's Facts and Findings: Curbs will be provided which will allow for parking without encroachment into the minimum required landscape areas. The requirements of this section have been met.

C. Site Access and Drive Aisles

1. **Accessways to parking areas shall be the minimum number necessary to provide access while not inhibiting the safe circulation and carrying capacity of the street.**

Driveway approaches shall comply with the access spacing standards of Chapter 12.16.

2. **Drive aisles shall meet the dimensional requirements in Subsection 19.606.1.**
3. **Parking drive aisles shall align with the approved driveway access and shall not be wider than the approved driveway access within 10 ft of the right-of-way boundary.**
4. **Along collector and arterial streets, no parking space shall be located such that its maneuvering area is in an ingress or egress aisle within 20 ft of the back of the sidewalk, or from the right-of-way boundary where no sidewalk exists.**
5. **Driveways and on-site circulation shall be designed so that vehicles enter the right-of-way in a forward motion.**

Applicant's Facts and Findings: All proposed drive aisles have been designed for safe and efficient movement throughout the parking areas. All proposed drive aisles meet the minimum width requirements as specified within 19.606.1 and have been designed to allow for access onto the public street network with only forward motions. The requirements of this section have been met.

D. Pedestrian Access and Circulation

Subsection 19.504.9 establishes standards that are applicable to an entire property for on-site walkways and circulation. The purpose of Subsection 19.606.3.D is to provide safe and convenient pedestrian access routes specifically through off-street parking areas. Walkways required by Subsection 19.606.3.D are considered part of the on-site walkway and circulation system required by Subsection 19.504.9.

1. **Pedestrian access shall be provided for off-street parking areas so that no parking space is further than 100 ft away, measured along vehicle drive aisles, from a building entrance, or a walkway that meets the standards of Subsection 19.606.3.D.2.**
2. **Walkways through off-street parking areas must be continuous, must lead to a building entrance, and meet the design standards of Subsection 19.504.9.E.**

Applicant's Facts and Findings: All proposed pedestrian walkways along the parking areas have been designed to allow for access from each proposed parking stall to a pedestrian route within 100 feet of the parking stall. All proposed walkways lead to the network of pathways and plazas on the campus, ultimately leading to building entrances. The requirements of this section have been met.

E. Internal Circulation

1. **General Circulation**

The Planning Director has the authority to review the pedestrian, bicycle, and vehicular circulation of the site and impose conditions to ensure safe and efficient on-site circulation. Such conditions may include, but are not limited to, on-site signage, pavement markings, addition or modification of curbs, and modifying drive aisle dimensions.

Applicant's Facts and Findings: The Applicant acknowledges that the planning director may review the proposed circulation systems on site and may impose conditions of approval to ensure that safe and efficient circulation is provided.

F. Lighting

Lighting is required for parking areas with more than 10 spaces. The Planning Director may require lighting for parking areas of less than 10 spaces if the parking area would not be safe due to the lack of lighting. Lighting shall be designed to enhance safe access for vehicles and pedestrians on the site, and shall meet the following standards:

1. **Lighting luminaires shall have a cutoff angle of 90 degrees or greater to ensure that lighting is directed toward the parking surface.**
2. **Parking area lighting shall not cause a light trespass of more than 0.5 footcandles measured vertically at the boundaries of the site.**
3. **Pedestrian walkways and bicycle parking areas in off-street parking areas shall have a minimum illumination level of 0.5 footcandles, measured horizontally at the ground level.**
4. **Where practicable, lights shall be placed so they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.**

Applicant's Facts and Findings: The proposed development will feature lighting within parking lots, along pedestrian walkways, and in bicycle parking areas. The attached lighting plan shows the proposed lighting scheme for the newly designed campus parking areas and plazas will meet the requirements of this section by providing at least 0.5 footcandles of illumination within the site's newly designed parking and pedestrian areas.

19.608 LOADING

19.608.2. Number of Loading Spaces

The Planning Director shall determine whether to require off-street loading for commercial, industrial, public, and semipublic uses. The ratios listed below should be the minimum required unless the Planning Director finds that a different number of loading spaces are needed upon reviewing the loading needs of a proposed use.

B. Nonresidential and Mixed-Use Buildings

Buildings where any floor area is in nonresidential uses should meet the following standards:

1. **Less than 20,000 sq ft of total floor area: no loading spaces required.**
2. **20,000 to 50,000 sq ft of total floor area: 1 loading space.**
3. **More than 50,000 sq ft of total floor area: 2 loading spaces.**

Applicant's Facts and Findings: The proposed new High School building is greater than 50,000 square feet. A total of two loading spaces are therefore required. The requirements of this section have been met.

19.608.3 Loading Space Standards

A. Loading spaces shall be at least 35 ft long and 10 ft wide, and shall have a height clearance of at least 13 ft.

B. Loading areas shall be provided on the site and be separate from parking spaces.

C. Off-street loading areas shall have a durable and dust-free hard surface. Permeable paving surfaces may be used to reduce surface water runoff and protect water quality.

D. Lighting of loading areas shall conform to the standards of Subsection 19.606.3.F.

E. Off-street loading areas for materials and merchandise shall be located outside of the minimum front and side yard requirements for structures.

F. Off-street loading areas shall be located where not a hindrance to drive aisles, walkways, public or private streets, or adjacent properties.

Applicant's Facts and Findings: The two new proposed loading areas are to be located within the eastern parking lot, along a tandem roadway spur which will run along the eastern side of the new building. The new loading area is 100 feet long and 20 feet wide. These dimensions allow for the parking of at least two vehicles. All loading areas will be constructed using heavy grade asphalt and will be lit as shown within the attached plans. The requirements of this section have been met.

19.608.4 Prohibitions

A. Loading activity for a site, regardless of whether loading spaces are required, shall not obstruct travel within the right-of-way.

B. The accumulation of goods in loading areas shall be prohibited when it renders the space useless for loading and unloading of goods and passengers.

Applicant's Facts and Findings: The two newly proposed loading areas will not obstruct travel within any of the site's adjacent rights-of-way. No accumulation of goods or passengers shall be permitted within the loading areas. The requirements of this section have been met.

19.609 BICYCLE PARKING

19.609.1 Applicability

Bicycle parking shall be provided for all new commercial, industrial, community service use, and multifamily residential development. Temporary and seasonal uses (e.g., fireworks and Christmas tree stands) and storage units are exempt from Section 19.609. Bicycle parking shall be provided in the Downtown Mixed Use Zone and at transit centers.

19.609.2 Quantity of Spaces

A. The quantity of required bicycle parking spaces shall be as described in this subsection. In no case shall less than 2 spaces be provided.

1. Unless otherwise specified, the number of bicycle parking spaces shall be at least 10% of the minimum required vehicle parking for the use.

2. The number of bicycle parking spaces at transit centers shall be provided at the ratio of at least 1 space per 100 daily boardings.

3. Multifamily residential development with 4 or more units shall provide 1 space per unit.

B. Covered or enclosed bicycle parking. A minimum of 50% of the bicycle spaces shall be covered and/or enclosed (in lockers or a secure room) in any of the following situations:

1. When 10% or more of vehicle parking is covered.

2. If more than 10 bicycle parking spaces are required.

3. Multifamily residential development with 4 or more units.

Applicant's Facts and Findings: In 2009, the District installed a total of 54 covered bicycle parking stalls on site. The minimum number of bicycles stalls required is 41 spaces, based upon a minimum required parking requirement of 410 spaces. The site already meets this standard.

19.610 CARPOOL AND VANPOOL PARKING

19.610.1 Applicability

New industrial, institutional, and commercial development with 20 or more required parking spaces shall provide carpool/vanpool parking.

Applicant's Facts and Findings: The District has proposed to construct more than 20 parking spaces therefore the provisions of this section apply.

19.610.2 Number of Spaces

The number of carpool/vanpool parking spaces shall be at least 10% of the minimum amount of required parking spaces. The minimum amount of required parking spaces shall take into account the reduction allowed by Subsection 19.605.3.B.4.

19.610.3 Location

Parking for carpools/vanpools shall be located closer to the main entrances of the building than other employee or student parking, except ADA spaces.

19.610.4 Standards

Carpool/vanpool spaces shall be clearly designated with signs or pavement markings for use only by carpools/vanpools.

Applicant's Facts and Findings: The district has requested a variance to allow for an exemption from the requirements of this section. While most students traveling to school use an informal carpool system, the district does not plan to specifically mark carpool/vanpool spaces within the parking lots. The Applicant has addressed the City's approval criteria for a variance in support of this request.

CHAPTER 19.700 PUBLIC FACILITY IMPROVEMENTS

19.701.2 For Public Facilities

- **A. Ensure that public facility improvements are safe, convenient, and adequate.**
- **B. Ensure that public facility improvements are designed and constructed to City standards in a timely manner.**
- **C. Ensure that the expenditure of public monies for public facility improvements is minimized when improvements are needed for private development.**
- **D. Ensure that public facility improvements meet the City of Milwaukie Comprehensive Plan goals and policies.**

19.702 APPLICABILITY

19.702.1 General

Chapter 19.700 applies to the following types of development in all zones:

- **A. Partitions.**
- **B. Subdivisions.**
- **C. Replats.**
- **D. New construction.**

E. Modification or expansion of an existing structure or a change or intensification in use that results in any one of the following. See Subsections 19.702.2-3 for specific applicability provisions for single-family residential development and development in downtown zones.

1. **A new dwelling unit.**
2. **Any increase in gross floor area.**
3. **Any projected increase in vehicle trips, as determined by the Engineering Director.**

Applicant's Facts and Findings: The City's Public Facilities approval criteria apply to this application as new construction is proposed.

19.703 REVIEW PROCESS

19.703.1 Preapplication Conference

For all proposed development that requires a land use application and is subject to Chapter 19.700 per Section 19.702, the applicant shall schedule a preapplication conference with the City prior to submittal of the land use application. The Engineering Director may waive this requirement for proposals that are not complex.

19.703.2 Application Submittal

For all proposed development that is subject to Chapter 19.700 per Section 19.702, one of the following types of applications is required.

A. Development Permit Application.
If the proposed development does not require a land use application, compliance with Chapter 19.700 will be reviewed as part of the development permit application submittal.

B. Transportation Facilities Review (TFR) Land Use Application
If the proposed development triggers a transportation impact study (TIS) per Section 19.704, a TFR land use application shall be required. Compliance with Chapter 19.700 will be reviewed as part of the TFR application submittal and will be subject to a Type II review process as set forth in Section 19.1005. The TFR application shall be consolidated with, and processed concurrently with, any other required land use applications.

C. If the proposed development does not trigger a TIS per Section 19.704, but does require the submittal of other land use applications, compliance with Chapter 19.700 will be reviewed during the review of the other land use applications.

Applicant's Facts and Findings: The Applicant has not been required to provide a transportation Impact Statement however other land use applications have been proposed. The City will therefore review the proposed improvements to the public facility improvements as part of this application package.

19.703.3 Approval Criteria

For all proposed development that is subject to Chapter 19.700 per Section 19.702, the required development permit and/or land use application shall demonstrate compliance with the following approval criteria at the time of submittal.

A. Procedures, Requirements, and Standards
Development and related public facility improvements shall comply with procedures, requirements, and standards of Chapter 19.700 and the Public Works Standards.

Applicant's Facts and Findings: All proposed improvements to the City's public facilities included within this application have been designed to meet the requirements of section 19.700 and the City's public works standards. All improvements will be installed in accordance with the City's procedures and requirements. The requirements of this section for preliminary design are met and the installation standards can be met through the imposition of a condition of approval.

B. Transportation Facility Improvements

Development shall provide transportation improvements and mitigation at the time of development in rough proportion to the potential impacts of the development per Section 19.705 Rough Proportionality, except as allowed by Chapter 13.32 Fee in Lieu of Construction.

Development in downtown zones that is exempt per Subsection 19.702.3.B shall only be required to provide transportation improvements that are identified by a Transportation Impact Study as necessary to mitigate the development's transportation impacts. Such development is not required to provide on-site frontage improvements.

Applicant's Facts and Findings: The proposed development has not triggered the need for a transportation impact statement because the proposed use of the campus will not change as a result of the proposed development. As such, no transportation improvements beyond the frontage improvements proposed along the site's frontages have been proposed.

C. Safety and Functionality Standards

The City will not issue any development permits unless the proposed development complies with the City's basic safety and functionality standards, the purpose of which is to ensure that development does not occur in areas where the surrounding public facilities are inadequate. Upon submittal of a development permit application, an applicant shall demonstrate that the development property has or will have all of the following:

1. **Adequate street drainage, as determined by the Engineering Director.**
2. **Safe access and clear vision at intersections, as determined by the Engineering Director.**
3. **Adequate public utilities, as determined by the Engineering Director.**
4. **Access onto a public street with the minimum paved widths as stated in Subsection 19.703.3.C.5 below.**
5. **Adequate frontage improvements as follows:**
   a. **For local streets, a minimum paved width of 16 ft along the site's frontage.**
   b. **For nonlocal streets, a minimum paved width of 20 ft along the site's frontage.**
   c. **For all streets, a minimum horizontal right-of-way clearance of 20 ft along the site's frontage.**
6. **Compliance with Level of Service D for all intersections impacted by the development, except those on Oregon Highway 99E that shall be subject to the following:**
   a. **Level of Service F for the first hour of the morning or evening 2-hour peak period.**

b. Level of Service E for the second hour of the morning or evening 2-hour peak period.

Applicant's Facts and Findings: The district's proposed improvements are consistent with the City's requirements for safety and functionality. The site has been designed with consideration for safe access and clear vision at intersections. As described in the responses to 19.703.4, below, all minimum requirements for the site's surrounding street network have been satisfied through the proposed improvement plans. All required utilities will be installed as required by the City's Engineering Director.

19.703.4 Determinations

There are four key determinations related to transportation facility improvements that occur during the processing of a development permit or land use application. These determinations are described below in the order in which they occur in the review process. They are also shown in Figure 19.703.4. In making these determinations, the Engineering Director will take the goals and policies of the TSP into consideration and use the criteria and guidelines in this chapter.

A. Impact Evaluation

For development that is subject to Chapter 19.700 per Subsection 19.702.1, the Engineering Director will determine whether the proposed development has impacts to the transportation system pursuant to Section 19.704. Pursuant to Subsection 19.704.1, the Engineering Director will also determine whether a transportation impact study (TIS) is required. If a TIS is required, a transportation facilities review land use application shall be submitted pursuant to Subsection 19.703.2.B.

For development that is subject to Chapter 19.700 per Subsection 19.702.2, the City has determined that there are impacts to the transportation system if the proposed single-family residential expansion/conversion is greater than 200 sq ft.

Applicant's Facts and Findings: The Applicant has prepared a memorandum addressing the proposed impacts to the City's Transportation systems within the site's immediate vicinity. The analysis concludes that because the site is not proposing any change of use, impacts associated with the improvements will be similar to the existing conditions within the area. The director indicated that because of the low potential for any unusual impacts associated with this development, no Traffic Impact Statement would be required in support of the proposed improvements.

B. Street Design

Given the City's existing development pattern, it is expected that most transportation facility improvements will involve existing streets and/or will serve infill development. To ensure that required improvements are safe and relate to existing street and development conditions, the Engineering Director will determine the most appropriate street design cross section using the standards and guidelines contained in Section 19.708. On-site frontage improvements are not required for downtown development that is exempt per Subsection 19.702.3.B.

Applicant's Facts and Findings: The site has frontage along SE Lake, SE Willard, SE 25th, SE 23rd, and SE Washington.

Improvements proposed by the District as part of this improvement package are as follows:

SE Lake

SE Lake is classified as an arterial street within the City's Transportation System Plan (TSP). Arterial street ROWs are intended to be between 54 and 89 feet wide with motor vehicle zones, a potential median or turn-lane, bicycle zones, parking zones, green zones and pedestrian zones. The property's frontage with Lake road currently contains 30 feet of pavement within a 60 foot right-of-way. The roadway contains an existing four (4) foot wide sidewalk and an 11 to 12 foot wide green zone between the sidewalk and the right-of-way line.

The Applicant is proposing to construct approximately 4.0 additional feet of asphalt within the street, matching the section which was improved to the property's northwest. This will result in an ultimate paved width of 32 feet. The Applicant is also proposing an eight (8) foot wide, curb tight, walkway along the northern side of the street with a 4.0 foot wide green zone located north of the sidewalk. The Applicant is not proposing to dedicate any right-of-way along SE Lake because the existing right-of-way appears to be more than sufficient to accommodate the proposed improvements. The Applicant is also proposing an ADA compliant curb and ramp with a marked at the corner of Lake and Willard.

SE Willard

SE Willard is classified as a local street within the City's TSP. Local Streets are intended to be between 20 to 68 feet wide with shared travel zones, potential parking zones, green zones and pedestrian zones. The roadway currently has a 50 foot wide right-of-way along the property's southern frontage with approximately 36 feet of pavement, a curb-tight four (4) foot wide sidewalk and no green zone. Where bus queues are anticipated, the Applicant is proposing a dedication of approximately eight and a half (13) feet along the property's frontage. Where busses are not anticipated to be queued, the Applicant is proposing a dedication of approximately two and a half (2.5) feet along the property's frontage. Within this right-of-way the applicant proposes to construct a variable configuration. Where busses are not anticipated to be queued, the Applicant propose a half street pavement width reduction from a 20 feet wide area to an 18 feet wide (ten feet of travel lane and an eight (8) foot wide bus parking area, a curb, a three and a half (3.5) foot wide green zone, a five (5) foot sidewalk and a half (0.5) foot wide green zone located north of the sidewalk. Where bus queues are anticipated, the applicant is proposing a half street pavement section of 18 feet for a travel zone, a nine (9)) foot wide bus pullout and stacking area, a ten (10) foot wide curb-tight sidewalk, and a half (0.5) foot wide green zone located north of the sidewalk. The Applicant is proposing to construct a new ADA compliant ramp at the westerly end of the bus stacking area, just before the entrance to the new southwestern parking area. The Applicant is also proposing to install a new ADA compliant curb-ramp at the eastern edge of the bus stacking area connecting the north half of the street to the west side of SE 25th Avenue.

As Willard Street turns to the south to intersect SE 23rd, the Applicant has illustrated the existing rights-of-way for these two streets on the plans. The current right-of-way appears to encroach into the southwestern parking area in a triangular shaped configuration. The Applicant understands that the City plans to initiate a right-of-way vacation in order to produce a right-of-way which more closely follows the public improvements proposed as part of this application.

SE 23rd Avenue

The Milwaukie High School property abuts the north west side of SE 23rd Avenue, which is classified as a local street within the City's TSP. Local Streets are intended to be between 20 to 68 feet wide with shared travel zones, potential parking zones, green zones and pedestrian zones. SE 23rd's existing right-of-way is currently 70 feet but it is not parallel to the centerline of the roadway. The existing ROW is oriented approximately north-south, which is parallel to the centerline of the previous configuration of SE 23rd. SE 23rd is currently oriented approximately northeast-southwest and intersects SE Lake Road at a 90° angle. The existing pavement width on SE 23rd is approximately forty-six and a half (46.5) feet, and the northwest side includes a curb, a four (4) foot sidewalk, and a variable width of green space due to the misaligned ROW. The applicant is proposing to reduce the asphalt width to thirty-four (34) feet, by moving the northwestern curb line approximately twelve and a half (12.5) feet southeast. The applicant is also proposing a curb, a three and a half (3.5) foot green zone, a five (5) foot sidewalk, and a half (0.5) foot wide green zone located northwest of the sidewalk. This will relocate the ROW parallel with the centerline of the existing roadway and provide a seamless transition from SE 23rd Avenue to SE Willard Street. This reconfiguration of the ROW will require a dedication to the City of Milwaukie and a vacation from the City of Milwaukie.

SE Adams

The existing right-of-way associated with SE Adams Road is fifty (50) feet wide and terminates along the northern segment of the Milwaukie High School's western property line. The Applicant is proposing to dedicate 25 feet of right-of-way to the east of the terminus of SE Adams Road to create a pedestrian connection between SE Adams and SE 23rd. This twenty-five (25) foot dedication will be an eastern extension of the southern half of the existing right-of-way. The Applicant is proposing to construct a new concrete stairway that will connect to the existing five (5) foot wide sidewalk within the newly dedicated section of Adams and provide the pedestrian connection from SE Adams Road to SE 23rd Avenue.

SE 25th Avenue

SE 25th is classified as a local street within the City's TSP. Local Streets are intended to be between 20 to 68 feet wide with shared travel zones, potential parking zones, green zones and pedestrian zones. SE 25th contains an existing right-of-way width of 50 feet. No improvements have been proposed within the SE 25th Avenue Right-of-way as part of this application.

SE Washington

SE Washington is functionally classified as a collector street within the City's TSP. Collector streets are intended to be between 40 to 74 feet wide with motor vehicle zones, a potential median or turn-lane, bicycle zones, parking zones, green zones and pedestrian zones. The Applicant is not proposing any improvements to SE Washington.

C. Proportional Improvements

When transportation facility improvements are required pursuant to this chapter, the Engineering Director will conduct a proportionality analysis pursuant to Section 19.705 to determine the level of improvements that are roughly proportional to the level of potential impacts from the proposed development. Guidelines for conducting a proportionality analysis are contained in Subsection 19.705.2.

Applicant's Facts and Findings: All required improvements to the streets surrounding the property are being completed as part of the proposed development. No proportionate share or additional improvements are required in order to mitigate any potential impacts from the project.

D. Fee in Lieu of Construction (FILOC)

If transportation facility improvements are required and determined to be proportional, the City will require construction of the improvements at the time of development. However, the applicant may request to pay a fee in lieu of constructing the required transportation facility improvements. The Engineering Director will approve or deny such requests using the criteria for making FILOC determinations found in Chapter 13.32 Fee in Lieu of Construction.

Applicant's Facts and Findings: The applicant has not proposed to provide any fees in lieu of site construction.

19.703.5 Remedies

A. Variances

Relief from any transportation facility improvement requirement in Section 19.708 may be granted through a variance process, which requires submittal and approval of a Variance land use application. Variance criteria and procedures are located in Section 19.911.

B. Appeals

Appeal of a land use decision is subject to the provisions of Chapter 19.1009. Appeal of a rough proportionality determination (Subsection 19.702.2 and Section 19.705) or street design standard determination (Subsection 19.708.2) not associated with a land use decision is subject to the provisions of Section 19.1006 Type III Review.

19.704 TRANSPORTATION IMPACT EVALUATION

The Engineering Director will determine whether a proposed development has impacts on the transportation system by using existing transportation data. If the Engineering Director cannot properly evaluate a proposed development's impacts without a more detailed study, a transportation impact study (TIS) will be required to evaluate the adequacy of the

transportation system to serve the proposed development and determine proportionate mitigation of impacts. The TIS determination process and requirements are detailed below.

19.704.1 TIS Determination

A. Based on information provided by the applicant about the proposed development, the Engineering Director will determine when a TIS is required and will consider the following when making that determination.

1. **Changes in land use designation, zoning designation, or development standard.**
2. **Changes in use or intensity of use.**
3. **Projected increase in trip generation.**
4. **Potential impacts to residential areas and local streets.**
5. **Potential impacts to priority pedestrian and bicycle routes, including, but not limited to, school routes and multimodal street improvements identified in the TSP.**
6. **Potential impacts to intersection level of service (LOS).**

Applicant's Facts and Findings: The Applicant has prepared and submitted a Transportation and Traffic Memorandum with this submission within Appendix D. Through a series of conversations with the City, it was determined that a TIS would not be required because the school is currently operational and the remodel is anticipated to improve transportation operations. Additionally, the school is not expected to increase the number of students in the near future.

19.705 ROUGH PROPORTIONALITY

The purpose of this section is to ensure that required transportation facility improvements are roughly proportional to the potential impacts of the proposed development. The rough proportionality requirements of this section apply to both frontage and off-site, or nonfrontage, improvements. A rough proportionality determination may be appealed pursuant to Subsection 19.703.5.

The Engineering Director will conduct a proportionality analysis for any proposed development that triggers transportation facility improvements per this chapter, with the exception of development subject to Subsection 19.702.2. The Engineering Director may conduct a proportionality analysis for development that triggers transportation facility improvements per Subsection 19.702.2.

When conducting a proportionality analysis for frontage improvements, the Engineering Director will not consider prior use for the portion of the proposed development that involves new construction. The Engineering Director will, however, consider any benefits that are estimated to accrue to the development property as a result of any required transportation facility improvements.

The following general provisions apply whenever a proportionality analysis is conducted.

19.705.1 Impact Mitigation

Mitigation of impacts, due to increased demand for transportation facilities associated with the proposed development, shall be provided in rough proportion to the transportation impacts of the proposed development. When a TIS is required, potential impacts will be determined in accordance with Section 19.704. When no TIS is required, potential impacts will be determined by the Engineering Director.

Applicant's Facts and Findings: The Applicant has analyzed the sites transportation impacts on the existing transportation network within the area within the attached Traffic Memorandum (Appendix D). As no significant impacts to the surrounding transportation system are anticipated within either the near or long term horizon, no mitigation has been proposed aside from the frontage improvements and changes to the parking lots adjacent to the site.

19.705.2 Rough Proportionality Guidelines

The following shall be considered when determining proportional improvements:

A. Condition and capacity of existing facilities within the impact area in relation to City standards. The impact area is generally defined as the area within a 1/2-mile radius of the proposed development. If a TIS is required pursuant to Section 19.704, the impact area is the TIS study area.

B. Existing vehicle, bicycle, pedestrian, and transit use within the impact area.

C. The effect of increased demand associated with the proposed development on transportation facilities and on other approved, but not yet constructed, development projects within the impact area.

D. The most recent use when a change in use is proposed that does not involve new construction.

E. Applicable TSP goals, policies, and plans.

F. Whether any route affected by increased transportation demand within the impact area is listed in any City program including, but not limited to, school trip safety, neighborhood traffic management, capital improvement, and system development improvement.

G. Accident history within the impact area.

H. Potential increased safety risks to transportation facility users, including pedestrians and cyclists.

I. Potential benefit the development property will receive as a result of the construction of any required transportation facility improvements.

J. Other considerations as may be identified in the review process.

Applicant's Facts and Findings: The Applicant has analyzed the sites transportation impacts on the existing transportation network within the area within the attached Traffic Memorandum (Appendix D). As no significant impacts to the surrounding transportation system are anticipated within either the near or long term horizon, no mitigation has been proposed aside from the frontage improvements and changes to the parking lots adjacent to the site.

19.708 TRANSPORTATION FACILITY REQUIREMENTS

This section contains the City's requirements and standards for improvements to public streets, including pedestrian, bicycle, and transit facilities. For ease of reading, the more

common term "street" is used more frequently than the more technical terms "public right-of-way" or "right-of-way." As used in this section, however, all three terms have the same meaning.

The City recognizes the importance of balancing the need for improved transportation facilities with the need to ensure that required improvements are fair and proportional. The City also acknowledges the value in providing street design standards that are both objective and flexible. Objective standards allow for consistency of design and provide some measure of certainty for developers and property owners. Flexibility, on the other hand, gives the City the ability to design streets that are safe and that respond to existing street and development conditions in a way that preserves neighborhood character.

The City's street design standards are based on the street classification system described in the TSP. Figure 8-1 of the TSP identifies the functional street classification for every street in the City and Figure 10-1 identifies the type and size of street elements that may be appropriate for any given street based on its classification.

19.708.1 General Street Requirements and Standards

A. Access Management

All development subject to Chapter 19.700 shall comply with access management standards contained in Chapter 12.16.

B. Clear Vision

All development subject to Chapter 19.700 shall comply with clear vision standards contained in Chapter 12.24.

C. Development in Downtown Zones

Street design standards and right-of-way dedication for the downtown zones are subject to the requirements of the Milwaukie Public Works Standards, which implement the streetscape design of the Milwaukie Downtown and Riverfront Plan: Public Area Requirements (PAR). Unless specifically stated otherwise, the standards in Section 19.708 do not apply to development located in the downtown zones or on street sections shown in the PAR per Subsection 19.304.6.

D. Development in Non-Downtown Zones

Development in a non-downtown zone that has frontage on a street section shown in the PAR is subject to the requirements of the Milwaukie Public Works Standards, which implements the street design standards and right-of-way dedication requirements contained in the PAR for that street frontage. The following general provisions apply only to street frontages that are not shown in the PAR and for development that is not in any of the downtown zones listed in Subsection 19.708.1.C above:

1. Streets shall be designed and improved in accordance with the standards of this chapter and the Public Works Standards. ODOT facilities shall be designed consistent with State and federal standards. County facilities shall be designed consistent with County standards.

2. Streets shall be designed according to their functional classification per Figure 8-3b of the TSP.

3. Street right-of-way shall be dedicated to the public for street purposes in accordance with Subsection 19.708.2. Right-of-way shall be dedicated at

the corners of street intersections to accommodate the required turning radii and transportation facilities in accordance with Section 19.708 and the Public Works Standards. Additional dedication may be required at intersections for improvements identified by the TSP or a required transportation impact study.

4. The City shall not approve any development permits for a proposed development unless it has frontage or approved access to a public street.

5. Off-site street improvements shall only be required to ensure adequate access to the proposed development and to mitigate for off-site impacts of the proposed development.

6. The following provisions apply to all new public streets and extensions to existing public streets.

- **a. All new streets shall be dedicated and improved in accordance with this chapter.**
- **b. Dedication and construction of a half-street is generally not acceptable. However, a half-street may be approved where it is essential to allow reasonable development of a property and when the review authority finds that it will be possible for the property adjoining the half-street to dedicate and improve the remainder of the street when it develops. The minimum paved roadway width for a half-street shall be the minimum width necessary to accommodate 2 travel lanes pursuant to Subsection 19.708.2.**

7. Traffic calming may be required for existing or new streets. Traffic calming devices shall be designed in accordance with the Public Works Standards or with the approval of the Engineering Director.

8. Railroad Crossings

Where anticipated development impacts trigger a need to install or improve a railroad crossing, the cost for such improvements may be a condition of development approval.

9. Street Signs

The City shall install all street signs, relative to traffic control and street names, as specified by the Engineering Director. The applicant shall reimburse the City for the cost of all such signs installed by the City.

10. Streetlights

The location of streetlights shall be noted on approved development plans. Streetlights shall be installed in accordance with the Public Works Standards or with the approval of the Engineering Director.

Applicant's Facts and Findings:

The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. The Applicant has also provided detailed preliminary development plans showing that all proposed improvements have been designed in accordance with the City's Transportation System Plan and public works standards.

Section 12.16.040 details the City's Access Management requirements. This section describes where access may be permitted to allow for sufficient stopping sight distance, the ability of turning traffic to leave through lane with minimal disruption to operations, minimization of turning conflicts, and the avoidance,

through design, of conflicting traffic movements from existing streets and driveways.

Access spacing for the site's two new driveways on the southern side of the campus has been reviewed and refined through discussions with our transportation consultants and the City Engineer. Because Willard and SE 23rd are local streets, commercial type access driveways have been planned at reasonably spaced access points along the property's frontage.

E. Street Layout and Connectivity

1. The length, width, and shape of blocks shall take lot size standards, access and circulation needs, traffic safety, and topographic limitations into consideration.

2. The street network shall be generally rectilinear but may vary due to topography or other natural conditions.

3. Streets shall be extended to the boundary lines of the developing property where necessary to give access to or allow for future development of adjoining properties.

a. Temporary turnarounds shall be constructed for street stubs in excess of 150 ft in length. Drainage facilities shall be constructed to properly manage stormwater runoff from temporary turnarounds.

b. Street stubs to adjoining properties shall not be considered turnarounds, unless required and designed as turnarounds, since they are intended to continue as through streets when adjoining properties develop.

c. Reserve strips may be required in order to ensure the eventual continuation or completion of a street.

4. Permanent turnarounds shall only be provided when no opportunity exists for creating a through street connection. The lack of present ownership or control over abutting property shall not be grounds for construction of a turnaround. For proposed land division sites that are 3 acres or larger, a street ending in a turnaround shall have a maximum length of 200 ft, as measured from the cross street right-of-way to the farthest point of right-of-way containing the turnaround. For proposed land division sites that are less than 3 acres, a street ending in a turnaround shall have a maximum length of 400 ft, measured from the cross street right-of-way to the farthest point of right-of-way containing the turnaround. Turnarounds shall be designed in accordance with the requirements of the Public Works Standards. The requirements of this subsection may be adjusted by the Engineering Director to avoid alignments that encourage nonlocal through traffic.

5. Closed-end street systems may serve no more than 20 dwellings.

Applicant's Facts and Findings: The Applicant is not proposing to create any new streets as part of this development. Only frontage improvements along the property's southern frontages has been proposed. The Applicant has received a request from the City to dedicate a small portion of Right-of-way along SE Adams to better accommodate pedestrian users within the area. The Applicant proposing to dedicate 25 feet of right-of-way to the east of the terminus of SE Adams Road to create a pedestrian connection between SE Adams and SE 23rd. The Applicant is

also proposing to construct a five (5) foot wide sidewalk within the newly dedicated section of Adams, connecting to SE 23rd Avenue.

F. Intersection Design and Spacing

1. Connecting street intersections shall be located to provide for traffic flow, safety, and turning movements, as conditions warrant.

2. Street and intersection alignments for local streets shall facilitate local circulation but avoid alignments that encourage nonlocal through traffic.

3. Streets should generally be aligned to intersect at right angles (90 degrees). Angles of less than 75 degrees will not be permitted unless the Engineering Director has approved a special intersection design.

4. New streets shall intersect at existing street intersections so that centerlines are not offset. Where existing streets adjacent to a proposed development do not align properly, conditions shall be imposed on the development to provide for proper alignment.

5. Minimum and maximum block perimeter standards are provided in Table 19.708.1.

6. Minimum and maximum intersection spacing standards are provided in Table 19.708.1.

Applicant's Facts and Findings: The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. No new intersections between existing roadways are proposed.

19.708.2 Street Design Standards

Table 19.708.2 contains the street design elements and dimensional standards for street cross sections by functional classification. Dimensions are shown as ranges to allow for flexibility in developing the most appropriate cross section for a given street or portion of street based on existing conditions and the surrounding development pattern. The additional street design standards in Subsection 19.708.2.A augment the dimensional standards contained in Table 19.708.2. The Engineering Director will rely on Table 19.708.2 and Subsection 19.708.2.A to determine the full-width cross section for a specific street segment based on functional classification. The full-width cross section is the sum total of the widest dimension of all individual street elements. If the Engineering Director determines that a full-width cross section is appropriate and feasible, a full-width cross section will be required. If the Engineering Director determines that a full-width cross section is not appropriate or feasible, the Engineering Director will modify the full-width cross section requirement using the guidelines provided in Subsection 19.708.2.B. Standards for design speed, horizontal/vertical curves, grades, and curb return radii are specified in the Public Works Standards.

A. Additional Street Design Standards

These standards augment the dimensional standards contained in Table 19.708.2 and may increase the width of an individual street element and/or the full-width right-of-way dimension.

1. Minimum 10-ft travel lane width shall be provided on local streets with no on-street parking.

2. Where travel lanes are next to a curb line, an additional 1 ft of travel lane width shall be provided. Where a travel lane is located between curbs, an additional 2 ft of travel lane width shall be provided.

3. Where shared lanes or bicycle boulevards are planned, up to an additional 6 ft of travel lane width shall be provided.

4. Bike lane widths may be reduced to a minimum of 4 ft where unusual circumstances exist, as determined by the Engineering Director, and where such a reduction would not result in a safety hazard.

5. Where a curb is required by the Engineering Director, it shall be designed in accordance with the Public Works Standards.

6. Center turn lanes are not required for truck and bus routes on street classifications other than arterial roads.

7. On-street parking in industrial zones shall have a minimum width of 8 ft.

8. On-street parking in commercial zones shall have a minimum width of 7 ft.

9. On-street parking in residential zones shall have a minimum width of 6 ft.

10. Sidewalk widths may be reduced to a minimum of 4 ft for short distances for the purpose of avoiding obstacles within the public right-of-way including, but not limited to, trees and power poles.

11. Landscape strip widths shall be measured from back of curb to front of sidewalk.

12. Where landscape strips are required, street trees shall be provided a minimum of every 40 ft in accordance with the Public Works Standards and the Milwaukie Street Tree List and Street Tree Planting Guidelines.

13. Where water quality treatment is provided within the public right-of-way, the landscape strip width may be increased to accommodate the required treatment area.

14. A minimum of 6 in shall be required between a property line and the street element that abuts it; e.g., sidewalk or landscape strip.

B. Street Design Determination Guidelines

The Engineering Director shall make the final determination regarding right-of-way and street element widths using the ranges provided in Table 19.708.2 and the additional street design standards in Subsection 19.708.2.A. The Engineering Director shall also determine whether any individual street element may be eliminated on one or both sides of the street in accordance with Figure 10-1 of the TSP. When making a street design determination that varies from the full-width cross section, the Engineering Director shall consider the following:

1. Options and/or needs for environmentally beneficial and/or green street designs.

2. Multimodal street improvements identified in the TSP.

3. Street design alternative preferences identified in Chapter 10 of the TSP, specifically regarding sidewalk and landscape strip improvements.

4. Existing development pattern and proximity of existing structures to the right-of-way.

5. Existing right-of-way dimensions and topography.

Applicant's Facts and Findings: The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. The Applicant has also provided detailed preliminary development plans showing that all proposed improvements have been designed in accordance with the City's Transportation System Plan and public works standards.

19.708.3 Sidewalk Requirements and Standards

A. General Provisions

1. Goals, objectives, and policies relating to walking are included in Chapter 5 of the TSP and provide the context for needed pedestrian improvements. Figure 5-1 of the TSP illustrates the Pedestrian Master Plan and Table 5-3 contains the Pedestrian Action Plan.

2. Americans with Disabilities Act (ADA) requirements for public sidewalks shall apply where there is a conflict with City standards.

Applicant's Facts and Findings: The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. The Applicant has also provided detailed preliminary development plans showing that all proposed improvements have been designed in accordance with the City's Transportation System Plan and public works standards.

B. Sidewalk Requirements

1. Requirements

Sidewalks shall be provided on the public street frontage of all development per the requirements of this chapter. Sidewalks shall generally be constructed within the dedicated public right-of-way, but may be located outside of the right-of-way within a public easement with the approval of the Engineering Director.

2. Design Standards

Sidewalks shall be designed and improved in accordance with the requirements of this chapter and the Public Works Standards.

3. Maintenance

Abutting property owners shall be responsible for maintaining sidewalks and landscape strips in accordance with Chapter 12.04.

Applicant's Facts and Findings: The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. The Applicant has also provided detailed preliminary development plans showing that all proposed improvements have been designed in accordance with the City's Transportation System Plan and public works standards.

19.708.4 Bicycle Facility Requirements and Standards

A. General Provisions

1. Bicycle facilities include bicycle parking and on-street and off-street bike lanes, shared lanes, bike boulevards, and bike paths.

2. Goals, objectives, and policies relating to bicycling are included in Chapter 6 of the TSP and provide the context for needed bicycle improvements. Figure 6-2 of the TSP illustrates the Bicycle Master Plan, and Table 6-3 contains the Bicycle Action Plan.

B. Bicycle Facility Requirements

1. Requirements

Bicycle facilities shall be provided in accordance with this chapter, Chapter 19.600, the TSP, and the Milwaukie Downtown and Riverfront Plan: Public Area Requirements. Requirements include, but are not limited to, parking, signage, pavement markings, intersection treatments, traffic calming, and traffic diversion.

2. Timing of Construction

To assure continuity and safety, required bicycle facilities shall generally be constructed at the time of development. If not practical to sign, stripe, or construct bicycle facilities at the time of development due to the absence of adjacent facilities, the development shall provide the paved street width necessary to accommodate the required bicycle facilities.

3. Design Standards

Bicycle facilities shall be designed and improved in accordance with the requirements of this chapter and the Public Works Standards. Bicycle parking shall be designed and improved in accordance with Chapter 19.600 and the Milwaukie Downtown and Riverfront Plan: Public Area Requirements.

Applicant's Facts and Findings: The Applicant has provided a detailed description of the roadway improvements proposed as part of this project within the findings created in response to section 19.703.4. The Applicant has also provided detailed preliminary development plans showing that all proposed improvements have been designed in accordance with the City's Transportation System Plan and public works standards.

19.708.5 Pedestrian/Bicycle Path Requirements and Standards

Applicant's Facts and Findings: No new bicycle pathways have been required or proposed within the proposed development. The requirements of this section do not apply.

19.708.6 Transit Requirements and Standards

A. General Provisions

1. Transit facilities include bus stops, shelters, and related facilities. Required transit facility improvements may include the dedication of land or the provision of a public easement.

2. Goals, objectives, and policies relating to transit are included in Chapter 7 of the TSP. Figure 7-3 of the TSP illustrates the Transit Master Plan, and Table 7-2 contains the Transit Action Plan.

Applicant's Facts and Findings: No new public transit facilities have been required by the City as part of this project. The District has submitted plans for a new bus queueing and drop-off area which fronts the southern edge of the site. The requirements of this section do not apply as no new public transit facilities are proposed.

19.709 PUBLIC UTILITY REQUIREMENTS

19.709.1 Review Process

The Engineering Director shall review all proposed development subject to Chapter 19.700 per Section 19.702 in order to: (1) evaluate the adequacy of existing public utilities to serve the proposed development, and (2) determine whether new public utilities or an expansion of existing public utilities is warranted to ensure compliance with the City's public utility requirements and standards.

A. Permit Review

The Engineering Director shall make every effort to review all development permit applications for compliance with the City's public utility requirements and standards within 10 working days of application submittal. Upon completion of this review, the Engineering Director shall either approve the application, request additional information, or impose conditions on the application to ensure compliance with this chapter.

B. Review Standards

Review standards for public utilities shall be those standards currently in effect, or as modified, and identified in such public documents as Milwaukie's Comprehensive Plan, Wastewater Master Plan, Water Master Plan, Stormwater Master Plan, Transportation System Plan, and Public Works Standards.

Applicant's Facts and Findings: The Applicant has submitted a series of plans showing proposed improvements to the site's public utility system. All proposed improvements have been designed to comply with the City's standards. The Applicant has submitted the attached plans for the City's review, comment, and approval.

19.709.2 Public Utility Improvements

Public utility improvements shall be required for proposed development that would have a detrimental effect on existing public utilities, cause capacity problems for existing public utilities, or fail to meet standards in the Public Works Standards. Development shall be required to complete or otherwise provide for the completion of the required improvements.

A. The Engineering Director shall determine which, if any, utility improvements are required. The Engineering Director's determination requiring utility improvements shall be based upon an analysis that shows the proposed development will result in one or more of the following situations:

1. Exceeds the design capacity of the utility.

2. Exceeds Public Works Standards or other generally accepted standards.

3. Creates a potential safety hazard.

4. Creates an ongoing maintenance problem.

B. The Engineering Director may approve one of the following to ensure completion of required utility improvements.

1. Formation of a reimbursement district in accordance with Chapter 13.30 for off-site public facility improvements fronting other properties.

2. Formation of a local improvement district in accordance with Chapter 3.08 for off-site public facility improvements fronting other properties.

Applicant's Facts and Findings: Improvements to the site's public utilities will include the following modifications and additions:

Stormwater

The Applicant proposed to create new stormwater flow-through planters within the green zones for SE Willard, SE 25th, and SE Lake.

Sewer
The applicant is proposing a new grease trap within the new building. New sanitary sewer line will be directed from grease trap and from the riser room in the north east corner of the northern wing to an existing sanitary manhole connect to an eight (8) inch main located within the center of SE Willard.

Water
Water service is proposed from SE Willard with three new taps from the existing eight (8) inch main. One proposed tap will serve a new fire hydrant located along SE Willard. The two other taps will provide access for fire sprinkler system and for potable water.

Private utilities on site will include new parking lot stormwater planter areas in the southeastern parking lot. Stormwater management within the southwestern parking lot will consist of stormwater filter manholes.

19.709.3 Design Standards

Public utility improvements shall be designed and improved in accordance with the requirements of this chapter, the Public Works Standards, and improvement standards and specifications identified by the City during the development review process. The applicant shall provide engineered utility plans to the Engineering Director for review and approval prior to construction to demonstrate compliance with all City standards and requirements.

Applicant's Facts and Findings: All proposed public utility improvements have been designed in accordance with the requirements of this chapter. The attached plans have been submitted to the City's Engineering Director for review. No construction on site will be scheduled without the required approval and permits.

19.709.4 Oversizing

The Engineering Director may require utility oversizing in anticipation of additional system demand. If oversizing is required, the Engineering Director may authorize a reimbursement district or a system development charge (SDC) credit in accordance with Chapter 13.28.

Applicant's Facts and Findings: The Applicant has proposed improvements to the site's utility network to satisfy the demands associated with the new buildings and facilities on site. The City's Engineering Director has not indicated that any specific oversizing of the system will be required within the site's vicinity.

19.709.5 Monitoring

The Engineering Director shall monitor the progress of all public utility improvements by the applicant to ensure project completion and compliance with all City permitting requirements and standards. Utility improvements are subject to the requirements of Chapter 12.08. Follow-up action, such as facility inspection, bond release, and enforcement, shall be considered a part of the monitoring process.

Applicant's Facts and Findings: The Applicant will work with the City's Engineering Director throughout the construction process to ensure that all proposed improvements are completed to the satisfaction of the Director.

CHAPTER 19.800 NONCONFORMING USES AND DEVELOPMENT
19.804 ALTERATION OF NONCONFORMING USES AND DEVELOPMENT
19.804.1 Nonconforming Uses

A. Provisions

The following provisions apply to the alteration of nonconforming uses:

1. A nonconforming use shall not be moved, in whole or in part, to any portion of the site other than that occupied by the nonconforming use, except as allowed per Subsection 19.804.1.B.1.

2. No additional development or physical alterations associated with the nonconforming use shall occur, except as allowed per Subsection 19.804.1.B.1. Additional development or physical alterations not associated with the nonconforming use and that conform to Title 19 are allowed.

3. No intensification of the nonconforming use shall occur, except as allowed per Subsection 19.804.1.B.1. Alterations that decrease the intensity of the nonconforming use are allowed.

Applicant's Facts and Findings: The Milwaukie High School Campus has several non-conforming uses on site due to the age of the Campus and due to several design changes which have taken place on site for the better part of the last century. The most significant non-conforming uses are related to the site's parking. The site does not provide sufficient parking to meet the City's minimum parking requirements for a High School. The site also fails to provide marked van/car pool parking spaces. Because the district is proposing to construct a new parking lot which will add additional stalls on campus, the Applicant has addressed the requirements of 19.800 to document that the improvements, while still resulting in a non-conforming situation, will result in a decrease of the intensity of the non-conforming use.

B. Land Use Review Required

1. A nonconforming use shall not be moved, altered, or intensified unless such move, alteration, or intensification is approved by the Planning Commission through a Type III review per Section 19.1006. The applicant shall demonstrate that the proposed move, alteration, or intensification would result in no more of a detriment to surrounding properties than the existing nonconforming use.

Applicant's Facts and Findings: The changes proposed at Milwaukie High School Campus necessitate a Type III review before the City's Planning Commission as a Modification to the site's Community Service Use Permit. The Applicant has documented within this narrative how the proposed improvements to the school result in the reduction of the site's nonconformance with the applicable standards. The Applicant has further documented that the additional improvements to the campus will reduce the impacts on surrounding properties.

19.804.2 Nonconforming Development

The following provisions apply to the alteration of nonconforming development:

A. Alterations or expansions that increase or extend the nonconformity are not allowed unless a variance is approved pursuant to Section 19.911.

B. Alterations or expansions that conform to Title 19 are allowed. For example, development that does not conform to height, yard requirements, or lot coverage may be altered provided that the alteration does not exceed the height, yard requirements, or lot coverage requirements of Title 19.

Applicant's Facts and Findings:

The changes proposed at Milwaukie High School Campus necessitate a Type III review before the City's Planning Commission as a Modification to the site's Community Service Use Permit. The Applicant has documented within this narrative how the proposed improvements to the school result in the reduction of the site's nonconformance with the applicable standards. The Applicant has further documented that the additional improvements to the campus will reduce the impacts on surrounding properties.

The Applicant's primary nonconforming issue is related to parking. The site currently falls short of the City's minimum required parking standards. The District is proposing to construct a new parking lot to the east of the existing building. The District is also proposing to reconstruct the parking lot located west of the building to allow for better site circulation for pick-up and drop off. The proposed modifications and additions to the site's parking lots will result in a net increase of 74 parking stalls.

While the District is proposing to increase the parking on site, the newly proposed main high school building will also be enlarged and expanded to allow for additional room for students and for an increase in the number of staff which will be able to use the site. The current main building provides capacity for 1,500 students and 110 staff. The newly proposed building will provide sufficient capacity for 1,500 students and approximately 140 staff members.

Parking for high schools is required within MMC Chapter 19.600 at a minimum rate of 1 space for every staff member and 0.25 spaces for every student. This results in a minimum parking requirement of 515 parking stalls. The minimum parking standard can be reduced by up to 25% through the by-right parking minimum reductions listed in section 19.605.3. The District qualifies for the full 25% reduction due to the site's proximity to light rail. The reduced parking minimum for the site is therefore 387 stalls.

The District currently provides 259 parking spaces on site and through a series of shared parking agreements with neighboring properties. The reconfiguration of the site's existing parking and the addition of the new parking facilities will result in a net increase of 74 parking stalls on the site. The new demand created through the increase in capacity for additional facility is 30 parking stalls as up to 30 more staff members will be able to use the school. Because the parking created through the new parking lot improvements will exceed the new demands created by the construction of the new building, the District's proposal is moving the site closer into conformance with the applicable standards.

The proposed improvements to the school's building and parking will improve conditions within the area by reducing the demands for off-site parking within the surrounding neighborhoods during the school day. Circulation, safety, and accessibility for vehicles and pedestrians will also be dramatically improved following the construction of the proposed improvements. No increase in any detrimental or negative conditions within the existing vicinity is anticipated as part of the proposed improvements.

19.805 REBUILDING OF NONCONFORMING USES AND DEVELOPMENT

19.805.1 Provisions

The following provisions establish when a nonconforming use or development may be reestablished or rebuilt following its intentional or accidental destruction:

A. When a nonconforming use or development is intentionally destroyed to an extent less than or equal to 50% of its replacement value, restoration is allowed. The restoration shall not result in an increase in the nonconformance of the use or development.

B. When a nonconforming use or development is intentionally destroyed to an extent exceeding 50% of its replacement value, restoration of the use or development shall conform to all applicable land use and development regulations.

C. If a nonconforming use or development is partially or totally destroyed by fire or other causes or natural hazards beyond the control of the owner, the use or development may be restored or replaced. The restoration or replacement shall not be more out of conformance with the land use or development regulations than the original use or development.

Applicant's Facts and Findings: The replacement value of the main high school building would exceed 50% of the value of the school. The entire site is not affected by the proposed improvements. The redeveloped portions of the site will be designed to conform to all applicable land use and development regulations except where detailed within this narrative. The proposed redevelopment of the building and parking areas on the MHS campus will not result in any intensification or increases in nonconformance which would move the campus farther from conformance with the applicable standards listed herein. In fact, many non-conforming aspects of the campus will move closer to conformance.

CHAPTER 19.900 LAND USE APPLICATIONS

19.904 COMMUNITY SERVICE USES

19.904.1 Purpose

This section allows development of certain uses which, because of their public convenience, necessity, and unusual character, may be appropriately located in most zoning districts, but which may be permitted only if appropriate for the specific location for which they are

proposed. This section provides standards and procedures for review of applications for such community uses. Community service uses may be sited in any zone, except where expressly prohibited, if they meet the standards of this section. Approval of a CSU does not change the zoning of the property.

19.904.2 Applicability

Any community service use shall be subject to the provisions of this section. Application must be submitted to establish or modify a community service use. Community service uses include certain private and public utilities, institutions, and recreational facilities as listed below:

A. Institutions—Public/Private and Other Public Facilities

1. Schools, public or private, and their accompanying sports facilities, day-care centers, private kindergartens;

Applicant's Facts and Findings: Schools are an institutional use within the City of Milwaukie's Zoning Code. The provisions of this section apply to the project because the Applicant has proposed an amendment to the School's existing Community Service Use Permit.

19.904.3 Review Process

Except as provided in Subsections 19.904.5.C for minor modifications and 19.904.11 for wireless communication facilities, community service uses shall be evaluated through a Type III review per Section 19.1006.

Applicant's Facts and Findings: The Applicant acknowledges the required Type III review process.

19.904.4 Approval Criteria

An application for a community service use may be allowed if the following criteria are met:

A. The building setback, height limitation, and off-street parking and similar requirements governing the size and location of development in the underlying zone are met. Where a specific standard is not proposed in the CSU, the standards of the underlying zone are met;

Applicant's Facts and Findings: The Applicant had analyzed the allowable building setbacks, height limitations, off-street parking requirements and other applicable development standards. The Applicant's responses to sections 19.300 (Base Zones), 19.400 (Overlay Zones and Special Areas), 19.500 (Supplementary Development Regulations), 19.600 (Off-street Parking), and 19.700 (Public Facilities) of the City's code confirm that the District's proposal is in compliance with all applicable underlying development standards and limitations.

B. Specific standards for the proposed uses as found in Subsections 19.904.7-11 are met;

Applicant's Facts and Findings: The standards of 19.904.7 apply to Schools. The Applicant has addressed these standards within this narrative.

C. The hours and levels of operation of the proposed use are reasonably compatible with surrounding uses;

Applicant's Facts and Findings: The use of the site as a High School is not proposed to change. The hours and levels of operation are anticipated to be very similar to those in place today, which are reasonable compatible with the surrounding uses.

D. The public benefits of the proposed use are greater than the negative impacts, if any, on the neighborhood; and

Applicant's Facts and Findings: The Main Milwaukie High School building has served the residents of the City of Milwaukie and the North Clackamas School District for several generations. The removal of the existing main classroom building and the replacement of the building with a larger, modern High School facility will better serve the general public through the provision of a modernized education facility and through the implementation of a public improvement bond. The negative impacts upon the neighborhood involve the impacts associated with construction and the demolition of one of Milwaukie's Historic structures. The public benefits associated with the replacement of the High School far outweigh the potential negative impacts and the historic components associated with the School and the Comprehensive plan have been addressed in a separate application.

E. The location is appropriate for the type of use proposed.

Applicant's Facts and Findings: The District's proposed replacement of Milwaukie High School's main building is appropriate as the Milwaukie High School campus has been serving students within the City of Milwaukie within this current location since the 1920s. The School is located adjacent to a wide range of transportation modes and has served as a well-known institution within the Community.

19.904.5 Procedures for Reviewing a Community Service Use

A. The Planning Commission will hold a public hearing on the establishment of, or major modification of, the proposed community service use. If the Commission finds that the approval criteria in Subsection 19.904.4 are met, the Commission shall approve the designation of the site for community service use. If the Commission finds otherwise, the application shall be denied. An approval allows the use on the specific property for which the application was submitted, subject to any conditions the Planning Commission may attach.

B. In permitting a community service use or the modification of an existing one, the City may impose suitable conditions which assure compatibility of the use with other uses in the vicinity. These conditions may include but are not limited to:

1. Limiting the manner in which the use is conducted by restricting the time an activity may take place and by minimizing such environmental effects as noise and glare;

2. Establishing a special yard, setback, lot area, or other lot dimension;

3. Limiting the height, size, or location of a building or other structure;

4. Designating the size, number, location, and design of vehicle access points;

5. Increasing roadway widths, requiring street dedication, and/or requiring improvements within the street right-of-way including full street improvements;

6. Designating the size, location, screening, drainage, surfacing, or other improvement of a parking area or truck loading area; and/or

7. Limiting or otherwise designating the number, size, location, height, and lighting of signs.

Applicant's Facts and Findings:

The Applicant acknowledges the process for review of Type III Applications. The Applicant acknowledges that the City may place conditions of approval upon the application in order to assure compatibility with the uses which are present within the neighborhood. Though it is possible for the City to assign conditions of approval related to suitability, the site is already in use as an existing High School Campus. The District's proposal to construct a new building over the location of the existing high school warrants very few conditions to ensure suitability as the school has been in operation for longer than many of the homes within the surrounding neighborhood have been there.

The City's Planning Commission and City Council can find that no special conditions of approval require implementation prior to permitting the development of the proposed building and site improvements.

19.904.6 Application Requirements

An application for approval of a community service use shall include the following:

A. Name, address and telephone number of applicant and/or property owner;

B. Map number and/or subdivision block and lot;

C. Narrative concerning the proposed request;

D. Copy of deed, or other document showing ownership or interest in property. If applicant is not the owner, the written authorization from the owner for the application shall be submitted;

E. Vicinity map;

F. Comprehensive plan and zoning designations;

G. A map showing existing uses, structures, easements, and public utilities and showing proposed development, placement of lot lines, etc.;

H. Detailed plans for the specific project;

I. Any information required by other applicable provisions of local, state or federal law;

J. Proof of payment of the applicable fees;

K. Additional drawings, surveys or other material necessary to understand the proposed use may be required.

Applicant's Facts and Findings: The Applicant has provided each of the required submission materials to allow the City to consider the proposed improvements and the application.

19.904.7 Specific Standards for Schools

Public, private or parochial, elementary, secondary, preschool, nursery schools, kindergartens, and day-care centers are included.

A. Public elementary or secondary schools shall provide the site area/pupil ratio required by state law. Other schools shall provide 1 acre of site area for each 75 pupils of capacity or for each 2½ classrooms, whichever is greater, except as provided in Subsection 19.904.7.B below.

B. Preschools, nursery schools, day-care centers, or kindergartens shall provide a fenced, outdoor play area of at least 75 sq ft for each child of total capacity, or a greater amount if so required by state law. In facilities where groups of children are scheduled at different times for outdoor play, the total play area may be reduced proportionally based on the number of children playing out-of-doors at one time. However, the total play area may not be reduced by more than half. These uses must comply with the State Children's Services Division requirements as well as the City provisions.

C. Walkways, both on and off the site, shall be provided as necessary for safe pedestrian access to schools subject to the requirements and standards of Chapter 19.700.

D. Sight-obscuring fence of 4 to 6 ft in height shall be provided to separate the play area from adjacent residential uses.

E. Public facilities must be adequate to serve the facility.

F. Safe loading and ingress and egress will be provided on and to the site.

G. Off-street parking (including buses) shall be provided as per Chapter 19.600.

H. Minimum setback requirements:

Front yard: 20 ft

Rear yard: 20 ft

Side yard: 20 ft

Setbacks may be increased depending on the type and size of school in order to ensure adequate buffering between uses and safety for students.

I. Bicycle facilities are required which adequately serve the facility.

J. 15% of the total site is to be landscaped.

Applicant's Facts and Findings: The requirements of this section apply to the reconstruction of Milwaukie High School. The requirements of this section have been met through the satisfaction of several other of the City's code standards. The 14.7 acre site currently provides

services to approximately 1,200 students. The school is currently non-compliant with the 75 pupil to acre requirement however no changes to the overall site size are proposed or practically possible. The site is bordered by developed properties and the District has very little, if any, opportunity to expand. Because of the urban nature of the school, the fact that enrollment varies, and because of the fact that no additional adjacent lands are available for expansion to meet the pupil to acre requirement, the District can not be held to a standard to which it cannot conform.

The site has walkways which provide access and circulation on site and the property is surrounded by a public sidewalk network which is complete and accessible along the site's frontage.

The property has adequate utilities, roadways, and public facilities both in the existing condition and as proposed through the improvements described as part of this development proposal.

The proposed site plan shows a new loading area for the new main school building which is located to the east of the new building. The proposed parking and loading areas will be consistent with the City's code and placed in order to minimize conflicts with pedestrians and other vehicular traffic. The proposed parking, drop-off, and loading areas address several existing safety concerns and should create a much safer environment for students, parents, and staff.

Off-street parking requirements for vehicles, busses, and bicycles has been addressed within the Applicant's responses to Chapter 19.600. Minimum setback requirements have all been met through the proposed placement of the new buildings on site.

Approximately 77% of the site is currently in landscape area and open space. The requirements of this section have been met.

19.911 VARIANCES

19.911.1 Purpose

Variances provide relief from specific code provisions that have the unintended effect of preventing reasonable development or imposing undue hardship. Variances are intended to provide some flexibility while ensuring that the intent of each development standard is met. Variances may be granted for the purpose of fostering reinvestment in existing buildings, allowing for creative infill development solutions, avoiding environmental impacts, and/or precluding an economic taking of property. Variances shall not be granted that would be detrimental to public health, safety, or welfare.

19.911.2 Applicability

A. Eligible Variances

Except for situations described in Subsection 19.911.2.B, a variance may be requested to any standard or regulation in Titles 17 or 19 of the Milwaukie Municipal Code, or any other portion of the Milwaukie Municipal Code that constitutes a land use regulation per ORS 197.015.

B. Ineligible Variances

A variance may not be requested for the following purposes:

1. To eliminate restrictions on uses or development that contain the word "prohibited."

2. To change a required review type.

3. To change or omit the steps of a procedure.

4. To change a definition.

5. To increase, or have the same effect as increasing, the maximum permitted density for a residential zone.

6. To justify or allow a Building Code violation.

7. To allow a use that is not allowed outright by the base zone. Requests of this nature may be allowed through the use exception provisions in Subsection 19.911.5, nonconforming use replacement provisions in Subsection 19.804.1.B.2, conditional use provisions in Section 19.905, or community service use provisions in Section 19.904.

C. Exceptions

A variance application is not required where other sections of the municipal code specifically provide for exceptions, adjustments, or modifications to standards either "by right" or as part of a specific land use application review process.

19.911.3 Review Process

A. General Provisions

1. Variance applications shall be evaluated through either a Type II or III review, depending on the nature and scope of the variance request and the discretion involved in the decision-making process.

2. Variance applications may be combined with, and reviewed concurrently with, other land use applications.

3. One variance application may include up to three variance requests. Each variance request must be addressed separately in the application. If all of the variance requests are Type II, the application will be processed through a Type II review. If one or more of the variance requests is Type III, the application will be processed through a Type III review. Additional variance requests must be made on a separate variance application.

Applicant's Facts and Findings: The Applicant has requested a variance to allow for an exemption to the carpool/vanpool parking standards located in section 19.610. This application has been submitted concurrently with an application for a Community Service Use Permit and will therefore be reviewed concurrently with the over-arching application.

C. Type III Variances

Type III variances allow for larger or more complex variations to standards that require additional discretion and warrant a public hearing consistent with the Type III review process. Any variance request that is not specifically listed as a Type II variance per Subsection 19.911.3.B shall be evaluated through a Type III review per Section 19.1006.

Applicant's Facts and Findings: The Applicant has requested a variance to allow for an exemption to the carpool/vanpool parking standards located in section 19.610. This application has been submitted concurrently with an application for a Community Service Use Permit and will therefore be reviewed concurrently with the over-arching application.

19.911.4 Approval Criteria

B. Type III Variances

An application for a Type III variance shall be approved when all of the criteria in either Subsection 19.911.4.B.1 or 2 have been met. An applicant may choose which set of criteria to meet based upon the nature of the variance request, the nature of the development proposal, and the existing site conditions.

1. Discretionary Relief Criteria

a. The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.

Applicant's Facts and Findings: The Applicant has requested a variance to allow for an exemption to the carpool/vanpool parking standards located in section 19.610. The Applicant has addressed and satisfied the discretionary relief criteria and is eligible for both variances.

The Applicant has requested that no carpool/vanpool parking be located within the parking lots at Milwaukie High School. While many students already utilize informal carpool arrangements to get to school, the District does not wish to identify specific parking stalls within the parking lots to identify carpool/vanpool locations. The impacts of this request will be insignificant. The District's overall parking proposal will add an additional parking lot to the south east of the school and will result in a net increase of 75 parking stalls. With superior bus services, transit accessibility, and an increase in the amount of parking available on site, it is likely that this variance will not have any impact on the community or the users of the new school facilities.

b. The proposed variance is determined by the Planning Commission to be both reasonable and appropriate, and it meets one or more of the following criteria:

(1) The proposed variance avoids or minimizes impacts to surrounding properties.

(2) The proposed variance has desirable public benefits.

(3) The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.

Applicant's Facts and Findings: The proposed variance for vanpool/carpool parking is a practical matter for the District in that the provision of stalls with parking restriction would require enforcement and maintenance. The district's requested exception to this requirement would likely have no impacts as most students utilize informal carpooling systems with or without painted or signed parking stalls.

c. Impacts from the proposed variance will be mitigated to the extent practicable.

Applicant's Facts and Findings: As described above, the proposed variances will have no impacts which will require mitigation.

SUMMARY AND CONCLUSION

Based upon the materials submitted herein, the Applicant respectfully requests approval from the City Council of this application for a Community Service Use Modification and Variance. We trust that the materials submitted herewith document that the applicant has satisfied the burden of proof in illustrating that the City's standards and codes either have been met or can be met through conditions of approval.

PLANNING DEPARTMENT
6101 SE Johnson Creek Blvd
Milwaukie OR 97206

PHONE: *503-786-7630*
FAX: *503-774-8236*
E-MAIL: *planning@milwaukieoregon.gov*

Application for Land Use Action

Master File #: _____

Review type*: ❑ I ❑ II ❑ III ❑ IV ❑ V

CHOOSE APPLICATION TYPE(S):

Community Service Use

Modification for Parking Standards

Variances

...

...

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

RESPONSIBLE PARTIES:

APPLICANT (owner or other eligible applicant—see reverse): North Clackamas School District

Mailing address: 12451 SE Fuller Road Milwaukie, OR Zip: 97222

Phone(s): 503-353-6000 E-mail: hobbsd@nclack.k12.or.us

APPLICANT'S REPRESENTATIVE (if different than above): Heery International, Steve Nicholas

Mailing address: 12400 SE Freeman Way Milwaukie, OR Zip: 97222

Phone(s): 503-431-6180 E-mail: snichola@heery.com

SITE INFORMATION:

Address: 11200 SE 23rd Avenue Map & Tax Lot(s): 11e36bc 5600 & 5800

Comprehensive Plan Designation: P Zoning: R-2 Size of property: 14.60 Acres

PROPOSAL (describe briefly):

Applicant proposes a major modification to the Milwaukie High School's Community Service Use Permit. .

SIGNATURE:

ATTEST: I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code (MMC) Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by: Date: 1/5/2018

IMPORTANT INFORMATION ON REVERSE SIDE

RESET

*For multiple applications, this is based on the highest required review type. See MMC Subsection 19.1001.6.B.1.

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukie Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	FEE AMOUNT*	PERCENT DISCOUNT	DISCOUNT TYPE	DEPOSIT AMOUNT	DATE STAMP
Master file		$			$	
Concurrent application files		$			$	
		$			$	
		$			$	
		$			$	
SUBTOTALS		$			$	
TOTAL AMOUNT RECEIVED: $			**RECEIPT #:**			**RCD BY:**

Associated application file #s (appeals, modifications, previous approvals, etc.):

Neighborhood District Association(s):

Notes:

*After discount (if any)

NORTH Clackamas Schools

Ron Stewart
Assistant Superintendent
Finance and Operations

stewartro@nclack.k12.or.us
12400 SE Freeman Way, Milwaukie, Oregon 97222
503-353-6071

November 17, 2017

Mr. Brett Kelver, Associate Planner
City of Milwaukie
Community Development
6101 SE Johnson Creek Boulevard
Milwaukie, OR 97206

RE: Authorization to Sign Land Use Applications on behalf of the District

Dear Mr. Kelver,

This letter has been prepared in order to confirm that the North Clackamas School District has provided authorization for David Hobbs, the District's Capital Projects Director to provide all necessary signatures for the land use applications related to the District's capital improvement projects. Should you have any questions, please feel free to contact our offices at 503-353-6072.

Sincerely,

Ron Stewart
Assistant Superintendent
Finance and Operations

3J CONSULTING
5075 SW GRIFFITH DRIVE, SUITE 150
BEAVERTON, OREGON 97005
PH: (503) 946.9365
WWW.3J-CONSULTING.COM

May 15, 2017

Mr. Denny Egner
Planning Director
City of Milwaukie
6101 SE Johnson Creek Boulevard
Milwaukie, OR 97206

Milwaukie High School and Lake Road Sports Complex
Pre-Application Conference Request
Milwaukie, Oregon

Dear Denny,

This office represents the North Clackamas School District. This letter has been prepared in order to request a pre-application conference to discuss two projects within the City of Milwaukie related to the District's facilities at the Lake Road Sports Complex and at Milwaukie High School. The district is proposing to complete several bond related improvements to both sites and requests a meeting with the City's planning and engineering staff to discuss the submission requirements and approval process for both projects.

Provided below is a description of each project and a list of questions for staff's consideration prior to the pre-application conference meeting:

Milwaukie High School
Milwaukie High School is located at 11300 SE 23rd Avenue within the City of Milwaukie. The site in question consists of taxlot 1s1e36bc 05600. The site is approximately 14.7 acres and is primarily zoned R-2. A small portion of the site west of 23rd Avenue is zoned R1B.

The project at Milwaukie High School involves the demolition of the original school structures (from 1925 to 1949). A new school facility will be constructed in the similar location – which will contain the academic and administrative functions. The existing Commons Building (constructed in 1993) will remain and be extensively remodeled. The new school will be physically joined to the Commons – to provide a more cohesive and connected campus.

Also under consideration is the possible removal of one or more of the existing large, mature trees located on the west side of the original school building. This existing area will be redeveloped to include a new main entry plaza, improved pedestrian circulation, improved vehicular circulation and new landscaping.

The overall scope of work includes various building improvements (both interior and exterior) and site improvements. The list below describes the current anticipated on-site schedule of improvements:

- Replace Main Academic Building
- Remodel Existing Commons Building
- Food Service / Kitchen Remodel and Improvements

- Technology Improvements
- Seismic Improvements
- Accessibility (ADA) Improvements
- Emergency Generator Replacement
- Re-Roof Auditorium and Commons Building
- Parking Lot Repairs and Improvements
- Stadium Field Turf Replacement
- Athletic Track Resurfacing
- New Stadium Scoreboards
- A New Electronic Reader Board Facing Willard Street
- Exterior and Interior Painting
- New Landscaping
- New Parking Areas

The project scope involves work beyond the main campus. Athletic field improvements and replacements will occur at Lake Road Facility, Rowe Middle School and Milwaukie Elementary. The proposed improvements to the Lake Road Facility are anticipated to progress along a similar timeline therefore this request for a pre-application conference covers both properties and projects. The proposed improvements to the Lake Road Facilities are described below.

Lake Road Sports Facilities
The Lake Road Sports Complex is located along Lake Road at approximately 28th Avenue within the City of Milwaukie. The site in question consists of taxlot 1s1e36ca 01200. The site is approximately 9.6 acres and is primarily zoned R-7.

The project scope for the sports complex includes the construction of a new varsity baseball field and a new varsity softball field. Other improvements on the property will include the creation of improved parking facilities, new concessions, and new dugouts and backstops.

Questions for Staff
The following questions have been prepared in order for staff's consideration:

- Please provide us copies of the staff reports associated with the most recent Community Use Applications for either the Lake Road Facility or the High School.
- Please confirm the overall land use review process and anticipated timeline for review for the required applications.
- Please review and confirm whether the City is comfortable receiving concurrent applications for Historic Demolition Review, Amendment of the City's Comprehensive Plan Map to remove the Historic Overlay from the High School Site, and the proposed modification to the Community Service Use. We understand that the required Design Review Application for both sites is to be submitted following the approval of the Community Service Use Applications.
- Please review and comment on the Overall Site Constraints/Challenges – which include the following:
    - Site will be fully occupied during the construction phases
    - Campus will need to be accessed by busses, emergency vehicles and pedestrians

  - Daily classes, special events and athletic events will be occurring
  - Modular classrooms will need to be used to accommodate students during construction
  - The CM/GC will have limited site area for construction related activities, storage, vehicles, etc.
- In reference to Site Study 1: Please review the proposed new Bus Lane. Would this configuration be acceptable on SE Willard Street?
- In reference to Site Study 2: Please review the configuration / layout of the proposed new Bus Lane on the east side of the school property. Would (2) new driveways/curb cuts be allowed on this section of SE Willard Street?
- In reference to Site Study 2: Please review the proposed new Parent Drop-Off/Pick-Up Lane. Would this configuration be acceptable on SE Willard Street?
- What is the City's permit process for Tree Removal?
- What is the City's permit process for Modular Buildings? (non-permanent installation)
- Due to the project phasing, separate permit packages will be submitted for the Lake Road Facility Field Improvements and for the High School. Please confirm whether the City supports separate submissions for these projects.
- What is the City's permit process for adding exterior lighting to play fields and/or tennis courts?

We genuinely appreciate the City's assistance with these projects and we look forward to working with staff throughout this process. Please feel free to give me a call if you have any questions or need any additional clarification.

Sincerely,

Andrew Tull
Principal Planner
3J Consulting, Inc.

copy: Mr. Garry Kryszak, North Clackamas School District
Mr. Steven Nicholas – Heery International
Mr. Matt Jacoby, DOWA Architects - IBI Group
Mr. Dan Hess, DOWA Architects, IBI Group

File 17398

CITY OF MILWAUKIE
PREAPPLICATION APPOINTMENT WORKSHEET

6101 SE Johnson Creek Blvd. - Milwaukie, OR 97206 Tel.: (503) 786-7600

A preapplication appointment is strongly recommended, and in some cases is required, for development proposals that require land use approvals and for major commercial building improvements. The purpose of the appointment is to help the applicant through the land use and permit process.

☐ Preapplication Meeting – First meeting free, second meeting $50.00, third and subsequent meetings $100.00/mtg.

- Optional meeting with 2 City staff. No meeting notes are provided by staff.
- Appointments should be made at least one week in advance of the desired meeting date. Check with staff for available meeting times.
- Requires 3 copies of the Submittal Information listed on the back of this page.

☐ Preapplication Conference – $200.00

- Optional or required meeting with 3 or more staff. Meeting notes are provided within 2 weeks.
- The City is represented by staff from the following departments: Planning, Building, and Engineering. Other public agencies (such as the Fire District) may attend as necessary.
- Appointment times are Thursdays from 10:00 a.m.–11:00 a.m.
- Appointments must be made no less than two weeks in advance of the desired meeting date.
- Requires 8 copies of the Submittal Information listed on the back of this page.

☐ Traffic Impact Study Review – $100.00

- Mandatory second meeting if the project requires a Traffic Impact Study.
- To be scheduled after completion of a Traffic Impact Study by the applicant.

To be completed by the Applicant

Today's Date: May 5, 2017 **Time:** _____

Project Address: 11300 SE 23rd Ave and Lake Road at 28th Ave.

Name: Andrew Tull

Company: 3J Consulting for North Clackamas School District

Applicant role: ☐ **Owner** ☐ **Legal Representative**

☐ **Architect** ☐ **Contractor** ☐ **Other:** Land Use Planner

Address: 5075 SW Griffith Drive, Suite 150

City, State, Zip code: Beaverton, Oregon 97007

Phone: 503-545-1907 **Mobile:** 503-545-1907

Fax: _____ **E-mail:** andrew.tull@3j-consulting.com

Number of Persons Expected to Attend: 6-8

Office staff:

Receipt Number: _____

Received by: _____

Appointment Date: _____

Appointment Time: _____

cc: Building

cc: Engineering

cc: Fire

cc: Planning

cc: Public Works

cc: File

Brief Proposal Description: This Pre-App request has been submitted for two of the district's properties within the City of Milwaukie, the Milwaukie High School and the Lake Road Sports Fields. Please see the attached preliminary development plans and the attached letter for more information.

PREAPPLICATION APPOINTMENT REQUIREMENTS:

(All appointments are scheduled on a first-come/first-served basis)

Preapplication Meeting

The following materials must be submitted when an appointment is scheduled:

- **A complete application form and accompanying fee**
- **3 sets of the following**:
  - Preliminary site plan and building plans, showing existing and proposed features. (Plans do not need to be professionally prepared, just accurate and reliable.)
  - A detailed narrative description of the proposal that clearly identifies the location, existing and proposed uses, and any proposed construction.
  - A list of all questions or issues the applicant would like the City to address.

Preapplication Conference

The following materials must be submitted when an appointment is scheduled and no later than 4:00 p.m. every Thursday:

- **A complete application form and accompanying fee**
- **8 sets of the following**:
  - Preliminary site plan and building plans drawn to scale, showing existing and proposed features. (Plans do not need to be professionally prepared, just accurate and reliable.)
  - A detailed narrative description of the proposal that clearly identifies the location, existing and proposed uses, and any proposed construction.
  - A detailed list of all questions or issues the applicant would like the City to address.

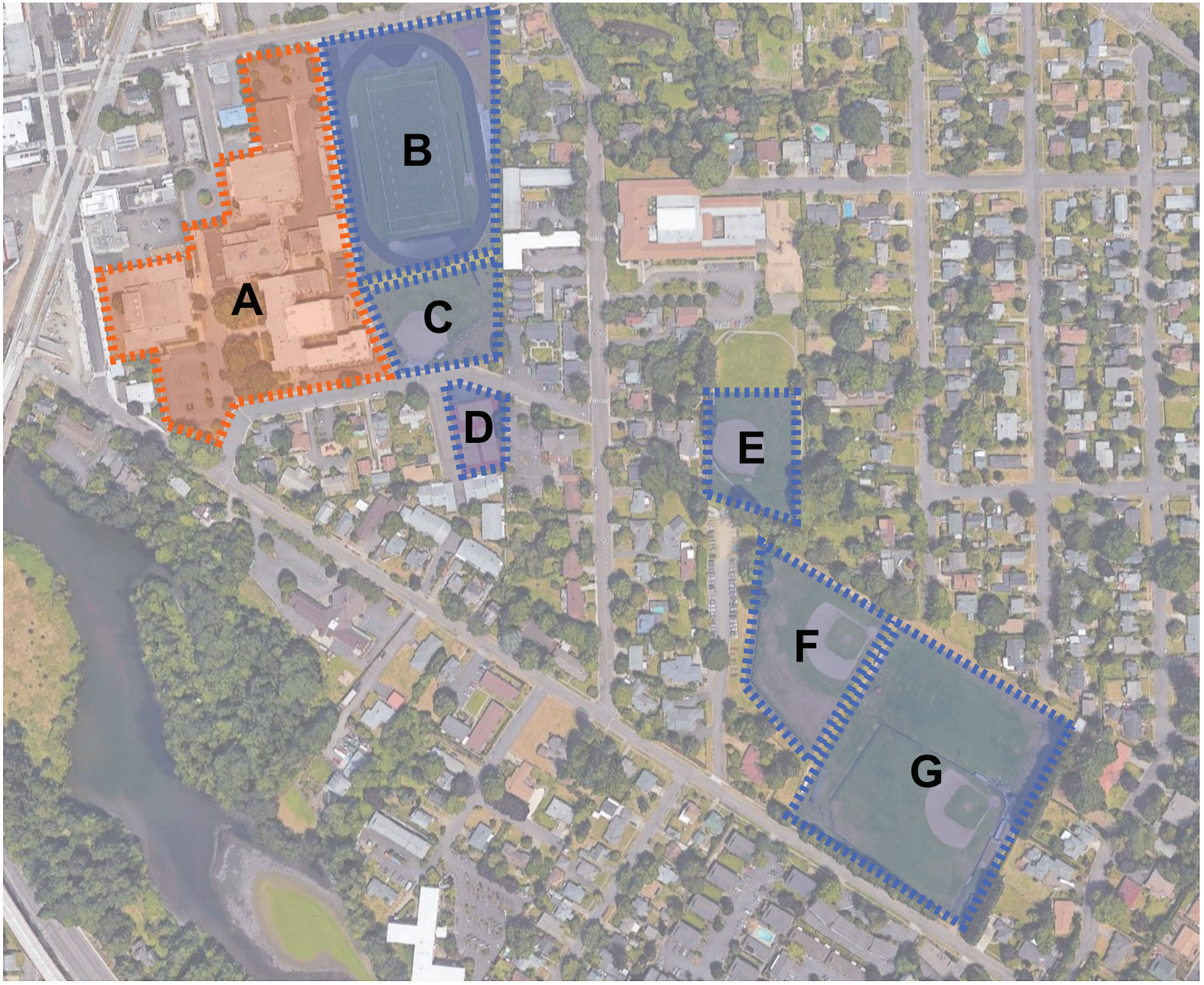
Traffic Impact Study Review

The following materials must be submitted when an appointment is scheduled and no later than 4:00 p.m. every Thursday:

- **A complete application form and accompanying fee**
- **2 sets of the following**:
  - Completed Traffic Impact Study.

Persons attending preapplication meetings are requested to refrain from wearing fragrances.

SCOPE DIAGRAM



PRELIMINARY PROJECT SCOPE

A Campus Improvements
Main Building Replacement
(See Enlarged Diagram)

B Running Track Resurfacing
Running Track Striping
Field Turf Replacement
New Stadium Scoreboads

C Relocate Varsity Softball Field to Lake Road Facility

D Remove Existing Tennis Courts
New Parking Lot

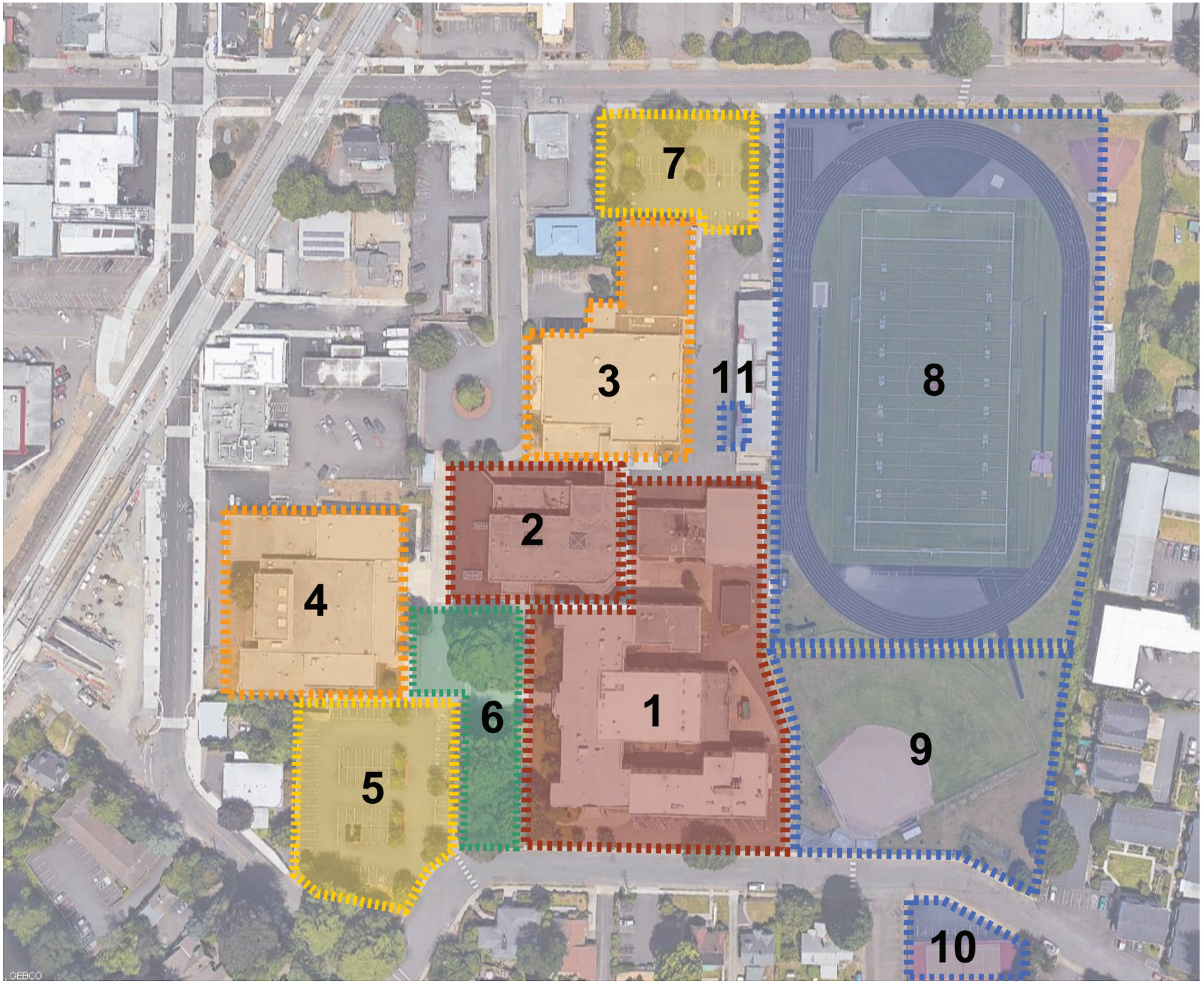
E Improvements to JV Softball Field at Milwaukie ES

F New Varsity Softball Field

G New Varsity Baseball Field
(Relocate Field Adjacent to Soft ball Field)

Dull Olson Weekes - IBI Group
Architects, Inc.

SCOPE DIAGRAM



PRELIMINARY PROJECT SCOPE

1 Main Building Replacement
Remove Boiler Building and
Health & Wellness Center

2 Commons Improvements
Kitchen Remodel
Remodel Office Area
Re-Roof Commons Building

3 Gym Interior Improvements
Painting, Scoreboards
Refinish Gym Flooring
New Athletic Lockers

4 Re-Roof Auditorium

5 Main Parking Lot Improvements

6 Main Entry Plaza Improvements

7 North Parking Lot Improvements

8 Running Track Resurfacing
Running Track Striping
Field Turf Replacement
New Stadium Scoreboads

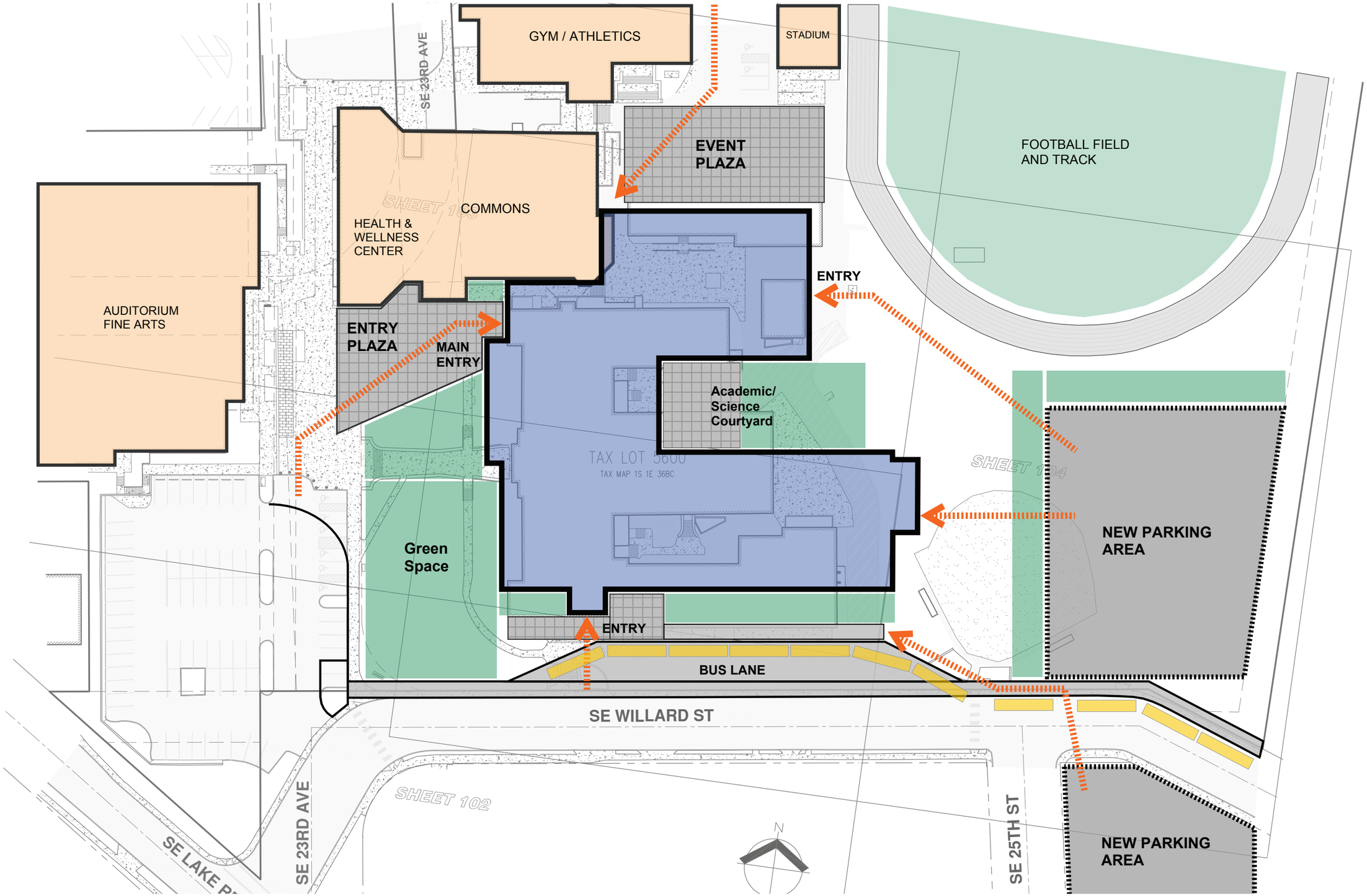
9 Remove Varsity Softball Field
Replace with New Parking Lot

10 Remove Existing Tennis Courts
Replace with New Parking Lot

11 ADA Improvements to Stadium
New Elevator to Press Box

Dull Olson Weekes - IBI Group
Architects, Inc.

CONCEPT DIAGRAMS



Dull Olson Weekes - IBI Group Architects, Inc.

CONCEPT DIAGRAMS

GYM / ATHLETICS

STADIUM

SE 23RD AVE

EVENT PLAZA

FOOTBALL FIELD AND TRACK

SHEET 103

COMMONS

HEALTH & WELLNESS CENTER

AUDITORIUM FINE ARTS

ENTRY PLAZA

MAIN ENTRY

Academic / Science Courtyard

TAX LOT 5600

TAX MAP 1S 1E 36BC

Bus Lane

SHEET 110

Green Space

NEW PARKING AREA

Bus Lane

Bus Lane

Staff & Visitor Parking Area

ENTRY

Parent Drop-Off / Pick-Up Lane

SE WILLARD ST

SHEET 102

SE LAKE R

SE 23RD AVE

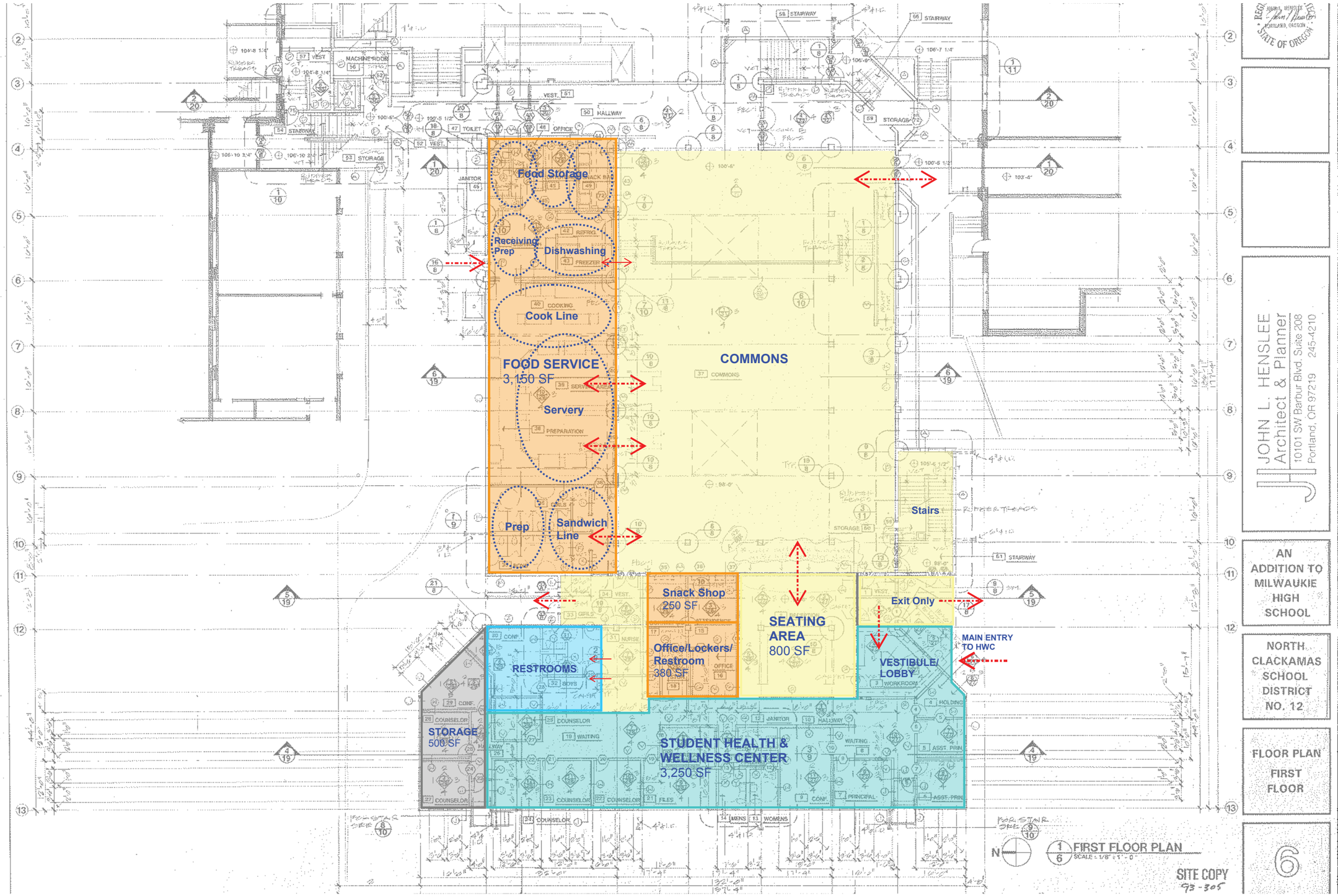
SE 25TH ST

NEW PARKING AREA

N

Dull Olson Weekes - IBI Group Architects, Inc.

CONCEPT DIAGRAMS



Dull Olson Weekes - IBI Group Architects, Inc.

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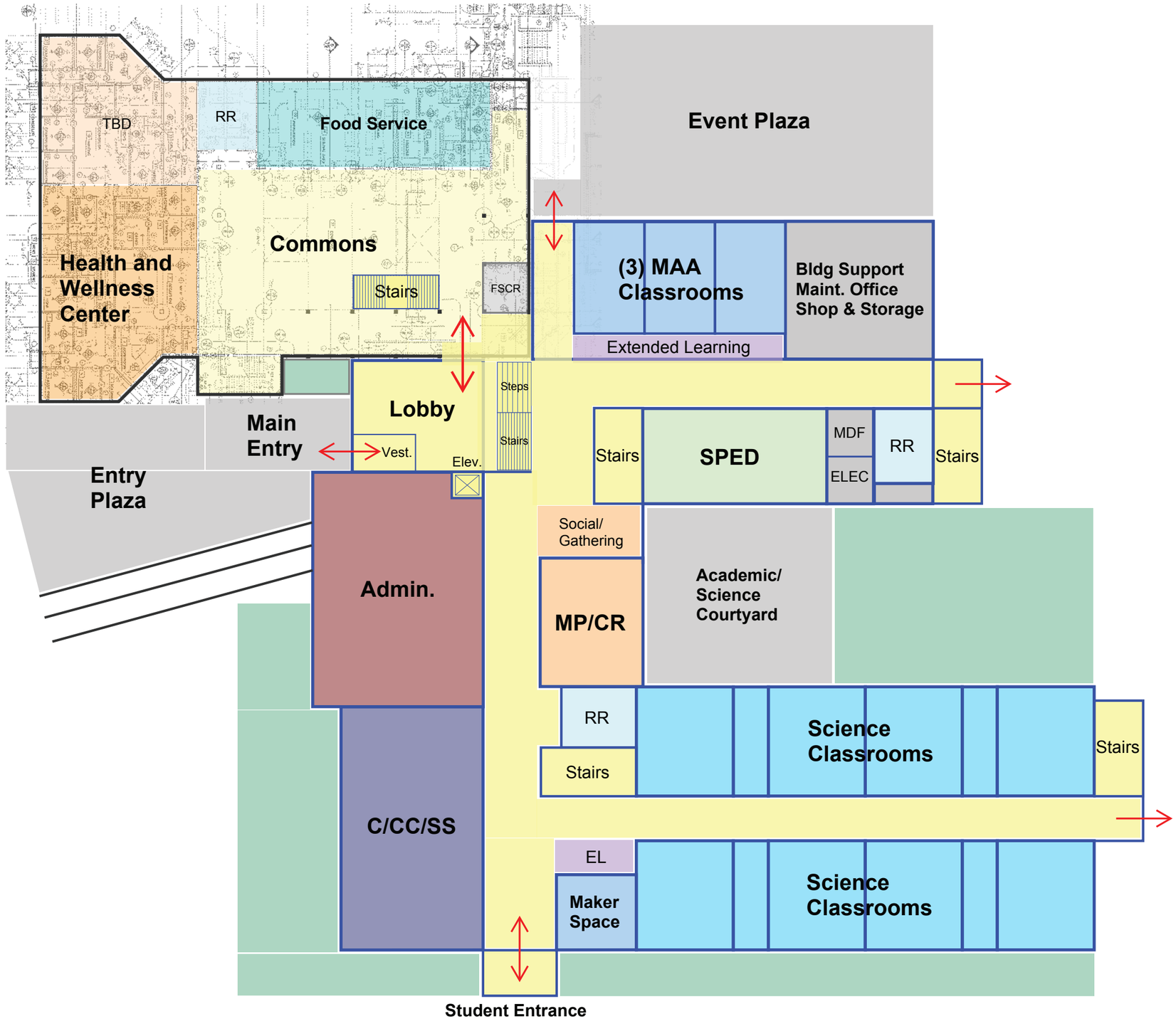

Dull Olson Weekes - IBI Group Architects, Inc.

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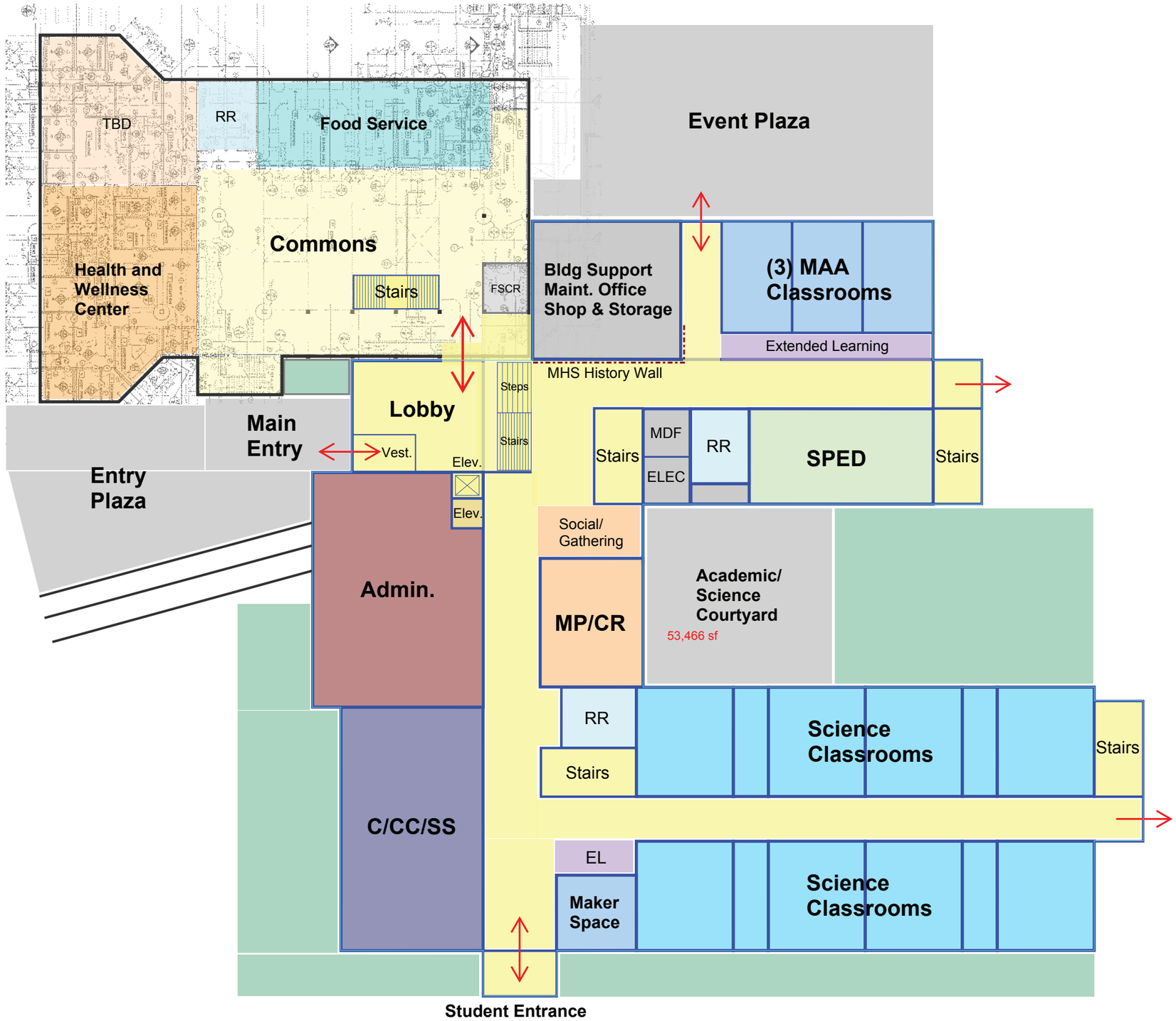
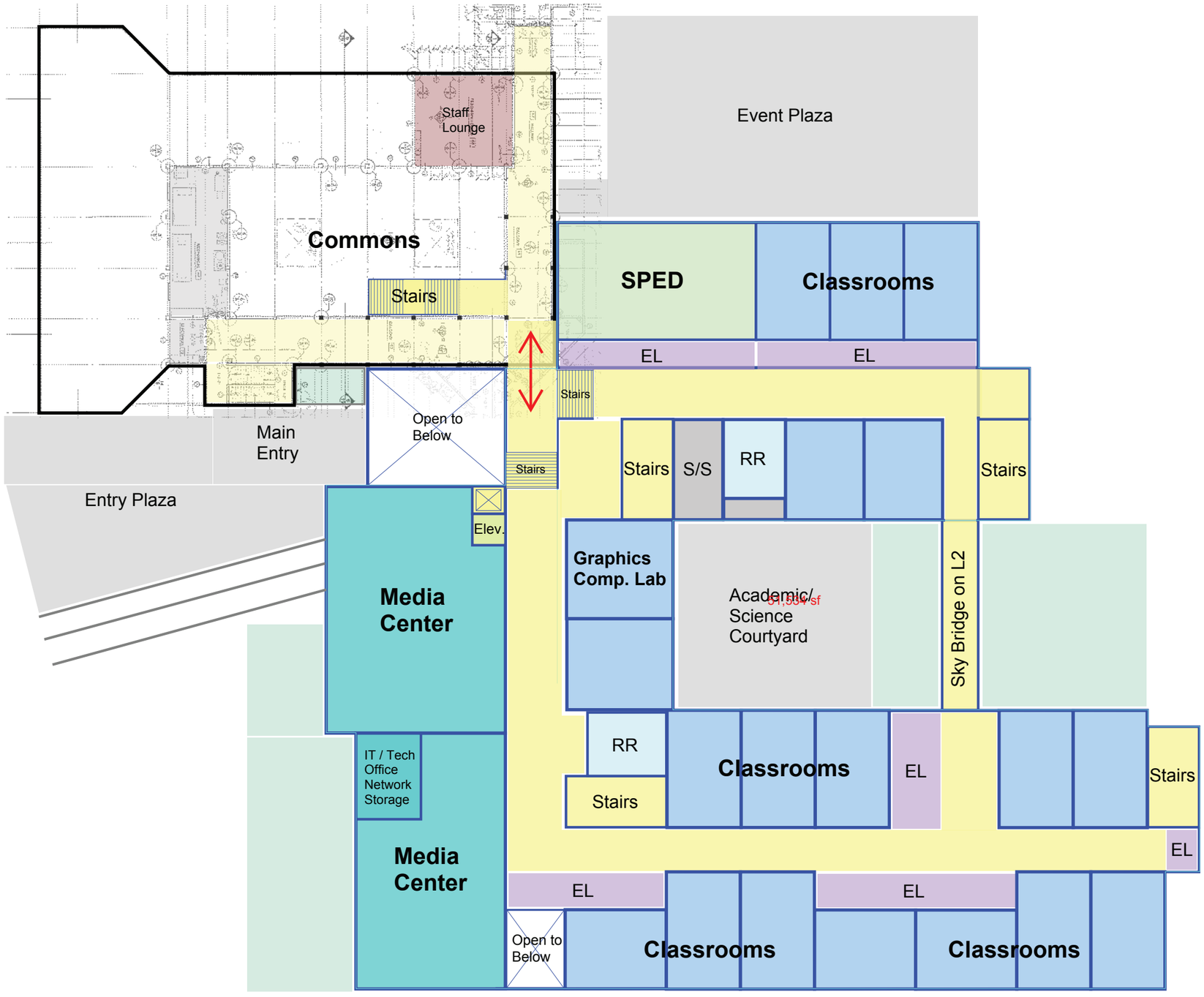


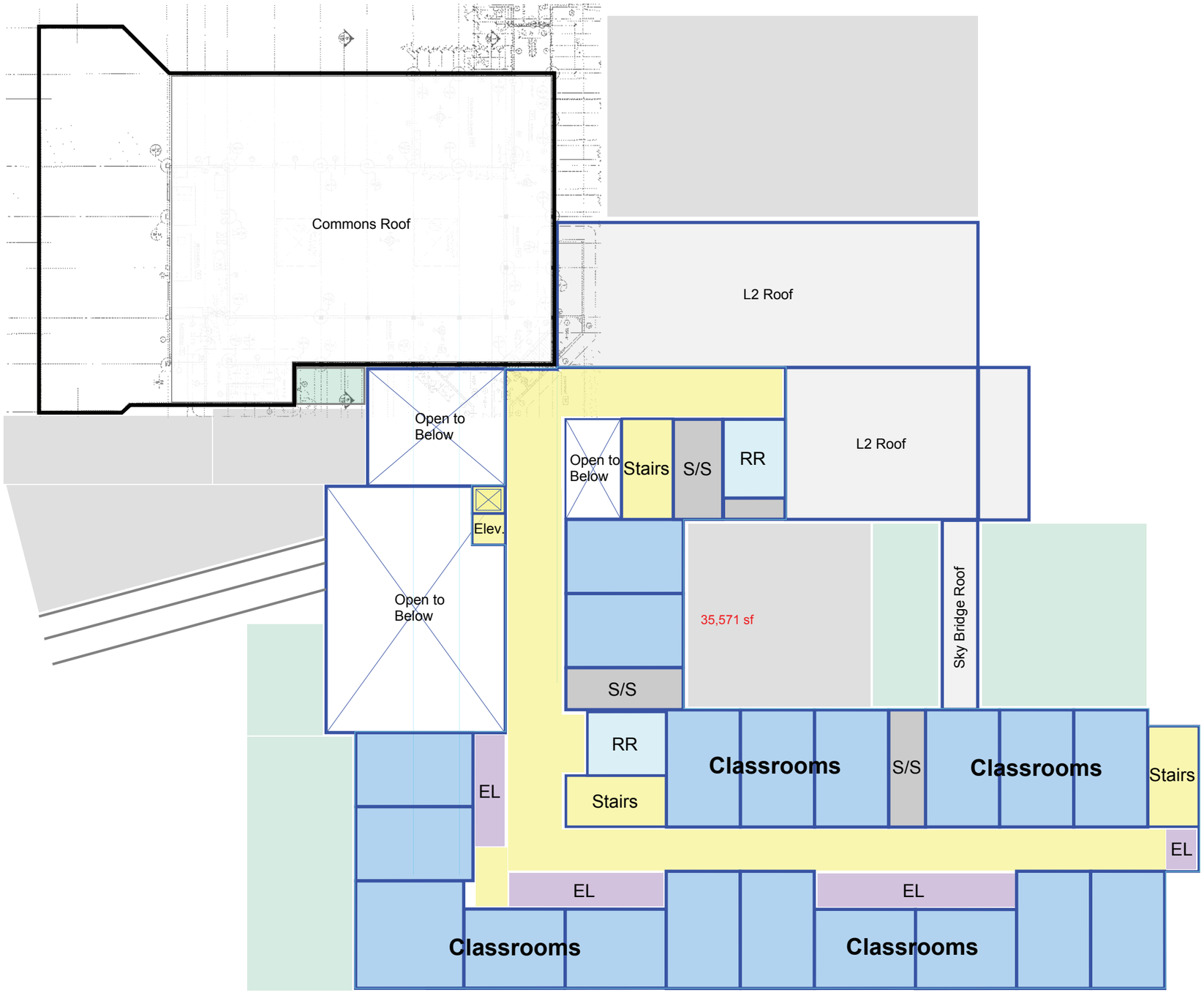
Dull Olson Weekes - IBI Group
Architects, Inc.

CONCEPT DIAGRAMS



Dull Olson Weekes - IBI Group Architects, Inc.

CONCEPT DIAGRAMS



Dull Olson Weekes - IBI Group Architects, Inc.

June 26, 2017

Andrew Tull
3J Consulting
5075 SW Griffith Dr, Ste 150
Beaverton OR 97007

Re: Preapplication Report

Dear Andrew:

Enclosed is the Preapplication Report Summary from your meeting with the City on June 12, 2017, concerning your proposal for action on property located at 11300 SE 23rd Ave, and Lake Rd and 28th Ave.

A preapplication conference is required prior to submittal of certain types of land use applications in the City of Milwaukie. Where a preapplication conference is required, please be advised of the following:

- Preapplication conferences are valid for a period of 2 years from the date of the conference. If a land use application or development permit has not been submitted within 2 years of the conference date, the Planning Director may require a new preapplication conference.

- If a development proposal is significantly modified after a preapplication conference occurs, the Planning Director may require a new preapplication conference.

If you have any questions concerning the content of this report, please contact the appropriate City staff.

Sincerely,

Alicia Martin
Administrative Specialist II

Enclosure
cc: Garry Kryszak, North Clackamas School District
HHPR
3J Consulting
KPFF
Heery International
Matt Jacoby, DOWA-IBI Group

CITY OF MILWAUKIE

PreApp Project ID #: 17-011PA

PRE-APPLICATION CONFERENCE REPORT

This report is provided as a follow-up to a meeting that was held on 6/12/2017 at 10:00am

Applicant Name:	**Andrew Tull**
Company:	**3J Consulting, Inc.**
Applicant 'Role':	Other
Address Line 1:	5075 SW Griffith Drive, Ste 150
Address Line 2:	
City, State Zip:	Beaverton OR 97005
Project Name:	**Milwaukie High School and Lake Road Sports Fields**
Description:	**Bond-related improvements to both sites. MHS-demolition of original school structures, new construction of school facilities, and remodeling of remaing Commons Building. Sports Fields-new baseball/softball fields and improved amenities including parking facilities.**
ProjectAddress:	**11300 SE 23rd Ave and Lake Rd/28th Ave**
Zone:	Residential R-2, R-1-B, and Downtown Mixed Use (DMU) on main campus
Occupancy Group:	
ConstructionType:	
Use:	Primarily Public (P), with Mixed Use (C/HD), High Density (HD), and Transit Center (TC)
Occupant Load:	
AppsPresent:	Daniel Chin, Steve Nicholas, Garry Kryszak, Dan Houf, Jeffery Creel, Matt Jacoby, Andrew Tull, Ben Austin, Mercedes Smith, Mark Wharry, Eric Melle
Staff Attendance:	Brett Kelver, Alex Roller, Samantha Vandagriff, Keith Liden

BUILDING ISSUES

ADA:	The new building will need to be fully ADA compliant. 25% of the project costs for the other buildings will need to go toward the removal of architectural barriers (ADA compliance). An ADA improvement plan can be submitted incorporating the various projects and sites and utilized to show compliance with this requirement.
Structural:	Separate permits for each building will be required at time of submittal.
Mechanical:	
Plumbing:	

Plumb Site Utilities:

Electrical:

Notes:

Please note all drawings must be individually rolled. If the drawings are small enough to fold they must be individually folded.

FIRE MARSHAL ISSUES

Fire Sprinklers: Fire sprinklers may be required based on the floor design.

Fire Alarms:

Fire Hydrants:

Turn Arounds:

Addressing:

Fire Protection:

Fire Access:

Hazardous Mat.:

Fire Marshal Notes: See attached.

PUBLIC WORKS ISSUES

Water: City of Milwaukie 6-inch and 10-inch water mains on SE Washington and an 8-inch lines in Willard provide service to the property currently. The water System Development Charge (SDC) is based on the size of water meter serving the property. The corresponding water SDC will be assessed with installation of a water meter. Water SDC credit will be provided based on the size of any existing water meter serving the property removed from service. The water SDC will be assessed and collected at the time the building permits are issued.

Applicant expressed interest in connecting the performing arts building to the main building with an enclosed structure. There is currently a City water main running between these building, preventing any building from being constructed here. Applicant expressed interest in abandoning this portion of the main. The connection locations to the main for domestic and fire are unclear at this point. Further discussions with City staff will be required to establish how the abandonment process may be completed.

Sewer: Two City of Milwaukie wastewater mains provide service to property. A clay 8-inch wastewater main on SE Willard and an HDPE 8” main on SE 23rd Avenue. The city would like to vacate the southern approximately 150-feet of SE 23rd Avenue. Currently the City wastewater main extends through this portion. High school property is the only property accessing these last 150-feet. With vacation of the end of 23rd Avenue, applicant would be responsible for constructing a new manhole at the end of the new right of way, and the existing manhole and main now on High School property will become private. With this 23rd Avenue vacation, the City would require the High School to dedicate a 25-feet

width to extend the Adams Street right-of-way. The wastewater System Development Charge (SDC) is comprised of two components. The first component is the City's SDC charge of $1,075 and the second component is the County's SDC for treatment of $6,130 that the City collects and forwards to the County. Both SDC charges are per connection unit. The wastewater SDC is assessed using a plumbing fixture count from Table 7-3 of the Uniform Plumbing Code. The wastewater SDC connection units are calculated by dividing the fixture count of new plumbing fixtures by sixteen. The wastewater SDC will be assessed and collected at the time the building permits are issued. Existing fixture count will need to be submitted to the City, which will provide credit. Applicant will only be charged for new fixtures.

Storm:

Submission of a storm water management plan by a qualified professional engineer is required as part of the proposed development. The plan shall conform to Section 2 - Stormwater Design Standards of the City of Milwaukie Pubic Works Standards.
The storm water management plan shall demonstrate that the post-development runoff does not exceed the pre-development, including any existing storm water management facilities serving the development property. Also, the plan shall demonstrate compliance with water quality standards. The City of Milwaukie has adopted the City of Portland 2008 Stormwater Management Manual for design of water quality facilities.
All new impervious surfaces, including replacement of impervious surface with new impervious surfaces, are subject to the water quality standards. See City of Milwaukie Public Works Standards for design and construction standards and detailed drawings.

The storm SDC is based on the amount of new impervious surface constructed at the site. One storm SDC unit is the equivalent of 2,706 square feet of impervious surface. The storm SDC is currently $845 per unit. The storm SDC will be assessed and collected at the time the building permits are issued.

Street:

The proposed development fronts the south side of SE Washington Street, a Collector street. The portion of SE Washington Street fronting the proposed development has a right-of-way width of 60 feet and a paved width of 36 feet with curb on both sides and sidewalk improvements on the south side.

The proposed development fronts the north side of SE Willard Street, a local road. The portion of SE Willard Street fronting the proposed development has a right-of-way width of 50 feet, a paved width of 36 feet, and has sidewalk on both sides of the road.

The proposed development fronts the east side of SE 23rd Avenue, a local road. The portion of SE 23rd Avenue fronting the proposed development has a right-of-way width of 40 feet, a paved width of 26 feet, and sidewalk on both sides of the road.

The proposed development fronts the east side of SE 21st Avenue, a local road. The portion of SE 23rd Avenue fronting the proposed development has a right-of-way width of 60 feet, a paved width of 34 feet, and sidewalk on both sides of the road.

Frontage:

Chapter 19.700 of the Milwaukie Municipal Code, hereafter referred to as "Code", applies to partitions, subdivisions, and new construction.

Transportation Facility Requirements, Code Section 19.708, states that all rights-of-way, streets, sidewalks, necessary public improvements, and other public transportation facilities located in the public right-of-way and abutting the development site shall be adequate at the time of development or shall be made adequate in a timely manner.

SE Willard Street
According to Code Table 19.708.2 and the Transportation Design Manual, the local street cross section

includes the following:

- 10-foot travel lanes
- 6-foot parking strips with curb
- 5-foot landscape strips
- 5-foot setback sidewalks

Applicant is proposing a different cross section with a pull-out area with setback curb for parent drop off. Final design will need approval by the engineering director. Applicant will construct these improvements.

SE Lake Road
The necessary improvements to Lake Road in front of Rowe Middle School were previously constructed with a Capital Improvement Project. The applicant is not responsible for any additional improvements. Property on Lake near 28th Avenue has already dedicated, and will not require any other improvements.

West of Willard/Lake Road intersection: The final cross section of Lake road includes a center turn lane.
Required improvements on Lake Road are as follows:
-6-foot setback sidewalk
-5-foot planter strip
-curb & gutter
-connect to existing asphalt
Improvements will be constructed to the west to meet with improvements previously constructed with the PMLR project.

Adams Street
Improvements required in the newly dedicated Adams Street right-of-way will be a pedestrian connection from 23rd to Adams Street.

25th Avenue
Parking will be restriped from head in to angled parking. Striping will face the cars northeast.

Right of Way:

Applicant will be responsible for 25-foot right-of-way dedication to extend Adam Street's right-of-way to connect to SE 23rd Avenue. Upon receipt of this dedication, the City will initiate full right-of-way vacation of approximately 150-feet of the south end of SE 23rd Avenue.

Applicant will be responsible for 9.18-foot right-of-way dedication of existing tennis court lot on Willard frontage.

The remaining existing right-of-way on SE Willard, SE Washington Street, and SE Lake Road fronting the proposed development properties (including Rowe, and 28th Ave facility) is of adequate width and no right-of-way dedication is required.

Driveways:

Code Section 12.16.040.A states that access to private property shall be permitted with the use of driveway curb cuts and driveways shall meet all applicable guidelines of the Americans with Disabilities Act (ADA). Driveway approaches shall be improved to meet the requirements of Milwaukie's Public Works Standards. Dual driveways with signage indicating ingress and egress are approvable without a variance to driveway spacing standards, as they will function as one driveway.

Erosion Control:

Per Code Section 16.28.020(C), an erosion control permit is required prior to placement of fill, site clearing, or land disturbances, including but not limited to grubbing, clearing or removal of ground

vegetation, grading, excavation, or other activities, any of which results in the disturbance or exposure of soils exceeding five hundred square feet.

Code Section 16.28.020(E) states that an erosion control permit is required prior to issuance of building permits or approval of construction plans. Also, Section 16.28.020(B) states that an erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

Traffic Impact Study: Code Section 19.704.1(A) states that the City will determine whether a transportation impact study (TIS) is required. In the event the proposed development will significantly increase the intensity of use; a transportation impact study will be required. The Engineering director has determined that a TIS will not be required.

PW Notes:

TRANSPORTATION SDC
The Transportation SDC will be based on the increase in trips generated by the new use per the Trip Generation Handbook from the Institute of Transportation Engineers. The SDC for transportation is $1,921 per trip generated. Credits will be given for any demolished structures, which shall be based upon the existing use of the structures.

PARKS & RECREATION SDC
The parks & recreation System Development Charge (SDC) is triggered when application for a building permit on a new dwelling is received. Currently, the parks and recreation SDC for each employee is $60.00. Credit is applied to any demolished structures and is based upon the existing use of the structures. The parks and recreation
SDC will be assessed and collected at the time the building permits are issued.

REQUIREMENTS AT FINAL PLAT
- Engineered plans for public improvements (street, sidewalk, and utility) are to be submitted and approved prior to start of construction. Full-engineered design is required along the frontages of the proposed development.

- The applicant shall pay an inspection fee of 5.5% of the cost of public improvements prior to start of construction.

- The applicant shall provide a payment and performance bond for 100% of the cost of the public improvements prior to the start of construction.

- The applicant shall provide a final approved set of Mylar “As Constructed” drawings to the City of Milwaukie prior to the final inspection.

- The applicant shall provide a 1 year maintenance bond for 100% of the cost of the public improvements prior to the final inspection.

PLANNING ISSUES

Setbacks: Yard requirements for the Residential R-2 and R-1-B zones are established in Milwaukie Municipal Code (MMC) Subsection 19.302.4. Minimum front and rear yards are 15 ft, side yards (for other than rowhouses) must be at least 5 ft, and street-side yards (for corner lots) are 15 ft. There are additional yard setback requirements for Lake Road and Washington Street, but the proposed buildings and areas of work are not located near these frontages.

For side yards in the R-2 and R-1-B zones, there is a building height plane limit of 25 ft at the minimum setback, with a slope of 45 degrees. See the definition of "side yard height plane" in MMC Section 19.201 for an illustration of this principle. MMC Subsection 19.501.3.B establishes some allowable exceptions to the side yard height plane, including limited minor encroachments for roof overhangs or eaves, gable ends of roofs, and dormers.

Yard setbacks for accessory structures are established in MMC Subsection 19.502.2 and depend on the size and height of the proposed structure, varying from 3 to 5 ft to the same standards as the base R-2 and R-1-B zones. Accessory structures must be located beyond the front yard of the primary structure, unless they are at least 40 ft from the front lot line. Utility apparatus, such as air conditioners, must be at least 3 ft away from side and rear property lines and are not permitted in any required front yard setback or street-side yard setback.

The maximum building height in the R-2 and R-1-B zones is 3 stories or 45 ft, whichever is less.

Based upon the description of the proposed improvements, the setback and building height requirements in the DMU, R-7, and R-10 zones are not anticipated to be relevant.

Landscape: In the R-2 and R-1-B zones, a minimum of 15% of the site must be landscaped. In addition, at least 40% of the front yard area must be vegetated (measured from the front property line to the front face of the house). Vegetated areas may be planted in trees, grass, shrubs, or bark dust for planting beds, with no more than 20% of the landscaped area finished in bark dust (as per MMC Subsection 19.504.7). A maximum of 30% of the site may be covered by structures, including decks or patios over 18 inches above grade. Note that artificial turf does not count toward the required landscape area.

Parking: As per the off-street parking standards of MMC Chapter 19.600, a high school must provide at least 1 off-street parking space per 0.25 students plus 1 space per staff member. Sport field parking will require a formal determination of the minimum and maximum quantities, in accordance with MMC Subsection 19.605.2. Bicycle parking is required at a rate of 10% of the required number of vehicle parking spaces. The standards for parking areas are established in MMC Section 19.606 and include requirements for stall and drive aisle dimension, perimeter and interior landscaping, pedestrian walkways, and lighting. See the various figures provided throughout MMC 19.600 for more information regarding vehicular and bicycle parking standards.

Transportation Review: The proposed subdivision triggers the requirements of MMC Chapter 19.700 Public Facility Improvements. The high school campus has frontage on Willard Street and Lake Road. Please see the Public Works notes or contact the City's Engineering Department for more information about the requirements of MMC 19.700.

Application Procedures: An Historic Resource review is required to address the designation of the original high school building as a "significant" historic resource. MMC Subsection 19.403.7 establishes a procedure for demolition of historic resources, but demolition does not remove the property from the historic and cultural resources inventory or change its designation on the zoning map or in the Comprehensive Plan. The applicant must go through the process outlined in MMC Subsection 19.403.4 to delete the property from the inventory, which will eliminate the need for the demolition review outlined in MMC 19.403.7. The deletion application will be processed with Type IV review (in accordance with the procedures established in MMC Section 19.1007) and will include amendments to both the Comprehensive Plan and the zoning map. MMC 19.403 does not include criteria for approval of deletion requests; the application should address the approval criteria for Comprehensive Plan text and map amendments (provided in MMC Subsection 19.902.3.B) and those for zoning map amendments (provided in MMC Subsection 19.902.6.B).

Applications for major modification to existing Community Service Uses (CSUs) are subject to Type

III review as per MMC Subsection 19.904.3. The proposed development involves three distinct sites (high school campus, sports fields on Lake Road, and Rowe Middle School tennis courts), and three distinct applications for major modification to a CSU will be required: (1) high school replacement and remodel, (2) renovation of the Lake Road sports fields, and (3) placement of tennis courts at the Rowe site. The procedures for Type III review are established in MMC Section 19.1006.

MMC Table 19.605.1 does not provide quantity requirements for athletic fields, so a Type II application for parking quantity determination will be required for the Lake Road sport fields. Application requirements and approval criteria are established in MMC Subsection 19.605.2.
If a Traffic Impact Study (TIS) is required for any component of the project, a Transportation Facilities Review (TFR) application will be required, as per MMC Subsection 19.703.2.B. Otherwise, compliance with the relevant standards of MMC Chapter 19.700 will be included with the review of any concurrent applications.

Variances to any relevant standards will be subject to the provisions of MMC Section 19.911 and processed with either Type II or Type III review accordingly.

Current application fees are $1,000 for Type II review, $2,000 for Type III review, and $5,000 for Type IV review. Multiple applications for one project component (i.e., high school campus, Lake Road sports fields, or Rowe tennis courts) can be reviewed concurrently as per MMC Subsection 19.1001.6.B, with the highest numbered review type determining the process for all concurrent applications. For multiple applications processed concurrently, there is a 25% discount for all application fees after the most expensive one.

Note: There are pro's and con's for packaging the historic inventory deletion with the CSU application package for the high school campus, due to the different timelines for Type III and IV review. On one hand, it makes sense to submit the historic inventory deletion as part of the CSU package for the high school campus, so the deletion request can be considered in the context of the overall remodel. If submitted concurrently, the CSU decision would be made by the Planning Commission with approval contingent on the City Council's approval of the requested deletion from the historic inventory, which adds at least 20 days to the process. If the deletion request were to be denied, the applicant could then pursue the demolition process. Or for more certainty in the process timeline, the historic inventory deletion application could be submitted in advance of the high school campus CSU package. Regardless, no development permits will be issued until the end of the appeal period for the overall final decision.

For the City's initial review, the applicant should submit 5 complete copies of the application materials, including all required forms, checklists, narrative, and plans. (Note: Disregard the call for 12 copies noted in the code and on several checklists.) A determination of the application's completeness will be issued within 30 days. If deemed incomplete, additional information will be requested. If deemed complete, additional copies of the application may be required for referral to other departments, the Historic Milwaukie Neighborhood District Association (NDA), Lake Road NDA, and other relevant parties and agencies. City staff will inform the applicant of the total number of copies needed.

Prior to submitting the application, the applicant is encouraged to present the project at a regular meeting of the Historic Milwaukie and Lake Road NDAs. The Historic Milwaukie NDA meets at 6:30 p.m. on the second Monday of most months at Libbie's Restaurant (11056 SE Main St); the Lake Road NDA meets at 6:30 p.m. on the second Wednesday of most months at Rowe Middle School (3606 SE Lake Rd).

Once the application is deemed complete, a public hearing with the Planning Commission will be scheduled. Staff will determine the earliest available date that allows time for preparation of a staff

report (including a recommendation regarding approval) as well as provision of the required public notice to property owners and residents within 300 ft of the subject property, at least 20 days prior to the public hearing. A sign giving notice of the application must be posted on the subject property at least 14 days prior to the hearing.

Issuance of a decision starts a 15-day appeal period for the applicant and any party who establishes standing. The appeal period must have ended without event before permits for development on any of the new lots will be issued.

Natural Resource Review: The Milwaukie High School, the Lake Road sports fields, and Rowe Middle School tennis court sites do not include any designated natural resource areas.

Lot Geography: The three school properties in question are all largely rectilinear but irregular in shape. The Milwaukie High School main campus occupies much of the block bounded by Willard Street and Lake Road on the south, 21st Avenue on the west, Washington Street on the north, and residential properties along 27th Avenue on the east. An additional lot south of Willard Street and west of 25th Avenue is developed with tennis courts for the high school. The athletic fields complex has frontage on Lake Road at 28th Avenue and is surrounded by residential properties, with the Milwaukie Elementary School campus adjacent to the northwest. The Rowe Middle School tennis courts are at the northeast corner of the Rowe campus, at Lake Road and Shell Lane.

Planning Notes: For the overall project, staff recommends as much communication between the project management team and the NDAs and immediate neighbors as possible, so that people in the community understand the project, its timeline and phases, and the impacts it is likely to have on the neighborhood. It would be useful to have a follow-up meeting with the City to discuss project phasing, proposed location of modular classrooms, and similar details related to how the project will impact the neighborhood and larger community during construction.

For the high school replacement and remodel, the applicant is advised to consider the following:
* Within the application narrative, provide information that describes the extent of the work, including phasing and overall timeline, use of modular classrooms (number, location, etc.), proposed landscaping and tree removal, access and circulation, and field lighting.
* In particular, provide the rationale for removing the historic building and significant trees, including evaluation of any alternatives that were considered.
* Even if a TIS is not required, there are several circulation issues that should be addressed regarding buses, cars, pedestrians, and cyclists. The aim is to keep the site simultaneously safe and accessible during and after construction. An analysis of parking should compare existing and proposed off-street parking for vehicles and bicycles, including access to all parking areas.
* In addressing the CSU approval criteria (MMC Subsection 19.904.4), the narrative should clarify the hours and levels of operation of both the main campus in general and the football field in particular.
* See the Public Works/Engineering notes for more information on the potential requirement for dedication to extend Adams Street as well as for a City-initiated vacation of a portion of 23rd Avenue.

For the Lake Road sports fields:
* The proposed new field lighting and artificial turf will expand the intensity of use of the site throughout the day and year. The narrative should address this issue in the context of the evaluation of public benefits versus negative impacts on the neighborhood (MMC Subsection 19.904.4.D). Elaborate on how impacts will be mitigated.
* In the past, the City has received complaints related to overflow parking along the narrow accessway leading from Lake Road up to the parking area. The parking quantity determination component of the application should include an analysis of historical parking demand at the site and should demonstrate that the existing parking area is adequate or will be made adequate to meet parking demand without compromising the accessway.

For the Rowe tennis courts:
* In the narrative, explain whether or how the intensity of use of the existing courts will change. For example: What will be the timing and nature of any high school matches or tournaments that will occur at Rowe? Will the courts be lighted, thus expanding the intensity of use?

The City strongly recommends a second formal preapplication conference for review and comment on plans as revised after this preapplication conference. A formal follow-up conference would provide a structured opportunity for various departments to evaluate and comment consistently on revisions, with written notes as documentation.

ADDITIONAL NOTES AND ISSUES

County Health Notes:

Other Notes:

This is only preliminary preapplication conference information based on the applicant's proposal and does not cover all possible development scenarios. Other requirements may be added after an applicant submits land use applications or building permits. City policies and code requirements are subject to change. If you have any questions, please contact the City staff that attended the conference (listed on Page 1). Contact numbers for these staff are City staff listed at the end of the report.

Sincerely,

City of Milwaukie Development Review Team

BUILDING DEPARTMENT
Samantha Vandagriff - Building Official - 503-786-7611
Bonnie Lanz - Permit Specialist - 503-786-7613

COMMUNITY DEVELOPMENT DEPARTMENT
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Alicia Martin - Admin Specialist - 503-786-7600

ENGINEERING DEPARTMENT
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Richard Nasiombe - Associate Enginer - 503-786-7694
Alex Roller - Engineering Tech II - 503-786-7695

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David Levitan - Senior Planner - 503-786-7627
Brett Kelver - Associate Planner - 503-786-7657
Vera Kolias - Associate Planner - 503-786-7653
Mary Heberling - Assistant Planner - 503-786-7658

CLACKAMAS FIRE DISTRICT
Mike Boumann - Lieutenant Deputy Fire Marshal - 503-742-2673
Matt Amos - Fire Inspector - 503-742-2661

Clackamas County Fire District #1
Fire Prevention Office

E-mail Memorandum

To: City of Milwaukie Planning Department

From: Matt Amos, Fire Inspector, Clackamas Fire District #1

Date: 6/26/2017

Re: Milwaukie High School 11300 SE 23rd Ave 17-011PA

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. The following items should be addressed by the applicant:

A Fire Access and Water Supply plan is required for subdivisions and commercial buildings over 1000 square feet in size or when required by Clackamas Fire District #1. The plan shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, FDC location (if applicable), building square footage, and type of construction. The applicant shall provide fire flow tests per NFPA 291, and shall be no older than 12 months. Work to be completed by experienced and responsible persons and coordinated with the local water authority.

Access:

1) No part of a building may be more than 150 feet from an approved fire department access road.
2) Buildings exceeding 30 feet in height shall require extra width and proximity provisions for aerial apparatus.

Water Supply:

1) Fire Hydrants, Commercial Buildings: Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided.

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Note: This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.

2) The fire department connection (FDC) for any fire sprinkler system shall be placed as near as possible to the street, and within 100 feet of a fire hydrant.

Note:

Comments may not be all inclusive based on information provided.

Milwaukie High School
Community Meeting

North Clackamas School District
Dull Olson Weekes - IBI Group Architects
May 24, 2017

Agenda

- **Project Timeline**
- **Overall Bond Scope of Work**
- **Current Design Concepts**
- **Area Program / Educational Specs**
- **Questions & Answers**

Project Timeline

Project Timeline

Design Phase: April 2017 to June 2018

Permitting: Spring / Summer 2018

Final Costing: Spring 2018

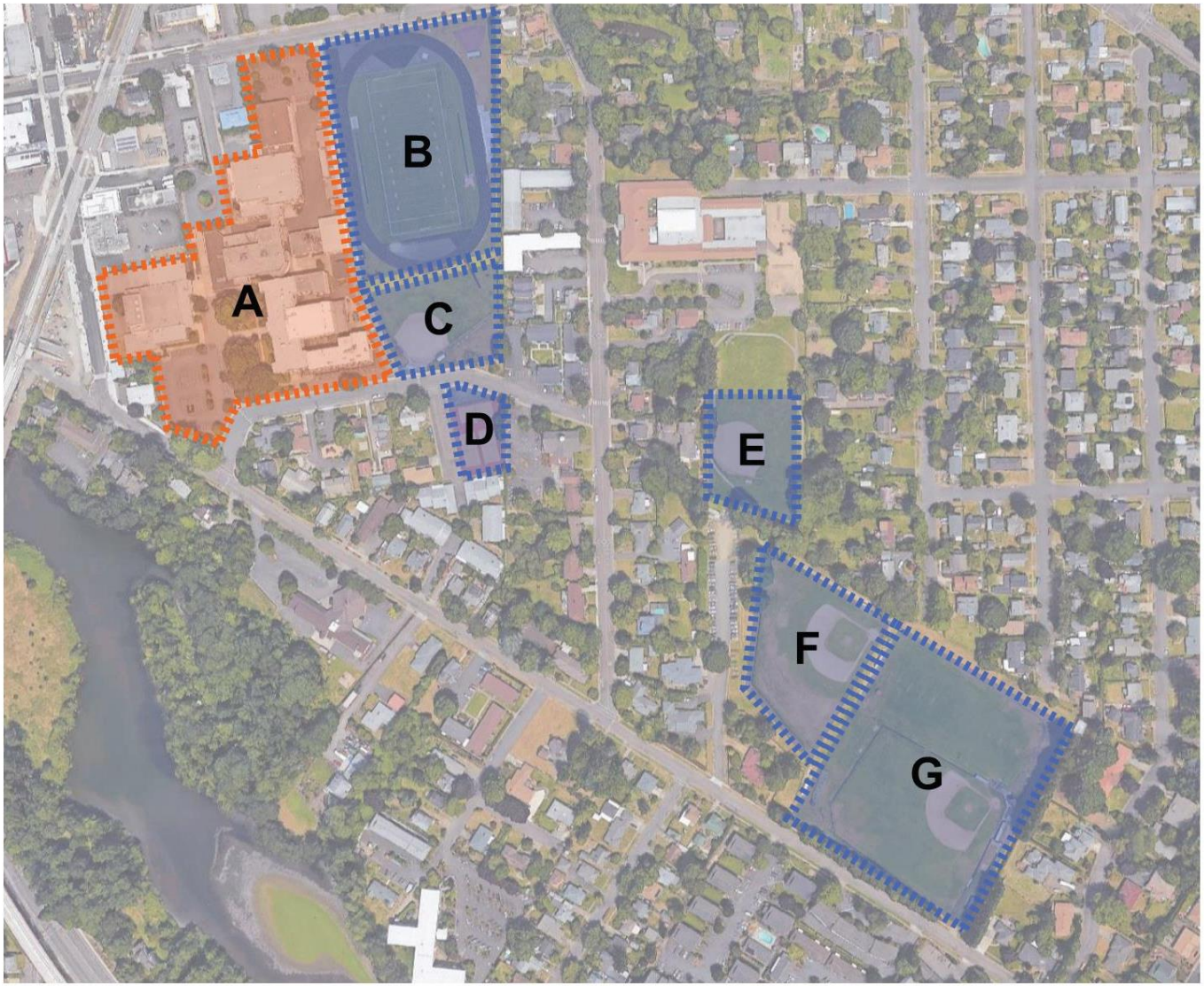
Abatement / Demolition: Summer 2018

Start of Construction Phase: Summer 2018

Construction Complete: Late 2020 / Early 2021

Overall Bond Scope of Work

Scope Diagram



PRELIMINARY PROJECT SCOPE

A Campus Improvements
Main Building Replacement
(See Enlarged Diagram)

B Running Track Resurfacing
Running Track Striping
Field Turf Replacement
New Stadium Scoreboads

C Relocate Varsity Softball Field to Lake Road Facility

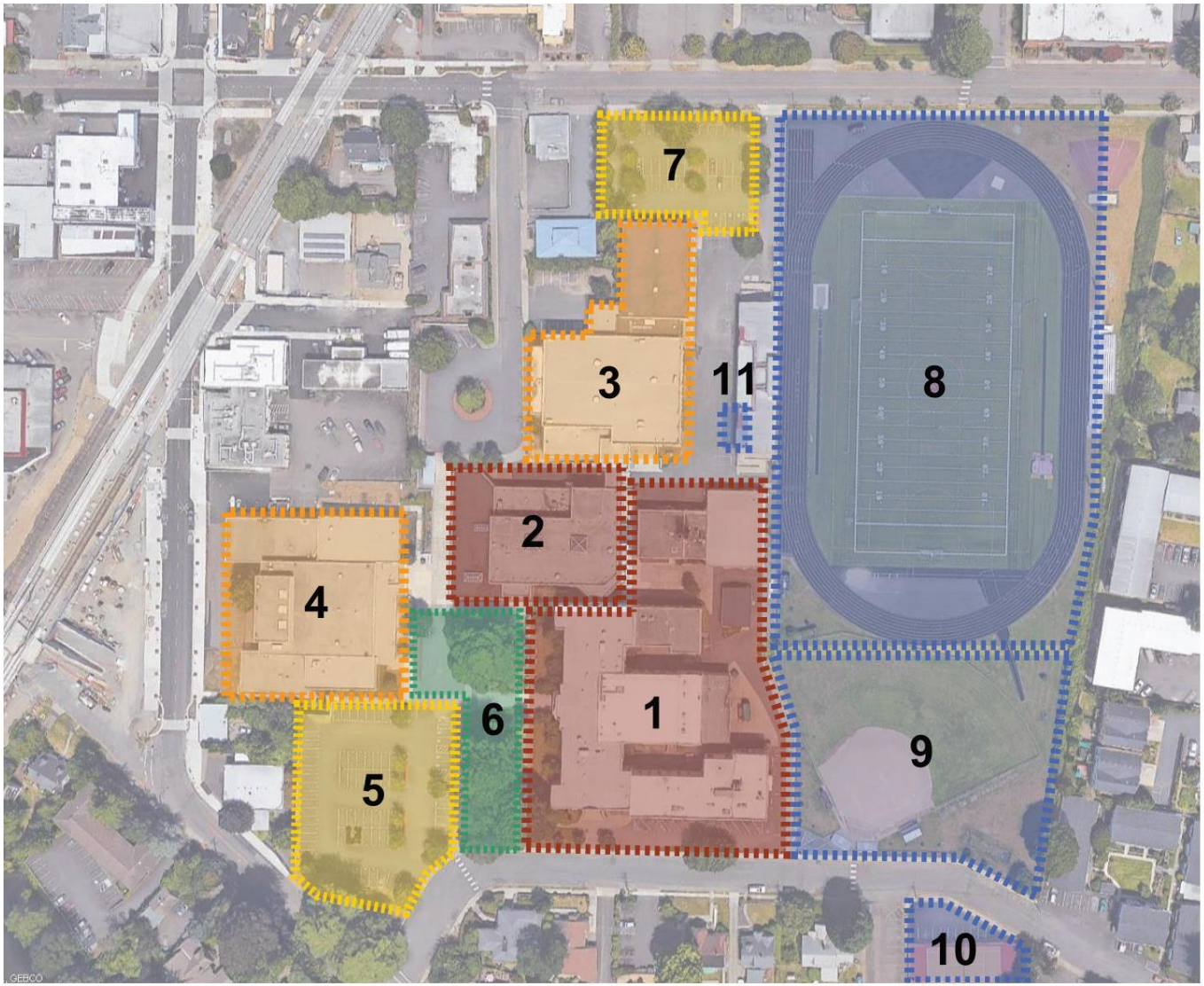
D Remove Existing Tennis Courts
New Parking Lot

E Improvements to JV Softball Field at Milwaukie ES

F New Varsity Softball Field

G New Varsity Baseball Field
(Relocate Field Adjacent to Soft ball Field)

Scope Diagram



PRELIMINARY PROJECT SCOPE

1 Main Building Replacement
Remove Boiler Building and
Health & Wellness Center

2 Commons Improvements
Kitchen Remodel
Remodel Office Area
Re-Roof Commons Building

3 Gym Interior Improvements
Painting, Scoreboards
Refinish Gym Flooring
New Athletic Lockers

4 Re-Roof Auditorium

5 Main Parking Lot Improvements

6 Main Entry Plaza Improvements

7 North Parking Lot Improvements

8 Running Track Resurfacing
Running Track Striping
Field Turf Replacement
New Stadium Scoreboads

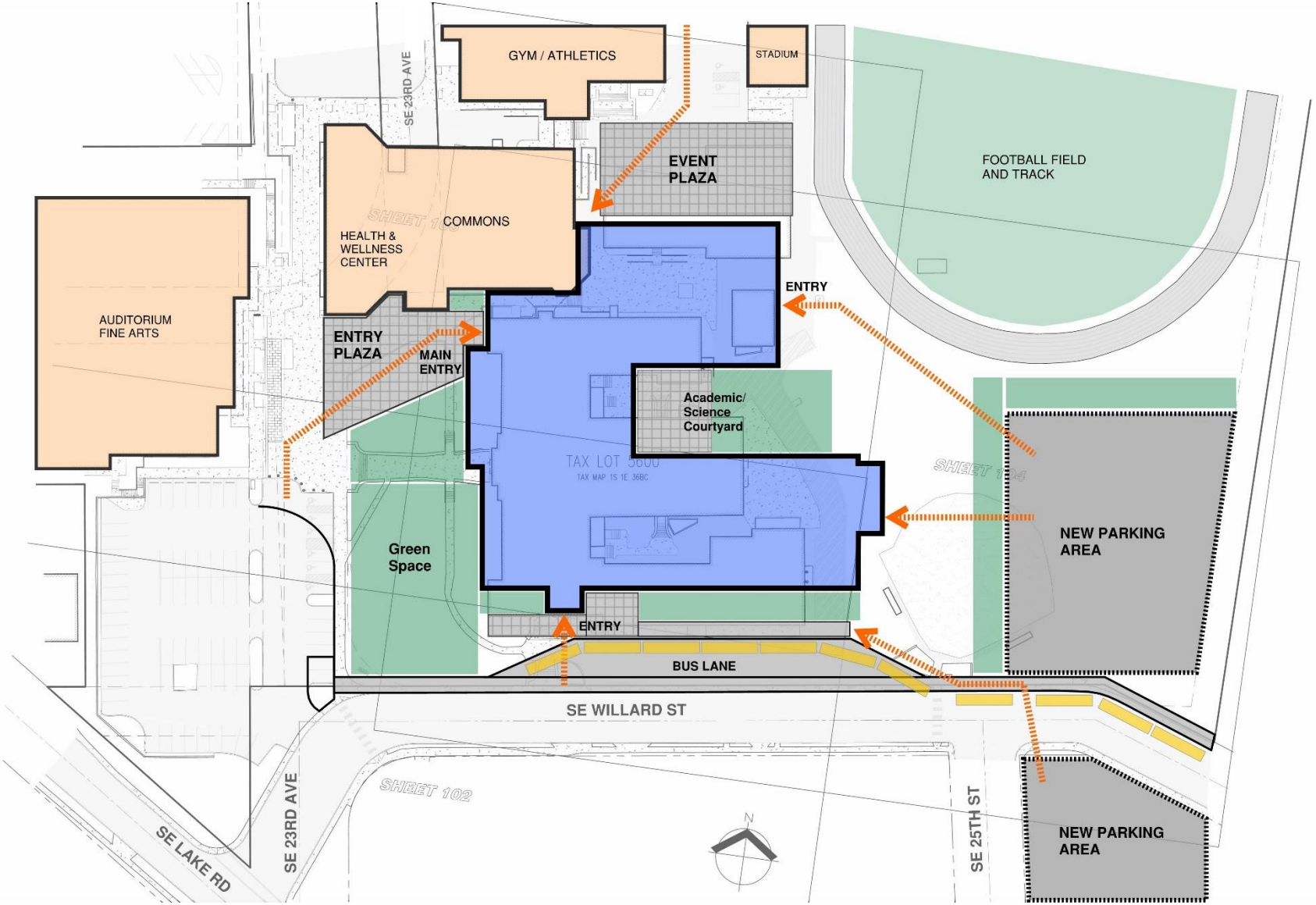
9 Remove Varsity Softball Field
Replace with New Parking Lot

10 Remove Existing Tennis Courts
Replace with New Parking Lot

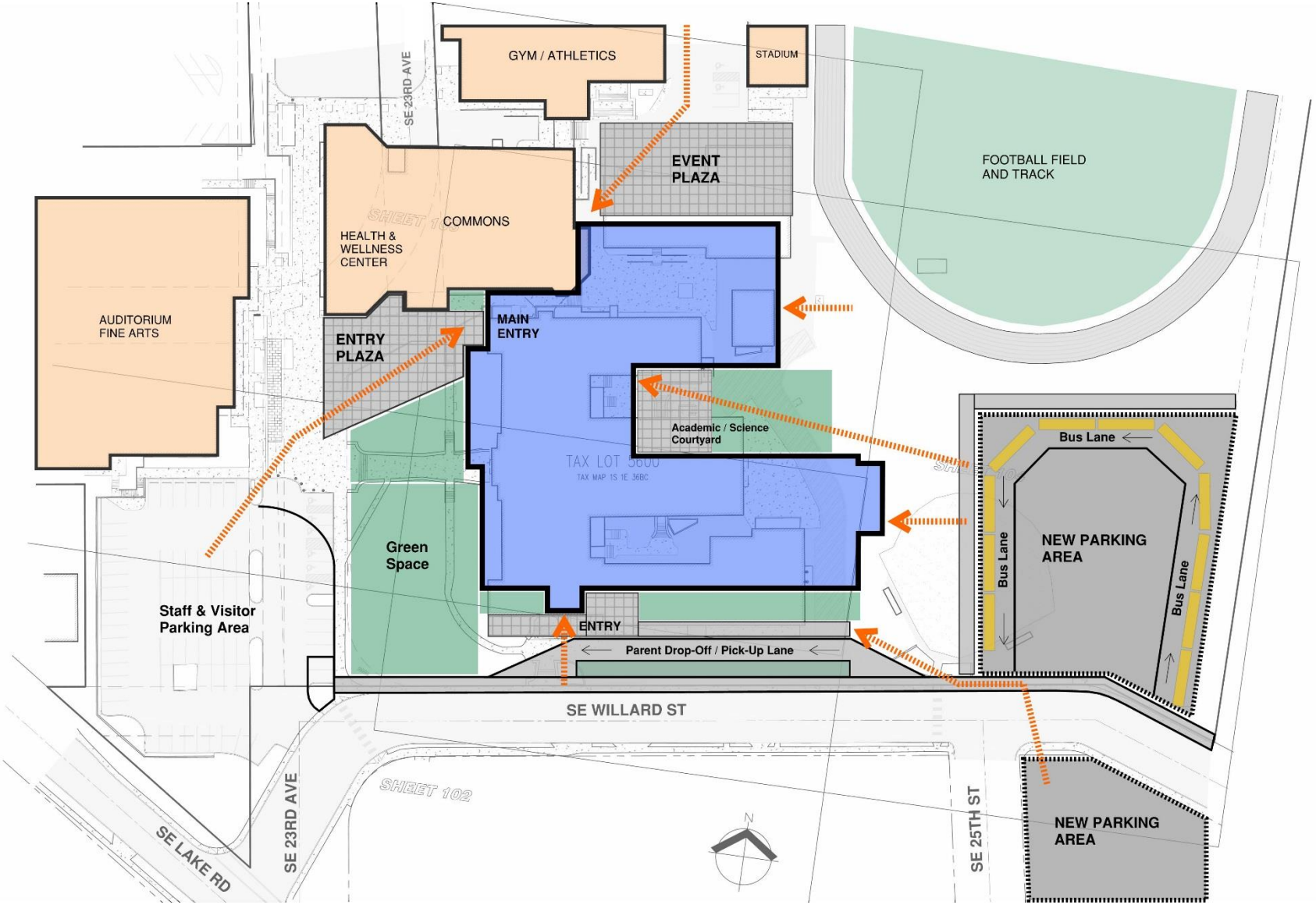
11 ADA Improvements to Stadium
New Elevator to Press Box

Current Design Concepts

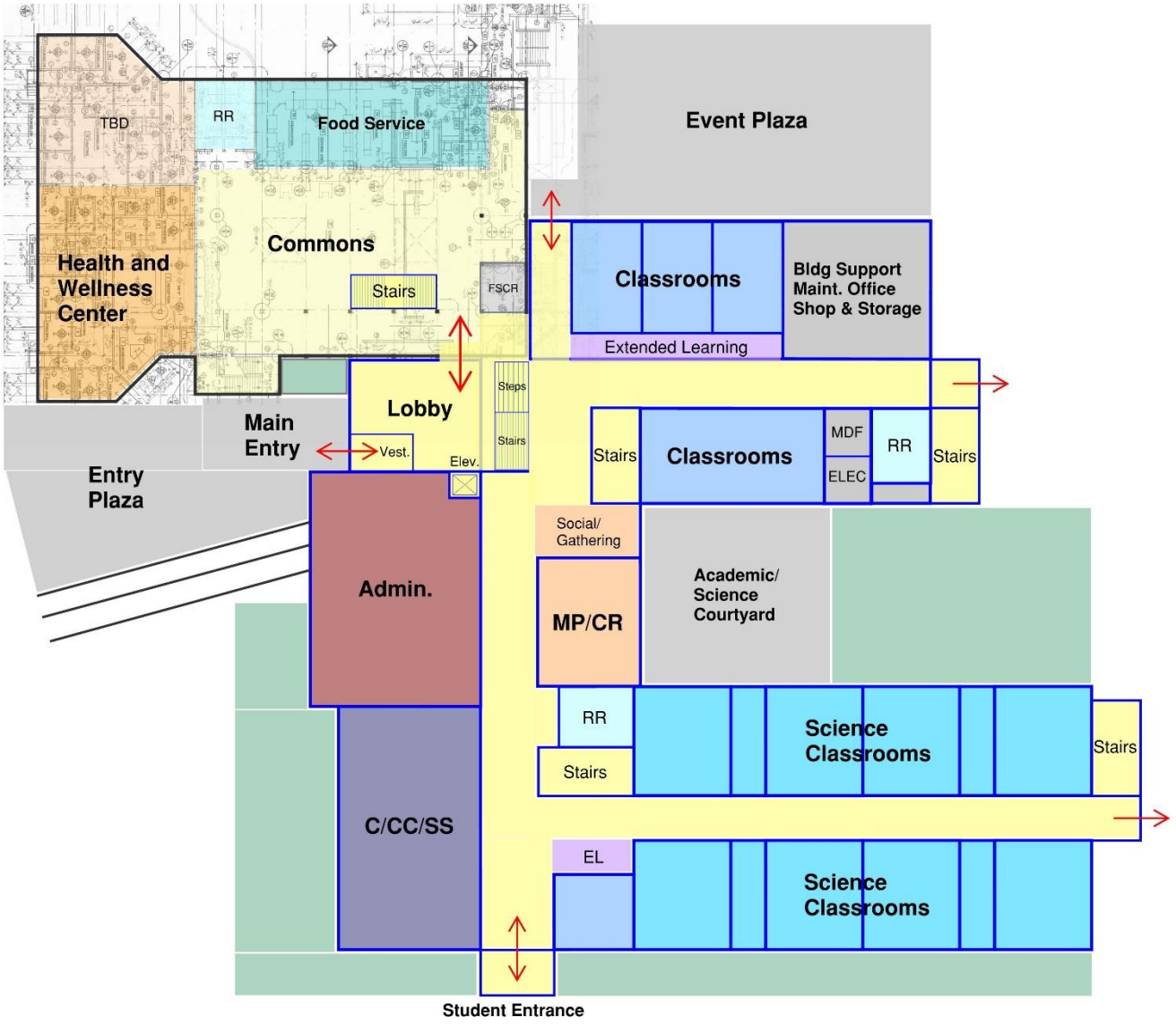
Site Plan Study 1



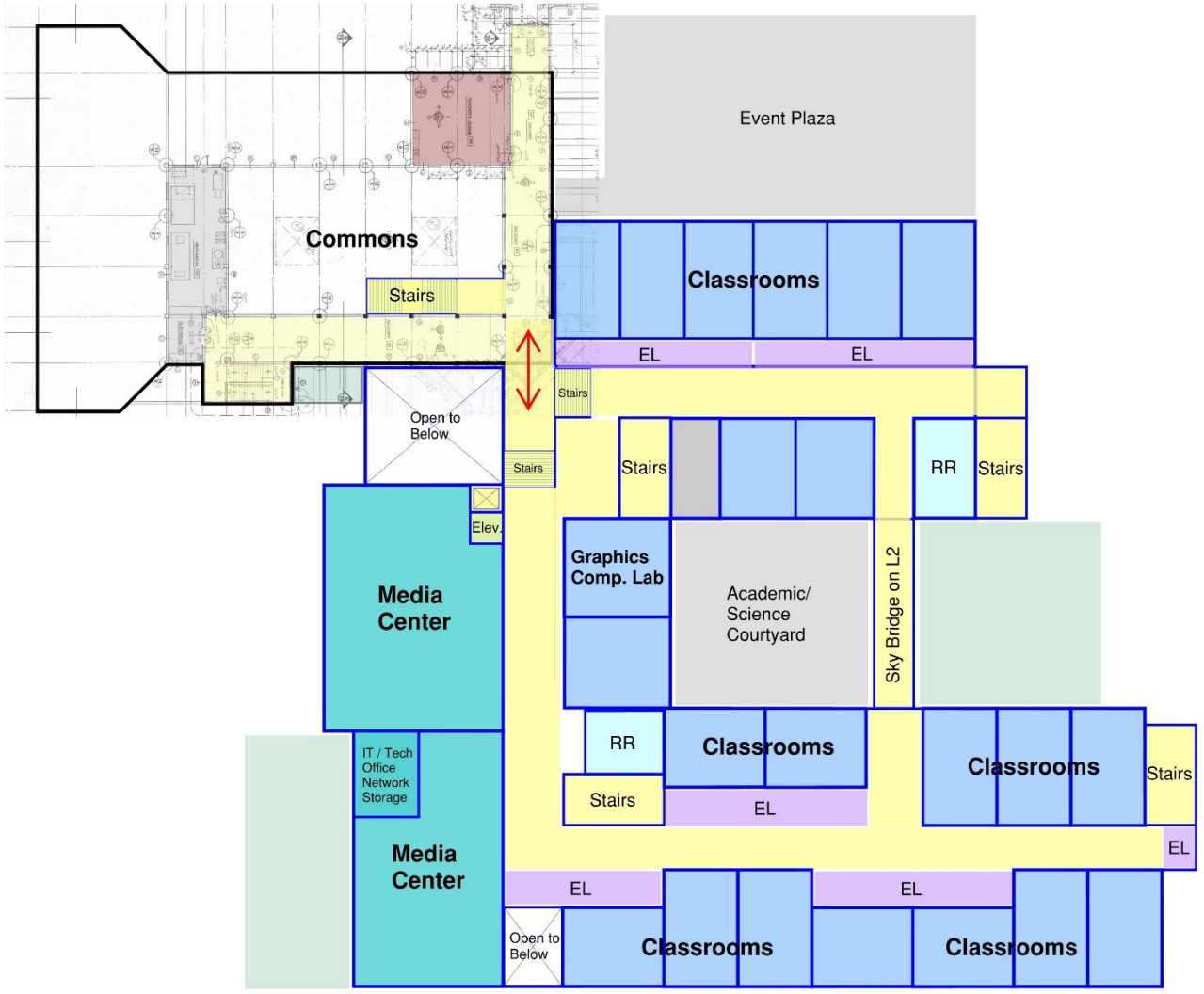
Site Plan Study 2



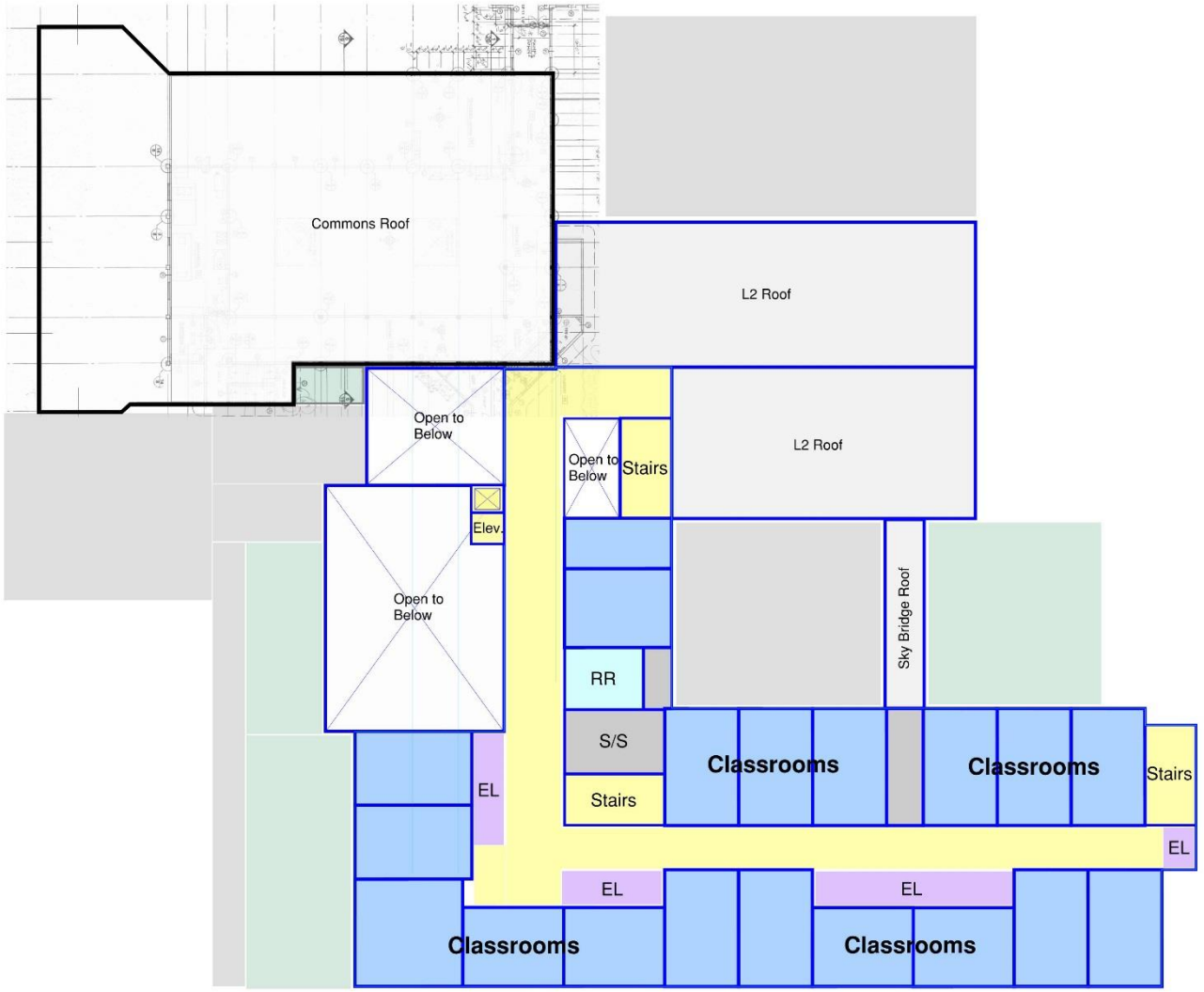
Level 1 Diagram



Level 2 Diagram

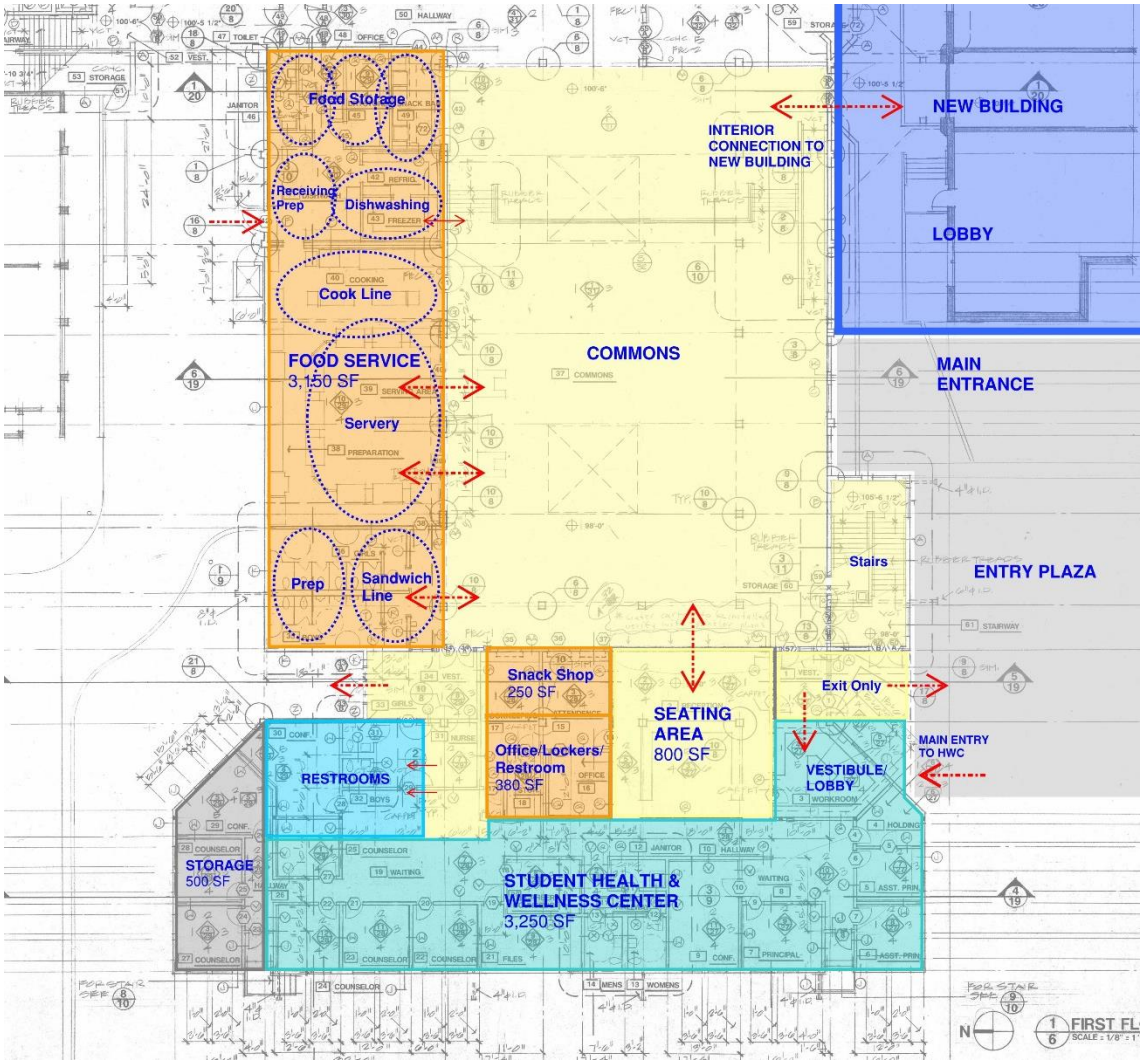


Level 3 Diagram



Concept Design Study

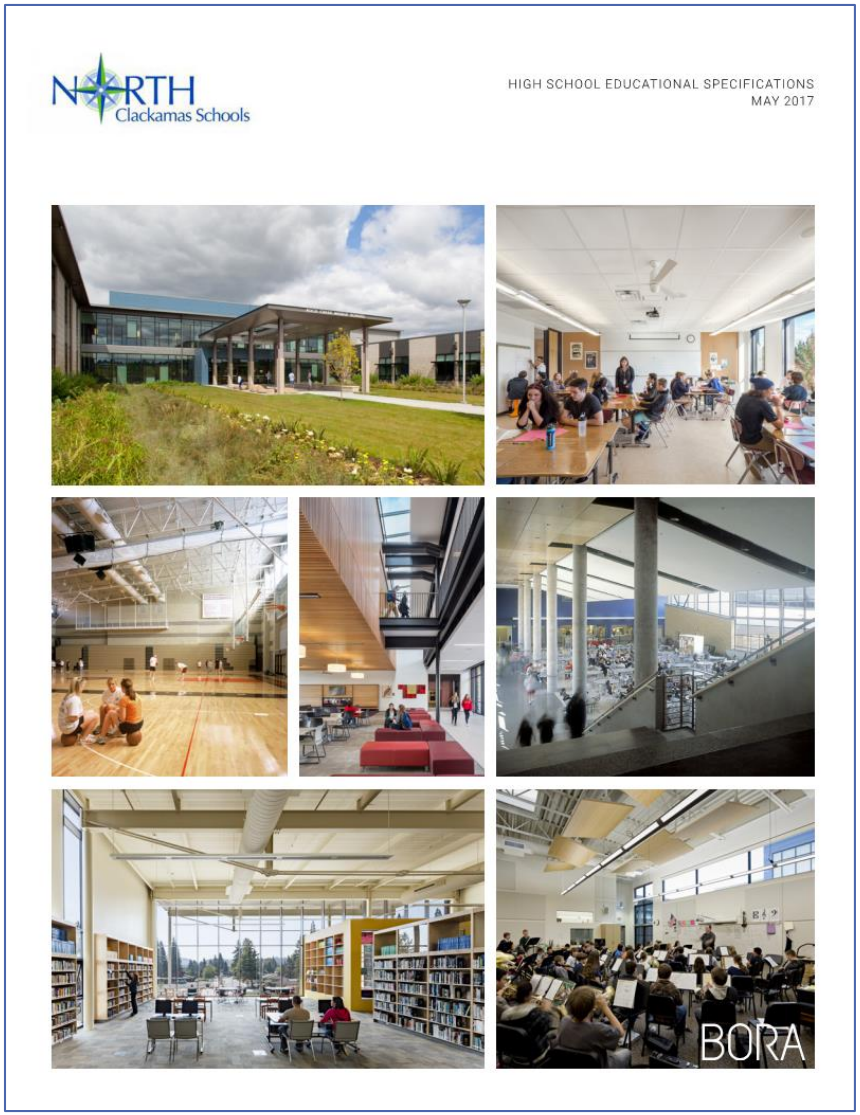
Commons Remodel - Overall Floor Plan



Area Program / Educational Specs

Area Program / Educational Specs

- North Clackamas School District's High School Educational Specifications are complete.
- The MHS area program for the new building mirrors Ed Specs, with some customization based on school needs.
  - Classroom organization and use of extended learning areas
  - Teacher planning rooms
  - Minor Adjustments to Admin, SPED and Library areas.
- Limited ability to align commons building with Ed Specs due to size of existing building.



Q & A

Milwaukie High School
Community Meeting

North Clackamas School District
Dull Olson Weekes - IBI Group Architects
May 24, 2017

Bond Information

2016 CAPITAL CONSTRUCTION BOND

The Milwaukie High School and Lake Road Sports facilities are both enabled by the passage of the 2016 capital construction bond measure. With a passage rate of 62%, this measure will positively impact 17,324 students and our community through major facilities renovations, safety upgrades, and new construction.

PROJECT LIST:

Alder Creek Middle School
Athletic Fields / Clackamas High West and Rex Putnam
Ardenwald Elementary School
Bilquist Elementary School
Campbell Elementary School
Clackamas High School East / Phase One
Clackamas High School East / Phase Two
Clackamas High School West
Clackamas High School West Student Health Center
Facilities Operations
Happy Valley Elementary School
Happy Valley Middle School Classroom Addition
Happy Valley MS Covered Play and Interior
Lake Road Sports Facilities
Land Lab
Lewelling Elementary School
Linwood / Sojourner Elementary School
Milwaukie / El Puente Elementary School
Milwaukie High School
Mount Scott Elementary School Classroom and Cafeteria
Mount Scott Elementary School Improvements
New Elementary School
New High School in Rock Creek Area
New Urban High School
Oak Grove Elementary School
Oregon Trail Elementary School
Rex Putnam High School
Rex Putnam High School Health Center
Riverside Elementary School
Rowe Middle School
Sabin Professional Technical Center
Schellenberg Professional Technical Center
Scouters Mountain Elementary School
Spring Mountain Elementary School
Sunnyside Elementary School
Verne Duncan Elementary School
View Acres Elementary School
Whitcomb Elementary School
Wichita Family Support Center

Historical Context

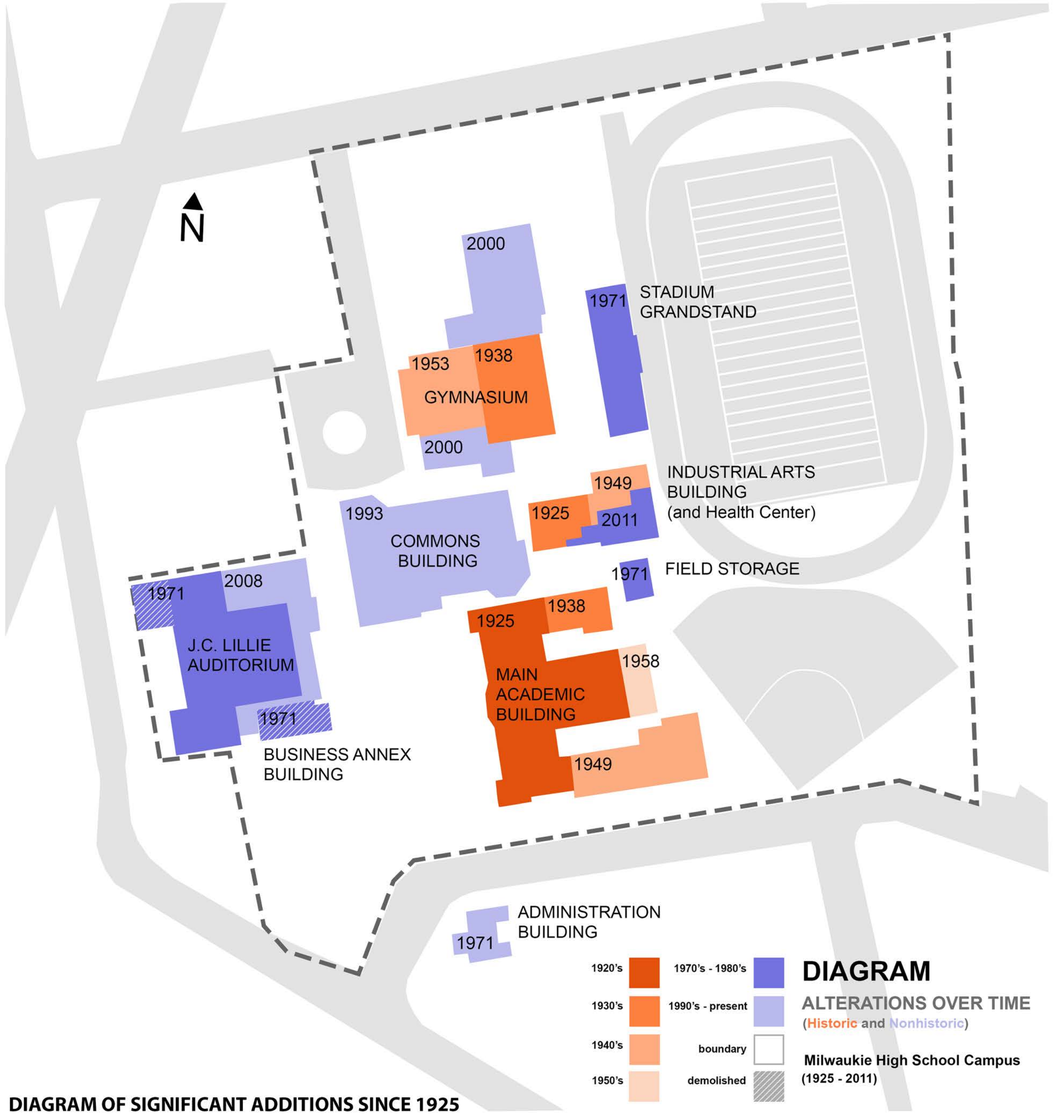


DIAGRAM OF SIGNIFICANT ADDITIONS SINCE 1925

RENOVATION TIMELINE

1925 STOKES & ZELLER CO.
Main academic building and manual training & boiler building

1938 STOKES & ZELLER CO.
Gymnasium and north wing

1941 WALTER E. KELLY
Vocational agricultural building

1949 STOKES & ALLYN
Addition of south wing to main building, addition to schools boiler room, track & field and tennis court addition.

1953 RICHARD WILHELM SUNDELEAF
Addition and remodel to the gymnasium and remodel to boiler building to create shop.

1958 FREEMAN, HAYSLIP, TUFT & HEWLETT
Major renovation of the main academic buidling, renovation to the boiler building to create an arts & crafts use, addition of the vocal room to the main building, conversion of the vocational agricultrual building into a band building.

1971
Business Education Building, conversion of vocal room into library administrative offices and the auditorium into a library resource center and reading room, replacement of the band building, original construction of the auditorium.

1993
The Commons Building and relocation of the school administration into the commons building.

2000
Second addition to the gym on the north side of the building, minor alterations to the main building, reconstruction of the main entry facade and installation of new windows

2008
Conversion of the auditorium into the J.C. Lillie Performing Arts Building with an addition of a new art department and dance studio, renovations to the band room and drama room, addition of a black box theater, new lobby, demolition of the Business Education Building, remodel of locker room and team rooms.

2011
Demolition of the southeastern corner of the Arts & Crafts/boiler building and replaced with the Health and Wellness Center

1956 photograph of Milwaukie Union High School
Oregon Historical Society archives

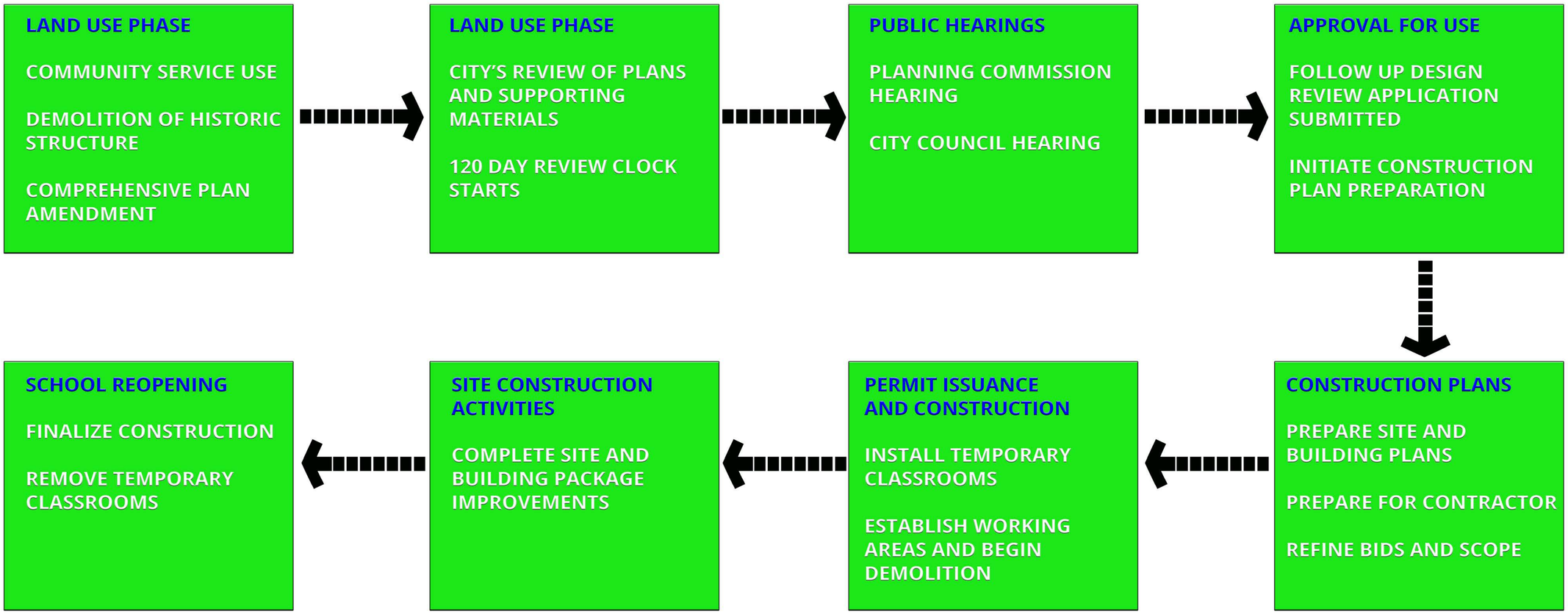
A photograph looking east at the current Milwaukie High School's main facade.

1956 photographs of Milwaukie Union High School
Oregon Historical Society archives

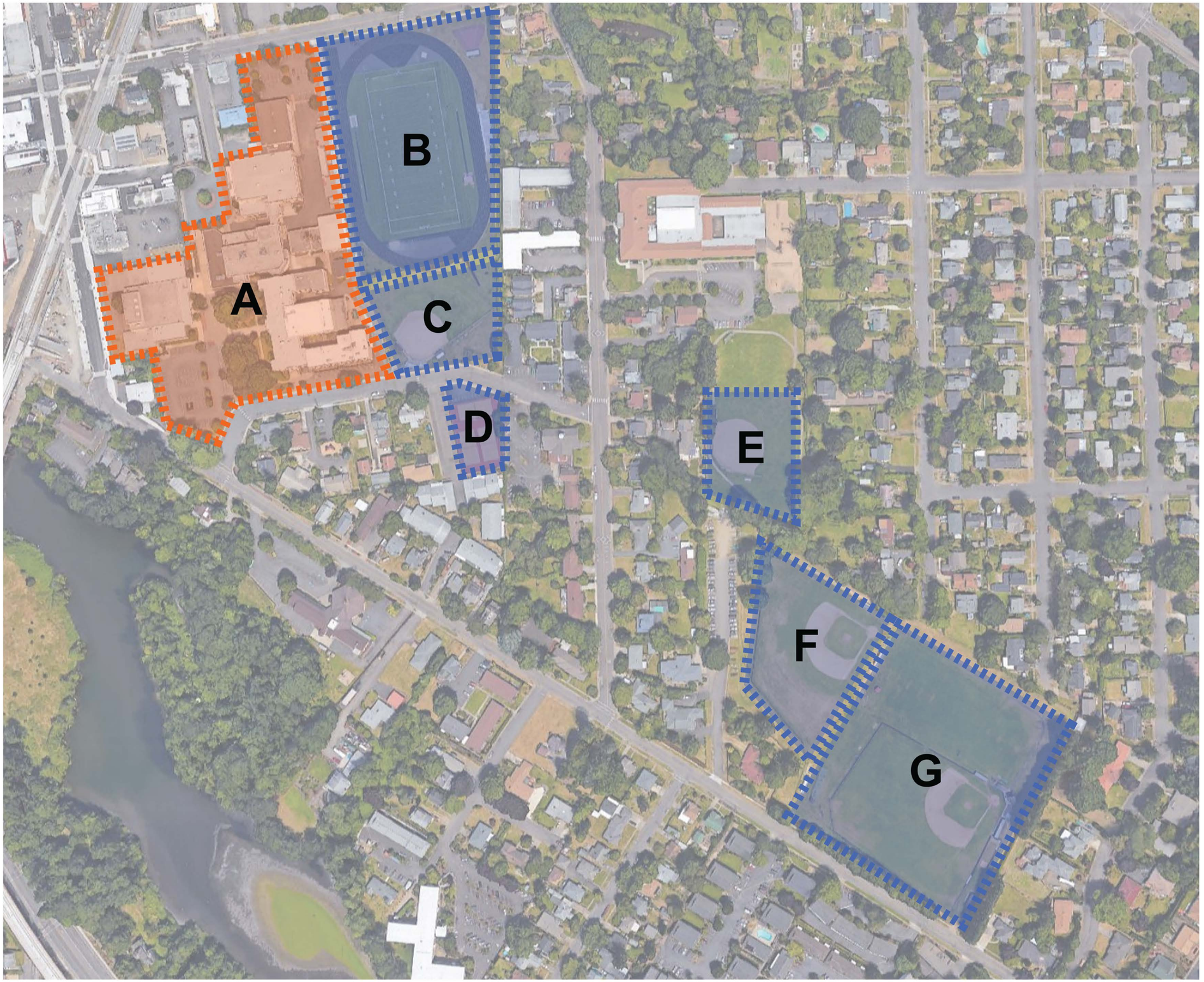
1926 photographs of Milwaukie Union High School
The Milwaukie Review, 1926

Process and Timeline

Process and Timeline



Scope Diagram



PRELIMINARY PROJECT SCOPE

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C Relocate Varsity Softball Field to
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Add (4) New Tennis Courts

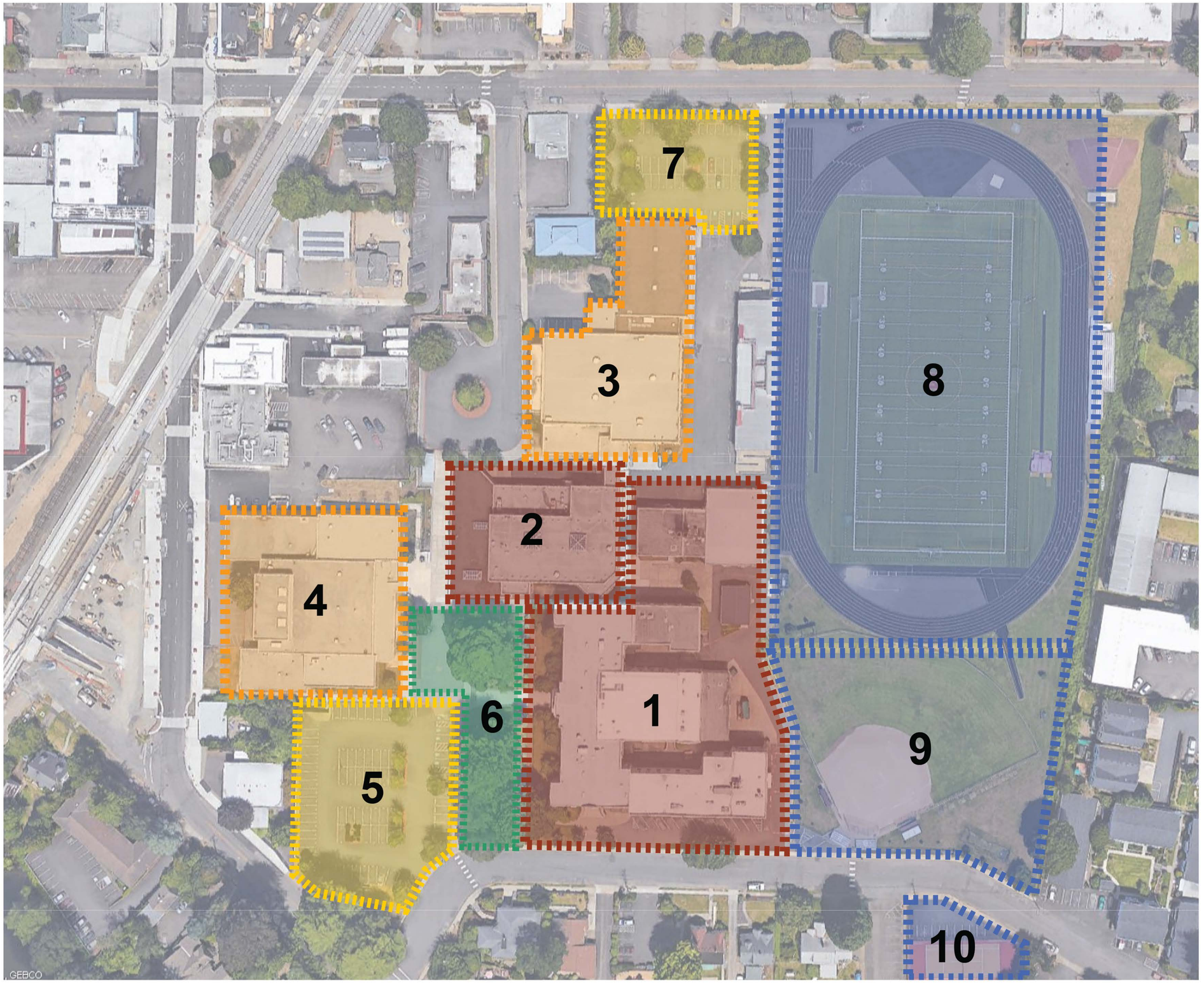
D Remove Existing Tennis Courts
New Parking Lot

E New JV Softball Field at
Milwaukie ES

F New Varsity Softball Field

G New Varsity Baseball Field
(Relocate Field Adjacent to Soft
ball Field)

Scope Diagram | Main Campus



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9 Remove Varsity Softball Field
(4) New Tennis Courts

10 Remove Existing Tennis Courts
New Parking Lot

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Jennings Lodge, OR 97267

Jennifer Harding
828 SE River Forest Court
Portland, OR 97267

Barbara Kemper
17673 SE 130th Ave.
Clackamas, OR 97015

Cyndi Lewis-Wolfram
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Sandra McLeod
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TERESA
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BECK CHEYENNE S
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BEIDECK GERALD L & VIOLETA
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LAKE OSWEGO, OR 97034

BISIO MARIO K PERS REP
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BITZ CAROL ANN CO-TRUSTEE
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BLAIN BILLIE MAE
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BLOSSER HEATHER L
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BONDO STEPHEN R & JENAFER K
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PATRICIA E
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PORTLAND, OR 97202

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3515 SE LAKE RD
MILWAUKIE, OR 97222

FECHTER JILL & GORDON
3210 SE ALDERCREST RD
MILWAUKIE, OR 97222

FREY GILBERT N TRUSTEE
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MILWAUKIE, OR 97222

FRIESEN AMY D
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MILWAUKIE, OR 97222

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MILWAUKIE, OR 97222

GALLAMORE LOLITA M
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MILWAUKIE, OR 97222

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3837 SE LAKE RD
MILWAUKIE, OR 97222

GARVEY RYAN L & JULI A
3805 SE LAKE RD
MILWAUKIE, OR 97222

GARVIN JAMES C & TRISHA L
12402 SE GUILFORD DR
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GATELY PHILLIP C & STEPHANIE L
10333 SE 37TH AVE
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3586 SE NASE CT
MILWAUKIE, OR 97222

GRAHAM JOHN JR & JOLYAN M PRATT-GRAHAM
3717 SE LICYNTRA LN
MILWAUKIE, OR 97222

HALL DENNIS D
12216 SE 38TH AVE
MILWAUKIE, OR 97222

HEIMS KIRK R
12251 SE 38TH AVE
MILWAUKIE, OR 97222

HENKES LAURA M TRUSTEE
12717 SE BOSS LN
MILWAUKIE, OR 97222

HOLCOMB DAVID GERALD & SARAH RENEE
12232 SE 36TH AVE
MILWAUKIE, OR 97222

HOUSER CAROL J
12404 SE SHELL LN
MILWAUKIE, OR 97222

HUGHSON HELEN E TRUSTEE
12511 SE GUILFORD DR
MILWAUKIE, OR 97222

IGNATOWSKI JOSEPH LEONARD CO-TRUSTEE
2408 OAK VALE CT NW
VIENNA, VA 22181

JACOBS BERNARD J & JOAN
12346 SE 38TH AVE
MILWAUKIE, OR 97222

JAKOBSON ROSANNA M
12545 SE GUILFORD DR
MILWAUKIE, OR 97222

JI TONGYOU & SHUHUA ZHAO
12751 SE BOSS LN
MILWAUKIE, OR 97222

JONES THERESA M & SAMUEL MARK
12236 SE 37TH AVE
MILWAUKIE, OR 97222

JOSLIN PAMELA A
12179 SE 37TH AVE
MILWAUKIE, OR 97222

KARAMBELAS RANDY CONSTANTINE TRUSTEE
12760 SE BOSS LN
MILWAUKIE, OR 97222

KAUFMAN DEREK & KARA
3555 SE LAKE RD
MILWAUKIE, OR 97222

KAYSER WILLIAM H & CRISTA D
3417 SE ALDERCREST RD
MILWAUKIE, OR 97222

KENNY JOHN F & MAY A
3575 SE NASE CT
MILWAUKIE, OR 97222

KING ISABEL BARBARA TRUSTEE
12446 SE GUILFORD DR
MILWAUKIE, OR 97222

KNAPP MELVIN D & PEGGY L
12462 SE GUILFORD DR
MILWAUKIE, OR 97222

KOSMAS THOMAS J & KAREN S
3576 SE NASE CT
MILWAUKIE, OR 97222

KOZAR PENNY
12226 SE GUILFORD DR
MILWAUKIE, OR 97222

KYLES MOLLY FROLICH & CHRISTOPHER
12236 SE 35TH CT
MILWAUKIE, OR 97222

LACINE JEFFREY J & CHELSI L
12315 SE 38TH AVE
MILWAUKIE, OR 97222

LANDIS MELVIN G & SANDRA M
PO BOX 22649
MILWAUKIE, OR 97269

MALVICK STEVEN W & ELLEN E
12526 SE GUILFORD DR
MILWAUKIE, OR 97222

MANN LAWRENCE C & CAROL L
3360 SE ALDERCREST RD
MILWAUKIE, OR 97222

MARTIN EDWARD J TRUSTEE
12764 SE NIXON AVE
MILWAUKIE, OR 97222

MARTIN KAREN M
884 SE 25TH AVE
GRESHAM, OR 97080

MASCOTT WILLIAM J & BONNIE J
3455 SE ALDERCREST RD
MILWAUKIE, OR 97222

MCCLURE KEVIN L
2814 SW BRIXTON AVE
GRESHAM, OR 97080

MCKEE DENNIS L & BETTY L
3634 SE LICYNTRA LN
MILWAUKIE, OR 97222

MCKINNON ELIZABETH G
12210 SE 36TH AVE
MILWAUKIE, OR 97222

MEAGHER MEGAN & MICHAEL
12571 SE GUILFORD DR
MILWAUKIE, OR 97222

MILLS LEONARD L & LISA K
3435 SE ALDERCREST RD
MILWAUKIE, OR 97222

MILWAUKIE LUTHERAN CHURCH
3810 SE LAKE RD
MILWAUKIE, OR 97222

MINER CAROL
12336 SE GUILFORD DR
MILWAUKIE, OR 97222

MITCHELL WILLIAM DEAN
12255 SE 36TH AVE
MILWAUKIE, OR 97222

MOCK LOIS ANN TRUSTEE
12554 SE SHELL LN
MILWAUKIE, OR 97222

MORRISON MIRIAM R
12626 SE BOSS LN
MILWAUKIE, OR 97222

MUELLER DAVID L & GAIL M
3409 SE ALDERCREST RD
MILWAUKIE, OR 97222

MURRAY MIRANDA M
12406 SE GUILFORD DR
MILWAUKIE, OR 97222

NORTH CLACKAMAS SD #12
4444 SE LAKE RD
MILWAUKIE, OR 97222

NORTH CLACKAMAS SD #12
12400 SE FREEMAN WAY
MILWAUKIE, OR 97222

ODELL JENELLE
3566 SE NASE CT
MILWAUKIE, OR 97222

OLSON DONNA LYNNE
12382 SE SHELL LN
MILWAUKIE, OR 97222

OWEN MICHAEL W & DAWN L
12455 SE GUILFORD DR
MILWAUKIE, OR 97222

PERSAD AMY L
12235 SE GUILFORD DR
MILWAUKIE, OR 97222

PETERSON EDDY A & PATRICIA J
3809 SE ANGELA WAY
MILWAUKIE, OR 97222

POP ARTUR L
12565 SE BOSS LN
MILWAUKIE, OR 97222

PYRYT JOHN F
12486 SE SHELL LN
MILWAUKIE, OR 97222

QUINTANA RICHARD D & TERESA LYNN
12209 SE 38TH AVE
MILWAUKIE, OR 97222

RAHIMI ALIREZA
3822 SE LICYNTRA LN
MILWAUKIE, OR 97222

RICE JASON C & MARIA A
12405 SE GUILFORD DR
MILWAUKIE, OR 97222

RICE RANDY J
3421 SE GUILFORD CT
MILWAUKIE, OR 97222

RICHARDS ESTHER M TRUSTEE
12166 SE 36TH AVE
MILWAUKIE, OR 97222

ROBERTSON JASON
12204 SE 35TH CT
MILWAUKIE, OR 97222

SABIN DAVID J & MARIA C
12202 SE GUILFORD DR
MILWAUKIE, OR 97222

SANMAN RODGER G & DARLENE R
3410 SE ALDERCREST RD
MILWAUKIE, OR 97222

SANTILLI STEVEN M & CATHY J
12530 SE OATFIELD RD
MILWAUKIE, OR 97222

SCHMIDT MARION
12304 SE 38TH AVE
MILWAUKIE, OR 97222

SEAMAN CHARLES P & PEGGY E
8407 SW 58TH AVE
PORTLAND, OR 97219

SEAMAN MARK H & FRIEDA T
11839 SW 26TH PL
PORTLAND, OR 97219

SEAMAN MARK H JR
8407 SW 58TH AVE
PORTLAND, OR 97219

SHUELL JODY R
12380 SE SHELL LN
MILWAUKIE, OR 97222

SILVA ROBERTO P & SARAH S
12123 SE 36TH AVE
MILWAUKIE, OR 97222

SIMMONS EDWARD KEITH & LAURIE ELLEN
3500 SE GUILFORD CT
MILWAUKIE, OR 97222

SMITH BARBARA C & HOWARD LANOFF
12577 SE BOSS LN
MILWAUKIE, OR 97222

SMITH MARLENE M TRUSTEE
12215 SE 38TH AVE
MILWAUKIE, OR 97222

STORES REX A
3535 SE GUILFORD CT
MILWAUKIE, OR 97222

STOUTENBURG SHELLY
6314 NE MALLORY AVE
PORTLAND, OR 97211

TAYLOR HAROLD A & CONCEPCION
12224 SE 38TH AVE
MILWAUKIE, OR 97222

THOMASON MONA J & BRIAN R SHENK
3666 SE LICYNTRA LN
MILWAUKIE, OR 97222

TONDREAU FLORIENE M CO-TRUSTEE
12432 SE GUILFORD DR
MILWAUKIE, OR 97222

TOREN HARM & SUSAN J
12623 SE BOSS LN
MILWAUKIE, OR 97222

WALL MITCHELL C & MARILYN M
PO BOX 68373
PORTLAND, OR 97268

WEINTRAUB FRANKLIN R TRUSTEE
12216 SE GUILFORD DR
MILWAUKIE, OR 97222

WELLS STEPHANIE C BASTIN & LANCE J
12215 SE GUILFORD DR
MILWAUKIE, OR 97222

WIENS HENRY & AUDREY DENT
12208 SE 38TH AVE
MILWAUKIE, OR 97222

WILE MARA
1347 DALTON DR
EUGENE, OR 97404

WORTHINGTON CLARENCE T & JANE E
12124 SE 36TH AVE
MILWAUKIE, OR 97222

WRIGHT MARK O
4907 SE 51ST AVE
PORTLAND, OR 97206

WROBLEWSKI VERONICA E
8414 FORREST DR
CANTON, MI 48187

YOSHITOMI ANNE H TRUSTEE
3764 SE LICYNTRA CT
MILWAUKIE, OR 97222

ZUERN GREG D & TIFFANY A
3758 SE LICYNTRA LN
MILWAUKIE, OR 97222

ADLER DONALD H TRUSTEE
PO BOX 12507
PORTLAND, OR 97212

ADLER RESIDENTIAL PROPERTIES LLC
PO BOX 12507
PORTLAND, OR 97212

ALLEN KAREN L
11987 SE 28TH AVE
MILWAUKIE, OR 97222

ALVARADO VICTOR E
11763 SE 33RD AVE
MILWAUKIE, OR 97222

ANDERSON JERRY A & ARIJA
11611 SE 33RD AVE
MILWAUKIE, OR 97222

ANDREW WILLIAM N
11827 SE 28TH AVE
MILWAUKIE, OR 97222

ANGELL DALE & CONNIE
11951 SE 33RD AVE
MILWAUKIE, OR 97222

ATHERTON RICHARD & ALICE
11464 SE 27TH AVE
MILWAUKIE, OR 97222

AUSTEN JONATHAN THOR & RACHEL
11448 SE 27TH AVE
MILWAUKIE, OR 97222

BABBITT DONALD D & CONSTANCE A
11661 SE 32ND AVE
MILWAUKIE, OR 97222

BARGENDER STEPHEN J & JUDITH A
3105 SE LAKE RD
MILWAUKIE, OR 97222

BARRIENTOS SERGIO & JENNIFER L
11573 SE 31ST AVE
MILWAUKIE, OR 97222

BARTON BRAD & CASSANDRA
14845 SW 100TH AVE
TIGARD, OR 97224

BERTRAND MELISSA D
3172 SE LAKE RD #27
MILWAUKIE, OR 97222

BIGGS JENNIFER KAY & LLOYD S WOLFE III
3115 SE LAKE RD
MILWAUKIE, OR 97222

BLUESTONE & HOCKLEY RE SERVICES
9320 SW BARBUR BLVD STE 300
PORTLAND, OR 97219

BOLEY RONALD J & VICTORIA D
11563 SE 30TH AVE
MILWAUKIE, OR 97222

BRODY BENJAMIN L
2725 SE LAKE RD
MILWAUKIE, OR 97222

BRYAN RAYMOND D
11416 SE 27TH AVE
MILWAUKIE, OR 97222

BUCKLEY KATHLEEN
11421 SE 30TH AVE
MILWAUKIE, OR 97222

BULLARD MATTHEW A
11633 SE 33RD AVE
MILWAUKIE, OR 97222

BURT BARBARA A TRUSTEE
11814 SE 28TH AVE
MILWAUKIE, OR 97222

BURT WARREN R
11667 SE 31ST AVE
MILWAUKIE, OR 97222

CAMPBELL SALLY
3128 SE LAKE RD
MILWAUKIE, OR 97222

CANNONBALL RUN LLC
2906 SE MADISON ST
MILWAUKIE, OR 97222

CARLETON MARY PATRICIA
11512 SE 27TH AVE
MILWAUKIE, OR 97222

CARTASEGNA CAROL JEAN
11973 SE 33RD AVE
MILWAUKIE, OR 97222

CHALE LUANNE KENNA
11531 SE 30TH AVE
MILWAUKIE, OR 97222

CLARK MARY S
11742 SE 32ND AVE
MILWAUKIE, OR 97222

CLAYTON ADAM E
3126 SE LAKE RD
MILWAUKIE, OR 97222

COLPO DAVID A & LYNNE M
11625 SE 27TH AVE
MILWAUKIE, OR 97222

COXEN PETER E
82-5824 NAPOOPOO RD
CAPTAIN COOK, HI 96704

CRABB LARRY BRIAN
11423 SE 30TH AVE
MILWAUKIE, OR 97222

CRONK ROBERT K
3570 SW RIVER PKWY #1711
PORTLAND, OR 97239

DAMIAN ANTHONY TRUSTEE
11846 SE 32ND AVE
MILWAUKIE, OR 97222

DAMON EMILY COLLEEN
3016 SE SELLWOOD ST
MILWAUKIE, OR 97222

DANIELSEN ANNE-LISE
11598 SE 27TH AVE
MILWAUKIE, OR 97222

DEARDORFF MARIA G
11690 SE 32ND AVE
MILWAUKIE, OR 97222

DONNERBERG GEORGE W &
LINDA A
17809 NE MARINE DR SLIP A13
PORTLAND, OR 97230

DOWELL WILLIAM L & HEATHER
D
3182 SE LAKE RD
MILWAUKIE, OR 97222

DOWNS DAVID J & KRISTA J
13114 SE KUEHN RD
MILWAUKIE, OR 97222

DURRE DAWN M
11635 SE 31ST AVE
MILWAUKIE, OR 97222

EDDY JANET C & RODGER
2582 NW LOVEJOY ST
PORTLAND, OR 97210

ESTABROOK TODD A
11659 SE 32ND AVE
MILWAUKIE, OR 97222

FAST CHRISTOPHER
3144 SE LAKE RD
MILWAUKIE, OR 97222

FAUST LAND TRUST
11571 SE 32ND AVE
MILWAUKIE, OR 97222

FIELDS JACK E & LINDA L
11593 SE 27TH AVE
MILWAUKIE, OR 97222

FISHER DEBBIE C
PO BOX 220395
MILWAUKIE, OR 97269

FLYNN CASEY R
11394 SE 27TH AVE
MILWAUKIE, OR 97222

FOSTERLING CHARLES D
TRUSTEE
11901 SE 32ND AVE
MILWAUKIE, OR 97222

FOWLER DENNIS Z
3164 SE LAKE RD
MILWAUKIE, OR 97222

FOZ ALEXANDER A & JOHANNA
K TWIGG
2636 SE GINO LN
MILWAUKIE, OR 97222

FULWIDER MICHAEL H & KATHIE
S NYE
16525 SE WARNOCK LN
MILWAUKIE, OR 97267

GAGE LYNNDA M
11665 SE 33RD AVE
MILWAUKIE, OR 97222

GIBSON KENDALL J & TERRI B
3015 SE SELLWOOD ST
MILWAUKIE, OR 97222

GOOD ALLISON M
11519 SE 30TH AVE
MILWAUKIE, OR 97222

GREEN DAVID
5040 SE TOLMAN ST
PORTLAND, OR 97206

GRIFFITH RANDALL SCOTT
11630 SE 27TH AVE
MILWAUKIE, OR 97222

GROSKLOS BRIAN M
11603 SE 32ND AVE
MILWAUKIE, OR 97222

GUNDERSON TIMOTHY V & TINA M
11415 SE 30TH AVE
MILWAUKIE, OR 97222

HAMBLEY KIRK & KAYLA
3216 SE WISTER ST
MILWAUKIE, OR 97222

HASSEN HECTOR & HALA H
12798 SE NORMANDY DR
CLACKAMAS, OR 97015

HAYES LILLICE K
11637 SE 32ND AVE
MILWAUKIE, OR 97222

HEALD JANICE L TRUSTEE
1632 VILLAGE PARK PL
WEST LINN, OR 97068

HEALY RYAN & HILARY
11552 SE 32ND AVE
MILWAUKIE, OR 97222

HESPEN BRETT D & MARGARET C
11584 SE 32ND AVE
MILWAUKIE, OR 97222

HICKMAN DARLENE ROBERTA
11580 SE 31ST AVE
MILWAUKIE, OR 97222

HUGHES RACHEL
11366 SE 27TH AVE
MILWAUKIE, OR 97222

INGELS FRANK B III
11526 SE 30TH AVE
MILWAUKIE, OR 97222

JAGER ALTON L
12106 SE 31ST PL #45
MILWAUKIE, OR 97222

JAYNES BRUCE D & SUZANNE K
12082 SE NIKLAS LN
HAPPY VALLEY, OR 97086

JOHNSON BENJAMIN A & KELLY L SULLIVAN
11470 SE 30TH AVE
MILWAUKIE, OR 97222

JUNG DANIEL N
11676 SE 31ST AVE
MILWAUKIE, OR 97222

KAUSCH-DALE MAREN TRUSTEE
11607 SE 33RD AVE
MILWAUKIE, OR 97222

KELLEY BRIAN TY
3152 SE LAKE RD
MILWAUKIE, OR 97222

KELLY MAURA F
11636 SE 32ND AVE
MILWAUKIE, OR 97222

KLINKER JOHN W JR TRUSTEE
8700 SW 54TH AVE
PORTLAND, OR 97219

KNIGHT JAMES
10987 SE 28TH AVE
MILWAUKIE, OR 97222

KORINEK EVA M
9700 SW EAGLE CT
BEAVERTON, OR 97008

LAKE ROAD PROPERTIES LLC
2647 SE LAKE RD
MILWAUKIE, OR 97222

LAMASCUS JAMES PRESTON
11870 SE 28TH AVE
MILWAUKIE, OR 97222

LANDIS CAROL S
11363 SE 30TH AVE
MILWAUKIE, OR 97222

LANGE ANDREW E & PATRICIA R
PO BOX 22497
MILWAUKIE, OR 97269

LARKINS PAITHEN & KATHRYN
PO BOX 68076
OAK GROVE, OR 97268

LAUZON GALE S
3180 SE LAKE RD
MILWAUKIE, OR 97222

LEAMY NANCY JOAN
1235 13TH ST
PORT TOWNSEND, WA 98368

LEFORS LAURIE J
11480 SE 27TH AVE
MILWAUKIE, OR 97222

LINENKO LARRY & ANN
2705 SE LAKE RD
MILWAUKIE, OR 97222

LOKAN DENNIS G & SHEILA M
3036 SE SELLWOOD ST
MILWAUKIE, OR 97222

LOOS ROBERT K
11585 SE 32ND AVE
MILWAUKIE, OR 97222

LUFKIN JACK E
11858 SE 28TH AVE
MILWAUKIE, OR 97222

LUFT CONNIE M
10167 SE 45TH AVE
MILWAUKIE, OR 97222

MAXWELL RICHARD A
2502 LINCOLN AVE
VANCOUVER, WA 98660

MCCAUSLAND GREGORY S
2706 SE LAKE RD
MILWAUKIE, OR 97222

MCENANY SAMUEL ALBERT
771 NW ANGEL HEIGHTS RD
STEVENSON, WA 98648

MCKENNA AMBER
3120 SE LAKE RD
MILWAUKIE, OR 97222

MCKEON JOHN J
5416 SE KNIGHT ST
PORTLAND, OR 97206

MCNAUGHTON ASHLEY E
11622 SE 31ST AVE
MILWAUKIE, OR 97222

MENELY SARAH K & MATTHEW A
2816 SE LAKE RD
MILWAUKIE, OR 97222

METRO 11525 SE 32ND AVE LLC
3914 SW MARTINS LN
PORTLAND, OR 97239

MOHR RACHEL M
3168 SE LAKE RD
MILWAUKIE, OR 97222

MONTGOMERY ANN MARIE
12101 SE 33RD PL
MILWAUKIE, OR 97222

MORAN JOHN H & JENNIFER L
11693 SE 32ND AVE
MILWAUKIE, OR 97222

MORRIS TIMOTHY R & NANCY E
11548 SE 31ST AVE
MILWAUKIE, OR 97222

MULKEY WILLIAM
11654 SE 31ST AVE
MILWAUKIE, OR 97222

NELSON JANIS E
3174 SE LAKE RD
MILWAUKIE, OR 97222

NIELSEN BENJAMIN
3148 SE LAKE RD
MILWAUKIE, OR 97222

OFSTEAD HEATH T & JULIE M
11698 SE 31ST AVE
MILWAUKIE, OR 97222

OLSEN CHARLES WESLEY JR
TRUSTEE
PO BOX 4803
PARKER, CO 80134

ONCEA CHARLES W IV
11658 SE 32ND AVE
MILWAUKIE, OR 97222

PERRY ROBERT
601 SW ASHDOWN CIR
WEST LINN, OR 97068

PHILLIPS RICK DEAN
3236 SE WISTER ST
MILWAUKIE, OR 97222

RAGLAND ANDREW J &
KATHLEEN M INNES
12331 SE 25TH AVE
MILWAUKIE, OR 97222

RICHARDS CHRISTINE JOANNE
PO BOX 22856
MILWAUKIE, OR 97269

RICHARDS ELIZABETH
3202 SE LAKE RD
MILWAUKIE, OR 97222

ROUSSEAU BENJAMIN T &
LORENA A
3264 SE LAKE RD
MILWAUKIE, OR 97222

RUPP DAVID & MARYLOU
3154 SE LAKE RD UNIT 18
MILWAUKIE, OR 97222

SCHABER JOANNE M
17702 SE HOWARD ST
MILWAUKIE, OR 97222

SCOTT WILLIAM C JR &
DEBORAH L
11554 SE 27TH AVE
MILWAUKIE, OR 97222

SENGER GAYLEN J & SANDRA M
11649 SE 31ST AVE
MILWAUKIE, OR 97222

SHEARER CASSANDRA D
2716 SE LAKE RD
MILWAUKIE, OR 97222

SHEARER SHERYL J
3124 SE LAKE RD
MILWAUKIE, OR 97222

SHELBY WILLIAM C & ELVA M
11805 SE 28TH AVE
MILWAUKIE, OR 97222

SHIELDS BONNIE S
3156 SE LAKE RD
MILWAUKIE, OR 97222

SIMUKKA KYLE
2806 SE LAKE RD
MILWAUKIE, OR 97222

STAI DUWAYNE L
11917 SE 33RD AVE
MILWAUKIE, OR 97222

STANIELS EMMA
11558 SE 30TH AVE
MILWAUKIE, OR 97222

ST STEPHEN SERBIAN ORTH CH
11447 SE 27TH AVE
MILWAUKIE, OR 97222

SUMMERS STEPHEN P
3140 SE LAKE RD UNIT 11
MILWAUKIE, OR 97222

SUN I PARK
4401 FREEMONT ST NE
LACEY, WA 98516

SUTHERLAND ANDREA & JAY
3255 SE LAKE RD
MILWAUKIE, OR 97222

TESCH DOUGLAS A
319 PALOS VERDES BLVD APT
201
REDONDO BEACH, CA 90277

TESCH DOUGLAS A
3178 SE LAKE RD
MILWAUKIE, OR 97222

TOBLER RANDY E JR TRUSTEE
678 NORTH FORK RD
CHEHALIS, WA 98532

VANBERGEN GLENN ALAN
11610 SE 30TH AVE
MILWAUKIE, OR 97222

VANBERGEN KATHLEEN
11576 SE 30TH AVE
MILWAUKIE, OR 97222

VAUGHAN JANICE E CO-
TRUSTEE
PO BOX 25
COUPEVILLE, WA 98239

WACEK HAROLD J LIVING TRUST
PO BOX 171
CLACKAMAS, OR 97015

WATERMAN RONALD L &
CATHERINE L
11774 SE 32ND AVE
MILWAUKIE, OR 97222

WATSON DOROTHY
11662 SE 27TH AVE
MILWAUKIE, OR 97222

WESTERGREN CRAIG B
TRUSTEE
2711 SE LAKE RD
MILWAUKIE, OR 97222

WHEELER BARBARA E
3146 SE LAKE RD
MILWAUKIE, OR 97222

WIEGE RENE E
11855 SE 32ND AVE
MILWAUKIE, OR 97222

WILLIS BRENT T & LINDA
3277 SE LAKE RD
MILWAUKIE, OR 97222

WILSON HEIDI LAND
PO BOX 181500
CORONADO, CA 92178

YARNO SANDRA L
11448 SE 30TH AVE
MILWAUKIE, OR 97222

ZANNI LAURIE MAY
PO BOX 220044
MILWAUKIE, OR 97269

ADLER DONALD H
PO BOX 12507
PORTLAND, OR 97212

AMATO/CRAIG PROPERTIES IN
412 NE ROYAL CT
PORTLAND, OR 97232

ATHERTON RICHARD & ALICE
11464 SE 27TH AVE
MILWAUKIE, OR 97222

AUSTEN JONATHAN THOR & RACHEL
11448 SE 27TH AVE
MILWAUKIE, OR 97222

B37 MILWAUKIE OWNER LLC
760 SW 9TH AVE STE 2200
PORTLAND, OR 97205

BACHHUBER THOMAS E JR
2236 SE WASHINGTON ST
MILWAUKIE, OR 97222

BERGERON JOYCE C
PO BOX 1338
GRESHAM, OR 97030

BERNARD SIRI
2437 SE LAKE RD
MILWAUKIE, OR 97222

BJORNSON BRIAN
621 SW MORRISON ST STE 800
PORTLAND, OR 97205

BLALOCK SHIRLEY A
2445 SE LAKE RD
MILWAUKIE, OR 97222

BLUESTONE & HOCKLEY RE SERVICES
9320 SW BARBUR BLVD STE 300
PORTLAND, OR 97219

BLUESTONE HOMES INC
704 MAIN ST STE 301
OREGON CITY, OR 97045

BRINK JAMES E & VIVIAN J
11188 SE 27TH AVE
MILWAUKIE, OR 97222

BRYAN RAYMOND D
11416 SE 27TH AVE
MILWAUKIE, OR 97222

BUCHWALTER MARIANNE TRUSTEE
135 SE HAWTHORNE BLVD
PORTLAND, OR 97214

CARLETON MARY PATRICIA
11512 SE 27TH AVE
MILWAUKIE, OR 97222

CHURCHILL SCOTT PERRY & N C MONAGHAN
2708 SE MONROE ST
MILWAUKIE, OR 97222

CHURCHILL SCOTT PERRY & NINA C M
2708 SE MONROE ST
MILWAUKIE, OR 97222

CITY OF MILWAUKIE
10722 SE MAIN ST
MILWAUKIE, OR 97222

COGGIN DANIELLE
2505 SE LAKE RD
MILWAUKIE, OR 97222

COLLINS JOHN C
11329 SE 27TH AVE
MILWAUKIE, OR 97222

COLPO DAVID A & LYNNE M
11625 SE 27TH AVE
MILWAUKIE, OR 97222

COLUMBIA PACIFIC INVSTMNT PROP LLC
11165 SE 23RD AVE
MILWAUKIE, OR 97222

COSSETTE DANIEL L & DONNA L
2502 SE LAKE RD
MILWAUKIE, OR 97222

DANGELO VINCENT ALI
2455 SE LAKE RD
MILWAUKIE, OR 97222

DANIEL-HOFFMAN DILLON D & KAIJA
2425 SE LAKE RD
MILWAUKIE, OR 97222

DANIELSEN ANNE-LISE
11598 SE 27TH AVE
MILWAUKIE, OR 97222

DANTAS BETO
1811 NW ROSEFINCH LN
PORTLAND, OR 97229

DECRISTOFORO MERENO
11358 SE 21ST AVE
MILWAUKIE, OR 97222

DEVILLIERS SYLVIA TRUSTEE
11177 SE 27TH AVE
MILWAUKIE, OR 97222

DUPASQUIER KATHLEEN ANN
11155 SE 27TH AVE
MILWAUKIE, OR 97222

EISWERTH BRENDAN E & TRACY MANDEL
11009 SE 28TH AVE
MILWAUKIE, OR 97222

FIELDS JACK E & LINDA L
11593 SE 27TH AVE
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GAFFNEY JOHN W
1155 CLAYTON WAY
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GODZYK ANDREW & BARBARA
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679 S STONEHENGE TER
WEST LINN, OR 97068

GRIFFITH RANDALL SCOTT
11630 SE 27TH AVE
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HARLAN DALE M
1952 NE SPINDRIFT CT
LINCOLN CITY, OR 97367

HASSEN HECTOR & HALA H
12798 SE NORMANDY DR
CLACKAMAS, OR 97015

HILLYER JANICE B LESSOR
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HORTON FAMILY LTD PRTNRSHP
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HORTON JEFFREY M
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MILWAUKIE, OR 97267

HUGHES RACHEL
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ISOM RUSSELL DUANE
11201 SE 27TH AVE
MILWAUKIE, OR 97222

JAMES PHILIP G
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JENKINS SUSAN
2431 SE LAKE RD
MILWAUKIE, OR 97222

JOYCE EDWARD D
13500 SW 72ND AVE STE 210
TIGARD, OR 97223

KAFKA COLIN J & SANDRA M
2626 SE WASHINGTON ST
MILWAUKIE, OR 97222

KANA LLC
155 B AVE STE 100
LAKE OSWEGO, OR 97034

KILBY CONSTANCE L
2451 SE LAKE RD
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KING SANDRA J
2439 SE LAKE RD
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LAKE ROAD PROPERTIES LLC
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5409 SE 37TH AVE
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SKIPWITH DONALD L
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MILWAUKIE HIGH SCHOOL
SIGN-IN SHEET
JUNE 27, 2017

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Mike Park	2460 SE Willard Milwaukie OR 97222	MLPark2001@Gmail.com

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JUNE 27, 2017

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Kim Kerr	22821 SE Tillstrom Damascus OR	kim@acmeadapters.com
Rene-Wiege MARTIN CASILLAS	11855 SE 32nd Ave	renew255c@gmail.com
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JUNE 27, 2017

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HAL WACEK	P.O. BOX 171 CLACKAMAS, OR 97015	(N/A)
Stephen McMurtrey	Northwest Housing Alternatives	503-654-1007 x122 mcmurtrey@nwhousing.org
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MEETING NOTES

Date: June 27, 2017
Project: Milwaukie High School and Lake Road Sports Complex
3J No.: 17398

The following transcripts were prepared from the comment cards submitted at the Milwaukie High School and Lake Road Sports Complex Neighborhood Meeting on June 27, 2017.

Commenter:
Bill Corti
503-654-0988
Willcorti@aol.com

Comments: I live near Rowe Middle School and Work and drive into downtown Milwaukie every day. Please do not create a traffic problem at the high school along Lake Road when the construction of the new school is taking place.
Make sure there are large enough rooms for the computer labs. Plan ahead for future computer innovations coming in the decades to come.

Commenter:
Rene Wiege
503-593-1034
renew2553@gmail.com

Comments: I live behind home plate and have concerns about additional traffic, noise, and congestion with the field being upgraded to Varsity Level. Currently there is insufficient parking for activities held there. SE 32nd Avenue off Lake Road is a dead end and now street parking is packed and creates traffic issues as drivers try to turn around. I do not want structures built any taller than existing, more lights, brighter lights, louder sound systems, than what I contend with now. I do not want to lose my view of the hills to the west. I don't want to feel fenced in my backyard.
The plans for the school improvements are much needed, and overdue and will serve Milwaukie well into the future.

Commenter:
Donald Skipwith
503-303-5438
nmskip@gmail.com

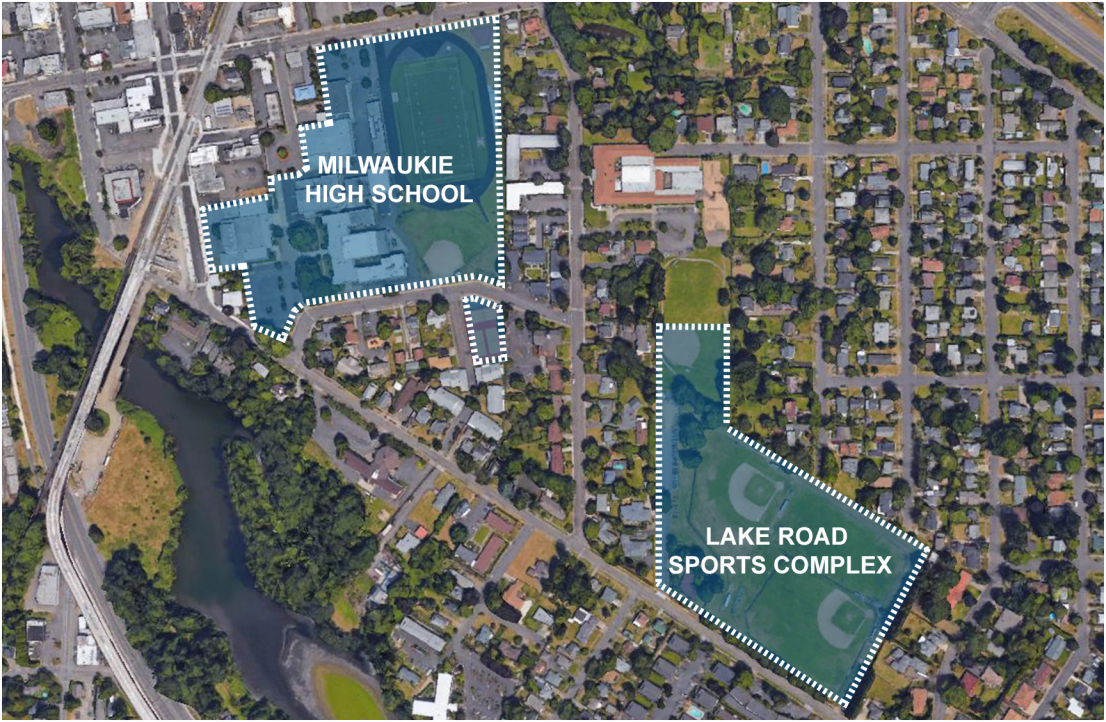
Comments: Please consider the inclusion of such facilities as would enhance the disaster preparedness of this downtown/HS community.
MHS is the appropriate and logical place to become the location for recovery and medical triage after "the Big One". It has space for assembly and grouping.

If we were in Multnomah 6, MHS would already have been identified as an "assembly point" but Clackamas has not yet identified these points.
Please plan for and incorporate disaster preparedness into your plan.

Commenter:
Hal Wacek
503-659-7960

Comments: The varsity field upgrades appear not well planned. Increased play activity on these fields require substantial neighborhood input, as the activity already on the present fields is annoying. The only reason few complaints have been made is that play is not often. Some things that will bring complaints when activity increases are:

- Increased traffic and parking. Current players already park on side streets, parkways, and the field itself. They do not walk.
- Increased lighting during night games. The lighting hinders sleep in 2nd and 3rd floor apartments south of Lake Road, and in other areas.
- Increased noise. The noise during night games is intolerable. The only saving grace is relatively few night games are played now. MHS administrators can count on many more complaints about noise should they increase the number of games played on these fields, both during the day and at night.
- Litter will increase. Currently very little litter spoils the neighborhood from games played on these fields, because few total numbers of people attend these games. Varsity games will increase this problem.
- Please increase the parking available on site on these fields. Make lighting that cannot be seen outside the fields. Put snack dining near the center of the fields, not near the periphery. And schedule the games during the day, so neighbors can sleep at night. Milwaukie requires quiet after 8pm in residential neighborhoods. Please be sure all your games meet this requirement.
- Also, make all neighbors within one block of these fields aware of your detailed plans for improving these fields, and your detailed plans for use of them in the future. Please do this soon.


MILWAUKIE
HIGH SCHOOL
LAKE ROAD
SPORTS COMPLEX

NORTH Clackamas Schools

MILWAUKIE HIGH SCHOOL
LAKE ROAD SPORTS COMPLEX

The North Clackamas School District cordially invites you to attend an Open House to discuss proposals for the new Milwaukie High School and improvements to the Lake Road Sports Complex.

The meeting will be held at the Milwaukie High School Library on Tuesday, June 27th from 6:00pm to 8:00pm.

No RSVP is required.

Technical Memorandum

LANCASTER ENGINEERING

321 SW 4th Ave., Suite 400
Portland, OR 97204
phone: 503.248.0313
fax: 503.248.9251
lancasterengineering.com

To: Andrew Tull

From: Melissa Webb, PE
Miranda Wells, PE

Date: December 29, 2017
Updated: January 22, 2018

Subject: Milwaukie High School Remodel Traffic Memorandum

This memorandum provides a transportation evaluation of the proposed plans for a remodel of Milwaukie High School located in Milwaukie, Oregon. The plans include two parking lots that are proposed on the north side of SE Willard Street (to the east and west of the high school), as well as a redesign of the Milwaukie High School athletic fields.

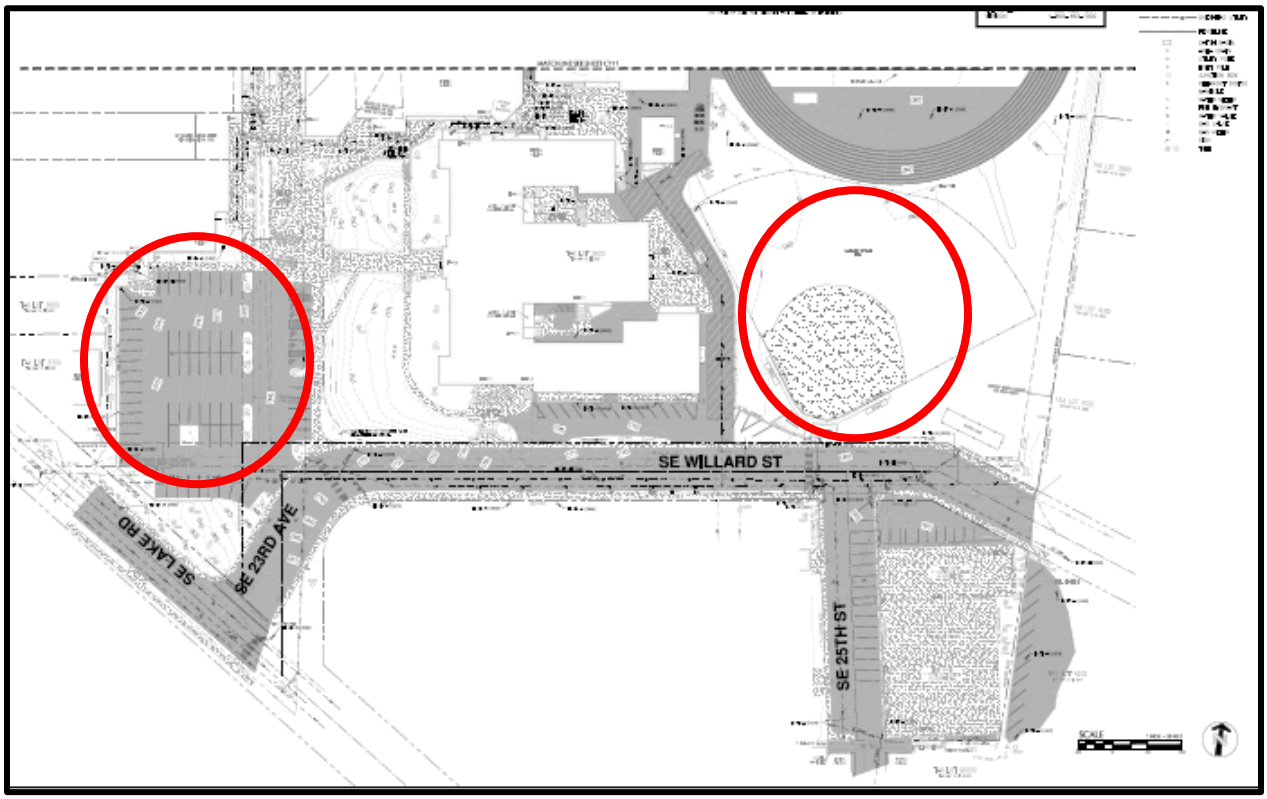
Project Description

The high school proposed for remodel is located at 2301 SE Willard Street in Milwaukie, Oregon. Figure 1 shows the project location.

Figure 1 - Aerial view of site and immediate vicinity (image from Google Maps)

There are two parking lots proposed in this remodel, including one new parking lot and one reconfigured lot. The new and reconfigured parking areas will hold a total of 133 parking stalls, including seven ADA parking stalls. There is also a new bus lane planned for the remodel which will accommodate eight busses. Figure 2 shows the location of each lot. Detailed site plans are provided in the appendix.

Figure 2 - Milwaukie High School site plan (proposed parking lots circled in red)



The school currently offers space for 1,200 students. The remodel is anticipated to provide capacity for an additional 300 students for a total of 1,500 students. While additional capacity will be available, it is not anticipated to meet that enrollment for over 10 years.

Trip Generation

To estimate the total traffic that will utilize the proposed shared access, an estimate of trip generation was made using the *TRIP GENERATION MANUAL*, *Ninth Edition*, published by the Institute of Transportation Engineers (ITE)[1].

[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual, Ninth Edition*

The current school capacity is 1200 students, and with the remodel of Milwaukie High School the anticipated school capacity of 1500 students. The net increase of 300 students was used for the trip generation calculations.

Based on data from the ITE manual for land-use code #530, *High School,* the area around Milwaukie High School could generate 129 trips during the morning peak hour, 39 trips during the evening peak hour, and an average of 514 daily trips. The trip generation calculations are summarized in Table 1, and detailed trip generation calculations are provided in the appendix.

Table 1 - Trip Generation Summary

# Students	Morning Peak Hour			Evening Peak Hour			Weekday
	In	Out	Total	In	Out	Total	Total
300	88	41	129	18	21	39	514

As per guidelines outlined in the City of Milwaukie's Municipal Code, the City's Engineering Director will determine if a Transportation Impact Study (TIS) will be required.[2] Per conversations with the City, it was determined that a TIS would not be required because the school is currently operational and the remodel is anticipated to improve transportation operations. Additionally, the school is not expected to increase the number of students in the near future.

As a result, this memorandum is provided to the architect as a tool for identifying potential transportation improvements, as well as to provide transportation-related text for their land use application.

Existing Transportation Facilities

The site is located along the northern edge of SE Willard Street. SE Willard Street ends at SE Lake Road to the west and SE 27th Avenue to the east. SE Willard Street and SE 27th Avenue are signed as 20 miles per hour (mph). SE Lake Road is also signed as 20 mph in the vicinity of the school during school hours. All of these roadways have signed school crossings that feed into a consistent sidewalk network. The majority of these roadways do not have bike lanes. Local streets and neighborhood routes are typically considered shared roadways between motor vehicles and bicycles. A summary of these roadways is provided in Table 2.

[2] http://www.qcode.us/codes/milwaukie/?view=desktop&topic=19-19_700-19_704

Table 2 - Summary of Supporting Roadways

Roadway	Classification[1]	Speed (mph)	Sidewalks	Bicycle Facilities
SE Willard Street	Local street	20	Yes	Shared roadway
SE Lake Road	Arterial	20[2]	Yes	West of SE 23rd Avenue
SE 27th Avenue	Neighborhood Route	20	Yes	None designated

1 – Classifications based on Milwaukie Transportation System Plan
2 – School zone

SE Lake Road is the main route that vehicles traveling to and from the school are anticipated to use. Beyond the school zone, the speed limit along SE Lake Road is 30 mph. There are two TriMet transit stops near the intersection of SE Lake Road and SE Willard Street.

There is existing on-street parking located on both sides of SE 27th Avenue, and along the south side of SE Willard Street. There is no on-street parking along the north side of SE Willard Street, and "No Parking" signs are displayed along this area. SE Lake Road does not allow on-street parking in the vicinity of the school.

SE Willard Street is classified as a local road[3]. It is signed as 20 miles per hour (mph) and has sidewalks on both sides of the roadway. There are no dedicated bicycle lanes; however, the City of Milwaukie considers local roads as shared roadways. The road is compliant with current City Guidelines.

The intersection of SE Willard Street and SE Lake Road is controlled by a stop sign along SE Willard Street. Vehicles can turn either left or right onto SE Lake Road. The intersection of SE Willard Street and SE 27th Avenue is controlled by a stop sign at SE Willard Street. However, vehicles can only make a right-hand turn onto SE 27th Avenue. Both intersections have striped crossings.

Alternative Modes of Transportation

Milwaukie High School is surrounded by neighborhoods to the east and the south. Pedestrians and bicyclists in these neighborhoods would be traveling to and from the high school. For pedestrians and bicyclists traveling to the neighborhoods east and south of the school, there are sidewalks along SE Willard Street and striped crossings along SE 27th Avenue and along SE Lake Road. There are also speed humps along SE 27th Avenue that should keep speeds low and allow for safer shared roadway operations.

There are two public TriMet bus stops located along the north and south sides of SE Lake Road that serve bus line 32. Both stops are located at the corner of SE Lake Road and SE 23rd Avenue. To get to and from

[3]https://www.milwaukieoregon.gov/sites/default/files/fileattachments/planning/page/42751/ch_8_street_network_element.pdf

these bus stops there are sidewalks and striped crosswalks. The transit stops do not provide a bench or shelter for waiting passengers.

Circulation Plan

The Milwaukie Municipal Code, Section 19.504.11, details that the preliminary circulation plan "shall include a site plan, showing land uses; building envelopes and other structures; the pedestrian, bicycle, and vehicle circulation system; vehicle and bicycle parking areas; open areas; existing trees to be preserved; and utility connections. The site plan must also include the following: (a) All existing improvements that will remain after development of the proposed use; (b) All improvements planned in conjunction with the proposed use; (c) Conceptual plans for possible future uses; and (d) Pedestrian and bicycle facilities, including safe pedestrian and safe bicycle circulation between the following: (1) Major buildings, activity areas, and transit stops within the site plan boundaries and adjacent streets, pathways, and transit stops. (2) Adjacent developments and the proposed development".[4]

Site Plan and Land Uses

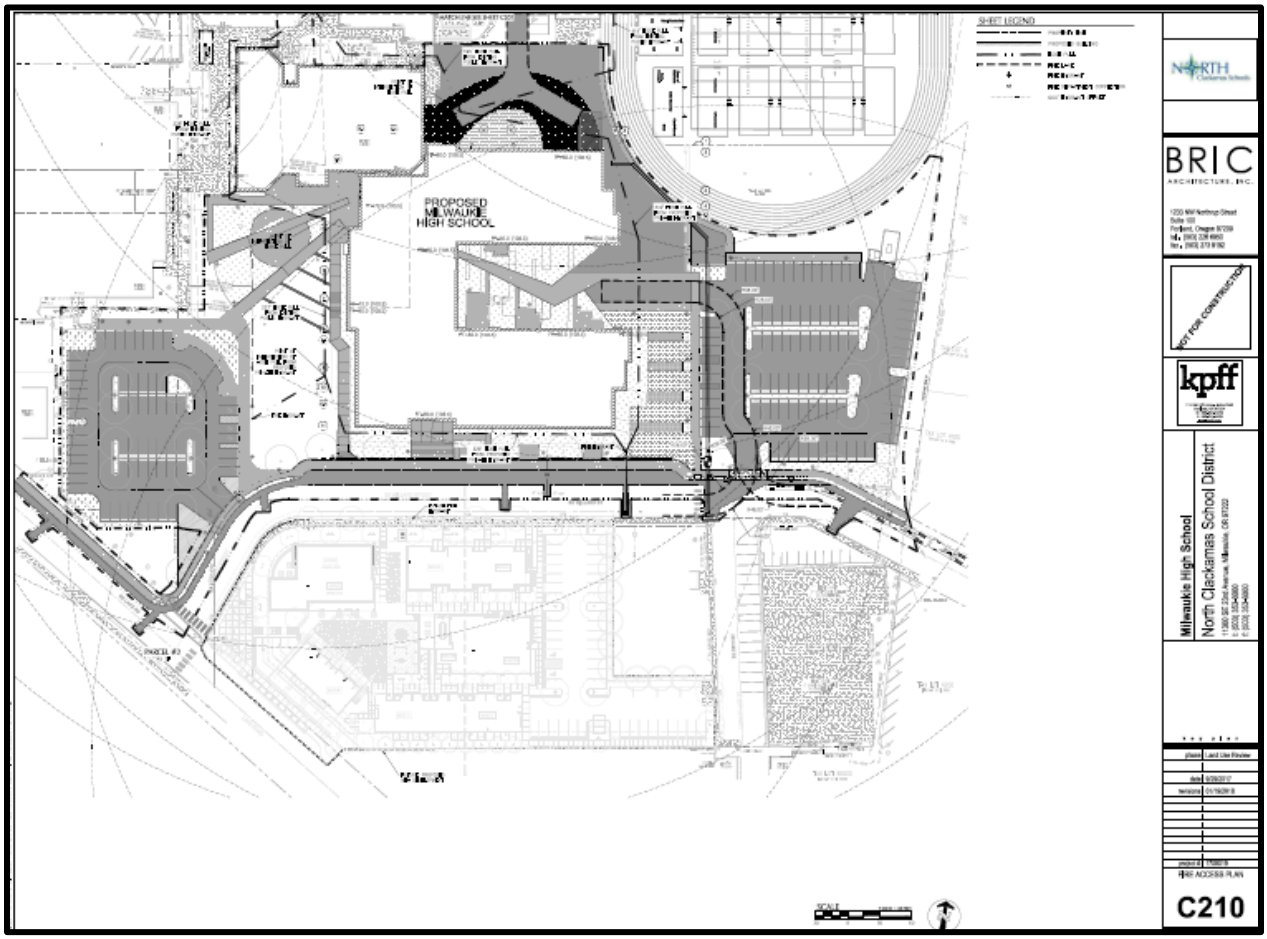
The proposed site plan for the remodel of the High School is shown in Figure 3. The current land-use for the site is not anticipated to change as part of the remodel.

Buildings

Milwaukie High School consists of several buildings on the campus. These buildings are shown in the site plan shown in Figure 3. The buildings are separated in various locations by open areas, parking lots, roadways, and walkways.

[4] http://www.qcode.us/codes/milwaukie/?view=desktop&topic=19-19_500-19_504

Figure 3 – Proposed Site Plan of Milwaukie High School



Pedestrian, Bicycle, and Vehicle Circulation System

All on-site circulation will be provided via an interlocking pedestrian network that provides access to all buildings. This network consists of sidewalks in front of the two main entrances, as well as paved areas throughout the campus. There is a skywalk with a breezeway connecting the commons and the gymnasium, and a large paved entry-way area for the bus loading areas that provide direct connection to the buildings.

Pedestrian traffic coming off-site that will need to access the on-site pedestrian network will include pedestrians traveling to and from parking areas, TriMet stops, and students walking to/from school from home. As discussed previously, the surrounding transportation infrastructure provides sidewalks, striped crossings, and low-volume low-speed roadways for pedestrians to travel from home and from TriMet stations to the school.

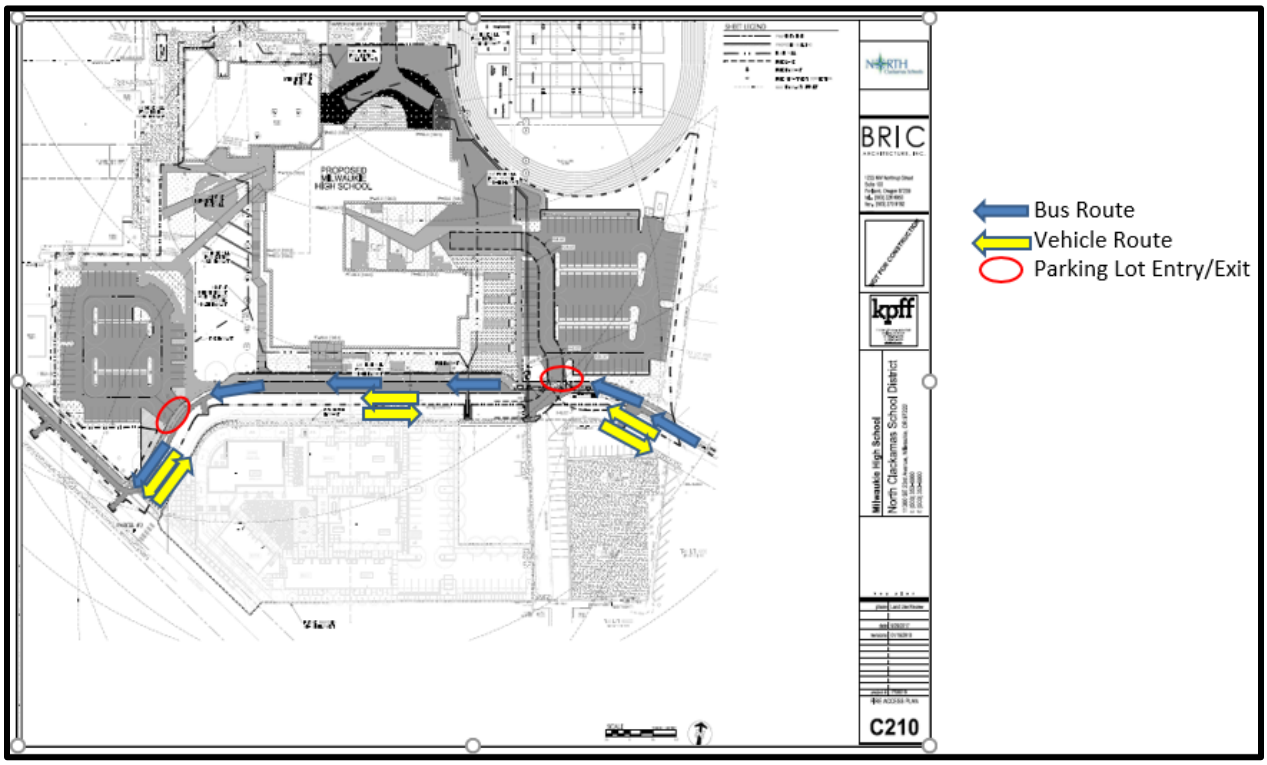
Pedestrians traveling from the parking lots will be connecting from various locations. When parking in the east or west parking lots, there are walkways provided from the parking lots directly to the on-site interlocking pedestrian network.

Similar to pedestrians, bicyclists can access the school at various locations via low-volume low-speed roadways with striped crossings. Once on campus, the bicyclists can access buildings as a pedestrian traveling through the on-site interlocking pedestrian network.

School busses will enter SE Willard Street from SE 27th Avenue, and exit onto SE Lake Road. They will stop along SE Willard Street in front of the main campus area. They will pull out of the thru lane parallel along the school's curb to pick up students, and then pull back into the thru lane. Figure 4 provides a graphic representation of the bus circulation.

Vehicles will enter and exit SE Willard Street from both SE 27th Avenue and SE Lake Road. Once on SE Willard Street, they will be able to access the two proposed parking lots. Figure 4 shows bus and vehicle circulation routes along SE Willard Street.

Figure 4 - Bus and Vehicle Circulation



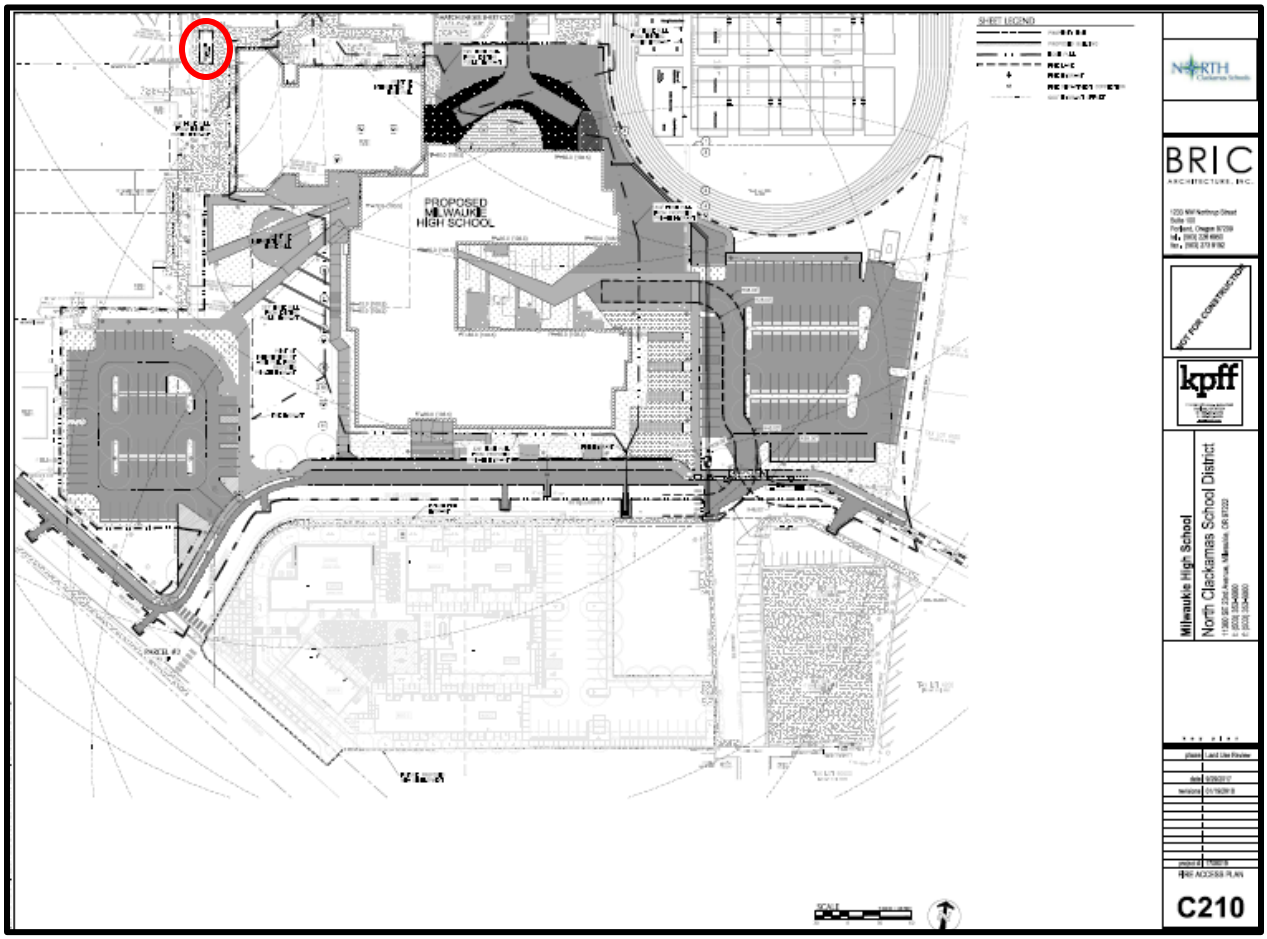
Vehicle and Bicycle Parking Areas

There are two parking lots proposed for the Milwaukie High School remodel:

- Reconfigured west parking lot 33 parking spaces (29 standard and 4 ADA)
- New east parking lot: 100 parking spaces (97 standard and 3 ADA)

There is one covered bicycle storage area located in the northwest corner of the Milwaukie High School campus as shown in Figure 5 circled in red. There are additional non-covered bicycle parking areas throughout the campus available as well.

Figure 5 - Location of Bicycle Storage (circled in red)



Open Areas

There are several open areas proposed in the remodel of Milwaukie High School. These open areas are convenient for pedestrians to access and travel through.

- Memorial Amphitheater/Entry Plaza, located directly west of the main entrance
- Informal seating area, located along the north side of SE Willard Street
- Academic Courtyard, located in the center of the high school campus, between two wings
- Event Plaza, located in the north part of campus between the commons and the football field

All open areas can be easily accessed by the inter-locking pedestrian network available on-site.

Conclusions

The proposed remodel of Milwaukie High School is anticipated to be efficiently supported by the surrounding transportation network. The current circulation is expected to be efficiently supported as well, with an enhanced inter-locking pedestrian network, improved bus loading areas, additional parking areas, and reconfiguration of buildings.

TRIP GENERATION CALCULATIONS

Land Use: High School
Land Use Code: 530
Variable: Students
Variable Value: 300

AM PEAK HOUR

Trip Rate: 0.43

	Enter	Exit	Total
Directional Distribution	68%	32%	
Trip Ends	**88**	**41**	**129**

PM PEAK HOUR

Trip Rate: 0.13

	Enter	Exit	Total
Directional Distribution	47%	53%	
Trip Ends	**18**	**21**	**39**

WEEKDAY

Trip Rate: 1.71

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**257**	**257**	**514**

PM PEAK HOUR OF GENERATOR

Trip Rate: 0.29

	Enter	Exit	Total
Directional Distribution	33%	67%	
Trip Ends	**29**	**58**	**87**

Source: TRIP GENERATION, Ninth Edition

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April 18, 2017

Steven Nicholas
Heery International
Two Centerpointe Drive, Suite 250
Lake Oswego, OR 97035

RE: Milwaukie High School – Arborist Tree Evaluation

Mr. Nicholas:

As requested, attached is the Detailed Tree Inventory information for the trees shown on the Topographic Survey. Please let me know if you have any questions.

Sincerely,
AKS ENGINEERING & FORESTRY, LLC

Bruce R. Baldwin
ISA Certified Arborist #PN-6666A
ISA Qualified Tree Risk Assessor
Member, International Society of Arboriculture

AKS Engineering Forestry, LLC
12965 SW Herman Road, Suite 100
Tualatin, OR 97062
(503) 563-6151

Detailed Tree Inventory for Milwaukie High School

AKS Job No. 5859 - Tree Evaluation: April 6 & 11, 2017

Tree #	DBH (in.)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**
10422	17	Cherry (*Prunus sp.*)	Pruning scars with good woundwood closure; Large exposed roots; Many scaffold branches weakly attached at one point	1	2
10423	15	Maple (*Acer sp.*)	Many large exposed roots; Multiple scaffold branches weakly attached at one point	1	2
10973	24,12	Maple (*Acer sp.*)	**OFFSITE**	1	1
10986	49	Cedar (*Cedrus sp.*)		1	1
10987	24	European White Birch (*Betula pendula*)	Broken branches; Some bulges on bole	1	2
10988	55	Cedar (*Cedrus sp.*)	Codominant 20' from ground with included bark	1	2
10989	17	Western Redcedar (*Thuja plicata*)	Codominant 10' from ground with included bark	1	2
11081	8	Maple (*Acer sp.*)		1	1
11082	13	Maple (*Acer sp.*)	Small bulge on bole at base	1	1
11124	13	Maple (*Acer sp.*)	Roots are girdling	1	2
11130	25	European White Birch (*Betula pendula*)	Lean (S); Cavities with decay; Bulges on bole; Dead branches; Crooked	2	3
11131	32	European White Birch (*Betula pendula*)	Broken branches; Pruning scars with decay; Epicormic sprouts; Bulges on bole; Scars; Cavities with decay; Crooked	2	3
11132	38	Bigleaf Maple (*Acer macrophyllum*)	Large exposed roots; Large bulge on bole	1	2
11133	7,8,11, 11,12,13	Western Redcedar (*Thuja plicata*)	11" Stems - Crooked and sweep away from main stem; 11" Stem - bark peeling; Poor structure	2	2
11150	7	Cherry (*Prunus sp.*)	Roots exposed and damage to top; Crooked	1	1
11151	7	Cherry (*Prunus sp.*)	Roots exposed and damage to top; Crooked	1	1
11175	7	Cherry (*Prunus sp.*)	Large roots appear to be girdling; Many roots above surface; Pruned	1	2
11176	6	Cherry (*Prunus sp.*)	Bark peeling	2	1
11219	62	Cedar (*Cedrus sp.*)		1	1
11291	10	Maple (*Acer sp.*)		1	1
11407	6	Maple (*Acer sp.*)		1	1
11409	6	Maple (*Acer sp.*)		1	1
11460	6	Maple (*Acer sp.*)		1	1
11461	9	Maple (*Acer sp.*)		1	1

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Detailed Tree Inventory for Milwaukie High School

AKS Job No. 5859 - Tree Evaluation: April 6 & 11, 2017

Tree #	DBH (in.)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**
11480	7	Maple (*Acer sp.*)		1	1
11482	6	Maple (*Acer sp.*)		1	1
11882	20	Western Redcedar (*Thuja plicata*)	Codominant 10' from the ground with included bark	1	2
11885	8	Cherry (*Prunus sp.*)		1	1
11935	13	Western Redcedar (*Thuja plicata*)		1	1
11947	9	Cherry (*Prunus sp.*)		1	1
11960	7	Cherry (*Prunus sp.*)		1	1
11973	8	Cherry (*Prunus sp.*)		1	1
12148	25	Bigleaf Maple (*Acer macrophyllum*)	**OFFSITE**; Evaluation from the property line; Appears dead	3	3
12149	9	Japanese Maple (*Acer palmatum*)		1	1
12150	9	Japanese Maple (*Acer palmatum*)		1	1
12151	6	Japanese Maple (*Acer palmatum*)		1	1
12172	8	Japanese Maple (*Acer palmatum*)		1	1
12212	16	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
12226	10	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
12227	11	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
12356	61	Cedar (*Cedrus sp.*)		1	1
12799	12	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
12867	9	Engelmann Spruce (*Picea engelmannii*)		1	1
12908	15	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1

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Tree #	DBH (in.)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**
12909	8	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
12911	12	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
13413	6	Cherry (*Prunus sp.*)		1	1
14080	9	European White Birch (*Betula pendula*)	**OFFSITE;** Some bore holes	1	1
14081	10,13	Douglas-fir (*Pseudotsuga menziesii*)	Codominant with included bark	1	2
14082	7	Douglas-fir (*Pseudotsuga menziesii*)		1	1
14083	9,11	Douglas-fir (*Pseudotsuga menziesii*)	Codominant with included bark; Large roots lifting asphalt to east	1	2
14084	14	Douglas-fir (*Pseudotsuga menziesii*)		1	1
14085	14	Douglas-fir (*Pseudotsuga menziesii*)	Some broken branches; Sap flow	1	1
14086	17	Douglas-fir (*Pseudotsuga menziesii*)	Bulges on bole	2	2
14087	12	Douglas-fir (*Pseudotsuga menziesii*)	Codominant 10' from the ground with included bark	1	2
14088	15	Douglas-fir (*Pseudotsuga menziesii*)	Sap flow	1	1
14089	9	Oregon Oak (*Quercus garryana*)	Sparse foliage; Some dead branches; Multiple branches weakly attached at one point	2	2
20187	6	Cherry (*Prunus sp.*)	Pruning scars; Decay at pruning scars; Bark peeling at base of tree; Cracked bark	2	2
20188	6,6,9,10	Cherry (*Prunus sp.*)	Large bulges at base; Pruned; Multiple weak attachments at one point	1	1
20192	27	California Black Oak (*Quercus kelloggii*)	Some broken branches	1	1
20701	10	"Cleveland Select" Pear (*Pyrus calleryana*)		1	1
30000	8	Maple (*Acer sp.*)		1	1
200001	84	Giant Sequoia (*Sequoiadendron giganteum*)	**OFFSITE**	1	1

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Tree #	DBH (in.)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**
200002	15	Cherry (*Prunus sp.*)	**OFFSITE**	1	1
200003	6,6	Cherry (*Prunus sp.*)	**OFFSITE;** Lean (S); Short stature	1	2
200004	8	Cedar (*Cedrus sp.*)	**OFFSITE**	1	1
200005	12	Maple (*Acer sp.*)	**OFFSITE**	1	1
200006	8	Cherry (*Prunus sp.*)	**OFFSITE;** Sparse foliage; Broken branches	2	1

Total # of Existing Trees Inventoried = 68

***Health Rating:**

1 = Good Health - A tree that exhibits typical foliage, bark, and root characteristics, for its respective species, shows no signs of infection or infestation, and has a high level of vigor and vitality.

2 = Fair Health - A tree that exhibits some abnormal health characteristics and/or shows some signs of infection or infestation, but may be reversed or abated with supplemental treatment.

3 = Poor Health - A tree that is in significant decline, to the extent that supplemental treatment would not likely result in reversing or abating its decline.

****Structure Rating:**

1 = Good Structure - A tree that exhibits typical physical form characteristics, for its respective species, shows no signs of structural defects of the canopy, trunk, and/or root system.

2 = Fair Structure - A tree that exhibits some abnormal physical form characteristics and/or some signs of structural defects, which reduce the structural integrity of the tree, but are not indicative of imminent physical failure, and may be corrected using arboricultural abatement methods.

3 = Poor Structure - A tree that exhibits extensively abnormal physical form characteristics and/or significant structural defects that substantially reduces the structural viability of the tree, cannot feasibly be abated, and are indicative of imminent physical failure.

Arborist Disclosure Statement:

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees. Neither this author nor AKS Engineering & Forestry, LLC have assumed any responsibility for liability associated with the trees on or adjacent to this site.

At the completion of construction, all trees should once again be reviewed. Land clearing and removal of adjacent trees can expose previously unseen defects and otherwise healthy trees can be damaged during construction.

Milwaukie High School Flow

Static Pressure (PSI):

55

Residual Pressure (PSI):

49

Total Test Flow-rate (GPM):

1481

CALCULATE

GPM at 20 psi: 3839

Class: AA

Marking color: Light Blue

% Pressure Drop: 10.9%

October 24, 2017

1:4,514

0 0.0375 0.075 0.15 mi

0 0.05 0.1 0.2 km

- Milwaukie City Limits
- Butterfly
- Gate
- Hydrant

Water Hydrants

- Other Entity
- City of Milwaukie

Water System Valves

- Other Valve Types

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

City of Milwaukie GIS

MRLC, Oregon Metro, Bureau of Land Management, State of Oregon, State of Oregon DOT, State of Oregon GEO, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, U.S. Forest Service |

Stormwater Management Report

Milwaukie High School

Prepared for: BRIC Architecture, Inc.
Prepared by: James Sweeney, EIT
Project Engineer: Eric Melle, PE

February 2018 | KPFF Project #10101700019

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Project Overview and Description

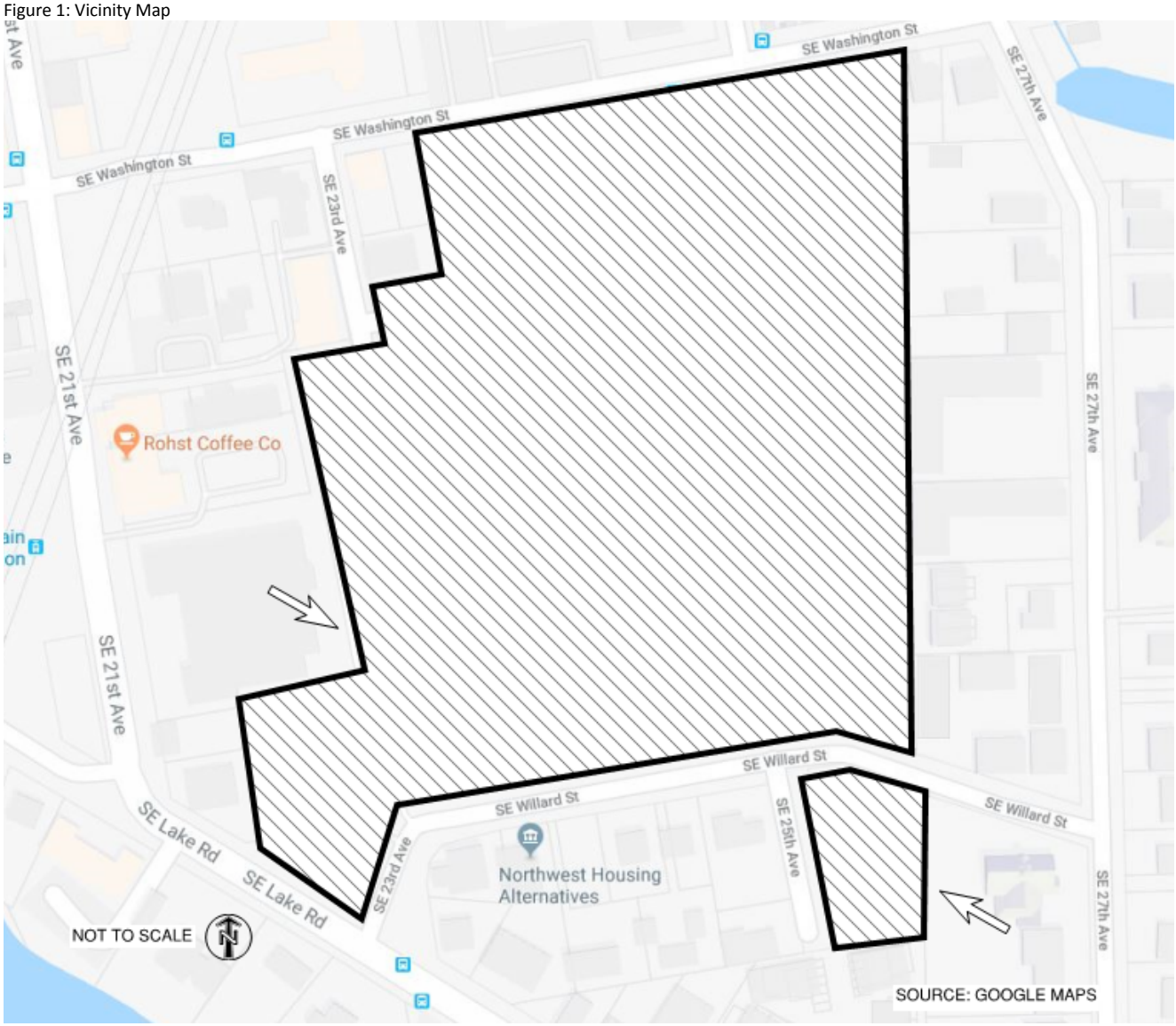
Purpose of this report

This report describes the stormwater management design strategies for the proposed development. The basis for this report are the City of Milwaukie Public Works Standards (PWS) and the requirements outlined therein. The purpose of the proposed stormwater management facilities is to protect existing public stormwater infrastructure and improve the overall health of the watershed.

Project Location

The project site consists of approximately 13.9 acres of private land, and 0.8 acres of public right-of-way in the City of Milwaukie, Oregon. See Figure 1 below for the Vicinity Map and Appendix 5 for the Existing Conditions plan sheet.

Figure 1: Vicinity Map



The site has frontage along six public streets: SE Lake Road, SE Willard Street, SE 23rd Street, SE Washington Street, SE Adams Street, and SE 25th Street. Public improvements include street widening and new frontage sidewalks along Lake Road and SE Willard Street. Adams Street will include a half street dedication from the existing dead-end, east, to the Milwaukie High School site and a pedestrian stairway connection. 23rd Street will include approximately 150 feet of vacation by the City of Milwaukie to Milwaukie High School, where a private sanitary sewer manhole will be installed.

Type of Development and Proposed Improvements

On-site

The project will include the demolition and reconstruction of the main high school building, reconstruction and reconfiguration of the existing southwestern parking area, the resurfacing of the existing track and replacement of the turf on the internal field, the addition of a pedestrian stairway connection to Adams Street, the demolition of the existing soft ball field, and the construction of an approximately 94-space parking lot in its place. The new school building construction will include new outdoor academic plazas inside the eastern courtyard, two southern stairways and an ADA ramp entrance, various pervious pedestrian connections, plaza improvements northeast of the building, and a new main entrance plaza to the west of the high school building at the proposed intersection point with the existing Commons Building. The Commons Building will have renovations to the first floor and the existing gym will receive a new roof.

Public Right-of-Way

The existing frontages on the north side of SE Willard Street do not currently meet sidewalk corridor widths as required by the City, as a local road half street requires a 10-foot travel lane, 8 feet of on street parking, 3-5-foot landscape strips, and a 5-foot setback sidewalk. The existing frontage has an approximate 20.5-foot travel lane and curb-tight approximately 4-foot sidewalks. The integration of the local roadway standard into SE Willard Street results in a slight narrowing of the roadway width and an average 2.5-foot right-of-way dedication. The approximate 370-feet of frontage directly south of the proposed building will also include an 8.5-foot wide pull-out lane with applicable reverse curve radii to provide a drop off area for eight (8) buses. Along this segment of SE Willard Street there will be a non-standard, curb tight, 10-foot sidewalk and a 13-foot right-of-way dedication.

The existing SE 23rd Street right-of-way does not run parallel to the existing roadway, and it extends north into the Milwaukie High School property significantly, where the historic SE 23rd Street previously ran directly north-south. SE 23rd Street now runs approximately southwest to northeast and the right-of way will be adjusted to reflect this alignment and integrate seamlessly with the proposed NHA development southeast of SE 23rd Street. This will require a triangular vacation of right-of-way (~3,687 square feet) from the City to Milwaukie High School on the northwestern side of SE 23rd Street.

Similarly, Milwaukie High School will be required to dedicate a triangular portion of the site property (~145 square feet) to the City. The SE 23rd Street northern half street will be constructed to match the local road half street requirement of a 10-foot travel lane, 8-feet of on street parking, 3-5-foot landscape strips, and a 5-foot setback sidewalk. As a result of the above described dedications and vacations the dedication widths will vary from a maximum of 15.6-foot dedication to a maximum 54.9-feet vacation. Within the landscape strips of both SE 23rd Street and SE Willard Street flow through water quality planters with concrete forebays will be appropriately located to treat stormwater generated in the newly constructed half street right-of-way.

Permits Required

All on-site work will require a building permit from the City of Milwaukie. Also, since the total disturbed area will be greater than one acre, a DEQ 1200C permit will be required.

Existing vs. Post-construction Conditions

The grades for the majority of the site are level, but the site drops off steeply by about 12 feet at the western edge of the property. The eastern property line is flanked by an approximately fourteen (14) foot berm that drains west into the site.

Methodology

At a minimum, the City of Milwaukie requires that the post-development runoff rate does not exceed the pre-development runoff rate, and that all stormwater quality facilities meet design requirements of the current City of Portland's Stormwater Management Manual (SWMM). Therefore, the initial design investigations followed those required by the SWMM, which were to determine if it was possible to fully infiltrate on-site runoff through vegetated surface facilities or via sub-surface infiltration facilities, such as a bed of infiltration chambers.

Drainage and Conveyance

The proposed development consists of approximately 14.8 total acres, which increases the amount of impervious area; therefore the post-development condition will increase the total runoff. Design within the extents of demolition assumes approximately 30 percent of the site to be pervious area.

Stormwater generated from the eastern half of the roof, the eastern academic courtyard, and the eastern parking area will be collected in catch basins, roof drains, and area drains. It will then be routed through storm filter manholes to a subsurface detention/infiltration bed, which will be equipped with a flow control manhole and will ultimately discharge to the existing municipal system at the eastern portion of SE Willard St. south of the main campus. Stormwater generated from the western half of the roof, the entry courtyard, and the western parking area will collect in catch basins, roof drains, and area drains. It will then be routed through storm filter manholes to a subsurface detention/infiltration bed, which will be equipped with a flow control manhole and will ultimately discharge to the existing municipal system at the via an existing 12-inch drain line that discharges to the SE Lake Road municipal system of the southwestern corner of the site. Proposed discharge rates to the municipal system will mimic or be less than existing conditions.

Infiltration Testing Results

As of the writing of this memo, geotechnical investigations have not been concluded. Infiltration testing has been requested for locations of proposed subsurface detention facilities. Using a custom soil resource report from the Natural Resources Conservation Service, it is estimated that soils beneath proposed subsurface detention facilities will be of hydrologic soil group B & C, making infiltration feasible.

Flow Control

As outlined in the City of Milwaukie requirements, onsite storm quantity detention facilities shall be designed to capture, detain, and release runoff of the 2, 5, 10, and 25-year design storms at a rate equal or less than the predevelopment discharge rate.

Stormwater Quality Treatment Standards

According to the PWS, section 2.0013-B, all water quality facilities shall meet the design requirements of the current City of Portland Stormwater Management Manual. The Pollution Reduction storm event is representative of 90% of the average annual rainfall and is used to size facilities for the pollution reduction stormwater management requirement. The 5-minute intensity (in/hr) for the quadrant in which this project resides, multiplied by the 90% factor yields 0.18 in/hr.

This project will be providing water quality treatment for the proposed impervious area within the project boundaries. Accepted water quality treatment solutions such as stormwater treatment filters will be provided for treatment. The water quality storm intensity tabulated above will be used in conjunction with total site impervious area to determine the quantity of storm filters required.

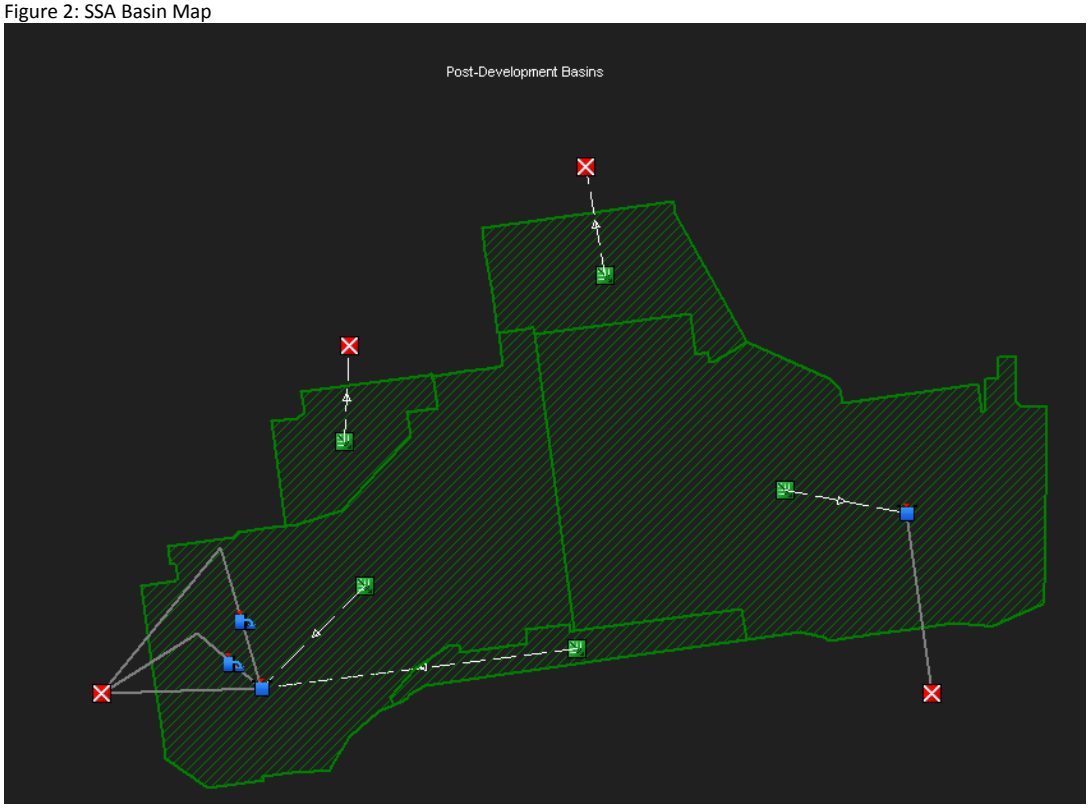
Table 1: On-Site Existing and Post-Development Areas

Description	Total Impervious Area (SF)	Pervious Area (Including permeable pavement) (SF)	Total Site Area (SF)	Total Site Area (Acres)
Existing	403,175	237,129	640,304	14.70
Post-Development	490,553	149,751	640,304	14.70

Analysis

Detention requirements will be met using subsurface detention systems. Preliminary analysis for these systems has been performed using Storm and Sanitary Analysis 2018 (SSA).

Figure 2: SSA Basin Map



Engineering Conclusion

Based on the requirements of PWS and the engineering assumptions and calculations detailed in this report, all facility components are anticipated to have enough capacity to manage flow control and are designed to treat to the necessary level of pollution reduction.

Operations and Maintenance

In order for the stormwater detention facilities to operate at acceptable levels, regular maintenance and inspection is required. An Operations and Maintenance Plan that provides instruction and procedures for maintaining these facilities will be developed and provided to the property owner.

Appendix A

Stormwater Basin Maps

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ON-SITE LEGEND

	SURFACE TYPE	IMPERV. AREA (SF)	PERV. AREA (SF)
	AC PAVEMENT	108,485	-
	ROOF	128,957	-
	CONCRETE/ SAND SET PAVERS	66,629	-
	RUBBER SURFACE	99,104	-
	LANDSCAPING	-	241,129

BASIN	DRAINS TO	TOTAL AREA		
A	SP-A & DG-A	73,726	45,660	28,066

OFF-SITE LEGEND

	SURFACE TYPE	IMPERV. AREA (SF)	PERV. AREA (SF)
	AC PAVEMENT	540	-
	CONCRETE SIDEWALK	730	-
	AREA EX (EX. UNDISTURBED PAVEMENT)	7433	
	GS-B (GREENSTREET PLANTER)	-	350

BASIN	DRAINS TO	TOTAL AREA	TOTAL IMPERVIOUS AREA	TOTAL PERVIOUS AREA
B	GS-B	14,035	8688	5347
	AREA X (UN-TREATED)	6500		

SE LAKE RD
SE 23RD AVE
SE WILLARD ST
SE 25TH ST
WASHINGTON ST

STORMWATER BASIN MAP

SCALE: 1"=100' 0 100' 100'

MILWAUKIE H.S.

SHEET NO.

EXHIBIT A

File: N:\c\p\2017\1700019-Milwaukie-HS\CAD\PLOT\700019-C1.0-EXST.dwg TAB:EXHIBIT A

11X17-EXHIBIT

Plotted: 9/20/17 at 12:00pm By: EMelle

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IMPERVIOUS ASPHALT
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PROPOSED STORMWATER BASIN MAP

SCALE: 1"=100'

0 100' 100'

MILWAUKIE H.S.
SHEET NO.
EXHIBIT B

11X17-EXHIBIT File: N:\c\p\2017\1700019-Milwaukie-HS\PROJ-INFO\Planning-Design\03-STORM\BASIN-MAPS\700019-C400-STORM.dwg TAB: PROP-BASIN-MAP

Plotted: 2/9/18 at 3:58pm By: jsweeney

Appendix B

Stormwater Details

Sizing Methodologies for the Stormwater Management StormFilter®

Across the country, many regulatory agencies are establishing criteria for sizing stormwater treatment devices to meet their water quality standards. Depending on these local requirements, there are a number of ways to size the StormFilter, including: flow-based, volume-based, and storage-based sizing methodologies, which are summarized below.

Flow-Based Sizing Methodology

For a flow-based sizing methodology, a design storm event is used to calculate a design discharge flow rate (volume per time). Typically, the design storm event is specified by the regulatory agency as some depth of rainfall over a certain period of time (for example: 1 inch in 24 hours) or as an intensity (for example: 0.5 inch per hour), with a specified distribution. The distribution may vary with time or may be a straight-line relationship. Depending on how the storm is specified, a number of hydrologic models could be used to calculate the discharge flow rate from the site given the design storm. Some models will simply result in a single flow rate value (for example: Rational Method). Others will result in a peaked hydrograph (for example: TR-55 and Santa Barbara Urban Hydrograph (SBUH)). For a peaked hydrograph, the discharge flow rate is considered to be the peak flow rate of the hydrograph. The discharge flow rate is primarily influenced by the distribution of the rainfall.

Key components of the design include:

- the design storm event or intensity;
- time of concentration;
- rainfall distribution.

To size a StormFilter using a flow-based methodology, the design flow rate is divided by the StormFilter cartridge flow rate to determine the number of cartridges required. The cartridge flow rate may vary from 2 gpm up to 15 gpm, depending on the targeted pollutants. The StormFilter structure can then be sized to accommodate the required number of cartridges.

Key features of the system include:

- 2.3 feet of head required from StormFilter inlet to outlet;
- filter cartridges use standard restrictor discs per design flow rate;
- filter cartridges control the flow through the system;
- standard baffle walls, unless otherwise required by the local agency;
- upstream structures may not be required, unless a high-flow bypass is necessary.

Maintenance of a flow-based system typically requires removal of accumulated sediments and replacement of the filter cartridges on a regular basis (typically, annually).

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Examples of jurisdictions using a flow-based design methodology include:

- State of Washington;
- City of Portland, Oregon;
- City of Houston, Texas and Harris County.

Volume-Based Sizing Methodology

For a volume-based sizing methodology, a design rainfall is used to calculate a water quality volume (WQv) that must be treated (note: this is different than detention). Typically, the local agency specifies a depth of runoff over the site that must be captured and treated (for example: 0.5 or 1.0 inches per impervious acre, also commonly referred to as "first flush"). Some may specify a depth of rainfall that must be routed over the site to create an equivalent depth of runoff. The WQv is then calculated by multiplying the depth of rainfall or runoff by the site area. The volume to be treated is primarily influenced by the total amount of rainfall or runoff. A typical volume-based system must also meet the local agency's drain-down requirements (for example: in less than 40 hours; between 5 and 24 hours; etc.).

Key components of the design include:

- depth of rainfall;
- depth of runoff;
- drain-down requirements.

To size a StormFilter using a volume-based methodology, the WQv must be captured in some type of storage facility and then slowly routed through the StormFilter. The storage facility may be composed of a pipe gallery or box culvert followed by a separate StormFilter structure. Another option is to contain the storage component and filtration component in a single, box-culvert structure, also known as a Volume StormFilter. **The storage component and filtration component are hydraulically connected (no restriction between storage and filters), so that when the storage component is full, high-head is placed on the filter cartridges. The restrictor disc for the cartridges is then sized accordingly**.

There are two subdivisions of this design methodology:

1. Whole volume storage: the storage component is required to capture and hold the entire WQv (100%). This results in the largest storage facility. The treatment volume is then slowly released through the filtration component. The number of cartridges is determined using a mass-loading calculation, or other calculation as specified by the jurisdiction.
2. Volume storage with some routing: some jurisdictions allow for some credit for treatment through the StormFilter as the storage tank is filling. This helps minimize the size of the storage facility. A credit may be specified by the jurisdiction (for example: 25% credit while filling so only 75% of the WQv needs to be captured, resulting in treatment of 100% of the WQv) or a routing routine may be used to determine how much flow is actually treated while the storage tank is filling. The storage tank volume could then be reduced accordingly. An inflow hydrograph is needed to route the storm through the tank. The number of cartridges is determined using a mass-loading calculation, or other calculation as specified by the jurisdiction.

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Key features of the system include:

- volume may be stored in same structure as filter cartridges;
- allows high head on the cartridges;
- filter cartridges control the flow through the system;
- no control structure required for the volume storage tank;
- full height downstream baffle wall in the StormFilter;
- in some cases, the number of cartridges required may be reduced if dead storage or a sump is provided as part of the storage component (reduces the pollutant loading to the cartridges).

Maintenance of a volume-based system typically requires drain-down of the dead storage (if applicable), removal of accumulated sediments from the storage component and the filtration component of the system, and replacement of the filter cartridges. Cartridge replacement frequency may be reduced if more pretreatment or dead storage is provided.

Examples of jurisdictions using a volume-based sizing methodology:

- State of Maryland;
- State of New York.

Storage-Based Sizing Methodology

A storage-based sizing methodology may be used to meet either a flow-based or volume-based sizing requirement. Similar to a volume-based sizing methodology, this methodology would result in a system consisting of two components: a storage component followed by a filtration component. Depending on the regulatory requirements, the storage component would be sized either to capture the WQv (or some portion thereof) or to capture the volume of a storm generated by a hydrograph. The storage component may be composed of a pipe gallery or box culvert followed by a separate StormFilter structure. **However, unlike the volume-based methodology, the storage component and filtration component are not hydraulically connected. Therefore, a control structure is required between the storage component and filtration component. As a result, the StormFilter cartridges require only the standard drop and use standard restrictor discs**.

There are three subdivisions of this design methodology:

1. Standard storage: the storage component is required to capture and hold either the entire WQv or the volume of the peaked hydrograph. The treatment volume is then slowly released through a control structure (or orifice) to the filtration component, operating at a standard cartridge flow rate. The number of cartridges is determined using a mass-loading calculation, or other calculation as specified by the jurisdiction. The number of cartridges may be reduced if dead storage or a sump is provided as part of the storage component or control structure (reduces the pollutant loading to the cartridges).
2. Downstream of detention: Another purpose of stormwater regulations is to require detention facilities in order to reduce the peak flow rate off newly developed impervious areas, to meet pre-existing conditions. Many jurisdictions across the country require some type of rate control, requiring the post-developed flow off a site be reduced to pre-developed flow

conditions in order to reduce the erosion of receiving streambeds. In areas where such a detention facility (which is typically sized to meet release rate requirements) is located upstream of a StormFilter, the detention facility may provide similar functions as a simple storage facility. The detention facility will typically slowly release the flow through a control structure to the StormFilter, which operates at a standard cartridge flow rate. The number of cartridges is determined using a mass-loading calculation, or other calculation as specified by the jurisdiction. The number of cartridges may be reduced if dead storage or a sump is provided as part of the detention facility (reduces the pollutant loading to the cartridges). It is important not to confuse detention with storage. Hydraulically they are the same thing, but the term "detention" implies that the facility is for rate control as well as water quality.

3. Surge Tank: when a hydrograph results in an extremely high peak flow rate, a surge tank can be used to "trim the peak" and reduce the size of the StormFilter. The minimum number of cartridges is determined using a mass-loading calculation, or other calculation as specified by the jurisdiction. This dictates the peak hydraulic capacity of the StormFilter. More cartridges can be used, if desired, to fill the vault and increase the hydraulic capacity. During a storm, the runoff flows directly into the StormFilter, until the capacity of the filter cartridges is achieved. If the inflow exceeds cartridge capacity, the peak of the hydrograph is routed off to the surge tank, typically located in parallel with the StormFilter. The size of the surge tank is determined by calculating the volume of water remaining in the peak of the hydrograph, above the capacity of the cartridges. Once the storm subsides, and the water level in the StormFilter begins to drop, the volume stored in the surge tank is gradually released back into the cartridge chamber, until empty. This ensures full treatment of the design storm.

Key features of these systems include:

- 2.3 feet of head required from StormFilter inlet to outlet;
- filter cartridges use standard restrictor discs per design flow rate;
- filter cartridges control the flow through the system;
- standard StormFilter baffle walls, unless otherwise required by the local agency.

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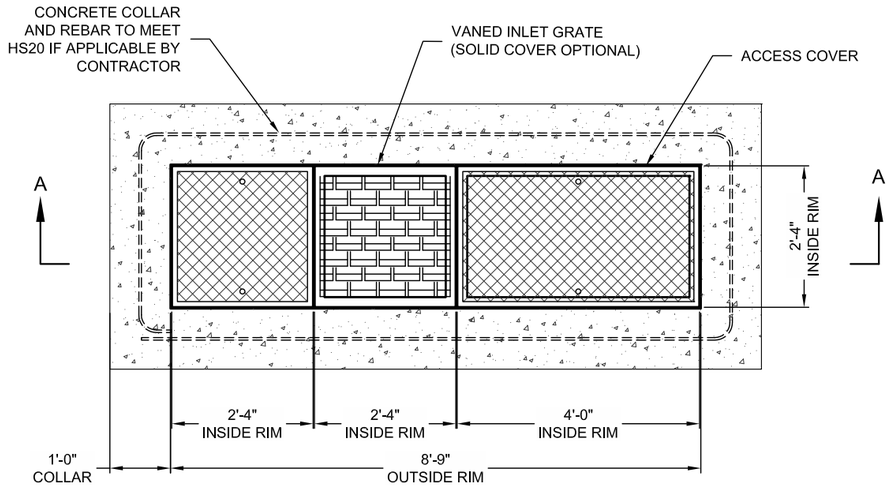
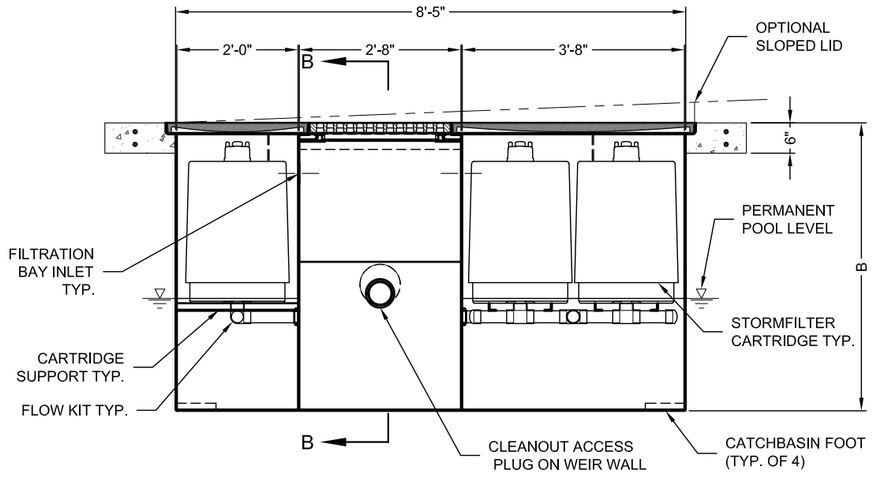
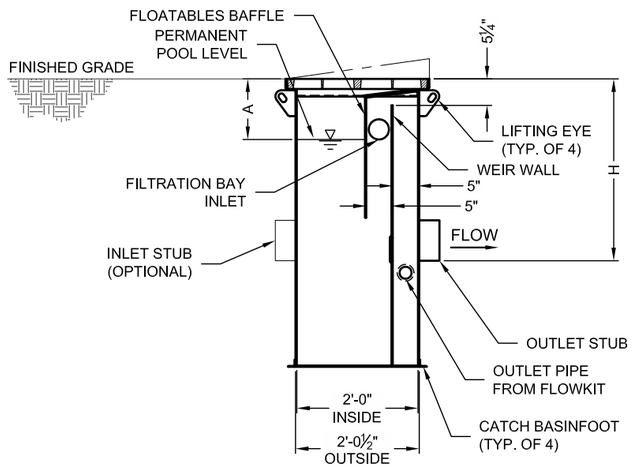


PLAN VIEW



SECTION A-A



SECTION B-B

STORMFILTER CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 3 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF THREE CARTRIDGES. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL.
PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"		18"		18" DEEP	
MINIMUM HYDRAULIC DROP (H)	3.05'		2.3'		3.3'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	15	7.5
PEAK HYDRAULIC CAPACITY	1.0		1.0		1.8	
INLET PERMANENT POOL LEVEL (A)	1'-0"		1'-0"		2'-0"	
OVERALL STRUCTURE HEIGHT (B)	4'-9"		3'-9"		4'-9"	

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ANGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
5. STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
6. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH QUANTITY (2) #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
7. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.
8. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

3-CARTRIDGE CATCHBASIN STORMFILTER DATA

STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (cfs)	X.XX
PEAK FLOW RATE (<1 cfs)	X.XX
RETURN PERIOD OF PEAK FLOW (yrs)	XXX
CARTRIDGE FLOW RATE (gpm)	XX
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)	XXXXX
RIM ELEVATION	XXX.XX'

PIPE DATA:	I.E.	DIAMETER
INLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"

CONFIGURATION

OUTLET INLET OUTLET INLET

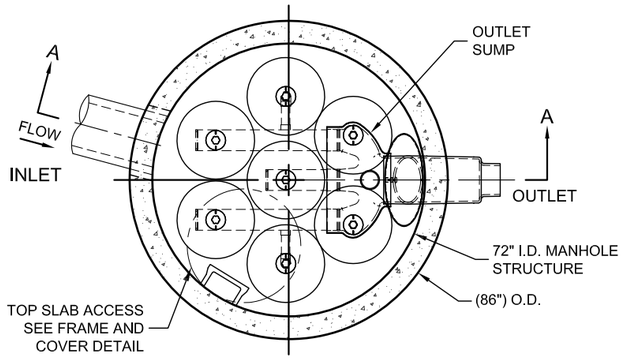
SLOPED LID	YES\NO
SOLID COVER	YES\NO
NOTES/SPECIAL REQUIREMENTS:	

The Stormwater Management StormFilter®
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,504,579; 5,707,527; 5,985,157; 6,027,639; 6,649,049; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

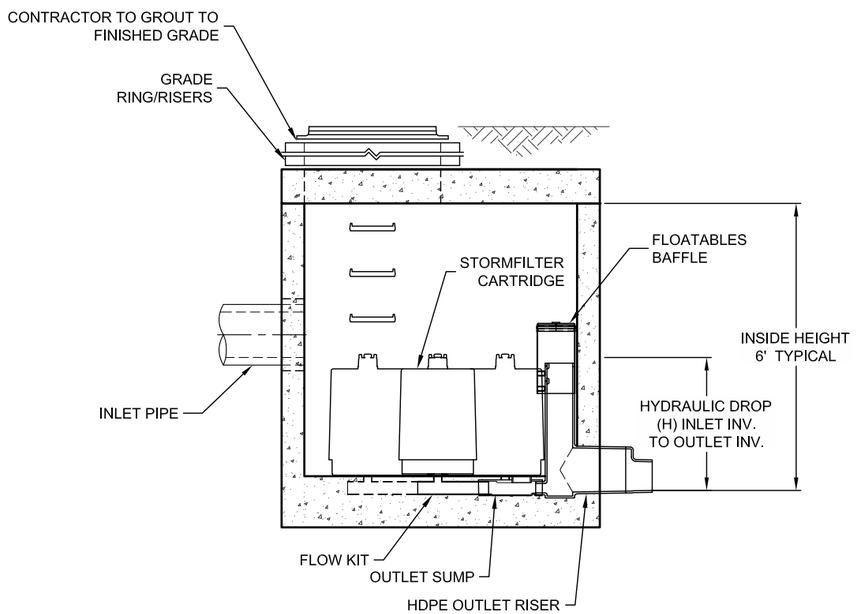
3 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL

I:\STORMWATER\COMMOPS\10 STORMFILTER\40 STANDARD DRAWINGS\CATCH BASIN SFI\SFCB-SIDWG\SFCB3-DTL.DWG 10/21/2014 8:43 AM



PLAN VIEW

STANDARD OUTLET RISER
FLOWKIT: 42A



SECTION A-A

The Stormwater Management StormFilter®

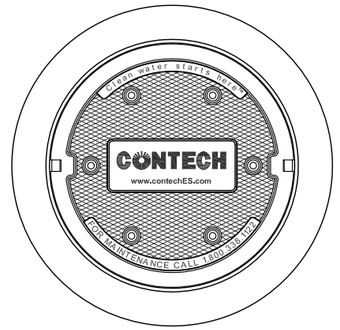
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,324,576; 5,707,527; 5,985,157; 6,027,639; 6,649,048; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

STORMFILTER DESIGN NOTES

STORMFILTER TREATMENTCAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (7). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 7 CARTRIDGES.
Ø72" MANHOLE STORMFILTER PEAK HYDRAULIC CAPACITY IS 1.5 CFS. IF THE SITE CONDITIONS EXCEED 1.5 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H)	3.05'		2.3'		1.8'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 39 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
5. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
6. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

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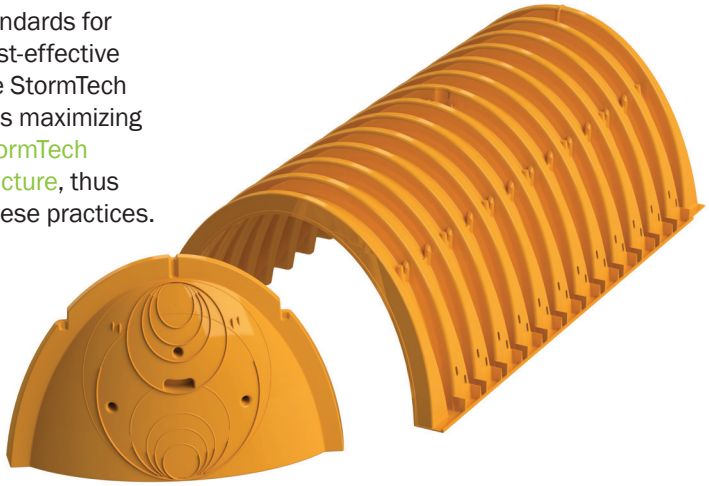
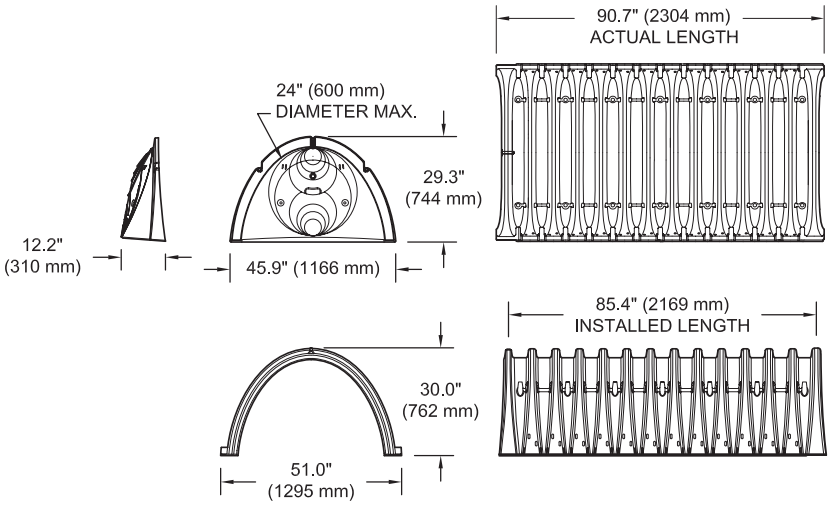
SFMH72
STORMFILTER
STANDARD DETAIL

STORMTECH SC-740 CHAMBER

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.



STORMTECH SC-740 CHAMBER
(not to scale)



Nominal Chamber Specifications

Size (L x W x H)
85.4" x 51" x 30"
2,170 mm x 1,295 mm x 762 mm

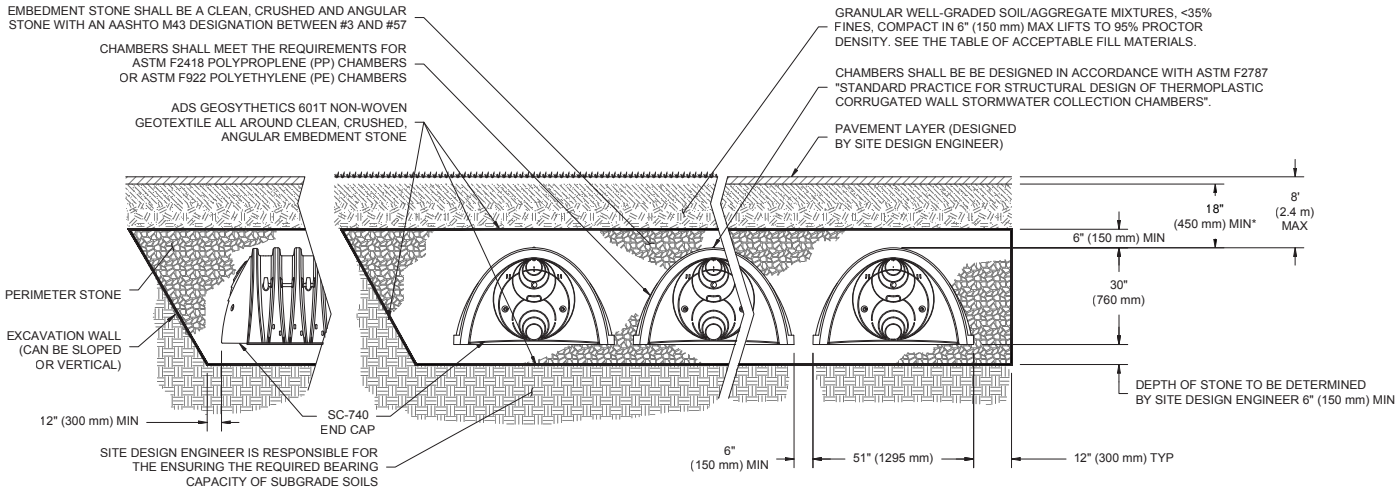
Chamber Storage
45.9 ft³ (1.30 m³)

Min. Installed Storage*
74.9 ft³ (2.12 m³)

Weight
74.0 lbs (33.6 kg)

Shipping
30 chambers/pallet
60 end caps/pallet
12 pallets/truck

*Assumes 6" (150 mm) stone above, below and between chambers and 40% stone porosity.



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24" (600 mm).

SC-740 CUMULATIVE STORAGE VOLUMES PER CHAMBER

Assumes 40% Stone Porosity. Calculations are Based Upon a 6" (150 mm) Stone Base Under Chambers.

Depth of Water in System Inches (mm)		Cumulative Chamber Storage ft³ (m³)	Total System Cumulative Storage ft³ (m³)
42 (1067)		45.90 (1.300)	74.90 (2.121)
41 (1041)		45.90 (1.300)	73.77 (2.089)
40 (1016)	Stone	45.90 (1.300)	72.64 (2.057)
39 (991)	Cover	45.90 (1.300)	71.52 (2.025)
38 (965)		45.90 (1.300)	70.39 (1.993)
37 (940)		45.90 (1.300)	69.26 (1.961)
36 (914)		45.90 (1.300)	68.14 (1.929)
35 (889)		45.85 (1.298)	66.98 (1.897)
34 (864)		45.69 (1.294)	65.75 (1.862)
33 (838)		45.41 (1.286)	64.46 (1.825)
32 (813)		44.81 (1.269)	62.97 (1.783)
31 (787)		44.01 (1.246)	61.36 (1.737)
30 (762)		43.06 (1.219)	59.66 (1.689)
29 (737)		41.98 (1.189)	57.89 (1.639)
28 (711)		40.80 (1.155)	56.05 (1.587)
27 (686)		39.54 (1.120)	54.17 (1.534)
26 (660)		38.18 (1.081)	52.23 (1.479)
25 (635)		36.74 (1.040)	50.23 (1.422)
24 (610)		35.22 (0.977)	48.19 (1.365)
23 (584)		33.64 (0.953)	46.11 (1.306)
22 (559)		31.99 (0.906)	44.00 (1.246)
21 (533)		30.29 (0.858)	1.85 (1.185)
20 (508)		28.54 (0.808)	39.67 (1.123)
19 (483)		26.74 (0.757)	37.47 (1.061)
18 (457)		24.89 (0.705)	35.23 (0.997)
17 (432)		23.00 (0.651)	32.96 (0.939)
16 (406)		21.06 (0.596)	30.68 (0.869)
15 (381)		19.09 (0.541)	28.36 (0.803)
14 (356)		17.08 (0.484)	26.03 (0.737)
13 (330)		15.04 (0.426)	23.68 (0.670)
12 (305)		12.97 (0.367)	21.31 (0.608)
11 (279)		10.87 (0.309)	18.92 (0.535)
10 (254)		8.74 (0.247)	16.51 (0.468)
9 (229)		6.58 (0.186)	14.09 (0.399)
8 (203)		4.41 (0.125)	11.66 (0.330)
7 (178)		2.21 (0.063)	9.21 (0.264)
6 (152)		0 (0)	6.76 (0.191)
5 (127)		0 (0)	5.63 (0.160)
4 (102)	Stone	0 (0)	4.51 (0.128)
3 (76)	Foundation	0 (0)	3.38 (0.096)
2 (51)		0 (0)	2.25 (0.064)
1 (25)		0 (0)	1.13 (0.032)

Note: Add 1.13 ft³ (0.032 m³) of storage for each additional inch (25 mm) of stone foundation.

STORAGE VOLUME PER CHAMBER FT³ (M³)

	Bare Chamber Storage ft³ (m³)	Chamber and Stone Foundation Depth in. (mm)		
		6 (150)	12 (300)	18 (450)
SC-740 Chamber	45.9 (1.3)	74.9 (2.1)	81.7 (2.3)	88.4 (2.5)

Note: Assumes 6" (150 mm) stone above chambers, 6" (150 mm) row spacing and 40% stone porosity.

AMOUNT OF STONE PER CHAMBER

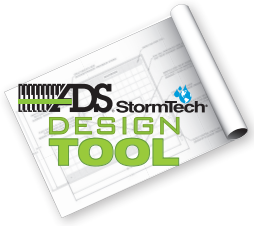
ENGLISH TONS (yds³)	Stone Foundation Depth		
	6"	12"	16"
SC-740	3.8 (2.8)	4.6 (3.3)	5.5 (3.9)
METRIC KILOGRAMS (m³)	**150 mm**	**300 mm**	**450 mm**
SC-740	3,450 (2.1)	4,170 (2.5)	4,490 (3.0)

Note: Assumes 6" (150 mm) of stone above and between chambers.

VOLUME EXCAVATION PER CHAMBER YD³ (M³)

	Stone Foundation Depth		
	6 (150)	12 (300)	18 (450)
SC-740	5.5 (4.2)	6.2 (4.7)	6.8 (5.2)

Note: Assumes 6" (150 mm) of row separation and 18" (450 mm) of cover. The volume of excavation will vary as depth of cover increases.



Working on a project?
Visit us at www.stormtech.com
and utilize the StormTech Design Tool

For more information on the StormTech SC-740 Chamber and other ADS products, please contact our Customer Service Representatives at 1-800-821-6710

*THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS™*

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4640 Trueman Blvd., Hilliard, OH 43026
1-800-821-6710 www.ads-pipe.com

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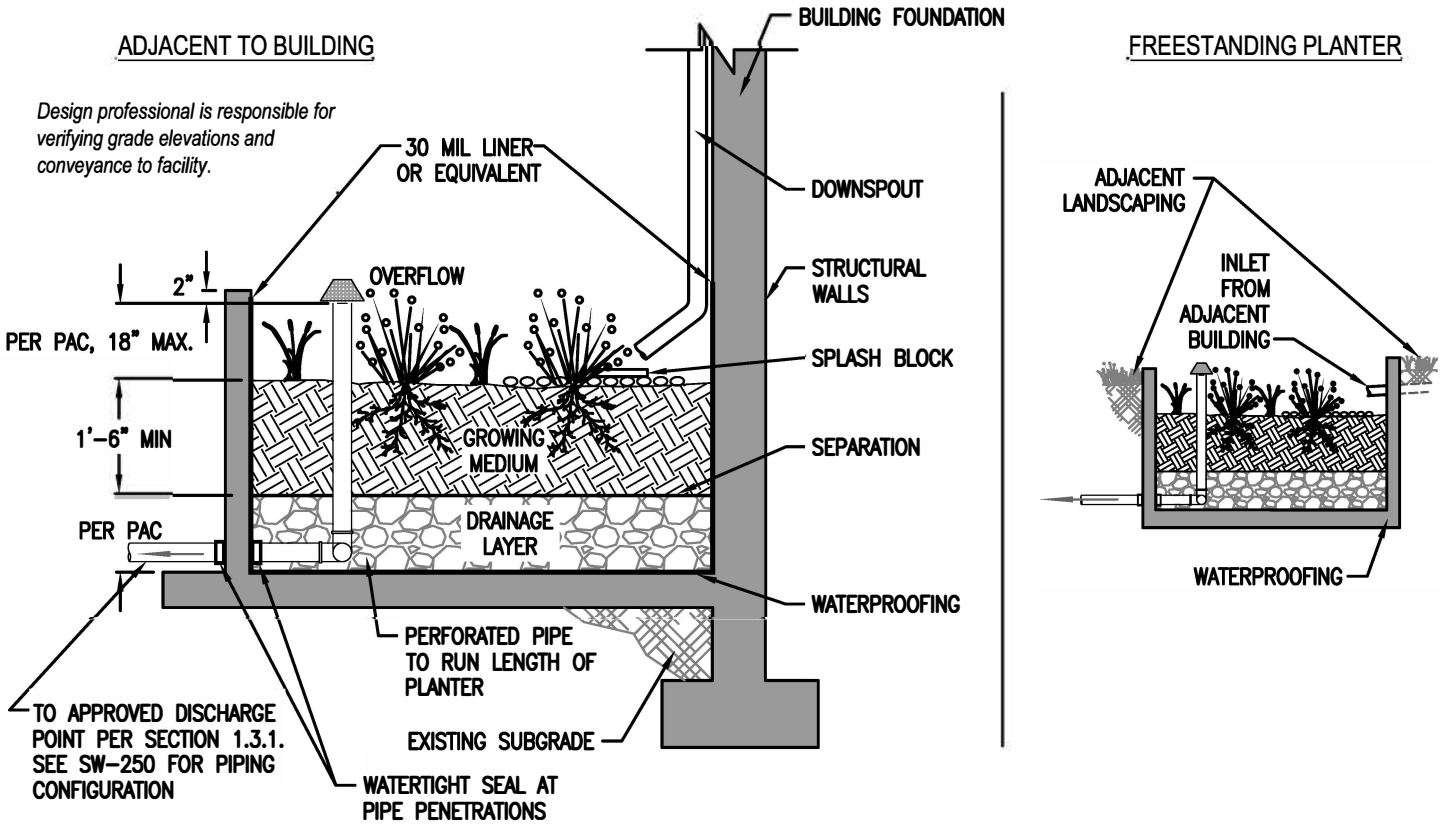


1. Detail intended as an example. Detail must match PAC assumptions and/or design report.

2. Dimensions:
   Width of planter: 24" minimum.
   Depth of planter (from top of growing medium to overflow elevation): per PAC calculations.
   Longitudinal slope of planter: 0.5% or less.

3. Setbacks:
   Planters must be less than 30" in height above finish grade if within 5-feet of property line.

4. Planter Walls:
   Material must be monolithically poured concrete, unless otherwise approved. Walls must be included on foundation plans.

5. Waterproofing:
   If planter is monolithically poured no additional liner/waterproofing is required. Check state structural requirements for foundations.

6. Piping must be ABS Sch.40, cast iron, or PVS Sch.40. 3" pipe required for facilities draining up to 1500 s.f., otherwise 4" min. pipe. Piping must have 1% grade and follow the Uniform Plumbing Code.

7. Drain Layer:
   Determined by designer. Options include, but are not limited to drain mat, 3/4" washed round rock, or other approved system.
   Separation between drain and growing medium:
   Use appropriate filter fabric or a gravel lens (3/4 – 1/4 inch washed, crushed rock 2 to 3 inches deep), or as per approved design.

8. Overflow:
   Inlet elevation must allow for 2" of freeboard, minimum.
   Protect from debris and sediment with strainer or grate.

9. Growing Medium:
   18" minimum depth. Use sand/loam/compost 3-way mix, or approved mix that will support healthy plants.
   24" minimum depth is required if the lined facility is also meeting BDS landscape requirements.

10. Vegetation: Refer to plant list in SWMM, Section 2.4.1. Minimum container size is #1 container. # of plantings per 100sf of facility area:
    80 herbaceous plants OR;
    72 herbaceous plants and 4 small shrubs.

11. Splash Block: Install 4-6" washed river rock or splash pad for erosion control at inlets and downspout.

12. Inspections: Call BDS IVR Inspection Line, (503) 823-7000, request 487. 3 inspections required.

- DRAWING NOT TO SCALE -

STORMWATER MANAGEMENT TYPICAL DETAILS

– Presumptive and Performance Design Approach –

Planter – lined

Bureau of Environmental Services

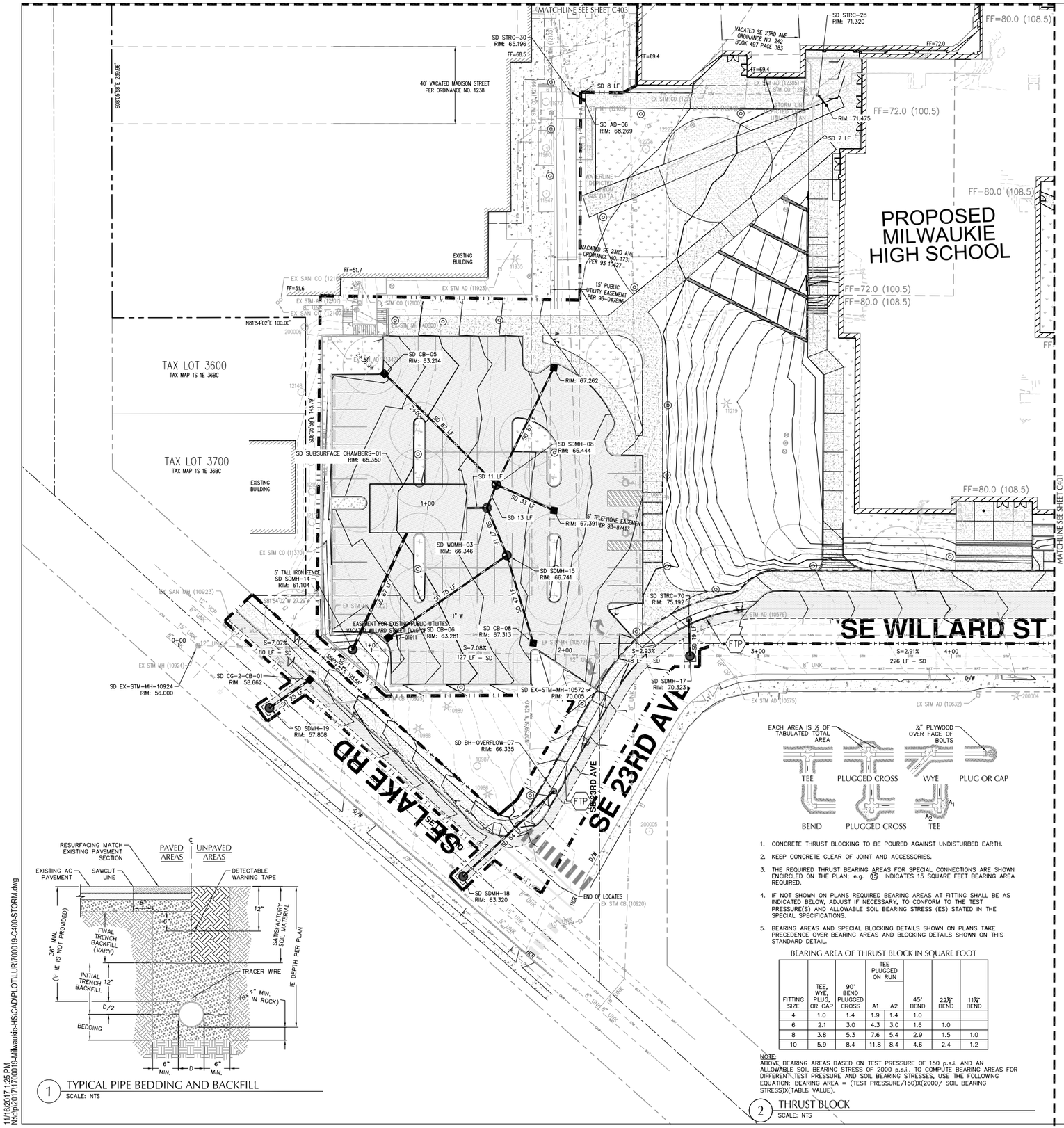
NUMBER

SW-230

7-1-16

Appendix C

Proposed Utility Plan



SHEET NOTES

1. ON-SITE PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE DONE PER DETAIL 1/C400.
2. OFF-SITE (IN ROW) PIPE BEDDING AND TRENCH BACKFILL AND SURFACING PER CITY STD DWG P-100 AND P-101.
3. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
4. INSTALL TRUST BLOCK ON FIRE AND WATER LINES PER DETAIL 2/C400.

(X) UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
1	KILL EXISTING WATER SERVICE	
2	INSTALL 3" WATER METER	
3	FIELD VERIFY LOCATION AND IE OF EXISTING WATER SERVICE LATERAL PRIOR TO CONSTRUCTION.	
4	INSTALL STANDARD SANITARY MANHOLE.	
RPV	4" REDUCED PRESSURE BACKFLOW ASSEMBLY VAULT	
DC	3" IRRIGATION DOUBLE CHECK VAULT	
DCD	6" DOUBLE CHECK DETECTOR VAULT	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	FLOW THROUGH PLANTER	
IR	3" IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.	
S	CONNECT TO PROPOSED WASTE LINE. SEE PUBLIC IMPROVEMENT PLANS FOR CONTINUATION OF THE SANITARY EXTENSION..	
SD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE THIS PLAN FOR CONTINUATION. SIZE AND IE AS NOTED.	
WQS	WATER QUALITY SWALE. ID AS SHOWN.	
VDB	VEGETATED DETENTION BASIN. ID AS SHOWN.	
!!	UTILITY CROSSING. PROVIDE 12" MIN. CLEARANCE, U.N.O.	

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD2	AREA DRAIN TYPE 2	
BWV	BUTTERFLY VALVE	
CB	CATCH BASIN	
CO	CLEANOUT TO GRADE	
DCVA	DOUBLE CHECK VALVE ASSEMBLY	
DDCV	DOUBLE DETECTOR CHECK VALVE	
DI	DITCH INLET	
FCMH	FLOW CONTROL MANHOLE	
FD	FOUNDATION DRAINAGE	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GM	GAS METER	
GV	GATE VALVE	
HB	HORIZONTAL BEND	
MH	MANHOLE	
OF	OUTFALL	
OV2	OVERFLOW INLET TYPE 2	
PRG	PEDESTRIAN RATED GRATE	
PUMP	PUMP	
RD	ROOF DRAIN CONNECTION	
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY	
STUB	STUB	
TB	THRUST BLOCK	
TD	TRENCH DRAIN	
TEE	TEE CONNECTION	
VB	VERTICAL BEND	
WM	WATER METER	
WQ	WATER QUALITY	
WQCB	WATER QUALITY CATCH BASIN	
WYE	WYE CONNECTION	

LEGEND

CALLOUT	DESCRIPTION
FDC	FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH	FIRE HYDRANT ASSEMBLY
VALVE	ISOLATION VALVE
METER	WATER METER VAULT
TB	THRUST BLOCK
GM	GAS METER
MH	MANHOLE
CO	CLEANOUT
VT	VAULT
SDMH	STORM DRAIN MANHOLE
CB	CATCH BASIN

SD — STORM DRAIN LINE
W — WATER LINE
S — SANITARY SEWER LINE
FH — FIRE HYDRANT LINE
FP — FIRE PROTECTION LINE
T (TELE) — TELECOMMUNICATIONS LINE
E (ELEC) — ELECTRIC LINE
NG (G) — NATURAL GAS LINE
PUBLIC WATER LINE IN 15' WIDE EASEMENT

1 TYPICAL PIPE BEDDING AND BACKFILL
SCALE: NTS

1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLAN; e.g. (15) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW. ADJUST IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS (ES) STATED IN THE SPECIAL SPECIFICATIONS.
5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

BEARING AREA OF THRUST BLOCK IN SQUARE FOOT

FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A1	TEE PLUGGED ON RUN A2	45° BEND	22½° BEND	11¼° BEND
4	1.0	1.4	1.9	1.4	1.0		
6	2.1	3.0	4.3	3.0	1.6	1.0	
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2

NOTE:
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 p.s.i. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 p.s.i.. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURE AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150)X(2000/ SOIL BEARING STRESS)X(TABLE VALUE).

2 THRUST BLOCK
SCALE: NTS

SCALE 1 INCH = 20 FEET
20 0 20 40

NORTH Clackamas Schools

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NOT FOR CONSTRUCTION

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f: (503) 353-6000

key plan

phase	Land Use Review
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revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C400

11/16/2017 1:25 PM
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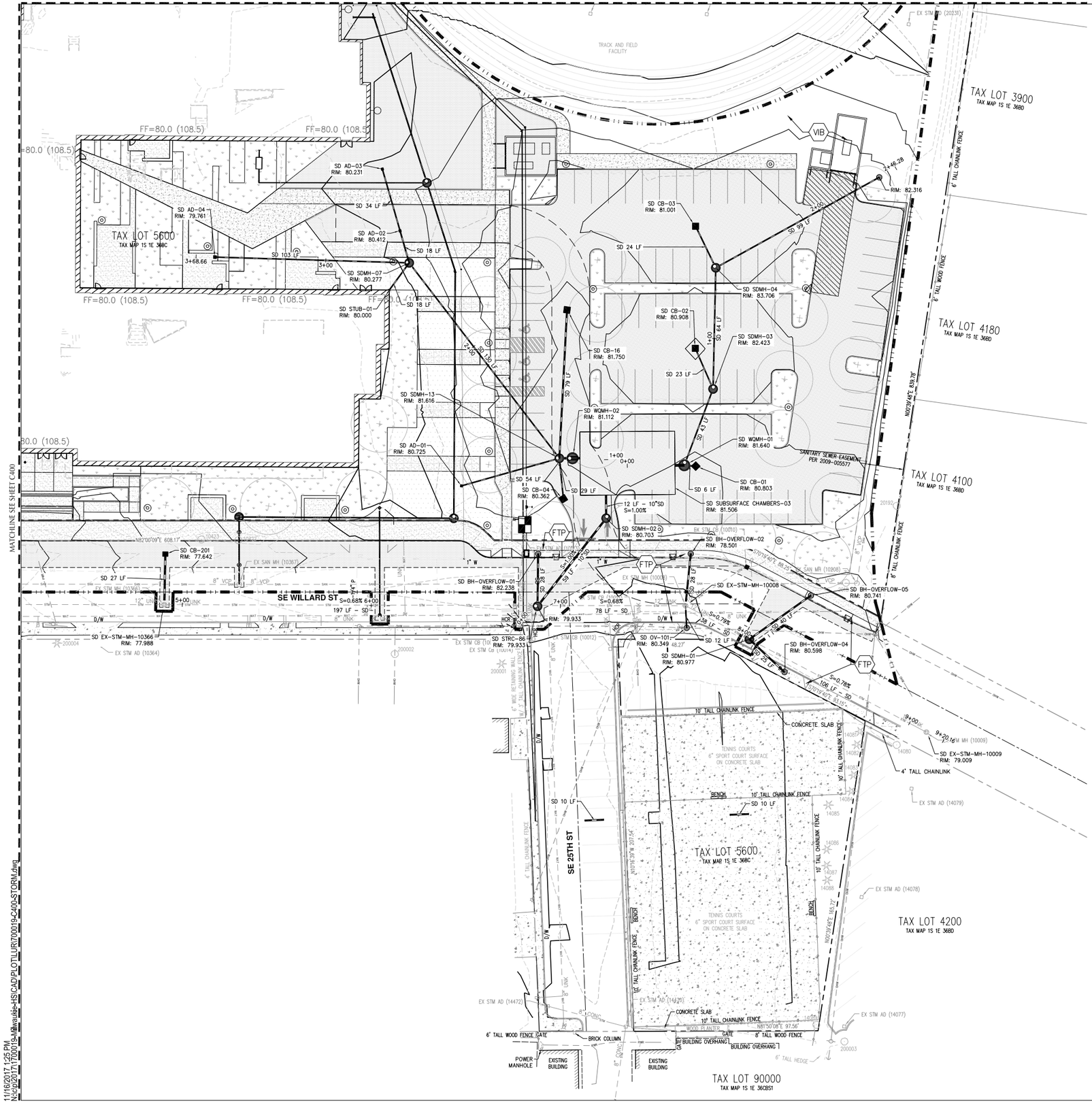

SHEET NOTES

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3. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
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(X) UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
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DC	3" IRRIGATION DOUBLE CHECK VAULT	
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STORM DRAINAGE PLAN

C401

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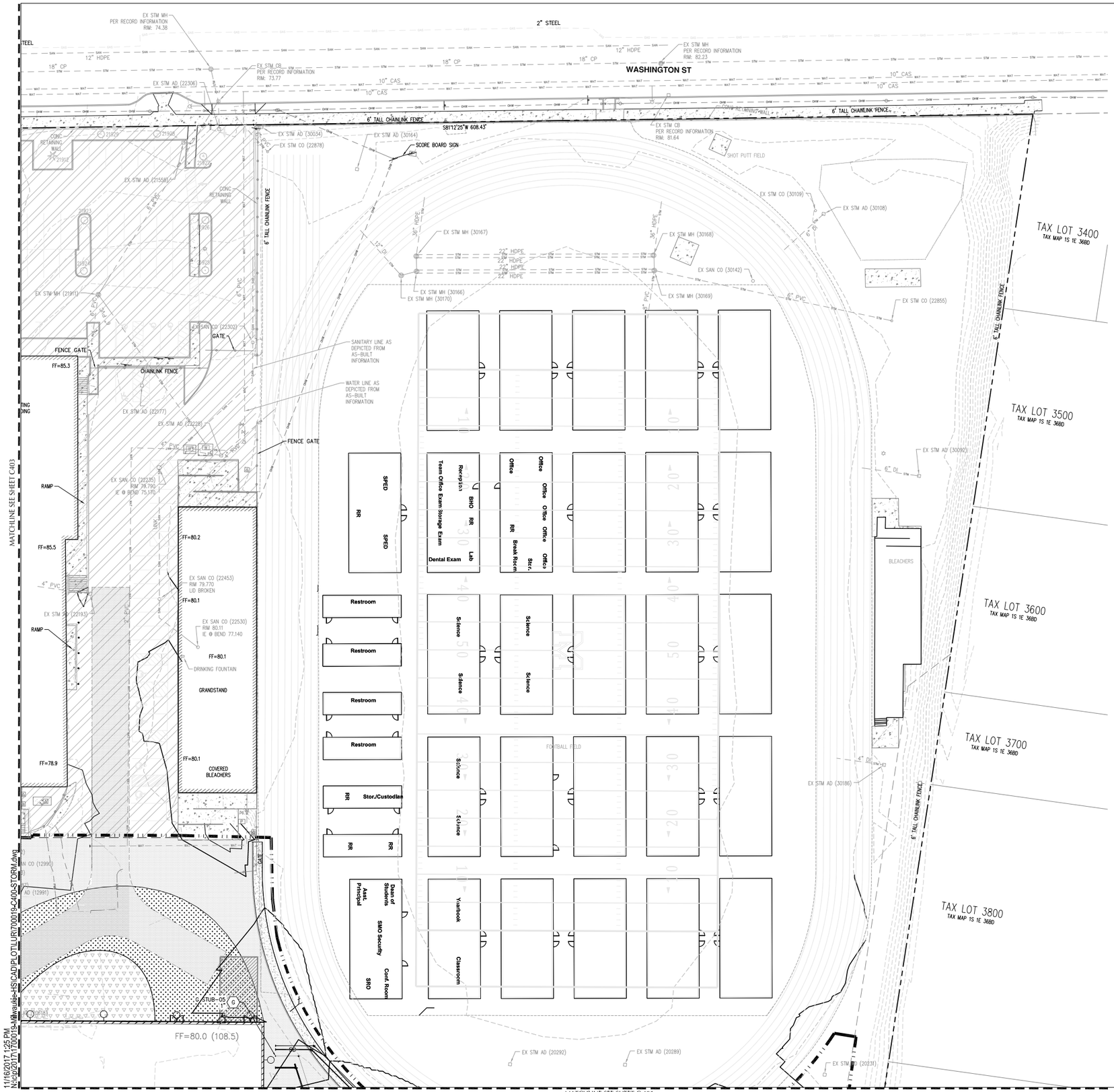

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key plan

phase	Land Use Review
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revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C402

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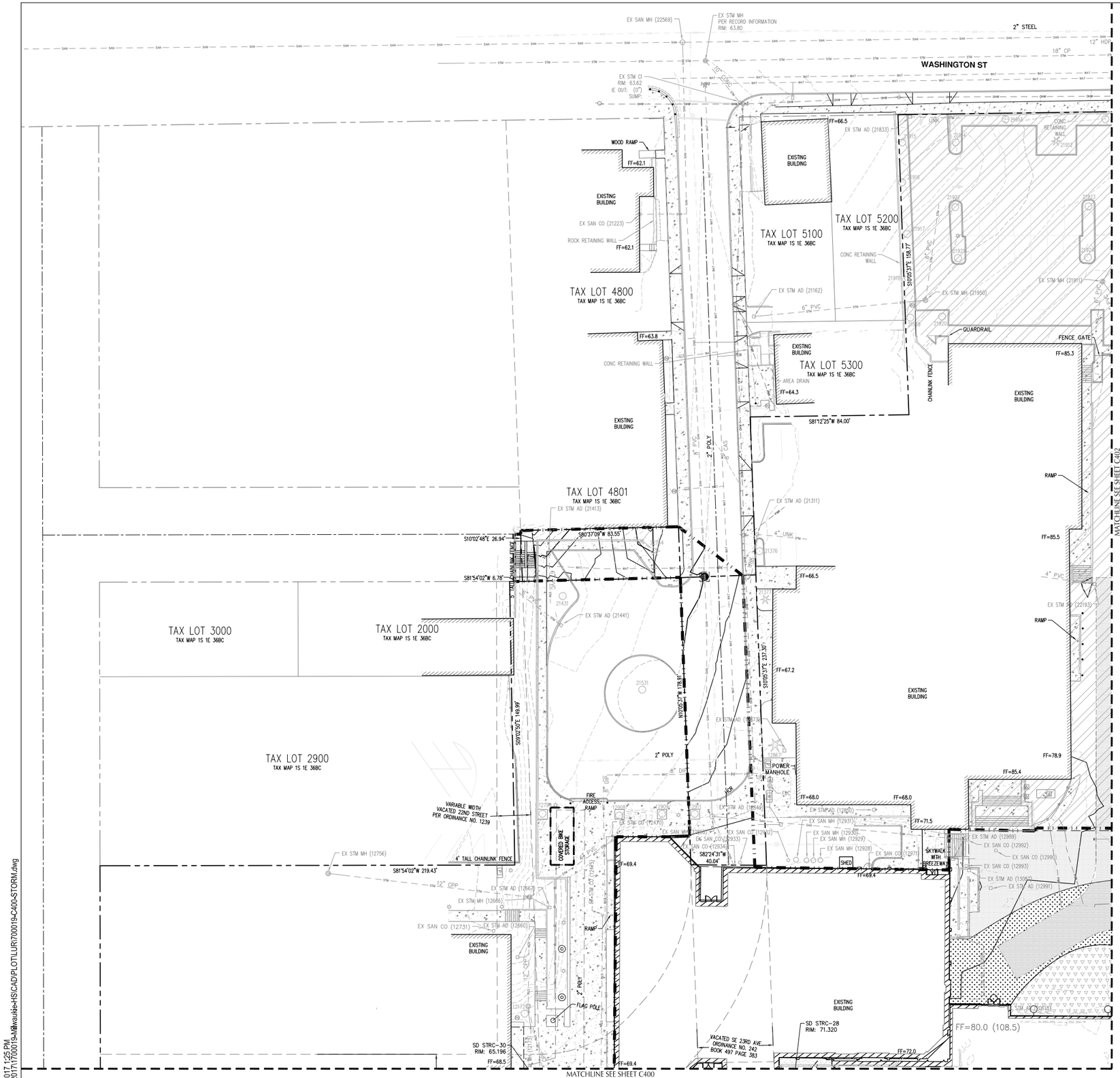

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key plan

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revisions	01/19/2018
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STORM DRAINAGE PLAN

C403

111 SW 5th Avenue, Suite 2500, Portland, OR 97204
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NOTES:

1. UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS, PROVIDED PER UTILITY LOCATE TICKET NUMBER 17065063. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
2. FIELD WORK WAS CONDUCTED MARCH 8-22, APRIL 10 & 14, AUGUST 14-18 2017.
3. VERTICAL DATUM: ELEVATIONS ARE NAVD88 DERIVED FROM THE TRIMBLE VRS NOW NETWORK. NETWORK ELEVATIONS WERE CHECKED AGAINST PUBLISHED DATASHEET ELEVATIONS AT NGS BENCHMARK NO. RD1487, RD1488, AND RD1491.
4. THIS MAP DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY.
5. SURVEY IS ONLY VALID WITH SURVEYOR'S STAMP AND SIGNATURE.
6. BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERMISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
7. CONTOUR INTERVAL IS 1 FOOT.
8. TREES WITH DIAMETER OF 6" AND GREATER ARE SHOWN. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.
9. HORIZONTAL DATUM: LOCAL DATUM PLANE SCALED FROM OREGON STATE PLANE NORTH 3601, NAD83(2011) EPOCH 2010.0000, BY HOLDING A PROJECT MEAN GROUND COMBINED SCALE FACTOR OF 1.0000945532 AT A CALCULATED CENTRAL PROJECT POINT WITH GRID VALUES OF (NORTH 654950.01, EAST 7654525.35). THE MERIDIAN CONVERGENCE ANGLE AT THE CALCULATED CENTRAL POINT IS -1°30'46". THE STATE PLANE COORDINATES WERE DERIVED FROM THE TRIMBLE VRS NOW NETWORK WITH HORIZONTAL POSITION CHECKED AGAINST PUBLISHED DATASHEET COORDINATES AT NGS CONTROL POINT PID RD1491.
10. CITY OF MILWAUKIE ORDINANCE NUMBER 242, BOOK 497 PAGE 383 IS BLANKET IN NATURE AND COVERS 23RD STREET 500 FEET FROM WASHINGTON ST. AND WILLARD ST. FROM LAKE ROAD EASTERLY TO HENNEMAN ACRES.
11. EASEMENTS FOR EXISTING PUBLIC UTILITIES IN VACATED STREET AREAS AND THE CONDITIONS IMPOSED THEREBY, BOOK 181 PAGE 94 DOES NOT DESCRIBE ANY UTILITIES OR EASEMENTS.

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

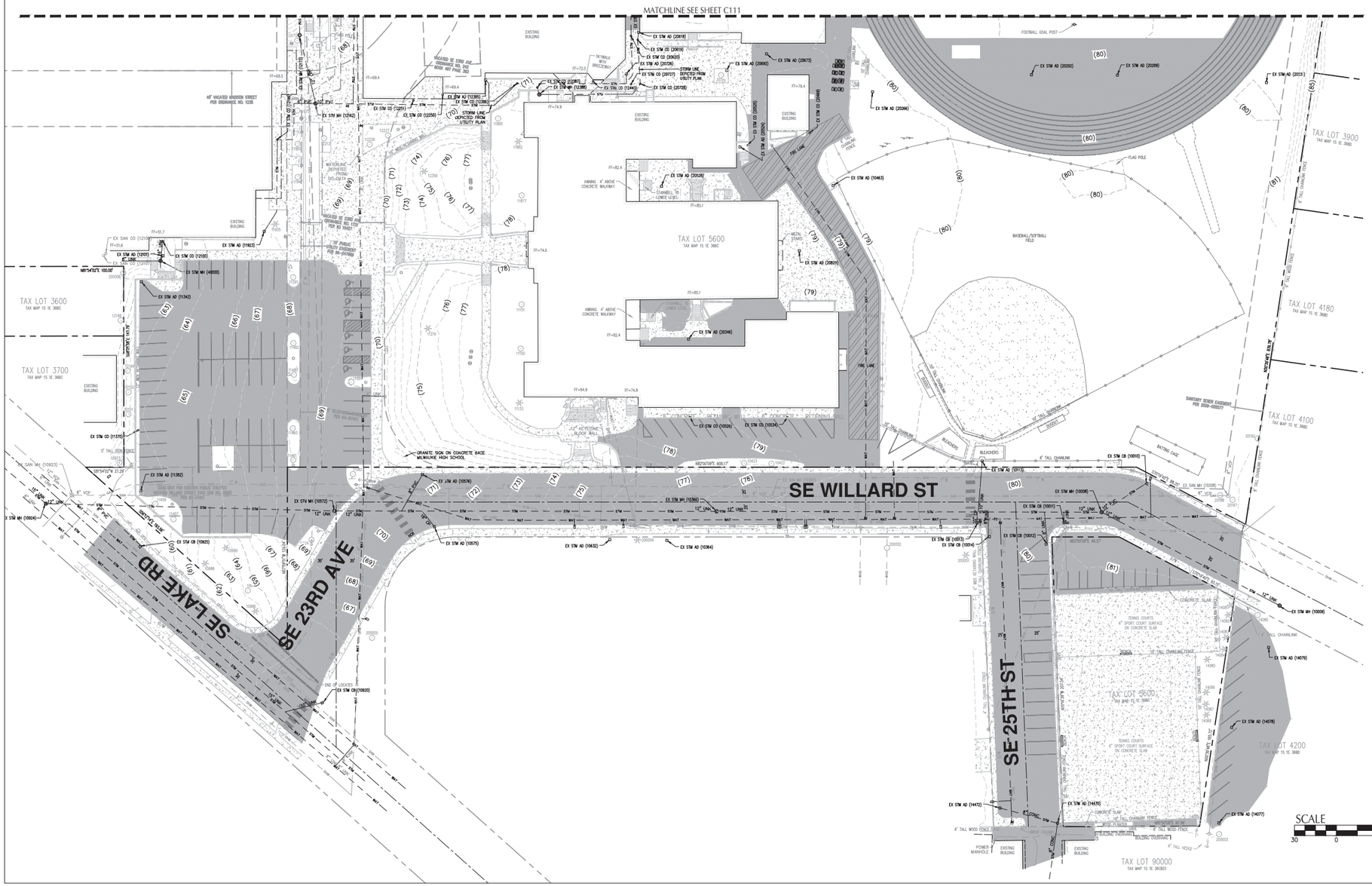
Dig Safely.
Call the Oregon One-Call Center
1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
CENTURYLINK	1-800-573-1311
CITY BUREAU OF MAINTENANCE	503-823-1700
CITY WATER	503-823-4874
VERIZON	1-800-483-1000

LEGEND

PROPOSED	DESCRIPTION
	PROPERTY LINE
	RIGHT OF WAY
	EASEMENT LINE
	CENTERLINE
	BUILDING OUTLINE
	BUILDING OVERHANG
	SIDEWALK/CONCRETE
	CURB
	CURB & GUTTER
	EDGE OF ASPHALT
	GRADE BREAK
	SAWCUT
	AC PAVEMENT
	SCORING PATTERN
	LANDSCAPE AREA
255	CONTOUR
STM	STORM DRAIN
SAN	SANITARY SEWER
WAT	WATER MAIN
OFO	FIBER OPTIC
GAS	GAS MAIN
OHW	OVERHEAD UTILITY
	FENCELINE
	CATCH BASIN
	AREA DRAIN
	UTILITY POLE
	LIGHT POLE
	JUNCTION BOX
	CLEANOUT (COTG)
	MANHOLE
	WATER METER
	FIRE HYDRANT
	WATER VALVE
	GAS VALVE
	GAS METER
	SIGN
	TREE



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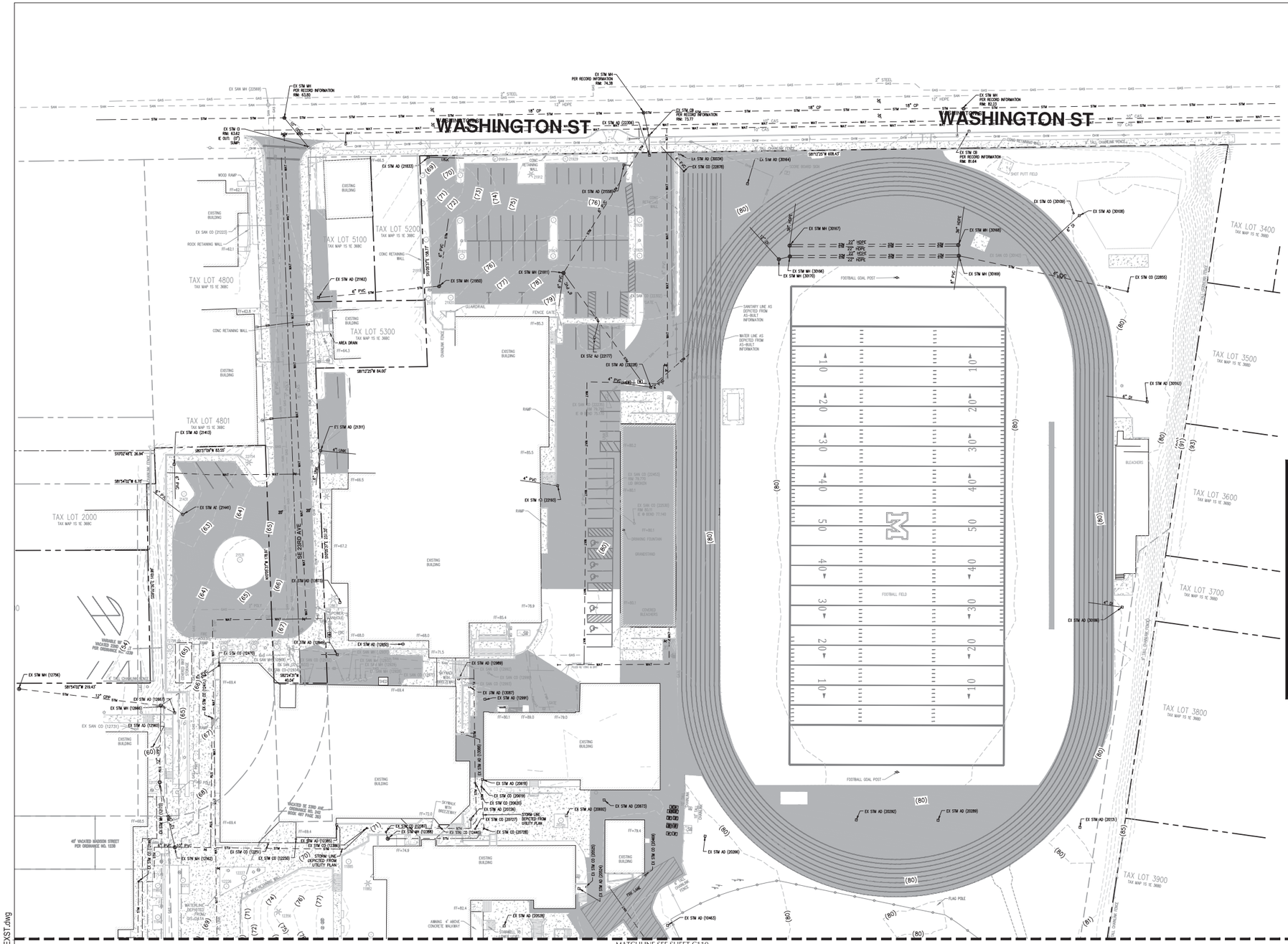
project #	1700019

EXISTING CONDITIONS

C110



LEGEND

PROPOSED	DESCRIPTION
	PROPERTY LINE
	RIGHT OF WAY
	EASEMENT LINE
	CENTERLINE
	BUILDING OUTLINE
	BUILDING OVERHANG
	SIDEWALK/CONCRETE
	CURB
	CURB & GUTTER
	EDGE OF ASPHALT
	GRADE BREAK
	SAWCUT
	AC PAVEMENT
	SCORING PATTERN
	LANDSCAPE AREA
255	CONTOUR
STM	STORM DRAIN
SAN	SANITARY SEWER
WAT	WATER MAIN
OPT	FIBER OPTIC
GAS	GAS MAIN
OHW	OVERHEAD UTILITY
	FENCELINE
	CATCH BASIN
	AREA DRAIN
	UTILITY POLE
	LIGHT POLE
	JUNCTION BOX
	CLEANOUT (COTG)
	MANHOLE
	WATER METER
	FIRE HYDRANT
	WATER VALVE
	GAS VALVE
	GAS METER
	SIGN
	TREE

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.
Call the Oregon One-Call Center
1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
CENTURYLINK	1-800-573-1311
CITY BUREAU OF MAINTENANCE	503-823-1700
CITY WATER	503-823-4874
VERIZON	1-800-483-1000

NOTES:

1. UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS, PROVIDED PER UTILITY LOCATE TICKET NUMBER 17065063. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
2. FIELD WORK WAS CONDUCTED MARCH 8-22, APRIL 10 & 14, AUGUST 14-18 2017.
3. VERTICAL DATUM: ELEVATIONS ARE NAVD88 DERIVED FROM THE TRIMBLE VRS NOW NETWORK. NETWORK ELEVATIONS WERE CHECKED AGAINST PUBLISHED DATASHEET ELEVATIONS AT NGS BENCHMARK NO. RD1487, RD1488, AND RD1491.
4. THIS MAP DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY.
5. SURVEY IS ONLY VALID WITH SURVEYOR'S STAMP AND SIGNATURE.
6. BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERWISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
7. CONTOUR INTERVAL IS 1 FOOT.
8. TREES WITH DIAMETER OF 6" AND GREATER ARE SHOWN. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.
9. HORIZONTAL DATUM: LOCAL DATUM PLANE SCALED FROM OREGON STATE PLANE NORTH 3601, NAD83(2011) EPOCH 2010.0000, BY HOLDING A PROJECT MEAN GROUND COMBINED SCALE FACTOR OF 1.0000945532 AT A CALCULATED CENTRAL PROJECT POINT WITH GRID VALUES OF (NORTH 654950.01, EAST 7654525.35). THE MERIDIAN CONVERGENCE ANGLE AT THE CALCULATED CENTRAL POINT IS -1°30'48". THE STATE PLANE COORDINATES WERE DERIVED FROM THE TRIMBLE VRS NOW NETWORK WITH HORIZONTAL POSITION CHECKED AGAINST PUBLISHED DATASHEET COORDINATES AT NGS CONTROL POINT PID RD1491.
10. CITY OF MILWAUKIE ORDINANCE NUMBER 242, BOOK 497 PAGE 383 IS BLANKET IN NATURE AND COVERS 23RD STREET 500 FEET FROM WASHINGTON ST. AND WILLARD ST. FROM LAKE ROAD EASTERLY TO HENNEMAN ACRES.
11. EASEMENTS FOR EXISTING PUBLIC UTILITIES IN VACATED STREET AREAS AND THE CONDITIONS IMPOSED THEREBY, BOOK 181 PAGE 94 DOES NOT DESCRIBE ANY UTILITIES OR EASEMENTS.

SCALE 1 INCH = 30 FEET
30 0 30 60

NORTH Clackamas Schools

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key plan

phase	Land Use Review
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C111

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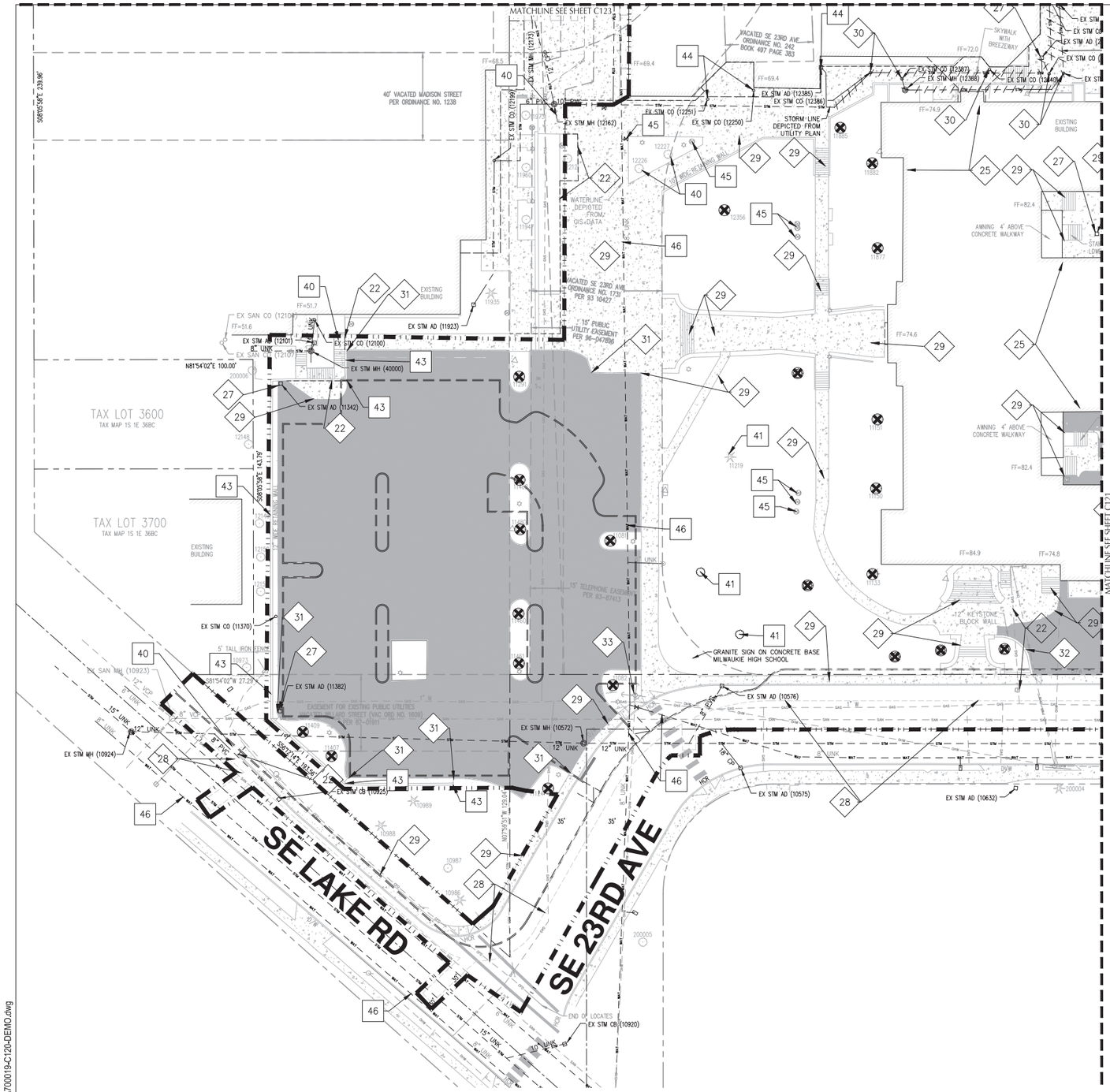

SHEET NOTES

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X DEMOLITION KEY NOTES

20 COORDINATE WITH CITY TO REMOVE WATER METER AND SERVICE
21 REMOVE AND PLUG STORM/SANITARY SERVICE AT PROPERTY LINE PER DETAIL 1/C1.1
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X PROTECTION KEY NOTES

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SHEET LEGEND

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SCALE 1 INCH = 20 FEET
20 0 20 40

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key plan

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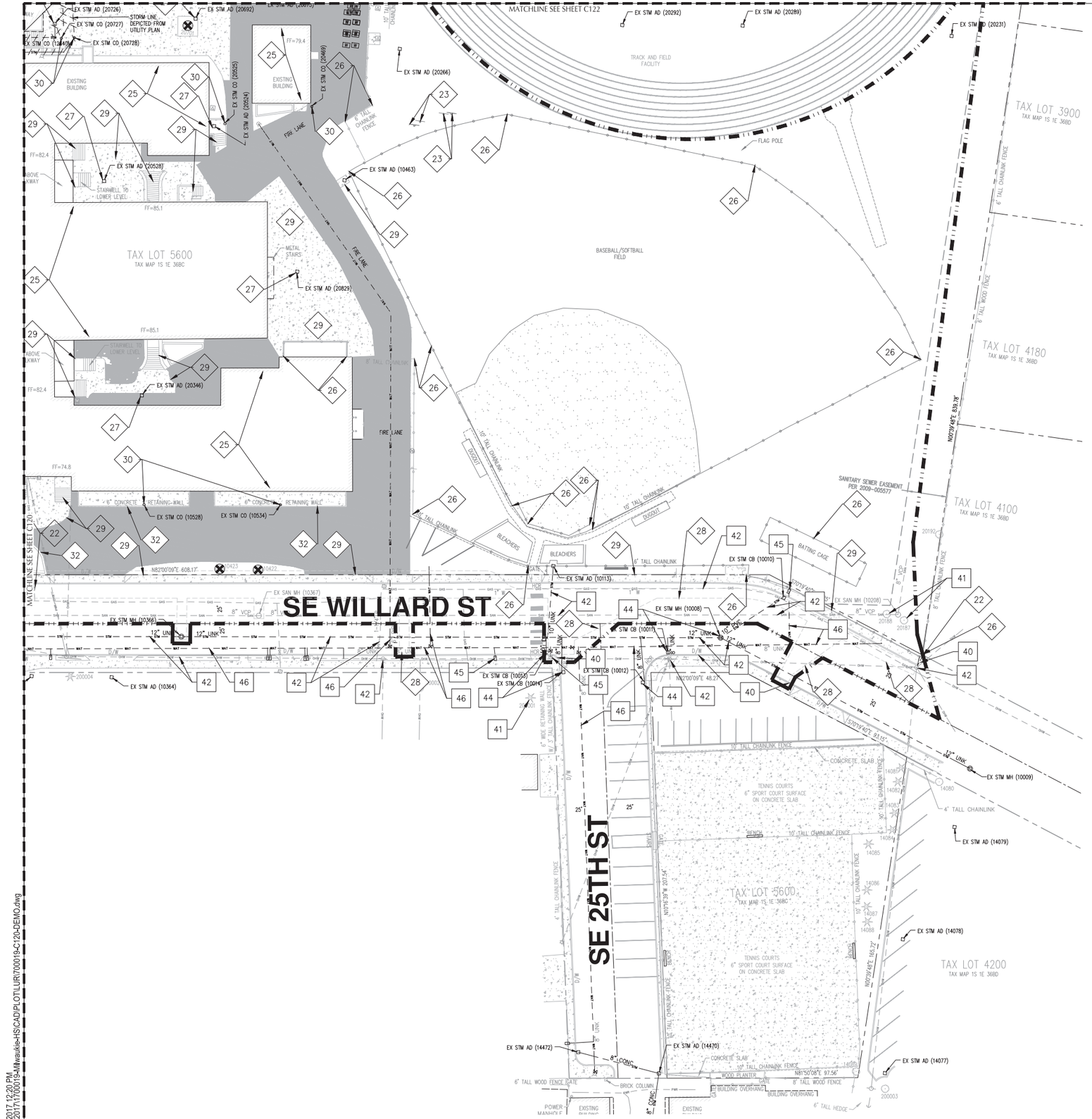
SITE DEMOLITION

C120



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C121

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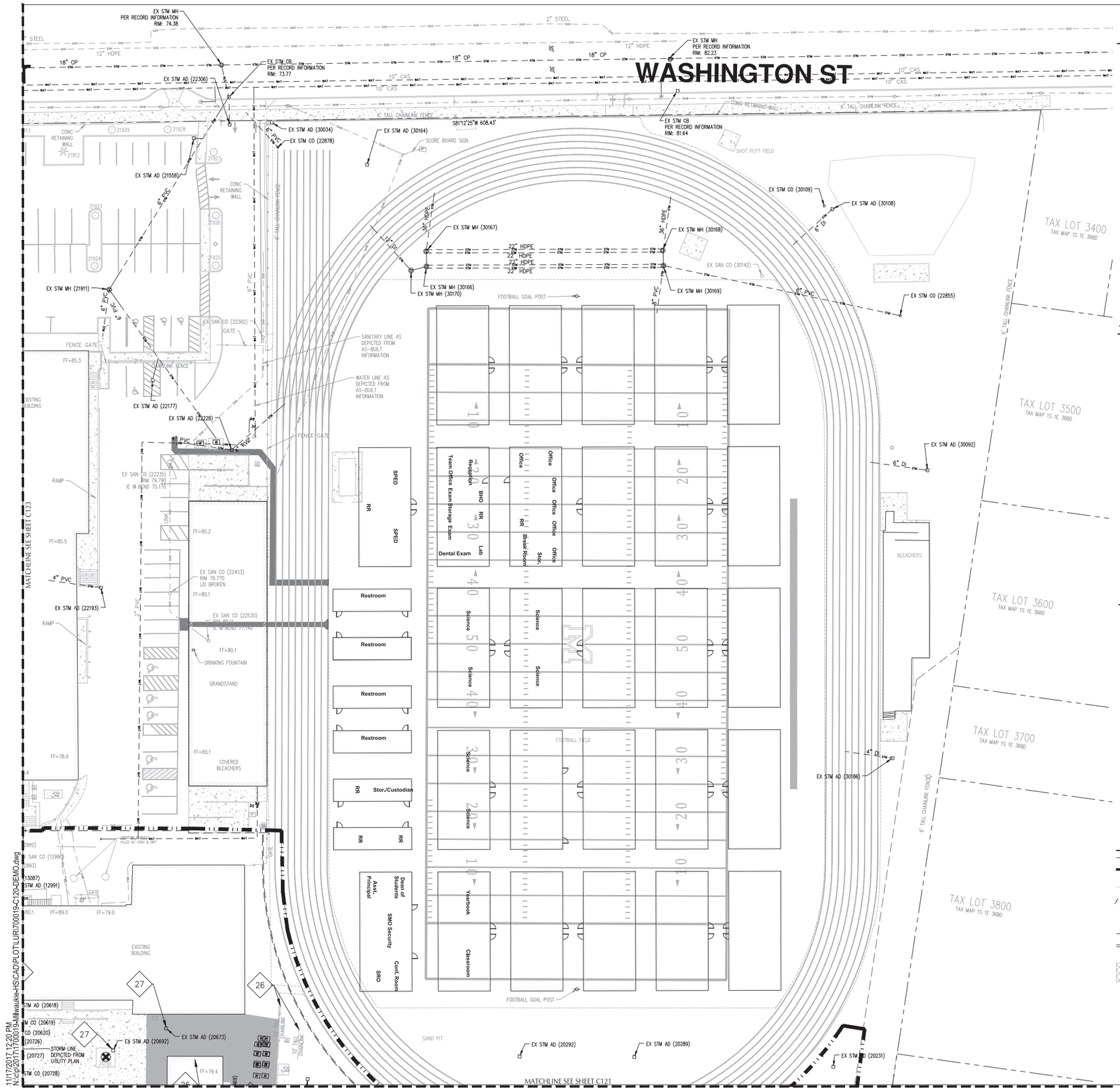

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key plan

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SITE DEMOLITION

C122

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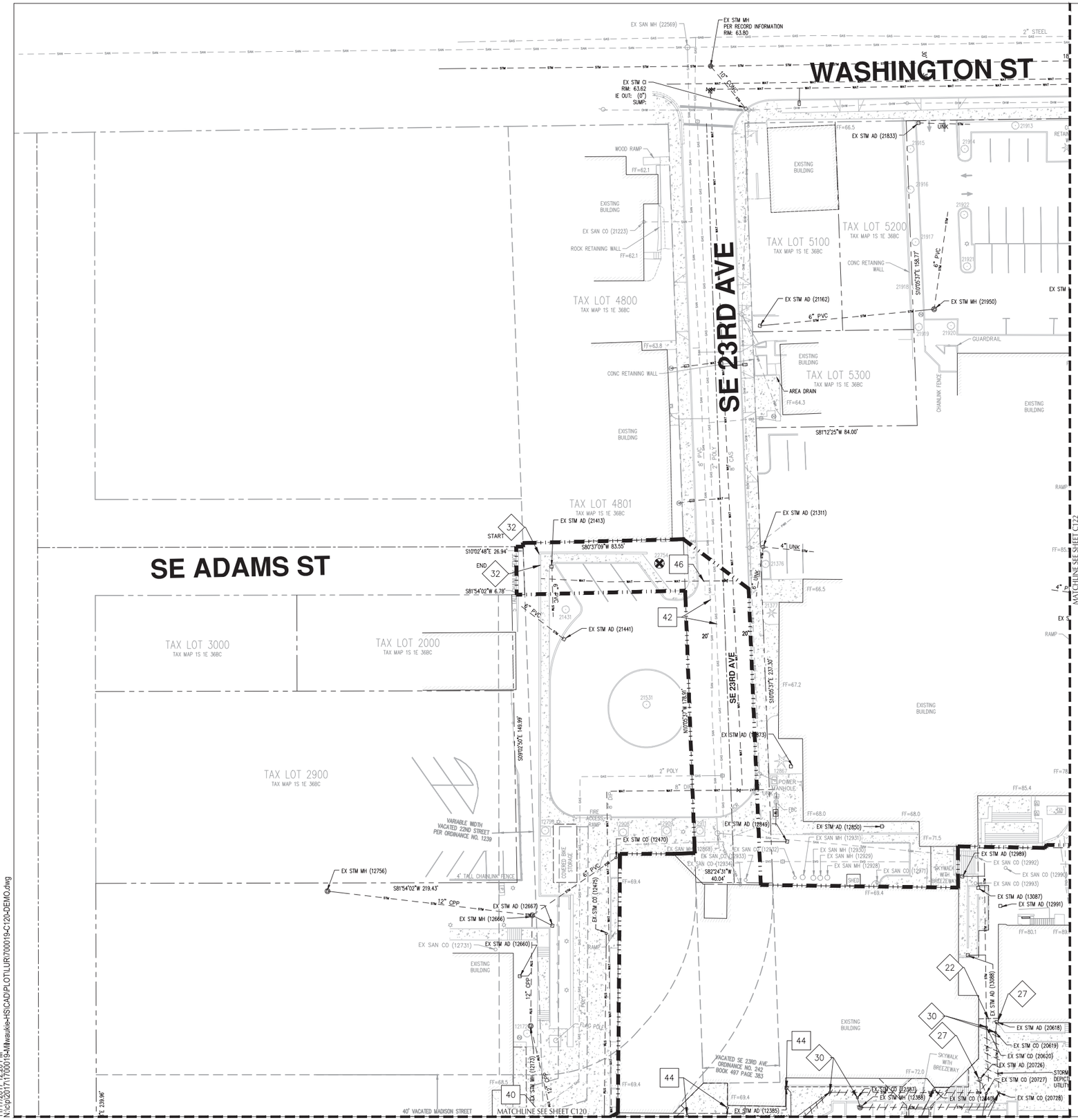

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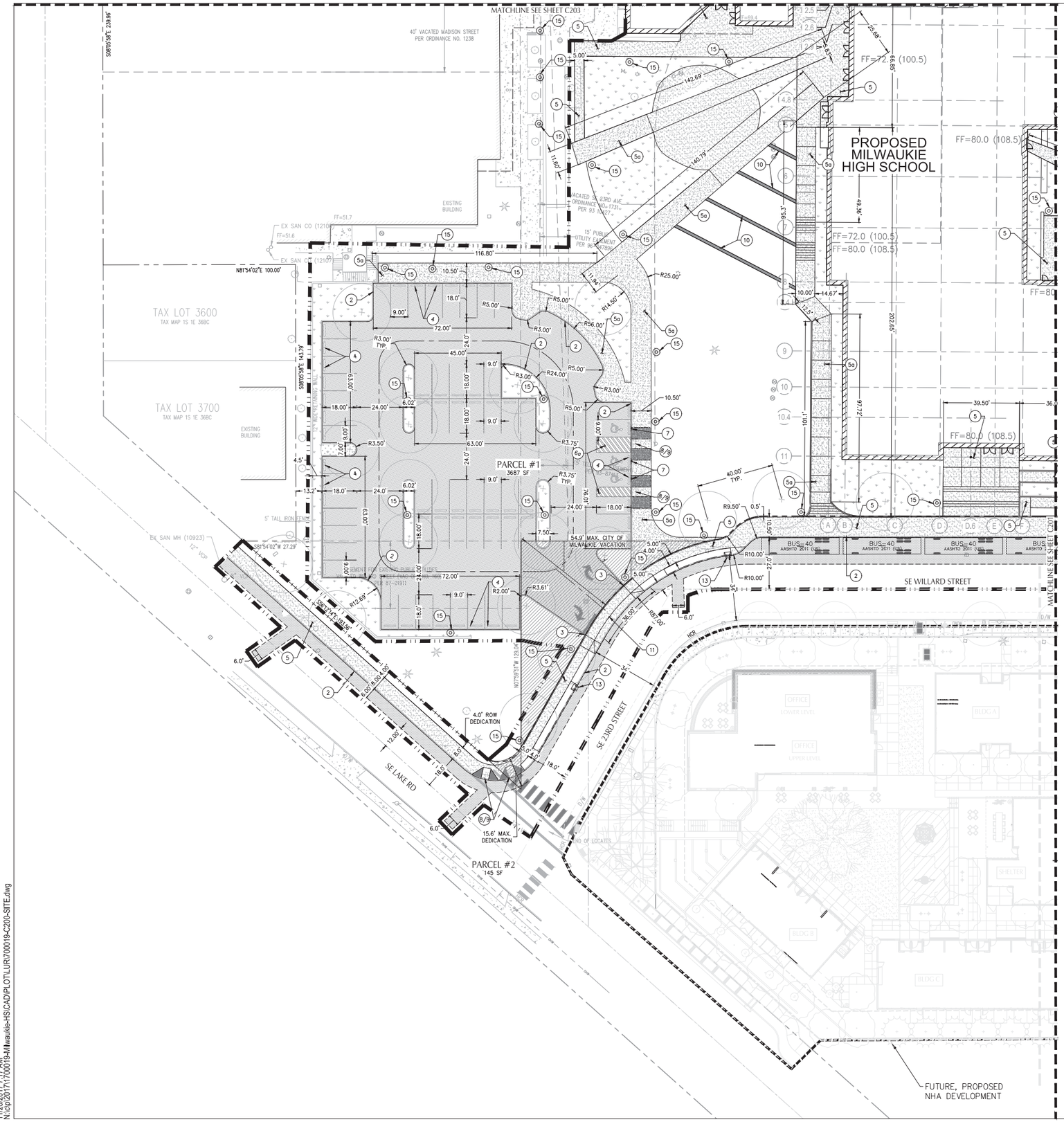

SHEET LEGEND

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL (UNLESS OTHERWISE NOTED).
2. SEE LANDSCAPE PLANS FOR PLANTING AND ADDITIONAL SITE FEATURES.
3. SEE LANDSCAPE PLANS FOR CONCRETE SCORING AND JOINT LOCATIONS.
4. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS AND LAYOUT.

- PROPERTY LINE
- BUILDING
- HEAVY CONCRETE PAVING
- LIGHT ASPHALT PAVEMENT SECTION
- HEAVY ASPHALT PAVEMENT SECTION
- CONCRETE SIDEWALK – SEE LANDSCAPE PLANS FOR DETAIL
- PERVIOUS CONCRETE
- ARTIFICIAL TURF
- SAWCUT LINE
- LIMITS OF WORK
- FIRE LANE
- STORMWATER WATER QUALITY FLOW-THROUGH PLANTER
- CONC. SPILLWAY W/ CONC. FOREBAY (PER CITY OF MILWAUKIE STD DETAIL)
- SITE LIGHTING (SEE SHEET EPH1 FOR PHOTOMETRICS)
- PROPOSED TREE

SHEET NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL.
2. PROPOSED FRONTAGE IMPROVEMENTS IN RIGHT-OF-WAY SHOWN FOR REFERENCE ONLY. TO BE PERMITTED UNDER SEPARATE PERMIT.

KEY NOTES

#	DESCRIPTION
1	MOUNTABLE CURB
2	STANDARD CURB
3	CURB ENDING
4	WHEEL STOP
5	CONCRETE SIDEWALK
5a	PERVIOUS CONCRETE
6a	ADA PARKING STALLS AND STRIPING
6b	"NO PARKING" ZONE STRIPING
6c	4" WIDE WHITE STRIPE
7	ADA PARKING SIGN
8	DETECTABLE WARNING
9	CURB RAMP
10	MODULAR WALL
11	CONCRETE DRIVEWAY APRON
12	CONCRETE STAIRWAY
13	CURB SPILLWAY WITH SPLASH BLOCK
14	ACCESSIBLE CROSSWALK
15	SITE LIGHTING – SEE SHEET EPH1 FOR PHOTOMETRICS

SCALE 1 INCH = 20 FEET (20 0 20 40)

NORTH Clackamas Schools

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fax. (503) 273 9192

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111 SW Fifth Ave., Suite 2500
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O: 503.227.3251
F: 503.274.4681
www.kpff.com

NOT FOR CONSTRUCTION

Milwaukie High School
North Clackamas School District
11300 SE 23rd Avenue, Milwaukie, OR 97222
t: (503) 353-6000
f: (503) 353-6000

key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

SITE DIMENSION & LAYOUT

C200

11/20/2017 7:17 AM
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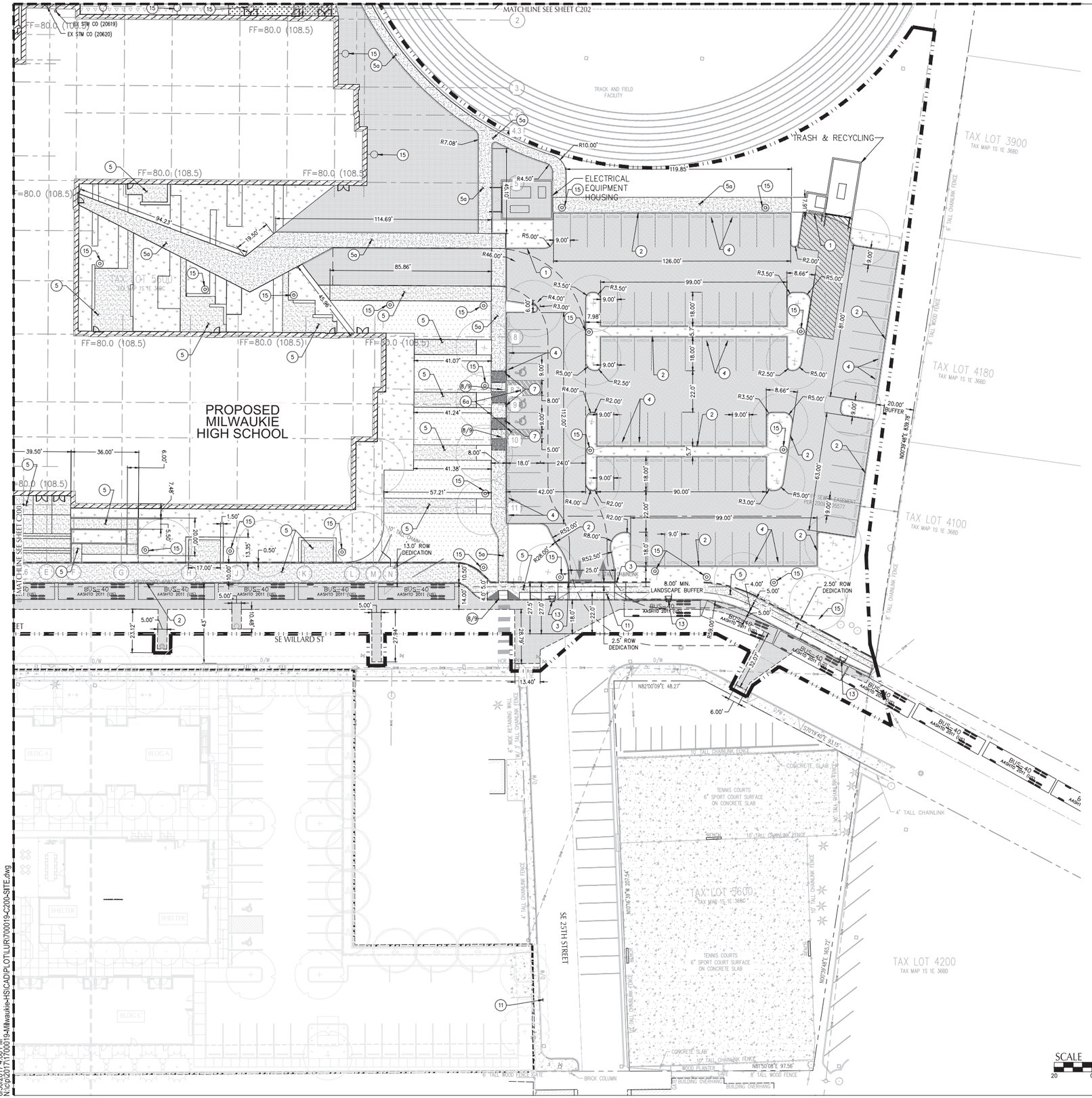

SHEET LEGEND

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL (UNLESS OTHERWISE NOTED).
2. SEE LANDSCAPE PLANS FOR PLANTING AND ADDITIONAL SITE FEATURES.
3. SEE LANDSCAPE PLANS FOR CONCRETE SCORING AND JOINT LOCATIONS.
4. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS AND LAYOUT.

- PROPERTY LINE
- BUILDING
- HEAVY CONCRETE PAVING
- LIGHT ASPHALT PAVEMENT SECTION
- HEAVY ASPHALT PAVEMENT SECTION
- CONCRETE SIDEWALK – SEE LANDSCAPE PLANS FOR DETAIL
- PERVIOUS CONCRETE
- ARTIFICIAL TURF
- SAWCUT LINE
- LIMITS OF WORK
- FIRE LANE
- STORMWATER WATER QUALITY FLOW-THROUGH PLANTER
- CONC. SPILLWAY W/ CONC. FOREBAY (PER CITY OF MILWAUKIE STD DETAIL)
- SITE LIGHTING (SEE SHEET EPH1 FOR PHOTOMETRICS)
- PROPOSED TREE

SHEET NOTES

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

SITE DIMENSION & LAYOUT

C201

6/20/2017 4:06 PM
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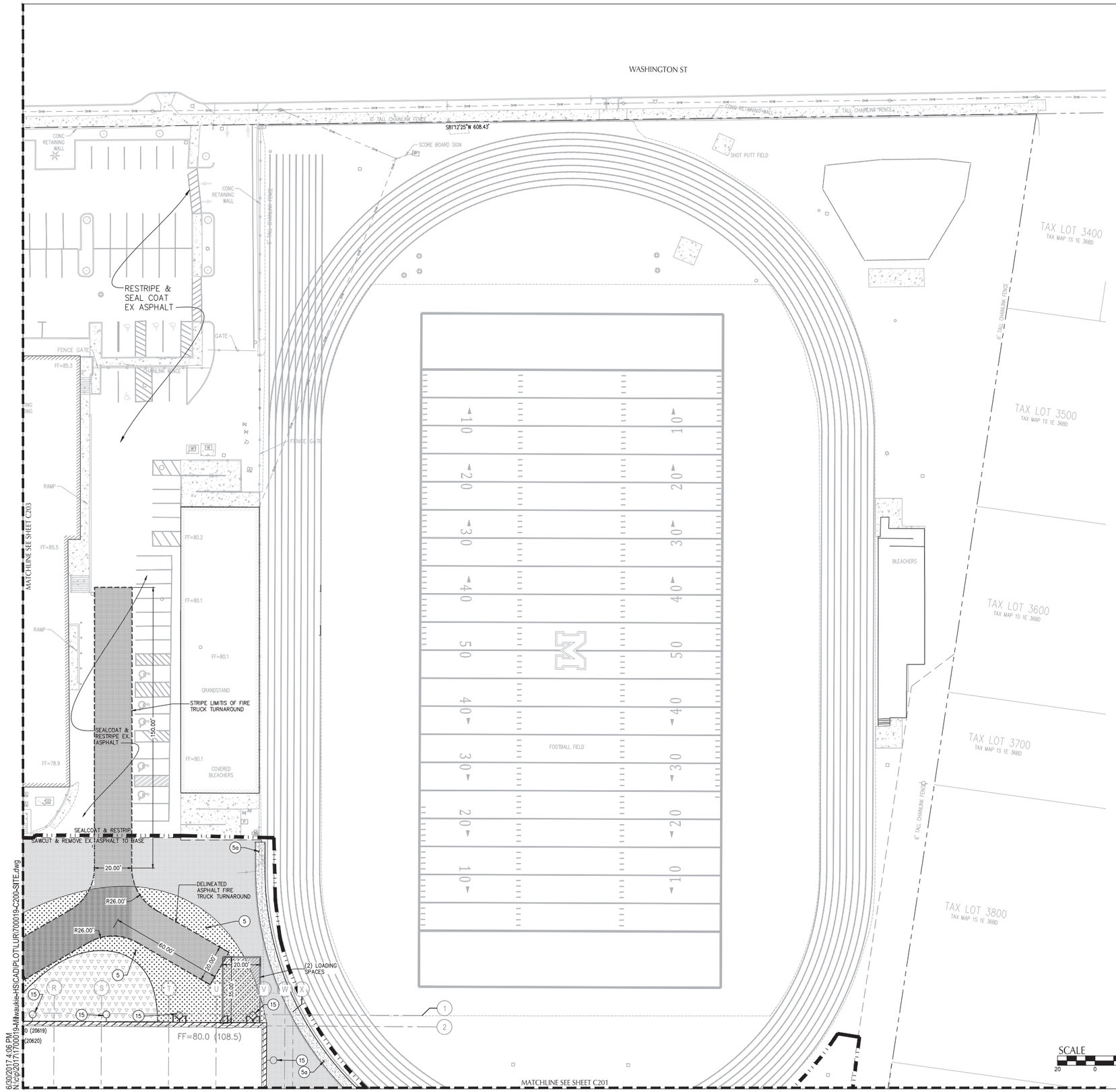

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

SITE DIMENSION & LAYOUT

C202

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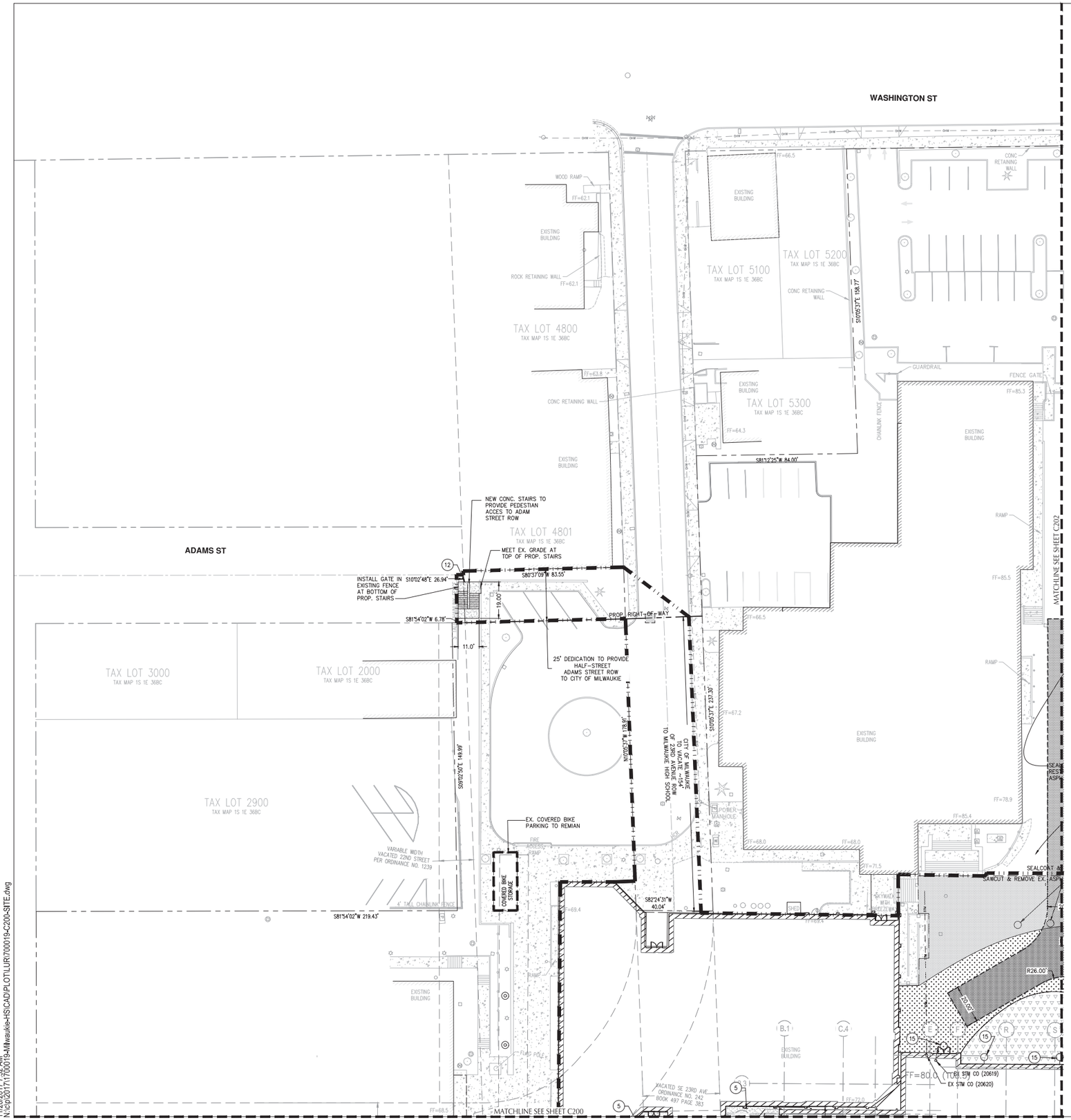

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SCALE 1 INCH = 20 FEET
20 0 20 40

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

SITE DIMENSION & LAYOUT

C203

11/20/2017 7:32 AM
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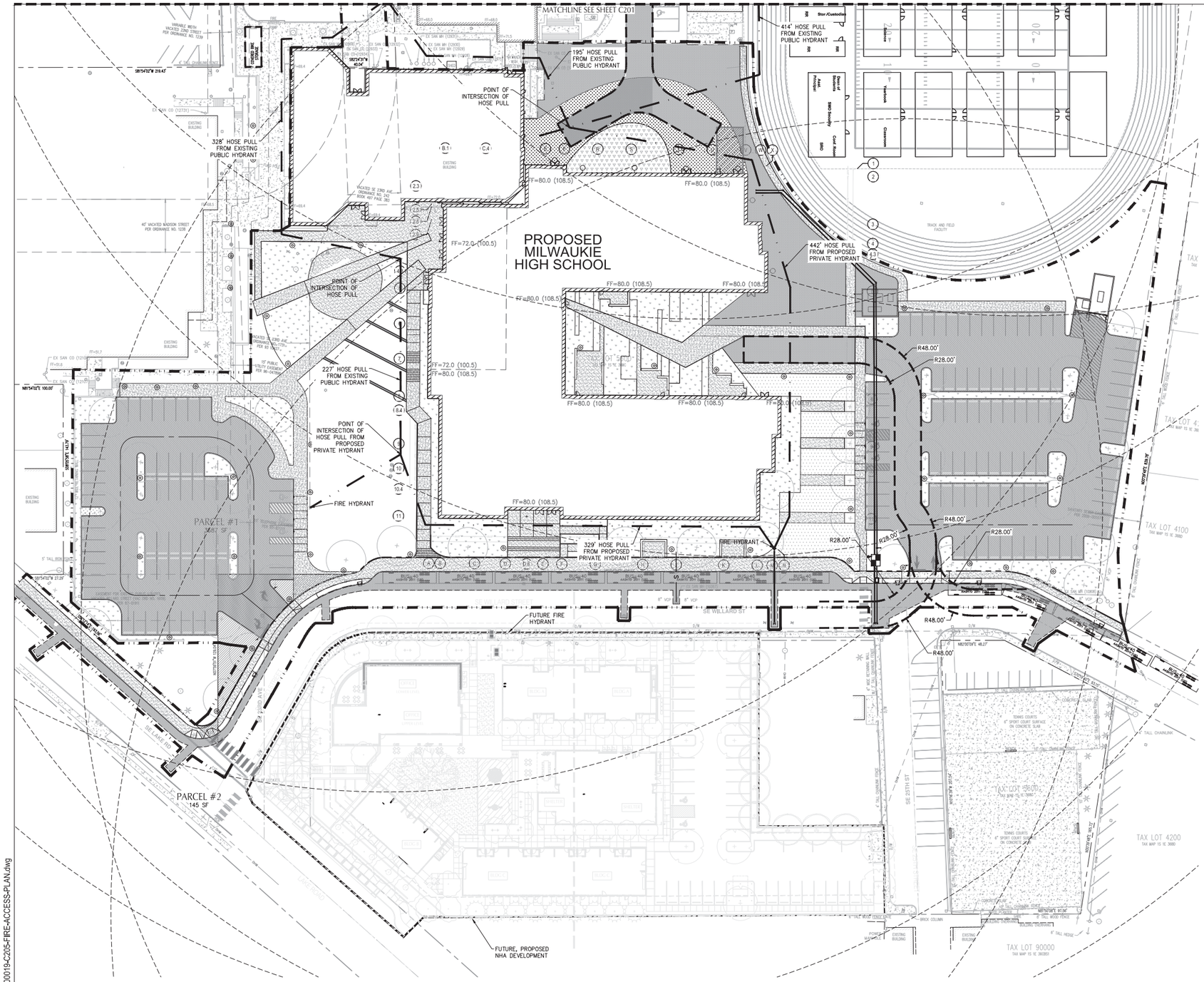

SHEET LEGEND

- PROPERTY LINE
- PROPOSED BUILDING
- HOSE PULL
- FIRE LANE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- 600' HYDRANT OFFSET

SCALE 1 INCH = 30 FEET (30 0 30 60)

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

FIRE ACCESS PLAN

C210

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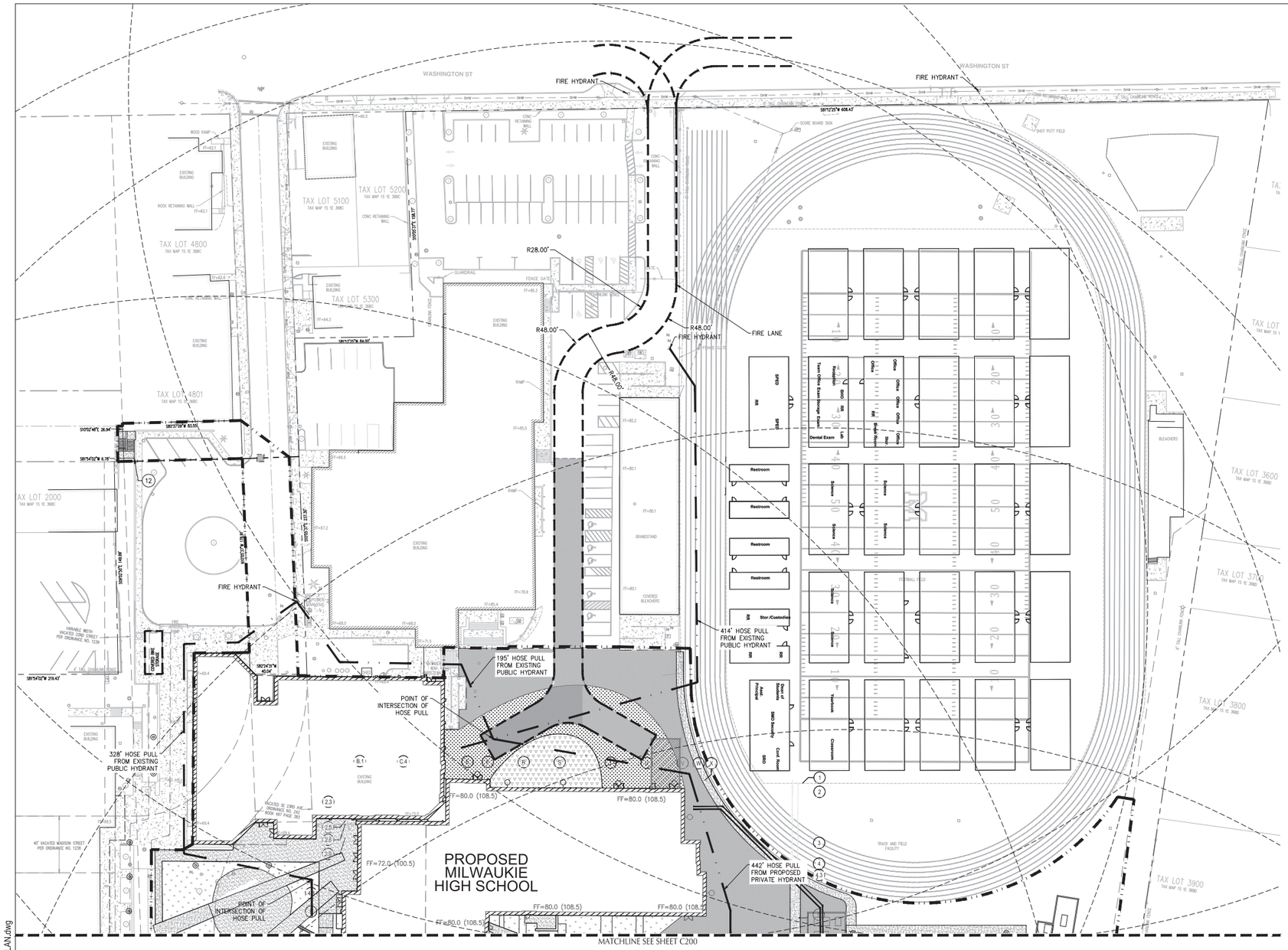

SCALE 1 INCH = 30 FEET

30 0 30 60

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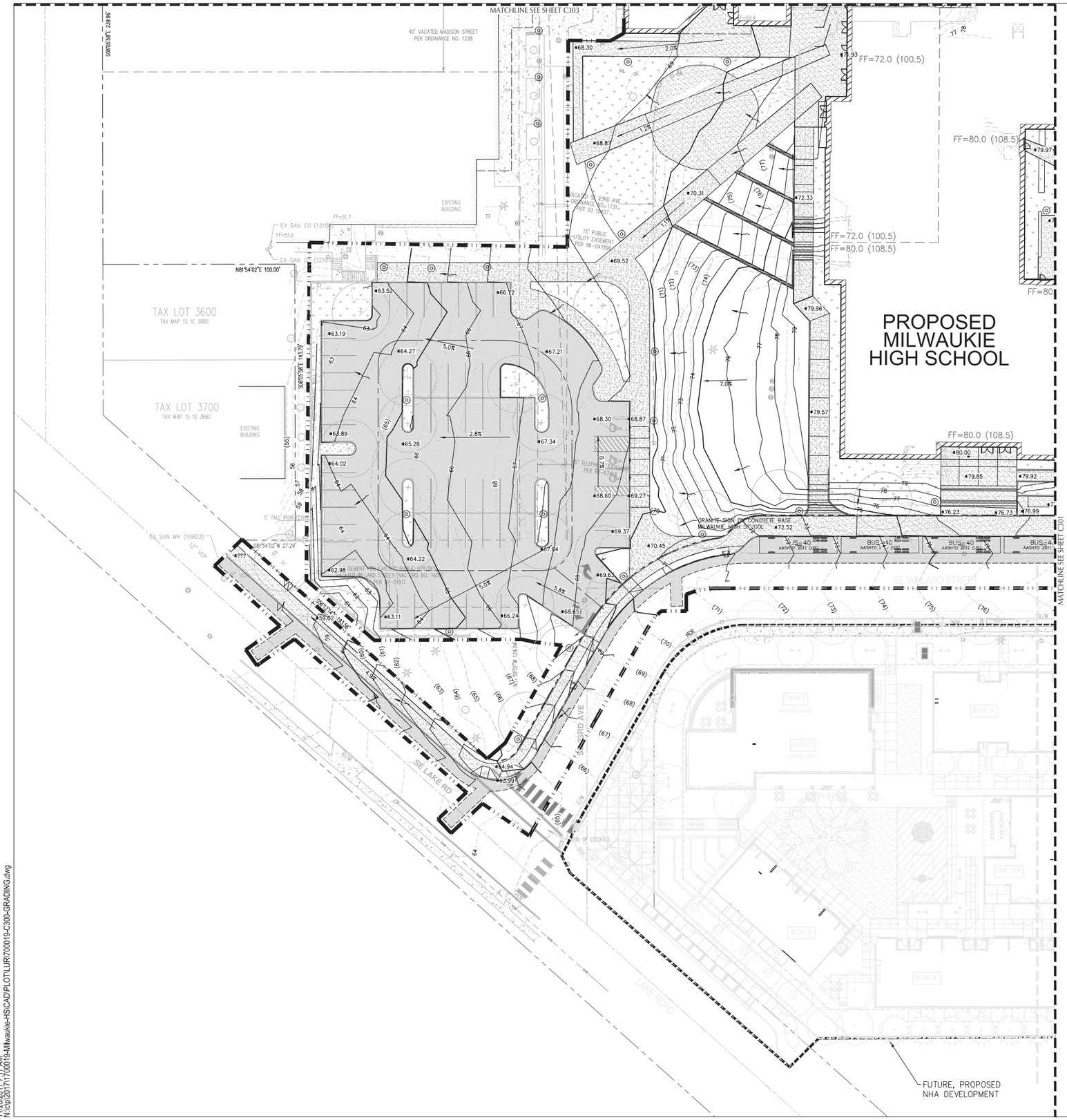
key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

FIRE ACCESS PLAN

C211



SHEET NOTES

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2. LANDINGS ON ACCESSIBLE ROUTES SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. ALL ACCESSIBLE ROUTES SHALL COMPLY WITH CURRENT ADA ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES (ADAAG).

GRADING LABEL LEGEND

CALLOUT	DESCRIPTION
X.X%	GRADING SLOPE AND DIRECTION (DOWNHILL)
XX.XX	SPOT ELEVATION
XX	DESCRIPTION LISTED BELOW. NO DESCRIPTION MEANS TP OR TG
BOS	BOTTOM OF SWALE
BOW	BACK OF WALK
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
EG	EXISTING GRADE
FF	FINISHED FLOOR
FL	FLOW LINE
G	GUTTER
HP	HIGH POINT
LP	LOW POINT
RIM	RIM OF STRUCTURE
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TS	TOP OF STEP
TW	TOP WALL
(XXX.X±)	EXISTING GRADE (MATCH WHERE APPLICABLE)

SHEET LEGEND

- DRAINAGE FLOW DIRECTION
- GRADE BREAK
- (49) EX. CONTOUR MINOR
- (50) EX. CONTOUR MAJOR
- 49 CONTOUR MINOR (FG)
- 50 CONTOUR MAJOR (FG)
- CONVEYANCE SWALE

SCALE 1 INCH = 20 FEET (20 0 20 40)

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

GRADING PLAN

C300

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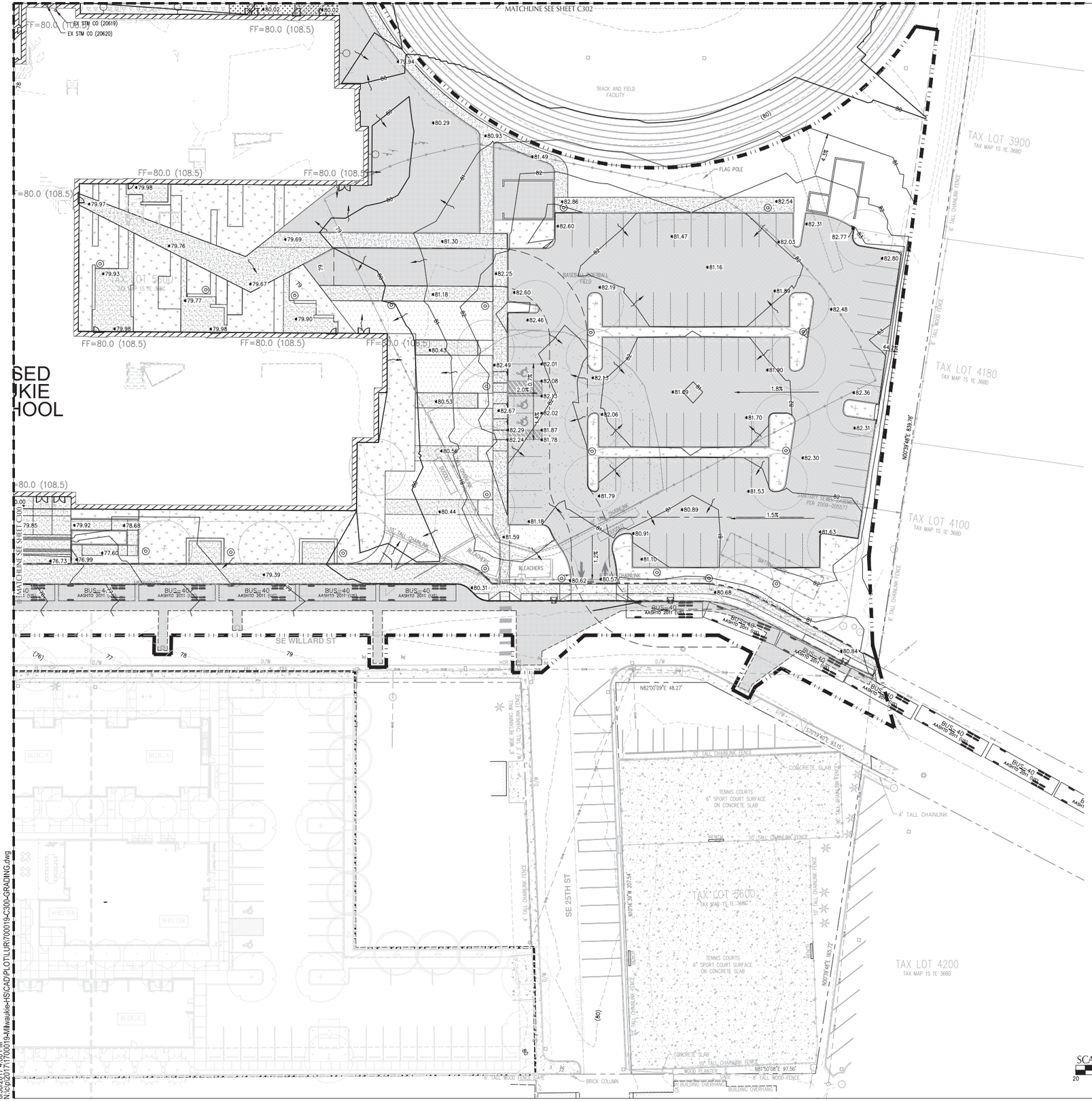

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key plan

phase	Land Use Review
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revisions	01/19/2018
project #	1700019

GRADING PLAN

C301

6/20/2017 4:06 PM
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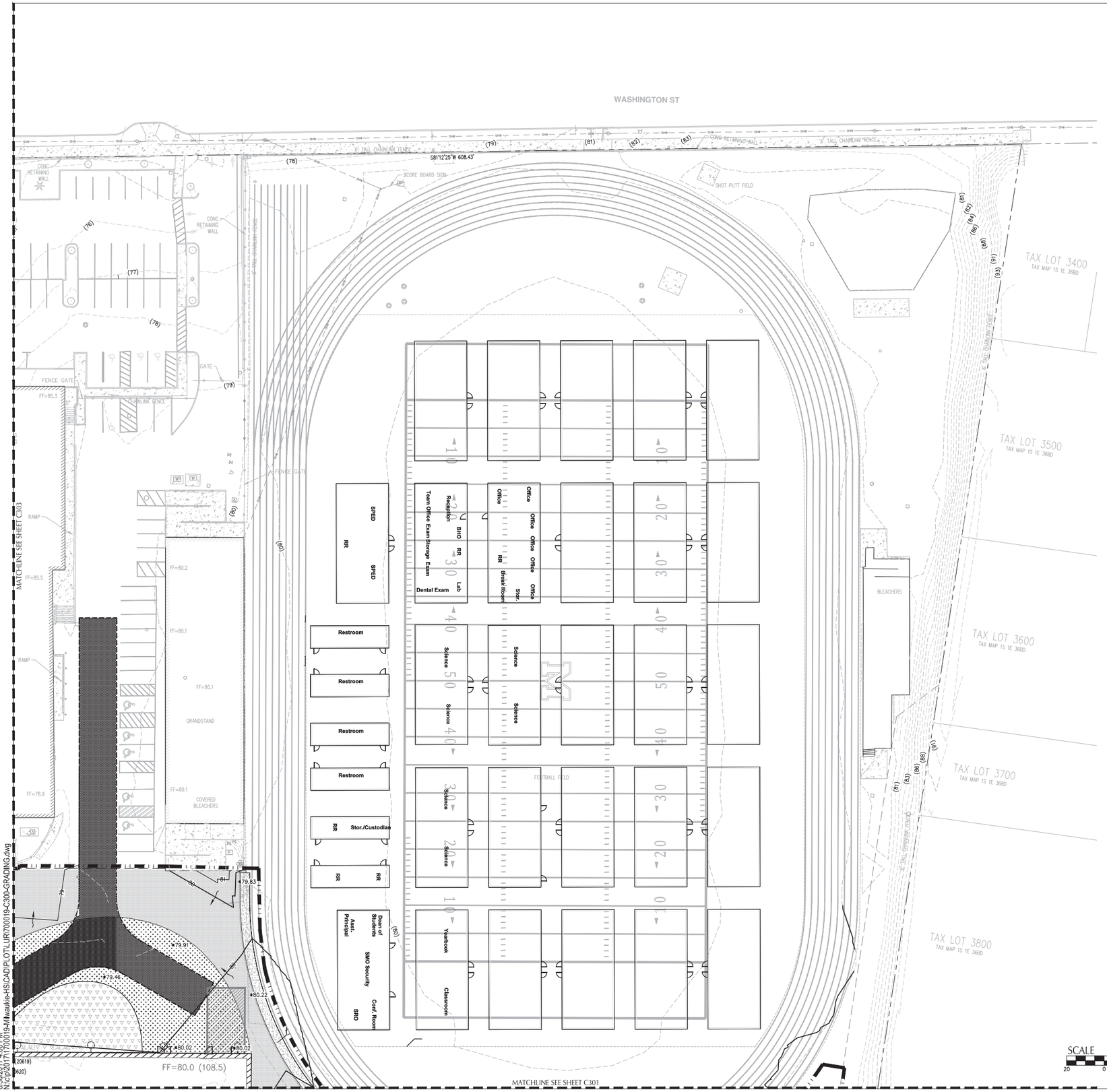
WASHINGTON ST
S81°12'25"W 608.43'
8' TALL CHAINLINK FENCE
CONC. RETAINING WALL
SCORE BOARD SIGN
SHOT PUTT FIELD
CONC. RETAINING WALL
FENCE GATE
GATE
CHAINLINK FENCE
FF=85.3
RAMP
FF=85.5
FF=80.2
FF=80.1
GRANDSTAND
FF=78.9
COVERED BLEACHERS
MATCHLINE SEE SHEET C303
MATCHLINE SEE SHEET C301
FF=80.0 (108.5)
TAX LOT 3400
TAX MAP 1S 1E 36BD
TAX LOT 3500
TAX MAP 1S 1E 36BD
TAX LOT 3600
TAX MAP 1S 1E 36BD
TAX LOT 3700
TAX MAP 1S 1E 36BD
TAX LOT 3800
TAX MAP 1S 1E 36BD
BLEACHERS
FOOTBALL FIELD
SPED
RR
Team Office
Exam Storage
Exam
Dental Exam
Lab
Reception
BHO
RR
Office
Office
RR
Break Room
Stor.
Office
Office
Office
Office
Restroom
Restroom
Restroom
Restroom
Restroom
Stor./Custodian
RR
RR
Science
Science
Science
Science
Science
Science
Science
Science
Asst. Principal
Dean of Students
SMO Security
Cont. Room
SRO
Yearbook
Classroom
10
20
30
40
50
60
70
80
90
100
110
120
130
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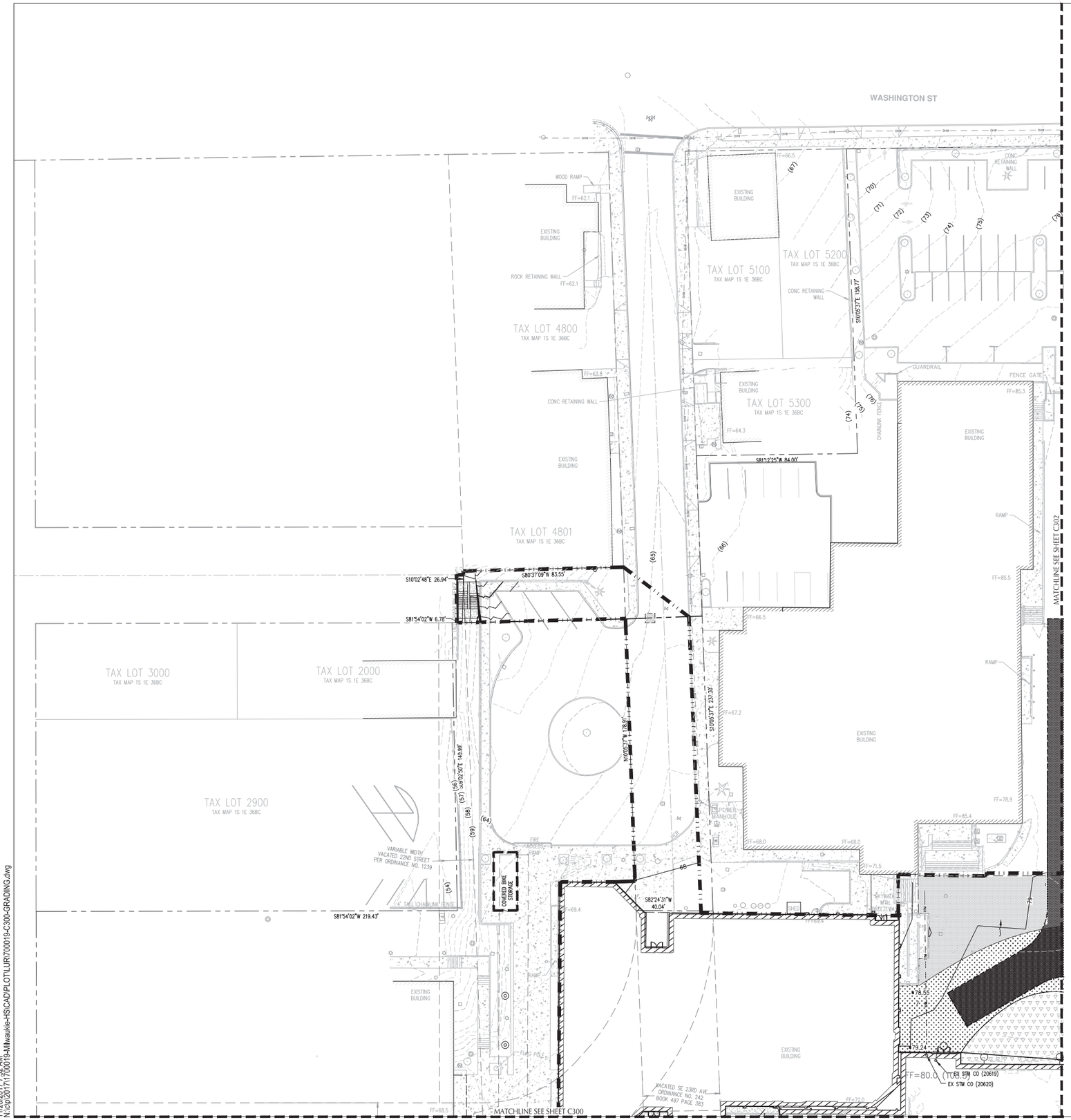

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	DESCRIPTION LISTED BELOW. NO DESCRIPTION MEANS TP OR TC
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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

GRADING PLAN

C303

11/20/2017 7:32 AM
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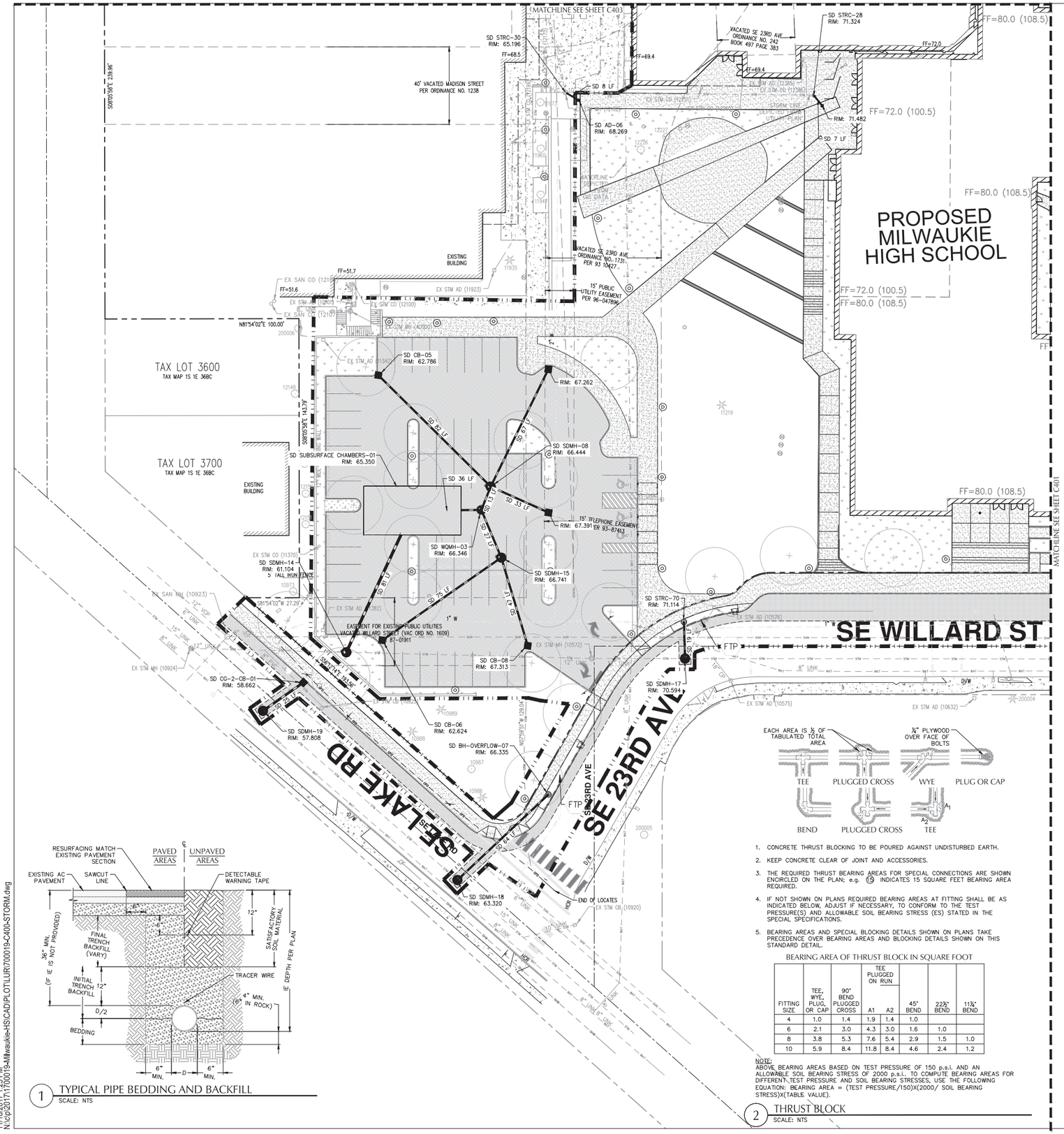

1 TYPICAL PIPE BEDDING AND BACKFILL
SCALE: NTS

1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLAN; e.g. (15) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUST IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS (ES) STATED IN THE SPECIAL SPECIFICATIONS.
5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

BEARING AREA OF THRUST BLOCK IN SQUARE FOOT

FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A1	TEE PLUGGED ON RUN A2	45° BEND	22½° BEND	11¼° BEND
4	1.0	1.4	1.9	1.4	1.0		
6	2.1	3.0	4.3	3.0	1.6	1.0	
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2

NOTE:
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 p.s.i. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 p.s.i. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURE AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150)X(2000/ SOIL BEARING STRESS)X(TABLE VALUE).

2 THRUST BLOCK
SCALE: NTS

SHEET NOTES

1. ON-SITE PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE DONE PER DETAIL 1/C400.
2. OFF-SITE (IN ROW) PIPE BEDDING AND TRENCH BACKFILL AND SURFACING PER CITY STD DWG P-100 AND P-101.
3. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
4. INSTALL TRUST BLOCK ON FIRE AND WATER LINES PER DETAIL 2/C400.

UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
1	KILL EXISTING WATER SERVICE	
2	INSTALL 3" WATER METER	
3	FIELD VERIFY LOCATION AND IE OF EXISTING WATER SERVICE LATERAL PRIOR TO CONSTRUCTION.	
4	INSTALL STANDARD SANITARY MANHOLE.	
RPV	4" REDUCED PRESSURE BACKFLOW ASSEMBLY VAULT	
DC	3" IRRIGATION DOUBLE CHECK VAULT	
DCD	6" DOUBLE CHECK DETECTOR VAULT	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	FLOW THROUGH PLANTER	
IR	3" IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.	
S	CONNECT TO PROPOSED WASTE LINE. SEE PUBLIC IMPROVEMENT PLANS FOR CONTINUATION OF THE SANITARY EXTENSION..	
SD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE THIS PLAN FOR CONTINUATION. SIZE AND IE AS NOTED.	
WQS	WATER QUALITY SWALE. ID AS SHOWN.	
VDB	VEGETATED DETENTION BASIN. ID AS SHOWN.	
!!	UTILITY CROSSING. PROVIDE 12" MIN. CLEARANCE, U.N.O.	

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD2	AREA DRAIN TYPE 2	
BWV	BUTTERFLY VALVE	
CB	CATCH BASIN	
CO	CLEANOUT TO GRADE	
DCVA	DOUBLE CHECK VALVE ASSEMBLY	
DDCV	DOUBLE DETECTOR CHECK VALVE	
DI	DITCH INLET	
FCMH	FLOW CONTROL MANHOLE	
FD	FOUNDATION DRAINAGE	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GM	GAS METER	
GV	GATE VALVE	
HB	HORIZONTAL BEND	
MH	MANHOLE	
OF	OUTFALL	
OV2	OVERFLOW INLET TYPE 2	
PRG	PEDESTRIAN RATED GRATE	
PUMP	PUMP	
RD	ROOF DRAIN CONNECTION	
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY	
STUB	STUB	
TB	THRUST BLOCK	
TD	TRENCH DRAIN	
TEE	TEE CONNECTION	
VB	VERTICAL BEND	
WM	WATER METER	
WQ	WATER QUALITY	
WQCB	WATER QUALITY CATCH BASIN	
WYE	WYE CONNECTION	

LEGEND

CALLOUT		DESCRIPTION
FDC		FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH		FIRE HYDRANT ASSEMBLY
VALVE		ISOLATION VALVE
METER		WATER METER VAULT
TB		THRUST BLOCK
GM		GAS METER
MH		MANHOLE
CO		CLEANOUT
VT		VAULT
SDMH		STORM DRAIN MANHOLE
CB		CATCH BASIN
SD	SD	STORM DRAIN LINE
W	W	WATER LINE
S	S	SANITARY SEWER LINE
FH	FH	FIRE HYDRANT LINE
FP	FP	FIRE PROTECTION LINE
T	TELE	TELECOMMUNICATIONS LINE
E	ELEC	ELECTRIC LINE
NG	G	NATURAL GAS LINE
		PUBLIC WATER LINE IN 15' WIDE EASEMENT

SCALE 1 INCH = 20 FEET
20 0 20 40

NORTH Clackamas Schools

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C400

11/16/2017 1:25 PM
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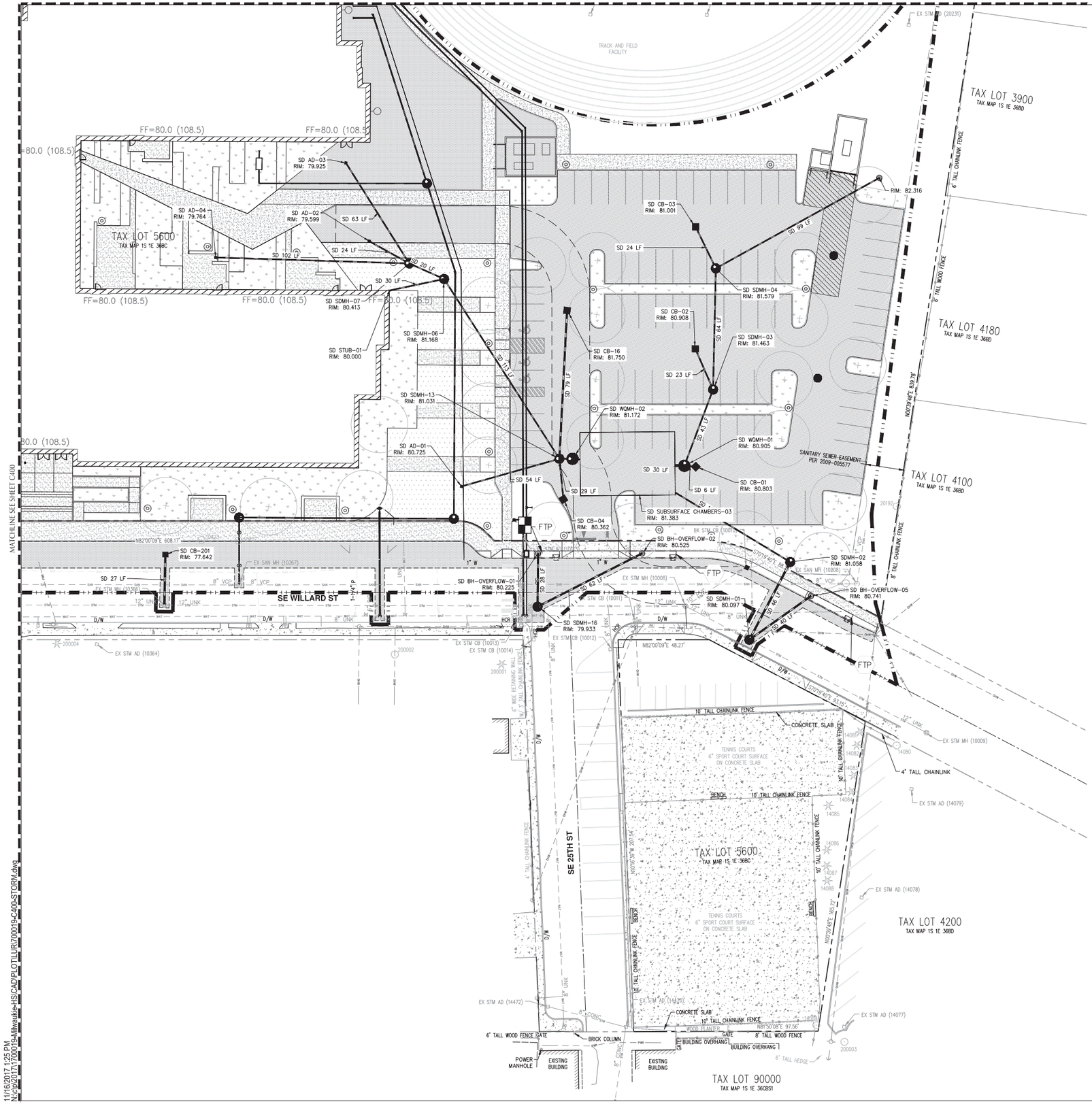

SHEET NOTES

1. ON-SITE PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE DONE PER DETAIL 1/C400.
2. OFF-SITE (IN ROW) PIPE BEDDING AND TRENCH BACKFILL AND SURFACING PER CITY STD DWG P-100 AND P-101.
3. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
4. INSTALL TRUST BLOCK ON FIRE AND WATER LINES PER DETAIL 2/C400.

(X) UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
1	KILL EXISTING WATER SERVICE	
2	INSTALL 3" WATER METER	
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RPV	4" REDUCED PRESSURE BACKFLOW ASSEMBLY VAULT	
DC	3" IRRIGATION DOUBLE CHECK VAULT	
DCD	6" DOUBLE CHECK DETECTOR VAULT	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	FLOW THROUGH PLANTER	
IR	3" IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.	
S	CONNECT TO PROPOSED WASTE LINE. SEE PUBLIC IMPROVEMENT PLANS FOR CONTINUATION OF THE SANITARY EXTENSION..	
SD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE THIS PLAN FOR CONTINUATION. SIZE AND IE AS NOTED.	
WQS	WATER QUALITY SWALE. ID AS SHOWN.	
VDB	VEGETATED DETENTION BASIN. ID AS SHOWN.	
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STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
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DDCV	DOUBLE DETECTOR CHECK VALVE	
DI	DITCH INLET	
FCMH	FLOW CONTROL MANHOLE	
FD	FOUNDATION DRAINAGE	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GM	GAS METER	
GV	GATE VALVE	
HB	HORIZONTAL BEND	
MH	MANHOLE	
OF	OUTFALL	
OV2	OVERFLOW INLET TYPE 2	
PRG	PEDESTRIAN RATED GRATE	
PUMP	PUMP	
RD	ROOF DRAIN CONNECTION	
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY	
STUB	STUB	
TB	THRUST BLOCK	
TD	TRENCH DRAIN	
TEE	TEE CONNECTION	
VB	VERTICAL BEND	
WM	WATER METER	
WQ	WATER QUALITY	
WQCB	WATER QUALITY CATCH BASIN	
WYE	WYE CONNECTION	

LEGEND

CALLOUT	DESCRIPTION
FDC	FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH	FIRE HYDRANT ASSEMBLY
VALVE	ISOLATION VALVE
METER	WATER METER VAULT
TB	THRUST BLOCK
GM	GAS METER
MH	MANHOLE
CO	CLEANOUT
VT	VAULT
SDMH	STORM DRAIN MANHOLE
CB	CATCH BASIN

SD — STORM DRAIN LINE
W — WATER LINE
S — SANITARY SEWER LINE
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SCALE 1 INCH = 20 FEET (20 0 20 40)

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C401

11/15/2017 1:25 PM
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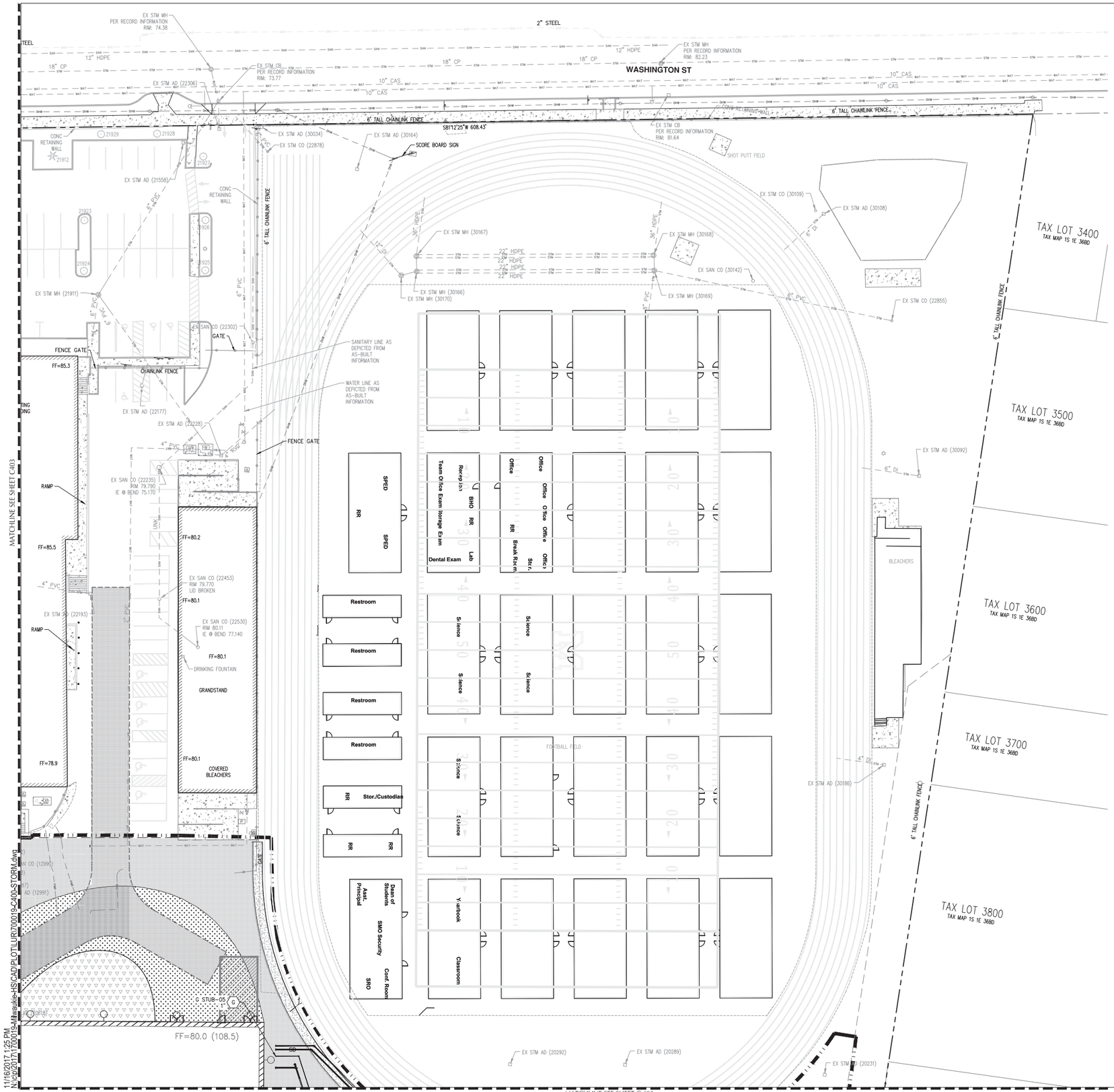

SHEET NOTES

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UTILITY KEY NOTES

KEY NOTE	DESCRIPTION	DETAIL REF.
	KILL EXISTING WATER SERVICE	
	INSTALL 3" WATER METER	
	FIELD VERIFY LOCATION AND IE OF EXISTING WATER SERVICE LATERAL PRIOR TO CONSTRUCTION.	
	INSTALL STANDARD SANITARY MANHOLE.	
RPBA	4" REDUCED PRESSURE BACKFLOW ASSEMBLY VAULT	
DCVA	3" IRRIGATION DOUBLE CHECK VAULT	
DDCV	6" DOUBLE CHECK DETECTOR VAULT	
	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	FLOW THROUGH PLANTER	
	3" IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.	
	CONNECT TO PROPOSED WASTE LINE. SEE PUBLIC IMPROVEMENT PLANS FOR CONTINUATION OF THE SANITARY EXTENSION.	
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WQS	WATER QUALITY SWALE. ID AS SHOWN.	
VGB	VEGETATED DETENTION BASIN. ID AS SHOWN.	
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STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
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BWV	BUTTERFLY VALVE	
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VB	VERTICAL BEND	
WM	WATER METER	
WQ	WATER QUALITY	
WQCB	WATER QUALITY CATCH BASIN	
WYE	WYE CONNECTION	

LEGEND

CALLOUT	DESCRIPTION
FDC	FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH	FIRE HYDRANT ASSEMBLY
VALVE	ISOLATION VALVE
METER	WATER METER VAULT
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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C402

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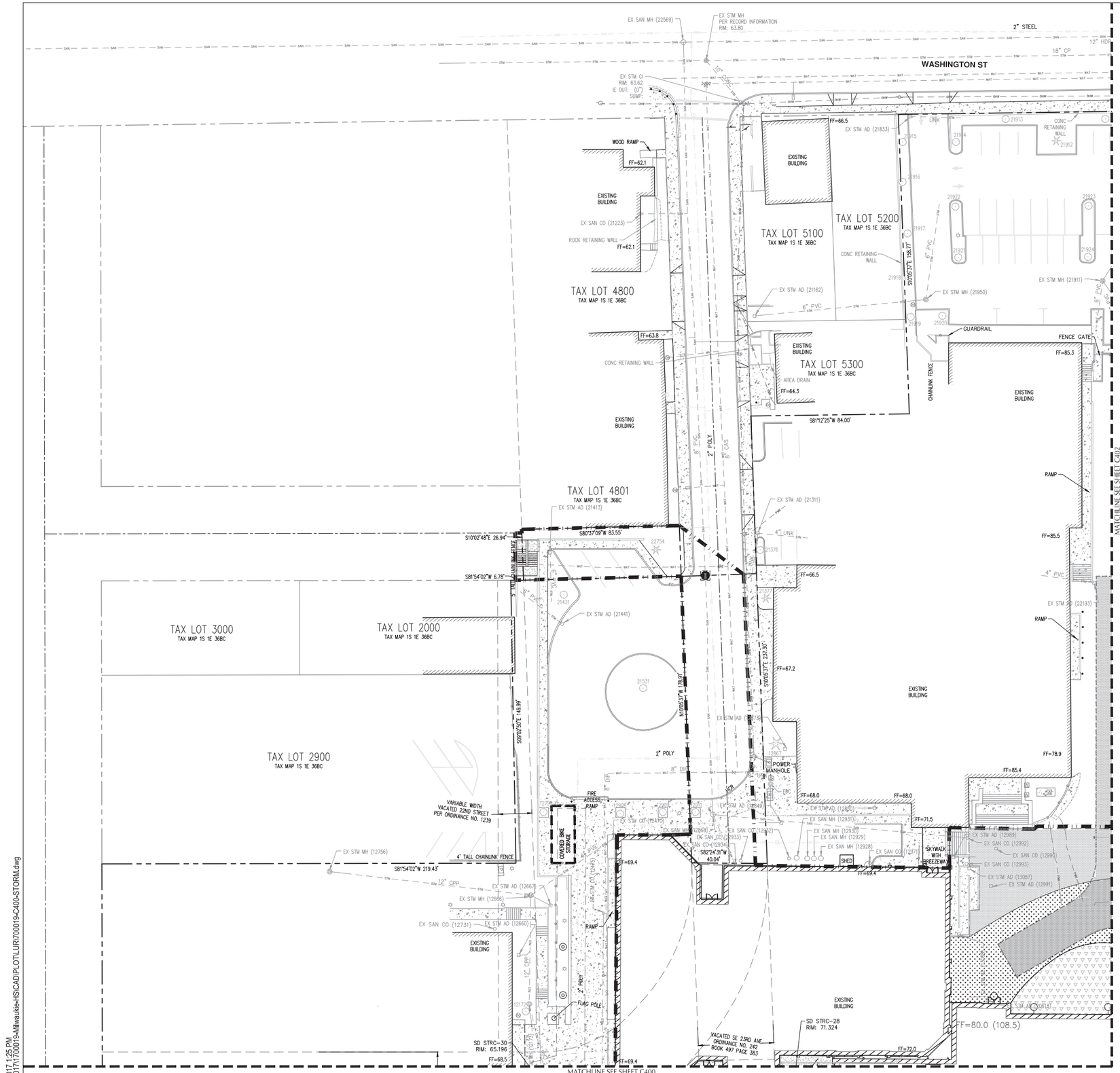

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4	INSTALL STANDARD SANITARY MANHOLE.	
RPV	4" REDUCED PRESSURE BACKFLOW ASSEMBLY VAULT	
DC	3" IRRIGATION DOUBLE CHECK VAULT	
DCD	6" DOUBLE CHECK DETECTOR VAULT	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.	
FTP	FLOW THROUGH PLANTER	
IR	3" IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.	
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S	CONNECT TO PROPOSED WASTE LINE. SEE PUBLIC IMPROVEMENT PLANS FOR CONTINUATION OF THE SANITARY EXTENSION..	
SD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE THIS PLAN FOR CONTINUATION. SIZE AND IE AS NOTED.	
WQS	WATER QUALITY SWALE. ID AS SHOWN.	
VDB	VEGETATED DETENTION BASIN. ID AS SHOWN.	
!!	UTILITY CROSSING. PROVIDE 12" MIN. CLEARANCE, U.N.O.	

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD2	AREA DRAIN TYPE 2	
BWV	BUTTERFLY VALVE	
CB	CATCH BASIN	
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DDCV	DOUBLE DETECTOR CHECK VALVE	
DI	DITCH INLET	
FCMH	FLOW CONTROL MANHOLE	
FD	FOUNDATION DRAINAGE	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GM	GAS METER	
GV	GATE VALVE	
HB	HORIZONTAL BEND	
MH	MANHOLE	
OF	OUTFALL	
OV2	OVERFLOW INLET TYPE 2	
PRG	PEDESTRIAN RATED GRATE	
PUMP	PUMP	
RD	ROOF DRAIN CONNECTION	
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY	
STUB	STUB	
TB	THRUST BLOCK	
TD	TRENCH DRAIN	
TEE	TEE CONNECTION	
VB	VERTICAL BEND	
WM	WATER METER	
WQ	WATER QUALITY	
WQCB	WATER QUALITY CATCH BASIN	
WYE	WYE CONNECTION	

LEGEND

CALLOUT	DESCRIPTION
FDC	FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH	FIRE HYDRANT ASSEMBLY
VALVE	ISOLATION VALVE
METER	WATER METER VAULT
TB	THRUST BLOCK
GM	GAS METER
MH	MANHOLE
CO	CLEANOUT
VT	VAULT
SDMH	STORM DRAIN MANHOLE
CB	CATCH BASIN

SD — STORM DRAIN LINE
W — WATER LINE
S — SANITARY SEWER LINE
FH — FIRE HYDRANT LINE
FP — FIRE PROTECTION LINE
T (TELE) — TELECOMMUNICATIONS LINE
E (ELEC) — ELECTRIC LINE
NG (G) — NATURAL GAS LINE
PUBLIC WATER LINE IN 15' WIDE EASEMENT

SCALE 1 INCH = 20 FEET
20 0 20 40

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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

STORM DRAINAGE PLAN

C403

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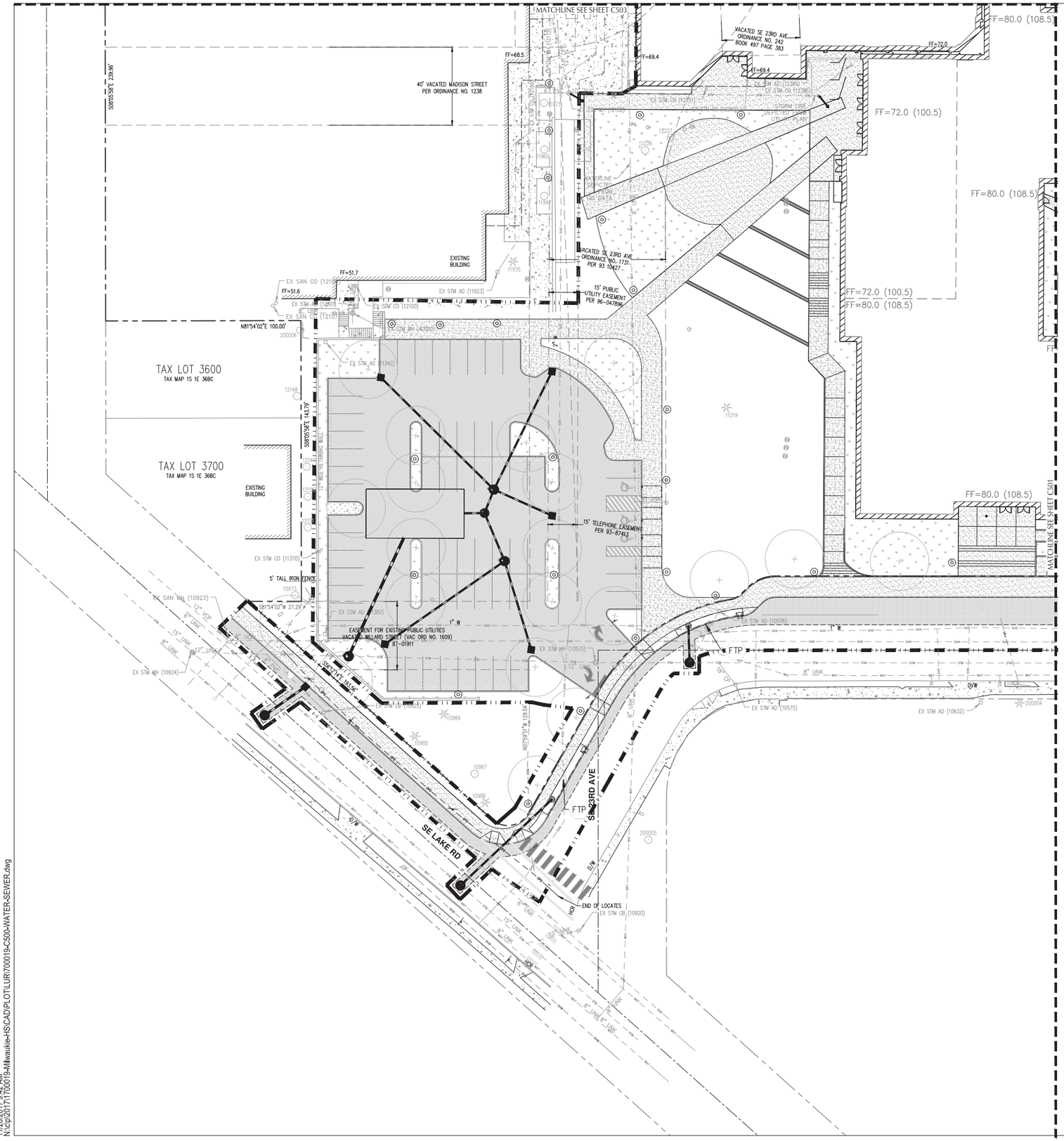

SHEET NOTES

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(X) KEY NOTES

NOTE	DESCRIPTION
1	KILL EXISTING WATER SERVICE, BY WATER BUREAU UNDER SEPARATE PERMIT.
2	INSTALL 3" WATER METER. COORDINATE INSTALLATION WITH CITY OF MILWAUKIE.
3	INSTALL 4" DOMESTIC WATER SERVICE. COORDINATE WITH CITY OF MILWAUKIE FOR TAPPING AND INSTALLATION.
4	INSTALL 6" FIRE SERVICE. COORDINATE INSTALLATION WITH CITY OF MILWAUKIE.
5	INSTALL GAS SERVICE
FH	INSTALL FIRE HYDRANT AND 8" SERVICE. COORDINATE WITH CITY OF MILWAUKIE.
DCV	INSTALL COMBINATION WATER AND FIRE DOUBLE CHECK DETECTOR VAULT AND ASSEMBLIES
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.
IR	IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.
S	CONNECT TO WASTE LINE. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.
W	CONNECT TO COLD WATER SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.

UTILITY LABEL LEGEND

STRUCTURE LABEL

UTILITY TYPE (S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
STRUCTURE TYPE CALLOUT
XX XX-XX — ID NUMBER (WHERE APPLICABLE)

PIPE LABEL

UTILITY LENGTH
UTILITY SIZE
UTILITY TYPE
XXLF – XX" XX
S=X.XX% — SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
CO	CLEANOUT TO GRADE	TBD
DCV	DOUBLE CHECK VAULT	TBD
FDC	FIRE DEPARTMENT CONNECTION	TBD
FH	FIRE HYDRANT	TBD
GI	GREASE INTERCEPTOR	TBD
GM	GAS METER	TBD
GV	GATE VALVE	TBD
HB	HORIZONTAL BEND	TBD
SSMH	MANHOLE	TBD
PIV	POST INDICATOR VALVE	TBD
PLUG	PLUG	TBD
PUMP	PUMP	TBD
STUB	STUB	TBD
TEE	TEE CONNECTION	TBD
WM	WATER METER	TBD

LEGEND

CALLOUT		DESCRIPTION
FDC		FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH		FIRE HYDRANT ASSEMBLY
VALVE		ISOLATION VALVE
METER		WATER METER VAULT
TB		THRUST BLOCK
GM		GAS METER
MH		MANHOLE
CO		CLEANOUT
VT		VAULT
SDMH		STORM DRAIN MANHOLE
CB		CATCH BASIN
SD	SD	STORM DRAIN LINE
W	W	WATER LINE
S	S	SANITARY SEWER LINE
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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

WATER & SEWER UTILITY PLAN

C500

11/20/2017 9:40 AM
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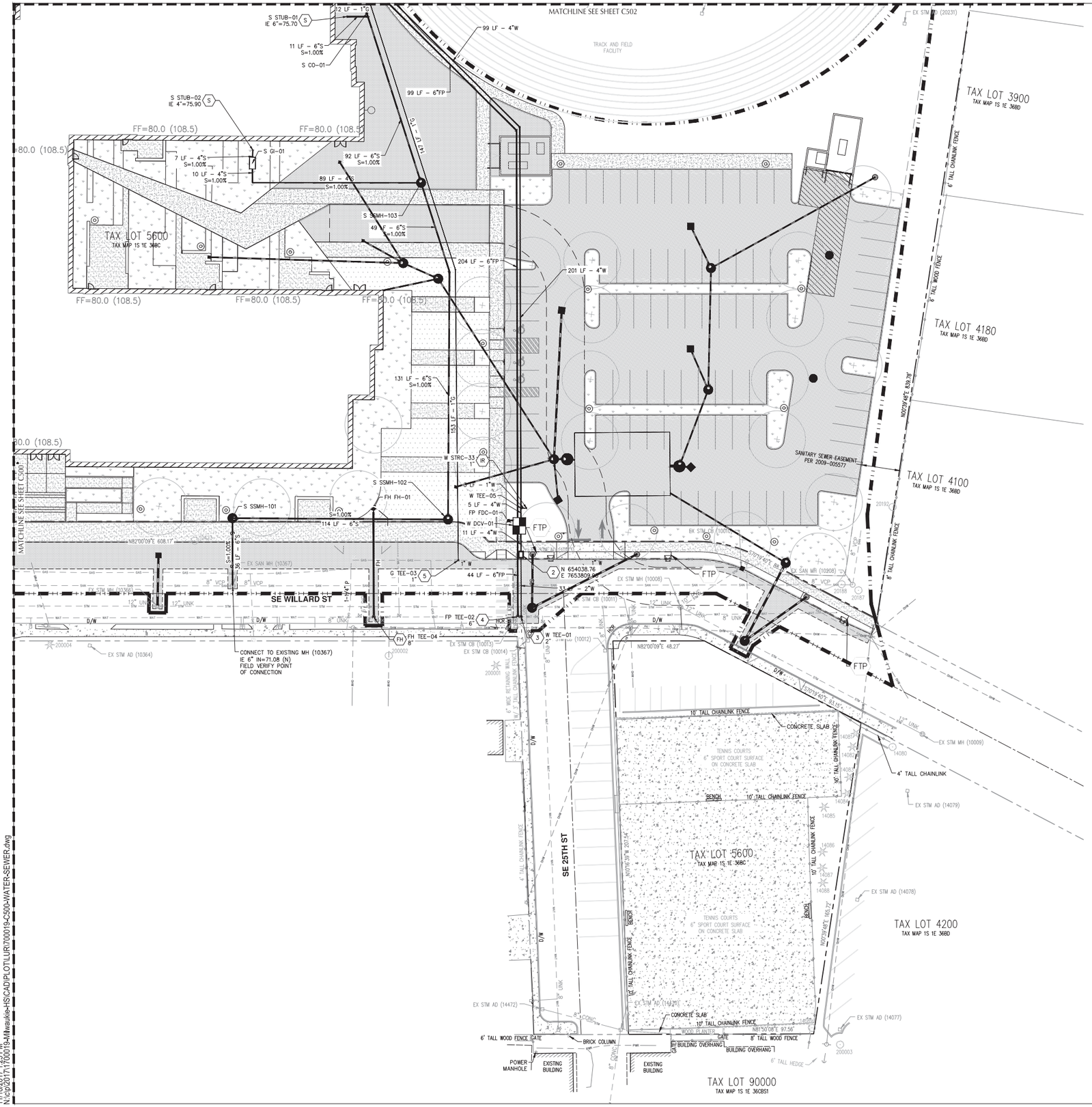

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3	INSTALL 4" DOMESTIC WATER SERVICE. COORDINATE WITH CITY OF MILWAUKIE FOR TAPPING AND INSTALLATION.
4	INSTALL 6" FIRE SERVICE. COORDINATE INSTALLATION WITH CITY OF MILWAUKIE.
5	INSTALL GAS SERVICE
FH	INSTALL FIRE HYDRANT AND 8" SERVICE. COORDINATE WITH CITY OF MILWAUKIE.
DCV	INSTALL COMBINATION WATER AND FIRE DOUBLE CHECK DETECTOR VAULT AND ASSEMBLIES
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION.
IR	IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.
S	CONNECT TO WASTE LINE. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.
W	CONNECT TO COLD WATER SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.

UTILITY LABEL LEGEND

STRUCTURE LABEL

XX XX–XX — ID NUMBER (WHERE APPLICABLE); STRUCTURE TYPE CALLOUT; UTILITY TYPE (S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)

PIPE LABEL

XXLF – XX" XX
S=X.XX% — SLOPE (WHERE APPLICABLE); UTILITY TYPE; UTILITY SIZE; UTILITY LENGTH

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
CO	CLEANOUT TO GRADE	TBD
DCV	DOUBLE CHECK VAULT	TBD
FDC	FIRE DEPARTMENT CONNECTION	TBD
FH	FIRE HYDRANT	TBD
GI	GREASE INTERCEPTOR	TBD
GM	GAS METER	TBD
GV	GATE VALVE	TBD
HB	HORIZONTAL BEND	TBD
SSMH	MANHOLE	TBD
PIV	POST INDICATOR VALVE	TBD
PLUG	PLUG	TBD
PUMP	PUMP	TBD
STUB	STUB	TBD
TEE	TEE CONNECTION	TBD
WM	WATER METER	TBD

LEGEND

CALLOUT	DESCRIPTION
FDC	FIRE DEPARTMENT CONNECTION/DRY STANDPIPE
FH	FIRE HYDRANT ASSEMBLY
VALVE	ISOLATION VALVE
METER	WATER METER VAULT
TB	THRUST BLOCK
GM	GAS METER
MH	MANHOLE
CO	CLEANOUT
VT	VAULT
SDMH	STORM DRAIN MANHOLE
CB	CATCH BASIN

SD — STORM DRAIN LINE
W — WATER LINE
S — SANITARY SEWER LINE
FH — FIRE HYDRANT LINE
FP — FIRE PROTECTION LINE
T — TELECOMMUNICATIONS LINE
E — ELECTRIC LINE
NG — NATURAL GAS LINE
PUBLIC WATER LINE IN 15' WIDE EASEMENT

SCALE 1 INCH = 20 FEET
20 0 20 40

NORTH Clackamas Schools

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NOT FOR CONSTRUCTION

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North Clackamas School District
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t: (503) 353-6000
f: (503) 353-6000

key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

WATER & SEWER UTILITY PLAN

C501

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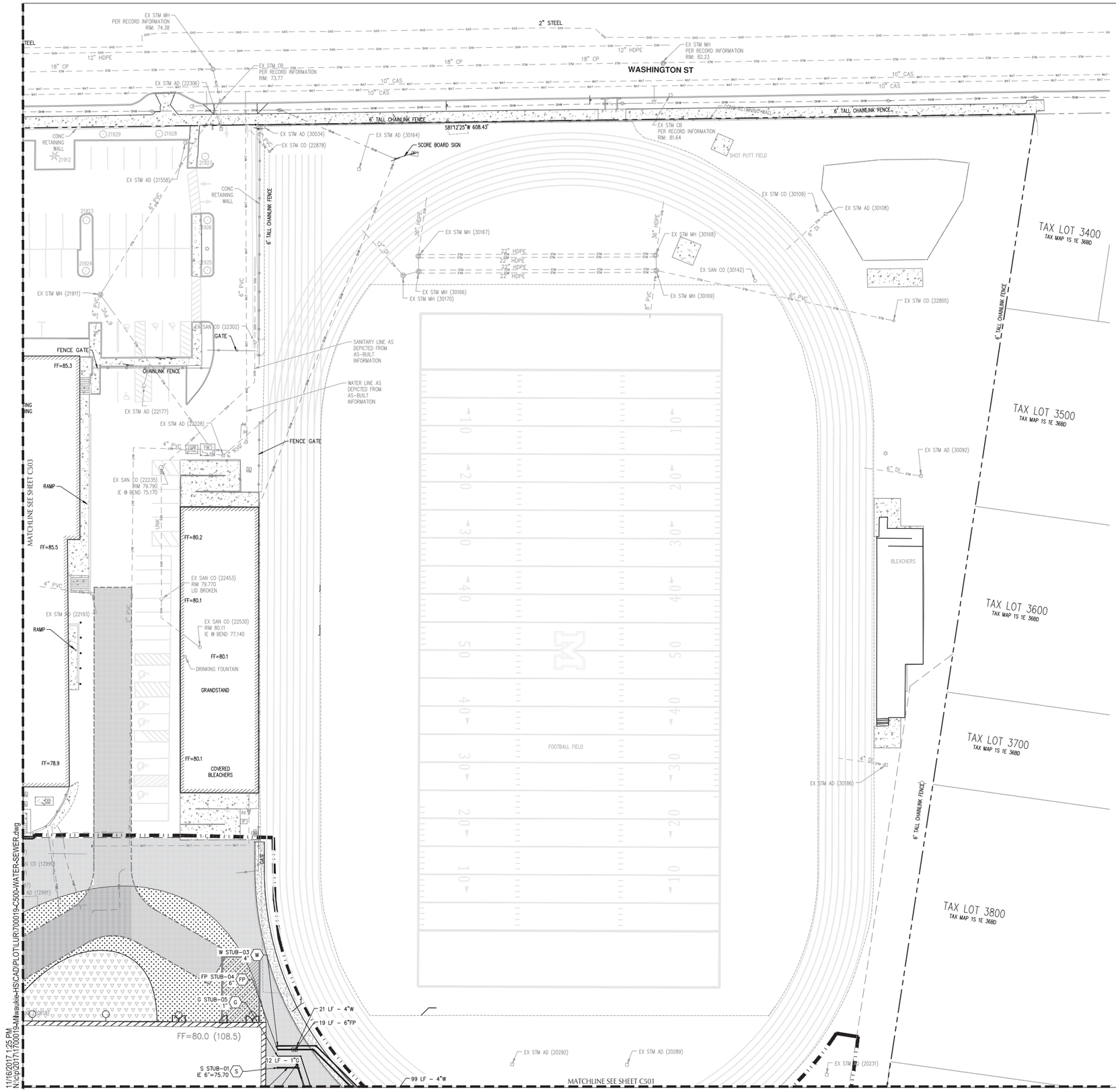

KEY NOTES

NOTE	DESCRIPTION
1	KILL EXISTING WATER SERVICE, BY WATER BUREAU UNDER SEPARATE PERMIT.
2	INSTALL 3" WATER METER. COORDINATE INSTALLATION WITH CITY OF MILWAUKIE.
3	INSTALL 4" DOMESTIC WATER SERVICE. COORDINATE WITH CITY OF MILWAUKIE FOR TAPPING AND INSTALLATION.
4	INSTALL 6" FIRE SERVICE. COORDINATE INSTALLATION WITH CITY OF MILWAUKIE.
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IR	IRRIGATION POINT OF CONNECTION. SEE IRRIGATION PLANS FOR CONTINUATION.
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION.
S	CONNECT TO WASTE LINE. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED.
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UTILITY LABEL LEGEND

STRUCTURE LABEL

UTILITY TYPE (S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
STRUCTURE TYPE CALLOUT
XX XX-XX ← ID NUMBER (WHERE APPLICABLE)

PIPE LABEL

UTILITY LENGTH
UTILITY SIZE
UTILITY TYPE
XXLF – XX" XX
S=X.XX% ← SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
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SSMH	MANHOLE	TBD
PIV	POST INDICATOR VALVE	TBD
PLUG	PLUG	TBD
PUMP	PUMP	TBD
STUB	STUB	TBD
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LEGEND

CALLOUT		DESCRIPTION
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CO		CLEANOUT
VT		VAULT
SDMH		STORM DRAIN MANHOLE
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SD		STORM DRAIN LINE
W	W	WATER LINE
S	S	SANITARY SEWER LINE
FH	FH	FIRE HYDRANT LINE
FP	FP	FIRE PROTECTION LINE
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key plan

phase	Land Use Review
date	9/29/2017
revisions	01/19/2018
project #	1700019

WATER & SEWER UTILITY PLAN

C502

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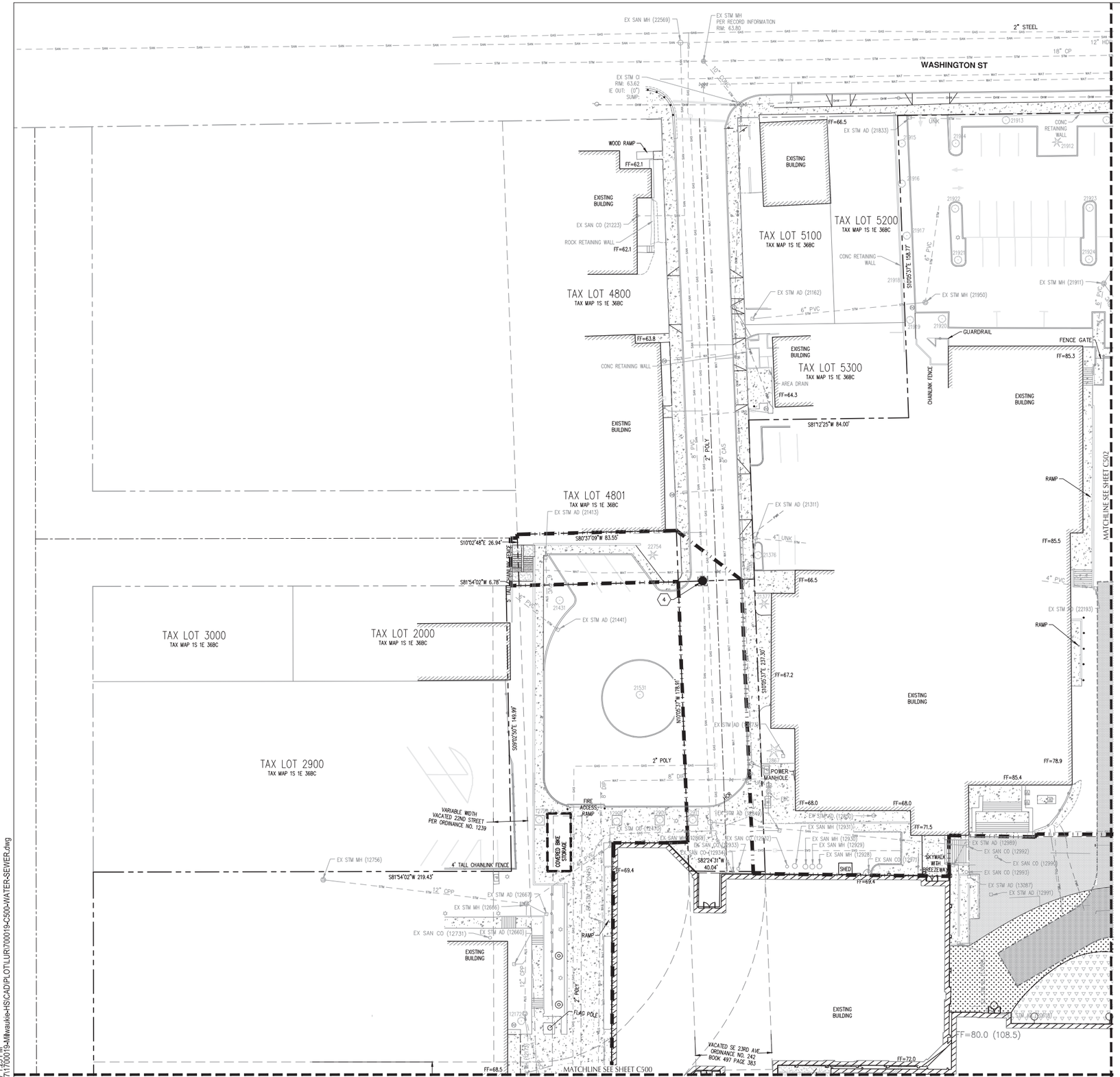

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WATER & SEWER UTILITY PLAN

C503

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M
H
S
Milwaukie High School

OFF-SITE PARKING LOT AT ST JOHN THE BAPTIST CHURCH

CROSS WALK

NORTHERN PARKING LOT

NEW PEDESTRIAN ACCESS AT ADAMS ST

ORANGE LINE STOP

PROPSED MILWAUKIE HIGH SCHOOL

SOUTHWESTERN PARKING LOT

CROSS WALK

CROSS WALK

BUS STOP

SOUTHEASTERN PARKING LOT

25TH AVENUE ROW AND TENNIS COURT

OFF-SITE PARKING LOT AT ST STEPHENS SERBIAN ORTHODOX CHURCH

LEGEND

- MILWAUKIE HIGH SCHOOL PROPERTY LINE
- PEDESTRIAN PATH FROM PUBLIC TRANSIT / OFF-SITE PARKING TO ENTRANCE
- VEHICULAR PATH FROM OFF-SITE PARKING TO ON-SITE PARKING
- MILWAUKIE HIGH SCHOOL CAMPUS BUILDING
- MILWAUKIE HIGH SCHOOL CAMPUS ON-SITE PARKING
- MILWAUKIE HIGH SCHOOL CAMPUS OFF-SITE PARKING

MILWAUKIE HIGH SCHOOL LAND USE

12.19.2017

BR|IC

BUILDING RELATIONSHIPS | INSPIRING COMMUNITIES

GA, GEBCO

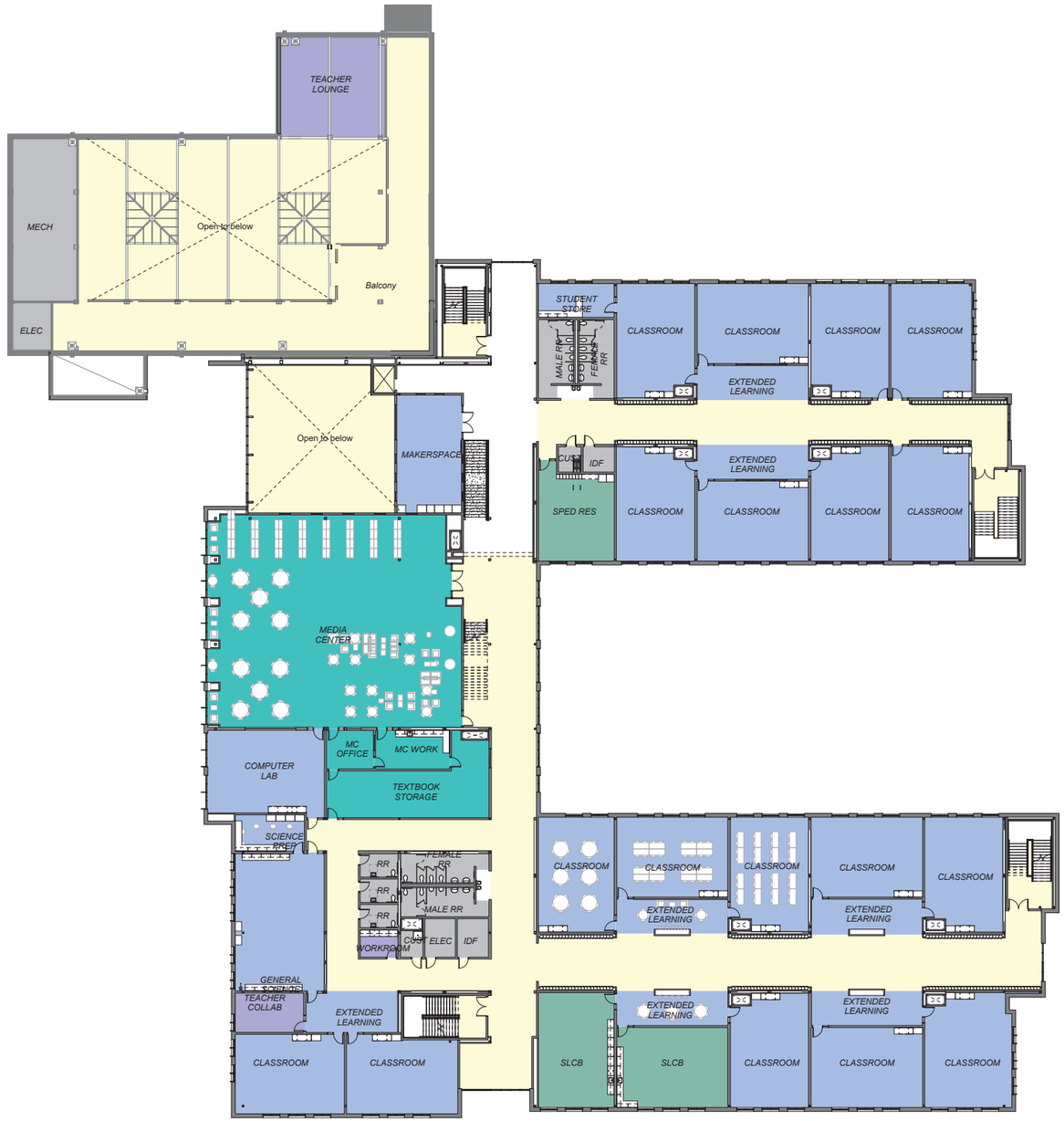
LEVEL ONE PLAN

BR | IC ARCHITECTURE INC.

MILWAUKIE HIGH SCHOOL | NORTH CLACKAMAS SCHOOL DISTRICT

01/22/2018

LEVEL TWO PLAN



BR|IC ARCHITECTURE INC.

LEVEL THREE PLAN

BR|IC ARCHITECTURE INC.

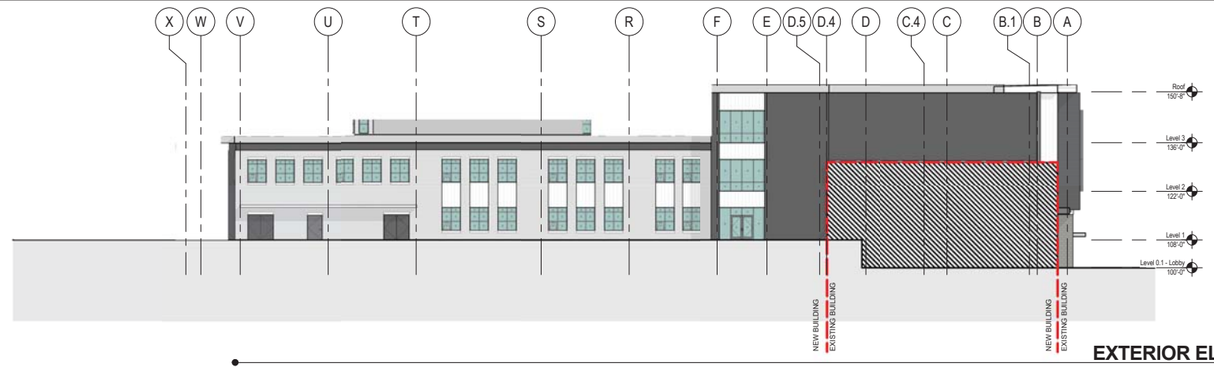
COMMONS

BR|IC ARCHITECTURE INC.

MILWAUKIE HIGH SCHOOL | NORTH CLACKAMAS SCHOOL DISTRICT

01/22/2018

Overall Elevations



EXTERIOR ELEVATION OVERALL - NORTH
SCALE: 1/16" = 1'-0"

EXTERIOR ELEVATION OVERALL - SOUTH
SCALE: 1/16" = 1'-0"

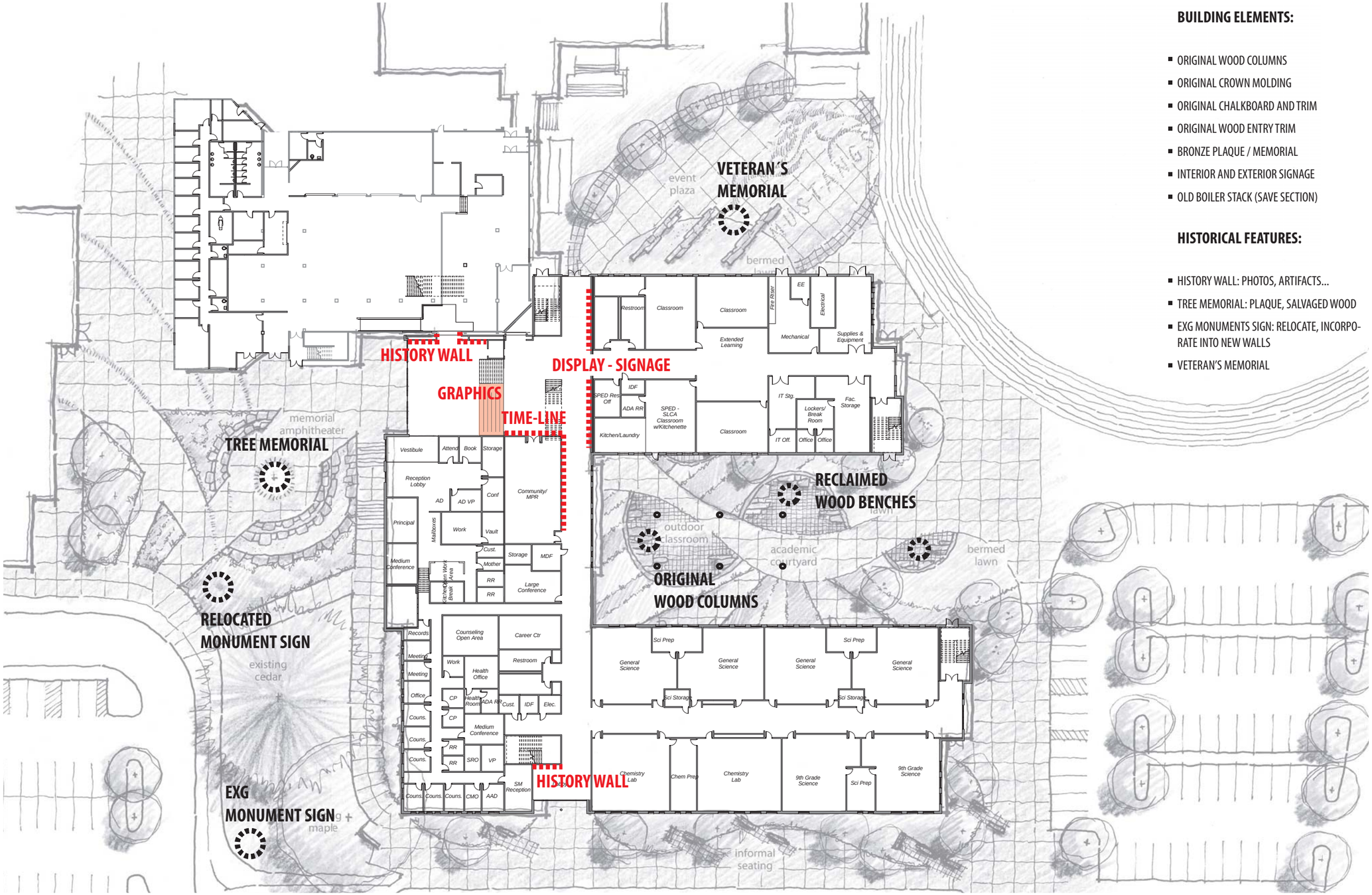
EXTERIOR ELEVATION OVERALL - EAST
SCALE: 1/16" = 1'-0"

EXTERIOR ELEVATION OVERALL - WEST
SCALE: 1/16" = 1'-0"

BR|IC ARCHITECTURE INC.

MILWAUKIE HIGH SCHOOL | NORTH CLACKAMAS SCHOOL DISTRICT

01/22/18



BUILDING ELEMENTS:

- ORIGINAL WOOD COLUMNS
- ORIGINAL CROWN MOLDING
- ORIGINAL CHALKBOARD AND TRIM
- ORIGINAL WOOD ENTRY TRIM
- BRONZE PLAQUE / MEMORIAL
- INTERIOR AND EXTERIOR SIGNAGE
- OLD BOILER STACK (SAVE SECTION)

HISTORICAL FEATURES:

- HISTORY WALL: PHOTOS, ARTIFACTS...
- TREE MEMORIAL: PLAQUE, SALVAGED WOOD
- EXG MONUMENTS SIGN: RELOCATE, INCORPORATE INTO NEW WALLS
- VETERAN'S MEMORIAL

Milwaukie High School
North Clackamas School District

MILWAUKIE HIGH SCHOOL HISTORIC FEATURES

BRIC
Architecture

LAND USE LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	HOUSING	SHIELDING	MOUNTING	FINISH	UL/IP RATING	DRIVER/POWER SUPPLY	LAMP(S)	INPUT WATTS	MFG/CATALOG #
EX	EXISTING POST TOP LED PEDESTRIAN LUMINAIRES TO REMAIN				WHITE				75 WATTS	
SA-2	POST TOP LED AREA LUMINAIRES TO MATCH EXISTING. TYPE II DISTRIBUTION	NOMINAL 18-INCH DIAMETER BY OVERALL HEIGHT OF 32-INCH DIE-CAST ALUMINUM	PRECISION ACRYLIC REFRACTIVE OPTICS	18-FOOT HIGH, STRAIGHT STEEL ROUND POLE. POLE TO WITHSTAND 100 MILE PER HOUR WINDS WITH A GUST FACTOR OF 1.3. ABOVE ROUND CONCRETE PEDESTAL	DARK BRONZE			NOMINAL 6605 LUMENS, 4000K, 80 CRI	75 WATTS	LITHONIA LIGHTING MRP LED SERIES TO MATCH EXISTING
SA-5	POST TOP LED AREA LUMINAIRES TO MATCH EXISTING. TYPE V DISTRIBUTION	NOMINAL 18-INCH DIAMETER BY OVERALL HEIGHT OF 32-INCH DIE-CAST ALUMINUM	PRECISION ACRYLIC REFRACTIVE OPTICS	18-FOOT HIGH, STRAIGHT STEEL ROUND POLE. POLE TO WITHSTAND 100 MILE PER HOUR WINDS WITH A GUST FACTOR OF 1.3. ABOVE ROUND CONCRETE PEDESTAL	DARK BRONZE			NOMINAL 6965 LUMENS, 4000K, 80 CRI	75 WATTS	LITHONIA LIGHTING MRP LED SERIES TO MATCH EXISTING
SA-EX	EXISTING POST TOP LED AREA LUMINAIRES TO REMAIN				DARK BRONZE				75 WATTS	
SA-R	EXISTING POST TOP LED AREA LUMINAIRES TO BE REUSED AND RELOCATED				DARK BRONZE				75 WATTS	
SB	POST-TOP LED AREA LIGHT WITH TYPE V SYMMETRIC DISTRIBUTION	NOMINAL 25-INCH DIAMETER BY 25.75-INCH HIGH CAST ALUMINUM; CORROSION RESISTENT	INJECTION-MOLDED ACRYLIC PIXELATION-FREE LENS WITH WAVESTREAM OPTICS	12-FOOT HIGH, STRAIGHT STEEL ROUND POLE. POLE TO WITHSTAND 100 MILE PER HOUR WINDS WITH A GUST FACTOR OF 1.3,. FLUSH ROUND CONCRETE PEDESTAL.	AS SELECTED BY ARCHITECT	IP66	INTEGRAL DRIVER; 0-10V DIMMING	NOMINAL 1930 LUMENS; 3000K LED; >80 CRI	24 WATTS	INVUE ARBOR POST TOP SERIES
SC	WALL MOUNTED LED LUMINAIRE WITH TYPE IV SYMMETRIC DISTRIBUTION	NOMINAL 17-INCH WIDE BY 9-INCH DEEP BY 7.25-INCH HIGH DIE CAST ALUMINUM	CLEAR POLYMER	COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS	AS SELECTED BY ARCHITECT	IP66	INTEGRAL DRIVER; 0-10V DIMMING	NOMINAL 2747 LUMENS; 3000K LED; >80CRI	26 WATTS	PHILIPS GARDCO 101L SERIES

TYPE SA & EXISTING

MRP LED
LED Area Luminaire

Specifications

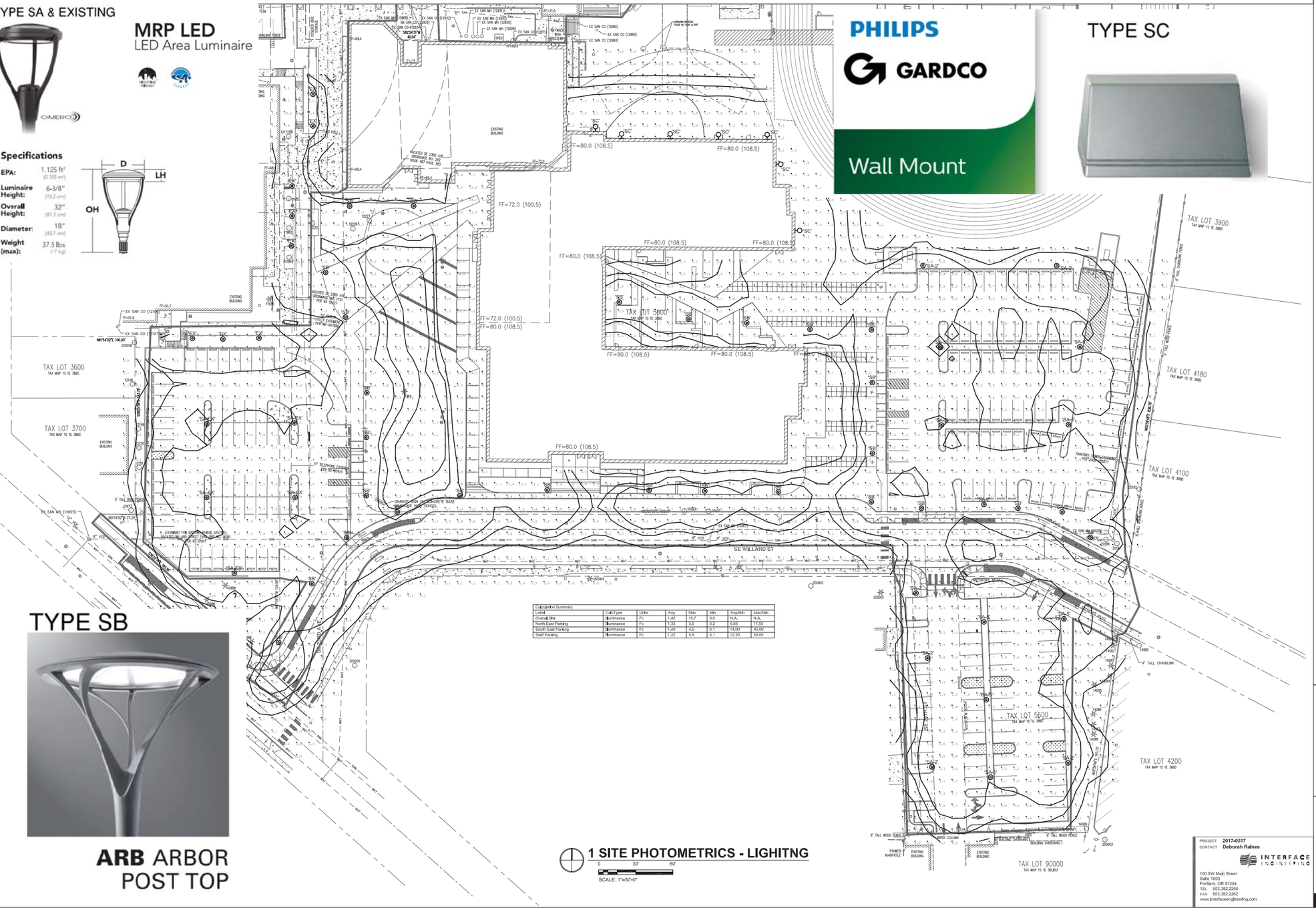
EPA:	1.125 ft² (0.105 m²)
Luminaire Height:	6-3/8" (16.2 cm)
Overall Height:	32" (81.3 cm)
Diameter:	18" (45.7 cm)
Weight (max):	37.5 lbs (17 kg)

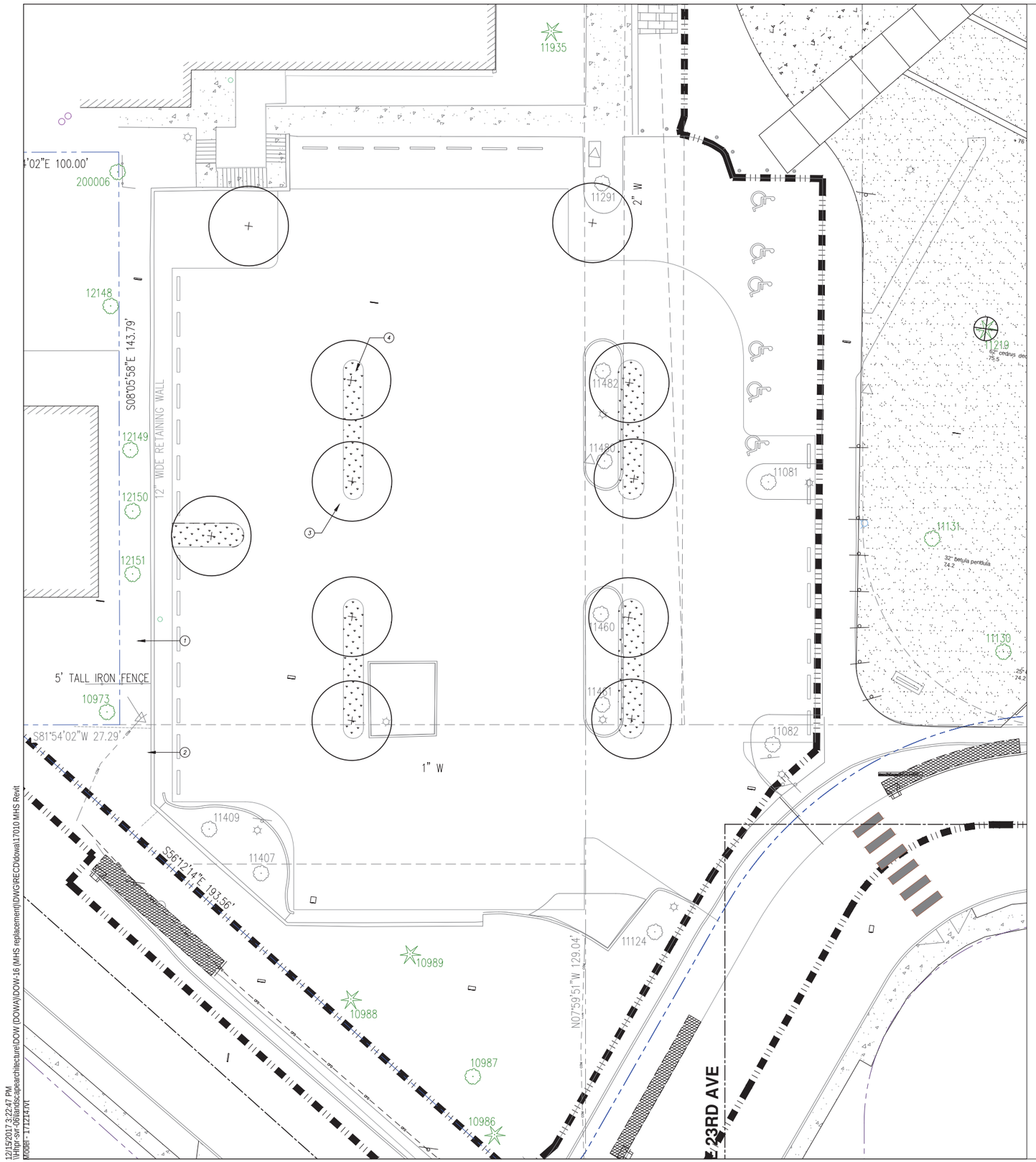
PHILIPS
GARDCO
Wall Mount

TYPE SC

TYPE SB

ARB ARBOR
POST TOP





CONSTRUCTION NOTES

1. 8' WIDE LANDSCAPE BUFFER
2. MAINTAIN EXISTING CEDAR TREES
3. CANOPY TREES AT LANDSCAPE ISLANDS
4. SHRUB AND GROUNDCOVER PLANTINGS

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key plan

revisions	

phase	DD PROGRESS SET
date	12/15/17
project	17010

LANDSCAPE CONSTRUCTION PLAN

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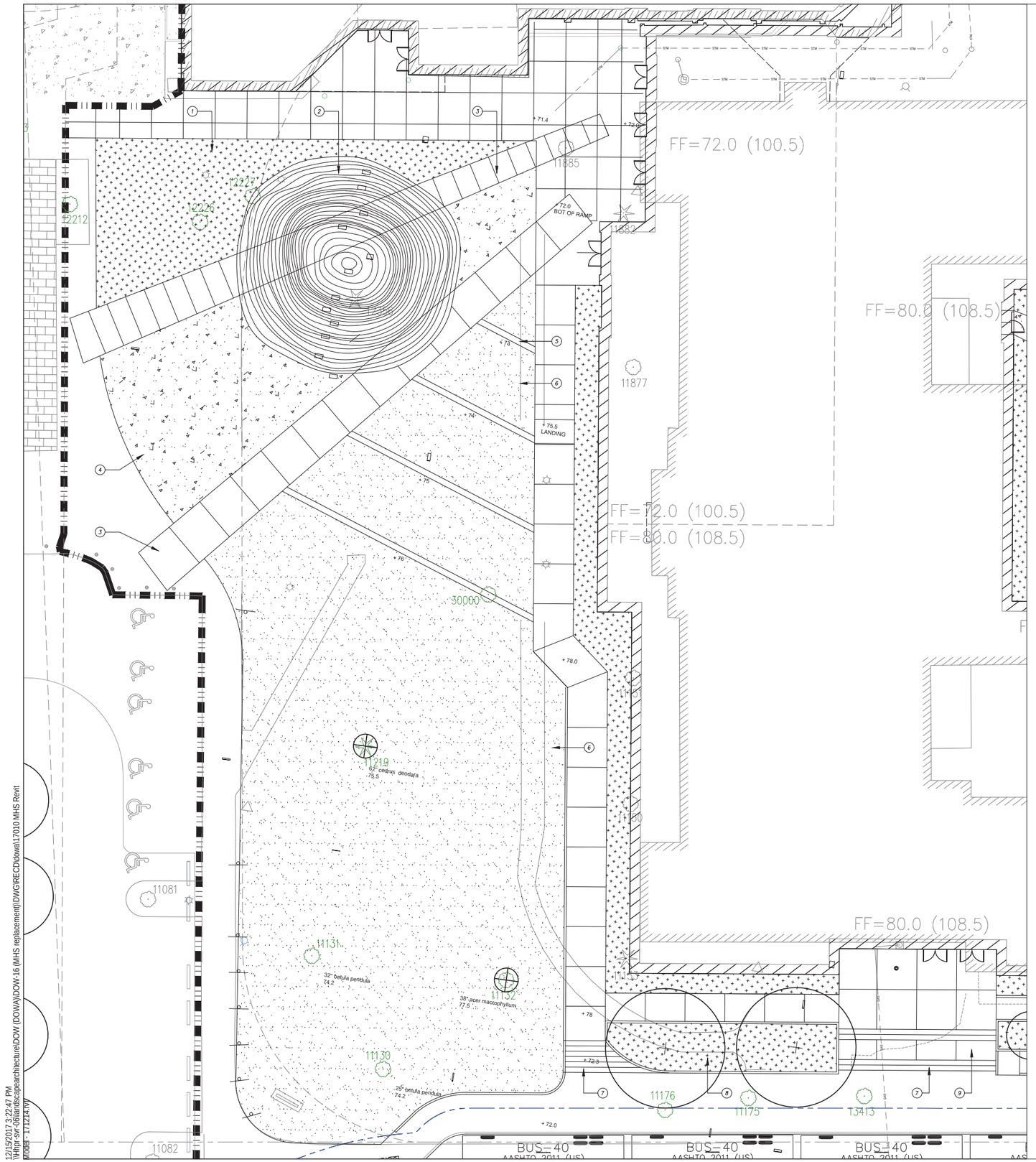

CONSTRUCTION NOTES

1. ORNAMENTAL GRASSES
2. TREE MEMORIAL PLAZA – GROWTH RING TIME LINE
3. SPECIAL CONCRETE
4. CONCRETE PAVING
5. 12" HEIGHT CURB WALLS, CAST IN PLACE
   SEEDED LAWN
6. CONCRETE STAIRS
7. RAISED PLANTER
8. CONCRETE PAVING

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LANDSCAPE
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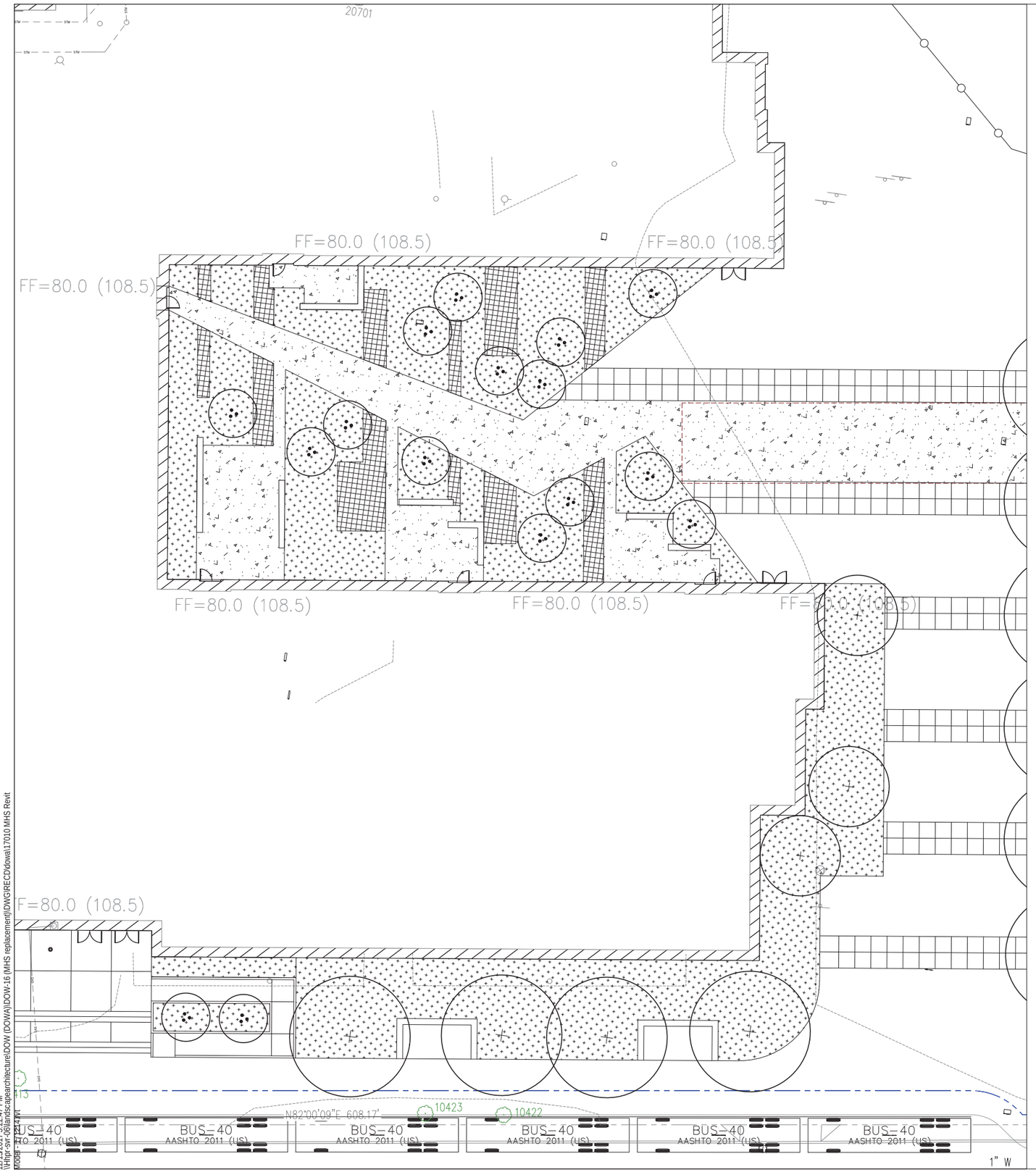

CONSTRUCTION NOTES

6' TALL CHAIN LINK FENCE, TYP. SEE DETAIL 1/L4.00 – 2,422 LF

16" CONCRETE MOW STRIP, TYP. SEE DETAIL 2/L4.00 – 1,897 LF

CONCRETE PAVEMENT, TYP. SEE CIVIL FOR DETAIL.

THICK ASPHALT PAVEMENT, TYP. SEE CIVIL FOR DETAIL.

6' BENCH, TYP. BLACK POWDER COAT FINISH. SEE DETAIL 3/L4.00. SEE SPECIFICATIONS FOR MAKE AND MODEL. – 6 EA.

REFUSE CONTAINER, TYP. SEE SPECIFICATIONS FOR MAKE AND MODEL. SEE DETAIL 3/L4.00 – 5 EA

12' WIDE VEHICLE GATE, TYP. SEE DETAIL 6/L4.00 – 2 EA.

NOT USED

CONCRETE RAMP WITH STEEL HANDRAILS W/ BLACK POWDER COAT FINISH. SEE DETAIL 7/L4.00 – 481 SF CONCRETE RAMP / 11.3 LF HANDRAIL

3" THICK TETHERBALL STRIPING, TYP. (10' RADIUS) – 189 LF

3" THICK FOUR SQUARE STRIPING, TYP. SEE DETAIL 5/L4.00. –192 LF

BASKETBALL STRIPING, SEE DETAIL 4/L4.10.

18" DEEP ENGINEERED WOOD SAFETY SURFACING W/ SUB-SURFACE DRAINAGE. SEE DETAIL 9/L4.00 – 232 CY

BLOCK RETAINING WALL (SEE CIVIL)

BIKE RACKS – HUNTCO BIKE CORRAL. POWDER COAT BLACK. CAPACITY = 4 BIKES. – 1 EA.

12' TALL CHAINLINK BACKSTOP. SEE DETAIL 5/L4.10 –48 LF

CLAY INFIELD SURFACING – 3,621 SF

4' WIDE PEDESTRIAN GATE, TYP. SEE DETAIL 6/L4.00 – 2 EA.

UNITARY TILE SURFACING OVER 4" CONCRETE SLAB – 965 SF

PLAY STRUCTURE. SEE SPECIFICATIONS. INSTALL PER MANUFACTURERS INSTRUCTIONS.

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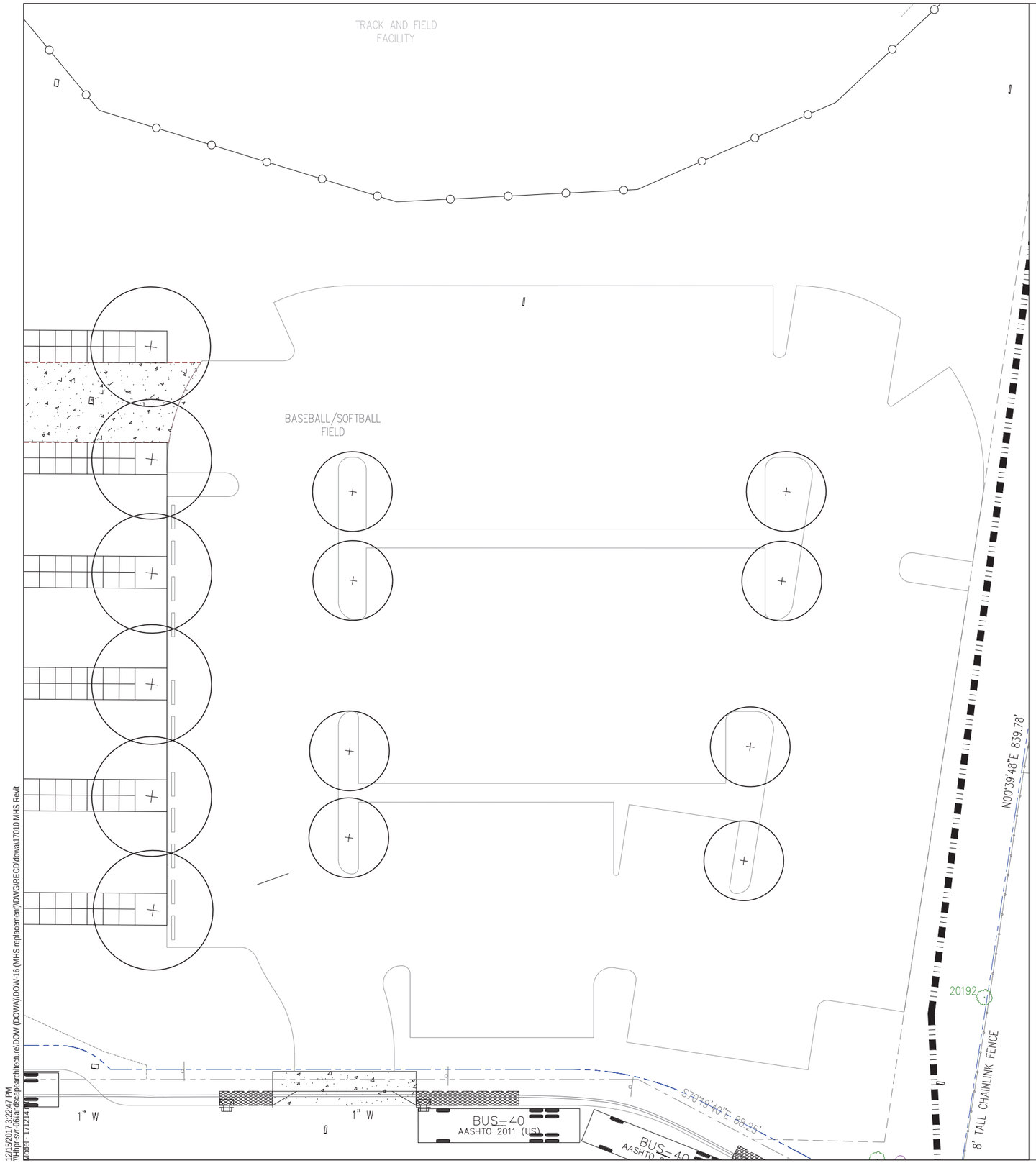

CONSTRUCTION NOTES

6' TALL CHAIN LINK FENCE, TYP. SEE DETAIL 1/L4.00 – 2,422 LF

16" CONCRETE MOW STRIP, TYP. SEE DETAIL 2/L4.00 – 1,897 LF

CONCRETE PAVEMENT, TYP. SEE CIVIL FOR DETAIL.

THICK ASPHALT PAVEMENT, TYP. SEE CIVIL FOR DETAIL.

6' BENCH, TYP. BLACK POWDER COAT FINISH. SEE DETAIL 3/L4.00. SEE SPECIFICATIONS FOR MAKE AND MODEL. – 6 EA.

REFUSE CONTAINER, TYP. SEE SPECIFICATIONS FOR MAKE AND MODEL. SEE DETAIL 3/L4.00 – 5 EA

12' WIDE VEHICLE GATE, TYP. SEE DETAIL 6/L4.00 – 2 EA.

NOT USED

CONCRETE RAMP WITH STEEL HANDRAILS W/ BLACK POWDER COAT FINISH. SEE DETAIL 7/L4.00 – 481 SF CONCRETE RAMP / 113 LF HANDRAIL

3" THICK TETHERBALL STRIPING, TYP. (10' RADIUS) – 189 LF

3" THICK FOUR SQUARE STRIPING, TYP. SEE DETAIL 5/L4.00. –192 LF

BASKETBALL STRIPING, SEE DETAIL 4/L4.10.

18" DEEP ENGINEERED WOOD SAFETY SURFACING W/ SUB-SURFACE DRAINAGE. SEE DETAIL 9/L4.00 – 232 CY

BLOCK RETAINING WALL (SEE CIVIL)

BIKE RACKS – HUNTCO BIKE CORRAL. POWDER COAT BLACK. CAPACITY = 4 BIKES. – 1 EA.

12' TALL CHAINLINK BACKSTOP. SEE DETAIL 5/L4.10 –48 LF

CLAY INFIELD SURFACING – 3,621 SF

4' WIDE PEDESTRIAN GATE, TYP. SEE DETAIL 6/L4.00 – 2 EA.

UNITARY TILE SURFACING OVER 4" CONCRETE SLAB – 965 SF

PLAY STRUCTURE. SEE SPECIFICATIONS. INSTALL PER MANUFACTURERS INSTRUCTIONS.

BRIC
ARCHITECTURE, INC.

1233 NW Northrup Street
Suite 100
Portland, Oregon 97209
tel . (503) 226 6950
fax . (503) 273 9192

HHPR Harper Houf Peterson Righellis Inc.
ENGINEERS ★ PLANNERS
LANDSCAPE ARCHITECTS ★ SURVEYORS

MILWAUKIE HIGH SCHOOL

NORTH CLACKAMAS SCHOOL DISTRICT
2301 SE Willard Street, Milwaukie, OR 97222
t: (503) 353-6000
f: (503) 353-6000

key plan

revisions	

phase	DD PROGRESS SET
date	12/15/17
project	17010

LANDSCAPE CONSTRUCTION PLAN

L1.4

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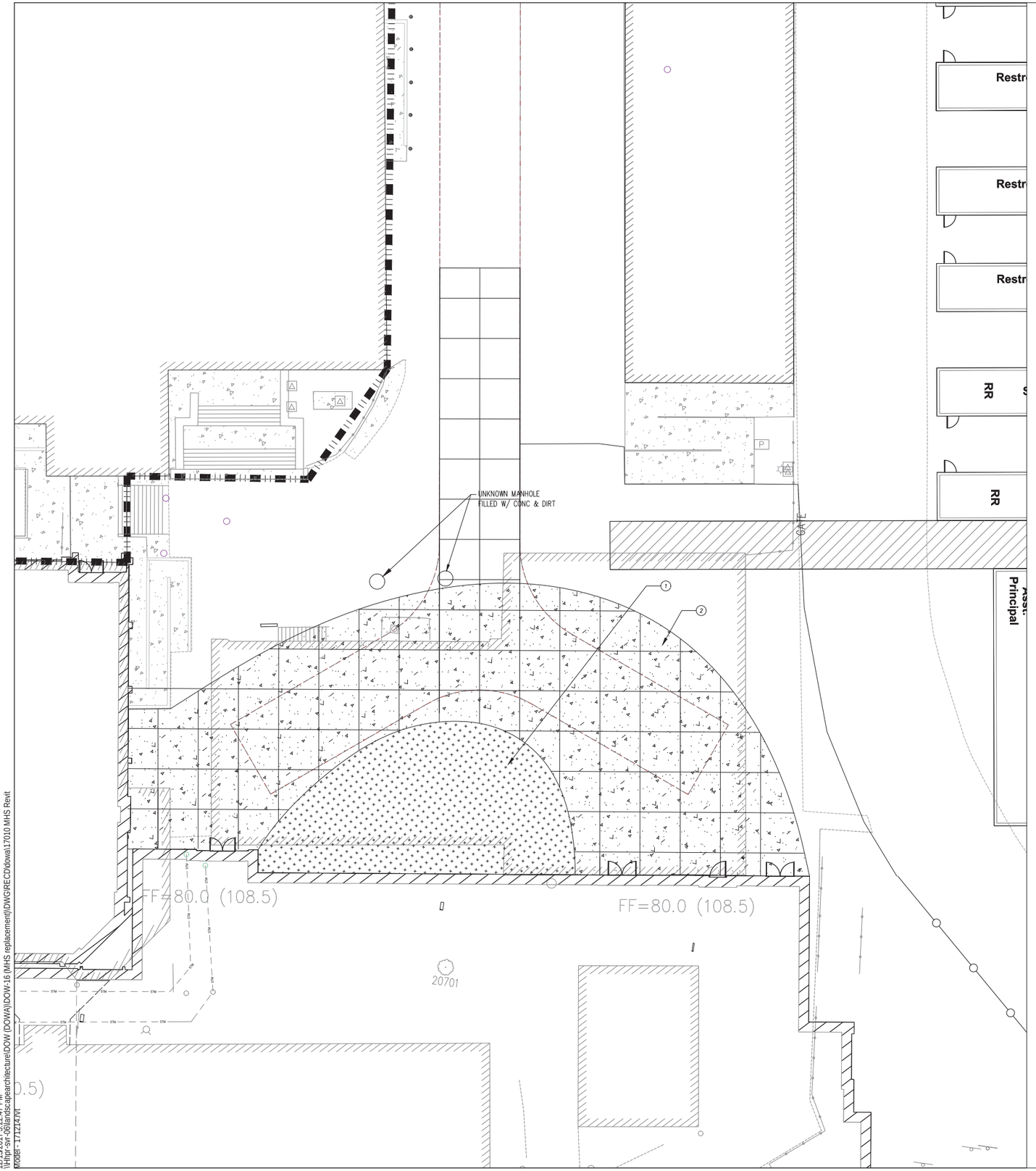

CONSTRUCTION NOTES

CONCRETE PAVING

SYNTHETIC TURF MOUND

BRIC
ARCHITECTURE, INC.

1233 NW Northrup Street
Suite 100
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tel . (503) 226 6950
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LANDSCAPE ARCHITECTS ▪ SURVEYORS

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MILWAUKIE HIGH SCHOOL

NORTH CLACKAMAS SCHOOL DISTRICT
2301 SE Willard Street, Milwaukie, OR 97222
t: (503) 353-6000
f: (503) 353-6000

key plan

revisions	

phase	DD PROGRESS SET
date	12/15/17
project	17010

LANDSCAPE
CONSTRUCTION PLAN

L1.5

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M0088 - 171214.rvt

Land Use Luminaire Cut Sheets

North Clackamas School District Milwaukie High School [BRIC]
2017-0517

Prepared for:
BRIC Architecture

Prepared by:
Deborah Raines, MIES

December 15, 2017

INTERFACE ENGINEERING

MRP LED
LED Area Luminaire

NIGHTTIME FRIENDLY

Catalog Number

TYPE SA & EXISTING

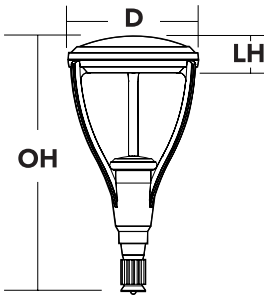
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.125 ft² *(0.105 m²)*
Luminaire Height:	6-3/8″ *(16.2 cm)*
Overall Height:	32″ *(81.3 cm)*
Diameter:	18″ *(45.7 cm)*
Weight (max):	37.5 lbs *(17 kg)*



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: MRP LED 42C 700 40K SR5 MVOLT DDBXD

MRP LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
MRP LED	42C 42 LEDs (one engine)	350 350mA 530 530mA 700 700mA 1000 1000mA (1A)	30K 3000K 40K 4000K 50K 5000K	SR2 Type II SR3 Type III SR4 Type IV SR5 Type V	MVOLT[1] 277[2] 120[2] 347[2] 208[2] 480[2] 240[2]	**Shipped included** (blank) Fits 4″ OD round pole **Shipped separately**[3] MRPT20 2-3/8″ tenon slipfitter MRPT25 2-7/8″ tenon slipfitter **Shipped separately**[3] MRPT30 3-1/2″ tenon slipfitter MRPT35 4″ tenon slipfitter MRPF3 3″ OD round pole adapter MRPF5 5″ OD round pole adapter[4]

Control options

Shipped installed

PER	NEMA twist-lock receptacle only (control ordered separate)
PER5	Five-wire receptacle only (control ordered separate)[5]
PER7	Seven-wire receptacle only (control ordered separate)[5]
BL30	Bi-level switched dimming, 30%[6,7]
BL50	Bi-level switched dimming, 50%[6,7]
PNMTDD3	Part night, dim till dawn[7]
PNMT5D3	Part night, dim 5 hrs[7]
PNMT6D3	Part night, dim 6 hrs[7]
PNMT7D3	Part night, dim 7 hrs[7]

Other options

SF	Single fuse (120, 277, 347V)[2]
DF	Double fuse (208, 240, 480V)[2]

Finish *(required)*

DDBXD	Dark bronze	DDBTXD	Textured dark bronze
DBLXD	Black	DBLBXD	Textured black
DNAXD	Natural aluminum	DNATXD	Textured natural aluminum
DWHXD	White	DWHGXD	Textured white

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Ordering Information

Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [8]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [8]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [8]
DSHORT SBK U	Shorting cap [8]
MRPT20 DDBXD U	2-3/8" tenon slipfitter (specify finish)
MRPT25 DDBXD U	2-7/8" tenon slipfitter (specify finish)
MRPT30 DDBXD U	3-1/2" tenon slipfitter (specify finish)
MRPT35 DDBXD U	4" tenon slipfitter (specify finish)
MRPF3 DDBXD U	3" OD round pole adapter (specify finish)
MRPF5 DDBXD U	5" OD round pole adapter (specify finish) [3]

For more control options, visit DTL and ROAM online.

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3. Also available as a separate accessory; see Accessories information at left.
4. Maximum pole wall thickness is 0.156".
5. If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
6. Requires an additional switched line.
7. Dimming driver standard. Not available with 347V, 480V, SF, DF, PER5 or PER7.
8. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
42C (42 LEDs)	530	75W	SR2	5,456	1	2	1	55	6,605	1	2	1	66	6,671	1	2	1	67
			SR3	5,436	1	1	1	54	6,581	1	1	2	66	6,647	1	1	2	66
			SR4	5,399	1	1	1	54	6,537	1	1	2	65	6,602	1	1	2	66
			SR5	5,748	3	1	3	57	6,959	3	1	3	70	7,029	3	1	3	70
	700	100W	SR2	6,630	1	2	1	44	8,026	2	2	2	53	8,106	2	2	2	54
			SR3	6,605	1	1	2	44	7,997	1	2	2	53	8,077	1	2	2	53
			SR4	6,561	1	1	2	43	7,943	1	2	2	53	8,022	1	2	2	53
			SR5	6,985	3	1	3	46	8,456	3	2	3	56	8,541	3	2	3	57
	1000	151W	SR2	8,165	2	2	2	109	9,885	2	2	2	132	9,983	2	2	2	133
			SR3	8,135	1	2	2	108	9,848	2	2	2	131	9,947	2	2	2	133
			SR4	8,080	2	2	2	108	9,782	2	2	2	130	9,880	2	2	2	132
			SR5	8,602	3	2	3	115	10,414	4	2	4	139	10,518	4	2	4	140

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended

⊘ Will not work

⚠ Alternate

*Futureproof means: Ability to change controls in the future.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.06
10°C	50°F	1.04
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.96

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **MRP LED 42C 700** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.96	0.92	0.85

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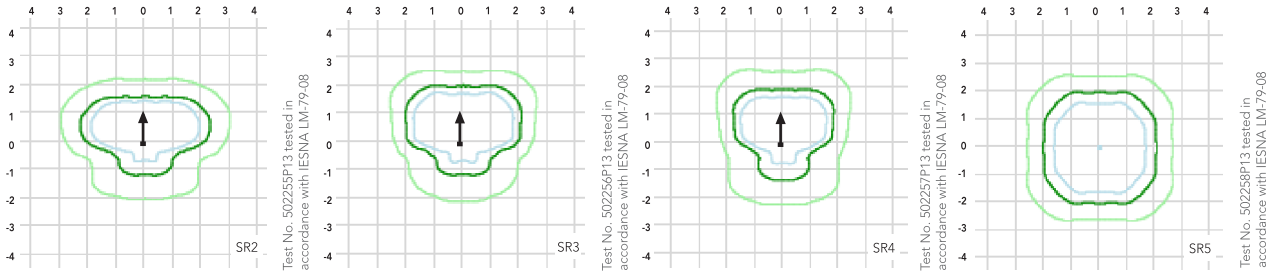
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's MRP LED homepage.

Isofootcandle plots are considered to be representative of available optical distributions.

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
Streets, walkways, parking lots and surrounding areas.

CONSTRUCTION
Single-piece die-cast aluminum housing with nominal wall thickness of .012". Die-cast top access doorframe has impact-resistant, tempered glass lens (3/16" thick). Doorframe is fully gasketed with one-piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum and white. Available in textured and non-textured finishes.

OPTICS
Precision acrylic refractive optics for optimum light distribution through the flat glass lens. Light engines are available in standard 3000K (70 CRI) or optional 4000K (70 CRI) or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of 42 high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low for operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Standard post-top mounting configuration fits into a 4" OD open pole top (round pole only). Multiple options and accessories are available for other mounting needs.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. **U.S. Patent No. D556,357.**

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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Invue

DESCRIPTION

The Invue Arbor post top brings architectural style to area/site and pedestrian scale applications. Its dayform appearance brings a desired organic look into the urban environment. WaveStream™ LED Optics provide a uniform pixelation free image, managing glare while providing high levels of visibility.

Catalog #		Type
Project		TYPE SB
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Two-piece IP66 rated housing is cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term dayform appearance. ANSI C136.31 testing compliance prevents damage from installation generated vibration. External hardware and casting seams are minimized to enhance appearance.

Optics
Specifically designed for pedestrian applications, WaveStream LED optical waveguide technology produces both symmetric NEMA type V and asymmetric NEMA II, III, IV distributions. The waveguide is manufactured from precision injection molded acrylic resulting in a pixelation free optical image for improved glare control and visual comfort. Luminaire efficacy's measure up to 100 lm/w for 4000K (+/- 275K) CCT at 70 CRI (min), optional 3000K CCT at 80 CRI is also available.

Electrical
LED driver(s) are directly mounted to upper housing thermal pad for optimal thermal performance. Standard 0-10V dimming drivers and Eaton's proprietary surge protection module are designed to withstand 10kV of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V/60Hz or 480V/60Hz operation optional. Suitable for ambient temperature applications from -30°C (-22°F) to 40°C (104°F). Limited high ambient options allow for 50°C operation.

Controls
The Arbor LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MS) and bi-level dimming (MS/DIM) operation. The optional LumaWatt Pro™ system is best described as a peer-to-peer wireless network of luminaire-integral sensors that operate in accordance with programmable profiles. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication.

Mounting
Fitter assembly mounts over 2-3/8" O.D. tenon and is secured via six concealed stainless steel set screws. Design of fitter provides seamless transition to 3" O.D. round pole top. Additional mounting accessories include a single fixture arm mount, twin fixture arm mount and wall mount arm. Additional pole mount accessories mount to a 3" x 4" long tenon for 4" - 5" O.D. poles tops. For existing 2-3/8" tenons an adapter is shipped standard.

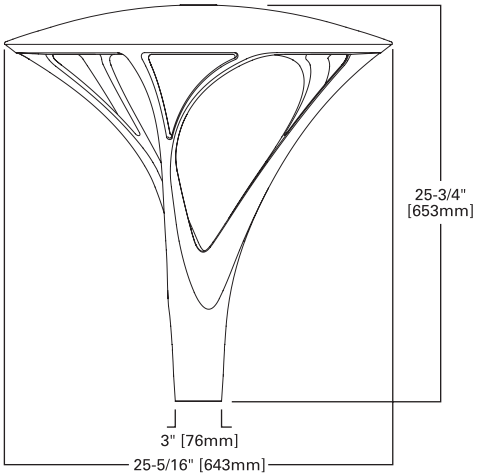
Finish
Eaton utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for Eaton to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard.

Warranty
Five-year warranty.

ARB ARBOR POST TOP

DECORATIVE LUMINAIRE

DIMENSIONS



CERTIFICATION DATA

UL/cUL Listed
IP66 Housing
ANSI C136.31
1.5G Vibration Tested
RoHS
ISO 9001

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

EPA

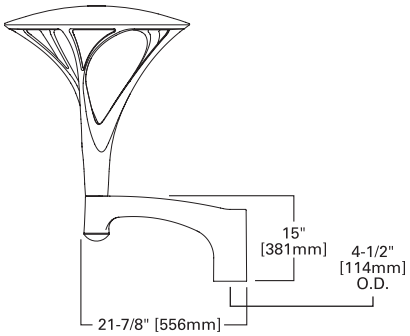
Effective Projected Area: (Sq. Ft.) 0.9

Approximate Net Weight:
37 lbs. [16.8 kgs.]

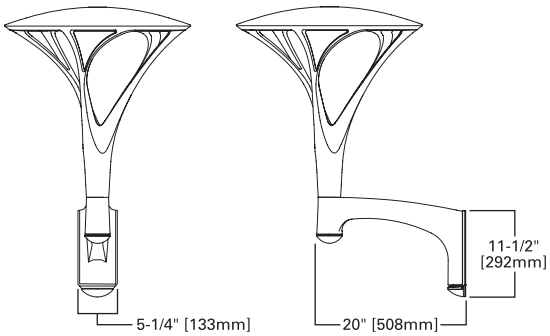
Powering Business Worldwide

MOUNTING CONFIGURATIONS (WEIGHT AND EPAS INCLUDES FIXTURE)

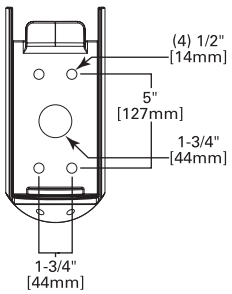
Single Arm Mount
Weight: 56 lbs. [25.45 kgs.]
EPA: 1.7 sq/ft



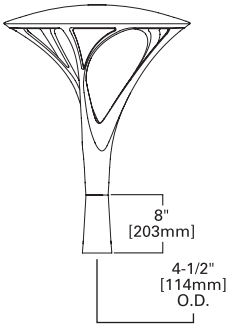
Wall Mount Arm
Weight: 57 lbs. [25.91 kgs.]
EPA: 1.8 sq/ft



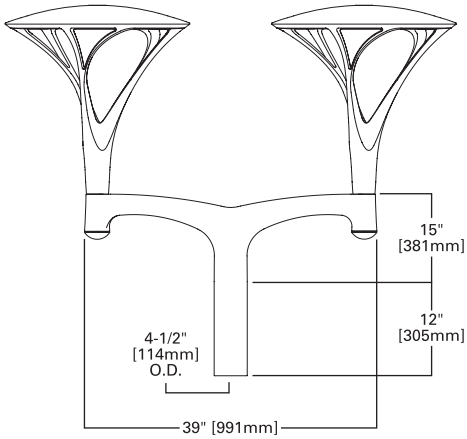
Wall Mount Arm Drill Pattern



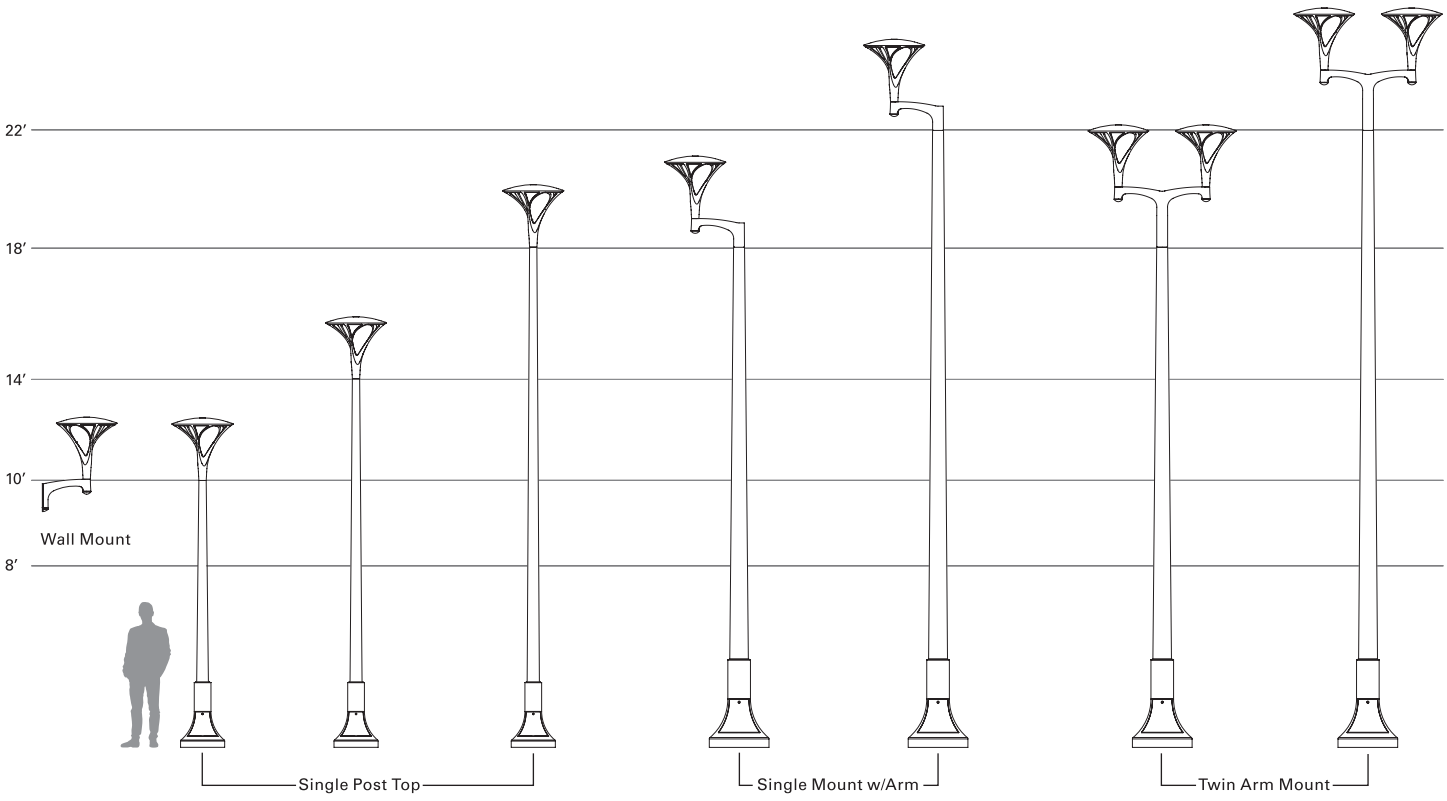
Post Top Adapter
Weight: 41 lbs. [18.63 kgs.]
EPA: 1.2 sq/ft



Twin Arm Mount - 1.5G
Weight: 114 lbs. [51.81 kgs.]
EPA: 3.45 sq/ft



POLE CONFIGURATIONS (ARP DECORATIVE POLE SHOWN)



Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

POWER AND LUMENS

Lumen Package		**B1**	**B2**	**B3**	**B4**
Drive Current					
Power Wattage (Watts)		24W	48W	96W	99W
Input Current (mA) @ 120V		200	400	800	830
Input Current (mA) @ 208V		120	240	470	480
Input Current (mA) @ 240V		100	200	400	420
Input Current (mA) @ 277V		90	180	350	360
Power Wattage (Watts)		26W	53W	107W	108W
Input Current (mA) @ 347V		79	161	325	328
Input Current (mA) @ 480V		58	117	235	237
Optics					
Type II	Lumens	2,045	3,994	7,362	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B3-U2-G3	--
Type III	Lumens	2,324	4,534	8,451	-
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	--
Type IV	Lumens	2,408	4,691	8,740	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	-
Type V	Lumens	2,311	4,529	8,511	9,464
	BUG Rating	B2-U1-G1	B3-U2-G2	B3-U2-G3	B3-U2-G3

COLOR TEMPERATURE

Color Temperature (CCT)	**CRI** (Nominal)	**Multiplier** (Hours)
4000	70	1.00
3000	80	0.91

LUMEN MAINTENANCE

Ambient Temperature	**TM-21 Lumen Maintenance** (60,000 Hours)	**Calculated L70** (Hours)
25ºC	>91%	>230,000
40ºC	>88%	>172,000
50ºC	>86%	>142,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

LUMEN MULTIPLIER

Ambient Temperature	**Lumen Multiplier**
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

ORDERING INFORMATION

Sample Number: ARB-B2-LED-D1-T2-GM

Product Family [1, 2]	**Lumens** [3]	**Lamp Type** [5]	**Voltage**	**Distribution**	**Color**
ARB=Arbor Post Top	**B1**=Nominal 2,300 Lumens **B2**=Nominal 4,500 Lumens **B3**=Nominal 8,500 Lumens **B4**=Nominal 9,500 Lumens [4]	**LED**=Solid State Light Emitting Diodes	**D1**=Dimming Driver (120-277V) **347**=347V [6] **480**=480V [6, 7]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Custom Color [8]

Options (Add as Suffix)	**Accessories** (Order Separately) [19]
7030=70 CRI / 3000K CCT [9] **8030**=80 CRI / 3000K CCT [9] **PC**=Button Type Photocontrol [10] **PER**=Standard 3-PIN Photocontrol Receptacle [10] **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [10, 11] **HA**=50°C High Ambient [12] **MS-LXX**=Photo/Motion Sensor for On/Off Operation [13, 14] **MS/DIM-LXX**=Programmable Photo/Motion Sensor [13, 14, 15] **LWR-LW**=LumaWatt Pro Wireless Sensor, Wide Lens 8' - 16' Mounting Height [16] **LWR-LN**=LumaWatt Pro Wireless Sensor, Wide Lens 16' - 40' Mounting Height [16] **5LTD**=Fifth Light Dali Driver [17] **DIM**=0-10V External Dimming Leads [18] **VS**=Tempered Glass Vandal Shield	**ARSA-XX**=Single Pole Mount Arm [20] **ARWM-XX**=Wall Mount Arm **ARTA15-XX**=Twin Mount Bracket - 1.5G [20] **ARPA4-XX**=Pole Adapter 4" O.D. Pole **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [15]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional information.
2. Fixture slipfits over standard 2-3/8" or 3" O.D. tenon.
3. Lumens are nominal. See lumen table for more information.
4. B4 only available with Type V distribution.
5. Standard 4000K CCT, nominal 70 CRI.
6. Requires the use of a step down transformer.
7. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. Cutsom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
9. Extended lead times apply. Use dedicated IES files when performing layouts. These files are published on the Arbor luminaire product page on the website.
10. Not available with MS, MSDIM or DIMRF options.
11. Compatible with standard 3-PIN photocontrols and 5-PIN or 7-PIN ANSI controls.
12. Not available with Type II, III and IV B3 optics.
13. Not available with HA option.
14. Replace XX with mounting height in feet for proper lens selection, L8, L20 and L40 are available options.
15. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
16. LumaWatt Pro wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-Po in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
17. Only available with B1 and B2 lumen packages.
18. Low voltage control leads brought out 18" outside fixture. Not available with control options.
19. Replace XX with color designation.
20. Fits on 3" O.D. x 4" long tenon for nominal 4-1/2" O.D. pole top.

PHILIPS

GARDCO

Wall Mount

LED Wall Sconce 101L

Project:

Location:

Cat.No:

Type:

Qty:

Notes:

Philips Gardco 101 LED wall sconces feature a low-profile design that provides wide flexibility in high performance exterior wall illumination. Full cutoff performance, usable illumination patterns, and powerful wattages combine into a compact and architecturally pleasing design. 101L sconces are available in Type 2, 3, and 4 distributions, and provide output of up to 9500 lumens. Energy saving control options increase energy savings and offer California Title 24 compliance. Emergency Battery Backup option available for path of egress.

Ordering guide

example: 101L-32L-700-NW-G1-3-120-IMRI2-BZ

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distribution	Emergency	Voltage	Options: Controls	Options: Electrical	Options: Finish
101L 101L LED Wall Sconce	**16L** 16 LEDs (1 module)	**530** 530mA **650** 650mA[1] **700** 700mA **1000** 1000mA **1200** 1200mA	**CW-G1** Cool White 5700K, 70CRI Generation 1 **NW-G1** Neutral White 4000K, 70CRI Generation 1 **WW-G1** Warm White 3000K, 70CRI Generation 1	**2** Type 2 **3** Type 3 **4** Type 4	**EBPC** Emergency Battery Pack Cold Weather[3,4,12] Leave blank to omitt an emergency option	**UNV** 120-277V **HVU** 347-480V **120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V	**DD** 0-10V Dimming Driver[5,6] **DCC** Dual Circuit Control[7,8] **DynaDimmer:** Automatic Profile Dimming **CS50** Safety 50% Dimming (7 hours)[7,9,10] **CM50** Median 50% Dimming (8 hours)[7,9,10] **CE50** Economy 50% Dimming (9 hours)[7,9,10] **DA50** All Night 50% Dimming[7,9,10] **Photoelectric/Receptacle systems (Twist Lock Receptacle)** **PCB** Photocontrol Button[5,10,11,12] **TLRD5** Twist Lock Receptacle 5-Pin[13] **TLRD7** Twist Lock Receptacle 7-Pin[13] **TLRPC** Twist Lock Receptacle w/Photocell[11,12,16] **Infrared Motion Response systems** **IMRI2** Integral with #2 lens[9,12,14] **IMRI3** Integral with #4 lens[9,12,14] **Network system (SiteWise)** **SW** SW Integral module[4,17] **Wireless system** **LLC2** Integral module with #2 lens[5,7,9,15] **LLC3** Integral module with #3 lens[5,7,9,15]	**Fusing** **F1** Single (120, 277, 347VAC)[12] **F2** Double (208, 240, 480VAC)[12] **F3** Canadian Double Pull (208, 240, 480VAC)[12]	**Textured** **BK** Black **WH** White **BZ** Bronze **DGY** Dark Gray **MGY** Medium Gray **Customer specified** **RAL** Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) **CC** Custom color (Must supply color chip for required factory quote)
	32L 32 LEDs (2 module)	**530** 530mA **650** 650mA[1] **700** 700mA **1000** 1000mA[2]							

1. **650mA** only available with Emergency Battery Pack Cold Rated (**EBPC**) option
2. **32L** rated for 30˚C at 1000mA
3. Available for use with **16L** and **32L** in **530mA** or **650mA** only. Rated for -20˚C to 35˚ C.
4. Available in **120** or **277V** only.
5. Not available with Dual Circuit Control (**DCC**) option.
6. **16L** not available with Dimming Driver (**DD**) in following configurations: **530**, **700** and **1200mA** in **347** and **480V**.
7. Not available with Dimming Driver (**DD**) option.
8. Available in **32L** with **530mA**. Consult technical support center for use with photocell and **CS/CM/CE/DA**.
9. Available in **120-277V** (**UNV**) only.
10. Not available with **LLC, TLR** and **DCC**.
11. Not available with **480V**.
12. Must specify input voltage.
13. TLRD5/7 option not available with **LLC, PCB, DCC**. Works with 3 or 5 pin NEMA photocell dimming. Dimming will not be connected to **TLR** if ordering with **DD, CS/CM/CE/DA** and **IMRI**.
14. Not available with **DD, DCC** or **LLC**.
15. **LLC2/3** Not available with **TLR, PCB, IMRI, CS/CM/CE/DA**. Ships with **WS** accessory attached to wireless module. Not for use with **LLCR** accessory.
16. Not available with **PCB, TLRD5/7, DCC, LLC**.
17. **SW** option is not available with any other control options with the exception of **IMRI2, IMRI3** motion response options

101L Sconce LED

Wall Mount

Luminaire Accessories (order separately)

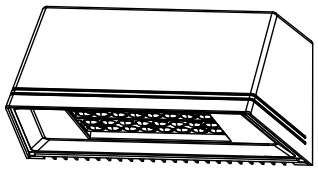
Mounting accessories
Wall Mount
WS Wall Mounted Box for Surface Conduit

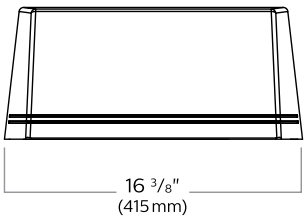
System accessories
Wireless system remote mount module
LLCR2-(F) #2 lens - specify finish in place of (F)
LLCR3-(F) #3 lens - specify finish in place of (F)
Central Remote Motion Response (used connected to SiteWise main panel)
MS2-A-FVR-3
MS2-A-FVR-7

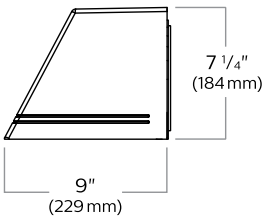
Wireless system remote controller accessory

Wireless system offers a remote radio/sensor module that allows to connected to a Limelight system (sold by other). Remote module can be mounted to wall or pole with j-box supplied. May be specified by choosing one of two different lenses to accommodate a variety of mounting heights/sensor detection ranges. Must specify option DD on luminaires that are planned to be used with remote mount controllers. See page 4 for Wireless system details.

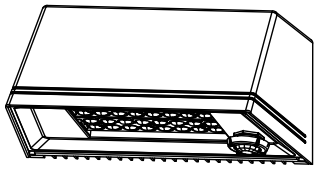
Dimensions

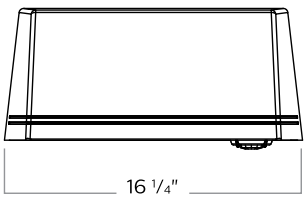


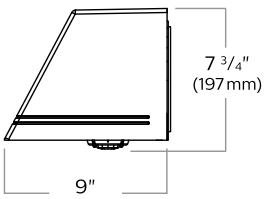




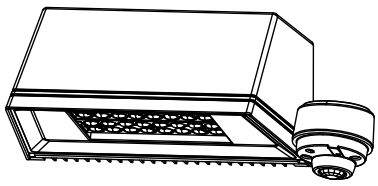
Motion Response

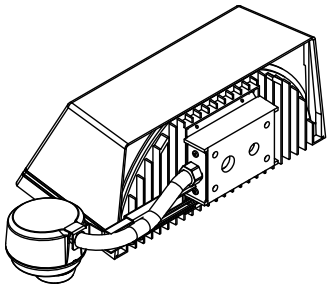


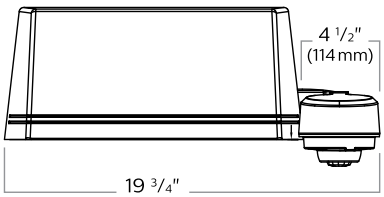


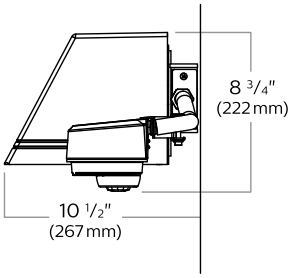


Wireless Controls









Luminaire Weights	
LED Wall Sconce 101L	**Weight**
Luminaire	13.5 lbs
Luminaire - EBPC (EM battery pack)	17.0 lbs
Luminaire - Integrated system controls	16.3 lbs

101L Sconce LED

Wall Mount

LED Wattage and Lumen Values

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Average System Watts[1]	Type 2			Type 3			Type 4		
					Lumen Output[1,2]	BUG Rating	Efficacy (LPW)	Lumen Output[1,2]	BUG Rating	Efficacy (LPW)	Lumen Output[1,2]	BUG Rating	Efficacy (LPW)
101L-16L-530-NW-G1	16	530	4000K	28	2944	B1-U0-G0	106	2687	B1-U0-G1	97	2747	B1-U0-G1	99
101L-16L-700-NW-G1	16	700	4000K	37	3789	B1-U0-G1	103	3458	B1-U0-G1	94	3535	B1-U0-G1	96
101L-16L-1000-NW-G1	16	1000	4000K	55	5050	B1-U0-G1	92	4609	B1-U0-G1	84	4712	B1-U0-G1	86
101L-16L-1200-NW-G1	16	1200	4000K	65	5744	B2-U0-G1	89	5242	B1-U0-G2	81	5359	B1-U0-G2	83
101L-32L-530-NW-G1	32	530	4000K	52	5698	B2-U0-G1	110	5200	B1-U0-G2	100	5316	B1-U0-G2	102
101L-32L-700-NW-G1	32	700	4000K	70	7242	B2-U0-G1	103	6609	B1-U0-G2	94	6757	B1-U0-G2	96
101L-32L-1000-NW-G1	32	1000	4000K	107	9797	B2-U0-G1	92	8941	B2-U0-G2	84	9140	B2-U0-G2	86

LED Wattage and Lumen Values (Emergency Mode)[3]

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Ave. System Watts (charging mode)	Type 2	Type 3	Type 4
101L-16L-NW-EBPC	16	N/A	4000K	14	1345	1228	1255
101L-32L-NW-EBPC	32	N/A	4000K	14	1754	1600	1636

1. Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
2. Lumen values based on photometric tests performed in compliance with IESNA LM-79.
3. For emergency EBPC option, publish values are based on initial lumens.

Luminaire options

DD: 0-10V dimming driver with leads supplied through back of luminaire (for secondary dimming controls by others).

Dynadimmer Automatic Profile Dimming: Automatic dimming profiles (CS50/CM50/CE50) offer safety, median, or economy settings, for shorter or longer duration. Dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. 50% dimming is standard. DA50 offers 50% instantaneous dimming all night (during all dark hours). 75% and 25% dimming is also available if different light levels are required (contact Technical Support for details).

Profile	Dimming		
	Schedule	Duration	Level
Economy	9 PM - 6 AM	9 hours	50%
Median	10 PM - 6 AM	8 hours	50%
Safety	11 PM - 6 AM	7 hours	50%
Reactive 50	all night	dynamic	50%

TLRD5: Twist Lock Receptacle with 5 pins enabling dimming, can be used with a twistlock photoelectric cell or a shorting cap. Can also be used with Philips or third party control system.

TLRD7: Twist Lock Receptacle with 7 pins enabling dimming and additional functionality, can be used with twistlock photoelectric cell or a shorting cap. Can also be used with Philips or third party control system.

TLRDPC: Receptacle with twistlock photoelectric cell (must specify voltage). Receptacle located on top of luminaire housing.

IMRI2, IMRI3: Infrared Motion Response Integral (IMRI). IMRI module is mounted integral to the luminaire door and is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges (see charts for approximate detection patterns). Motion response used in combination of Dynadimmer and SiteWise are not programmable and used to override controllers schedule when motion is detected. When used not combined with any controller, IMRI is set/operates in the following fashion: The motion sensor is set to a constant 25%. When motion is detected by the PIR sensor, the luminaire returns to 100% light output. Dimming on low is factory set to 25% with 5 minute default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 75%, to 25% of the normal constant wattage reducing the light level. IMRI can also be specified with automatic profile dimming for the added benefit of a combined dimming profile with sensor detection, where the PIR sensor will override the dimming profile when occupancy is detected. Passive infrared (PIR) motion sensor, WattStopper FSP-211, equipped with lens choice specified. Available from 120V to 277V input only. Motion sensor off state power is 0.0 watts. The FSP-211 can also be reprogrammed with WattStopper's FS1R-100 remote programming tool accessory.

DCC: Dual Circuit Control permits separate switching of 32L models only, where a quantity of (2) 16 LED modules are controlled independently by use of two sets of leads, one for each module.

SW

SiteWise option is a fully integrated controller that connects to Philips SiteWise system in order to offer a complete area lighting management system. The communication signal is based on Philips patented central dimming technology. SiteWise delivers it deliver optimal energy savings using your site's existing cabling. No additional wiring required, installation and commissioning are simple. An intuitive, mobile app makes it easy for authorized users to set schedules to meet site specific lighting needs, local regulations, and energy codes

Wireless system: 101L luminaires are available with optional wireless controllers ready to be connected to a Limelight system (sold by other). The system allows you to Wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely.
Based on a high density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless System can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor.

101L Sconce LED

Wall Mount

Specifications

Housing

Main body cast housing and back plate made of a low copper die cast Aluminum alloy for a high resistance to corrosion, 0.100" (2.5mm) minimum thickness. Hinged door allows access to driver and LED compartment.

Mounting

Mounting is completed through integral back plate that features a separate recessed feature for hook and lock quick mount plate that secures with two set screws from bottom of luminaire. Mounting plate is located in the center of the luminaire width and 3.5" above the luminaire bottom (lens down position). Luminaire ships fully assembled, ready to install.

Light Engine

Composed of 4 main components: Heat Sink / LED Module / Optical System / Driver. Electrical components are RoHS compliant. IP66 sealed light engines. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

Heat Sink

Integral door/heat sink design made of low copper die cast Aluminum alloy for a high resistance to corrosion.

LED Module

Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000K nominal (+/- 275K), CRI 70 Min. Available in other color temperatures including Cool White, 5700K and Warm White, 3000K.

SiteWise Network System

SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using Philips patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. SiteWise is available with motion response options in order to bring the light back to 100% when motion is detected. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems.

Hardware

All exposed screws shall be stainless and/or corrosion resistant and captive.

Optical System

The advanced LED optical systems provide IES Types 2, 3, 4. Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark sky compliant with 0% uplight and U0 per IESNA TM-15.

Driver

High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Surge Protection

Each luminaire is provided as standard with surge protector (Philips designed SP1) tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/5kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High Test Level 10kV / 5kA.

Wiring (supplied by others)

Splices must be made in the junction box.

Finish

Five standard colors offered in textured black, white, bronze, dark gray and medium gray. Color in accordance with the AAMA 2604 standard. Application of polyester powder coat paint 2.5 mils minimum. The thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. RAL and custom color matching available.

LED Products Manufacturing Standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with EC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

LED Useful Life

Luminaire Useful Life accounts for LED lumen maintenance. Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, LED LM-80/TM-21, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Certifications and Compliance

cULus Listed for Canada and USA suitable for wet locations when mounted downward facing. cULus Listed for Canada and USA suitable for damp locations when inverted upward facing when mounted in covered ceiling application. Emergency Battery Pack option is tested and listed to UL924 and CSA C22.2 No. 141-10 DesignLights Consortium qualified on models as listed on DLC QPL. Luminaire is rated for operation in ambient temperature of -40°C (-40°F) up to +40°C (+104°F).

Limited Warranty

5-year limited warranty. See philips.com/warranties for details and restrictions.
Visit our eCatalog or contact your local sales representative for more information.

Brett Kelver

From: Wyffels, Michelle <WyffelsM@trimet.org>
Sent: Tuesday, January 30, 2018 3:07 PM
To: Brett Kelver
Subject: Re: Milwaukie High School TriMet comments

Sorry. Maybe I should have had that coffee after all. The stop is west of the intersection, next to the track.

Ignore the highlights, they were updates from the previous version.

Sent from my iPhone

On Jan 30, 2018, at 3:00 PM, Brett Kelver <KelverB@milwaukieoregon.gov> wrote:

> Michelle,
>
> Thanks for sending your comments so quickly.
>
> To clarify, do you mean the TriMet stop about 390 ft west of 27th Ave? Near one end of the athletic field and track?
>
> And are the yellow-highlighted portions of the standards you attached the ones that the applicant will need to address in particular?
>
> **BRETT KELVER**
> Associate Planner
>
> ---
>
> **From:** Wyffels, Michelle [mailto:WyffelsM@trimet.org]
> **Sent:** Tuesday, January 30, 2018 1:57 PM
> **To:** Brett Kelver <KelverB@milwaukieoregon.gov>
> **Subject:** Milwaukie High School TriMet comments
>
> In response to MMC Chapter 19.700 Public Facility Improvements-
>
> TriMet operates an eastbound bus stop on SE Washington St about 390' east of SE 27th Ave (Stop ID 6152). This stop has an average of 2 people per day getting on and 1 person per day getting off. I would like to retain this stop at this location and for the project to provide front and back door landing pads to allow for an ADA-compliant boarding area (see attached standards).
>
> Thank you,
>
> <image001.jpg>
> **MICHELLE WYFFELS**
> Planner II
> TriMet
> 1800 SW 1st Ave., Suite 300, Portland, OR 97201
> **Office:** 503-962-2180 **Email:** wyffelsm@trimet.org

Note: This is page 1 of 38 pages in Chapter 23. For the complete text, contact Planning staff.

CHAPTER 23 – BUS FACILITIES

23.1 GENERAL

This chapter provides bus-related standards and guidelines to be used in the design of multi-modal streets. These standards are typical for applications along existing and proposed bus transit service routes in the Metropolitan Portland region. Freeway-type bus facilities and Central City situations, which encompass a variety of special conditions, are not included.

These requirements may sometimes conflict with the needs of automobile, bicycle, or pedestrian traffic. Such conflicts should be addressed during the roadway design process. Roadway designers are encouraged to work with TriMet on a case-by-case basis to evaluate the trade-offs inherent with multi-modal street design.

The standards emphasize the importance of incorporating adequate bus stop provisions, pedestrian connections, and passenger amenities in project design and construction. Awareness of the intricacies of bus operations and the demands of other modes of transportation will encourage development of designs that are responsive to all users.

23.2 REFERENCES, STANDARDS, REGULATIONS, CODES, GUIDELINES

A. TriMet

1. *Design Criteria*, Chapter 2 - Civil
2. *Design Criteria*, Chapter 5 - Landscaping
3. *Design Criteria*, Chapter 6 - Stations
4. *Design Criteria*, Chapter 11 - Electrical System
5. *Design Criteria*, Chapter 13 - Communications
6. *Design Criteria*, Chapter 17 - Parking Facilities
7. *Design Criteria*, Chapter 18 - Sustainability
8. *Design Criteria*, Chapter 19 - Public Art
9. *Design Criteria*, Chapter 24 - Security
10. *Design Criteria*, Chapter 25 - Signage and Graphics
11. *Design Criteria*, Chapter 27 - Lighting
12. *Design Criteria*, Chapter 28 - Amenities
13. TriMet Directive Drawings

B. Industry

1. Transportation Research Board, *Highway Capacity Manual*

C. Federal, State, Local

1. ADA Guidelines
2. Metro ‘Green Streets’
3. City of Portland
   a. *Transit Preferential Streets Program Sourcebook*
   b. *Pedestrian Design Guidelines Handbook* (PBOT)
4. Applicable jurisdictional codes

Brett Kelver

From: Amos, Matt <Matt.Amos@clackamasfire.com>
Sent: Friday, February 02, 2018 3:11 PM
To: Brett Kelver
Subject: CSU-2017-007, VR-2017-012, P-2017-001

Good afternoon Brett,

Clackamas Fire has no additional comments on this request.

Thank you

Matt Amos
Fire Inspector | Fire Prevention
direct: 503.742.2661
main: 503.742.2600

To Safely Protect & Preserve Life & Property

CLACKAMAS FIRE DISTRICT #1
www.clackamasfire.com

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Brett Kelver

From: Ray Bryan <ray1bryan2@gmail.com>
Sent: Monday, February 12, 2018 7:36 AM
To: Brett Kelver
Cc: Mike Park; k1ein23; Tom Madden; Donald S
Subject: High School CSU Application
Attachments: Land Use Committee Comments.docx

Hello Brett,

Here are our comments and questions. Please let me know if you have any questions.

Thank you,
Ray

Historic Milwaukie NDA Land Use Committee Comments and Questions

We would first like to acknowledge the School District and their partners for their extraordinary efforts to work with the NDA on the design of the parking lot south of Willard. After hearing our concerns it is our understanding that the parking lot is not included in this application and will be submitted as a separate CSU in the future.

The Historic Milwaukie land use committee did meet to discuss this application. This is a long application and there may be information included that answers some of our questions which we did not find or were not able to fully interpret. If that is the case we appreciate your patience. In no particular order are our questions and comments.

Reader Board:

An Electronic Reader Board Facing Willard. Where exactly will it be located and what is the intended use? For students? The public? What hours will it be on, how bright, etc.? We are not necessarily opposed to the reader board, but they are generally not allowed in residential areas and we would like more information.

New Parking Lot:

A new parking lot will be constructed north of Willard. One of the neighboring properties is separated by only a cyclone fence. It seems reasonable to us that there would be some sort of fence/screening to mitigate the impacts of the head lights and noise for those who live next to the new parking lot.

The new parking lot also includes a garbage- recycling space located near the applicant's east property line. It is unclear to us just what that facility includes, but if it were to include a large dumpster(s), requiring weekly or more frequent servicing we believe a better location can be found that is further way from so many sleeping people.

Invasive species on the hillside to the east of the parking lot and along the entire property line were addressed at the time the all-weather field football/soccer field was given a CSU approval. They are beginning to get out of control and we think it only reasonable that another longer term effort should be made to keep them at bay.

Loading Zone:

We are not really sure of what is going on with the area adjacent to Willard St. There is a 100 foot loading zone and a bus queuing facility. We have questions on what it will look like. What is happening with the run off from the new pavement? Are landscaping requirements being met? What will a pedestrian experience trying to cross Willard St in front of the school? We also questioned how the existing conditions on Willard St to the east will blend into the newly configured Willard along school property. How many busses are expected to line up?

Lake Road Improvements:

Will there be bike lanes matching the improvements made by TriMet when constructing the Orange line? Is there a reasonable way to retain the planting strip between the curb and sidewalk rather than constructing a curb tight sidewalk? There are some very large trees in this area; will the proposed changes adversely impact any them?

Transportation Impacts:

What does this statement found on page 33 of the application mean? "The Applicant has not been required to provide a transportation Impact Statement however other land use applications have been proposed. The City will therefore review the proposed improvements to the public facility improvements as part of this application package"

Anyone who lives nearby or regularly frequents the area before or after schools are in session will admit the situation could be improved. The combination of buses, cars, pedestrians, and bicyclists result in a chaotic mix. The additional parking lots on Willard will result in added trips.

We are asking the school district and the city of Milwaukie to consider increasing the safety for those wanting to walk and bike to school. For every student who walks there will be one less car on the street. Flashing crosswalk signals on Washington at 27th and Lake Rd at 23rd and 27th may just be the added security needed to allow more parents to feel it is safe enough to let their kids walk to school.

Transportation Memo:

The Transportation Memo on page 136 appears to be the reason you do not have a traffic impact study in front of you. This memo has some glaring errors that warrant deeper investigation into its conclusions.

Willard does not intersect Lake Road and Willard does not have continuous sidewalks on both sides. Speed limits shown in the memo are relevant only during school hours.

The Memo addresses "Peak hour" trips as defined by traffic engineers but are not as relevant to this application as are trips to and from the new parking lot before and after school. Movements by school buses, cars staying on sight, and cars dropping off before and after school should be included.

Good Neighbor Agreement:

The construction of the new High School will have significant impacts to those living nearby. For these reasons we are asking for a good neighbor agreement between the school district and the neighbors. The purposes for this agreement are to foster communication and help protect the livability for the neighbors. It could include information on who to contact, construction hours, and other concerns brought by either party.

Public Benefits:

In 2016 Milwaukie voters helped approve a multimillion dollar bond measure. Our children and their education is a top priority to the Historic Milwaukie NDA. Significant reasons for approving the bond are the seismic improvements being made. That is also a major reason we are facing building a new Milwaukie High School. We believe that the public would greatly benefit if there was a dedicate location in the school to serve as storage for disaster and triage supplies. We do not ask the school district to make disaster plans beyond the scope of their responsibility for their students, but a storage area could beneficial to both the school and larger community.

You can see we are significantly impacted by not only the construction of the new building, but also the day to day impacts of increased traffic from the new parking lots and loading zone. Some of us have may have needed to modify our budget to pay for the bond measure.

Thank you for considering our requests and providing answers to our questions.

Ray Bryan

For the Historic Milwaukie Land Use Committee

Brett Kelver

From: Tom <soccerdmd@gmail.com>
Sent: Sunday, February 25, 2018 10:01 PM
To: andrew.tull@3j-consulting.com; Brett Kelver
Cc: soccerdmd@gmail.com; Sue Walker
Subject: Proposed modification of Milwaukie High School

As a business/property owner within the proposed development site of Milwaukie HS I have some comments and concerns I wish to be addressed.
Specifically, as I'm sure you are aware, there are several medical and dental offices in very close proximity to the site which COULD be greatly impacted during the construction phase of the proposed development. Our greatest concern (which TriMet addressed during the Max orange line construction) is being able to provide 24/7 access (and according to the American with Disabilities Act "ADA" standards) for our patients.
All members of the medical/dental community experience "emergency" calls (often weekend or evenings) and unencumbered SAFE access to our offices is a must. As many patients are elderly and wheelchair bound, they require easy and safe dropoff at curbside near our facilities.
As mentioned, TriMet addressed these concerns and complied with ADA standards during the lengthy light rail construction period and I'm sure you will also be able to communicate with affected businesses and also comply.
Though I may not be able to attend the next upcoming meeting, please include these issue on the meeting agenda if possible. Feel free to contact me anytime if I can be of assistance

Thank you
Thomas Bachhuber, Jr DMD

Sent from mobile

MEMORANDUM

TO: Community Development Department

THROUGH: Charles Eaton, Director of Engineering

FROM: Alex Roller, Engineering Technician II

RE: High School Replacement – 2301 SE Willard Street
CSU-2017-007

DATE: March 5, 2018

Major modifications to High School site – demolition and replacement of main classroom building, replacement of softball field with new parking lot, relocation of the existing tennis courts from Willard and 25th to Rowe Middle School, and reconfiguration of Willard Street to provide for bus loading and unloading.

1. MMC Chapter 12.08 – Street & Sidewalk Excavations, Construction, and Repair

   A. This will apply to all construction that is completed in the right-of-way. The public improvement process will follow MMC 12.08.020.

2. MMC Chapter 19.700 – Public Facility Improvements

   The Planning Commission finds that the following complies with applicable criteria of MMC Chapter 19.700.

   A. MMC Chapter 19.700 applies to partitions, subdivisions, new construction, and modification or expansion of an existing structure or a change or intensification in use that result in any projected increase in vehicle trips or any increase in gross floor area on the site.

      The applicant proposes to demolish the existing classroom building, construct a building that is significantly larger, and reconfigure the uses on the site, all of which result in an intensification of use of the site and a projected increase in vehicle trips. The development triggers the requirements of MMC Chapter 19.700.

      MMC 19.700 applies to the proposed development.

   B. MMC Section 19.703 Approval Criteria

      19.703.1 Preapplication Conference

      Requirement for a preapplication conference was satisfied on June 12th, 2017.

      19.703.2 Application Submittal

      Transportation Facility Review is required.

      19.703.3 Approval Criteria

      Applicant will provide transportation improvements and mitigation in accordance with the standards in 19.700 and the Public Works Standards.

Provided transportation improvements and mitigation at the time of development must be in rough proportion to the potential impacts of the development per 19.705.

The proposed development, as conditioned, is consistent with MMC 19.703.3.

19.703.4 Determination

Impact Evaluation: The Engineering Director has determined that there is an impact to the transportation system. The applicant has provided sufficient information for the Engineering Director to determine the Impacts to the transportation system.

Street Design: The applicant's proposal for an 18-foot half street design does not fully comply with City Standards. The additional proposal to allow on street loading and unloading through a combination of designated loading area and utilization of on-street parking can be accomplished through additional mitigation requirements.

C. MMC Section 19.704 Transportation Impact Evaluation

The Engineering Director has determined that the applicant has provided enough information for the Engineering Director to properly evaluate the proposed development's impacts and the Engineering Director has determined there is an impact to the transportation system by the development.

Although the existing site use is a high school, and will continue to remain a high school, there is an expected trip increase of 42 pm peak hour trips from the construction of an additional 43,376 square feet. The Engineering director has determined that there is enough data to determine the new impact to the surrounding transportation system, based on the preapplication information, therefore a transportation impact study (TIS) was not required.

MMC 19.704 does not apply to the proposed development.

D. MMC Section 19.705 Rough Proportionality

19.705.1 requires that transportation impacts of the proposed development be mitigated as determined by the Engineering Director.

19.705.2 provides guidelines for rough proportionality as follows:

A. Condition and capacity of existing facilities within the impact area in relation to City standards. The impact area is generally defined as the area within a 1/2-mile radius of the proposed development. If a TIS is required pursuant to Section 19.704, the impact area is the TIS study area.

B. Existing vehicle, bicycle, pedestrian, and transit use within the impact area.

C. The effect of increased demand associated with the proposed development on transportation facilities and on other approved, but not yet constructed, development projects within the impact area.

D. The most recent use when a change in use is proposed that does not involve new construction.

E. Applicable TSP goals, policies, and plans.

F. Whether any route affected by increased transportation demand within the impact area is listed in any City program including, but not limited to, school trip safety, neighborhood traffic management, capital improvement, and system development improvement.

G. Accident history within the impact area.

H. Potential increased safety risks to transportation facility users, including pedestrians and cyclists.

I. Potential benefit the development property will receive as a result of the construction of any required transportation facility improvements.

J. Other considerations as may be identified in the review process. (Ord. 2025 § 2, 2011)

The Engineering Director has determined that the proposed development triggers mitigation of impacts beyond the required frontage improvements. The proposed development has potential impacts to Washington Street, 23rd Avenue, Adams Avenue, 21st Avenue, 27th Avenue, Willard Street, 25th Avenue, and Lake Road. The impacts are significant; however, the surrounding transportation system is anticipated to continue to operate at the level of service prior to the proposed development. The majority of the impacts are anticipated on Willard Street, 25th Avenue, Lake Road, and 27th Avenue primarily due to the reconfiguration of available parking for the development. The existing pedestrian circulation system is incomplete and has barriers, non-compliant ramps and sidewalks and gaps within the existing system. The bicycle system is incomplete or non-existent. All surrounding streets are identified on the City's adopted Bicycle and Pedestrian Program. Lake Road is identified within the Bicycle Master Plan, the transportation system is based on residential, local traffic with the exception of Lake Road, which is identified in the City's Transportation System Plan and Metro's Regional Transportation Plan for capital improvements; and Washington Street which is designated a Collector. The addition of expanded bus loading and unloading utilizing the public right-of-way creates additional impacts to Willard Street and the construction of new parking facilities creates impacts to Willard Street, 23rd Avenue, and 25th Avenue. In addition, the intersections of 27th and Willard, Willard and Lake, and 27th and Lake will also be impacted.

The applicant is proposing a half street improvement of 18-feet only along a portion of the development's frontage. The applicant has indicated that a 9-foot parking area is required for the bus loading and unloading which extends past the applicant's frontage on Willard to 27th Avenue.

The proposed community service use is not constant with the traffic impacts associated from the underlying residential use without mitigation.

Rough proportionality guidelines A, B, C, E, F, H, I, and J apply.

The proposed development, as conditioned, meets the minimum requirements to provide for mitigation to be consistent with MMC 19.705.

E. MMC Section 19.708.1 requires that all development comply with access management, clear vision, street design, connectivity, and intersection design and spacing standards.

19.708.1.A – Access Management

Access requirements shall comply with access management standards contained in Chapter 12.16.

MMC Chapter 12.16 – Access Management

The Planning Commission finds that the following complies with applicable criteria of MMC Chapter 12.16.

A. MMC Chapter 12.16.040 establishes standards for access (driveway) requirements.

12.16.040A: requires that all properties be provided street access with the use of an accessway.

The proposed development is consistent with MMC 12.16.040A.

12.16.040B: Access spacing onto arterial and collector streets.

The proposed development is not modifying its access onto Washington Street. Development is consistent with MMC 12.16.040B.

12.16.040C: Accessway Locations

1: Double Frontage

Site is maintaining its accessway that is located on Washington Street which is a collector street. Other accessways are proposed on local streets SE Willard, SE 23rd. The proposed development is consistent with MMC 12.16.040.C.1.

3: Distance from property line

Proposed driveways will conform to 12.16.040.C.3 through Condition of Approval G1.

4: Distance from Intersection

a: Proposed site plan is proposing accessways that are outside of the 45-foot spacing requirement from adjacent intersections.

The proposed development is consistent with MMC 12.16.040.C.4.a.

The existing accessway on Washington Street is currently not conforming to the accessway spacing requirement for a collector. The proposed development is not modifying this accessway is consistent with 12.16.040.C.4.c.

12.16.040D: Number of Accessway Locations

1: Safe access

Proposed accessway for the southwest parking lot will direct traffic towards Lake Road and away from the other accessways serving the site. The new driveway to the east parking lot must be located directly opposite the approved alignment of 25th Avenue.

The proposed driveway will conform with MMC 12.16.040.D.1 through Condition of Approval E.

2-3: Does not apply to this development, as no new accessways are on arterials or collectors are proposed.

12.16.040E & 12.16.040F: Accessway Design - ADA standards & Width

Proposed driveways will conform to 12.16.040.E & 12.16.040.F through compliance with the Public Works Standards.

19.708.1.B – Clear Vision

Clear vision requirements shall comply with clear vision requirements contained in Chapter 12.24.

MMC Chapter 12.24 – Clear Vision at Intersections

The Planning Commission finds that the following complies with applicable criteria of MMC Chapter 12.24

A. 12.24.030: clear vision requirements

Proposed driveways, accessways and intersections will conform to 12.24.030 through compliance with the Public Works Standards.

19.708.1.D – Development in Non-Downtown Zones

Dedication requirements will be addressed in this section. All required improvements will be addressed under MMC 19.708.2.

The majority of the transportation system consists of local network. The CSU proposed is not consistent with local street standards in all respects without additional mitigation of impacts.

The existing right-of-way width of SE Willard Street fronting the majority of the proposed development is 50 feet. The Milwaukie Transportation System Plan and Transportation Design Manual classify the fronting

portions of SE Willard Street a local street. According to Table 19.708.2 Street Design Standards, the required right-of-way width for a local street is between 20 feet and 68 feet depending on the required street improvements. The required improvements for SE Willard Street will fit in a 50-foot right-of-way. The applicant is not responsible for any right-of-way dedication along the north side of SE Willard Street fronting the development property. Applicant is electing to dedicate 13-feet for a portion of the north side of the right-of-way to accommodate a bus loading lane, and still maintain curb tight sidewalk. The applicant is also proposing to dedicate 2.5 feet of right-of-way to accommodate bus parking along the remainder of Willard Street. This design will comply with City standards. Applicant is responsible for a dedication of right-of-way along that portion of the property that is on the south side of SE Willard Street that currently has tennis courts on it. The right-of-way along this portion is undetermined. The applicant will need to dedicate right-of-way to provide for 25-feet half right-of-way.

The existing right-of-way width of SE 25th Avenue fronting proposed development is 50 feet. The Milwaukie Transportation System Plan and Transportation Design Manual classify the fronting portions of SE 25th Avenue a local street. According to Table 19.708.2 Street Design Standards, the required right-of-way width for a local street is between 20 feet and 68 feet depending on the required street improvements. The required improvements for SE 25th Avenue will fit in a 50-foot right-of-way. However, 25th is a permanent dead-end street without an approved turnaround, additional right-of-way for construction of a cul-de-sac that will be required at the south end of SE 25th Avenue. Applicant will be responsible for dedication to accommodate a cul-de-sac that will fit in a 60-foot right-of-way width.

The existing right-of-way width of SE Lake Road fronting proposed development is undetermined as there are discrepancies between the tax map, site plan, and surveys. The Milwaukie Transportation System Plan and Transportation Design Manual classify the fronting portions of SE Lake Road an arterial street. According to Table 19.708.2 Street Design Standards, the required right-of-way width for an arterial street is between 54 feet and 89 feet depending on the required street improvements. The required improvements for SE Lake Road will fit in a 73-foot right-of-way. Applicant is responsible for a dedication of 36.5-foot half right-of-way on the Lake Road frontage.

Applicant is also proposing the dedication of a half right-of-way, 25-feet, for SE Adams Street on the west side of the property in accordance with the requirements of 19.708. This is to connect the end of SE 23rd Avenue with SE Adams street for pedestrian access.

The applicant has proposed right-of-way vacation along the intersection of 23rd Avenue and Willard Street, this can comply with the minimum requirements providing a 50-foot right-of-way width is maintained on Willard/23rd.The City also has identified the possible vacation of right-of-

way south of Adams Street, approximately 154 feet of SE 23rd Avenue's right-of-way.

Development shall conform to MMC 19.708.1.D.3 through Condition of Approval A.

The proposed development, as conditioned, is consistent with MMC 19.708.1.D.

19.708.1.E – Street Layout & Connectivity

MMC 19.708.1.E.4

Existing SE 25th Avenue is a permanent dead end, and an extension of this street through to SE Lake Road would violate minimum intersection spacing on arterial streets. Applicant will be required to construct a turnaround at the south end of SE 25th Avenue.

SE Adams Street and SE 23rd Avenue dead end to the site. The applicant has proposed a dedication to connect these two street with pedestrian access.

The proposed development will conform to MMC 19.708.1.E.4 through Condition of Approval **Error! Reference source not found.**~~B.6 and B.7~~.

19.708.1.F – Intersection Design and Spacing

The proposal does not change the current uses non-conforming condition, but does bring it closer to compliance with the Adams Street dedication.

F. MMC Section 19.708.2 establishes standards for street design and improvement.

The proposal includes several non-conforming elements that require additional mitigation.

The applicant is proposing to construct frontage improvements on the north side of SE Willard Street along the site's frontage, in accordance with 19.708 and consisting of a 10.5-foot curb-tight sidewalk, curb & gutter, and widening of the roadway 9-feet to accommodate a bus loading zone. This design exceeds local minimum street standards. The remaining SE Willard frontage with bus parking is proposed with 5-foot sidewalk, curb & gutter, and 4-foot landscape strip. This satisfied minimum street standards.

The frontage improvements do not provide for any connectivity to the existing pedestrian system on 27th Avenue as city standard improvements are not present east of the development. Applicant is also proposing to include bus parking east of the development without city standard improvements. Applicant to provide 6-foot curb-tight sidewalk with curb and gutter to provide for an 18-foot half street along the remaining north side of Willard Street to 27th Avenue to mitigate for these impacts.

The applicant is proposing to construct frontage improvements on the west side of SE 23rd Street between SE Willard and SE Lake along the

site's frontage, in accordance with 19.708. Applicant is proposing to construct a 5-foot sidewalk, curb & gutter, and 4-foot landscape strip. This satisfied minimum street standards.

The applicant is proposing to construct frontage improvements on the north side of SE Lake Road along the site's frontage consisting of an 8-foot curb-tight sidewalk with an 18-foot half street. This does not satisfy the minimum street standards for Lake Road. The required improvements are as follow: 6-foot setback sidewalk and 5-foot landscape strip (or 8-foot curb-tight sidewalk), curb & gutter, with a curb location that will vary to accommodate the taper for a left turn lane at 23rd Avenue (24.5-feet half street width).

Applicant is not proposing to construct frontage improvements in front of the southeast portion of the parcel that currently has tennis courts on it. The required improvements for the Willard Streets frontage and SE 25th Avenue frontage are as follow: 5-foot setback sidewalk, 5-foot landscape strip (or 6-foot curb-tight sidewalk), curb & gutter. This will also include the ADA ramps at the intersection of SE 25th Avenue and SE Willard Street. Parking can be waived on the east side of SE 25th Street to align the travel lanes with the driveway to south end of SE 25th Avenue. The south end of SE 25th Avenue improvement will include a turn-around that will fit in a 60-foot right-of-way.

Right-of-way improvements will conform to 19.708.2 through Condition of Approval B.

G. MMC Section 19.708.3 requires sidewalks to be provided on the public street frontage of all development.

The construction of sidewalks along the proposed development property abutting all public rights-of-way is included in the street frontage requirements, except as follows:

> The applicant is proposing to provide for a pedestrian connection from 23rd Avenue to Adams Street.
>
> The applicant is not proposing any sidewalk work along 23rd Avenue (north of Adams Street) or along the Washington Street frontages.

Sidewalk improvements will conform to 19.708.3 through Condition of Approval D.

H. MMC Section 19.708.4 establishes standards for bicycle facilities.

The portion of SE Lake Road fronting the proposed development is classified as a bike route in the Milwaukie Transportation System Plan. As a result, bicycle facility improvements on the Lake Road frontage are required for the proposed development.

23rd/Willard Street are designated within the bicycle and pedestrian accessibility program and safe route to schools. Applicant to provide accommodation for bicycle facility improvements within this portion of 23rd

and Willard Street and indicate the circulation route to the bicycle parking provided on-site. This will require the elimination of Parking along the north side of Willard/23rd Avenue west of 25th and along the south side of Willard east of 25th Avenue.

The proposed development, as conditioned, is consistent with MMC 19.708.4.

I. MMC Section 19.708.5 establishes standards for pedestrian and bicycle paths.

The applicant has not proposed any public pedestrian and bicycle path through the site.

MMC 19.708.5 states that a pedestrian/bicycle path shall be required at least every 300 feet when a street connection is not available. The applicant has provided site improvements that meet the minimum requirements to comply with this standard.

J. MMC Section 19.708.6 establishes standards for transit facilities.

Tri-met has requested that applicant provide front and back door landing pads for the bus stop on Washington Street to allow for an ADA-compliant boarding area.

Development will comply with MMC 19.708.6 through Condition of Approval C.

Required Conditions of Approval

A. Right-of-way Requirements

1. Dedicate right-of-way on the south frontage of SE Willard Street fronting the development property to align with existing right-of-way or to provide for 50 feet of right-of-way, whichever is greater, with appropriate offset radius and sufficient radius on SE Willard/SE 25th Street intersection to accommodate ADA ramp.
2. Dedicate sufficient right-of-way on south end of SE 25th Avenue to accommodate a 42-foot diameter cul-de-sac (60-foot right-of-way).
3. Dedicate right-of-way to achieve a 36.5-foot half right-of-way on the SE Lake Road frontage, and sufficient radius at SE Lake Road/SE 23rd intersection to accommodate design vehicle and ADA ramp.
4. Dedicate 25-foot half right-of-way at the east end of SE Adams Street to connect SE 23rd Street to SE Adams Street.
5. Provide for right-of-way vacation of that portion of SE 23rd Avenue/Willard Street to provide for 50-feet of right-of-way.
6. Provide for right-of-way vacation of that portion or 23rd Avenue, south of Adams Street. Easements will be maintained for utilities and vehicular turnaround.

B. Frontage Improvements

1. Construct frontage improvement proposed along Willard Street/23rd Avenue.
2. Construct 6-foot curb-tight sidewalk, curb & gutter, and 18-foot half street travel way for the remaining portion Willard along the north side to 27th Avenue.
3. Construct -foot set-back sidewalk, 3-foot planter strip, curb & gutter, and 32-foot full street for SE 23rd Street frontage between Lake and Willard.
4. Construct 8-foot curb-tight sidewalk, curb & gutter, and varying width roadway that will accommodate a left turn lane for the intersection of 23rd Avenue and Lake Road along the Lake Road frontage.
5. Construct 5-foot set-back sidewalks, 4-foot planter strips, curb & gutter, and 28-foot full street for the SE 25th frontage.
6. Construct a 42-foot diameter cul-de-sac (60-foot right-of-way) at the south end of SE 25th Avenue.
7. Construct stairs and a pedestrian connection from the end of SE 23rd (on north frontage), to the east end of SE Adams Street.

C. Construct landing pads at bus stop on Washington Street.

D. Remove ADA barriers and reconstruct non-compliant sidewalk access ramps along the applicant's frontage of Washington Street and 23rd Avenue.

E. New driveway shall be aligned with the approved alignment of 25th Avenue.

Additional Information

F. Prior to building permits, the following shall be resolved:

1. Provide an erosion control plan and obtain an erosion control permit. One permit will cover on-site as well as right-of-way work. If the total disturbed area is over 5 acres that applicant must obtain a 1200C from the Oregon Department of Environmental Quality.
2. Submit a storm water management plan to the City of Milwaukie Engineering Department for review and approval. The plan shall be prepared in accordance with Section 2 – Stormwater Design Standards of the City of Milwaukie Public Works Standards. Private properties may only connect to public storm system if percolation tests show that infiltration cannot be obtained on site. In the event the storm management system contains underground injection control devices, submit proof of acceptance of the storm system design from the Department of Environmental Quality.
3. Submit full-engineered plans for construction of all required public improvements, reviewed and approved by the City of Milwaukie Engineering Department or provide a performance guarantee for all required public Improvements reviewed and approved by the Engineering Department.

a. Installation of all underground utilities, including stubs for utility service, must be done prior to surfacing any streets.

4. Obtain a right-of-way permit for construction of all required public improvements listed in these recommended conditions of approval or provide a performance guarantee for all required public Improvements reviewed and approved by the Engineering Department.
5. Pay an inspection fee equal to 5.5% of the cost of the public improvements.
6. Provide a payment and performance bond for 100 percent of the cost of the required public improvements.

G. Prior to building permits, the following shall be resolved:

1. Construct all crosswalks, sidewalks and driveway approaches to meet all guidelines of the Americans with Disabilities Act (ADA). The driveway approach aprons shall be between 12 feet and 36 feet in width and least 7.5 feet from the side property line, in accordance with the Public Works Standards.
2. Clear vision areas shall be constructed and maintained at all driveways and accessways and on the corners of all property adjacent to an intersection in accordance with the Public Works Standards.
3. Provide a final approved set of Mylar and electronic PDF “As Constructed” drawings to the City of Milwaukie prior to final inspection.
4. Remove all signs, structures, or vegetation in excess of three feet in height located in “vision clearance areas” at intersections of streets, driveways, and alleys fronting the proposed development.

Brett Kelver

From: BROOKING Joshua C <Joshua.C.BROOKING@odot.state.or.us>
Sent: Tuesday, March 06, 2018 6:28 PM
To: Brett Kelver
Cc: BROOKING Joshua C
Subject: FW: CSU-2017-007 Milwaukie High School Application Referral

Hi Brett,

This slipped through the cracks and I forgot to follow up and I noticed that the Hearing is next week. ODOT has no comments on the proposal. Let me know if you have and questions or comments. Cheers!

Josh

Joshua Brooking
Planner
Region 1, Planning
Oregon Department of Transportation
503.731.3049
joshua.c.brooking@odot.state.or.us

From: SMITH David R
Sent: Monday, January 29, 2018 6:10 AM
To: BROOKING Joshua C
Cc: SMITH David R
Subject: RE: CSU-2017-007 Milwaukie High School Application Referral

Josh – I don't recall this high school demo/reconstruct project. The one I remember was on 21st between Jefferson and Monroe.

In any event, although the # of students will increase, the high school is well outside the SSD, the adjacent street network is set up to accommodate the school (school zones, crosswalks, and so forth), and the rail crossings have been recently upgraded to include louvers on the traffic signal for better compliance and conspicuity and additional striping (cross-hatching) also for better compliance. It does not appear as though traffic flow patterns will shift as a result of the new high school being built in place of the existing building.

ODOT Rail & Public Transit Crossing Safety Unit (RPTD) does not have further comment to add at this time.

Thank you for the opportunity to comment.

David R Smith

Oregon Department of Transportation

ODOT Rail & Public Transit
Crossing Safety Unit
Mill Creek Building
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Email: David.R.SMITH@odot.state.or.us

From: BROOKING Joshua C
Sent: Friday, January 26, 2018 4:47 PM
To: SMITH David R
Subject: FW: CSU-2017-007 Milwaukie High School Application Referral

Hi David,

If you recall, this was put on our radar a few months ago, but we never actually received anything… I've done a cursory review of the materials and it does not appear that the City required any traffic analysis. Also, it does not appear there is any impacts to the railroad/MAX line. As noted in the materials, the school currently offers space for 1,200 students. The new school/remodel is anticipated to provide capacity for an additional 300 students for a total of 1,500 students.

Can you please review and determine if you have any comments? Thanks in advance!

Josh

Joshua Brooking
Planner
Region 1, Planning
Oregon Department of Transportation
503.731.3049
joshua.c.brooking@odot.state.or.us

From: Alicia Martin [mailto:MartinA@milwaukieoregon.gov]
Sent: Friday, January 26, 2018 2:41 PM
To: Alma Flores; Alex Roller; Samantha Vandagriff; Dennis Egner; tim.ramis@jordanramis.com; Peter Passarelli; Jason Wachs; k1ein23@comcast.net; mlpark2001@gmail.com; nmskip@gmail.com; ray1bryan2@gmail.com; tmadden00@gmail.com; Heavytech77@gmail.com; paul.hawkins@daimler.com; kenken@co.clackamas.or.us; Paulette.Copperstone@oregonmetro.gov; Region 1 DEVREV Applications; Liden
Cc: Brett Kelver
Subject: CSU-2017-007 Milwaukie High School Application Referral

Greetings,

Please see the link below to find the Application Referral and Materials for land use application CSU-2017-0007 for Milwaukie High School at 2301 SE Willard/11300 SE 23rd Ave. Hard copies of the application will be distributed accordingly.

If you have any questions, please feel free to contact Brett Kelver at 503-786-7657 or kelverb@milwaukieoregon.gov.

https://www.milwaukieoregon.gov/planning/csu-2017-007

Thank you.

ALICIA MARTIN
Administrative Specialist II, Community Development