

OREGON CITY SCHOOL DISTRICT
MASTER PLAN
OREGON CITY HIGH SCHOOL AND TRANSPORTATION MAINTENANCE FACILITY CAMPUS
■
SITE PLAN AND DESIGN REVIEW
PROPOSED TRANSPORTATION MAINTENANCE FACILITY

ADDENDUM F – ZONING CODE RESPONSES

Responses to Zoning Code Chapters as Itemized in “Determination of Application Incompleteness” dated 1/13/2015

CHAPTER 17.65 MASTER PLANS

17.65.050.C.6. The proposed general development plan is consistent with the Oregon City Comprehensive Plan and its ancillary documents.

See the following responses:

Policy 1.2.1

Encourage citizens to participate in appropriate government functions and land-use planning.

The School District met with the Caulfield Neighborhood Association on Tuesday, January 27, 2015 to present the proposed new Transportation Maintenance Facility and to garner input re: its design and community impact. In addition, the District solicited input from the Neighborhood Association regarding the existing High School’s presence in the area. A summary of the Neighborhood Association’s input follows:

- 1) Neighborhood Association attendees expressed concerns re: bus traffic during peak hours of the day. Mike Ard (Lancaster Engineering) shared that during peak hour there would be very few transportation vehicles in the area.*
- 2) Attendees were adamantly concerned about the lack of adequate parking at the High School and the resulting on-street spillover of parked vehicles. The District shared that part of the master planning was to look at non-conforming existing uses and that the City of Oregon City has not only a minimum standard but a maximum limit. We assured the neighborhood association that the District easily meets the minimum and if required to remove parking that parking far away from the houses on Meyers Road would be taken offline. The District has scheduled a meeting with the Meyers Road neighbors to examine the situation first hand, discuss possible solutions, and then meet with City of Oregon City staff to find agreeable actions.*
- 3) Attendees expressed concerns re: young drivers’ sometimes careless entry onto Meyers Road. The District has scheduled a meeting with the Meyers Road neighbors to examine the situation first hand, discuss possible solutions, and then meet with City of Oregon City staff to find agreeable actions.*

Refer to the letter from the Neighborhood Chair regarding the Neighborhood Association’s position re: the proposed Master Plan and new Transportation Maintenance Facility design. (A copy is included in Addendum C - NEIGHBORHOOD ASSOCIATION CONCERNS/SIGN IN SHEET.)

Goal 1.4 Community Involvement

Provide complete information for individuals, groups, and communities to participate in public policy planning and implementation of policies.

School District (Applicant) has held an informational meeting with the affected Caulfield Neighborhood Association (on Tuesday, January 27, 2015).

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Policy 1.4.1

Notify citizens about community involvement opportunities when they occur.

School Board meetings are broadcast on the community access cable channel and each month a project update is given keeping viewers current regarding the project. Also, the district will continue to use its social media presence to communicate information concerning the project.

As noted above, the affected neighborhood association has also been contacted. In addition, the Construction Manager/General Contractor for the new Transportation Maintenance Facility has an effective plan for encouraging local subcontractors and suppliers to participate in the construction process.

See Construction Manager/General Contractor's "Buy Local" plan on the following pages.

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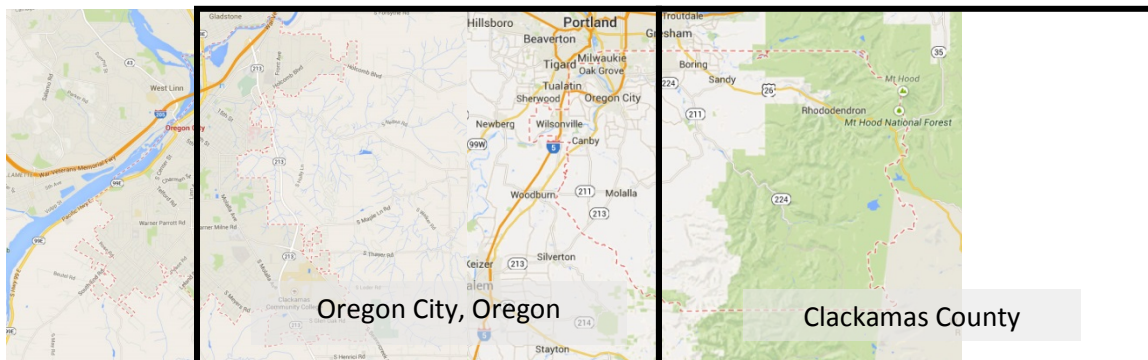
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Buy Local Program

Objective: Apply the intent of “Buy Local” when bidding the Oregon City SD TMF14 (TMF14) and Oregon City Public Library Renovation and Expansion (OCPL) projects.

What is Local? P&C defines a “Buy Local” business as a business that uses real property for a commercially useful function, pays City taxes, fees, and utility charges within Clackamas County, with a focus on Oregon City, Oregon.



STRATEGY:

- | | | | |
|--|--|---|--|
| <ul style="list-style-type: none"> • Increase local vendor's awareness of the bid opportunity | <ul style="list-style-type: none"> • Collect information about the capabilities & capacity of local vendors | <ul style="list-style-type: none"> • Encourage all bidders to team up with local vendors & suppliers | <ul style="list-style-type: none"> • Keep prices down by increasing local & overall bid participation |
|--|--|---|--|

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Key Actions:

- ✓ Contact businesses in the “Buy Local” areas and inform them about the bid opportunity
- ✓ Inform all potential vendors about the goal to use local contractors & suppliers
- ✓ Collect information about prospective bidders’ capability and their capacity
- ✓ Encourage teaming between subcontractors & local subcontractors and/or suppliers
- ✓ Keep prospective bidders up-to-date & interested in the bid opportunity
- ✓ Divide scope of work into “smaller” bid packages to allow small to mid-size firms to participate
- ✓ Become an active member in the Oregon City Chamber of Commerce and promote project participation to applicable chamber members

Five Steps to “Buy Local” Success:

Step 1: INCREASE AWARENESS

TARGETED EMAIL CAMPAIGNS: Compile a list of “Buy Local” businesses. Approximately 30 days before P&C official request for bids, P&C will call and send emails broadcasting the “we want local” message to encourage local involvement.

COORDINATION WITH TRADITIONAL MEDIA & STAKEHOLDERS: A notice of the upcoming projects and request for local subcontractors and suppliers and the scope of work will be advertised in the Daily Journal of Commerce, trade publications, plan centers, local publications.



OUTREACH & PREBID MEETINGS: P&C will hold multiple subcontractor and supplier meet and greets in Oregon City to introduce P&C and our local awareness program to all interested firms. City officials, School District Representatives, and P&C Project Managers will emphasize the City and School District’s commitment to local participation. We will have a set of preliminary design documents available at the meetings to review as needed.

DESIGNATE STAFF TO ANSWER QUESTIONS: P&C’s Beverly (Bev) Ray will provide technical assistance to any subcontractor or supplier interested in bidding on the project. Technical assistance will include, but is not limited to, explaining State of Oregon bonding and licensing requirements for public projects, outlining P&C’s insurance requirements, reviewing P&C’s billing procedures, and discussing payment and performance bonding procedures that may be required by P&C. In addition, P&C’s Chief estimator, Les Jacobson, will be available at all times during the subcontractor bidding timeline to answer any bidding or estimating technical questions.

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Step 2: COLLECT INFORMATION FROM INTERESTED BIDDERS

METHOD TO STORE AND COLLECT DATA: Firm name, email address, and scope of capabilities will be collected through emails from responses to ads and sign-in sheets at “meet and greets”.

Step 3: KEEP POTENTIAL BIDDERS UPDATED

AUTOMATIC PROJECT UPDATES: Businesses added to our database will be emailed and called to inform them of project meetings, where to get bid documents, and other important information. Each email update will encourage local businesses to bid the project.

Step 4: ENCOURAGE LOCAL CONTENT AND COLLECT BID INFORMATION

SUBMATCH TEAMING PROGRAM: P&C will call and email registered businesses asking if they either (1) are a local business interested in bidding to other businesses or (2) a business interested in getting bids FROM local businesses. Bidders that are not located in the “Buy Local” area sometimes hire local vendors or buy material from local suppliers.

Step 5: COMMUNICATE RESULTS TO OREGON CITY SD AND THE CITY

PRESENT RESULTS: P&C will deliver a report presenting the number of bids awarded to Local and non-Local firms and their dollar amounts.

3D Electric- Oregon City

A-Absolute Comfort Heating & Cooling, Inc. - Oregon City

Adventure Trucking- Oregon City

Affinity Steel- Oregon City

American Welding Services Inc- Oregon City

Arrieta's Concrete, Inc. - Oregon City

Beko Mechanical Insulation- Oregon City

Bell Heating, LLC- Oregon City

Bill Erickson Heavy Construction- Oregon City

Bourke Construction Inc. - Oregon City

Cindy's Concrete LLC- Oregon City

Clapa Mechanical LLC- Oregon City

Coffman Excavation- Oregon City

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Collins Mechanical Inc. - Oregon City
Darin Brooks Greenhouse Construction- Oregon City
Diversified Installations, Inc. - Oregon City
Eagle Plumbing- Oregon City
Eagle's View Construction II, LLC- Oregon City
Floorcovering Specialist- Oregon City
Life Rax Co- Oregon City
Mike Patterson Plumbing- Oregon City
Oregon City Garage Door- Oregon City
Oregon Rebar- Oregon City
Oregon Scenic & Lighting- Oregon City
Pacific Northwest Rebar- Oregon City
Pacwest Drywall- Oregon City
Parker Northwest Paving Co- Oregon City
Parkin Electric- Oregon City
Performance Electric- Oregon City
Portland Electric- Oregon City
Precision Roof Truss- Oregon City
Quality Building Services- Oregon City
River City Glass- Oregon City
Service Master Clean- Oregon City
SI Contracting, Inc. - Oregon City
T&L Manufacturing- Oregon City
Thermo Industries- Oregon City
Western Sign- Oregon City
Western States Fire Protection Company- Oregon City

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Goal 2.1 Efficient Use of Land

Ensure that property planned for residential, commercial, office, and industrial uses is used efficiently and that land is developed following principles of sustainable development.

The available site area is being maximized in its use while avoiding intrusion into the wetlands located at the northern portion of the Transportation Maintenance Facility site area. The overall School District Site concentrates building and parking areas in order to free up much of the property for use as open play fields.

In addition photovoltaic solar panels are included at both the current high school facility and the new transportation and maintenance facility.

Goal 2.4 Neighborhood Livability

Provide a sense of place and identity for residents and visitors by protecting and maintaining neighborhoods as the basic unit of community life in Oregon City while implementing the goals and policies of the other sections of the Comprehensive Plan.

The existing High School, by its very nature, provides a sense of place as a focal educational destination for many residents of Oregon City. This sense of place is further enhanced by the various play fields which are heavily used by the community.

The new proposed Transportation Maintenance Facility is designed to serve as a flagship for future development (by others) in the Campus Industrial area to the west. Constructed of quality materials, this attractive facility could serve as a standard of quality for future industrial facilities to meet.

Goal 2.6 Industrial Land Development

Ensure an adequate supply of land for major industrial employers with family wage jobs.

At the time of its opening, the proposed new Transportation Maintenance Facility will employ an estimated 65 bus drivers, 3 bus mechanics, 2 dispatchers, 4 Transportation staff, and 10 Maintenance staff.

Policy 2.6.2

Ensure that land zoned or planned for industrial use is used for industrial purposes, and that exceptions are allowed only where some other use supports industrial development. New non-industrial uses should especially be restricted in already developed, active industrial sites.

The portion of the District's property zoned Campus-Industrial will be the site of the new proposed Transportation Maintenance Facility. While not industrial in use, this educational support facility does share many similarities with potential industrial uses that are expected to develop in the area. These include:

Securely fenced vehicle storage areas

Staff parking area

A building housing maintenance and repair activities

Policy 2.6.3

Protect the city's supply of undeveloped and underdeveloped land zoned for industrial uses by limiting non-industrial community uses, such as schools, parks, and churches on such properties and by limiting larger commercial uses within those areas.

The Campus-Industrial zoned site area will not be used for community uses or for any commercial (or retail) enterprises.

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Policy 5.4.3

Identify, initiate and cooperate in partnerships with other jurisdictions, businesses, neighborhoods, schools and organizations to conserve and restore natural resources within and adjacent to Oregon City.

Required tree mitigation (triggered by the removal of trees on the new Transportation Maintenance Facility) is proposed to occur at the Oregon City High School Site and at Holcomb Elementary School. The District is also discussing how it can assist Oregon City Parks with the planting of future trees at the proposed city park located directly south (across from the proposed Meyers Road extension). In addition twenty-five (1 ½" caliper) trees will be donated to the Eastham Arbor Day Event.

Policy 5.4.5

Ensure that riparian corridors along streams and rivers are conserved and restored to provide maximum ecological value to aquatic and terrestrial species. This could include an aggressive tree and vegetation planting program to stabilize slopes, reduce erosion, and mitigate against invasive species and stream impacts where appropriate.

Refer to ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49 (prepared by Pacific Habitat).

Policy 5.4.6

Support and promote public education, interpretation, and awareness of the city's ecological resources.

The existing wetlands are being preserved at the north end of the Transportation Maintenance Facility site. Because of its close proximity to the High School, science programs can take advantage of the wetlands as a "laboratory" to educate students and encourage sound ecological management.

Policy 5.4.8

Conserve natural resources that have significant functions and values related to flood protection, sediment and erosion control, water quality, groundwater recharge and discharge, education, vegetation and fish, and wildlife habitat.

Refer to ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49 (prepared by Pacific Habitat).

Policy 5.4.11

Maintain and enhance the function and quality of natural wetlands and create, where appropriate, wetlands or swales to moderate the quantity and velocity of water runoff entering streams during storm events and to reduce the amount of pollutants carried into streams.

As noted elsewhere, the existing wetlands are being preserved and buffered from planned construction on the site.

Policy 6.4.1

Provide for noise abatement features such as sound-walls, soil berms, vegetation, and setbacks, to buffer neighborhoods from vehicular noise and industrial uses.

Due to its location, the new Transportation Maintenance Facility is isolated from local neighborhoods by a substantial distance.

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Policy 9.8.4

Promote “shared parking” and transportation demand management techniques such as transit vouchers, car or van pooling, and flexible schedules and telecommuting options to reduce peak hour trips.

A primary purpose of the new proposed Transportation Maintenance Facility is to support the transportation of students to and from school and other school related activities, thus reducing the need for other means of student transport to and from school. Employees of the facility are scheduled to arrive and to depart the facility at non-peak hours. Refer to Addendum D – Final Traffic Impact Report (Revised Exhibit C) prepared by Lancaster Engineering.

The staff/visitor parking lot is envisioned to be available to public park goers on off-hours. The District is in discussion with the City Parks Department to develop an agreement to formalize this arrangement. The District encourages its employees to carpool whenever possible.

Policy 12.1.1

Maintain and enhance citywide transportation functionality by emphasizing multi-modal travel options for all types of land uses.

The new proposed Transportation Maintenance Facility supports the School District’s student transportation system including buses and smaller van transports.

Policy 12.6.1

Provide a transportation system that serves existing and projected travel demand.

The goal of the new Transportation Maintenance Facility is to meet the needs of current and future projected bus routes.

Policy 12.6.4

Identify and prioritize improved connectivity throughout the city street system.

Meyers Road will be extended westward.

Goal 13.1 Energy Sources

Conserve energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities, and activities.

The proposed new Transportation Maintenance Facility will be designed to meet or exceed current Oregon Energy Codes. In addition, photovoltaic solar panels will be included.

17.65.070.D. Approval Criteria. A request for an adjustment to one or more applicable development regulations under this section shall be approved if the review body finds that the applicant has shown the following criteria to be met.

As noted elsewhere, the following adjustments are requested:

- Adjustment 1) Allow installation of 30 foot high light poles in bus storage area in order to provide sufficient lighting with minimal shading between buses.*
- Adjustment 2) Allow use of modified (vinyl coated) chain link fencing at north, east and west perimeters of the developed Site area. Consider modified chain link fencing fronting Meyers Road with suitable landscape screening.*
- Adjustment 3) Allow building to be set back from Street frontage/Meyers Road as shown on accompanying site plan.*

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- Adjustment 4) Due to shop functions, relax any building façade transparency requirements along High School Avenue (should it become the Loder Road extension); limit transparency requirements to frontage along Meyers Road only.*
- Adjustment 5) Allow one bus entrances/exit and one bus exit only off Meyers Road as illustrated on accompanying Site Plan. See attached Site Plans for bus traffic patterns.*
- Adjustment 6) Meyers Road Extension to match existing Meyers Road ROW width.*
- Adjustment 7) Bicycle ridership at the High School has, since its construction, been low, due perhaps to both Oregon City's rainy climate and its students' general disinterest in this mode of transportation.*
- Given the historic underutilization of the existing bicycle parking spaces at the High School, applicant requests that the City not require additional spaces to meet the existing non-conforming Zoning Code requirements at this time.*
- Applicant proposes a phased approach to increasing bicycle parking spaces as popularity of this option of travel increases and bicycle parking demand is demonstrated.*
- Adjustment 8) Maximize the quantity of vehicle parking spaces in order to better satisfy parking demand at the Site(s) and address Neighborhood complaints/concerns.*
- Adjustment 9) Permit adjustment to Section 17.49.155 as described in ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49*

1. Granting the adjustment will equally or better meet the purpose of the regulation to be modified;

- Adjustment 1) Allowing installation of 30 foot high light poles in bus storage area will improve security and not impose negative light pollution. Fewer fixtures will be required with the increased pole height and thus reduce energy use.*
- Adjustment 2) Allowing use of modified (vinyl coated) chain link fencing at north, east and west perimeters of the developed Site area can be mixed with decorative elements to provide an attractive character comparative to other decorative fencing alternatives.*
- Enhanced landscaping along perimeter fencing (at East, South and West) will include shrubbery to further mute the appearance of the fencing.*
- Adjustment 3) Allowing the building to be set back from Street frontage/Meyers Road is necessitated in order to:*
- a. Isolate secured bus/vehicle storage areas from the public staff parking.*
 - b. Provide dual sided ingress/egress of vehicles at shop areas.*
 - c. Provide public domain with staff parking and front entrance to office areas at south portion of the site. Also, relieve parking congestion on High School Avenue due to simultaneous sporting events on the High School sports fields. Special events parking could be available to the City Parks Department during non-employee use.*

The geometry of the site precludes a solution that positions the building at a closer setback.

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- Adjustment 4) Relaxation of building façade transparency requirements to frontage along Meyers Road only does not affect public perception of the building since High School Avenue is not a public right-of-way at this time.*
- Adjustment 5) Allowing one bus entrances/exit and one bus exit only off Meyers Road as illustrated on accompanying Site Plan does not constitute any negative impact. The time of exiting of buses versus the time of entry differ. Although the 2 driveways are closer together, only one driveway is being used at any given time, and, thus, traffic conflicts are not anticipated.*
- Adjustment 6) Meyers Road Extension to match existing Meyers Road ROW width will provide consistent character of the street.*
- Adjustment 7) The existing bicycle parking spaces at the High School are (and always have been) sufficient in number and very underutilized. Other transportation options have been more acceptable to students. Providing additional bicycle parking spaces at the High School will not effectively encourage more bicycle use. Applicant proposes phasing the addition of more bicycle parking spaces as the need for them is demonstrated.*
- Adjustment 8) Maintaining the existing parking on the High School Site will avoid increasing neighborhood concerns regarding on-street parking demands on streets neighboring the High School. Provision of new parking at the Transportation Maintenance Facility Site will alleviate parking demands generated by High School Play Field events and potential parking needs for future City Park events/activities.*
- Adjustment 9) See ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49*

2. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project that is still consistent with the overall purpose of the zone;

The proposed Transportation Maintenance Facility will be compatible with the neighboring Campus Industrial development to the west and is well buffered to the north. The staff/visitor parking at the facility is easily accessed by the public off-hours from the east and will aid in alleviating parking demand by visitors to events on the High School play fields. A future City Park is planned for development to the south of the Transportation Maintenance Facility (across the Meyers Road extension) and park visitors too can use the facility's staff/visitor parking on off-hours. The staff/visitor parking is located at the intersection of Meyers Road and High School Avenue in order to be easily visible and accessible to would-be users. Finally, with the staff/visitor parking nearest to Meyers Road, users of that end of the future Glen Oak Park will have more visual openness as they look in that direction versus the view of an industrial building directly across from the park.

3. City-designated Goal 5 resources are protected to the extent otherwise required by Title 17

Open space at the High School will be preserved.

No work will impact the delineated wetland at the north end of the Transportation Maintenance Facility site. The Natural Resource Overlay Zone areas will not be impacted.

4. Any impacts resulting from the adjustment are mitigated; and

Adjustment 1) Increase in pole height is offset by reduced number of poles required.

Adjustment 2) Visibility of black vinyl fencing material is diminished by enhanced landscaping (shrubbery) placed in front of fence.

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- Adjustment 3) Increased building setback is mitigated by enhanced landscaping and public use of the Transportation Maintenance Facility's staff/visitor parking lot.*
- Adjustment 4) Glass sectional doors are being used at shop bay openings in order to maximize transparency facade facing along High School Avenue even though High School Avenue is a private driveway.*
- Adjustment 5) Timing of bus arrivals and departures effectively make the use of these two driveways independent of each other.*
- Adjustment 6) Meyers Road width will be consistent with existing road to the east.*
- Adjustment 7) The demonstrated demand for bicycle parking spaces is far less than the number of spaces already provided. (The availability of the existing parking spaces has not proven to encourage more bicycle usage.) Providing additional bicycle parking would be phased if and when parking demand increases.*
- Adjustment 8) Maximizing off-street parking will help mitigate current parking demand and Neighborhood Association's concerns regarding current parking shortages.*
- Adjustment 9) See ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49.*

5. If an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable. (Ord. 03-1014, Att. B3 (part), 2003)

The proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable. The proposed construction of the Transportation Maintenance Facility will not encroach into the delineated wetland or its 50 foot buffer. Impact on areas of the site within the Natural Resource Overlay Zone are minimized.

See attached ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49 prepared by Pacific Habitat for additional information.

6. The proposed adjustment is consistent with the Oregon City Comprehensive Plan and ancillary documents.

17.65.090 - Regulations that apply. An applicant is entitled to rely on land use regulations in effect on the date its general development plan application was initially submitted, pursuant to ORS 227.178(3), as that statute may be amended from time to time. After a general development plan is approved, and so long as that General Development Plan is in effect, an applicant is entitled to rely on the land use regulations in effect on the date its general development plan application was initially submitted, as provided above, when seeking approval of detailed development plans that implement an approved general development plan. At its option, an applicant may request that a detailed development plan be subject to the land use regulations in effect on the date its detailed development plan is initially submitted.

The construction of the Oregon City High School and its associated site development (parking, landscaping, play fields, etc.) were in compliance with the zoning codes and Conditional Use approvals at the time.

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CHAPTER 17.37 (CI) CAMPUS INDUSTRIAL DISTRICT

17.37.020 Permitted Uses.

The following uses may occupy up to one hundred percent of the total floor area of the development, unless otherwise described:

- A. Experimental or testing laboratories;
- B. Industrial uses limited to the design, light manufacturing, processing, assembly, packaging, fabrication and treatment of products made from previously prepared or semi-finished materials
- C. Public and/or Private educational or training facilities
- D. Corporate or government headquarters or regional offices with fifty or more employees.
- E. Computer component assembly plants
- F. Information and Data processing centers
- G. Software and Hardware development
- H. Engineering, architectural and surveying services
- I. Non-commercial, educational, scientific and research organizations
- J. Research and development activities
- K. Industrial and professional equipment and supply stores, which may include service and repair of the same
- L. Retail sales and services, including eating establishments for employees (I.E. a café or sandwich shop), located in a single building or in multiple buildings that are part of the same development shall be limited to a maximum of 20,000 square feet or 5% of the building square footage, whichever is less, and the retail sales and services shall not occupy more than 10% of the net developable portion of all contiguous Industrial Lands.
- M. Financial, insurance, real estate, or other professional offices, as an accessory use to a permitted use, located in the same building as the permitted use and limited to ten percent of the total floor area of the development. Financial institutions shall primarily serve the needs of businesses and employees within the development, and drive-through features are prohibited.
- N. Utilities: basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- O. Transportation facilities

The use of the proposed Transportation Maintenance Facility conforms to Permitted Use C above (Public and/or Private educational or training facilities).

17.37.040 Dimensional Standards.

Dimensional standards in the CI district are:

- A. Minimum lot area: no minimum required.

The 10+ acre lot area is acceptable per CI District dimensional standards.

- B. Maximum building height: except as otherwise provided in subsection B (1) of this section building height shall not exceed forty-five feet.

Proposed building height equals 28 feet.

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C. Minimum required setbacks:

1. Front yard: twenty feet minimum setback;
2. Interior side yard: no minimum setback;
3. Corner side yard: twenty feet minimum setback;
4. Rear yard: ten feet minimum setback.

Proposed setbacks for the new Transportation Maintenance Facility greatly exceed the required setback listed above:

- 1) *Front Yard (South): 275'-0".*
- 2) *Interior Side Yards: 96'-0" (East); 309'-6" (West)*
- 3) *Corner Side Yard: Not applicable.*
- 4) *Rear Yard: 443'- 0" (North):*

D. Buffer zone: If a use in this zone abuts or faces a residential use, a yard of at least twenty-five feet shall be required on the side abutting or facing the adjacent residential or commercial zone in order to provide a buffer area, and landscaping thereof shall be subject to site plan review

Proposed new Transportation Maintenance Facility does not abut a residential use.

E. If the height of the building exceeds forty-five feet, as provided in subsection B (1) of this section for every additional story built above forty-five feet, an additional twenty-five foot buffer shall be provided.

The building height does not exceed forty-five feet and the project does not abut a residential use.

17.37.050 Development Standards.

All development within the CI district is subject to the review procedures and application requirements under Chapter 17.50, and the development standards under Chapter 17.62. Multiple building developments are exempt from the setback requirements of Chapter 17.62.055. In addition, the following specific standards, requirements and objectives shall apply to all development in this district. Where requirements conflict, the more restrictive provision shall govern:

A. Landscaping. A minimum of fifteen percent of the developed site area shall be used for landscaping. The design and development of landscaping in this district shall:

1. Enhance the appearance of the site internally and from a distance;
2. Include street trees and street side landscaping;
3. Provide an integrated open space and pedestrian system within the development with appropriate connections to surrounding properties;
4. Include, as appropriate, a bikeway, pedestrian walkway or jogging trail;
5. Provide buffering or transitions between uses;
6. Encourage outdoor eating areas conveniently located for use by employees;
7. Encourage outdoor recreation areas appropriate to serve all the uses within the development.

62.75 % of the Oregon City School District overall property is landscaped and/or open playfields. 41.1 % of the new Transportation Maintenance Facility site (bounded by Meyers Road extension on south and High School Avenue on the east) is landscaped. This includes the delineated wetland, the buffer to the wetland, and the site adjacent to parking areas. Refer to accompanying Landscape Drawings.

- 1) *The new landscaping enhances the site by providing a variety of tree and shrub types.*
- 2) *Street trees and street side landscaping is provided along Meyers Road extension and a portion of High School Avenue. (See Sheet L1.2 – Tree Mitigation Plan – High School Site.)*

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- 3) *Refer to Site Plans for routing of pedestrian pathways on the High School Campus which connects the High School facility to adjoining playfields and sidewalks along Meyers Road.*
 - 4) *Refer to Site Plans for routing of pedestrian pathways on the High School Campus which connects the High School facility to adjoining playfields and sidewalks along Meyers Road.*
 - 5) *Landscaping at the proposed new Transportation Maintenance Facility provides appropriate and suitable buffering and transitions between uses. To the North, trees in the wetland provide a dense buffer and separation between the bus/vehicle storage area and the neighboring Clackamas Community College. To the South, significant new plantings of trees and shrubs block view of the bus/vehicle storage area and appropriate landscaping is proposed at the staff/visitor parking lot perimeter (both at the South and at the East). New trees and shrubs are proposed at the east perimeter of the site to buffer views from High School Avenue and the High School play fields of the Transportation Maintenance Facility. At the West side of the site, a single row of evenly spaced trees is planted as a buffer between this site and the CI-Zoned neighboring property. Refer to Landscape Drawings, Sheets L1.0 – Planting Schedule and Notes and Sheet L1.1 – Planting Plan.*
 - 6) *An outdoor patio at the west side of the building provides a convenient outdoor staff eating area directly accessible from the Drivers’ Break Room.*
 - 7) *The outdoor patio serves as an outdoor recreational area for employees’ use.*
- C. **Parking.** No parking areas or driveways, except access driveways, shall be constructed within the front setback of any building site or within the buffer areas without approved screening and landscaping.
Staff/Visitor Parking lot is screened within the front setback and the buffer areas with appropriate landscaping. See Landscape Drawings, Sheets L1.0 – Planting Schedule and Notes and Sheet L1.1 – Planting Plan.
- D. **Fences.** Periphery fences shall not be allowed within this district. Decorative fences or walls may be used to screen service and loading areas, private patios or courts. Fences may be used to enclose playgrounds, tennis courts, or to secure sensitive areas or uses, including but not limited to, **vehicle storage areas**, drainage detention facilities, or to separate the development from adjacent properties not within the district. Fences shall not be located where they impede pedestrian or bicycle circulation or between site areas.
Fencing is proposed to secure vehicle storage areas as permitted by this article.
- E. **Signs.** One ground-mounted sign may be provided for a development. Other signage shall be regulated by Title 15.
One ground mounted monument sign is proposed at the corner of Meyers Road and High School Avenue to identify the new Transportation Maintenance Facility.
Other signage will be conform to Title 15 requirements.
- F. **Outdoor Storage and Refuse/Recycling Collection Areas.**
Refer to information below.

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1. No materials, supplies or equipment, including company owned or operated trucks or motor vehicles, shall be stored in any area on a lot except inside a closed building, or behind a visual barrier screening such areas so that they are not visible from the neighboring properties or streets. No storage areas shall be maintained between a street and the front of the structure nearest the street;
Materials, supplies, equipment, buses and other vehicles will be stored within the fenced compound. An emergency generator and its back-up fuel storage tank will also be located within the fenced area.
2. All outdoor refuse/recycling collection areas shall be visibly screened so as not to be visible from streets and neighboring property. No refuse/recycling collection areas shall be maintained between a street and the front of the structure nearest the street.
Refuse/recycling collection areas are also located within the fenced compound.

CHAPTER 17.62 – SITE PLAN AND DESIGN REVIEW

17.62.050 STANDARDS.

A. All development shall comply with the following standards:

1. Landscaping, A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.

Area of Landscaping far exceeds the 15% minimum.

Landscaped Area at High School: 57%. (including play fields).

Landscaped Area at Transportation Maintenance Site: The landscape area at the Transportation Maintenance Facility site is 41.1% of the total site SF.

Overall Site: 441,785SF

Landscape Area (excluding parking islands): 181,529SF

Percent of Site that is landscaped: 41.1%

Existing native vegetation within the wetland and within the 50 ft. wetland buffer will be retained. New native wetland appropriate trees will be added to the wetland buffer. All nuisance plants noted on the Oregon City Nuisance Plant list will be removed from the site. (See Addendum A - NROD APPLICATION AND RESPONSES TO CHAPTER 17.49.)

- a. Except as allowed elsewhere in the Zoning and Land Division Chapters of this code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to 25% of the overall required landscaping may be approved by the Community Development Director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070) .

Reduction of landscaped areas is not being requested.

- b. The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within 3 years will cover 100% of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The Community Development Department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.

The landscaping plans have been prepared by an Oregon State registered landscape architect (Walker Macy). The landscape will comprise a mix of trees, shrubs and groundcovers. (Refer to Sheets L1.0 – Planting Schedule and Notes and Sheet L1.1 – Planting Plan for listing of plantings and locations.)

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As a partial mitigation of trees being removed, additional trees will also be planted at the High School (see attached Drawing L1.2 – Tree Mitigation Plan – High School) and at Holcomb Elementary School (see attached Drawing L1.3 – Tree Mitigation Plan – Holcomb Elementary School).

Within 3 years from final completion of the project, 100% of the landscape area will be covered by growing plant material. No mulch will be used on the project unless it is under the canopy of shrubs or within two feet of a trees trunk. All plants shall be selected from the Oregon City approved plant material list.

- c. Landscaping shall be visible from public thoroughfares to the extent practicable.**

Landscaping at the High School Portion of the Site is visible from Beaver Creek Road and Meyers Road.

Landscaping at the Transportation Maintenance Site will be visible along the Meyers Road extension. (Landscaping will also be visible from the High School playfields and High School Avenue.) Landscaping along the western perimeter will be visible from properties owned by others to the west.

- d. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.**

Landscaping area calculations do not include interior parking lot landscaping.

2. Vehicular Access and Connectivity.

- a. Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.**

Staff/visitor parking is located at front of building to provide required separation from bus traffic and to provide convenient usage by athletic field spectators (to the east) and by users of the City Park being developed to the south.

- b. Ingress and egress locations on public thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.**

One-way ingress & one-way egress of buses and emergency vehicles occurs on south end of the Site (at Meyers Road Extension). This ingress/egress couplet is separated by 160 feet. Although less than the usually prescribed 175 feet, it must be noted that vehicle traffic in and out of the site is typically scheduled at discrete different times.

Ingress/egress of staff/visitor parking occurs off the less trafficked private drive portion of High School Avenue.

Gated entries along the private drive portion of High School Avenue provide occasional access to Maintenance Department and delivery vehicles and are not intended for public access.

- d. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection.**

Driveway to staff/visitor parking is located off High School Avenue, thus avoiding entry on/off of the new Meyers Road extension.

- g. Development of large sites (more than two acres) shall be required to provide existing or future connections to adjacent sites through the use of a vehicular and pedestrian access easements where applicable.**

Adjacent sites are not currently developed nor has the City's Transportation Systems Plan been amended to reflect public right of ways in the surrounding area to the south and west.

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No access easements are proposed. Access is made available with construction of extension of Meyers Road which provides access for vehicles, bicycles and pedestrians

9. A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:

a. Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.

Sidewalks are provided to link the main building entrance to both Meyers Road and High School Avenue. See Site Plans for locations.

b. The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.

Sidewalks are provided to link the main building entrance to both Meyers Road and High School Avenue. See Site Plans for locations.

f. On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

Sidewalks connecting the main entry to Meyers Road and High School Avenue are 6 feet wide and have curbs bordering the staff/visitor parking area. Curb ramps are provided to access ADA accessible parking spaces' side aisles.

17.62.065 - Outdoor lighting.

2. Lighting Plan Requirement

All commercial, industrial, mixed-use, cottage housing and multi-family developments shall submit a proposed exterior lighting plan. The plan must be submitted concurrently with the site plan. The exterior lighting plan shall include plans and specifications for streetlights, parking lot lights, and exterior building lights. The specifications shall include details of the pole, fixture height and design, lamp type, wattage, and spacing of lights.

See Sheet LUEL0.2 – Site Plan Lighting for Site Lighting Plan and light fixture information. Refer to Sheet LUEL0.2P for Lighting Photometrics.

3. Excepted Lighting

The following types of lighting are excepted from the requirements of this Section.

- a. Residential lighting for single-family attached and detached homes, and duplexes.

Residential lighting not applicable

- b. Public street and right-of-way lighting.

Public street lighting at Meyers Road Right of Way to be City Standard.

- c. Temporary decorative seasonal lighting provided that individual lamps have a light output of 60 watts or less.

Decorative seasonal lighting will have light output of 60 watts or less.

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- d. Temporary lighting for emergency or nighttime work and construction.
The need for temporary lighting for emergency or nighttime work and construction to be determined.
- e. Temporary lighting for theatrical, television, and performance areas, or for special public events.
Temporary lighting for theatrical, television, and performance areas, or for special public events not anticipated at the Transportation Maintenance Facility.
- f. Lighting for a special district, street, or building that, according to an adopted municipal plan or ordinance, is determined to require special lighting aesthetics as part of its physical character.
Not applicable.
- g. Lighting required and regulated by the Federal Aviation Administration.
Not applicable.

C. General Review Standard. If installed, all exterior lighting shall meet the functional security needs of the proposed land use without adversely affecting adjacent properties or the community. For purposes of this Section, properties that comply with the design standards of Subsection D below shall be deemed to not adversely affect adjacent properties or the community.

See Photometrics of Site Lighting. Site lighting designed to avoid spill-over onto adjacent properties and not exceed 0.5FC at the site perimeter as required by Oregon City Outdoor Code 17.62.065 section D number 1.

D. Design and Illumination Standards

General Outdoor Lighting Standard and Glare Prohibition

- 1. Outdoor lighting, if provided, shall be provided in a manner that enhances security, is appropriate for the use, avoids adverse impacts on surrounding properties, and the night sky through appropriate shielding as defined in this section. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 foot-candles of light as measured at the property line. In no case shall exterior lighting add more than 0.5 foot candle to illumination levels at any point off-site. Exterior lighting is not required except for purposes of public safety. However, if installed, all exterior lighting shall meet the following design standards:
Outdoor lighting is primarily provided to enhance security. Lighting design and selection of light fixtures follows the requirement itemized above regarding impacts on surrounding properties, proper shielding, glare potential, etc.
- 2. Any light source or lamp that emits more than 900 lumens (13 watt compact fluorescent or 60 watt incandescent) shall be concealed or shielded with a full cut-off style fixture in order to minimize the potential for glare and unnecessary diffusion on adjacent property. All fixtures shall utilize one of the following bulb types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high pressure sodium with a color rendering index above 70.
See attached pole cut sheet and BUG ratings verifying compliance at end of this Addendum.
- 3. The maximum height of any lighting pole serving a multi-family residential use shall be 20 feet. The maximum height serving any other type of use shall be 25 feet, except in parking lots larger than five acres, the maximum height shall be 35 feet if the pole is located at least 100 feet from any residential use.
See luminaire schedule for height information verifying compliance and adjustment #1 as previously described.

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Lighting levels *See photometric plan (Sheet LU ELO.2P - Site Plan – Lighting Photometrics).*

Table 1-17.62.065. Foot-candle Levels

Location	Min	Max	Avg
Pedestrian Walkways	0.5	7:1 max/min ratio	1.5
Pedestrian Walkways in Parking Lots		10:1 max/min ratio	0.5
Pedestrian Accessways	0.5	7:1 max/min ratio	1.5
Building Entrances	3		
Bicycle Parking Areas	3		
Abutting property	N/A	.05	

4. Parking lots and other background spaces shall be illuminated as unobtrusively as possible while meeting the functional needs of safe circulation and protection of people and property. Foreground spaces, such as building entrances and outside seating areas, shall utilize pedestrian scale lighting that defines the space without glare.

See photometric plan (Sheet LU ELO.2P - Site Plan – Lighting Photometrics).

5. Any on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to light the walkway and enhance pedestrian safety pursuant to Table 1.

See photometric plan (Sheet LU ELO.2P - Site Plan – Lighting Photometrics).

6. Pedestrian Accessways. To enhance pedestrian and bicycle safety, pedestrian accessways required pursuant to OCMC 12.28 shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances. Lamps shall include a high-pressure sodium bulb with an unbreakable lens.

See photometric plan (Sheet LU ELO.2P - Site Plan – Lighting Photometrics).

Because public street connections for automobiles, bicycles and pedestrians are available, no pedestrian and bicycle accesways are proposed. These existing connections will be extended isofar as the Meyers Road Extension included a sidewalk on the north side of Meyers Road and bike lanes as shown on the Meyers Road Typical Section shown on Drawing LU C1.2.

7. Floodlights shall not be utilized to light all or any portion of a building facade between 10:00 pm and 6:00 am.

No floodlights are being used in the project.

8. Lighting on automobile service station, convenience store, and other outdoor canopies shall be fully recessed into the canopy and shall not protrude downward beyond the ceiling of the canopy.

The lamp is fully concealed in fixture (therefore not protruding downward beyond the ceiling of the canopy), but the fixture itself is surface mounted on the underside of the canopies.

9. The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site.

See cutsheets accompanying this Submission.

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10. In no case shall exterior lighting add more than 1 foot-candle to illumination levels at any point off-site.

See photometric plan (Sheet LU ELO.2P - Site Plan – Lighting Photometrics).

11. All outdoor light not necessary for security purposes shall be reduced, activated by motion sensor detectors, or turned off during non-operating hours.

A timeclock for the site will be used to reduce fixture output after hours. If the client wants, the parking lots can go completely dark at night. The parking lots can go completely dark at night if needed.

12. Light fixtures used to illuminate flags, statues, or any other objects mounted on a pole, pedestal, or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.

Not applicable.

13. For upward-directed architectural, landscape, and decorative lighting, direct light emissions shall not be visible above the building roofline.

Not applicable.

15. No flickering or flashing lights shall be permitted, except for temporary decorative seasonal lighting.

No flickering or flashing lights are being proposed.

16. Wireless Sites. Unless required by the Federal Aviation Administration or the Oregon Aeronautics Division, artificial lighting of wireless communication towers and antennas shall be prohibited. Strobe lighting of Wireless Communication facilities is prohibited unless required by the Federal Aviation Administration. Security lighting for equipment shelters or cabinets and other on-the-ground auxiliary equipment on Wireless Communication Facilities shall be initiated by motion detecting lighting.

Not applicable.

17. Lighting for outdoor recreational uses such as ball fields, playing fields, tennis courts, and similar uses, provided that such uses comply with the following standards:

i. Maximum permitted light post height: 80 feet.

ii. Maximum permitted illumination at the property line: 0.5 foot-candles.

Not applicable.

17.62.085: Refuse and Recycling Standards For Commercial, Industrial, and Multi-family Developments

The purpose and intent of these provisions is to provide an efficient, safe and convenient refuse and recycling enclosure for the public as well as the local collection firm. All new development, change in property use, expansions or exterior alterations to uses other than single-family or duplex residences shall include a refuse and recycling enclosure. The area(s) shall be:

- A. Sized appropriately to meet the needs of current and expected tenants, including an expansion area if necessary;

Refuse/recycling area will be large enough to contain 1 large bin for refuse and 1 small bin for recycling sized to meet the owner's needs. If needed, space to the east of proposed area is available for future expansion and landscape screening would need to be extended to match/conform to item C below.

- B. Designed with sturdy materials, which are compatible to the primary structure(s);

Per Section 17.37.050.C, fencing may be used, "...to screen sensitive areas or uses, including but not limited to, vehicle storage areas". The refuse/recycling area will be located adjacent to the southeast corner of the building behind the fenced compound/vehicle storage area and additional landscape screening to prevent visibility from Meyers Road will be provided.

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C. Fully enclosed and visually screened;

Landscape screening is proposed to screen view of trash area from Meyers Road/Public Right-of-way to the south.

D. Located in a manner easily and safely accessible by collection vehicles;

Collection vehicle will access the refuse/recycling area through 1 of 2 access driveways off High School Ave (Private Road). Refuse/Recycling area will be located at the east side of the facility between the building and covered storage area as noted on LUA0.3.

E. Located in a manner so as not to hinder travel lanes, walkways, streets or adjacent properties;

Refuse/recycling will not hinder travel lanes, walkways, streets, or adjacent properties.

F. On a level, hard surface designed to discharge surface water runoff and avoid ponding;

Refuse/Recycling Area will be on concrete or asphalt paved surface sloped at approximately 2% to allow surface water runoff while, at the same time, preventing the wheeled refuse and recycling containers from rolling.

G. Maintained by the property owner;

As noted above refuse/recycling area will be located within the fenced compound and maintained by the property owner.

H. Used only for purposes of storing solid waste and recyclable materials;

Refuse/recycling bin will be only used for storing solid waste or recyclable materials.

I. Designed in accordance with applicable sections of the Oregon City Municipal Code (including Chapter 8.20-Solid Waste Collection and Disposal) and City adopted policies.

All conditions will be met.

CHAPTER 17.52 OFF STREET PARKING

17.52.020 Number of Automobile Spaces Required.

A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per 1,000 square feet net leasable area unless otherwise stated.

<u>Table 17.52.020</u> Number of automobile spaces required. <u>LAND USE</u>	<u>PARKING REQUIREMENTS</u>	
	<u>MINIMUM</u>	<u>MAXIMUM</u>
Multi-Family: Studio	1.00 per unit	1.5 per unit
Multi-Family: 1 bedroom	1.25 per unit	2.00 per unit
Multi-Family: 2 bedroom	1.5 per unit	2.00 per unit
Multi-Family: 3 bedroom	1.75 per unit	2.50 per unit
Hotel, Motel	1.0 per guest room	1.25 per guest room
Correctional Institution	1 per 7 beds	1 per 5 beds
Senior housing, including congregate care, residential care	1 per 7 beds	1 per 5 beds

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and assisted living facilities; nursing homes and other types of group homes;		
Hospital	2.00	4.00
Preschool Nursery/ Kindergarten	2.00	3.00
Elementary/Middle School	1 per classroom	1 per classroom + 1 per administrative employee + 0.25 per seat in auditorium/assembly room/stadium
High School, College, Commercial School for Adults	0.20 per # staff and students	0.30 per # staff and students
Auditorium, Meeting Room, Stadium, Religious Assembly Building, Movie Theater	.25 per seat	0.5 per seat
Retail Store, Shopping Center, Restaurants	4.10	5.00
Office	2.70	3.33
Medical or Dental Clinic	2.70	3.33
Sports Club, Recreation Facilities	Case Specific	5.40
Storage Warehouse, Freight Terminal	0.30	0.40
Manufacturing, Wholesale Establishment	1.60	1.67
Light Industrial, Industrial Park	1.3	1.60

1. Multiple Uses. In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately.
2. Requirements for types of buildings and uses not specifically listed herein shall be determined by the community development director, based upon the requirements of comparable uses listed.
3. Where calculation in accordance with the above list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.
4. The minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of vehicles used in conducting the business or use.
5. A Change in use within an existing building located in the MUD Design District is exempt from additional parking requirements. Additions to an existing building and new construction are required to meet the minimum parking requirements for the areas as specified in Table 17.52.020 for the increased square footage.

Parking stall counts comply with above dimensions highlighted in yellow.

See LUA0.1 and LUA0.2, below parking counts are calculated to be consistent with the approved 2003 High School Land Use documents, see Exhibit B, page 10. Additional parking over and above what is

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required for the Transportation Maintenance Facility is being used to mitigate the existing High School's deficient parked condition.

B. Parking requirements can be met either onsite, or offsite by meeting the following conditions:

- 1. Mixed uses.** If more than one type of land use occupies a single structure or parcel of land, the total requirements for off-street automobile parking shall be the sum of the requirements for all uses, unless it can be shown that the peak parking demands are actually less (e.g. the uses operate on different days or at different times of the day). In that case, the total requirements shall be reduced accordingly, up to a maximum reduction of 50%, as determined by the community development director.

Parking calculated as follows:

EXISTING HIGH SCHOOL:

EXISTING HIGH SCHOOL REQUIRED PARKING
(PER OREGON CITY PLANNING CODE SECTION 17.52.020)

<i><u>MINIMUM PARKING REQUIREMENT FACTORS</u></i>	
<i>0.2 X SUM OF STAFF+STUDENTS (250 + 2,500 = 2,750)</i>	<i>550 Spaces</i>
<i>13.3 SPACES /ATHLETIC FIELD (5 TOTAL)*</i>	<i>67 Spaces</i>

<i>TOTAL REQUIRED PARKING (MINIMUM)</i>	<i>617 Spaces</i>
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<i><u>MAXIMUM PARKING REQUIREMENT FACTORS</u></i>	
<i>0.3 X SUM OF STAFF+STUDENTS (250 + 2,500 = 2,750)</i>	<i>825 Spaces</i>
<i>60.5 SPACES / ATHLETIC FIELD (5 TOTAL)*</i>	<i>303 Spaces</i>

<i>TOTAL REQUIRED PARKING (MAXIMUM)</i>	<i>1,128 Spaces</i>
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**Assumes approximately 50% use of existing athletic fields/courts on Campus. Parking space factors are based on the minimum and maximum peak hour demand shown in the "Parking Generation, 4th Edition", published by the Institute of Transportation Engineers. For soccer/athletic fields, the 60.5 cars per field represents the 85th percentile of the observed peak period demand for sports field facilities which occurs between 3:00 and 4:00 p.m. This demand is expected to sometimes overlap with parking demands from the associated High School, resulting in higher total parking demands than either individual use would suggest.*

TRANSPORTATION MAINTENANCE FACILITY:

NEW T& M FACILITY REQUIRED PARKING
(PER OREGON CITY PLANNING CODE SECTION 17.52.020)

<i><u>MINIMUM PARKING REQUIREMENT FACTORS</u></i>	
<i>S-1: STORAGE WAREHOUSE - LIGHT INDUSTRIAL - 19,981 SF</i>	
<i>1.30 SPACES PER 1,000 SF</i>	<i>26 Spaces</i>

<i>B: BUSINESS - OFFICE - 10,970 SF</i>	
<i>2.70 SPACES PER 1,000 SF</i>	<i>30 Spaces</i>

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VEHICLE STORAGE

0.5 SPACES / EMPLOYEE/DRIVER (81 DRIVERS)** **41 Spaces**

TOTAL T&M FACILITY REQUIRED PARKING (MINIMUM) **97 Spaces**

MAXIMUM PARKING REQUIREMENT FACTORS

S-1: STORAGE WAREHOUSE - LIGHT INDUSTRIAL - 19,981 SF
1.60 SPACES PER 1,000 SF **32 Spaces**

B: BUSINESS - 10,970 SF
3.33 SPACES PER 1,000 SF **37 Spaces**

VEHICLE STORAGE

1.0 SPACES / EMPLOYEE/DRIVER (81 DRIVERS)** **81 Spaces**

TOTAL T&M FACILITY REQUIRED PARKING (MAXIMUM) **150 Spaces**

****BASED ON CITY OF HILLSBORO COMMUNITY DEVELOPMENT CODE, TABLE 12.50.329-3, VEHICLE STORAGE PARKING REQUIREMENTS.**

**Table 12.50.320-3:
 Required Vehicle Parking Spaces for Industrial Uses
 (required spaces are per 1000 sq. ft. Net Floor Area (NFA)
 or per student/employee on the largest shift, unless otherwise specified)**

Use Type	Minimum	Maximum	
		Zone A	Zone B
Industrial Services			
All Uses	2	None	None
Manufacturing and Production			
All Uses	1.6	2.5	None
Solid Waste Treatment and Recycling			
All Uses	2	None	None
Vehicle Storage			
All Uses	0.5/employee	1.0/employee	None
Warehouse and Freight Movement			
All Uses	0.3	0.4	0.5
Wholesale sales			
All Uses	3	3	None

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TOTAL CAMPUS PARKING:

<i><u>MINIMUM PARKING REQUIRED FOR HIGH SCHOOL CAMPUS</u></i>	
<i>HIGH SCHOOL SITE(MINIMUM)</i>	<i>617 Spaces</i>
<i>NEW TRANSPORTATION & MAINTENANCE FACILITY (MINIMUM)</i>	<i>97 Spaces</i>
<i>TOTAL PARKING MINIMUM REQUIRED</i>	<i>714 Spaces</i>
<i><u>MAXIMUM PARKING REQUIRED FOR HIGH SCHOOL CAMPUS</u></i>	
<i>HIGH SCHOOL SITE</i>	<i>1,128 Spaces</i>
<i>NEW TRANSPORTATION & MAINTENANCE FACILITY</i>	<i>150 Spaces</i>
<i>TOTAL PARKING MAXIMUM REQUIRED</i>	<i>1,278 Spaces</i>
<i><u>TOTAL PARKING PROVIDED PHASE 1</u></i>	
<i>HIGH SCHOOL SITE</i>	<i>1,038 Spaces</i>
<i>NEW TRANSPORTATION & MAINTENANCE FACILITY</i>	<i>138 Spaces</i>
<i>PHASE 1 TOTAL PARKING</i>	<i>1,176 Spaces</i>
<i><u>TOTAL PARKING PROVIDED PHASE 2-4</u></i>	
<i>HIGH SCHOOL SITE</i>	<i>983 Spaces</i>
<i>NEW TRANSPORTATION & MAINTENANCE FACILITY</i>	<i>138 Spaces</i>
<i>PHASE 2-4 TOTAL PARKING</i>	<i>1,121 Spaces</i>

Applicant requests maximizing on-site parking in order to address demands by both the High School and the neighborhood residents for sufficient off-street parking and to thereby reduce demand for limited on-street parking.

- 2.Shared parking. Required parking facilities for two or more uses, structures, or parcels of land may be satisfied by the same parking facilities used jointly, to the extent that the owners or operators show that the need for parking facilities does not materially overlay (e.g., uses primarily of a daytime versus nighttime nature), that the shared parking facility is within 1,000 feet of the potential uses, and provided that the right of joint use is evidenced by a recorded deed, lease, contract, or similar written instrument authorizing the joint use.

The School District is offering to allow public usage of Transportation Maintenance Facility staff/visitor parking after hours.

3. On-Street Parking. On-street parking may be counted toward the minimum standards when it is on the street face abutting the subject land use. An on-street parking space must not obstruct a required clear vision area and it shall not violate any law or street standard. On-street parking for commercial uses shall conform to the following standards:

a. Dimensions. The following constitutes one on-street parking space:

1. Parallel parking, each [22] feet of uninterrupted and available curb;
2. [45/60] degree diagonal, each with [15] feet of curb;
3. 90 degree (perpendicular) parking, each with [12] feet of curb.

4. Public Use Required for Credit. On-street parking spaces counted toward meeting the parking requirements of a specific use may not be used exclusively by that use, but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

On-Street Parking not considered in parking counts.

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17.52.030 Standards for Automobile Parking.

- A. Access. Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

Access for new parking is located along High School Avenue and will not require maneuvering in the street right-of-way. Driveways will conform to City standards.

- B. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's Stormwater and Low Impact Development Design Standards are encouraged.

Proposed paved surfaces will be concrete or asphalt paving, see LUC1.2 for pavement sections. Pervious asphalt/concrete is not being proposed.

- C. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works stormwater and grading design standards.

Refer to Civil Drawings LUC1.1 and LUC1.2 for grading/drainage design.

D. Dimensional Standards.

1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley. Parking stalls in compliance with the American with Disabilities Act may vary in size in order to comply with the Building Division requirements. Up to 35% of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The Community Development Director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this chapter.

New parking for staff and visitors of the Transportation Maintenance Facility are 90 degree standard sized spaces and are 9 feet wide x 19 feet long. Perimeter parking stalls are 17'-6" long with a 1'-6" overhang into the landscaped area/sidewalk. In addition required ADA accessible parking spaces are provided complying with ADA and Building Division dimensional requirements. Compact spaces are not provided. Aisle widths are 24 feet minimum.

2. Alternative parking/ plan. Any applicant may propose an alternative parking plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. In such situations, the Community Development Director may approve an alternative parking lot plan with variations to parking dimensions of this section. The alternative shall be consistent with the intent of this chapter and shall create a safe space for automobiles and pedestrians while providing landscaping to the quantity and quality found within parking lot landscaping requirements.

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PARKING STANDARD

PARKING ANGLE SPACE DIMENSIONS

A Parking Angle		B Stall Width	C Stall to Curb	D Aisle Width	E Curb Length	F Overhang
0 degrees		8.5	9.0	12	20	0
30 degrees	Standard Compact	9' 8'	17.3' 14.9'	11' 11'	18' 16'	
45 degrees	Standard Compact	8.5 8.5	19.8' 17.0'	13' 13'	12.7' 11.3'	1.4
60 degrees	Standard Compact	9' 8'	21' 17.9'	18' 16'	10.4' 9.2'	1.7
90 degrees	Standard Compact	9' 8'	19.0' 16.0'	24' 22'	9' 8'	1.5

NOTE: Overhang dimensions are intended to indicate possible location from parking area edge for location of bumpers.

Parking lot dimensions comply with above dimensions highlighted in yellow.

E. Carpool and Vanpool Parking. New developments with seventy-five or more parking spaces, and new hospitals, government offices, group homes, nursing and retirement homes, schools and transit park-and-ride facilities with fifty or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least 5%, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of ADA accessible parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."

Carpool/vanpool spaces will be marked at the Staff/Visitor parking lot at the Transportation Maintenance Facility.

Carpool and Vanpool Parking calculated as follows:

HIGH SCHOOL SITE

5% OF SUM OF EMPLOYEES+STUDENTS+COMMUTERS

152 FACULTY + 700 STUDENTS = 852 x .05 = 42.6

43 Spaces

PHASE 1 PROVIDED CARPOOL/VANPOOL PARKING

1 Space

PHASE 2-4 PROVIDED CARPOOL / VANPOOL PARKING

43 Spaces

TRANSPORTATION & MAINTENANCE FACILITY

5% OF SUM OF EMPLOYEES+STUDENTS+COMMUTERS

125 EMPLOYEES = 114 x .05 = 5.7

PROVIDED CARPOOL/VANPOOL PARKING

6 Spaces

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A non-conforming condition exists at the High School parking lot due to the lack of carpool/vanpool marked spaces. This item has been identified in the Master Plan Narrative and will be brought up to conformance in Phase 2 of the proposed Master Plan.

17.52.040 Bicycle Parking Standards-

- A. Purpose-Applicability.** To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.

8 bicycle parking spaces (7 required) shall be provided at the new Transportation Maintenance Facility. (4 will be covered.)

There are currently a total of 96 bicycle parking spaces at the High School. They are underutilized and do not appear to encourage bicycle ridership to any extent. The district proposes no immediate increase in spaces given there is clear evidence that there is no historic or current demand for them. The district offers to monitor bicycle ridership and to phase in additional spaces as demand increases to a level where more spaces are needed.

- B. Number of Bicycle Spaces Required.** For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the Community Development Director is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.020 for determining automobile parking space requirements. Modifications to bicycle parking requirements may be made through the Site Plan and Design, Conditional Use, or Master Plan review process.

TABLE A Required Bicycle Parking Spaces*

Where two options for a requirement are provided, the option resulting in more bicycle parking applies. Where a calculation results in a fraction, the result is rounded up to the nearest whole number.

USE	MINIMUM BICYCLE PARKING	MINIMUM BICYCLE PARKING – COVERED – The following percentage of bicycle parking is required to be covered
Multi-family (three or more units)	1 per 10 units (minimum of 2)	50% (minimum of 1)
Institutional		
Correctional institution	1 per 15 auto spaces (minimum of 2)	30% (minimum of 1)
Nursing home or care facility	1 per 30 auto spaces (minimum of 2)	30% (minimum of 1)
Hospital	1 per 20 auto spaces (minimum of 2)	30% (minimum of 1)
Park-and-ride lot	1 per 5 auto spaces (minimum of 2)	50% (minimum of 1)
Transit center	1 per 5 auto spaces (minimum of 2)	50% (minimum of 1)
Parks and open space	1 per 10 auto spaces	0%

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USE	MINIMUM BICYCLE PARKING	MINIMUM BICYCLE PARKING – COVERED – The following percentage of bicycle parking is required to be covered
	(minimum of 2)	
Public parking lots	1 per 10 auto spaces (minimum of 2)	50% (minimum of 1)
Automobile parking structures	1 per 10 auto spaces (minimum of 4)	80% (minimum of 2)
Religious institutions, movie theater, auditorium or meeting room	1 per 10 auto spaces (minimum of 2)	30% (minimum of 1)
Libraries, museums	1 per 5 auto spaces (minimum of 2)	30% (minimum of 1)
Preschool, nursery, kindergarten	2 per classroom (minimum of 2)	50% (minimum of 1)
Elementary	4 per classroom (minimum of 2)	50% (minimum of 1)
Junior high and High school	2 per classroom (minimum of 2)	50% (minimum of 2)
College, business/commercial schools	2 per classroom (minimum of 2)	50% (minimum of 1)
Swimming pools, gymnasiums, ball courts	1 per 10 auto spaces (minimum of 2)	30% (minimum of 1)
Retail stores and shopping centers	1 per 20 auto spaces (minimum of 2)	50% (minimum of 2)
Retail stores handling exclusively bulky merchandise such as automobile, boat or trailer sales or rental	1 per 40 auto spaces (minimum of 2)	0%
Bank, office	1 per 20 auto spaces (minimum of 2)	50% (minimum of 1)
Medical and dental clinic	1 per 20 auto spaces (minimum of 2)	50% (minimum of 1)
Eating and drinking establishment,	1 per 20 auto spaces (minimum of 2)	0%
Gasoline service station	1per 10 auto spaces (minimum of 2)	0%

*Covered bicycle parking is not required for developments with 2 or fewer stalls.

Per the above, we propose providing 8 bicycle spaces at the new Transportation Maintenance Facility.

Due to the underutilization of the existing spaces at the High School, an adjustment to zoning requirements is being requested to not provide additional spaces at this time. A phased approach for adding spaces would be undertaken as bicycle ridership increases.

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C. Security of Bicycle Parking

Bicycle parking facilities shall be secured. Acceptable secured bicycle parking area shall be in the form of a lockable enclosure onsite, secure room in a building onsite, a covered or uncovered rack onsite, bicycle parking within the adjacent right-of-way or another form of secure parking where the bicycle can be stored, as approved by the decision maker. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience and, when in the right-of-way shall comply with clearance and ADA requirements.

2 stationary bicycle racks anchored to the ground will be provided at the Transportation Maintenance Facility to facilitate secure bicycle parking at that location for 8 bicycles. One rack for 4 bicycles will be provided in front of main entry at the south side of the building and one rack for 4 bicycles will be provided within the fenced compound area just outside the Drivers Break underneath a roof overhang at the west side of the building.

The bicycle racks at the High School, as noted above, provide secure parking for 96 bicycles and more than adequately meet the proven past and current demand. Refer to Exhibit E for photo documentation.

- D. Bicycle parking facilities shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience.**

See above information re: bicycle racks in Section C re: Security of Bicycle Parking.

Location of Bicycle Parking

- 1. Bicycle parking shall be located on-site, in one or more convenient, secure and accessible location. The City Engineer and the Community Development Director may permit the bicycle parking to be provided within the right-of-way provided adequate clear zone and ADA requirements are met. If sites have more than one building, bicycle parking shall be distributed as appropriate to serve all buildings. If a building has two or more main building entrances, the review authority may require bicycle parking to be distributed to serve all main building entrances, as it deems appropriate.**

Bicycle racks at the Transportation Maintenance Facility shall be located adjacent to the main entry on the south side of the building, as well as on the west side of the building outside Drivers Break Room underneath a roof overhang. Refer to Drawing Sheet LU0.3 Detail Development Plan for locations.

The existing bicycle racks at the High School are located at 6 locations, 2 along the front of the High School entry to the east facing Beavercreek Road, 1 adjacent to the northwest entry, 1 adjacent to the ROTC/Shop Building, 1 adjacent to the tennis courts along parking lot #1 to the north, and 1 adjacent to the softball fields at the west end of the site along High School Ave. Refer to LU0.2 Proposed Campus Site Plan for locations.

- 2. Bicycle parking areas shall be clearly marked or visible from on-site buildings or the street. If a bicycle parking area is not plainly visible from the street or main building entrance, a sign must be posted indicating the location of the bicycle parking area. Indoor bicycle parking areas shall not require stairs to access the space unless approved by the community development director.**

Bicycle racks at the Transportation Maintenance Facility are clearly visible flanking the main building entrance and Drivers Break Room entry at the west side of the building. Refer to LU0.3 Detail Development Plan for locations.

Existing bicycle racks at the High School are clearly visible either adjacent to a building entry, athletic facilities, or from the public right of way. Refer to LU0.2 Proposed Campus Site Plan for Locations.

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3. All bicycle parking areas shall be located to avoid conflicts with pedestrian and motor vehicle movement.

- a. Bicycle parking areas shall be separated from motor vehicle parking and maneuvering areas and from arterial streets by a barrier or a minimum of five feet.

See Site Plan, LU0.3 Detail Development Plan, for locations of bicycle parking areas flanking the main entrance at the south side of the building and Drivers Break Entry at the west side of the building to the Transportation Maintenance Facility. Physical separation of the bicycle parking area from motor vehicle parking and maneuvering areas and from streets is in excess of 5 feet either by a sidewalk, landscaped area, or both.

High School bicycle parking areas are separated from motor vehicle parking and maneuvering areas and from streets by a minimum of 6'-0" wide sidewalk/landscaped area. Refer to LU0.2 Proposed Campus Site Plan for Locations.

- b. Bicycle parking areas shall not obstruct pedestrian walkways; provided, however, that the review authority may allow bicycle parking in the right-of-way where this does not conflict with pedestrian accessibility.

Bicycle parking areas at the Transportation Maintenance Facility flank the main building entrance and Driver's Break entrance and are located off the main sidewalk/pedestrian walkway and do not obstruct the pedestrian routes from the street sidewalks, parking lot area.

Bicycle parking areas at the High School are located as follows. (Refer to Sheet LU0.2 – Proposed Campus Site Plan.

Bike Rack #1: Located along the south perimeter of the main entry plaza, does not obstruct pedestrian walkways.

Bike Rack #2: Located outside gymnasium between 2 sidewalks, one directly adjacent the building, the other along the bus loading/parking drive aisle, and does not obstruct pedestrian either pedestrian walkway.

Bike Rack #3: Located adjacent to the northwest entrance plaza. The existing sidewalk was extended to accommodate the bike racks and does not obstruct the pedestrian walkway.

Bike Rack #4: Located adjacent to the entrance to the ROTC/Shop Building. The existing sidewalk was extended to accommodate the bike racks and does not obstruct the pedestrian walkway.

Bike Rack #5: Located adjacent to the existing tennis courts along parking lot #1. The existing sidewalk was extended to accommodate the bike racks and does not obstruct the pedestrian walkway.

Bike Rack #6: Located on the existing approximately 10'-0" wide sidewalk between two softball fields at the west side of HS campus, this leaves at least 6'-0" for pedestrian access and does not obstruct pedestrian accessibility requirements.

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4. Accessibility.

- a. Outdoor bicycle areas shall be connected to main building entrances by pedestrian accessible walkways.**

Bicycle parking areas at the Transportation Maintenance Facility are located directly adjacent to building entrances to the south and west and will conform to accessibility walkway requirements.

Existing High School bicycle parking areas are located on or along existing sidewalk/plaza areas and conform to accessibility requirements.

- b. Outdoor bicycle parking areas shall have direct access to a right-of-way.**

The Transportation Maintenance Facility will have direct access to the Meyers Road Extension R.O.W. as well High School Ave (Private Road) provided with a 7'-0" wide sidewalk.

Existing bicycle parking areas at the High School site are located on or along existing access paths to surrounding Beavercreek Road, Meyers Road, and High School Ave (Private Road).

- c. Outdoor bicycle parking should be no farther from the main building entrance than the distance to the closest vehicle space, or 50 feet, whichever is less, unless otherwise determined by the community development director, city engineer, or planning commission.**

Bicycle parking areas are adjacent to the main building and drivers break entry doors at the Transportation Maintenance Facility.

Bicycle parking areas at the High School are as follows:

Bike Rack #1:

Located approximately 125'-0" from main entry, closest vehicle parking stall is approximately 255'-0" from main entry.

Bike Rack #2:

Located within 50'-0" of gymnasium entry.

Bike Rack #3:

Located approximately 57'-0" from northwest entrance, closest vehicle parking stall is approximately 62'-0" from northwest entrance.

Bike Rack #4:

Located approximately 22'-0" from ROTC/Shop entrance, closest vehicle parking stall is approximately 10'-0" from entrance.

Bike Rack #5:

N/A, located adjacent to tennis court facility.

Bike Rack #6:

N/A, located adjacent to softball fields.

17.52.060 Parking Lot Landscaping.

Purpose. The purpose of this code section includes the following:

- 1. To enhance and soften the appearance of parking lots;**
- 2. To limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas;**
- 3. To shade and cool parking areas;**
- 4. To reduce air and water pollution;**
- 5. To reduce storm water impacts and improve water quality; and**
- 6. To establish parking lots that are more inviting to pedestrians and bicyclists.**

Parking areas are landscaped to fulfill the above purposes at both the High School and the new proposed Transportation Maintenance Facility.

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A. Development Standards

1. The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.
See Site Plan for landscaping at parking lots. The location and quantity of landscaped areas in the parking lot were in response to code requirements for one tree per every six parking spaces.
2. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.
All such areas are landscaped.
3. Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.
The tree varieties selected for the parking lot include both deciduous and evergreen trees. The location of these trees is based on providing the optimal growing space for the tree within a parking lot designed to serve both the administrative parking and school buses. The tree variety chosen for the perimeter of the parking lot will provide screening of the parking lot and shade for perimeter areas of the project site.
4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;
All trees are 2 inch minimum caliper size or 6-8 ft. in height for evergreen trees and will be planted according to American Nurseryman Standards. All specified trees are from the Oregon City Street Tree List and are identified on the accompanying Landscape Drawings (Sheet L1.0 – Planting Schedule and Notes and Sheet L1.1 Planting Plan).
5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the Community Development Director, that can demonstrate adequate maintenance
All landscaped areas will be irrigated by an automatically computer controlled irrigation system.
6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.
All the plant varieties are horticulturally appropriate for this site and after a period of establishment, all plants would tolerate periods of drought. Other than the deciduous trees, all plants will provide year round greenery. Flowering plants have been avoided on this site since the litter from flowers or subsequent seed pods create litter that would increase the maintenance of the site.
7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.
The trees in the parking areas will be branched at 6 ft. and have been off-set from streetlights, hydrants and intersection in response to the clearance distance parameters as noted in Ord. No. 08-1014,7-12009.
8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.
Landscaping shall incorporate the design standards in accordance with Chapter 13.12.

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- B. Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a 5-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the Community Development Director may approve an interruption in the perimeter parking lot landscaping for a single driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.

5 foot minimum landscaped buffers provided abutting the Meyers Road right-of-way and adjoin properties to the north and west.

1. The perimeter parking lot are shall include:

- a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;

The street trees along public roads are spaced at 30 ft. on center and the trees along the property lines are spaced at 20 ft. on center.

- b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within 3 years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

Groundcovers shall not be space more than 16 inches on center and shall cover 100% of the exposed ground within 3 years. No bark shall be used except under the canopy of shrubs or within two feet of the trees trunk.

- c. An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided every thirty feet within evergreen hedges abutting public right-of-ways.

An evergreen hedge or shrubs shall be planted no less than 4 ft. on center along the interior right of way lines.

- C. Parking Area/Building Buffer. Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:

1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:

- a. Trees spaced a maximum of thirty-five feet apart;

- b. Ground cover such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and

- c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or

2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

An 11'-6" wide landscaped planter will be provided between the building and the parking lot sidewalk to the south. All landscape conditions will be met as noted above.

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- D. Interior Parking Lot Landscaping. Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1) unless otherwise permitted by the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:
- a. A minimum of one tree per six parking spaces.
 - b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.
 - c. Shrubs spaced no more than four feet apart on average.
 - d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.
 - e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or
Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

All of the interior parking lot landscaping standards noted above will be met. Refer to LUA0.2 Proposed Campus Site Plan for interior parking lot landscape calculations.

E. Installation.

1. All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.
2. The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.
3. Certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.

All of the installation standards noted above will be met.

CHAPTER 17.41 TREE PROTECTION

17.41.050 - Tree Protection – Compliance Options.

Applicants for review shall comply with these requirements through one or a combination of the following procedures:

- A. Option 1 - Mitigation. Retention and removal of trees, with subsequent mitigation by replanting pursuant to section 17.41.060 or 17.41.070. All replanted and saved trees shall be protected by a permanent restrictive covenant or easement approved in form by the city.
All trees that are to be removed will be mitigated for, either with replanting on this site or an alternate site or by Cash-in-lieu of planting.
- B. Option 2 – Dedicated Tract. Protection of trees or groves by placement in a tract within a new subdivision or partition plat pursuant to sections 17.41.080-100; or
- C. Option 3 – Restrictive Covenant. Protection of trees or groves by recordation of a permanent restrictive covenant pursuant to section 17.41.110-120.; or
- D. Option 4 - Cash-in-lieu of planting pursuant to Section 17.41.130.

A regulated tree that has been designated for protection pursuant to this section must be retained or permanently protected unless it has been determined by a certified arborist to be diseased or hazardous, pursuant to the following applicable provisions.

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The Community Development Director, pursuant to a Type II procedure, may allow a property owner to cut a specific number of trees within a regulated grove if preserving those trees would:

- (1) Preclude achieving 80% of minimum density with reduction of lot size; or
- (2) Preclude meeting minimum connectivity requirements for subdivisions.

17.41.060 - TREE REMOVAL AND REPLANTING - MITIGATION (OPTION 1).

A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in Chapter 17.04 to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arboriculture. At the applicant's expense, the City may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section 12.08 – Community Forest and Street Trees.

B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees 6" DBH (minimum 4.5 feet from the ground) or larger on the entire site and either:

(1) Trees that are removed *outside* of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed *within* the construction area shall be replanted with the number of replacement trees required in Column 2; or

No trees outside of the construction area will be removed.

(2) Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section 17.04.1360, may be removed from the tree replacement calculation. Regulated healthy trees that are removed *outside* of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed *within* the construction area shall be replanted with the number of replacement trees required in Column 2.

A certified arborist has determined the condition of all existing trees noting if they are diseased or hazardous. (Refer to Exhibit F.) Mitigation trees will be planted in quantities as noted in the associated table.

Diseased and hazardous trees have been removed from the tree replacement calculation. No trees outside of the construction area will be removed. The quantity of replacement trees was calculated using the calculations noted in Column 2.

Table 17.41.060-1

Tree Replacement Requirements

All replacement trees shall be either:

2 inch caliper deciduous, or

6 foot high conifer

Size of tree removed (DBH)	Column 1 Number of trees to be planted. (If removed Outside of construction area)	Column 2 Number of trees to be planted. (If removed Within the construction area)
6 to 12"	3	1
13 to 18"	6	2
19 to 24"	9	3
25 to 30"	12	4
31 and over"	15	5

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Steps for calculating the number of replacement trees:

1. Count all trees measuring 6" DBH (minimum 4.5 feet from the ground) or larger on the entire development site.
2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards.
3. Document any trees that are currently diseased or hazardous.
4. Subtract the number of diseased or hazardous trees in step (3) from the total number of trees on the development site in step (1). The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps (5) through (8).
5. Define the construction area (as defined in Chapter 17.04)
6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required.
7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required.
8. Determine the total number of replacement trees from steps (6) and (7).

See ADDENDUM E – TREE MITIGATION TABLE.

17.41.070 – Planting Area Priority for Mitigation (Option 1).

Development applications which opt for removal of trees with subsequent replanting pursuant to section 17.41.050(A) shall be required to mitigate for tree cutting by complying with the following priority for replanting standards below:

A. First Priority. Replanting on the development site.

New trees will be planted on the Transportation Maintenance Facility Site. See Drawing Sheets L1.0 – Planting Schedule and Notes and L1.1 – Planting Plan. 273 trees will be planted on this site.

B. Second Priority. Off-site Replacement Tree Planting Locations. If the Community Development Director determines that it is not practicable to plant the total number of replacement trees on-site, a suitable off-site planting location for the remainder of the trees may be approved that will reasonably satisfy the objectives of this section. Such locations may include either publicly owned or private land and must be approved by the Community Development Director.

Off-Site Planting Locations include the following; see attached Landscape Plans:

- a. *On High School Site (See attached Sheet L1.2 - Tree Mitigation Plan – High School Site for tree planting plan, species, sizes and quantities.) 124 trees will be planted at this site.*
- b. *At north, east and west perimeters of Holcomb Elementary School. (See attached Sheet L1.3 - Tree Mitigation Plan – Holcomb Elementary Site for tree planting plan, species, sizes and quantities.) 113 trees will be planted at this site.*

In addition, the School District is purchasing twenty-five (1 ½" caliper) trees for the Eastham Arbor Day Event and will fund the cost of trees at the new proposed City Park located across from the new Transportation Maintenance Facility.

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17.41.110. Tree Protection by Restrictive Covenant (Option 3).

Any regulated tree or grove which cannot be protected in a tract pursuant to Section 17.41.080 above shall be protected with a restrictive covenant in a format to be approved by the Community Development Director. Such covenant shall be recorded against the property deed and shall contain provisions to permanently protect the regulated tree or grove unless such tree or grove, as determined by a certified arborist and approved by the Community Development Director, are determined to be diseased or hazardous.

No healthy trees within the wetland or the 50 wetland buffer are to be removed.

17.41.120. Permitted Adjustments (Option 3 Only).

- A. The Community Development Director, pursuant to a Type II procedure, may grant an adjustment to the side, front and rear yard setback standards by up to 50 percent (50%) if necessary to retain a Regulated Tree or Grove through a restrictive covenant pursuant to this section. In no case may the side yard setback be reduce less than 3 feet. The adjustment shall be the minimum necessary to accomplish preservation of trees on the lot and shall not conflict with other conditions imposed on the property.
- B. The Community Development Director, pursuant to a Type II procedure, may grant an adjustment to street standards, pursuant to adopted public works standards, in order to preserve a tree. This may include flexibility to redesign sidewalk and planter strip sizes and locations and allow placement of sidewalks and planter strips in an easement within private lots.
- C. The Community Development Director, pursuant to a Type II procedure, may allow other adjustments in order to preserve any healthy tree that cannot be moved due to its size, but will contribute to the landscape character of the area and will not present a foreseeable hazard if retained.

17.41.130 - Cash-in-lieu of Planting (Tree Bank/Fund) (Option 4)

The applicant may choose this option in-lieu-of or in addition to Compliance Options 1 through 3. In this case, the Community Development Director may approve the payment of cash-in-lieu into a dedicated fund for the remainder of trees that cannot be replanted in the manner described above.

- A. The cash-in-lieu payment per tree shall be as listed on the adopted fee schedule and shall be adjusted annually based on the Consumer Price Index (Index). The price shall include the cost of materials, transportation and planting.
- B. The amount of the cash-in-lieu payment into the tree bank shall be calculated as the difference between the value of the total number of trees an applicant is required to plant, including cost of installation and adjusted for Consumer Price Index, minus the value of the trees actually planted. The value of the trees shall be based on the adopted fee schedule.

As noted earlier, trees being planted at various sites include:

<i>At Transportation Maintenance Facility Site:</i>	<i>273 trees</i>
<i>At Oregon City High School Site:</i>	<i>124 trees</i>
<i>At Holcomb Elementary School Site:</i>	<i>113 trees</i>
<i>Plus at Eastham Arbor Day Event:</i>	<i>31.5" total; equivalent to 15.5 trees</i>
<i>Plus at Future City Park:</i>	<i>Number of trees to be determined</i>
<i>Other Potential Site Locations:</i>	<i>Currently not identified</i>

Cash-in-lieu payments will be made for mitigation that cannot be made by planting new trees on and off-site or by funding/donating new trees (as described above).

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17.41.130. Regulated Tree Protection Procedures During Construction.

- A. No permit for any grading or construction of public or private improvements may be released prior to verification by the Community Development Director that regulated trees designated for protection or conservation have been protected according to the following standards. No trees designated for removal shall be removed without prior written approval from the Community Development Director.
- B. Tree protection shall be as recommended by a qualified arborist or, as a minimum, to include the following protective measures:
1. Except as otherwise determined by the Community Development Director, all required tree protection measures set forth in this section shall be instituted prior to any development activities, including, but not limited to clearing, grading, excavation or demolition work, and such measures shall be removed only after completion of all construction activity, including necessary landscaping and irrigation installation, and any required plat, tract, conservation easement or restrictive covenant has been recorded.
 2. Approved construction fencing, a minimum of 4 feet tall with steel posts placed no farther than ten feet apart, shall be installed at the edge of the tree protection zone or dripline, whichever is greater. An alternative may be used with the approval of the Community Development Director.
 3. Approved signs shall be attached to the fencing stating that inside the fencing is a tree protection zone, not to be disturbed unless prior approval has been obtained from the Community Development Director.
 4. No construction activity shall occur within the tree protection zone, including, but not limited to; dumping or storage of materials such as building supplies, soil, waste items; nor passage or parking of vehicles or equipment.
 5. The tree protection zone shall remain free of chemically injurious materials and liquids such as paints, thinners, cleaning solutions, petroleum products, and concrete or dry wall excess, construction debris, or run-off.
 6. No excavation, trenching, grading, root pruning or other activity shall occur within the tree protection zone unless directed by an arborist present on site and approved by the Community Development Director.
 7. No machinery repair or cleaning shall be performed within 10 feet of the dripline of any trees identified for protection.
 8. Digging a trench for placement of public or private utilities or other structure within the critical root zone of a tree to be protected is prohibited. Boring under or through the tree protection zone may be permitted if approved by the Community Development Director and pursuant to the approved written recommendations and on-site guidance and supervision of a Certified Arborist.
 9. The City may require that a Certified Arborist be present during any construction or grading activities that may affect the dripline of trees to be protected.
 10. The Community Development Director may impose conditions to avoid disturbance to tree roots from grading activities and to protect trees and other significant vegetation identified for retention from harm. Such conditions may include, if necessary, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance/management program to provide protection to the resource as recommended by the arborist or horticulturist.

Construction activities will be carefully regulated and monitored by the Construction Manager/General Contractor and the School District's Design team to assure compliance with the tree protection procedures and requirements listed above.

Refer to ADDENDUM A – NROD APPLICATION AND RESPONSES TO CHAPTER 17.49 (prepared by Pacific Habitat).

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- C. Changes in soil hydrology due to soil compaction and site drainage within tree protection areas shall be avoided. Drainage and grading plans shall include provision to ensure that drainage of the site does not conflict with the standards of this section. Excessive site run-off shall be directed to appropriate storm drainage facilities and away from trees designated for conservation or protection.

Drainage and grading plans include provisions to ensure that site drainage will not conflict with standards of this Section. Site run-off will be directed to appropriate storm drainage facilities and away from trees.

CHAPTER 12.04 STREETS

12.04.007 Modifications.

The review body may consider modification of this standard resulting from constitutional limitations restricting the City's ability to require the dedication of property or for any other reason, based upon the criteria listed below and other criteria identified in the standard to be modified. All modifications shall be processed through a Type II Land Use application and may require additional evidence from a transportation engineer or others to verify compliance. Compliance with the following criteria is required:

- A. The modification meets the intent of the standard;
- B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclists and freight;
- C. The modification is consistent with an adopted plan; and
- D. The modification is complementary with a surrounding street design; or, in the alternative,
- E. If a modification is requested for constitutional reasons, the applicant shall demonstrate the constitutional provision or provisions to be avoided by the modification and propose a modification that complies with the state or federal constitution. The City shall be under no obligation to grant a modification in excess of that which is necessary to meet its constitutional obligations.

***Finding:** This section contains five (5) criteria that must be suitably addressed in order for a modification of streets standards to be granted. The modification request in this regards is to allow the Meyers Road extension across the Oregon City School Transportation Facility frontage to largely match in terms of elements and width those frontage improvements that currently exist for Meyers Road along the remainder of the School's frontage. Specifically the following modifications to minor arterial street standard are requested: A reduced right-of-way width from the standard of 118 feet to 92 feet (46 foot half right-of-way width); pavement width from the standard of 86 feet to 60 feet (via having a 3 lane section rather than a 5 lane section); and reduce the width of the travel lanes to 11 feet to match the existing lane widths on the existing portion of Meyers. The criteria for modifications are noted below:*

***A.** Modification meets the intent of the standard. The main adjustment to the standard (Industrial Minor Arterial) is the elimination of two travel lanes, reducing the number of travel lanes from 4 to 2. While this particular section of Meyers Road may be labeled as an Industrial Minor Arterial, that portion from Beavercreek Road to the current east line of Oregon City High School site, on the north side, and through the future Glen Oak Park, on the south side, is noted as a Residential Minor Arterial area according Figure 8 (Multi-Modal Street System) per the Oregon City Transportation Master Plan. As all of Meyers Road constructed thus far, from Beavercreek west to the east lines of the School District Transportation facility site and the future Glen Oak park site, is currently either 3 lane, or 2 lanes with a median, having 3 lanes across the frontage of the Transportation facility site better matches the existing section of Meyers Road and provides all the elements of the Minor Arterial Street less the two extra lanes noted for an Industrial Minor Arterial. The other adjustment would be to reduce the width of each travel lane by one foot.*

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The existing section of Meyers Road along the High School frontage has three 11 foot wide travel and turn lanes, 5 foot wide bike lanes and 8 foot wide parallel parking stalls for a total of 59 feet. Per the new standard the parallel parking stalls would be reduced to 7 feet and the extra foot added to the bike lanes. The travel lanes would be 11 feet and the turn lane 12 feet wide. The intent would be from curb to curb to closely match the present width of Meyers Road along the High School ball fields where parallel parking on both sides of the street currently exists, although the new extension would be a foot wider. The right-of-way for Meyers Road though will be significantly wider than exists along the ball fields, as street planter strip between the curb and sidewalk will be provided. The proposed modifications will meet the intent of the standard while better matching the existing Meyers Road improvements.

- B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclist and freight. The modification will provide safe movement for all elements although the travel lanes would be one foot slimmer than the standard, but matching what presently exists along Meyers Road.*
- C. The modification is consistent with an adopted plan; The Transportation Master Plan notes that this section of Meyers Road as being on the border between Residential and Industrial street types. While a section of the TSP notes that this section of street improvement as an Industrial Minor Street (per TM #11 Planned and Financially Constrained Transportation Systems – Table 1 Item D-46), Figure 8 (Multi-Modal Street System) of the TSP provides some argument that the Residential Minor Arterial street section is more appropriate. Other than the street being 3 lane rather than 5 lane and the travel lanes being a foot narrower all the elements of the street standards for a public street are to be installed and thus will be consistent the Transportation Master Plan.*
- D. The modification is complementary with a surrounding street design. The reason of the modification in large part is make the street more complementary with the previously constructed portion of Meyers Road. To construct a 5 lane wide street section that would then reduce to a 3 lane section at High School Avenue would seem to work against the intent of Item B above with respect to safe movement of vehicles, as merging lanes would be necessary for traffic proceeding east on Meyers Road, if such a condition existed.*
- E. If a modification is requested for constitutional reasons... A modification for constitutional reasons is not requested.*

The intent of the request is to have a street section more in fitting with the existing section of the Meyers Road to the east where the High School lies to the north and residential areas and ball fields lie to the south. This portion of Meyers Road will have a City Park to the south and the proposed School District Transportation Facility to the north, more in character with the existing section of Meyers Road than an Industrial use area.

We cannot predict what may eventually develop to the west of City Park and the proposed Transportation Facility but if a 5 lane wide street seems appropriate to for the future development between west boundaries of the City Park and School District site to Hwy 213 the City will have means to require it. However, in terms of impacts to the street system of the proposed use of this application, the future City Park improvements immediately to the south, and current uses to the east, it does not seem appropriate, nor safe, to have such a wide street section for this approximately 500 foot extension of Meyers Road.

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12.04.025 - Street design—Driveway Curb Cuts.

12.04.025.A. One driveway shall be allowed per frontage. In no case shall more than two driveways be allowed on any single or two-family residential property with multiple frontages.

An access control strip will be provided to the City if such is requested, and not located on residential property.

12.04.180 Street Design.

All development regulated by this Chapter shall provide street improvements in compliance with the standards in Figure 12.04.180 depending on the street classification set forth in the Transportation System Plan and the Comprehensive Plan designation of the adjacent property, unless an alternative plan has been adopted. The standards provided below are maximum design standards and may be reduced with an alternative street design which may be approved based on the modification criteria in 12.04.007. The steps for reducing the maximum design below are found in the Transportation System Plan.

See Civil Drawings for Street Design of Meyers Road extension.

Table 12.04.180 Street Design

To read the table below, select the road classification as identified in the Transportation System Plan and the Comprehensive Plan designation of the adjacent properties to find the maximum design standards for the road cross section. If the Comprehensive Plan designation on either side of the street differs, the wider right-of-way standard shall apply.

Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Major Arterial	Mixed Use, Commercial or Public/Quasi Public	116 ft.	94 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.
	Industrial	120 ft.	88 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	N/A	(5) 14 ft. Lanes	6 ft.
	Residential	126 ft.	94 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.
Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Minor Arterial	Mixed Use, Commercial or Public/Quasi Public	116 ft.	94 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(5) 12 ft. Lanes	6 ft.
	Industrial	118 ft.	86 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	7 ft.	(5) 12 ft. Lanes	N/A
	Residential	100 ft.	68 ft.	0.5 ft.	5 ft.	10.5 ft.	6 ft.	7 ft.	(3) 12 ft. Lanes	6 ft.
Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Collector	Mixed Use, Commercial or Public/Quasi Public	86 ft.	64 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		6 ft.	8 ft.	(3) 12 ft. Lanes	N/A
	Industrial	88 ft.	62 ft.	0.5 ft.	5 ft.	7.5 ft.	6 ft.	7 ft.	(3) 12 ft. Lanes	N/A
	Residential	85 ft.	59 ft.	0.5 ft.	5 ft.	7.5 ft.	6 ft.	7 ft.	(3) 11 ft. Lanes	N/A
Road Classification	Comprehensive Plan Designation	Right-of-Way Width	Pavement Width	Public Access	Sidewalk	Landscape Strip	Bike Lane	Street Parking	Travel Lanes	Median
Local	Mixed Use, Commercial or Public/Quasi Public	62 ft.	40 ft.	0.5 ft.	10.5 ft. sidewalk including 5 ft.x5 ft. tree wells		N/A	8 ft.	(2) 12 ft. Lanes	N/A

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	Industrial	60 ft.	38 ft.	0.5 ft.	5 ft.	5.5 ft.	(2) 19 ft. Shared Space	N/A
	Residential	54 ft.	32 ft.	0.5 ft.	5 ft.	5.5 ft.	(2) 16 ft. Shared Space	N/A

1. Pavement width includes, bike lane, street parking, travel lanes and median.
2. Public access, sidewalks, landscape strips, bike lanes and on-street parking are required on both sides of the street in all designations. The right-of-way width and pavement widths identified above include the total street section.
3. A 0.5² foot curb is included in landscape strip or sidewalk width.
4. Travel lanes may be through lanes or turn lanes.
5. The 0.5² foot public access provides access to adjacent public improvements.
6. Alleys shall have a minimum right-of-way width of 20 feet and a minimum pavement width of 16 feet. If alleys are provided, garage access shall be provided from the alley.

12.04.185 Street Design--Access Control.

- A. A street which is dedicated to end at the boundary of the development or in the case of half-streets dedicated along a boundary shall have an access control granted to the City as a City controlled plat restriction for the purposes of controlling ingress and egress to the property adjacent to the end of the dedicated street. The access control restriction shall exist until such time as a public street is created, by dedication and accepted, extending the street to the adjacent property.
- B. The City may grant a permit for the adjoining owner to access through the access control.
- C. The plat shall contain the following access control language or similar on the face of the map at the end of each street for which access control is required: "Access Control (See plat restrictions)."

Not applicable as a plat will not be required.

- D. Said plats shall also contain the following plat restriction note(s): "Access to (name of street or tract) from adjoining tracts (name of deed document number[s]) shall be controlled by the City of Oregon City by the recording of this plat, as shown. These access controls shall be automatically terminated upon the acceptance of a public road dedication or the recording of a plat extending the street to adjacent property that would access through those Access Controls."

Not applicable as a plat will not be required.

12.04.190 Street Design--Alignment.

The centerline of streets shall be:

- A. Aligned with existing streets by continuation of the centerlines; or
The proposed Meyers Road centerline will align with the existing Meyers Road centerline at Meyers Road and High School Avenue. There is however proposed a small angle deflection at the centerline-centerline intersection to accommodate the City Park's needs.
- B. Offset from the centerline by no more than five (5) feet, provided appropriate mitigation, in the judgment of the City Engineer, is provided to ensure that the offset intersection will not pose a safety hazard.
No offset is proposed.

12.04.194 Traffic Sight Obstructions

All new streets shall comply with the Traffic Sight Obstructions in Chapter 10.32.

The new street will comply with the Traffic Sight Obstructions.

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12.04.195 Spacing Standards.

- A. All new streets shall be designed as local streets unless otherwise designated as arterials and collectors in Figure 8 in the Transportation System Plan. The maximum block spacing between streets is 530 feet and the minimum block spacing between streets is 150 feet as measured between the right-of-way centerlines. If the maximum block size is exceeded, pedestrian accessways must be provided every 330 feet. The spacing standards within this section do not apply to alleys.

Meyers Road is designated as an arterial.

- B. All new development and redevelopment shall meet the minimum driveway spacing standards identified in Table 12.04.195.B. *The minimum driveway spacing will be met.*

Table 12.04.195.B Minimum Driveway Spacing Standards		
Street Functional Classification	Minimum Driveway Spacing Standards	Distance
Major Arterial Streets	Minimum distance from a street corner to a driveway for all uses and Minimum distance between driveways for uses other than single and two-family dwellings	175 ft.
Minor Arterial Streets	Minimum distance from a street corner to a driveway for all uses and Minimum distance between driveways for uses other than single and two-family dwellings	175 ft.
Collector Streets	Minimum distance from a street corner to a driveway for all uses and Minimum distance between driveways for uses other than single and two-family dwellings	100 ft.
Local Streets	Minimum distance from a street corner to a driveway for all uses and Minimum distance between driveways for uses other than single and two-family dwellings	25 ft.
The distance from a street corner to a driveway is measured along the right-of-way from the edge of the intersection right-of-way to the nearest portion of the driveway and the distance between driveways is measured at the nearest portions of the driveway at the right-of-way.		

12.04.199 Pedestrian and Bicycle Accessways

Pedestrian/bicycle accessways are intended to provide direct, safe and convenient connections between residential areas, retail and office areas, institutional facilities, industrial parks, transit streets, neighborhood activity centers, rights-of-way, and pedestrian/bicycle accessways which minimize out-of-direction travel, and transit-orientated developments where public street connections for automobiles, bicycles and pedestrians are unavailable. Pedestrian/bicycle accessways are appropriate in areas where public street options are unavailable, impractical or inappropriate. Pedestrian and bicycle accessways are required through private property or as right-of-way connecting development to the right-of-way at intervals not exceeding three-hundred-and-thirty feet of frontage; or where the lack of street continuity creates inconvenient or out of direction travel patterns for local pedestrian or bicycle trips.

- A. Entry points shall align with pedestrian crossing points along adjacent streets and with adjacent street intersections.

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- B. Accessways shall be free of horizontal obstructions and have a nine-foot, six-inch high vertical clearance to accommodate bicyclists. To safely accommodate both pedestrians and bicycles, accessway right-of-way widths shall be as follows:
1. Accessways shall have a fifteen-foot-wide right-of-way with a seven-foot wide paved surface between a five foot planter strip and a three foot planter strip.
 2. If an accessway also provides secondary fire access, the right-of-way width shall be at least twenty-three feet wide with a fifteen-foot paved surface a five foot planter strip and a three foot planter strip.
- C. Accessways shall be direct with at least one end point of the accessway always visible from any point along the accessway. On-street parking shall be prohibited within fifteen feet of the intersection of the accessway with public streets to preserve safe sight distance and promote safety.
- D. To enhance pedestrian and bicycle safety, accessways shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances.
- E. Accessways shall comply with Americans with Disabilities Act (ADA).
- F. The planter strips on either side of the accessway shall be landscaped along adjacent property by installation of the following:
1. Within the three foot planter strip, an evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average;
 2. Ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees;
 3. Within the five foot planter strip, two-inch minimum caliper trees with a maximum of thirty-five feet of separation between the trees to increase the tree canopy over the accessway;
 4. In satisfying the requirements of this section, evergreen plant materials that grow over forty-two inches in height shall be avoided. All plant materials shall be selected from the Oregon City Native Plant List.
- G. Accessways shall be designed to prohibit unauthorized motorized traffic. Curbs and removable, lockable bollards are suggested mechanisms to achieve this.
- H. Accessway surfaces shall be paved with all-weather materials as approved by the city. Pervious materials are encouraged. Accessway surfaces shall be designed to drain stormwater runoff to the side or sides of the accessway. Minimum cross slope shall be two percent.
- I. In parks, greenways or other natural resource areas, accessways may be approved with a five-foot wide gravel path with wooden, brick or concrete edgings .
- J. The Community Development Director may approve an alternative accessway design due to existing site constraints through the modification process set forth in Section 12.04.007.
- K. Ownership, liability and maintenance of accessways.
- To ensure that all pedestrian/bicycle accessways will be adequately maintained over time, the hearings body shall require one of the following:
1. Dedicate the accessways to the public as public right-of-way prior to the final approval of the development; or
 2. The developer incorporates the accessway into a recorded easement or tract that specifically requires the property owner and future property owners to provide for the ownership, liability and maintenance of the accessway.

Because public street connections for automobiles, bicycles and pedestrians are available, no Pedestrian and Bicycle Accessways are proposed. These existing connections will be extended insofar as the Meyers Road Extension includes a sidewalk on the north side of Meyers Road and bike lanes as shown on the Meyers Road Typical Section shown on Drawing LU C1.2.

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12.04.205 Mobility Standards.

Development shall demonstrate compliance with intersection mobility standards. When evaluating the performance of the transportation system, the City of Oregon City requires all intersections, except for the facilities identified in subsection D below, to be maintained at or below the following mobility standards during the two-hour peak operating conditions. The first hour has the highest weekday traffic volumes and the second hour is the next highest hour before or after the first hour. Except as provided otherwise below, this may require the installation of mobility improvements as set forth in the Transportation System Plan or as otherwise identified by the City Transportation Engineer.

- A. For intersections within the Regional Center, the following mobility standards apply:
 - 1. During the first hour, a maximum v/c ratio of 1.10 shall be maintained. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.
 - 2. During the second hour, a maximum v/c ratio of 0.99 shall be maintained at signalized intersections. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.
 - 3. Intersections located on the Regional Center boundary shall be considered within the Regional Center.
- B. For intersections outside of the Regional Center but designated on the Arterial and Throughway Network, as defined in the Regional Transportation Plan, the following mobility standards apply:
 - 1. During the first hour, a maximum v/c ratio of 0.99 shall be maintained. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.
 - 2. During the second hour, a maximum v/c ratio of 0.99 shall be maintained at signalized intersections. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to movements on the major street. There is no performance standard for the minor street approaches.
- C. For intersections outside the boundaries of the Regional Center and not designated on the Arterial and Throughway Network, as defined in the Regional Transportation Plan, the following mobility standards apply:
 - 1. For signalized intersections:
 - a. During the first hour, LOS “D” or better will be required for the intersection as a whole and no approach operating at worse than LOS “E” and a v/c ratio not higher than 1.0 for the sum of the critical movements.
 - b. During the second hour, LOS “D” or better will be required for the intersection as a whole and no approach operating at worse than LOS “E” and a v/c ratio not higher than 1.0 for the sum of the critical movements.
 - 2. For unsignalized intersections outside of the boundaries of the Regional Center:
 - a. For unsignalized intersections, during the peak hour, all movements serving more than 20 vehicles shall be maintained at LOS “E” or better. LOS “F” will be tolerated at movements serving no more than 20 vehicles during the peak hour.
- D. Until the City adopts new performance measures that identify alternative mobility targets, the City shall exempt proposed development that is permitted, either conditionally, outright, or through detailed development master plan approval, from compliance with the above-referenced mobility standards for the following state-owned facilities:
 - I-205 / OR 99E Interchange
 - I-205 / OR 213 Interchange

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OR 213 / Beavercreek Road

State intersections located within or on the Regional Center Boundaries

1. In the case of conceptual development approval for a master plan that impacts the above references intersections:
 - a. The form of mitigation will be determined at the time of the detailed development plan review for subsequent phases utilizing the Code in place at the time the detailed development plan is submitted; and
 - b. Only those trips approved by a detailed development plan review are vested.
2. Development which does not comply with the mobility standards for the intersections identified in 12.04.205.D shall provide for the improvements identified in the Transportation System Plan (TSP) in an effort to improve intersection mobility as necessary to offset the impact caused by development. Where required by other provisions of the Code, the applicant shall provide a traffic impact study that includes an assessment of the development's impact on the intersections identified in this exemption and shall construct the intersection improvements listed in the TSP or required by the Code.

Refer to Addendum D - Final Traffic Impact Study. The relevant standards are referenced in the report with results from the operational analysis showing that the performance standards are being met.

12.04.210 Street design--Intersection Angles. *The acute angle of deflection at Meyers Road at High School Avenue will be greater than 80 degrees.*

Except where topography requires a lesser angle, streets shall be laid out to intersect at angles as near as possible to right angles. In no case shall the acute angles be less than eighty degrees unless there is a special intersection design. An arterial or collector street intersecting with another street shall have at least one hundred feet of tangent adjacent to the intersection unless topography requires a lesser distance. Other streets, except alleys, shall have at least fifty feet of tangent adjacent to the intersection unless topography requires a lesser distance. *(One hundred feet of tangent will be provided.)* All street intersections shall be provided with a minimum curb return radius of twenty-five feet for local streets. *A curb radius of at least 25 feet will be provided.* Larger radii shall be required for higher street classifications as determined by the city engineer. Additional right-of-way shall be required to accommodate curb returns and sidewalks at intersections. Ordinarily, intersections should not have more than two streets at any one point.

See above notes in red.

12.04.215 Street design--Off-Site Street Improvements.

During consideration of the preliminary plan for a development, the decision maker shall determine whether existing streets impacted by, adjacent to, or abutting the development meet the city's applicable planned minimum design or dimensional requirements. Where such streets fail to meet these requirements, the decision-maker shall require the applicant to make proportional improvements sufficient to achieve conformance with minimum applicable design standards required to serve the proposed development.

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12.04.220 Street Design--Half Street.

Half streets, while generally not acceptable, may be approved where essential to the development, when in conformance with all other applicable requirements, and where it will not create a safety hazard. When approving half streets, the decision maker must first determine that it will be practical to require the dedication of the other half of the street when the adjoining property is divided or developed. Where the decision maker approves a half street, the applicant must construct an additional ten feet of pavement width so as to make the half street safe and usable until such time as the other half is constructed. Whenever a half street is adjacent to property capable of being divided or developed, the other half of the street shall be provided and improved when that adjacent property divides or develops. Access Control may be required to preserve the objectives of half streets.

When the remainder of an existing half-street improvement is made it shall include the following items: dedication of required right-of-way, construction of the remaining portion of the street including pavement, curb and gutter, landscape strip, sidewalk, street trees, lighting and other improvements as required for that particular street. It shall also include at a minimum the pavement replacement to the centerline of the street. Any damage to the existing street shall be repaired in accordance with the City's "Moratorium Pavement Cut Standard" or as approved by the City Engineer.

A half street + plus 10 feet of improvement is proposed for the Meyers Road frontage unless the City Parks Department is able to fund the completion of their half street improvement.

12.04.225 Street Design--Cul-de-sacs and Dead-End Streets. The city discourages the use of cul-de-sacs and permanent dead-end streets except where construction of a through street is found by the decision maker to be impracticable due to topography or some significant physical constraint such as geologic hazards, wetland, natural or historic resource areas, dedicated open space, existing development patterns, arterial access restrictions or similar situation as determined by the Community Development Director. When permitted, access from new cul-de-sacs and permanent dead-end streets shall be limited to a maximum of 25 dwelling units and a maximum street length of two hundred feet, as measured from the right-of-way line of the nearest intersecting street to the back of the cul-de-sac curb face. In addition, cul-de-sacs and dead end roads shall include pedestrian/bicycle accessways as required in this Chapter. This section is not intended to preclude the use of curvilinear eyebrow widening of a street where needed.

Where approved, cul-de-sacs shall have sufficient radius to provide adequate turn-around for emergency vehicles in accordance with Fire District and City adopted street standards. Permanent dead-end streets other than cul-de-sacs shall provide public street right-of-way / easements sufficient to provide turn-around space with appropriate no-parking signs or markings for waste disposal, sweepers, and other long vehicles in the form of a hammerhead or other design to be approved by the decision maker. Driveways shall be encouraged off the turnaround to provide for additional on-street parking space.

No cul-de-sac or permanent dead end street is proposed.

12.04.230 Street Design--Street Names.

Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street. Street names shall conform to the established standards in the City and shall be subject to the approval of the City.

No new street names are proposed.

12.04.235 Street Design--Grades and Curves.

Grades and center line radii shall conform to the standards in the City's street design standards and specifications.

Grades and Street will conform to City standards.

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12.04.240 Street Design--Development Abutting Arterial or Collector Street.

Where development abuts or contains an existing or proposed arterial or collector street, the decision maker may require: access control; screen planting or wall contained in an easement or otherwise protected by a restrictive covenant in a form acceptable to the decision maker along the rear or side property line; or such other treatment it deems necessary to adequately protect residential properties or afford separation of through and local traffic. Reverse frontage lots with suitable depth may also be considered an option for residential property that has arterial frontage. Where access for development abuts and connects for vehicular access to another jurisdiction's facility then authorization by that jurisdiction may be required.

12.04.245 Street Design--Pedestrian and Bicycle Safety.

Where deemed necessary to ensure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, the decision maker may require that local streets be so designed as to discourage their use by nonlocal automobile traffic.

All crosswalks shall include a large vegetative or sidewalk area which extends into the street pavement as far as practicable to provide safer pedestrian crossing opportunities. These curb extensions can increase the visibility of pedestrians and provide a shorter crosswalk distance as well as encourage motorists to drive slower. The decision maker may approve an alternative design that achieves the same standard for constrained sites or where deemed unnecessary by the City Engineer.

See Civil Drawings for design at intersection of High School Avenue and Meyers Road.

12.04.260 Street Design--Transit.

Streets shall be designed and laid out in a manner that promotes pedestrian and bicycle circulation. The applicant shall coordinate with transit agencies where the application impacts transit streets as identified in 17.04.1310. Pedestrian/bicycle access ways shall be provided as necessary in Chapter 12.04 to minimize the travel distance to transit streets and stops and neighborhood activity centers. The decision maker may require provisions, including easements, for transit facilities along transit streets where a need for bus stops, bus pullouts or other transit facilities within or adjacent to the development has been identified.

A bike lane is proposed to be a part of the Meyers Road extension.

12.04.265 Street design--Planter Strips. *A 10 foot planter is proposed.*

All development shall include vegetative planter strips that are five feet in width or larger and located adjacent to the curb. This requirement may be waived or modified if the decision maker finds it is not practicable. The decision maker may permit constrained sites to place street trees on the abutting private property within 10 feet of the public right-of-way if a covenant is recorded on the title of the property identifying the tree as a city street tree which is maintained by the property owner. Development proposed along a collector, minor arterial, or major arterial street may use tree wells with root barriers located near the curb within a wider sidewalk in lieu of a planter strip, in which case each tree shall have a protected area to ensure proper root growth and reduce potential damage to sidewalks, curbs and gutters.

To promote and maintain the community tree canopy adjacent to public streets, trees shall be selected and planted in planter strips in accordance with Chapter 12.08, Street Trees. Individual abutting lot owners shall be legally responsible for maintaining healthy and attractive trees and vegetation in the planter strip. If a homeowners' association is created as part of the development, the association may assume the maintenance obligation through a legally binding mechanism, e.g., deed restrictions, maintenance agreement, etc., which shall be reviewed and approved by the city attorney. Failure to properly maintain trees and vegetation in a planter strip shall be a violation of this code and enforceable as a civil infraction.

A 10 foot planter is proposed.

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CHAPTER 12.08 PUBLIC AND STREET TREES

12.08.015 Street Tree Planting and Maintenance Requirements.

All new construction or major redevelopment shall provide street trees adjacent to all street frontages. Species of trees shall be selected based upon vision clearance requirements, but shall in all cases be selected from the Oregon City Street Tree List or be approved by a certified arborist. If a setback sidewalk has already been constructed or the Development Services determines that the forthcoming street design shall include a setback sidewalk, then all street trees shall be installed with a planting strip. If existing street design includes a curb-tight sidewalk, then all street trees shall be placed within the front yard setback, exclusive of any utility easement.

*The street tree variety was selected from the Oregon City Street Tree list. The species is *Cadastris lutea*, or Yellow Wood.*

A. One street tree shall be planted for every thirty-five feet of property frontage. The tree spacing shall be evenly distributed throughout the total development frontage. The Community Development Director may approve an alternative street tree plan if site or other constraints prevent meeting the placement of one street tree per thirty-five feet of property frontage.

The street trees are placed evenly at 30 ft. on center spacing along the development frontage.

B. The following clearance distances shall be maintained when planting trees:

1. Fifteen feet from streetlights;
2. Five feet from fire hydrants;
3. Twenty feet from intersections;
4. A minimum of five feet (at mature height) below power lines.

All of the above clearances have been met with the street tree placement.

C. All trees shall be a minimum of two inches in caliper at six inches above the root crown and installed to city specifications.

The street trees are specified at 2" caliper measured at six inches about the root crown.

D. All established trees shall be pruned tight to the trunk to a height that provides adequate clearance for street cleaning equipment and ensures ADA compliant clearance for pedestrians.

12.08.020 Street Tree Species Selection.

The Community Development Director may specify the species of street trees required to be planted if there is an established planting scheme adjacent to a lot frontage, if there are obstructions in the planting strip, or if overhead power lines are present.

CHAPTER 13.12 STORMWATER

13.12.050 Applicability and exemptions.

A. Stormwater Conveyance. The stormwater conveyance requirements of this chapter shall apply to all stormwater systems constructed with any development activity, except as follows:

1. The conveyance facilities are located entirely on one privately owned parcel;
2. The conveyance facilities are privately maintained; and
3. The conveyance facilities receive no stormwater runoff from outside the parcel's property limits.

The storm drainage improvements for the extension of Meyers Road make this code section applicable.

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Those facilities exempted from the stormwater conveyance requirements by the above subsection will remain subject to the requirements of the Oregon Uniform Plumbing Code. Those exempted facilities shall be reviewed by the building official.

B. Stormwater Quantity Control. The stormwater quantity control requirements of this chapter shall apply to the following proposed activities, uses or developments:

1. Activities located wholly or partially within water quality resource areas pursuant to [Chapter 17.49](#) that will result in the creation of more than five hundred square feet of impervious surface within the WQRA or will disturb more than one thousand square feet of existing impervious surface within the WQRA as part of a commercial or industrial redevelopment project. These square footage measurements will be considered cumulative for any given seven-year period;
2. Activities that create more than two thousand square feet of impervious surface, cumulated over any given seven year period; or
3. Redevelopment of a commercial or industrial land use that will disturb more than five thousand square feet of existing impervious surface. This five thousand square foot measurement cumulates over any given seven year period;
4. An exemption to the stormwater quantity control requirements of this chapter will be granted in the following circumstances:
 - a. The development site discharges to a stormwater quantity control facility approved by the city engineer to receive the developed site runoff after verification that the facility is adequately sized to receive the additional stormwater, or,
 - b. The development site discharges to one of the following receiving bodies of water: Willamette River, Clackamas River or Abernethy Creek; and either lies within the one hundred year floodplain or is up to ten feet above the design flood elevation as defined in [Chapter 17.42](#)

Applicant believes that #1 is applicable in this case assuming that the WQRA shown on the GIS mapping is applicable. Stormwater detention will be provided via private storm detention ponds to control runoff per City requirements.

C. Stormwater Quality Control. The stormwater quality control requirements of this chapter shall apply to the following proposed activities, uses or developments:

1. Category A. Activities subject to general water quality requirements of this chapter:
 - a. The construction of four or more single-family residences;
 - b. Activities located wholly or partially within water quality resource areas pursuant to [Chapter 17.49](#) that will result in the creation of more than five hundred square feet of impervious surface within the WQRA or will disturb more than one thousand square feet of existing impervious surface within the WQRA as part of a commercial or industrial redevelopment project. These square footage measurements will be considered cumulative for any given seven year period; or
 - c. Activities that create more than eight thousand square feet of new impervious surface for other than a single-family residential development. This eight thousand square foot measurement will be considered cumulative for any given seven year period;
 - d. An exemption to the stormwater quantity control requirements of this subsection will be granted if the development site discharges to a stormwater quality control facility approved by the city engineer to receive the developed site runoff after verification that the facility is adequately sized to receive the additional stormwater.

This standard will be met as stormwater quality facilities will be provided between the onsite catchbasins and storm detention ponds via mechanical water quality manholes.

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2. Category B. Uses Requiring Additional Management Practices. In addition to any other applicable requirements of this chapter, the following uses are subject to additional management practices as contained in the Public Works Stormwater and Grading Design Standards:
- a. Fuel dispensing facilities;
 - b. Bulk petroleum storage in multiple stationary tanks;
 - c. Solid waste storage areas for commercial, industrial or multi-family uses;
 - d. Loading and unloading docks for commercial or industrial uses; or
 - e. Covered vehicle parking for commercial or industrial uses.
- This section is not applicable.*

3. Category C. Clackamas River Watershed. In addition to any other applicable requirements of this chapter, any development that creates new waste discharges and whose stormwater runoff may directly or indirectly flow into the Clackamas River is subject to additional requirements associated with Oregon Administrative Rules (OAR) 340-41-470 (Thee Basin Rule).
- This section is not applicable.*

13.12.080 Submittal requirements.

A. Timing and Scope of Required Submittal.

1. Applications subject to the stormwater conveyance requirements of this chapter shall include an engineered drainage plan and design flow calculation report submitted prior to, or contemporaneous with, submittal of an application for a building, land use or other city issued permit.
- A preliminary storm water report is included as part of the application submittals.
See Exhibit I - Preliminary Storm Drain Detention & Water Quality Calculations at end of Site and Design Review Submittal.*
2. Applications subject to the stormwater quantity and/or Category A quality requirements of this chapter shall include an engineered drainage plan and an engineered drainage report submitted prior to, or contemporaneous with, submittal of an application for a building, land use or other city issued permit.
- A preliminary storm water report is included as part of the application submittals.
See Exhibit I - Preliminary Storm Drain Detention & Water Quality Calculations at end of Site and Design Review Submittal.*
3. Applications subject to Category B water quality special management practices shall demonstrate compliance with the additional management practices for commercial, industrial and multi-unit dwelling land uses of the Public Works Stormwater and Grading Design Standards as part of the site plan and design review process.
4. Applications subject to Category C water quality requirements for the Clackamas River Watershed are subject to OAR 340-41-470 (Three Basin Rule). No new discharges will be approved until a copy of a current DEQ permit, or written statement from DEQ that none is required, is on file with the city.
- Not applicable.*

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- B. Required engineered drainage plans, drainage reports, and design flow calculation reports, which contain methods and proposed facilities to manage stormwater conveyance, quantity and/or quality, shall be prepared in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards.

Plans and reports are prepared in accordance with the submittal requirements.

- C. Each project site, which may be composed of one or more contiguous parcels of land, shall have a separate valid city approved plan and report before proceeding with construction.

13.12.090 Approval criteria for engineered drainage plans and drainage report.

An engineered drainage plan and/or drainage report shall be approved only upon making the following findings:

- A. The plan and report demonstrate how the proposed development and stormwater management facilities will accomplish the purpose statements of this chapter;

The plan and report indicate how the stormwater management facilities will accomplish the purpose statements.

- B. The plan and report meet the requirements of the Public Works Stormwater and Grading Design Standards adopted by resolution under [Section 13.12.020](#)

The plan and report meet the requirements of the Public Works Stormwater and Grading Design Standards as required.

- C. Unless otherwise exempted by [Section 13.12.050\(B\)](#), the plan and report includes adequate stormwater quantity control facilities, so that when the proposed land development activity takes place, peak rates and volumes of runoff:

1. Do not exceed the capacity of receiving drainage conveyance facilities;
2. Do not increase the potential for streambank erosion; and
3. Do not add volume to an off-site closed depression without providing for mitigation.

These standards will be met.

- D. Unless otherwise exempted by [Section 13.12.050\(C\)](#), the proposed development includes:

1. Adequate stormwater quality control facilities, so that when the proposed land development activity takes place, the temperature and overall pollution level of stormwater runoff is no greater than the water entering. When no water enters a project, then stormwater runoff shall be compared to rain samples; and

This standard will be met.

2. Stormwater quality control facilities which:

- a. Are in compliance with applicable National Pollutant Discharge Elimination System (NPDES) requirements;

This standard will be met.

- b. Minimize the deterioration of existing watercourses, culverts, bridges, dams and other structures; and

This standard will be met.

- c. Minimize any increase in nonpoint source pollution.

This standard will be met.

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- E. The storm drainage design within the proposed development includes provisions to adequately control runoff from all public and private streets and roof, footing, and area drains and ensures future extension of the current drainage system.

This standard will be met.

- F. Streambank erosion protection is provided where stormwater, directly or indirectly, discharges to open channels or streams. The postdevelopment peak stormwater discharge rate from a development site for the two year, twenty-four hour duration storm event shall not exceed fifty percent of the two year, twenty-four hour predevelopment peak runoff rate.

This standard will be met.

- G. Specific operation and maintenance measures are proposed that ensure that the proposed stormwater quantity control facilities will be properly operated and maintained.

O & M measures are proposed to meet the requirements for proper long term operation and maintenance.

13.12.100 Alternative materials, alternative design and methods of construction.

The provisions of this chapter are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this chapter or the Public Works Stormwater and Grading Design Standards, provided any alternate has been approved and its use authorized by the city engineer. The city engineer may approve any such alternate, provided that the city engineer finds that the proposed design is satisfactory and complies with the intent of this chapter and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed by this chapter in effectiveness, suitability, strength, durability and safety. The city engineer shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the city files.

Green street water quality and water quantity standards are proposed for Meyers Road runoff that are not currently adopted but are proposed and pending City review.

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POLE CUT SHEET AND BUG RATINGS

See attached.

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated.

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 6000K CCT and 3000K CCT. For the ultimate level of spill light control, an optional house side shield accessory can

be field or factory installed. The house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Standard with 0-10V dimming. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for

easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. Round pole top adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



GLEON GALLEON LED

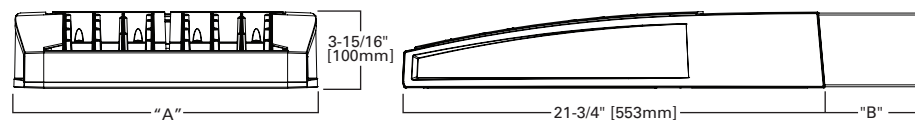
1-10 Light Squares

Solid State LED

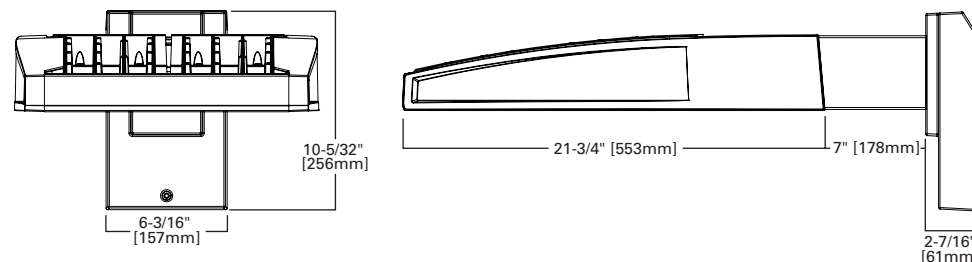
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1 Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table. 2 EPA calculated with optional arm length.

Cooper Lighting

by **F.T.N**

*www.designlights.org



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium® Qualified*

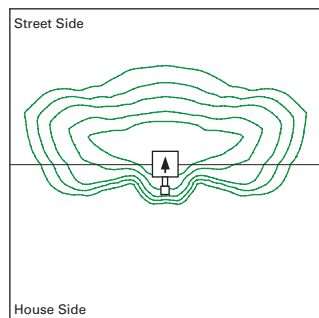
ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

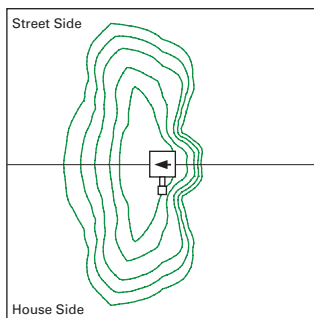


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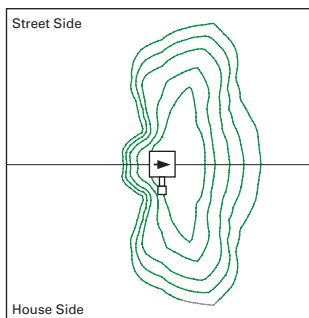
OPTIC ORIENTATION



Standard

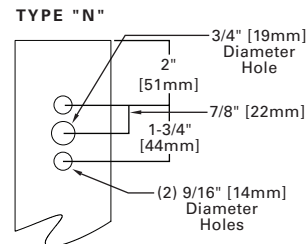


Optics Rotated Left @ 90° [L90]



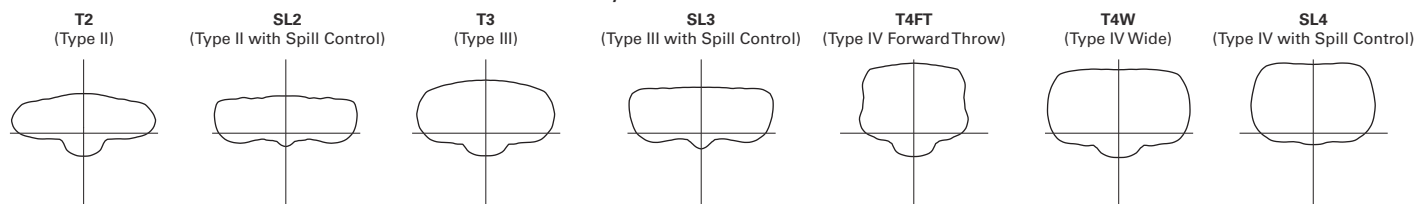
Optics Rotated Right @ 90° [R90]

DRILLING PATTERN

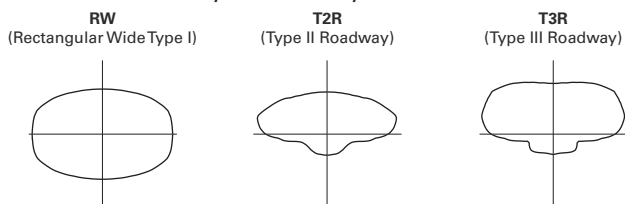


OPTICAL DISTRIBUTIONS

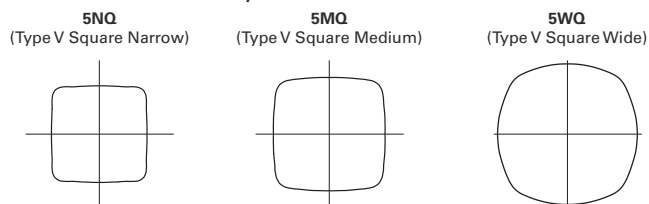
Asymmetric Area Distributions



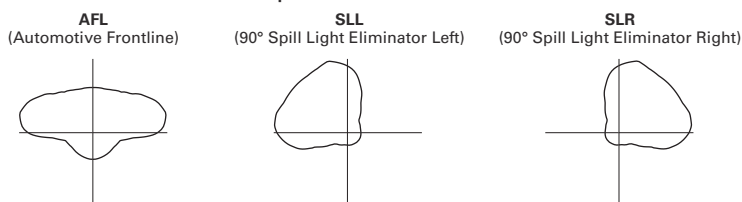
Asymmetric Roadway Distributions



Symmetric Distributions

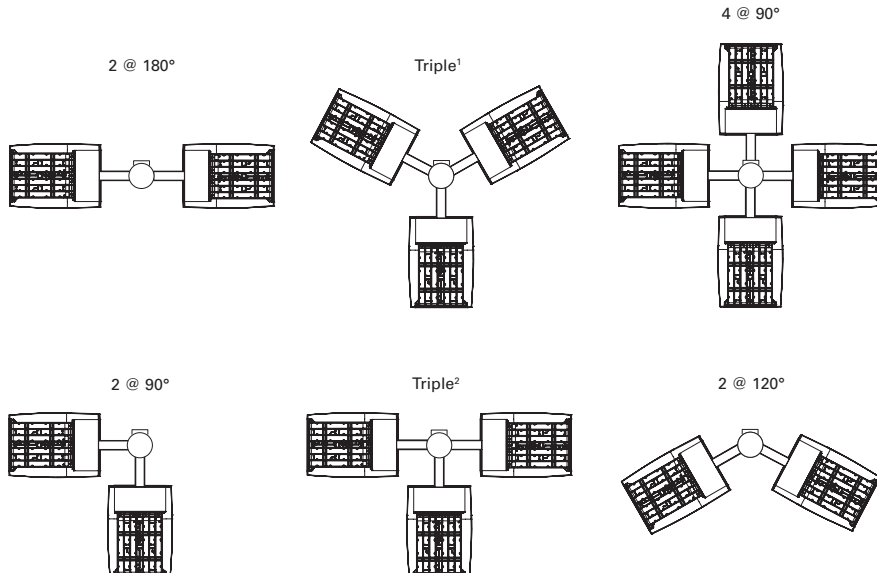


Specialized Distributions



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)



NOMINAL POWER AND LUMENS (1A)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
Nominal Power (Watts)		56	107	157	213	264	315	370	421	475	528
Input Current @ 120V (A)		0.47	0.90	1.31	1.79	2.21	2.64	3.09	3.51	3.96	4.41
Input Current @ 208V (A)		0.28	0.51	0.74	1.02	1.25	1.48	1.76	1.99	2.22	2.50
Input Current @ 240V (A)		0.25	0.45	0.65	0.90	1.10	1.30	1.55	1.75	1.95	2.20
Input Current @ 277V (A)		0.23	0.41	0.59	0.82	1.00	1.18	1.41	1.59	1.77	2.00
Optics											
T2	Lumens	5,272	10,303	15,373	20,313	25,168	30,118	35,618	40,357	45,018	49,842
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T2R	Lumens	5,597	10,938	16,321	21,565	26,719	31,974	37,813	42,844	47,792	52,914
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5
T3	Lumens	5,374	10,501	15,669	20,704	25,652	30,697	36,303	41,134	45,884	50,802
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	Lumens	5,493	10,735	16,017	21,164	26,222	31,379	37,110	42,048	46,904	51,930
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	Lumens	5,405	10,562	15,760	20,824	25,801	30,875	36,514	41,372	46,150	51,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	5,335	10,426	15,556	20,555	25,468	30,476	36,042	40,838	45,554	50,436
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	Lumens	5,263	10,285	15,347	20,278	25,124	30,066	35,556	40,288	44,940	49,756
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	Lumens	5,373	10,500	15,667	20,701	25,649	30,693	36,298	41,128	45,878	50,794
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	Lumens	5,105	9,976	14,886	19,669	24,370	29,163	34,488	39,078	43,591	48,262
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	Lumens	5,542	10,830	16,160	21,352	26,455	31,658	37,439	42,421	47,320	52,392
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5MQ	Lumens	5,644	11,029	16,457	21,745	26,942	32,241	38,128	43,202	48,191	53,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
5WQ	Lumens	5,659	11,059	16,501	21,803	27,014	32,327	38,230	43,317	48,320	53,498
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,722	9,227	13,767	18,191	22,539	26,971	31,897	36,141	40,315	44,635
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	Lumens	5,492	10,732	16,014	21,159	26,216	31,372	37,101	42,038	46,893	51,918
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
AFL	Lumens	5,512	10,771	16,072	21,236	26,311	31,486	37,236	42,191	47,063	52,107
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4

* Nominal data for 4000K CCT.

NOMINAL POWER AND LUMENS (700MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA
Nominal Power (Watts)		38	72	105	138	176	210	243	276	314	348
Input Current @ 120V (A)		0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86
Input Current @ 208V (A)		0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69
Input Current @ 240V (A)		0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49
Input Current @ 277V (A)		0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31
Optics											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,638	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,620	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,006	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,416	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

NOMINAL POWER AND LUMENS (530MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA
Nominal Power (Watts)		30	54	80	105	130	159	184	209	234	259
Input Current @ 120V (A)		0.25	0.45	0.66	0.86	1.07	1.32	1.52	1.72	1.93	2.14
Input Current @ 208V (A)		0.17	0.28	0.39	0.51	0.63	0.78	0.9	1.02	1.14	1.26
Input Current @ 240V (A)		0.17	0.25	0.35	0.45	0.55	0.70	0.80	0.90	1.00	1.10
Input Current @ 277V (A)		0.19	0.24	0.32	0.40	0.49	0.64	0.72	0.80	0.89	0.98
Optics											
T2	Lumens	3,079	6,017	8,978	11,862	14,697	17,588	20,800	23,567	26,289	29,106
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	Lumens	3,269	6,388	9,531	12,593	15,603	18,672	22,082	25,020	27,909	30,900
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
T3	Lumens	3,138	6,133	9,150	12,091	14,980	17,926	21,200	24,021	26,795	29,667
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3R	Lumens	3,208	6,269	9,354	12,359	15,313	18,325	21,671	24,555	27,390	30,326
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4FT	Lumens	3,156	6,168	9,203	12,161	15,067	18,030	21,323	24,160	26,950	29,839
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4W	Lumens	3,116	6,088	9,084	12,004	14,872	17,797	21,047	23,848	26,602	29,453
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL2	Lumens	3,074	6,006	8,962	11,842	14,672	17,558	20,764	23,527	26,244	29,056
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,138	6,132	9,149	12,089	14,978	17,924	21,197	24,018	26,791	29,662
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	2,981	5,826	8,693	11,486	14,231	17,030	20,140	22,820	25,456	28,184
	BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	Lumens	3,236	6,324	9,437	12,469	15,449	18,487	21,863	24,773	27,634	30,595
	BUG Rating	B1-U0-G0	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	Lumens	3,296	6,441	9,610	12,698	15,733	18,828	22,266	25,229	28,142	31,158
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	3,305	6,458	9,636	12,732	15,775	18,878	22,325	25,296	28,217	31,241
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	2,757	5,388	8,040	10,623	13,162	15,751	18,627	21,105	23,543	26,066
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	3,207	6,267	9,351	12,356	15,309	18,320	21,666	24,549	27,384	30,319
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	Lumens	3,219	6,290	9,385	12,401	15,365	18,387	21,745	24,638	27,484	30,429
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AE=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ^{3, 4}	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁵ MA=Mast Arm Adapter ⁶ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{2, 8} 7030=70 CRI 3000K ⁹ 7060=70 CRI 6000K ⁹ 530=Drive Current Factory Set to 530mA ¹⁰ 700=Drive Current Factory Set to 700mA ¹⁰ F=Single Fuse (120, 277 or 347V. Must Specify Voltage) FF=Double Fuse (208, 240 or 480V. Must Specify Voltage) P=Button Type Photocontrol (120, 208, 240 or 277V) PER7=NEMA 7-Pin Twistlock Photocontrol Receptacle R=NEMA Twistlock Photocontrol Receptacle HA=50°C High Ambient ⁸ MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{11, 12, 13, 14} MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ^{11, 12, 13, 14} MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height ^{11, 12, 13, 14} MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height ^{11, 12, 13, 14, 15} MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height ^{11, 12, 13, 14, 15} MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height ^{11, 12, 13, 14, 15} MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height ^{11, 12, 13, 14} MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height ^{11, 12, 13, 14} MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height ^{11, 12, 13, 14} DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ¹⁶ L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top TH=Tool-less Door Hardware LCF=Light Square Trim Plate Painted to Match Housing ¹⁷ HSS=Factory Installed House Side Shield ¹⁸					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁹ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares LS/HSS=Field Installed House Side Shield ^{18, 20}		

Notes:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

2. Standard 4000K CCT and minimum 70 CRI.

3. Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.

4. Not to be used with un-grounded systems.

5. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.

6. Factory installed.

7. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.

8. Not available with LumaWatt wireless sensors.

9. Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.

10. 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.

11. Consult factory for more information.

12. Utilizes internal step down transformer when 347V or 480V is selected.

13. The FSIR-100 accessory is required to adjust parameters.

14. Not available with HA option.

15. Replace X with number of Light Squares operating in low output mode.

16. LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1 and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.

17. Not available with house side shield (HSS).

18. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.

19. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Eaton's Cooper Lighting business representative for additional details.

20. One required for each Light Square.