

**CITY OF MILWAUKIE
PLANNING COMMISSION
MINUTES**

**Milwaukie City Hall
10722 SE Main Street
TUESDAY, March 11, 2008
6:30 PM**

COMMISSIONERS PRESENT

Jeff Klein, Chair
Dick Newman, Vice-Chair
Scott Churchill
Teresa Bresaw
Paulette Qutub
Lisa Batey
Charmaine Coleman (arrived at 9:10 p.m.)

STAFF PRESENT

Katie Mangle, Planning Director
Bill Monahan, City Attorney
Brett Kelter, Assistant Planner
Ryan Marquardt, Assistant Planner
Zach Weigel, Civil Engineer

1.0 CALL TO ORDER

Chair Klein called the meeting to order at 6:31 p.m. and read the conduct of meeting format into the record.

2.0 PROCEDURAL MATTERS – None.

3.0 PLANNING COMMISSION MINUTES

3.1 January 22, 2008

Vice-Chair Newman moved to approve the January 22, 2008 meeting minutes as presented. Commissioner Bresaw seconded the motion, which passed unanimously.

Approved PC Minutes can be found on the City web site at www.cityofmilwaukie.org.

4.0 INFORMATION ITEMS -- City Council Minutes

City Council Minutes can be found on the City web site at www.cityofmilwaukie.org.

5.0 PUBLIC COMMENT –There was no public comment.

6.0 PUBLIC HEARINGS

6.1 Milwaukie High School

Applicant: Garry Kryszak

Owner: North Clackamas School District

Address: 11300 SE 23rd Ave

File: CSU-07-05, TPR-07-13, VR-07-07

Staff Person: Brett Kelter

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

Chair Klein asked if any Commissioners had any ex parte contacts to declare.

Vice-Chair Newman declared for the record that he had previously worked with Ron Stewart in Oregon City, whom he confirmed was currently supervised by the Applicant, Garry Kryszak. He had no contact with Mr. Stewart in two years.

Bill Monahan, City Attorney confirmed that Vice-Chair Newman felt no bias in this matter.

Commissioner Batey declared, as previously stated, she had solicited some input on the lighting issue as it applied at North Clackamas Park, adding she had a follow-up email with Mr. and Mrs. Shawn that had been submitted for the record.

Commissioner Churchill declared he had spoken after the last meeting with the Applicant, Gary Kryszak, who had parked by him. Mr. Kryszak had stated he was worried about the schedule for the improvements and 80-ft versus 60-ft lights when other schools had 80-ft lights. He had told Mr. Kryszak that he understood.

Chair Klein declared, along with the previous discussions he had with Commissioner Batey and the website that she had visited, they had obtained other information regarding the lights.

- Also, a number of people in the audience had spoken with him about information on the lights, and he had encouraged them to attend the meeting if they were interested.
- He had attended junior baseball training for coaches, had heard conversation targeting the subject fields, and had removed himself from the conversation to avoid listening or further involvement.

Mr. Monahan asked whether the email to which Commissioner Batey referred had been made available to all members of the Commission as well as to the Applicant.

Chair Klein clarified that he was referring to the website and not the email.

Ms. Mangle stated the email between the Shawns and Commissioner Batey was included in the supplemental packet.

All Commissioners declared for the record that they had visited the site. No Commissioners however, declared a conflict of interest, bias or conclusion from a site visit. No board member participation was challenged by any member of the audience.

Brett Kelter, Assistant Planner reviewed the Staff Report, noting the four items continued for discussion before the Commission, which included off-street parking, lighting and the height of light poles, screening, and levels of use.

He responded to the following questions and comments from the Commission as follows:

Commissioner Batey confirmed the parking was the same number provided in the last presentation.

- * **Mr. Kelter** added he had inadvertently included some parking spaces on 25th Ave in his last presentation.
 - A 1999 Community Service Overlay Application had a condition requiring the Applicant to implement a carpooling program with dedicated parking spaces.

Staff has folded that carpooling element of the parking management into the Transportation Demand Management or TDM requirement.

Commissioner Churchill:

- Asked about Staff's position on the development of a sound policy to limit noise impacts from the field's loudspeaker system.
 - * **Mr. Kelver** referred to the Ardenwald Application in which Staff had reviewed municipal code standards for maximum levels of noise and nuisance noise.
 - * **Mr. Monahan** stated the possibility of presenting a noise limitation on a Community Service Use (CSU) application was open to interpretation because the exception in Section 8.08.100, which said "sounds caused by organized athletic or other group activities" also provided later language in Chapter 8.08 about prohibited noises including loudspeakers.
 - He explained his interpretation of the normal noise of play activity and crowd versus a manufactured sound that might be prohibited, but emphasized they were not suggesting in any way that the loudspeakers be prohibited.
 - He further stated that this caused an opportunity to formulate a guide to limitations so that the community use would fit well in the neighborhood.

Chair Klein asked if any further correspondence had been received on the Application other than those included in the agenda material.

Mr. Kelver reported he had two contacts since the previous hearing:

- He had emailed Ray Bryan, whom he thought would be speaking tonight, and provided lighting clarification as to where measurements had been taken.
- He had also spoken via telephone with Dion Shepard of the Historic Milwaukie Neighborhood about the retaining wall and concerns about the current wall construction providing some protective screening for headlights.
 - * That conversation had influenced a suggested amendment to the conditions that some screening be provided to block headlights when the wall was reconstructed after removal from the right-of-way (ROW).
- He entered a document from the Seattle Parks and Recreation District into the record as Exhibit 5 that was supplied by Commissioner Batey. The document provided some base definitions, explanations of different environmental zones, spill levels, classifications of play, etc, that Staff also considered when revising the conditions.

There were no further questions for Staff.

Chair Klein called for comments from the Applicant.

Garry Kryszak, Capital Projects Manager, North Clackamas School District, 12451 SE Fuller Rd, Milwaukie, Oregon, 97222, addressed the key issues as follows:

- Parking. A complete TDM plan would be developed, involving students and staff, before the start of school this fall for Milwaukie High School.
 - * He respectfully requested that implementation of the TDM be tied to the completion of the occupancy of the auditorium.
 - * He added the School District was already in contact with the churches to obtain updated parking leases.
- They had no objections to:

- * Landscaping requirements for their portion of the east bank for screening as suggested.
- * Planting some trees on Washington St, if that was requested.
- * Rescreening along the top of the wall, and moving the wall on Lake Rd.
- Light poles. He felt certain that the proposed 70/80-ft scenario was the way to go.
 - * He emphasized that research had been done and expressed concern regarding the equality of facilities across the District, as well as mitigating light impacts to neighbors.
- Field use. He outlined the District's position that while the move to artificial turf would allow additional events to be held at the facility, it would not change the nature of that use or lead to larger and noisier events.
 - * The time limit of 8:00 a.m. to 10:00 p.m. was acceptable to the District.
 - * The District felt there would be no increase in traffic as shown by previous experience with artificial turf at Alder Creek and Clackamas High School.
- He confirmed the capacity of the stadium seating tentatively as 500 and emphasized the seating capacity was not to be increased.
- He had no problem committing the District to conducting a sound study, but would not commit to be bound by what might come out of that, adding they could then negotiate with Staff as to which recommendations for noise mitigation would be economically feasible to implement.

Commissioner Churchill asked if anyone present for the Applicant could address the existing PA system, just generally, as to how many speakers, etc.

Mr. Kryszak indicated Shirley Huyett, Athletic Director of Milwaukie High School, who was present, could address that.

Commissioner Batey asked if it was anticipated that the Parks District would make use of the sound equipment as well.

Mr. Kryszak replied he could not answer specifically, but saw no reason they would not be allowed to use it.

- He emphasized the District was willing to look at mitigation, but not to commit to recommendations as yet unheard.

David Chesley, Electrical Engineer, Interface Engineering 3412 SE Saint Clair Rd, Washougal, Washington, 98671 displayed two lighting system photographs side-by-side, the right-hand of which illustrated what he had seen at a recent project with the same Musco product line at Portland State University.

- He had been walking the campus and did not believe the field light system was on until he was "right on top of it." He introduced Tim Butts of Musco to explain the change between the two systems shown.

Tim Butts, Musco Lighting, 11710 SE Brockenhurst Cir, Happy Valley, Oregon 97086 indicated the photograph on the left showed Musco's predecessor to the Green light structure fixture shown on the right that was intended for Milwaukie High School. He described the differences between the proposed and existing fixtures, particularly with respect to glare, and explained how the proposed fixture mitigated glare by controlling light.

Mr. Chesley continued by describing the photometrics, assuring they had made sure to take measurements in the same way throughout. He reviewed the results from the varied pole heights.

- He explained the measurements of vertical foot candle (fc) had been taken at the property line and at 10, 20, and 30 ft above the property line.
- He noted previous measurements had included an overlooked security light at the northwest corner of the apartments, which he then chose to exclude from the new measurements.
- He discussed the maximum to minimum ratios (max/min) of the poles, stating the goal was to keep the ratio below 2.5 to maximize uniformity.
- He explained the measurements of vertical fc had been taken at the property line and at 10, 20, and 30 ft above the property line.
 - * 80-ft poles were considered the norm and their max/min ratio was 1.67, but the light levels did increase slightly at the property line and above.
 - * 70-ft poles max/min ratio was slightly higher, but still under the target. The light levels dropped closer to existing conditions but had increased at and above the property line.
 - * 80-ft poles on the west and 70-ft poles on the east was the best solution, with the light levels a little higher at the property line but continuing to decrease as the measurement levels went to 10 ft, 20 ft, and 30 ft.
 - * 60-ft poles showed a marked increase of light at the property line, almost double that of the 80/70 mix, and increased more at the 10-ft, 20-ft, and 30-ft levels, actually worse than the existing system.
 - * 70/60-ft mix was not as good as the 80/70-ft scenario.
- He concluded standard operating procedure would have been all 80-ft poles, but Staff's encouragement of further investigation had led to an all around improvement in the 80/70-ft mix.

Commissioner Churchill:

- Thanked Mr. Chesley for exploring the 60-ft poles and asked if the stray light at 20 and 30 ft above the property line was coming directly from the fixture or bouncing off the field.
 - * **Mr. Chesley** replied it was coming straight from the existing fixtures, explaining older lights not only had no shroud but the reflectors were not segmented at all, which was why all three levels of the apartments appeared equally illuminated.
- Asked if he understood that it was not a bounced light or a night sky glow light, but was a direct illumination from the fixtures that caused stray illumination.
 - * **Mr. Chesley** agreed, adding they would term this "light trespass," light going directly where it was not supposed to go.
- Inquired if the majority of the light trespassing on the eastern property line came from the eastern poles or also from the western poles.
 - * He replied exploring the 70/80 split revealed that most of the light was coming from the far poles, but some minority component coming from the nearer poles.
- Asked for confirmation that the western poles were causing the illumination at 20 to 30 ft above the property line.
 - * **Mr. Chesley** agreed and further clarified that the western lights directly faced the apartments, whereas the closer poles really had no backlight hitting the apartments and very little light on the field bounced from them toward the apartments.

- He noted the photometer could not differentiate what light came from a particular luminaire.
- Expressed curiosity as he was trying to understand the concept, since he would have thought the opposite.
 - * Using the walls in the room as an example, **Mr. Chesley** explained the scallop effect, noting the scallops of light created by the light fixture louvers, making the top of the wall darker than the bottom and reducing glare.
 - * While the bottom of the wall was lit directly from the light, the only light reaching above the scallops was that bouncing off the carpet, which was actually a bit brighter than what would be seen bouncing from the football field's turf.
 - * This analogy described the relationship between directed light from the football field versus the indirect light that would bounce off the field and up toward the apartments.
- Indicated that he might have other questions later.

Commissioner Batey:

- Prefaced her question by noting that the document from Seattle Parks and Recreation District restricted light trespass in urban areas to a range of 0.8 to 1.1 fc.
- Noted the proposed system's light trespass was over three times higher and asked if dropping field illumination to 40 or 30 fc would lower light trespass.
 - * **Mr. Chesley** had been unable to ask someone in Seattle, but had talked to his company's designers in their Seattle office.
 - Their designers told him the document in question was directed to the creation of new fields with no prior sports' lighting system, which gave them the additional parameter of where the field was sited relative to neighboring properties to control the lighting effects.
 - Within that document, he pointed out that those requirements were subject to case-by-case variance if a field already existed with nearby neighbors.
- Had hoped the Commission would get what the IESNA (Illuminating Engineering Society of North America) position was, but they had not. It was difficult to tell from the Seattle document whether or not they were taking their numbers from the IESNA.
 - * **Mr. Chesley** asked if she was asking about the levels of play lighting.
- Replied that was a separate question and clarified she was asking about page 2 of the Seattle document (Exhibit 7), the chart of environmental zones and acceptable light trespass at the property line. She believed the school would be designated as E3 – "areas of medium ambient brightness" such as urban residential areas, adding that the Portland State University example might be an E4.
- Was unable to tell whether the Seattle document standards came from the IESNA or not, which she had previously asked to be clarified.
 - * **Mr. Chesley** confirmed the standards came from a separate IESNA document on light trespass, adding his company commonly referred to that document and tried to design as close to that as possible when building lighting for uses other than sports' fields.
 - * He also added that neighbor proximity and intended use might preclude their meeting that standard, but the proposed system was the best he had seen in five years. This system contained the optimal arrangement of poles and shielding to lower levels as much as possible without compromising the District's desire to provide uniform field conditions between schools.
- Confirmed that 50 fc was a District requirement and stated the Commission had seen no District policy document specifying why 50 fc was necessary for safety.

- Added the Seattle document seemed to indicate that 30 fc was quite adequate.
 - * **Mr. Chesley** referred to page 3 of the Seattle document for levels of play classifications, indicating the school satisfied the criteria for Level 2.
- Replied she had seen documentation that 30 fc was enough for football and reiterated the need for documentation that the District required 50 fc.
 - * **Mr. Chesley** deferred to the District to explain their 50-fc policy.
- Rephrased her original question, asking if the light were lowered to 40 fc for the 80/70 system, would the numbers at the property line be lowered.
 - * **Mr. Chesley** responded that was possible.

Commissioner Churchill interjected and confirmed with Mr. Chesley that the property-line numbers would be lowered, i.e., energy in/energy out.

Commissioner Bresaw asked if evergreen trees on the east side of the property would prevent a lot of light trespass and bring the trespass closer to the 1.1 fc.

Mr. Chesley answered the evergreen trees would definitely enable hitting the light trespass targets Staff had recommended, adding that photometric readings at the 10-ft level behind some existing neighbors' bushes had been around 1.0 or so.

Commissioner Churchill wanted to confirm that Mr. Chesley was attempting to meet the District's standards for field illumination and that the District was not following National High School Association standards or something of that nature.

Mr. Chesley responded that his company had asked the District for the basis of the electrical design. The District indicated they wanted to make the same field upgrades as those implemented at their other schools, which his company took to mean the District sought field parity.

Chair Klein:

- Asked how many other schools Mr. Chesley had worked with the District to upgrade in the surrounding Metro area.
 - * **Mr. Chesley** replied Clackamas High School and Alder Creek in the District and some in the Sherwood and, he thought, Newberg School Districts.
- Confirmed the standard of lighting on those fields was 50 fc.

Commissioner Churchill asked how close adjacent residences had been for those fields.

Mr. Chesley stated about 50 to 100 ft away.

There were no more questions for Mr. Chesley at that time.

Chair Klein confirmed the approximate size of the Milwaukie High School campus was 14 acres and asked Mr. Kryszak the average size of a high school campus.

Mr. Kryszak replied the recommended size of a high school campus was 30 to 50 acres.

Commissioner Churchill:

- Confirmed that Milwaukie High School was a 6A school, and the school followed the sports standards of the National Federation of State High School Associations (NFHS).
- Asked if Mr. Kryszak was aware if the NFHS had any standards for field lighting levels.
 - * **Mr. Kryszak** replied he was unaware of NFHS standards, adding the District did not develop standards but hired experts to design systems based on accepted standards.
 - * He also stated the District matched the standards that existed for schools within both the district and the league.
- Had looked at IESNA standards to see what the Commission should refer to for target values.
 - * **Mr. Butts** stated no national standards existed for high school football but a number of states had adopted their own.
 - * He added that more often than not, the 50-fc had been adopted for larger schools and 30 fc for smaller schools.
 - He believed the smaller or larger designations were derived from the number of spectators. Musco typically lit a 1 or 2A school to 30 fc; anything larger, they lit to 50 fc.
 - * He explained that with larger venues, crisper light became more important.
- Confirmed the smaller schools got 30 fc and the larger ones got 50 fc.
 - * **Mr. Butts** added that typically in rural areas with small schools with less attendance, lighting levels were significantly lower. He reiterated larger schools with more attendance needed brighter light levels.

There were no further questions for the Applicant.

Shirley Huyett, Athletic Director, Milwaukie High School, 9701 SE Johnson Creek Bl, Happy Valley, Oregon 97086 addressed questions raised previously.

- She stated the capacity of the stadium was between 1,000 and 1,200 with about 400 on the visitors' side and 600 to 800 on the home side, which would remain the same after the bleachers were replaced.
- She described the current loudspeaker system as substandard and hard to hear, even on the field.
- She added the speakers were slated to be replaced and directed toward the field and spectators and away from the neighbors.

Commissioner Churchill confirmed the new speakers were not part of the Application.

Chair Klein called for public testimony in favor of, neutral, and opposed to the application.

Kelly Carlisle, Principal, Milwaukie High School, 12422 SE One Rosa Dr, Happy Valley, Oregon 97086 stated he had worked for the high school for 22 years, and for over 80 years Milwaukie High School had been a part of the community and the community had taken care of the high school very well.

- He felt the upgrades to the field, track, and lighting were critical to the success of what the community wanted for Milwaukie High School.
- He stated 'parity', as mentioned previously, represented a key concept for consideration in terms of the schools, the facilities and even the lighting.

- He appreciated the technology behind the lighting implements and realized the problem of light spillage.
- He added that the same concept applied to sound, adding he had taught music for 15 years and was familiar with sound systems.
 - * He indicated only one speaker, which coned out to the east, was in use, and it needed to be replaced by several so sound could be directed more efficiently.
 - Presently, the only answer to spectators being unable to hear was increasing the volume, but the sound was traveling in unintended directions.
- He reiterated the importance of parity, stating if the standard at Clackamas High School was 50 fc, then Milwaukie High School needed 50 fc.

Yvonne McVay, Parent, 4260 SE Somewhere Dr, Milwaukie, Oregon, 97222 stated she had three children in the school district, had also been involved with the District on various facilities planning commissions and was currently on the Bond Oversight Committee.

- She believed the District had done a very professional job studying the facilities to find the best way to make improvements while mitigating neighborhood concerns.
- She thought while Milwaukie High School existed in downtown Milwaukie, it really belonged to the whole community, and the desires of the community needed to be considered.
- She emphasized the alternative to the improvements was students and families feeling as if what they had was inferior to what other schools had; they already felt that way, and it was damaging to the kids and the community's relationship with the District.
- She encouraged the Commission to support the Application.

Heather Noren, Parent, 12737 SE Weedman Ct, Milwaukie, Oregon 97222 stated she had a student in this district and was also on the Oversight Committee for the Bond Measure.

- She said the citizens of Milwaukie and in this school district had voted for the bond measure. The bond measure included all of the plans to improve Milwaukie High School including obtaining parity with the other schools in the district.
- She concluded by stating that the students did need upgrades at that school.

Roberto Aguilar, Counselor, Milwaukie High School, 3903 SE Crystal Springs Blvd, Portland, Oregon, 97202 stated he had been a counselor at the school for 8 years and coached varsity boys' soccer and expressed appreciation to the voters in that area.

- He had seen how much pride the few improvements they had had to the gym had brought to the school/community.
 - * The people from Lakewood said the gym was really great, as the gym had seating on all four sides and was very unique.
- He believed one great thing about Milwaukie was that it is unique, and this was a unique plan that could be very helpful for the community who had given these gifts by approving the bond measure funding.
- He hoped Milwaukie could remain unique but stay fair and receive fair treatment as all the other schools had done.
- He was looking forward to having a home field instead of being at Alder Creek for most of his soccer games.

Rick Frank, 4485 SE Rhodesa St, Milwaukie, Oregon 97222, stated he wanted to address intensity of use and the field lighting.

- He pointed out in the Milwaukie High School theater area there were two football fields, both at the high school, a main field and a practice field.
 - * Both of these fields were in the Historic Milwaukie Neighborhood, so any football in Milwaukie would be played right there.
 - * The practice field had less parking, only about 30 paved spots with 10 or 12 on the grass, and was considerably closer to neighbors than the main field.
 - The overflow parking ended up along 32nd Ave north of Lake Rd and along 28th Ave south of Lake Rd and in the Quail Ridge Apartment parking lots, which he was certain was a real inconvenience to the neighbors.
 - The practice field had no spectator seating and no disabled access.
 - The practice field was often unplayable due to wear and weather and required more maintenance, more chemicals, and more water.
 - * He thought even the neighbors would prefer a football game be played at the main field rather than the practice field.
 - * He concluded, with respect to intensity of use, the main field was the right place, and the Applicant's proposal was the right way to do it.
- He stated they had all failed to take note that the number of light poles had been significantly reduced while they focused on pole height.
 - * Now the school had six poles with the highest at 85 ft.
 - * The plan called for only four poles at 70 to 80 ft, a substantial reduction in the total amount of visual clutter and pole height and a sincere improvement.
- He addressed concerns about the levels of lighting, stating for points of reference that the minimum level of lighting in an NFL stadium was 250 fc, and the average was 300 fc.
 - * The proposed lighting system at Milwaukie High School was only 50 fc.
 - * The *2008 Little League Lighting Standards & Safety Audit*, which was published in their league operations manual, stated, "There shall be a maintained minimum average quantity of 50 fc on the infield..." He emphasized the Little League standard of 50 fc. (Two pages of the audit were taken in as Exhibit #6)
 - * They were not asking for a lot for the high school's field, only a safe, playable level of light, which they did not have now.
- He said when the improved fixtures, better shielding, additional landscaping and screening to prevent spill light were added, there was improvement.
- He emphasized that the project would provide the citizens of Milwaukie a safer football field that was playable in all weather, with improved lighting, better shielding that would create less glare and spill light, on fewer poles of lesser height, augmented by better screening and improved landscaping.
- He urged that the project be approved for the citizens and mostly for the kids of Milwaukie.

Dan Warner, Parent, 12461 SE Guilford Dr, Milwaukie, Oregon 97222, agreed with previous testimony, stating a lot of what he had wanted to say had been said.

- He added when looking for a home, one of the main things to consider were schools, which he had done as a parent.
 - * Parents wanted to know their children could compete and not feel inferior to another school's district.
 - * He thought Milwaukie High School's players did feel inferior looking at facilities like Clackamas had.

- He urged the Application be approved to give the children the parity to the other district and metro schools, so they had that confidence to play and to go out and do their best to succeed, not just on the sports' field, but in life in general.

Serena Ricca-Warner, Parent, 12461 SE Guilford Dr, Milwaukie, Oregon 97222, stated her husband had just spoken, they had two children in the school district, and she was an almost 20-year Milwaukie High School alumnus.

- She vocalized her support as it seemed to her a lot of time, research, care, and preparation was put in to considering everything the school as a whole wanted and referred back to the lack of parity as a serious issue within the school district.
- She asked the Commission to consider all of the research, the conditions, the things the Commission wanted people to go back and look at, and then approve this facility upgrade.
- She would hate if the turf field was not approved or not approved in time based on lighting issues, which she felt had been addressed with appropriate care and concern. She asked that the Application be approved.

Drew Coleman, Head Coach of Girls Soccer at Rex Putnam High School, 10392 SE 23rd Av, Milwaukie, Oregon 97222, stated he lived within walking distance of Milwaukie High School and had two children who would attend there. He noted Rex Putnam was in a similar position with their lighting and field.

- He strongly supported the suggested upgrades.
 - * Athletically, a better field surface and lighting led to improved and safer play.
 - * Currently, Milwaukie and Putnam High Schools were the only two in their league without turf fields, and he was fairly certain they were the only two without a lighting upgrade within the past five years.
 - * Based on his own experience, parity should exist not just within their district but also within their own league.
 - * As a coach, game films showed lighting differences tangibly.
 - When Putnam played at Oregon City or Lakeridge or West Linn, he could see game films clearly, but at Putnam or Milwaukie games the film was very dark to the point where he could not tell who was who.
 - From the coaching box, he had a very difficult time seeing who was in front of the goal, depending on where he was on the field, which could be a pain.
 - * He thought Chair Klein brought up a good question about the acreage, and that the use of the lighting and the field itself would increase practice space because no one could practice on the stadium field since it gets torn up.
 - * He added that they faced the same issue at Putnam because they were also a small campus.
 - * He saw increased usage as a positive because it provided more playing opportunities for their kids and was a sign of a vibrant, active, healthy community.
 - * As a citizen, he saw the upgrades as a positive because it would clean up the most visible part of the school to visitors and create pride within him that he lived in a community with a first-rate facility, which had nothing to do with his bringing his teams to play there.
- He concluded as a coach of an opposing school and as a citizen and a parent, he saw the improvement as an excellent opportunity for the city in which the benefits far outweighed the drawbacks and brought a lot of health to the city.

Jeremy Finerty, President, Mustang Youth Football (MYF), 9703 SE 75th Av, Milwaukie, Oregon 97222, stated, in terms of field use, that MYF expected to use the field far more than the last couple years.

- He understood from his predecessor that MYF used to use it quite frequently, but the last two years had been using it less.
- His organization understood they would get far more use out of the field if it went to turf, and had been in contact with Mr. Loomis about that.
 - * MYF also expected to use the lights and sound system.
- He added that they had voted for this and had put money and a lot of time into getting the bond passed so they could get the turf field, and they certainly had those expectations as a youth football organization.
- He brought up Milwaukie High School's using the Lake Road facility for football practice, adding that he understood from Coach Robinaji that he expected to use the field for practices three or more times a week.
 - * He pointed out those players drove from the school to the Lake Road facility, back to their school to shower, and then home, which was three trips, three times a week for about 40 vehicles through the neighborhood as opposed to one if they could practice at their own school. He believed about 240 trips could be eliminated weekly.
 - * Those players who walked to Lake Road ate along the way creating a small litter problem.
 - * He spoke to the ground-level neighbors across the street from the Lake Road field when a lacrosse game was in progress. They didn't think newer lights were much of a problem during football season even though no shielding or blocking was in place.
- He alluded to a comment of Chair Klein's at the last hearing and asked if a better job was done on the lighting than what's currently there, then what was wrong with keeping that and making it better because the other option was to keep what was there—85-ft poles with floodlights flooding the neighborhood.
- He concluded that he had been there and knew what it was like, hoped the proposed system would be approved, and asked if the proposed system was better, why not just approve it, move on, and get a good field there?

Chair Klein asked about the ages served by youth football, when the games were played and how late, and how many attended the games.

Mr. Finerty responded the organization covered third through eighth grades.

- Games were always played on Saturdays and were commonly scheduled to go to 9:00 p.m., sometimes they went longer, but were over before 10:00 p.m.
- Each team had about 25 players, so maybe 40-50 cars or less than 200 people.
 - * Most people sat in the home stands that were further from the neighborhood because the home stands had shelter while the visitor stands did not, and the home stands were closer to snacks, etc.

Commissioner Batey asked about practice times for their games.

Mr. Finerty replied they did not practice at the high school but at the Lake Road facility, and practices did not run late; probably until 8:30 p.m. at the latest.

There were no further questions for Mr. Finerty.

Trisha Keller, 11275 SE 27th Av, Milwaukie, Oregon 97222, stated her ground-floor apartment faced the home team bleachers with the lights coming into her window.

- She wanted to let the Commission know that she was aware of her proximity to the high school and accepting of whatever would happen.
 - * Yes, the lights could get quite glaring and any improvement on that would be great
 - * The sound system was irritating, but she accepted it.
 - * She hoped her two children would attend the high school soon. They actually stood out on the porch and cheered, and that had given them a lot of pride.
 - * She reiterated when you move near a high school, you have to know there will be football games and lights and sound.
- She concluded any improvement on that would be nice, but the most important thing was the high school's pride and what it needed with the community and what it represented—anything that could better that high school, she completely approved of.

Commissioner Batey:

- Asked how many days a week the lights were used apart from the Friday night games.
 - * **Ms. Keller** replied that depended on the time of year. She believed practices were held in the late afternoon so the lights might come on for the games, which seemed to only be every other week for a two- to three-month period.
 - * She saw soccer practice or other practices at night, but the lights were turned off such that her sleep was not affected. Other than football games, which were expected to be loud and were fun, she could barely even hear anybody playing on the field.
 - * She mentioned the sounds heard from some type of racing or track events held early on Saturday mornings could start too early, but she stressed the community nature of the sporting event, noting she loved seeing that part of the community, and it was not excessive.
- Stated that under this Application, if the field were resurfaced with AstroTurf, the field would likely be used more. Ostensibly, the field could be used 365 days a year until 10:00 p.m.
 - * **Ms. Keller** replied that would depend whether the use was for soccer or football because football was louder. She emphasized she could almost get used to the lights, but the noise was more of a problem; the Saturday morning events could get noisy.
- Confirmed that Ms. Keller was not concerned about the increased use.
 - * She affirmed that she had known where she was moving, wanted to be part of the community, and took pride in the school system, so she was fine with it.

Commissioner Qutub asked how much Ms. Keller associated with the neighbors and whether she spoken with them about the Application.

- * She replied she associated with a few neighbors in her apartment complex quite frequently and had never heard a negative opinion from anyone about the lights or the sound. She reiterated that it was a given.
- Confirmed Ms. Keller's neighbors were tolerant of the field activity.

Commissioner Churchill:

- Stated he heard Ms. Keller say the lighting was not the issue for her necessarily.
 - * She replied the lighting could be better. The lights kind of did glare right into her window at times, but she used her shades and understood maybe the glare was going to be fixed, which she was fully supported.
- Queried about acoustics.
 - * **Ms. Keller** indicated the acoustics were kind of loud depending on the time of the event, but the football games were fine; the Saturday morning events could maybe start a little later.

Commissioner Bresaw confirmed Ms. Keller had no objection to trees helping screen the lighting.

Chair Klein asked if the trees would obstruct her view.

Ms. Keller replied they might and she might not be too happy about that because then she couldn't see the football games, and might have to watch the game at her neighbor's place upstairs.

Ms. Keller added that trees would be nice as far as making the landscape more aesthetically pleasing.

There were no more questions of Ms. Keller.

Joe Loomis, 3610 SE Filbert St, Milwaukie, Oregon 97222 stated he had two sons who graduated from Milwaukie High School, and he was an employee of North Clackamas Parks and Recreation District, which partnered in the turf fields at Milwaukie High School, Alder Creek, and at Putnam.

- He agreed with previous testimony regarding the parity, but that was not why the Parks District was involved. The Parks District was involved because there was a need for these facilities.
- He explained current community use time at Alder Creek was Monday and Wednesday evenings from 6:00 p.m. to 10:00 p.m.
 - * Rarely did use go to 10:00 p.m. because these were school children.
 - * Typical use was actually to 9:00 p.m. except on weekends and in the fall.
 - Youth football teams used the field on weekends and in the fall from 9:00 a.m. to 9:00 p.m. and were the only users of the sound.
 - * They hoped implementation of the Application's field improvements would allow all use of Alder Creek to become community use time. This was being negotiated.
 - * The only football practice at Alder Creek's turf field for the past two years had been on Saturdays.
- He added it would be nice for the football players to be able to practice more on turf fields since most of the teams do play on turf fields.
- He did not see a lot of community use time at Milwaukie High School Monday through Friday, but more weekend use, such as:
 - * Youth Football would be in the fall.
 - * Youth Soccer would be year-round.
 - * A little bit of adult programming like Adult Flag Football.

- The Parks District gets a lot of requests for adult programming, but there was no place to do it. They should be able to accommodate those requests at Alder Creek on the weekends when the Application is implemented.
- He reiterated the Parks District real reason for involvement in these turf field projects was community need.

There were no more speakers in favor of the Application.

Ray Bryan, Historic Milwaukie NDA Land Use Committee (the Committee) Chair, resided at **11416 SE 27th Ave, Milwaukie, Oregon, 97222** and stated he echoed the comments made by all who supported the school and the activities there, adding it was apparent there was a need for the proposed field and use and that he had supported the bond measure as well.

- He thought they could all agree they wanted the neighborhood around the school to maintain its livability. He was there to look out for the neighborhood as a whole.
 - * He referred to the back of one building shown on a slide at the last hearing that livability was apparently quite as good as they would like it.
- He distributed a two-page handout to the Commission describing his concerns, which was entered into the record as Exhibit #7.
 - * He directed the Commission to the first page, stating Figure 1A was the same as the page in Section 9 of the Applicant's Notebook. Page two came from the information the Applicant had submitted the week before in the packet with the different pole heights and light levels, etc.
 - * He stated the scenarios on both diagrams were exactly the same, both had 80-ft poles; light level measurements were taken for both at the property line, 3 ft above the property line; both had a 30-ft [inaudible] facing; and both scenarios had the same number of lights and same type and brightness of lighting.
 - * He pointed out the only thing different on the two diagrams were the results where it said constant illumination over on the right.
 - One said the maximum light level was 5.0; the other said the maximum light level was 4.39.
 - * He was skeptical to see the same data put in and different data come out, so he had to be skeptical of the numbers provided by the Applicant tonight.
 - * He referred to the Applicant's representative having said tonight that most of the glare or light spillage came from the lights on the west of the field.
 - If that was the case, the 80-ft poles were staying the same on the west and one would expect those numbers at 30 ft above the property line to be about the same, not go down.
- He reminded everyone the Staff Report had authorized 4.0 fc, which was almost four times the level professionals recommended should be spilled into a neighborhood.
- He requested, on behalf of the Committee, a review of the lighting and negative impacts at one year.
 - * If the measurements were right and as good as had been said, there would not be a problem; it would be an improvement.
 - * But just in case something was unintended, overlooked, or just not quite as had been stated, the Committee would like an opportunity for the issue to be addressed and mitigated.
- He commented on the increased use, which had been previously discussed.
 - * There would be more cars traveling on Washington, Willard, and other neighborhood streets.

- The Committee also requested street trees be planted on Washington St to enhance the aesthetics and actually block some of the light from the field. Street trees were also proven to slow down traffic.
 - * He noted the light lines were really high in that area.
- The Committee further requested a crosswalk be considered between the high school and the shared parking at St. John's Church.
 - * An improved crosswalk with a different sort of surface would also slow traffic and increase safety.
 - * The Commission and Staff had done a great job on the Transportation Safety Plan (TSP). The requested trees and crosswalk were compatible with the TSP guidelines for a collector street such as Washington St and in line with the two main goals of the TSP, which were livability and safety, respectively.
- He concluded the Committee supported the recommendations from Staff on the parking and on the youth and school activities to be used at the field. He reiterated the Committee's requests:
 - * A one-year review would be considered in case the lighting was not quite as good as the numbers suggested.
 - * The planting of street trees on Washington St.
 - * A new crosswalk to St. John's Church.
- He believed they could have a great playing field and a livable neighborhood.

Commissioner Churchill:

- Confirmed Mr. Bryan lived on 27th Av and asked him to describe his experience with light and noise and how they differed, or whether there was any impact to him.
 - * **Mr. Bryan** added he saw the existing light poles through his kitchen, dining, and living room windows.
 - * He didn't mind the high school games and enjoyed the occasional games. He knew games happened and the traffic was there and it was busy, but then it just all went away.
 - * He was concerned about more than occasional use, as Commissioner Batey had said, that could be nearly every night until 10:00 p.m.
 - * He wondered if the light would actually go over the apartments and into his side of the street with the light pole so high.
 - That was why he would like to be able to have a review after a year.
- Asked if the requested post occupancy evaluation was intended to take place at installation and a year after.
 - * **Mr. Bryan** replied a year after a date the Commission chose, but after the community and the neighborhood had lived with the new conditions for a decent amount of time to see the impacts so the Commission could address it in a formal way.

Chair Klein asked Mr. Bryan about the livability of the building he had used as an example earlier.

- * **Mr. Bryan** answered the apartments were rundown.
- * He added that some people liked that, but his concern was that the properties could be harder to rent, attracting people with less housing options that would bring a less desirable element to the neighborhood.

Commissioner Qutub noted the school was not responsible for the apartments' appearance.

- * **Mr. Bryan** agreed it was the owner's responsibility; adding negative impacts to the area could make it a less desirable place to live.

Chair Klein:

- Questioned if, in his capacity on the Land Use Committee for his Neighborhood Association, he had contacted any of the people living in those houses.
 - * **Mr. Bryan** said he had knocked on all the houses, but not the apartments on 27th Ave, and no one was home.
- Asked if anyone had come to him in opposition or in favor of the Application.
 - * **Mr. Bryan** replied not as a neighbor.

There were no further questions for Mr. Bryan.

Commissioner Churchill asked if the school's principal, Kelly Carlisle, could address the timing of the upgrade for the sound system in light of the neighbors' comments about existing acoustics even though it was not part of the Application.

Chair Klein:

- Suggested perhaps the PTO might be interested in joint financing as it sounded like financing was the issue.
 - * **Ms. Mangle** believed the sound could be considered related due to the Staff condition about studying the sound, and Principal Carlisle could comment as part of the Applicant's response.
- Asked if that response should be now or in rebuttal.
 - * **Bill Monahan, City Attorney** stated that it would be appropriate now.

Commissioner Churchill:

- Restated acoustics had been mentioned by neighbors as a concern, adding that light had not been as big an issue.
- Asked Mr. Carlisle if he had any idea of the timing of acoustical resolution/funding of the system.
 - * **Mr. Carlisle** stated they could not commit to a timeline without doing the requested study; he fully agreed with Mr. Kryszak on that.
 - * He added the timing might be optimal while this project was underway with respect to running power, some amplification, and speaker cords over to the visitors' bleachers; but that would involve a fair amount of expense.
 - * He repeated the one and only antiquated speaker at the school was not aimed particularly well in any particular direction and was washing sound in every possible direction.
 - That was the only way to get sound over to the visitors' bleachers that were just yards away from neighbors.
 - * He would be very supportive of a study and was interested in doing what they could to take care of neighbors' concerns.
- Appreciated Mr. Carlisle's concern and frankness about the situation that sounded like it could help with some neighbors' issues.

Commissioner Batey asked if Ms. Keller could come back up.

Chair Klein:

- Inquired if Ms. Keller would like to come back up.

- * **Ms. Mangle** said Ms. Keller had left.
- Asked for additional comments from Staff.
- * **Ms. Mangle** had asked Zach Weigel to address Mr. Bryan's question about the crosswalk on Washington St, which she thought was the only issue raised needing Staff's response.

Zach Weigel, Civil Engineer stated there already were crosswalks on Washington St at 21st, 23rd, and 25th Avenues in front of the school and he had discussed this with traffic consultant DKS & Associates.

- DKS had told him there should be crosswalks every 530 ft on a collector like Washington St.
- The crosswalks at 23rd and 25th were a little over 530 ft so one could be added.
- An aerial photograph was used to show the best probable location for an added crosswalk, which was roughly halfway between the two crosswalks on 23rd and 25th.

Commissioner Bresaw:

- Asked what type of crosswalk would be recommended.
- * **Mr. Weigel** replied it would be City Standard, high intensity, piano-key style.
- Confirmed the crosswalk would not be raised but would be signed.

Chair Klein:

- Asked if the school sign was lit during athletic events, which would be logical, then acknowledged heads shaking in the room indicating it was not.
- * **Mr. Weigel** thought the sign was lit just before and after school hours.
- Inquired if the sign was on an electronic schedule.
- * **Ms. Mangle** believed State legislation actually included the hours of operation as the start and ending of school, so it was actually not something the City controlled.
- Asked if that would preclude turning that light on during athletic events.
- * **Ms. Mangle** did not believe so, but was unsure.

Commissioner Bresaw asked if Mr. Weigel thought the additional crosswalk was a good idea.

- * **Mr. Weigel** stated it could go either way as there were already two crosswalks, but neither was directly across from the church parking lot.

Commissioner Batey:

- Commented that the additional crosswalk would only involve paint and a couple of signs.
- Asked if that was something they would require of an Applicant or something the City would just do.
- * **Mr. Weigel** recommended the crosswalk addition be a condition of approval for the Applicant if it were deemed to be necessary because ADA ramps and sidewalk work would also be needed.

Ms. Mangle requested that, during the motion, permission be granted by the Commission for Staff to make any small revisions to the findings the following day to support the conditions as approved, as there had been more than the usual number of changes recently.

Commissioner Batey noted there were differences from what had been received in the packet.

Chair Klein called for the Applicant's rebuttal to the public testimony.

Mr. Kryszak stated he had very little to add.

- He indicated the Applicant would not be really excited about a mid-block crosswalk.
 - * This was not a money issue but for traffic safety, as the School District thought crosswalks should be at controlled areas, especially in high schools where the school obviously did not control the crosswalk.
 - * It would be preferable to enforce against jaywalking so more crossing was at existing crosswalks where there was legal authority, versus putting a crosswalk in an uncontrolled area.
- He stated the School District would be glad to study the sound, adding that Staff's recommendations were pretty good.
- He requested Mr. Butts address the comment about testing the lights by talking about how Musco guaranteed the lighting.

Mr. Butts stated the lighting spill numbers and on-field measurements that had been displayed were guaranteed.

- He added the lighting system was warranted for 25 years. Part of that warranty was guaranteed light levels, which included offsite light.
- To ensure that certain light level numbers would be met, he explained that when the project was complete, Musco would go back with the electrical engineer (in this case, Interface Engineering) and do a light test both on and off the field.
 - * If they had not met those levels, they would bring back their field services personnel to fine-tune the system to get the numbers where they should be.
- In response to comments about discrepancies on a couple of different layouts that showed different numbers, he wanted to be certain people understood that Musco was not trying to deceive anyone.
 - * When they were first asked to do a layout, in this case by Interface Engineering, they built the layout based on the best playable situation; their top priority was to make it playable.
 - * If someone came back to them later indicating property lines and situations where things had to be changed, whether it was a pole location, or in this case a property line, they would adjust pole locations and aiming, and all those numbers would change.
 - * He reiterated they initially did the best playable situation and then deviated from that depending on site-specific information, adding that those numbers could change drastically depending upon pole locations and offsite light.

Chair Klein asked if there was any reason the lights would change from the day they were inspected versus a year from now versus two years from now.

- * **Mr. Butts** answered no, explaining that on initial start-up the lights were the brightest as the lamps were new, and as the lamps depreciated, light would change a little bit.
- * He added he could technically explain how they maintained constant light throughout the life of the lamp. Ultimately, the worse case would be at initial start-up as far as how much light would be offsite.

- * He assured that any time during the warranty period the School District could commission someone to take light readings on and off the field. If the levels were not met, Musco would come back and fine-tune the system.

Commissioner Churchill:

- Confirmed that Musco would do a post-occupancy evaluation after the installation that consisted of a point-by-point analysis of actual measuring of fc.
- Asked if that evaluation report went back to the engineering group.
 - * **Mr. Butts** agreed, adding the engineering group would send it through the proper channels and would either approve it or have Musco come back and fine-tune the system.
- Asked how much variability there was in the fixtures to get out of alignment over time and how they were adjusted.
 - * He explained older floodlights had the heavier components such as the ballast and the capacitor and over time, the weight forced the fixture down.
 - Musco's fixtures weighed very little as the heavier components were farther down on the pole rather than in the fixture.
 - * He described their bolting system that bolted the fixtures to the cross-arm and then bolted parts of the fixtures together; they guaranteed the fixture would not misalign itself over time.
- Inquired if the connection was friction or ratchet and tooth.
 - * He replied it was tooth and they locked in place.
 - * He also replied to an earlier comment from Commissioner Churchill about the light offsite and the height of the pole, and whether or not that light came from the pole closest to the property line.
 - In fact, there was some reflected light. Referring back to the fixture and the long visor, inside the top portion of the visor were inserts to redirect light.
 - The reason they could drop the pole to 70 ft and the numbers dropped was because as they got shallower with the pole and aiming angles, which gave less bounce light going backward.
 - The 80/70-ft design seemed the best because when they lowered the eastern poles, the angles became shallower and gave less bounce light.
 - Obviously, the 80-ft poles on the west side did not change, but they did get some reduction by dropping the eastern poles.

Nick Wilson, Atlas Landscape Architecture, 320 SW Sixth Ave, Suite 300, Portland, Oregon, 97204 stated that as Mr. Kryszak mentioned, they had no problem with the Staff recommendation, but had one comment on the trees that had been mentioned.

- He noted an existing sewer line that paralleled the eastern property line over which the Applicant had been asked to grant an easement.
- He wanted to make sure the Applicant was not being put in a box where Planning would say they had to do something and Engineering would say they could not.
 - * **Mr. Weigel** confirmed the City did not want trees planted anywhere near the noted sewer easement.

Commissioner Churchill mentioned he had a follow up question about how many trees were near that existing sewer line.

The Commission took a brief recess to review the revised draft conditions and reconvened at 8:43 p.m.

Chair Klein asked if the Commission had any questions regarding clarification of the testimony to that point or about the revised recommendations.

Commissioner Batey noted they had an unresolved question about the sewer line and trees.

Mr. Weigel recommended changing Condition of Approval #1(C)(ii) on page 33 of 35 of the Staff Report to read, "A continuous site-obscuring, non-deciduous, non-invasive vegetative screen ***as approved by the Engineering Department*** shall be provided."

- He explained that would not mean trees, but some kind of shrub with a root system that would not impact the existing wastewater line in that easement.

Commissioner Bresaw believed there could be space for a tree.

Mr. Kelter stated that wording allowed some flexibility.

Mr. Weigel clarified Staff had not recommended the additional crosswalk as a condition because they did not feel it was necessary as the two existing crosswalks at 23rd and 25th Avenues already met the spacing standards and were adequate.

Commissioner Churchill had thought they were also discussing the issue Mr. Bryan raised, proposing street trees on Washington St.

Ms. Mangle clarified there was no relation to the sewer line on that street.

Commissioner Batey clarified further that the sewer line was not along Washington St but along the eastern property line.

- She confirmed there was no condition for street trees on Washington St.
- She referred back to Mr. Bryan's request for a one-year review, noting it seemed Condition #5(J) more than met that as it required the lights to comply with the 4 fc limitation before use and for final inspection before a certificate of occupancy is issued.

Chair Klein agreed and did not see why the guaranteed numbers would ever change.

- Referring back to the shrub issue, he asked if the Commission wanted to include the neighbors/property owners in that decision, to ask if they wanted continuous shrubbery across the back or not. Possibly some of them enjoy that view and would not want it blocked.
- He believed the residents present should be queried to see if they were interested.

Commissioner Qutub commented it would not be on their property so [inaudible].

Commissioner Batey mentioned that this could be extended to renters, developers, etc., which would be burdensome for the Applicant.

Ms. Mangle recommended adding language that stated, "...as approved by the engineering firm ***and in consultation with the adjacent property owners...***"

Chair Klein preferred the suggested text be added.

Chair Klein called for the Applicant's rebuttal to the revisions that had been brought forward and, seeing none, closed the public hearing at 8:49 p.m.

Commissioner Bresaw recommended that removal of the blackberries be added to the Conditions where they talked about the eastern property line.

Mr. Monahan advised that, although that sounded like it should be an obvious thing that the School District would want to do, it was a new condition that had not been discussed. The Commission should ask if the Applicant had any questions.

Chair Klein asked if it was necessary to reopen public testimony.

Mr. Monahan replied they just had to ask the Applicant, who always has the right to give comment on new conditions.

Mr. Kryszak asked the Commission to include the phrase "in consultation with City Staff" in the language because that hillside was tricky. He wanted to ensure the change to the hillside was engineered before they removed vegetation.

Commissioner Churchill clarified the Applicant's concern was that the removal not create an erosion problem.

Commissioner Bresaw stated they would have to plant something in place of the blackberries.

Planning Commission Discussion

Chair Klein reviewed the key issues of the Application as follows:

- The focus this evening seemed to be on light poles.
- He confirmed the parking issue had been resolved by the Applicant and the Applicant had agreed to the retaining wall condition.
- He also confirmed the condition for vegetation on the eastern side of the property had been fine-tuned.

[Inaudible comments about Washington St, trees, crosswalk]

Chair Klein did not feel the additional crosswalk was an issue and thought the City could increase safety more through lighting, possibly getting the school speed zone light turned on during athletic events.

- He recommended that be looked into but did not necessarily want to make that a condition of approval.

Commissioner Batey agreed with Ms. Mangle that Commission could not enforce a school zone time and non-school time.

- She added the City could put up other kinds of slow-down lights, a raised crosswalk, etc., to calm traffic along Washington St.
- She did not think the safety issue would be appropriate as a condition of the Application, but noted it had come up several times.

Commissioner Qutub noted that had been done in other areas of City.

Commissioner Batey said just adding a painted crosswalk next to the parking lot driveway did not make sense.

The Commission agreed the crosswalk condition would not be part of the approval.

Commissioner Bresaw believed the trees on Washington St should be added.

Ms. Mangle indicated a fairly narrow green strip was already in place and there were no constraints.

- She added Staff did check with the City tree list and there were trees that could fit in that strip.
- She recommended possibly modifying Condition #1(C) if the Commission wanted to add the trees, or create a new condition stating, "Provide several street trees on Washington St."

Commissioner Churchill asked if there was a spacing standard.

- * **Ms. Mangle** replied that the spacing standard depended on the type of tree.
- Suggested adding "...*appropriate to spacing standards that exist...*"
- * She agreed and added "...*at the direction of the Planning Director.*"

Chair Klein did not see much benefit to the street trees.

Commissioner Bresaw did not think many trees would fit.

Commissioner Churchill believed the street trees would benefit the community and enhance the whole site.

Chair Klein asked if there were any more issues before they considered the field and lights.

Commissioner Churchill wanted to put City Staff and Engineering Staff on notice that he was concerned about Washington St and its safety, although he agreed that a third crosswalk would not accomplish much.

- He requested Staff consider other methods of notifying motorists in the area, but was not trying to tie this to the Application.
- He reiterated his request that Staff look at that condition closely because it was a hazard waiting to happen.

Commissioner Batey added this was not the first time this had come up in a hearing.

Commissioner Bresaw stated the 80-ft scenario and the 70/80-ft combination sounded like they would match the other schools and seemed like they would work, adding she did not like the light trespass being so poor, but the trees should help.

Commissioner Churchill stated he remained skeptical, not because the Applicant was being devious, but because the computer program was not an exact science to get the fc output reading.

- He was concerned, but it had helped him to understand where the stray light was coming from as he had not thought he would have seen quite the linear opposite reaction they had seen on the sample that had been displayed.
- He was willing to go along with the 70/80-ft mix with the understanding that there would be a post-occupancy evaluation with fc readings provided to the Staff, and if there were any deviation from the projections, adjustments would be made.

Commissioner Batey stated pole height had never been her biggest concern because the number of poles would be reduced and all the overhead lines eliminated, which mitigated some visual clutter.

- She expressed concern about the times of use, not the configuration, adding that some people lived very close to the field and had been used to the lights being on only sporadically, other than during football season. These neighbors could potentially be subjected to lights on until 10 p.m., 365 days a year.
- She believed the notice provided to the public might not have been direct enough with respect to the lights and frequency of use.
- She reiterated her concern was about the hours of usage issue as well as the potential use of the fields for non-school activities and the associated impact on the neighbors.

Vice-Chair Newman commented when the bond issue had been brought up, talk about adding these facilities to the different schools had been included.

- He believed one of the selling points at that time had been making the fields more available for use to all of the community.
- He also agreed with an earlier audience comment that if one was going to live by a high school, they had to realize they were going to need to like living by a high school and those types of activities.

Commissioner Batey stated that those residents would be living not just by a high school but, in essence, a public ball field complex, which would be more than they bargained for when they bought or moved to that property.

Vice-Chair Newman agreed with Commissioner Batey, adding one of the problems in the last 20 years had been ongoing elimination of organized activities for kids, which led to kids roaming around and tagging and all kinds of things because no other options existed.

- He believed the field use was just one of the things a community could do that provided more opportunity for kids to be occupied in organized activities.
- He ventured there might be more activities going on that could be annoying to some adjacent neighbors. However, those activities also might be helping neighbors by occupying children in an organized way, and he felt it was an overwhelmingly great thing for Milwaukie to have its own turf field.
- He stated he had been a high school principal for eight years at Grants Pass, which was in the middle of a community and surrounded even more than here in Milwaukie. He never had a single complaint about lighting or the use of that field, but trash had been a problem.
- He added that he had last been in Oregon City where they had an all-weather turf field that was used a lot and had never had a complaint about lights there either.

Commissioner Batey stated there was more of a buffer between Oregon City and most of the houses.

Chair Klein stated the Milwaukie High School campus was 15 acres, which was either 1/2 or 1/3 of what a high school site would normally be, had been there almost 100 years and the City had built up around it.

- He added that usage was obviously going to change and he believed that a lot of things in the Downtown Zone were changing and would change. He did not necessarily look at the increased use as a negative thing because they wanted people to come downtown.
- He also believed the upgraded field was a natural fit with all the other downtown improvements designed to attract people.
- He agreed if one moved to a school area, they understood people would be playing football at least every other Friday night and had to get used to noise.
- He concluded that was the reality of it, and he was in favor of the Application.

Commissioner Qutub supported what Chair Klein had just said and wanted to emphasize what the field would do for the students, the school, and the neighborhood.

- She believed that studies had proven positive changes would result from the impact on the residents, and she supported the Application.

Commissioner Batey stated she intended to approve the Application, suggesting any complaints about lights be referred to Joe Loomis's telephone number.

Commissioner Bresaw moved to approve file CSU-07-05, TPR-07-13, and VR-07-07 with the added and revised conditions as mentioned, directing Staff to align the findings with the adopted conditions. Commissioner Qutub seconded the motion, which passed unanimously.

Chair Klein read the rules of appeal into the record.

Commissioner Coleman arrived at this time.

6.2 Milwaukie Riverfront Park
Applicant: JoAnn Herrigel
Owner: City of Milwaukie
Address: Riverfront Park, Tax Lot(s) 4600 and 3901 of Tax Map 1S 1E 35AA
File: CPA-08-01, ZC-08-01, HR-08-01 Staff Person: Ryan Marquardt

Chair Klein called the hearing to order and read the Conduct of Legislative Hearing format into the record.

Ryan Marquardt, Assistant Planner cited the applicable approval criteria of the Milwaukie Municipal Code as found on [page 6](#) of the Staff Report, which was entered into the record. Copies of the report were made available at the sign-in table.

Chair Klein asked if any Commissioners had any ex parte contacts to declare. Chair Klein; Vice-Chair Newman; and Commissioners Batey, Bresaw, Churchill, and Coleman declared for the record that they had visited the site. No Commissioners,

however, declared a conflict of interest, bias or conclusion from a site visit. No board member participation was challenged by any member of the audience.

Ryan Marquardt, Assistant Planner presented the Staff Report after briefly mentioning additional future Applications that would cover the actual development of the proposed Riverfront Park.

Chair Klein asked what historic resource would be destructed or deleted if nothing remained for the evaluation of historic ranking.

- **Mr. Marquardt** clarified the railroad bed that was still out there could be considered part of the historic area, adding there was a railroad bed where the railing used to run.
 - * Any permit that was not restoring the line had to be considered demolition and destruction.

Commissioner Churchill:

- Asked if the same level of detail in the Staff Report had been presented to the neighboring NDAs and land use committees.
 - * **Mr. Marquardt** stated the Application had been referred to the Historic Milwaukie NDA, but they had not seen the presentation, adding that the Applicant could speak to the amount of NDA involvement.
- Stated this was a resource for the entire community.
 - * He further explained not only had the Application been referred to the Historic Milwaukie NDA Land Use Committee for their review, but a copy of the Staff Report had been mailed to them.

Commissioner Batey recalled that the Commission had agreed when there had been a house on the edge of one NDA that notification would go to adjoining NDAs. So certainly the Island Station NDA should have been notified, and possibly all the NDAs.

Chair Klein confirmed that no further comments or correspondence had been received other than those included in the agenda.

JoAnn Herrigel, Community Services Director, City of Milwaukie reviewed the Application as follows:

- She stated these were the first three land use Applications for the Riverfront Park project, which she had been working on since about 2001, adding that the City had probably been working on this project for 30 years or more before that.
- She provided a brief history.
 - * September 2005 – The City sent out surveys to all of the homeowners in the City about proposed concepts for the riverfront and received an astounding response.
 - Mainly, the public wanted a boat ramp on the riverfront with parking.
 - Additionally, people wanted play areas for children and liked the idea of having pathways and open space.
 - * December 2005 – A concept was forwarded to the City Council from the Riverfront Board, which they didn't necessarily approve but supported and asked Staff to move forward with.
 - * October 2006 – City Staff signed a contract for design of our Riverfront project with David Evans and Associates, a representative of which was there tonight.

- She explained the design went hand-in-hand with the land use and permitting for the facility because if they had done 100% of the design and then submitted it to the Department of State Lands (DSL), the Army Corps of Engineers, Ms. Mangle and the Commission for review, they might say, 'I don't really like this so close to the water,' etc., etc.
- She indicated they were currently at the 60% design point and were submitting this to the Commission partially with these three Applications and would be submitting another two Applications later in March.
 - * The next two Applications would be the Willamette Greenway and the Water Quality Resource Zone.
 - * Then she would probably have to modify the David Evans contract to include the Downtown Design Review and Transportation Plan Review.
- She also stated the City would be submitting a joint permit application to the Corp and DSL by the end of March so the federal agencies and some state agencies could begin reviewing it. This is important because there was so much river and creek involved in the project and because it would traverse Kellogg Creek and get very close to the Willamette River.
- She reiterated they were trying to get the permit going before the design was firmed up so that it could be changed to conform to the input they got from all of the agencies, including the Commission.
- She hoped very soon to take the design and cut it up into phases so that she could apply for grant funding for portions of it. Her focus was to first move forward with parts of the Park with funding from state agencies that did not require permitting.
 - * For example, she hoped to do an application for the upland area of the northern portion of the Park, referred to as Klein Point, which was near the mouth of Johnson Creek, to regrade that area, move a City water line that traversed the Riverfront Park, as well as move the utility, the electric poles from where they were currently located, which was actually in the right-of-way (ROW) of the former Portland Traction Line, up towards McLoughlin Blvd towards the back of the sidewalk. This would ensure the electric lines would not traverse the Park.
- She spoke to the issue of the Traction Line Commemoration, stating she had been the staff person from the City that represented the City on the Trolley Trail Master Plan development process in 2003 and 2004.
 - * The Trolley Trail was planned to follow the actual ROW of the former Portland Traction Line and was proposed to go from Jefferson St where the boat ramp was currently up at McLoughlin Blvd all the way to Gladstone.
 - * It would be a 6½-mile-long trail, which would be multi-use, pedestrian/bikeway.
 - * The Trolley Trail Master Plan itself, which she had brought with her and believed some pieces of the Draft Plan were forwarded to the Commission, did call for interpretive signs and public art along the Trail to commemorate the natural and cultural resources in the vicinity of the Trail.
 - * The Master Plan suggested the former Trolley Station locations might actually be identified with public art such as pavement inlays or old trolley tokens or interactive transportation sculpture to commemorate the Portland Traction Line.
 - * The Jefferson St boat ramp was one area that had been called out in the Master Plan because it was technically the beginning of the Trolley Trail. It was suggested in the Master Plan that an interpretive sign describing the Willamette River and its importance to the commerce and history of the area be placed right at the entrance.

- * She had discussed the Design and Landmark's Committee (DLC's) comments with the Riverfront Board and the David Evans Staff as the Commission had seen in the letter transmitted to them.
 - The Riverfront Board, JoAnn Herrigel and DEA did concur with the recommendation that the Traction Line should be commemorated in the Park.
 - The Riverfront Board, JoAnn Herrigel and DEA simply were asking that no specific style or location be mandated in the Commission's Conditions of Approval.
- * Gary Klein might speak later to options the City had bantered about, which included:
 - As previously mentioned, one option was at Jefferson St, where there would be sort of a promenade or an entranceway or plaza where they could actually incorporate several things within the Park.
 - Because the abutment was actually the only visible part of the Trolley Trail or of the Portland Traction Line that was left over, another option might be that when they put in the area that would ultimately be sort of an overlook looking out over the mouth of Johnson Creek. They could actually have one piece that looked out at the Willamette and another commemorative or interpretive plaque that looked over towards the abutment of the Traction Line.
- * They had not really discussed the options thoroughly and would just like some flexibility about where they placed the various monuments.

Commissioner Batey:

- Asked whether some bricks found in the street two years ago during the McLoughlin project might have been historic and related to the Portland Traction Line.
 - * **Ms. Herrigel** remembered the bricks, but they had not been found in that ROW; it may have been the previous street; she would have to check, as she did not recall.
 - * **Chair Klein** believed it was the previous street and that the bricks had not been removed but paved over.
- Recalled there had been discussion about whether there was a preservation issue.
- Was just curious as to whether the removal should have happened before the McLoughlin project.
- Mentioned she had seen people out working along McLoughlin Blvd just south of 22nd and it had looked like they were sifting through dirt as if they were doing archeological work. She asked if she knew what that was about
 - * **Ms. Herrigel** did not know but stated Gary Parkin, the Engineering Director, had been the contact person for the Preservation project, and she offered to check on that.
- Believed it might be independent of McLoughlin and just happened to be something that the Trolley Trail and Parks Department was doing.
 - * **Ms. Herrigel** replied the work could be related to the Preservation project, which was ODOT, or it could be related to the Engineering Final Design for the Trolley Trail that was also going through that same area. She would check with both those people.

Commissioner Bresaw:

- Offered that she knew there was a time capsule buried near that area.
 - * **Ms. Herrigel** added that was near the area under discussion, to east of the existing path.

- Asked if there was a marker for the time capsule.
 - * **Ms. Herrigel** replied there had been a marker they believed had been landscaped over, but there was currently a “V” in the path that she believed the time capsule was between.

Chair Klein understood the Applicant agreed with the DLC about commemorating but just did not want to set a specific design at this point. There was no reason to believe that it would not happen when the Trolley Trail came about and the park got to be a little more [inaudible].

- **Ms. Herrigel** restated her intent for clarification.
 - * She believed the Portland Traction Line would be well commemorated for 6½ miles from the City of Milwaukie to Gladstone.
 - * She understood that people in the City of Milwaukie cared a lot about the history of what happened there, specifically that area because it was important historically, and it should be commemorated.
 - * She was committed that the commemoration or piece of the Trolley Trail that they ended up putting an interpretive sign on was not considered to adequately speak to the history. She did not know where or what type of sign should be installed and wanted to keep that flexible.
 - * She anticipated the Commission could ask some questions that she could not answer since they were actually talking about tangible things.
 - One of the biggest unanswerable questions would be the theme of the Park; they had the elements but did they have a theme?
 - Gil Williams, the Project Manager, and she were starting to think about the theme, which she thought would need more public input on whether the theme would be history, Lot Whitcomb, etc.

Chair Klein called for public testimony in favor of, opposed, and neutral to the application.

Gary Klein, Milwaukie resident, apologized that he had a hearing disability and had not caught quite everything but certainly could adjust for everything.

- He mentioned Jeff Klein had the same spelling of his last name, but there was no known relationship.
- He noted Johnson Creek Watershed Council and the City of Milwaukie had gotten into agreement on a grant and had surveyors actively working on a project in the Mouth of Johnson Creek back to 17th area.
- He stated he was for the zoning change for Tax Lot 4600 a.k.a. Klein Point because:
 - * It fit the deed restrictions and the plans on the donated property.
 - * As a natural area, it had minimal improvement restrictions—path, plaque, benches, etc.
 - * It would stay a natural area as a downtown open space classification.
- He had moved back in 2002 to his family homestead after growing up there in the 40s, 50s, and 60s.
 - * He was a neighbor to the project and lived where the “R-2” was shown on the PowerPoint displayed map.
 - * He was a member of the Riverfront Board and the Johnson Creek Watershed Council Restoration Committee.

- He stated this would be a good zoning change and offered to help with the planning in the Riverfront Park area and with history on the site for both Tax Lot 4600 and 3901.

Commissioner Churchill:

- Was concerned about the delisting of an unrankable historic resource.
- Wondered if something were discovered during demolition and regrading around the Park, what level of historic significance would they want to retain.
 - * **Mr. Klein** hoped it had been part of the agreement with the City of Milwaukie when the CL area had been donated that the City would put a plaque up denoting it was a donation, etc.
 - * He added he could help with other historic facts. For instance, he could tell them where the other bridge used to be. The old Texaco lot was a train roundhouse for a while and the track actually had run down McLoughlin initially.
 - * He also mentioned the Trolley Trail had been around a long time, and he was really happy it was involved in what was going on.

Commissioner Batey asked if Mr. Klein ever rode the Portland Traction Line.

- * **Mr. Klein** responded he had a lot when he was younger, he had been away for four years in the Air Force.
- * He added the Portland Traction Line had stopped in the late 50s, and they had just run freight for about 10 years in the evening.
- * He thought the bridge had been torn out in '69, when everything in that area had stopped.

Andrew Tull, Design and Landmarks Committee (DLC), 5415 SW Westgate Dr, Portland, Oregon, 97221 stated the DLC had discussed for the past year that when they made decisions and recommended actions to the Planning Commission, one of their members should be present to represent the DLC and explain their thought process, adding that this was their first opportunity to do so and he was happy to be there on behalf of the DLC.

- He explained the letter they had put together for the Commission and summarized the DLC's concerns about removing a historic resource that had been unranked from the city.
 - * As Staff presented and as the DLC understood, this resource was almost nonexistent. They agreed that the resource probably would not rank very well if it were subjected to the test a historic resource was put through.
- However, the DLC was hesitant to remove something from the historic inventory simply to allow for it to be paved over. They saw an opportunity to trade one sort of demarcation of the site, which in its existing condition was in the Historic Registry, for another more tangible demarcation of the site.
 - * To achieve that, they proposed two conditions of approval be added to the Application:
 - The first would be to incorporate a descriptive or interpretive monument into the Park design.
 - The second would be to possibly theme the Park design in that area in meaningful way that represented the history of the Portland Traction Line.
 - * Staff had done a very good job paring the DLC's proposed condition down to a better format for it to move forward.

- He certainly supported Exhibit #3 within the Application materials and asked on behalf of the DLC that the Commission vote to include that in their Approval if they decided to move forward with it.
- He expressed appreciation for Ms. Herrigel's comments and commitment to commemorating the Portland Traction Line both on the Trolley Trail pathway and in the vicinity of the portion of the line that was in the Historic Registry currently.

Commissioner Churchill:

- Appreciated the DLC's conditional suggestions and believed they had been very helpful and that historical landmarks had a lot of value to the Commission too.
- Asked if something significant were uncovered during the process of demolition or excavation work around the site, what would Mr. Tull envision doing to preserve it as a part of the monument? Would he remove it and look to make it part of the commemoration device.
 - * **Mr. Tull** replied that it completely depended upon what was discovered once construction began.
 - If they were creosote railroad ties, they could be shipped off and treated appropriately.
 - If it were something more significant, he would certainly hope that whoever had been engaged for construction activities would stop and ask the question of Staff or possibly other committees to then determine what was appropriate, such as incorporating something into the Park design or at least donating it to the City's museums.
- Mentioned that if it were a Native American shell mound, a historian would be standing by during excavation work to ensure nothing was missed.
- Wondered if this was an appropriate point or if it would be another Application, to consider having someone monitor the excavation and had just wanted Mr. Tull's thoughts on that.

Chair Klein:

- Noted Ms. Herrigel's having mentioned reserving what the City wanted to commemorate at this point in time and asked if Mr. Tull was okay with that.
- Stated he would not be okay with saying the Park would be themed after the Traction Line in light of all the public input that had taken place.
- Suggested an avenue might be for someone on the DLC to start attending the Riverfront Board's meetings as they progressed to include those types of designs.
- Asked again if Mr. Tull agreed with Ms. Herrigel, saying they would put some sort of landmark there. If and when the Trolley Trail did come in enough was not done, they would ensure that it was commemorated properly.
 - * **Mr. Tull** agreed and explained the City had engaged the services of professional designers to design a park. The DLC's input was simply a suggestion that might add theming to that area
 - * He added Mr. Klein's testimony tonight that the rail line had moved to several different locations over its history illustrated this park land had a history that was bigger than the Portland Traction Line itself.
 - * He concluded that the Trolley Trail Master Plan already required the Portland Traction Line to be part of the theme elements and was being considered. If it was possible, the DLC would retract the second condition they had put forward to allow the designers to do what they felt was appropriate in that area given the context of the site.

- Stated he hated when City Council overturned the Commission's recommendations. He did not want to step on the toes of the DLC because they did a lot of very good work for Commission that was greatly appreciated.
- Had been concerned about the uncertainty of the second Condition on that, not knowing what would be found down the road, and certainly wanted to believe that would be open, adding Ms. Herrigel and the rest of Riverfront Board understood the historic nature.

Commissioner Churchill liked the language of the second Condition and believed with good design work, it could be done easily.

- He read the condition aloud and confirmed the language referred to Tax Lot 3901.

There was no further public testimony.

Chair Klein called for further comments from Staff.

Ms. Mangle stated she was unsure this would be entirely satisfying in dealing with the issue of whether something historic was found during construction, but suggested adding the following text:

- "Even if this whole tax lot is removed from the Historic Registry, if something significant was found, the City could choose to designate a specific site as a historic resource." Beginning now would not mean the City had lost the chance forever if something significant that was worth designating was found.
- She added generally with all properties in the city, the City had no authority to force the listing of any property regardless of how nice, old, or important it was deemed to be. It was a voluntary effort in Milwaukie for local listing.
- She noted a specific found element could be used either in the Park or in the museum and believed the City would stop excavation at once, whatever was discovered.

Commissioner Churchill:

- Was worried that proper care would not be taken if the site were delisted.
 - * **Chair Klein** stated they could not do anything good until the site was delisted.
 - * **Ms. Mangle** commented the site had been listed since 1988 and not much care had been taken in the interim, partly because it was unrankable, which listing basically put a property in limbo and did not denote any significance at all.
- Suggested an additional condition of approval that if something were discovered during excavation of that site, that someone would immediately contact the DLC. The DLC could then determine whether the find was significant.
- Added that once the site was delisted, a demolition crew could damage something historic inadvertently; just because damage had occurred in the past, did not mean he wanted to continue it. There could be a significant layer under the site.
- Restated his concern to ensure that at least someone from DLC would get notified should something be found, not that they had to be standing by during the excavation.

Chair Klein expressed concern about the financial consideration and the difficulty of sitting there with contractors as they dug up the land.

- He added that if contractors found a sternwheeler, he believed they would probably make notification. But, if they found railroad ties or spikes, he was unsure that would be something that would benefit us and it would actually put the project on hold.
- He believed the area would probably have eyes on it given the site's proximity to City Hall and the relationship the site had with the people around it.
- He understood Commissioner Churchill's desire to keep the importance on it because he, himself, would not want to lose something that they would like to commemorate.

Commissioner Coleman

- Confirmed the site designation was just because it was on the Traction Line that used to be there.
 - * **Mr. Marquardt** explained the site was listed in the Comprehensive Plan as the Portland Traction Line.
- Asked if the Commission should give the site any additional special treatment other than what would be given the rest of the Traction Line property when excavation took place. Was there a reason someone should be hired, or the Commission should be looking especially closely right on that site as opposed to all the rest of it.
- Stated her point was there could be stuff anywhere and reiterated her question as to why that space was designated historic and the rest not. If it were not, she could not see why they should especially scrutinize excavation. She hoped people would pay attention and expected that they would.
 - * **Mr. Marquardt** stated, as a point of information, Commissioner Coleman was right and the Traction Line did run all the way through the Riverfront Park.
 - * He added the Kellogg Sewer Treatment Plant had been developed around 1984, and the historic resource inventory had been done in 1988.
 - * He guessed the construction of the Plant might have removed or graded over more of the rail line to the south, so that all that was left was the area in the north.

Commissioner Batey confirmed the Commission's vote was only about the zoning and would not endorse all the supporting information in the Application.

Chair Klein called for the Applicant's rebuttal.

Ms. Herrigel addressed the possibility of historic finds on the site.

- She stated when backhoes went in and they found wagon wheels or whatever else out there, she would be the first to stop work and call in a third party. She did not know who she would call, perhaps someone from the State Historic Preservation Office (SHIPO).
- She thought salvaging it and using it in art would be a great thing for the Riverfront if they came upon something like that.
- She said they anticipated they might not find anything, but they would try and be as careful as possible.

Commissioner Churchill stated that was the assurance he was looking for. He added that Native American artifacts might be found depending on how deep the work went.

Mr. Klein referred to Commissioner Coleman's remarks, noted the Traction Line area on the displayed map, and reiterated where the roundhouse and another bridge had been.

- He indicated where the map was marked the Trolley Trail.
- He also believed the donation was great and was in favor of the change.

Chair Klein closed the public testimony for the Application.

Planning Commission Discussion

Commissioner Bresaw suggested a little trolley car would be awfully cute in the play equipment.

- She agreed the Commission should be flexible; indicating the theme possibly could be transportation, boats, trolley cars, etc.

Chair Klein agreed and noted Ms. Herrigel and the Riverfront Park Board had done a great job moving the Riverfront Park project forward.

- He also suggested a DLC member might attend those Board meetings to provide input and ensure nothing was forgotten.

Commissioner Bresaw moved to adopt the recommended findings and make a recommendation to City Council to approve the proposed Comprehensive Plan Map change, Zoning Map change, and deletion of a historic landmark.

Commissioner Coleman seconded the motion, which passed unanimously.

Chair Klein announced that the decision was a recommendation to the City Council, which would make the final decision after a public hearing, and read the rules of appeal into the record.

Vice-Chair Newman asked Mr. Klein if the trolley garage had been torn down for the indicated condominiums.

Mr. Klein stated the trolley garage was torn down before the 40s.

- He only knew it had been there because there was some footage on the east side of Johnson Creek further north from where the indicated trestle had been and when he had done research for remodeling the house there he had found it.

He added that when McLoughlin had been redone, cobblestones and tracks had been found a couple of years ago.

- He noted the former location of the roundhouse and bridge on the displayed map as well as the probable route of a portion of the Portland Traction Line.

7.0 WORKSESSION ITEMS

Ms. Mangle stated a joint work session was scheduled with the DLC for March 25th and mentioned a meeting with the City Council would be needed within the next few months to discuss the road program for 2009.

8.0 DISCUSSION ITEMS

Ms. Mangle announced that George MacGregor from the Engineering Department had died.

Chair Klein commended Mr. MacGregor's work on the sidewalk project, and noted Mr. MacGregor's design work on the Logus Road project had really brought people together and created a consensus, which had been a phenomenal achievement in a previously

confrontational situation.

- He announced a workday was scheduled if anyone was interested in helping Mrs. MacGregor with some yard work and completing of a fence to restrain her dogs.

9.0 OLD BUSINESS -- None.

10.0 OTHER BUSINESS/UPDATES

11.0 NEXT MEETING:

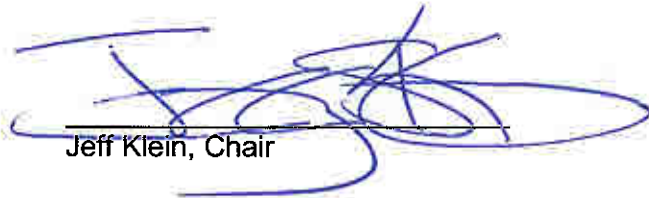
March 25, 2008 –

Joint Meeting with Design and Landmarks Committee (tentative)

Meeting adjourned at 10:20 p.m.

Respectfully submitted,

Paula Pinyerd, ABC Transcription for
Michelle Rodriguez, Administrative Assistant



Jeff Klein, Chair

MILWAUKIE PLANNING COMMISSION

MILWAUKIE CITY HALL
10722 SE MAIN STREET

AGENDA TUESDAY, March 11, 2008 6:30 PM

		ACTION REQUIRED
1.0	Call to Order	
2.0	Procedural Matters If you wish to speak at this meeting, please fill out a yellow card and give to planning staff. Please turn off all personal communication devices during meeting. Thank You.	
3.0 3.1	Planning Commission Minutes – January 22, 2007 Approved PC Minutes can be found on the City web site at: www.cityofmilwaukie.org	Motion Needed
4.0	Information Items – City Council Minutes City Council Minutes can be found on the City web site at: www.cityofmilwaukie.org	Information Only
5.0	Public Comment This is an opportunity for the public to comment on any item not on the agenda	
6.0 6.1	Public Hearings Milwaukie High School Applicant: Garry Kryszak Owner: North Clackamas School District Address: 11300 SE 23 rd Ave File: CSU-07-05, TPR-07-13, VR-07-07 Milwaukie Riverfront Park Applicant: JoAnn Herrigel Owner: City of Milwaukie Address: Riverfront Park, Tax Lot(s) 4600 and 3901 of Tax Map 1S 1E 35AA File: CPA-08-01, ZC-08-01, HR-08-01 Staff Person: Brett Kelter Staff Person: Ryan Marquardt	Discussion and Motion Needed For These Items
7.0	Worksession Items	Information Only
8.0	Discussion Items This is an opportunity for comment or discussion by the Planning Commission for items not on the agenda.	Review and Decision
9.0	Old Business	
10.0	Other Business/Updates	Information Only Review and Comment
11.0	Next Meeting: March 25, 2008 Joint Meeting with Design and Landmark Committee (tentative) The above items are tentatively scheduled, but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.	

Forecast for Future Meetings:

Milwaukie Planning Commission Statement

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

Public Hearing Procedure

1. **STAFF REPORT.** Each hearing starts with a brief review of the staff report by staff. The report lists the criteria for the land use action being considered, as well as a recommended decision with reasons for that recommendation.
2. **CORRESPONDENCE.** The staff report is followed by any verbal or written correspondence that has been received since the Commission was presented with its packets.
3. **APPLICANT'S PRESENTATION.** We will then have the applicant make a presentation, followed by:
4. **PUBLIC TESTIMONY IN SUPPORT.** Testimony from those in favor of the application.
5. **COMMENTS OR QUESTIONS.** Comments or questions from interested persons who are neither in favor of nor opposed to the application.
6. **PUBLIC TESTIMONY IN OPPOSITION.** We will then take testimony from those in opposition to the application.
7. **QUESTIONS FROM COMMISSIONERS.** When you testify, we will ask you to come to the front podium and give your name and address for the recorded minutes. Please remain at the podium until the Chairperson has asked if there are any questions for you from the Commissioners.
8. **REBUTTAL TESTIMONY FROM APPLICANT.** After all testimony, we will take rebuttal testimony from the applicant.
9. **CLOSING OF PUBLIC HEARING.** The Chairperson will close the public portion of the hearing. We will then enter into deliberation among the Planning Commissioners. From this point in the hearing we will not receive any additional testimony from the audience, but we may ask questions of anyone who has testified.
10. **COMMISSION DISCUSSION/ACTION.** It is our intention to make a decision this evening on each issue before us. Decisions of the Planning Commission may be appealed to the City Council. If you desire to appeal a decision, please contact the Planning Department during normal office hours for information on the procedures and fees involved.
11. **MEETING CONTINUANCE.** The Planning Commission may, if requested by any party, allow a continuance or leave the record open for the presentation of additional evidence, testimony or argument. Any such continuance or extension requested by the applicant shall result in an extension of the 120-day time period for making a decision.
12. **TIME LIMIT POLICY.** All meetings will end at 10:00pm. The Planning Commission will pause hearings/agenda items at 9:45pm to discuss options of either continuing the agenda item to a future date or finishing the agenda item.

Milwaukie Planning Commission:

Jeff Klein, Chair
Dick Newman, Vice Chair
Lisa Batey
Teresa Bresaw
Scott Churchill
Paulette Qutub
Charmaine Coleman

Planning Department Staff:

Katie Mangle, Planning Director
Susan Shanks, Associate Planner
Bob Fraley, Associate Planner
Brett Kelter, Assistant Planner
Ryan Marquardt, Assistant Planner
Michelle Rodríguez, Administrative Assistant
Marcia Hamley, Administrative Assistant
Paula Pinyerd, Hearings Reporter



To: Planning Commission

Through: Katie Mangle, Planning Director

From: Brett Kever, Assistant Planner

Date: March 4, 2008, for March 11, 2008 public hearing

Subject: Files: CSU-07-05, TPR-07-13, VR-07-07
(Continuation of February 26, 2008, hearing)

Purpose

On February 26, 2008, the Planning Commission opened a public hearing to address improvements being proposed at Milwaukie High School. The applicant presented new information at that hearing. However, the Commissioners raised a number of questions for which there was insufficient information and continued the hearing, asking the applicant and staff to provide additional information.

Specifically, the Planning Commission asked for more information regarding off-street parking, light-pole height at the athletic field, screening along the eastern property boundary at the athletic field, and levels of use for the improved facilities. New information from the applicant is attached with an explanation of the applicant's response to date (see Attachment 1 – March 4, 2008, memo from Ed Murphy). Additional information is expected from the applicant at the hearing on March 11, 2008.

For each of the topics noted above, staff has attempted to synthesize both the new information that was presented at the hearing and that which has been provided to staff since then. Unfortunately, staff has not received some of the new materials with time to prepare any analysis, so some of the new materials are simply attached for Planning Commission review.

Off-street Parking

The applicant has revised the plan sheet showing existing conditions, updating the "Existing Parking Count" table to more accurately reflect the actual number of standard- and compact-sized spaces (see Sheet C001 in Attachment 2 – Revised plan sheets). The applicant is proposing to reconfigure the existing on-site parking arrangement to replace all 15 spaces that would be lost due to the fine arts building addition and relocation of the retaining wall at SE Lake Road. The applicant has submitted a revised site plan showing the on-site parking spaces that would be lost as well as the new on-site spaces that would be created (see Sheet C002 in Attachment 2 – Revised plan sheets). A total of 17 additional on-site spaces are proposed in the following locations:

- West of the auditorium (re-striping gains 2 spaces)
- South of the main academic building (re-striping gains 3)
- North of the gymnasium (re-striping gains 4)
- North of the tennis courts (re-striping gains 2)
- West of the grandstand (6 new spaces)

Staff searched the files of past community service use approvals for the high school and found several references to the District having an informal parking agreement with St. John's Church. However, there were no specific conditions related to a formal agreement with St. John's. The 1999 approval (CSO-99-05) includes two conditions related to parking. One required the school to establish "an incentive program to encourage the use of carpools by staff and students and dedicate 37 parking on-site spaces to the program." Another conditioned that "no less than 50% of the parking spaces located in the northern parking lot on Washington Street shall be dedicated for staff use." Staff is unsure whether either of those conditions was ever implemented.

Staff recommends revising the conditions of approval to clarify that the District must provide a total of at least 341 off-street parking spaces through a combination of on-site and shared parking spaces. Beyond simply replacing any on-site spaces that would be lost because of the improvements, staff recommends that the District provide formalized shared parking agreements to ensure that a minimum total of 341 off-street spaces are provided. The recommended conditions of approval have been modified to require that all shared parking agreements are finalized and submitted to the City prior to final inspection on the building permit for this project (see Attachment 6 – Revised Recommended Conditions of Approval).

Light-pole height

As requested, the applicant has provided information from the IESNA (Illuminating Engineering Society of North America) regarding the standards for lighting various types of athletic fields (see Attachment 3 – Selected pages from IESNA publication). Different foot-candle levels are recommended depending on the classification of play, which depends largely on the number of spectators. According to the applicant, the high school field is considered a Class II facility because the facility is designed to accommodate a range of 101 to 5,000 spectators (see Attachment 4 – Email from Ed Murphy).

Additional information related to light-pole height was not available in time for this mailing. Staff expects that photometric data for other pole heights as requested by the Planning Commission will be provided by the applicant at the hearing on March 11, 2008, if not before.

Screening

Staff continues to believe that vegetative screening should be provided along the eastern property line adjacent to the field, in order to minimize the impact of light encroachment. Absent additional explanation from the applicant about horizontal and vertical illumination, staff maintains its recommendation that vegetative screening be provided along the eastern property line wherever the photometric readings exceed a vertical illumination level of 2.0 foot-candles.

Levels of use

Based on the information presented in the application, staff originally believed that the only current uses of the athletic field and track were school-related. However, several people testified at the hearing on February 26, 2008, that the North Clackamas Parks District uses the field at Milwaukie High School for youth-related activities and has for some time. At the hearing, both the high school and the Parks District indicated that they expect to schedule more activities for the improved field and track, so use of the facility would intensify in terms of the hours and days of operation. Staff expects the applicant to provide more specific schedule information (requested by the Planning Commission for previous school years) at the hearing on March 11, 2008.

City engineering staff noted at the hearing that a Friday night football game represents the peak level of traffic for the site. Even if there are events at the improved field happening more nights of the week, none of them are expected to generate more traffic than the Friday night peak. Since the Friday night peak use did not warrant any traffic-related improvements, neither would a repetition of Friday-night-level traffic on other nights of the week. Yet such an intensification of use (more Friday-night-level traffic on more nights of the week) could arguably produce more impacts on the surrounding neighborhood (e.g., traffic, parking, noise).

None of the previous community service use approvals for the high school placed any limits on the hours of use or types of activities. The voters approved a bond measure in order to improve the school facilities, and staff believes that there is a reasonable expectation from the public that the improved facilities would be available for more intense use. Staff does not believe that managing the use of the improved facility is as important as managing the impacts. Rather than debate the specifics of who will use the field and when, for example, staff believes that the key question for the Planning Commission is, "What measures, if any, should be taken to mitigate any impacts of more intense use of the field and track?"

In the original staff report, staff recommended conditions related to the provision of a minimum number of off-street parking spaces, vegetative screening along one side of the field area, a 10:00pm cutoff time for field lights, and ongoing maintenance of the lights to ensure a minimal level of light encroachment at the property line. Staff is also recommending a condition to require that the District reconfigure the sound system at the athletic field so that loudspeakers are directly aimed at bleacher and grandstand areas instead of projecting indiscriminately across the field. This is not an exhaustive list.

Note: Retaining wall at SE Lake Road

At the hearing on February 26, 2008, the City Attorney discussed the liability that would fall to the City if the retaining wall along SE Lake Road were allowed to remain in the public right-of-way. As an alternative to moving the wall immediately, the City Attorney suggested a possible condition requiring the School District to indemnify the City against any potential future liability involving the wall in the right-of-way. However, the City Attorney has also advised the Engineering Director that he has the authority to compel the District to move the wall regardless of there being a land use decision pending for the site. As was noted in the original staff report, there are a number of reasons why staff believes it is important the move the wall out of the right-of-way. Therefore, the Engineering Director will require the District to move the wall as part of the building permit associated with this application.

Conclusions

Overall, staff continues to support the proposed improvements at Milwaukie High School. Given the new information provided by the applicant in advance of the continued hearing, staff has revised the recommended conditions of approval (see Attachment 6 – Revised Conditions of Approval). Revised recommended findings will be provided at the hearing on March 11, 2008.

Attachments

(Provided only to the Planning Commission unless noted. All material is available for viewing upon request.)

1. March 4, 2008, memo from Ed Murphy (attached)
2. Revised plan sheets C001 and C002
3. Selected pages from IESNA publication "Recommended Practice for Sports and Recreational Area Lighting" (IESNA RP-6-01)
4. Email from Ed Murphy re: Levels of play classifications
5. Email chain from Planning Commissioner Lisa Batey re: Field lighting
6. Revised Recommended Conditions of Approval (attached)




ED MURPHY & ASSOCIATES

Land Use Planning and Development Services

MEMO

Attachment 6.1 Pg.5

TO: Brett Kelter, Assistant Planner, City of Milwaukie
FROM: Ed Murphy 
RE: Milwaukie High School – Supplemental Information
ID#: CSU-07-05, TPR-07-13, VR-07-07
DATE: March 4, 2008

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1. Parking. Attached is a revised site plan, Sheet C002, which shows how the District will increase the number of on-site parking spaces at MHS from the 198 spaces that currently exist to 200 spaces after the MHS improvements are completed. (WRG made some minor revisions to Sheet C001 to make it consistent with C002, so I am providing both sheets.) The revised site plan shows how the District will replace all 15 on-site parking spaces lost due to the expansion of the fine arts building and the relocation of the retaining wall on SE Lake Road. In fact, it will gain back those 15 spaces plus 2 more by adding 6 new spaces behind the grandstands, and modifying the striping in the following locations, gaining another 11 spaces:

- West of Auditorium
- South of Main Academic Building (angled)
- West of the Gymnasium Addition
- North of the Gymnasium
- North of the Tennis Courts

We are not proposing any new landscaping in existing parking areas that will simply be re-striped. The one area where we are proposing new parking spaces, where there are none now, is behind the grandstand. The new parking plan adds six new spaces to that area by striping existing asphalt. Adding trees to that area would not provide any aesthetic improvement or practical benefit, since the entire area is hidden from public view. Instead, we are proposing to add a tree and landscaping at the northwest corner of the gymnasium, replacing an existing parking space with a landscape island. That location is next to the SE 23rd Avenue public right-of-way in a highly visible area, and would help soften the corner of this large, windowless wall, thereby providing a visible public benefit.

The net result is that we are able to add two more on-site parking spaces than the high school currently has, without creating any new impervious surfaces. Further, we are able to convert an existing parking space into a landscaped island in a location where it will provide an important aesthetic benefit. In addition, of course, we are still planning to replace some of the parking just north of the auditorium expansion with landscaping.

In terms of off-site shared parking, the District has directed Cornerstone Management Group to contact the near-by churches to discuss entering into new or updated agreements for shared parking between those churches and the North Clackamas School District. More information on the status of these shared parking area agreements will be provided early next week, or at least at the hearing.

The loss of any off-street parking will be mitigated on-site, and the proposed improvements will not cause the site to go further out of conformance with current off-street parking standards, and will, in fact, bring it a little closer to conformance.

2. Field lighting. David Chesley and Tim Butz are preparing an additional report, which will be submitted later this week. They took new measurements of the existing light levels on February 28th, and are reporting the light levels at the property line in vertical foot-candles, i.e., from the point of view of someone looking towards the field from the property line. This is consistent with your proposed Condition of Approval #6.A., which states that the vertical illumination levels along the eastern property line not exceed 4.0 foot-candles.

The memo will provide the following information:

- Replaces the previous horizontal field measurements with new vertical field measurements. Based on the preliminary results, the measurements generally went up along the property line. The new analysis shows that, with the mix of 70' and 80'-high poles, the range of values at the property line (measured vertically 10' above the property line - which is roughly the level of the first floor of the adjacent apartments) will be 0.73 to 3.05 foot-candles. The new sports field light system is still a significant improvement over the existing light system, in terms of reducing the light impact on the neighboring residents.
- Updates Mr. Chesley's earlier memo, dated 2/25/08, to provide a comparison of the existing conditions and the recommended lighting system using vertical measurements only.
- Analyzes the impacts of lighting systems using poles less than 70' in height, including 60' and 50'-high poles.

According to the preliminary results, the 70'/80' high poles are the optimum height to provide the lighting levels appropriate for the field use (a Level II football field that has lighting levels, max-to-min ratios, and uniformity of lighting per IESNA RP-6 - in short, 50-footcandles, 2.5-to-1 max/min ratio, and Uniformity CV of 0.21 or less), while reducing the lighting impact on the adjacent neighbors as far as practical.

The analysis will address the Planning Commission's directive to evaluate the impacts of using poles less than 70 feet in height, and will demonstrate that there are no feasible alternatives that use poles shorter than 70 feet in height. It will further demonstrate that the mix of 70'-high poles on the east side and 80'-high poles on the west side, as requested by the School District, will result in a lower impact to the neighboring properties than all of the other scenarios, including the alternative of using all 70'-high poles, and the alternative of making no changes to the existing lighting system. Therefore, the analysis will demonstrate that the requested pole heights are the minimum necessary to allow the District reasonable use of its property and to meet the goals of this project, while still reducing the impact of the lighting on the neighboring properties to below current levels.

3. Landscaping. The District will provide additional trees along the east property line in any area where the lighting impact exceeds 2.0 foot-candles, measured vertically, at the property line. We will submit a landscape plan prior to applying for a building permit for the expansion of the auditorium and gymnasium, as per your recommended Condition of Approval #1.C.ii.

4. Use of the field. The District is preparing a description of the types of activities and events for which the high school and other organizations currently use the MHS fields. The District does not have an intergovernmental agreement with the North Clackamas Parks and Recreation District yet for the use of the new field, and is therefore may not be able to produce a projected schedule of events. The District will provide additional information prior to or at the hearing.

Attachments:

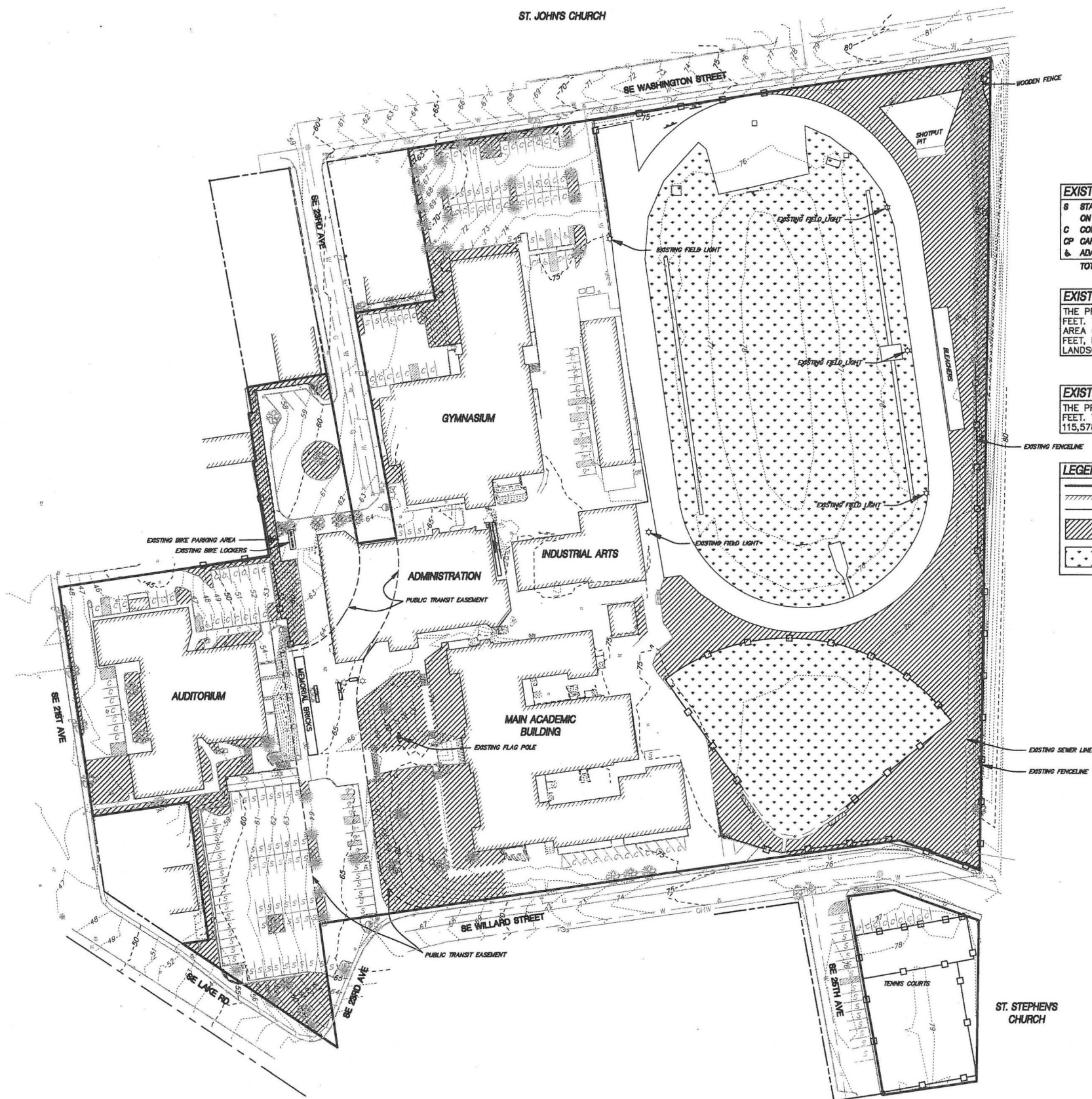
- Sheet C001 – Revised Existing Conditions Plan
- Sheet C002 – Revised Site Plan
- Information from IESNA (pages

cc: Rick Rainone, Project Manager, Cornerstone Management Group, Inc.
 Garry M. Kryszak, Capital Projects Manager, North Clackamas School District
 John Howorth, P.E., Senior Project Manager, WRG Design, Inc.
 David Chesley, Interface Engineering

ATTACHMENT 2

REVISED PLAN SHEETS C001 AND C002 (LARGE AND SMALL SCALE)
PROVIDED TO PLANNING COMMISSION ONLY

ATTACHMENT 2

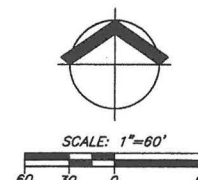


EXISTING PARKING COUNT		#
S	STANDARD (8' X 18')	87
ON	STREET PARKING ON SE 25TH	15
C	COMPACT (BETWEEN 7'5" X 14'5" AND STANDARD)	91
CP	CARPOOL (8' X 18')	3
ADA	(8' X 18')	17
TOTAL		213

EXISTING LANDSCAPE COVERAGE
THE PRIMARY SITE IS 14.34 ACRES IN SIZE, OR 624,650 SQUARE FEET. THE BUILDINGS, PARKING LOTS, WALKWAYS, OR TRACK AREA COMBINED CONSUME APPROXIMATELY 302,638 SQUARE FEET, LEAVING 322,012 SQUARE FEET OR 51.6% IN GRASS, LANDSCAPING & SPORTS FIELD AREA.

EXISTING BUILDING COVERAGE
THE PRIMARY SITE IS 14.34 ACRES IN SIZE, OR 624,650 SQUARE FEET. THE EXISTING BUILDING COVERAGE IS APPROXIMATELY 115,578 SQUARE FEET OR APPROXIMATELY 18.5%.

LEGEND	
---	EXISTING PROPERTY LINE
---	EXISTING BUILDING LINE
---	EXISTING FENCELINE
---	LANDSCAPE AREA
---	SPORTS FIELD AREA



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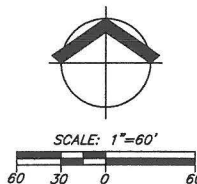
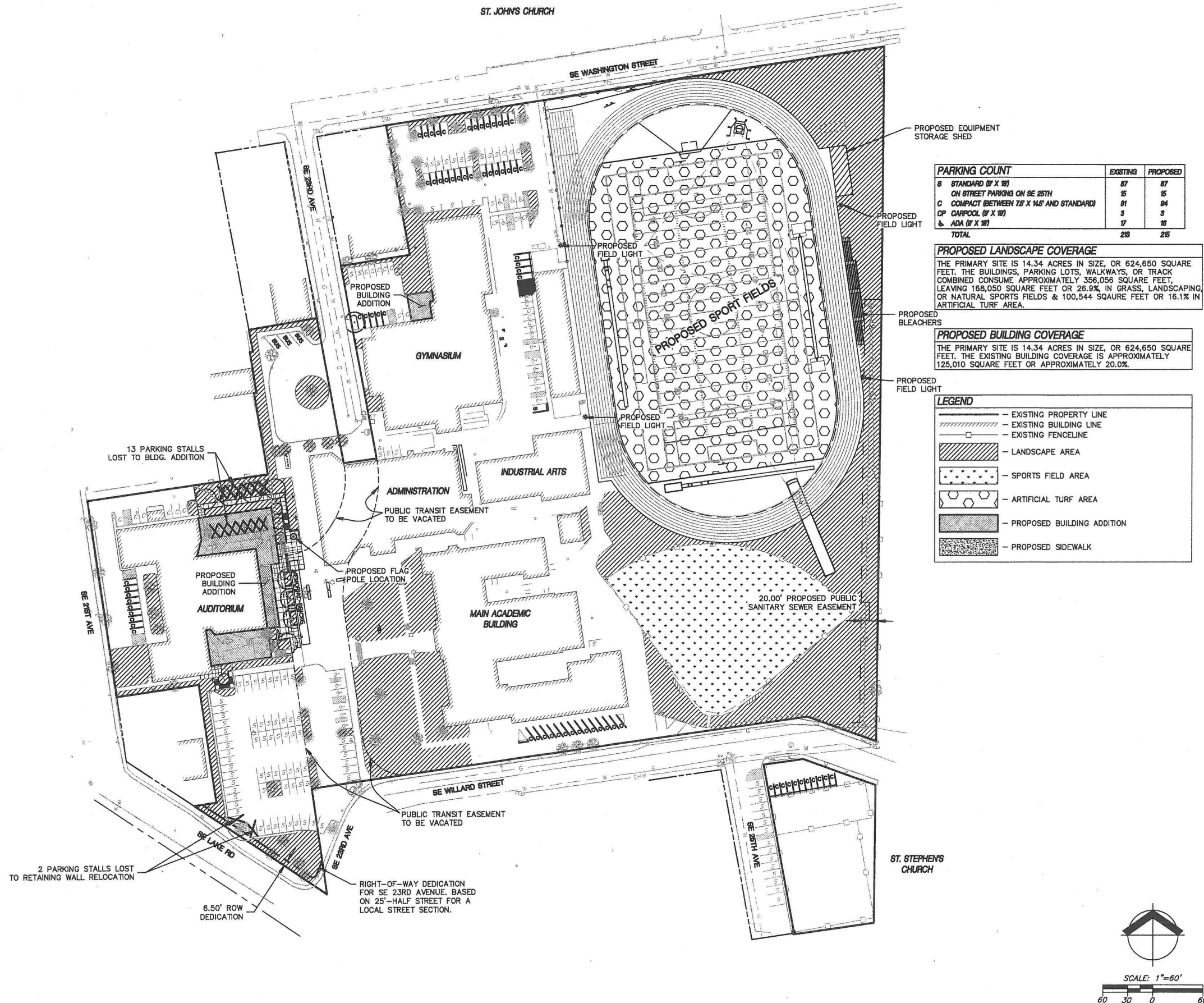
MARK DATE
ISSUE: CSU APPLICATION
PROJECT NO.: 2006246.00
DRAWN BY: FSW
CHECKED BY: JDH

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ORIGINAL SHEET 002 OF 002

A PROPOSED SITE
PLAN

WRG# NCS7641 (207764100)

C002



Recommended Practice for

Sports and Recreational Area Lighting

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6.9.2 Design Considerations. Figure 57 is an example of a drag strip. Poles should be placed along the entire length of the "drag strip" track with lighting from both sides. These poles should be placed so as not to interfere with the spectators or judges line of sight.

Floodlight aiming should be perpendicular to the direction of travel or in the direction of travel whenever possible. This will prevent disability glare for participants. The driver should be allowed an unhampered view of the staging lights at the starting line.

6.10 Field Hockey

Field hockey is a multi-directional ground-level sport played with a ball at moderate speed. The ball is approximately baseball size.

6.10.1 Illuminance Criteria. Recommended illuminance levels are:

Class II - Horizontal illuminance: 500 lux (50 fc)
CV = 0.21 or less. (E_{max}/E_{min} = 2.5:1 or less)

Class III - Horizontal illuminance: 300 lux (30 fc)
CV = 0.25 or less. (E_{max}/E_{min} = 3:1 or less)

Class IV - Horizontal illuminance: 200 lux (20 fc)
CV = 0.30 or less. (E_{max}/E_{min} = 4:1 or less)

Illuminance readings should be taken at a 1-meter (3-foot) elevation.

6.10.2 Design Considerations. Pole arrangements are like those used in football. Pole spacing should be proportionally similar, starting from the end line.

6.11 Football

Football is a multi-directional sport that combines aerial and ground play. The entire field, which includes 9.15 meters (30 feet) in either end zone for scoring, must be uniformly illuminated. Canadian football (similar to American football) has slightly different rules and field dimensions. However, the illuminance criteria and design considerations are similar.

6.11.1 Illuminance Criteria. Recommended illuminance levels are: (See Figure 58.)

Class I - Horizontal illuminances: 1000 lux (100 fc)
CV = 0.13 or less. (E_{max}/E_{min} = 1.7:1 or less)

Class II - Horizontal illuminance: 500 lux (50 fc)
CV = 0.21 or less. (E_{max}/E_{min} = 2.5:1 or less)

Class III - Horizontal illuminance: 300 lux (30 fc)
CV = 0.25 or less. (E_{max}/E_{min} = 3:1 or less)

Class IV - Horizontal illuminance: 200 lux (20 fc)
CV = 0.30 or less. (E_{max}/E_{min} = 4:1 or less)

Illuminance readings should be taken at a 1-meter (3-foot) elevation.

6.11.2 Design Considerations. The minimum pole quantity varies. *Eight poles* are recommended if located close to the sidelines [4.6 to 13.7 meters (15 to 45 feet)]. This drops to *six poles* if located at least 13.7

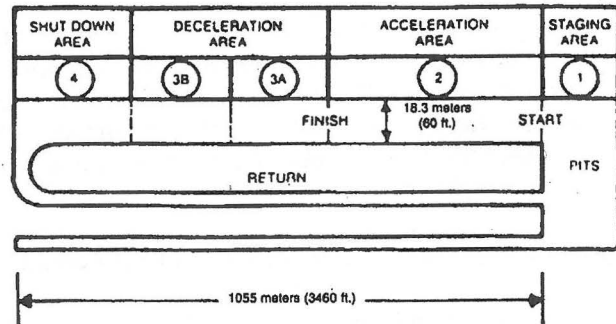


Figure 57. A strip for drag racing requires multiple illuminances over a very long, narrow area.

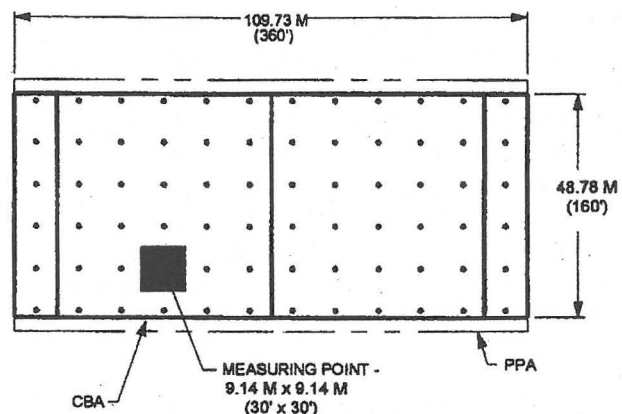


Figure 58. Light levels on a football field are determined by taking readings at the indicated locations. Each measuring point represents light in the surrounding area block (the shaded square is an example).

meters (45 feet) but less than 22.9 meters (75 feet) from the sidelines. And just *four poles* are needed when located over 22.9 meters (75 feet) from the sidelines (see **Figure 59**). Based on the long setback, lighting towers placed in the corners of major stadiums are also acceptable.

For mounting heights see **Figure 16** in **Section 3.0**.

6.12 Golf Courses

Golf is fundamentally a unidirectional aerial sport. The playing area is divided into three separate parts: the tee box, fairway, and green. Golf hole layouts vary significantly — from a par-three length of as little as 60 meters (197 feet) to a par-five length of up to 550 meters (1804 feet). While both recreational and professional play are commonplace, night time golf is limited to recreational levels. Lighting recommendations are for the participants only.

6.12.1 Illuminance Criteria. Recommended illuminance levels are:

Class IV—

Horizontal illuminance:

Tee Boxes: 50 lux (5 fc) CV = 0.25 or less. ($E_{max}/E_{min} = 3:1$ or less)

Fairways: 30 lux (3 fc) CV = 0.35 or less. ($E_{max}/E_{min} = 6:1$ or less)

Greens: 50 lux (5 fc) CV = 0.25 or less. ($E_{max}/E_{min} = 3:1$ or less)

Illuminance readings should be taken at grade.

6.12.2 Design Considerations. Whenever possible, trees and other landscape features should be used to conceal or obstruct any golfer's direct view of the floodlights. Maximum concern is for players on the primary hole and secondary consideration is for players on adjoining holes. Conversely, these same trees and bushes should not keep the floodlights from lighting the intended areas. When identifying floodlight locations, always consider sharing them with the lighting needed for adjoining holes. Short "par-three" holes may only require floodlighting behind the tee box and around the greens.

For tee box areas the floodlights should be located a minimum of 2.0 meters (6.6 feet) directly behind and centered on the tee box. This prevents shadowing of the ball by the player (see **Figure 60**). The floodlight mounting height should be at least 10 meters (32.8 feet) or one half the length of the tee box being lighted (whichever is greater). Extremely long tee boxes may require more than one floodlight location. Care should be taken that floodlights in forward locations do not interfere with the rearward tee boxes.

The floodlight locations along both sides of all fairways should be set up so spill light is available in the "roughs" for locating errant golf balls. For narrow fairways (less than two [2] mounting heights) floodlight locations may be staggered to minimize the number needed. But on wider fairways (greater than two [2] mounting heights) the floodlights need to be directly opposite each other. And for acceptable uniformity, these locations should be no more than three (3) mounting heights apart. All floodlights should be aimed toward the direction of play, with visors and other accessories applied (as needed) to reduce glare for players on adjacent holes (see **Figure 61**).

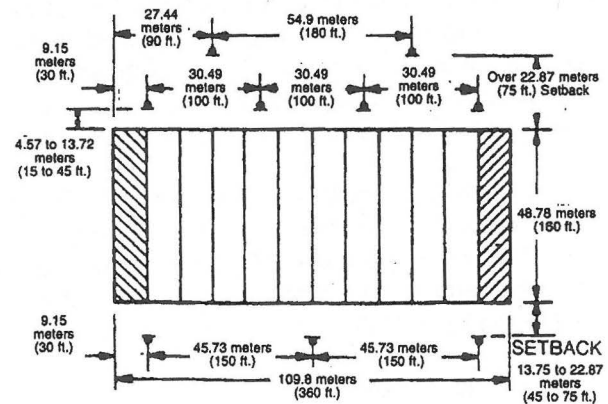


Figure 59. Spacings and setbacks for typical four-, six-, or eight-pole layouts for lighting American football.

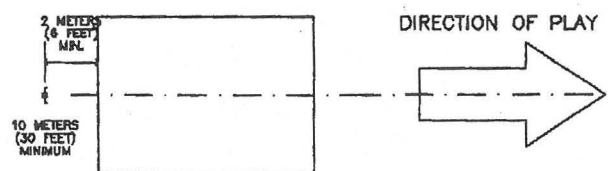


Figure 60. Minimum distance location of floodlighting for a tee box area on a golf course.

6.24.2 Design Considerations. Five factors are of particular importance to ski area lighting design:

- **Illuminance Uniformity** - It is not essential that all surfaces receive uniform illuminance. In fact, the terrain will be made more visible by the directionality of the light and its non-uniformity within the illuminance criteria parameters of **Section 6.24.1**. Semi-directional illumination provides shading and modeling, which aids in seeing the ski slope.
- **Weather** - At ski areas where foggy conditions are common, it may be desirable to increase the minimum vertical illuminance to 3 lux (0.3 fc). This will compensate for snowy or foggy atmospheric conditions.
- **Field Measurements** - Field verification should be done with a normal amount of snow on the slope, and readings should be taken only during clear weather.
- **Luminaire Aiming** - Generally a function of ski slope width, curvature, and gradient, luminaire aiming should be in the general downhill direction (the skier's direction of travel — see **Figure 78**). Certain slope conditions and layouts may require aiming some luminaires in other than downhill directions. Care should always be used to minimize white-out and glare opportunities.
- **Effective Pole Height** - The effective pole height is used to determine longitudinal pole spacing and should be as illustrated in **Figure 79**. On slopes, the effective pole height includes the pole height above snow, the snow depth, and the vertical differential between poles.

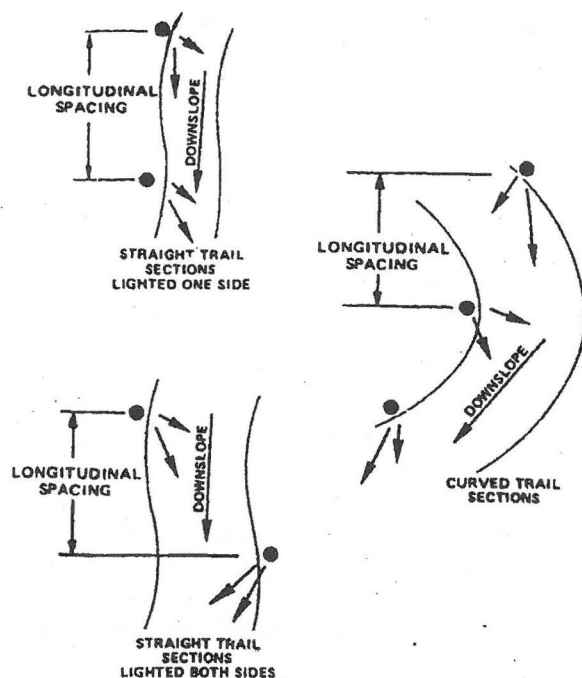


Figure 78. Pole location and luminaire aiming for selected ski slopes

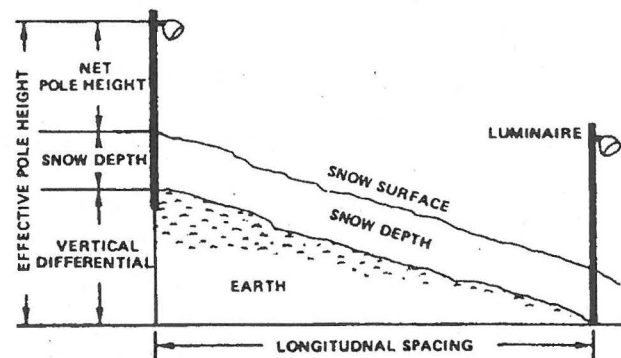


Figure 79. Effective pole height used for sking.

Net pole heights should be determined from coverage requirements, beam spread, terrain, and other conditions peculiar to the slope being lighted. In general, pole heights should be at least 7.6 meters (25 feet) above the snow surface.

6.25 Soccer

Soccer is a multi-directional ground level sport. However, the ball is frequently kicked high into the air. The following lighting criteria is for college, high school, and recreational play. Major national and international soccer competitions are generally held in large stadiums with specially designed lighting systems (see **Figure 51**).

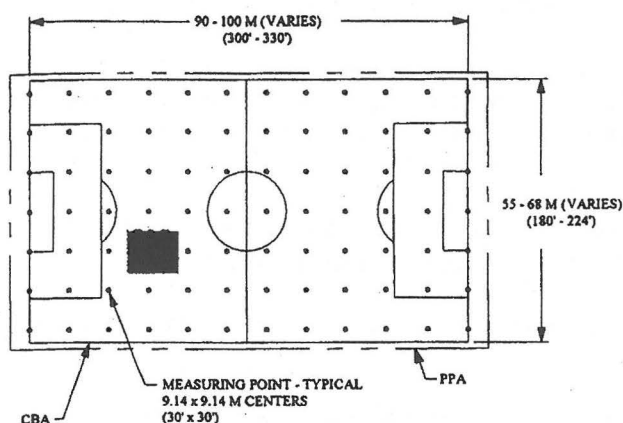


Figure 80. Each measuring point represents light in the surrounding area block on this typical soccer field (the shaded square is an example).

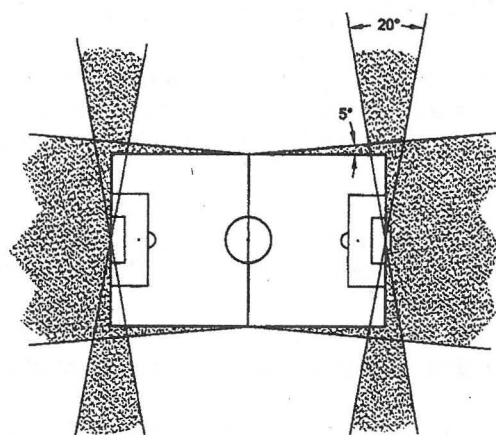


Figure 81. For this soccer field, each shaded area indicates a critical glare zone where luminaires should not be located.

6.25.1 Illuminance Criteria. Recommended illuminance levels are: (See **Figure 80.**)

Class I - Horizontal illuminance: 750 lux (75 fc)
CV = 0.13 or less. ($E_{\max}/E_{\min} = 1.7:1$ or less)

Class III - Horizontal illuminance: 300 lux (30 fc)
CV = 0.25 or less. ($E_{\max}/E_{\min} = 3:1$ or less)

Class II - Horizontal illuminance: 500 lux (50 fc)
CV = 0.21 or less. ($E_{\max}/E_{\min} = 2.5:1$ or less)

Class IV - Horizontal illuminance: 200 lux (20 fc)
CV = 0.30 or less. ($E_{\max}/E_{\min} = 4:1$ or less)

Illuminance readings should be taken at a 1-meter (3-foot) elevation.

6.25.2 Design Considerations. Refer to **Figure 81** for recommended pole locations. Regulation soccer field size varies. Width can be 59.5 to 68.6 meters (195 to 225 feet) and length can be 100.6 to 109.8 meters (330 to 360 feet).

6.26 Softball

Softball is a multi-directional aerial sport similar to baseball. However, softball is played with a larger diameter ball on a smaller field.

Softball field dimensions (for either fast-pitch or slow-pitch play) vary with the league. The baselines are generally between 18.3 and 19.8 meters (60 to 65 feet) and the outfield between 61.0 and 94.5 meters (200 to 310 feet).

6.26.1 Illuminance Criteria. The illuminance criteria for softball are similar to those for baseball. See **Section 6.5** and **Figure 8**.

6.26.2 Design Considerations. The minimum luminaire mounting height and corresponding pole setback should be determined as illustrated in **Figure 16**. Refer to **Figure 53** for guidelines for locating luminaires.

6.27 Swimming

See **Section 5.17**.

6.28 Tennis

See **Section 5.18** for a general description of tennis, classification of the sport's play/facilities, definition of playing areas, and recommended reflectance values of surfaces.

Table 7: Summary of Outdoor Illuminance Levels

Outdoor Applications									
SPORT	Lighted Area	Class of Play	Horizontal		Vertical		Uniformity		Section
			Lux	fc	Lux	fc	CV	Max:/Min	
Archery	Shooting Line	III	100	10			0.21 or Less	2.5:1 or Less	6.4
	Target @ 30.4m (100')				300	30			
	Target @ 91.4m (300')				500	50			
	Shooting Line	IV	100	10			0.25 or Less	3:1 or Less	
	Target @ 30.4m (100')				200	20			
Target @ 91.4m (300')				300	30				
Baseball & Softball	Infield	I	1500	150			0.07 or Less	1.2:1 or Less	6.5
	Outfield		1000	100			0.13 or Less	1.7:1 or Less	
	Infield	II	1000	100			0.10 or Less	1.5:1 or Less	
	Outfield		700	70			0.17 or Less	2:1 or Less	
	Infield	III	500	50			0.17 or Less	2:1 or Less	
	Outfield		300	30			0.21 or Less	2.5:1 or Less	
	Infield	IV	300	30			0.21 or Less	2.5:1 or Less	
	Outfield		200	20			0.25 or Less	3:1 or Less	
Basketball		III	300	30			0.25 or Less	3:1 or Less	6.6
		IV	200	20			0.3 or Less	4:1 or Less	
Bicycle Racing	Track*	III	300	30			0.25 or Less	3:1 or Less	6.7
	Final 100' & Finish*		500	50					
	Track*	IV	200	20			0.3 or Less	4:1 or Less	
	Final 100' & Finish*		300	30					
Dog Racing*			300	30			0.25 or Less	3:1 or Less	6.8
Drag Racing	Area 1*	I	200	20			0.21 or Less	2.5:1 or Less	6.9
	Area 2*		300	30			0.13 or Less	1.7:1 or Less	
	Area 3A*		250	25			0.13 or Less	1.7:1 or Less	
	Area 3B*		200	20			0.21 or Less	2.5:1 or Less	
	Area 4*		100	10			0.25 or Less	3:1 or Less	
	Area 1*	II	100	10			0.25 or Less	3:1 or Less	
	Area 2*		200	20			0.21 or Less	2.5:1 or Less	
	Area 3A*		150	15			0.25 or Less	3:1 or Less	
	Area 3B*		100	10					
	Area 4*		50	5					
Field Hockey		II	500	50			0.21 or Less	2.5:1 or Less	6.10
		III	300	30			0.25 or Less	3:1 or Less	
		IV	200	20			0.3 or Less	4:1 or Less	
Football		I	1000	100			0.13 or Less	1.7:1 or Less	6.11
		II	500	50			0.21 or Less	2.5:1 or Less	
		III	300	30			0.25 or Less	3:1 or Less	
		IV	200	20			0.3 or Less	4:1 or Less	
Golf Course	Tee Boxes*		50	5			0.25 or Less	3:1 or Less	6.12
	Fairways*		30	3			0.35 or Less	5.7:1 or Less	
	Greens*		50	5			0.25 or Less	3:1 or Less	
Golf: Driving Ranges	Tee Boxes*		200	20			0.25 or Less	3:1 or Less	6.13
	At 183m (600')				100	10	0.25 or Less	3:1 or Less	
Handball, Racquetball and Squash		III	300	30			0.25 or Less	3:1 or Less	6.14
		IV	200	20			0.3 or Less	4:1 or Less	
Horse Racing	Track		500	50			0.25 or Less	3:1 or Less	6.15
	Home Stretch		1000	100					
	Finish Line				700	70			
Ice/Roller Hockey*		II	500	50			0.21 or Less	2.5:1 or Less	6.16
		III	300	30			0.25 or Less	3:1 or Less	
		IV	200	20			0.3 or Less	4:1 or Less	
Ice Skating (Speed*)		III	300	30			0.25 or Less	3:1 or Less	6.17
		IV	200	20			0.3 or Less	4:1 or Less	

Attachment 4

Kelver, Brett

From: ED MURPHY [murphyed@verizon.net]
Sent: Monday, March 03, 2008 1:40 PM
To: Kelter, Brett
Cc: David Chesley
Subject: Re: new materials?

Brett, my understanding of the different levels is as follows, based on documents I received from David Chesley:

Levels of Play Classifications - IESNA sets forth four illumination classifications based on the level of play being accommodated on a lighted athletic field. Recommended levels for social or recreational sports range from 20 to 50 foot-candles; levels for professional play with large spectator attendance and television coverage can reach 300 foot-candles. Field illumination for SPR athletic fields will conform to either Level III or Level IV standards, depending on the anticipated use of the field.

q **Level I** illumination is for competition play before a large group of spectators' attendance (approximately between 5,000 and 10,000 spectators).

q **Level II** illumination is for competition play with up to 5,000 spectators.

q **Level III** illumination is for competition play with some provision for spectators, such as permanent bleachers for 50 - 100 spectators.

q **Level IV** illumination is for competition or recreational play only with no provision for spectators.

The field lights at MHS are designed for Level II illumination, since there will often be over 100 spectators at many of the games.

Ed

Ed Murphy & Associates
9875 SW Murdock Street
Tigard, Oregon 97224
503-624-4625 business phone
503-314-0677 cell phone
503-968-1674 fax
murphyed@verizon.net

On Mar 3, 2008, at 1:16 PM, Kelter, Brett wrote:

Thanks for the info, Ed. We'll put into the packet whatever materials we receive in time to do so and will provide staff analysis as soon as possible afterward.

Do you have any info that defines the different classes of football? In the materials you provided, I see that there are four classes of play for football, each with a different level of required lighting. Can you clarify what those levels mean and where the high school fits in? Thanks.

Kelver, Brett

From: Mangle, Katie
Sent: Monday, March 03, 2008 10:27 AM
To: Kelver, Brett
Cc: Shanks, Susan
Subject: FW: NCP ballfield lights

Brett,
please include this in the meeting packet today, and share with Ed:

-----Original Message-----

From: Lisa Batey [mailto:lisabatey@msn.com]
Sent: Friday, February 29, 2008 8:16 PM
To: Mangle, Katie
Subject: Fw: NCP ballfield lights

Katie: I wanted to submit the exchange below for inclusion into the record. Thanks! --Lisa

----- Original Message -----

From: Eric Shawn
To: Lisa Batey
Sent: Friday, February 29, 2008 7:19 PM
Subject: Re: NCP ballfield lights

Lisa,

Feel free to share my comments. At the Wednesday meeting, NCPRD representatives reported that efforts to adjust light fixtures have not yet been initiated. Several neighbors to the south and the west mentioned that glare from ball field lights continues to be an irritant when lights are operating. If I remember correctly, Dick Shook mentioned pictures of the glare taken from his house. Since NCPRD records the meetings, comments about lights and noise are likely to be found in the minutes on our web site at www.foncp.org.

Joe Loomis is in charge of the field schedule and may have more information about adjustments planned for field lighting.

Again, feel free to share my comments if they are helpful.

Eric

On Feb 26, 2008, at 10:57 PM, Lisa Batey wrote:

Eric, Susan: I'd like to share this report with Planning Staff and Planning Commission in connection with high school application, which has a lighting issue vis-a-vis the football field. I reported orally on my ex parte communications with Susan and with Dick Shook tonight, but would like to make this a part of the official record. Do you have any objection to that? Or maybe you'd like to write up something specific for submittal after your meeting tomorrow? However you think best. The decision on the application was set over to March 11, so there's some time. Thanks! --Lisa

----- Original Message -----

From: Eric Shawn
To: Susan Shawn
Cc: Lisa Batey
Sent: Tuesday, February 26, 2008 7:38 PM

Subject: Re: NCP ballfield lights

Lisa,

Susan forwarded your note and I'm responding as chair of the Stewardship Committee for North Clackamas Park. Lighting continues to be raised as an area of concern. If I recall correctly, the park district is making arrangements to adjust some of the fixtures in an effort to block glare into neighboring houses.

The agendas and minutes of Stewardship Committee meetings can be found on our Friends of North Clackamas Park web site at www.foncp.org.

I'll ask NCPRD for a report on lighting at tomorrow's Stewardship Committee meeting and hope a report from the acoustics consultant will be available. Meetings are the fourth Wednesday of every month, from 4-6pm, in the Milwaukie Center. Meetings are open and everyone is welcome to attend.

I hope this addresses your question.

Eric

ATTACHMENT 5

EMAIL CHAIN FROM PLANNING COMMISSIONER LISA BATEY
RE: FIELD LIGHTING
PROVIDED TO PLANNING COMMISSION ONLY

ATTACHMENT 6

Revised Recommended Conditions in Support of Approval

1. At the time of submission of any building permit application, the following shall be resolved:
 - A. Provide a narrative describing all actions taken to comply with these conditions of approval.
 - B. Provide a narrative describing any changes made after the issuance of this land use decision that are not related to these conditions of approval.
 - C. Submit revised site plans with the following changes:
 - i. Bicycle parking shall be brought into conformance with the standards of MMC Section 19.505, to a minimum total of 48 spaces. New spaces shall be located within 50 feet of the entrances to the various campus buildings as dimensions and existing features allow. At least 24 bicycle parking spaces shall be covered and/or enclosed in the form of lockers.
 - ii. A continuous, sight-obscuring, non-deciduous, non-invasive vegetative screen shall be provided along the eastern property line where the applicant's lighting plan has projected a vertical illumination reading of 2.0 foot-candles or greater. The vegetation shall be of a minimum 5-gallon size and minimum of 3-foot height at planting and shall reach a minimum height of 6 feet at time of maturation.
 - iii. Any loss of existing on-site parking spaces due to expansion of the fine arts building and/or relocation of the retaining wall near SE Lake Road shall be replaced by establishing new spaces on the site and/or arranging for shared parking spaces off site within 300 feet of the school boundary. If new spaces are established on the site, they shall meet the dimensional standards of MMC Subsection 19.503.10 and shall be shown on the revised site plan.
 - iv. Demonstrate that the minimum setback requirement of 20 feet is met by showing the distances between the eastern property boundary and the following: (1) bleachers and (2) new light poles.
2. Prior to issuance of any building permit, the following shall be resolved:
 - A. Final plans submitted for building permit review shall be in substantial conformance with plans approved by this action, which are the plans stamped received by the City on January 11, 2008, except as otherwise modified by these conditions. Specifically, the poles used for lighting the track and playing field shall be limited to a height of 70 feet.
 - B. Provide a narrative describing all actions taken to comply with these conditions of approval.
 - C. Provide a narrative describing any changes made after the issuance of this land use decision that are not related to these conditions of approval.
 - D. Submit a ~~City of Milwaukie approved~~ storm water management plan to the City of Milwaukie Engineering Department for review and approval. The plan shall be prepared in accordance with Section 2 – Stormwater Design Standards of the City of Milwaukie Public Works Standards.

- E. Pay a fee-in-lieu of construction to the City of Milwaukie for the required public improvements on SE Lake Road fronting the subject property.
- F. Dedicate 6.5 feet of right-of-way to the public on SE Lake Road fronting the subject property.
- G. Dedicate right-of-way to the public at the northwest corner of SE Lake Road and SE 23rd Avenue such that the existing public improvements are located within the public right-of-way.
- ~~H. If existing on-site parking spaces that are lost due to expansion of the fine arts building and/or relocation of the retaining wall on SE Lake Road are replaced off site, a shared parking agreement shall be submitted to the City documenting the replacement spaces. Replacement spaces shall be in addition to the number of formal and informal shared spaces that the District reported in this proposal. [Modified this condition and moved to Condition #5-H.]~~
- ~~I. Formalize all informal shared parking agreements. Record all existing and newly created shared parking agreements with the County. Provide a copy of all agreements to the City. [Included this condition in Condition #5-H.]~~
- J. Provide details sufficient to verify that all required new bicycle racks meet the standards of MMC Subsection 19.505.3.
- 3. Prior to construction or commencement of any earth disturbing activities, the applicant shall obtain an erosion control permit.
- 4. Development activity on the site shall be limited to 7:00am – 7:00pm Monday through Friday and 8:00am – 5:00pm Saturday and Sunday.
- 5. Prior to final inspection of any building permit, the following shall be resolved:
 - A. Provide a narrative describing all actions taken to comply with these conditions of approval.
 - B. Provide a narrative describing any changes made after the issuance of this land use decision that are not related to these conditions of approval.
 - C. Construct a private storm management system on the proposed development property for runoff created by the property. The private storm management system shall be constructed to the specifications of the approved storm water management plan.
 - D. Relocate the existing parking lot retaining wall fronting SE Lake Road outside of the public right-of-way after the required dedication.
 - E. Provide a 20-foot wide public utility easement for the existing wastewater main on the east side of the subject property as shown on the site plans.
 - F. Remove all signs, structures, or vegetation in excess of 3 feet in height located in “vision clearance areas” at intersections of streets, driveways, and alleys fronting the proposed development.
 - G. Submit a letter from the project landscape architect attesting that all required site plantings have been completed in conformance with the approved site plans and with City standards.
 - H. A minimum total of 341 off-street parking spaces shall be secured for use by the high school. For all shared parking spaces used to meet the minimum total, a

shared parking agreement(s) shall be recorded with Clackamas County and a copy provided to the City.

- I. Develop a Transportation Demand Management (TDM) program to improve the functioning of the existing parking situation at the school and reduce demand for the limited number of off-street spaces. At a minimum, the TDM program shall include a plan for establishing a Transportation Committee composed of students, faculty, and staff. The Committee shall be responsible for studying parking demand, developing and promoting alternative transportation options, ~~as well as for and~~ establishing a Transportation Resource Center on the campus. The TDM plan shall be submitted to the Planning Director for review and approval.
 - J. Submit a letter from a lighting engineer attesting that the new field lights are operating within projected parameters, specifically that the vertical illumination levels along the eastern property line do not exceed a level of 4.0 foot-candles and that the light poles are no more than 70 feet tall.
 - K. The District shall reconfigure the sound system at the athletic field so that all loudspeakers are directly aimed at bleacher and grandstand areas.
6. After issuance of a Certificate of Occupancy, the applicant shall:
- A. Maintain the new field lights so that that vertical illumination levels along the eastern property line do not exceed a level of 4.0 foot-candles.
 - B. Use the site in a manner substantially similar to what has been proposed and approved through this land use action. ~~including the hours and levels of proposed activities and services. The hours and uses of the school facilities shall not be increased or substantially modified from the current schedule and levels without adequate review and approval by the Planning Director or the Planning Commission, as appropriate.~~
 - C. Restrict the use of the field lights to school-related and youth-activity athletic events. The lights shall be turned off no later than 10:00pm.
 - D. Maintain the required vegetative screening along the eastern property line in good and healthy condition.
 - E. Maintain an active TDM program in an effort to reduce the demand for limited off-street parking related to use of the school facility.



To: Planning Commission
Through: Katie Mangle, Planning Director *KM*
From: Ryan Marquardt, Assistant Planner *RM*
Date: March 4, 2008 for March 11, 2008
Subject: File: CPA-08-01, ZC-08-01, HR-08-01
 Applicant: JoAnn Herrigel, Community Services Director, City of Milwaukie
 Address: Milwaukie Riverfront Park
 Legal Description (Map & Taxlot): 1S 1E 35AA; Lots 4600 and 3901
 NDA: Historic Milwaukie

Action Requested

Adopt the recommended findings and make a recommendation to the City Council to approve the proposed Comprehensive Plan Map Change, Zoning Map Change, and Deletion of a Historic Landmark.

Project Description

The applicant for the proposed map changes is the City of Milwaukie, represented by JoAnn Herrigel, Community Services Director. The City of Milwaukie is the property owner of both subject parcels in these land use applications.

This application includes proposed map changes necessary to proceed with developing Milwaukie Riverfront Park. Development of the park would eventually alter the area north of Kellogg Creek and south of Johnson Creek between SE McLoughlin Boulevard and the Willamette River. The highlights of the park proposal will include a boat ramp, informal amphitheater, pedestrian bridge over Kellogg Creek, playground, plazas, reconfigured parking area, and restroom building. The park proposal will also include replanting and bank restoration along Kellogg Creek, Johnson Creek, and the Willamette River. The map changes included in this application are the first phase of land use applications to allow development of the park. The Planning Commission will review the final design of the park in a subsequent Design Review land use application.

Background Information

The proposed zoning and comprehensive plan map changes would affect two specific sites - the northernmost parcel in the park (Tax Lot 4600) and the former railroad right of way for the Portland Traction Line. The proposed changes are shown in Attachment 1: Comprehensive Plan and Zoning Map - Existing and Proposed.

Gary and Sharon Klein owned Tax Lot 4600 before they donated it to the City for the purpose of incorporating the land in Riverfront Park. Currently, the Comprehensive Plan designation of this lot is Town Center (TC), and its Zoning designation is Commercial Limited (CL). Since a park is not an outright allowed use in the CL zone, the City is proposing to change the zoning designation to Downtown Open Space (DOS). Rezoning this lot will allow the City to develop the park since Parks, Plazas and Open Space are outright permitted uses for the DOS zone.

The City is also proposing a Comprehensive Plan Map Change for Tax Lot 4600 to change its Comprehensive Plan designation from TC to Public (P). The change to the Comprehensive Plan Map designation is necessary to allow the City to rezone the lot from CL to DOS. The Comprehensive Plan designation determines what zones, and consequently what uses, are or are not appropriate for an area. The TC designation encourages mixed-use development combined with residential high-density housing and retail, service commercial, and/or offices. Conversely, the Comprehensive Plan calls for publicly owned open spaces to be designated as Public. The Zoning Ordinance also specifically states that the DOS zone is established to implement the "Public" designation of the Milwaukie Comprehensive Plan. Based on the City's planned use of the lot, a Comprehensive Plan designation of Public is the most appropriate designation, and will allow a change from CL zoning to DOS for development of the Riverfront Park.

The other tax lot for which a zone change is proposed is Tax Lot 3901. This lot is a long parcel that runs from Johnson Creek south to Jefferson Street along the eastern edge of the park, and is the property that used to contain the Portland Traction Rail Line. The lot is currently covered by the Historic Resource Overlay zone, and is listed as an "Unrankable" site. Prior to any development of such sites, Milwaukie Municipal Code (MMC) section 19.325.5 requires that the owner complete the process to either list the site as a Significant or Contributing resource, or delete it from the list. The City is proposing to delete the property from the City's Historic Resource list and remove the Historic Resource overlay. The Portland Traction Company abandoned the rail line in 1967, and the tracks were either removed or covered up sometime during the early 1970s. As described in the Key Issues section below, staff does not believe that the historic resource overlay is appropriate for the site. Additionally, doing so could complicate development of the park. Deleting the Historic Resource Designation does not preclude the City from recognizing or commemorating the rail line that once ran through the park.

Key Issues

- 1) Should the Historic Resource designation be removed from Tax Lot 3901?
- 2) Do the proposed changes to the Comprehensive Plan and Zoning map designations for Tax Lot 4600 comply with the criteria and procedures outlined in the Comprehensive Plan and Milwaukie Municipal Code?

Analysis of Key Issues

Key Issue Number 1: Should the Historic Resource designation be removed from Tax Lot 3901?

The proposed development of Riverfront Park involves grading and installation of stairs and a plaza on the site of the rail line alignment. The railroad bed and any remnants of rail or rail ties, if they exist, would be altered and/or removed. This would constitute further demolition of the resource. The code requires that, before any alteration or demolition of an "Unrankable" resource takes place, it must either be listed as a Contributing or Significant resource or be

removed from the list altogether. De-listing the rail line would mean that the site would be removed from the map and list of historic resources, and there would not be any further process for the Riverfront Park with regard to the Historic Resource overlay zone.

The rail line was in service from 1893 through 1958, and was an important transportation feature that linked Milwaukie to other cities as it developed in the 20th century. The Portland Traction Company abandoned the rail line in 1967, and the tracks were removed sometime prior to 1977. Until October 1989, the zoning code did not have any regulations pertaining to destruction of historic resources, or even designation of historic resources. Unfortunately, the City did not designate the rail line as an historic resource until it was already substantially destroyed. When the list was created in 1988, this resource was designated as "Unrankable," probably because little remained of the line or the trestle.

In 2007, the City hired historic resources consultant Martha Richards of URS Corporation to research this and other "Unrankable" properties on the City's Historic Resources list. She completed a Cultural Resources Survey Form and a Statement of Significance regarding the Portland Traction Line. In her opinion as a professional historic resource consultant, the resource is not eligible for listing as a Significant or Contributing Resource because almost no physical evidence of the rail line remains on the site. See Figures 1 and 2 below.



Figures 1 and 2: Area of the Portland Traction Line in Riverfront Park looking north and south, respectively.

To be ranked as a Contributing Historic Resource, which is the lesser of the two possible historic rankings, an historic resource must receive a rating score level of fifty to sixty percent of the evaluation worksheet or score a high of ten in at least one of the categories of the evaluation worksheet. Because almost no trace of the line remains, staff did not have the site evaluated according to this worksheet. At least 45 of the 86 points possible (52% of the score) depend upon the physical state of the resource. Because of the state of the Portland Traction Line, it is probably impossible for the property to reach 50% of the possible 86 points. It is also not likely that the land by itself would receive a score of 10 for its historical association with a person/group/organization, event, or a broad historical pattern.

If the City were to designate the rail line as either Significant or Contributing, development of the park would require that the City put the property through a formal review process to demolish an historic resource. City code requires that prior to demolition of an historic resource, the applicant must list the property for sale for at least 90 days, and the Planning Commission must hold a public hearing. The end result of the process is either approval of the demolition or sale of the

property to another party. The process does not have any direct connection to preservation or recognition of the resource. Additionally, the City has no desire to sell the property, as this would preclude the proposed development of Riverfront Park. If the City were to designate the Portland Traction Line as a Significant or Contributing resource, the result would be to add additional process to the development of the Riverfront Park.

The Design and Landmarks Committee (DLC) has reviewed and commented on the removal of the Historic Resource designation. They are in favor of placing the Portland Traction Line permanently on the Historic Resource list. They also commented, however, that they would support the removal of the designation, "if the leaders of the park project and the park's designers will commit to and offer a more tangible demarcation of the line before the resource is altered." They have proposed conditions for consideration by the Planning Commission that assure the Portland Traction Line will be commemorated on the area where the rail line once ran. Specifically, they requested that there be at least one descriptive monument, interpretive monument, or public art work relating directly to the historical presence of the Portland Traction Line be placed within the former Portland Traction Line corridor. A second proposed condition is that the design of any structures, pathways, or features within the Historically Significant portion of the Riverfront Park design meaningfully reflect the historical presence of the Portland Traction Line.

JoAnn Herrigel, the City's project manager for the Riverfront Park, and the Milwaukie Riverfront Board have reviewed the DLC's comments. They are agreeable to recognition of the rail line's past presence in the park. However, they would prefer to maintain flexibility with regard to the monument and its placement in the park. For example, a monument at or near the beginning of the Trolley Trail at Jefferson Street may provide adequate commemoration of the rail line that is not in the area designated as historically significant. It is also possible that a monument from Klein point would be an appropriate monument site since it would provide a good vantage point of the remnants of the railroad bridge trestle footings.¹ However, this site is located west of the area designated as a resource, and would not meet the requirements of the proposed condition.

Staff recommends that the Planning Commission's findings include a recommendation to the City Council that at least one descriptive or interpretive sign, monument, or work of public art relating to the historical presence of the Portland Traction Line be placed within the redeveloped Riverfront Park. This condition ensures that the rail line's presence will be acknowledged in the park, and is also flexible enough to allow the placement of a sign, monument or public art in an area that is appropriate for such recognition.

In conclusion, staff believes the most appropriate course of action for the Portland Traction Line is commemoration in the future Riverfront Park through signage, a monument, or public art within the Park. This ensures that this important part of Milwaukie's history is remembered when people visit the park, and avoids adding a regulatory hurdle to the Park's review and approval process.

¹ The remaining trestle footings are within the boundaries of Johnson Creek and are not in the area covered by the Historic Resource overlay.

Key Issue 2: Do the proposed Comprehensive Plan Map and Zone Map changes comply with the criteria and procedures outlined in the Comprehensive Plan and Milwaukie Municipal Code?

Changes to the Comprehensive Plan Map and Zoning Map must meet the criteria of the Comprehensive Plan and Zoning Ordinance. The Comprehensive Plan objectives and policies, the Downtown and Riverfront Plan, Statewide Planning Goals and the criteria for zoning map amendments support the proposed change to a Comprehensive Plan designation of Public and Zoning Map Change to Downtown Open Space. The applicable policies and criteria are listed below for the Planning Commission's reference. A complete description of how the proposed changes comply with the policies and criteria is found in Attachment 2: Recommended Findings in Support of Approval, and Attachment 4: Applicant's Narrative.

Statewide Planning Goals

- Goal 1: Citizen Involvement.
- Goal 2: Land Use Planning.
- Goal 5: Open Spaces, Scenic and Historic Spaces, and Natural Resources.
- Goal 7: Areas Subject to Natural Disasters and Hazards.
- Goal 8: Recreational Needs.
- Goal 15: Willamette River Greenway.

City of Milwaukie Comprehensive Plan

- MCP Chapter 1 – Citizen Involvement.
- MCP Chapter 3 – Environment and Natural Resources.
 - Natural Hazards Element.
 - Open Spaces, Scenic Areas, and Natural Resources Element.
- MCP Chapter 4 – Land Use.
 - Recreational Needs Element.
 - Willamette Greenway Element.

Milwaukie Downtown and Riverfront Land Use Framework Plan

- The rezone will allow development of the Riverfront Park, as called for in this Plan. Development of this area of Riverfront Park is listed as Priority Project 1a in the Plan.

Criteria for Zone Map Amendments

- The proposed changes conform to all applicable comprehensive plan goals, policies and objectives and are consistent with the provisions of City ordinances, Metro urban growth management functional plan and applicable regional policies.
- The development anticipated for this area fully meets the intent of the zone change. All of the City's long-range planning documents calls for development of the Riverfront Park. This proposed zone change will allow that development to occur. The site's location, surrounding land uses, and future development potential all support the use of this area as a park, which consequently supports the proposed zone change.

As presented in the attached findings, staff believes that the proposed changes are consistent with all applicable goals, policies, and regulations and makes sense for the site. The existing zoning of the property is not appropriate given its location. A significant portion of the site is covered by the Water Quality Resource, which limits its overall development potential. The site does not have direct

access to a public street and is not readily visible. It is unlikely that the commercial uses allowed by the CL zone would be feasible on this site.

Changing the zoning to Downtown Open Space is a benefit to the City because it is necessary to allow the development of the Riverfront Park. The Park is a very important part of a revitalized downtown Milwaukie. It will help reconnect the City with the Willamette River, which is a defining characteristic of the City and its past. It will create a valuable recreational resource that will accommodate many different types of users with its paths, boat ramp, water features, plazas, informal amphitheatre open spaces. Lastly, it will restore and improve important riparian areas for Johnson Creek, Kellogg Creek, and the Willamette River.

Conclusions

Staff believes that the Planning Commission should recommend that City Council approve the proposed Comprehensive Plan Map Change, Zoning Map Change, and Deletion of Historic Resource designation. All of the applicable criteria are met, and the applications have been processed in accordance with the procedures specified in the Municipal Code.

Code Authority and Decision Making Process

The proposal is subject to the following provisions of the Milwaukie Comprehensive Plan and the Zoning Ordinance, which is Title 19 of the Milwaukie Municipal Code (MMC).

- Milwaukie Comprehensive Plan, Chapter 2, Objective #1 –Amending the Plan
- MMC Chapter 19.900, Amendments
- MMC 19.1011.4, Major Quasi-judicial review
- MMC 19.323.4, Process for Designation or Deletion of a Landmark

This application is subject to Major Quasi-judicial review, which requires both the Planning Commission and City Council to consider whether the applicant has demonstrated compliance with the code sections shown above. In Major Quasi-judicial reviews, the Planning Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at a public hearing in order to make a recommendation to the City Council. The City Council considers the Commission's recommendation and evaluates additional testimony and evidence received at a second public hearing in order to approve, approve with conditions, or deny the application.

The final City Council decision on this application must be made by May 6, 2008, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

Comments

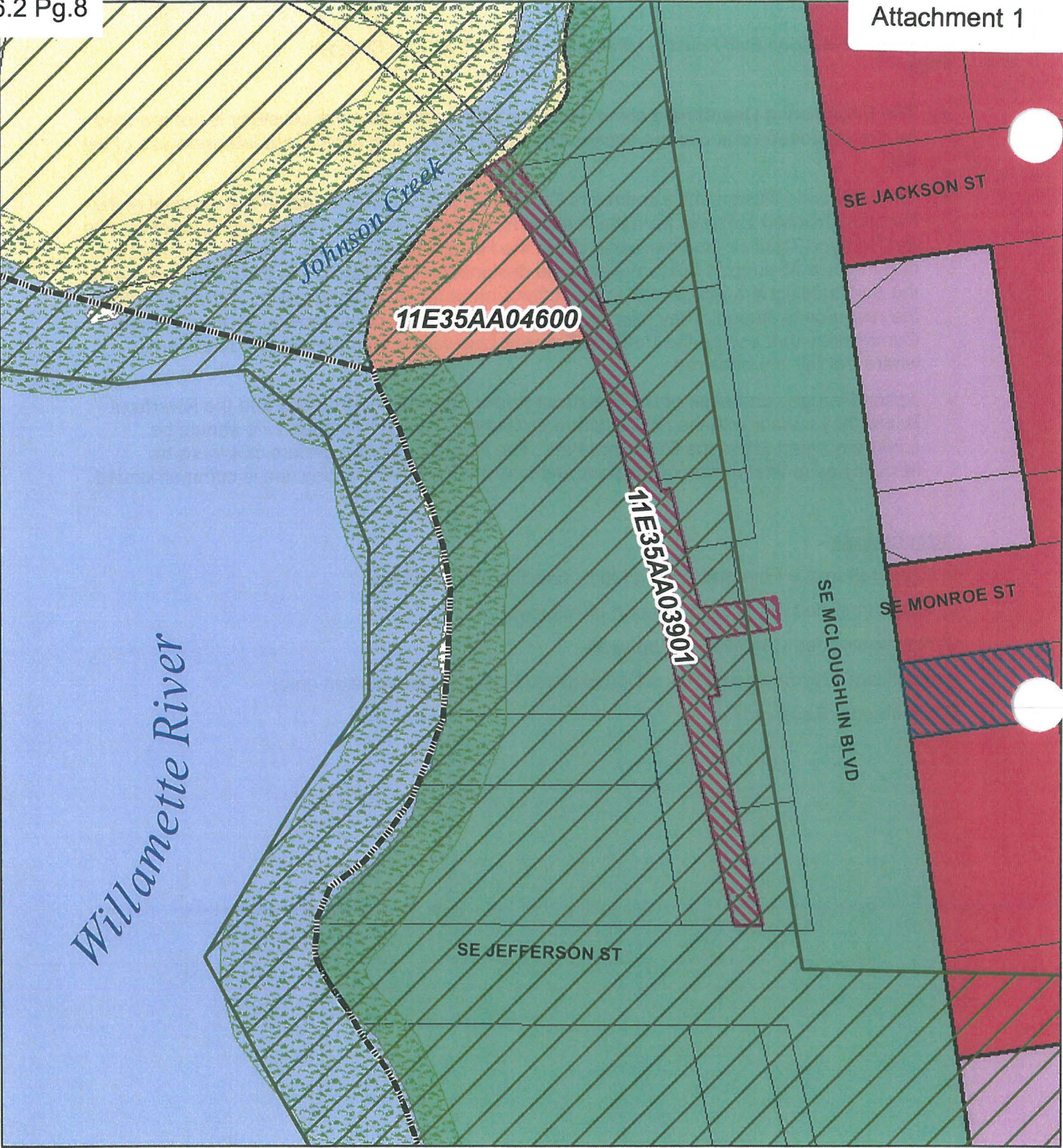
Notice of the proposed changes were given to the following agencies and persons: City of Milwaukie Engineering Department, Historic Milwaukie Neighborhood District Association (NDA), Clackamas County, Metro, Oregon Department of Transportation, Oregon Department of Land Conservation and Development, North Clackamas Parks and Recreation District, and the Milwaukie Design and Landmarks Committee.

The following is a summary of the comments received by the City. See the corresponding attachments for further details.

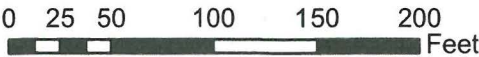
- The Engineering Department commented that a transportation impact study is not required for the proposed zone change because the proposed zoning allows less intensive use of the site.
- The Milwaukie Design and Landmarks Committee (DLC) commented on the removal of the Portland Traction Line site from the Historic Resource inventory. They are in favor of placing the Portland Traction Line permanently on the Historic Resource list. They also commented that they would support the removal of the designation if the leaders of the park project and the park's designers will commit to and offer a more tangible demarcation of the line before the resource is altered. They have proposed conditions for consideration by the Planning Commission that assure the Portland Traction Line will be commemorated on the area where the rail line once ran.
- JoAnn Herrigel, on behalf of the Riverfront Board, commented that she and the Riverfront Board they concur with the DLC's comment that the Portland Traction Line should be commemorated within the Riverfront Park. The Riverfront Board prefers that there be flexibility as to final design of the park and how the Portland Traction line is commemorated.

Attachments

1. Comprehensive Plan and Zoning Map - Existing and Proposed
2. Recommended Findings in Support of Approval
3. Recommended Condition of Approval
4. Applicant's Narrative and Plans/Drawings (to Planning Commission only)
5. Comments Received



Existing Zoning
Land Use File #CPA-08-01



Legend

Zoning	Water Quality Resources	Willamette Greenway Zone
R2	Riparian Buffer	
CL	Wetland Buffer	
DC		
DO		
DR		
DS		
DOS		
	Historic Resources	
	Significant	
	Contributing	
	Unrankable	



Existing Comprehensive Plan Land Use Designation and Use File #CPA-08-01

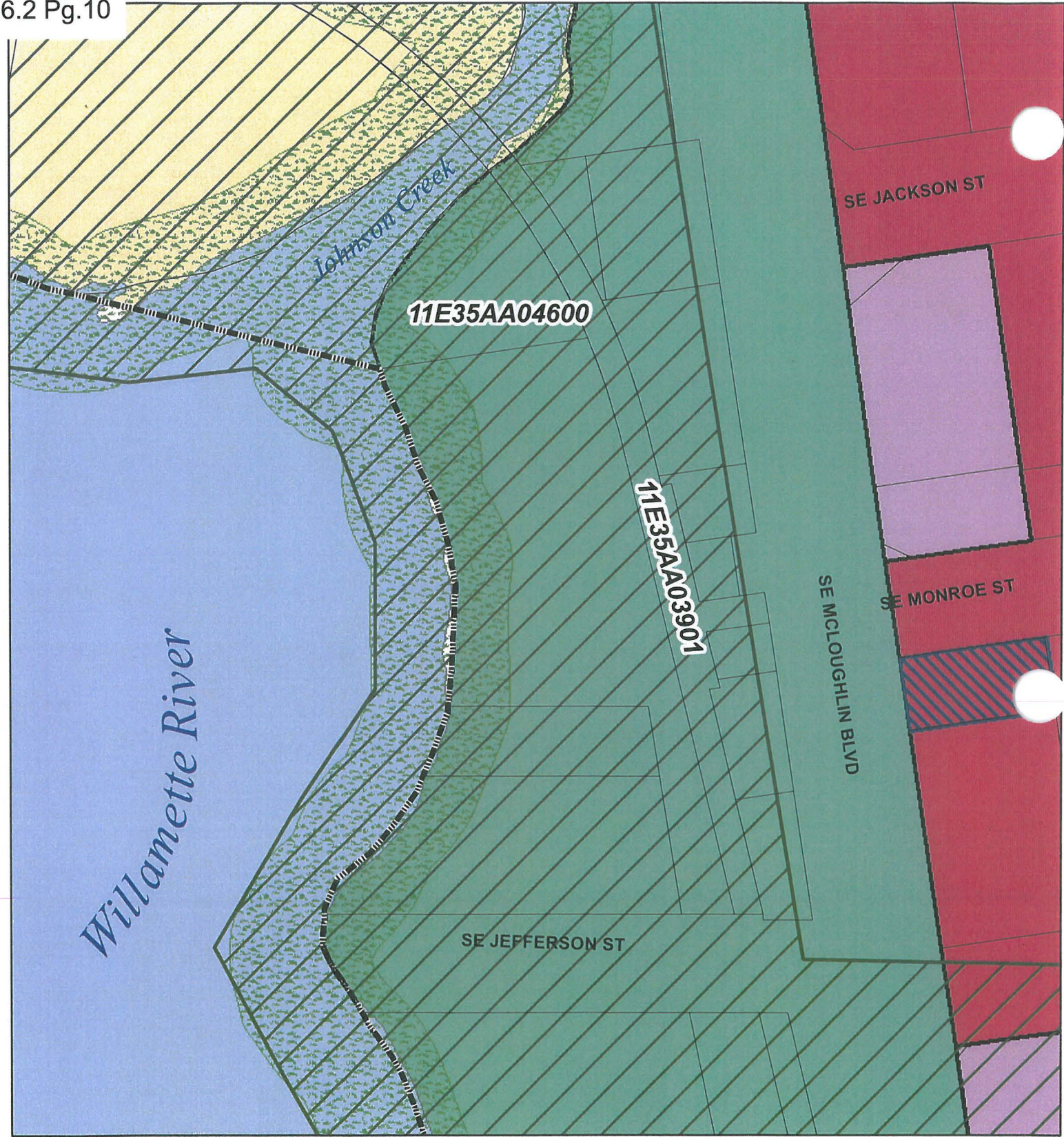


0 25 50 100 150 200 Feet

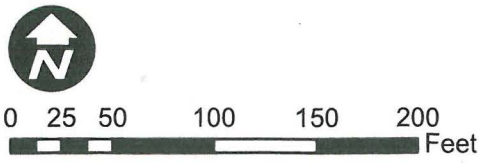
Legend

Comp. Plan Designation

- LD - Low Density
- MD - Moderate Density
- MED. D - Medium Density
- HD - High Density
- C - Commercial
- C/HD - Mixed Use
- I - Industrial
- P - Public
- TC - Town Center



Proposed Zoning
Land Use File #CPA-08-01

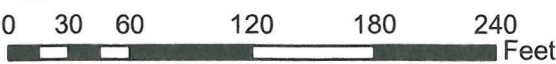


Legend

Zoning	Water Quality Resources	Willamette Greenway Zone
R2	Riparian Buffer	
CL	Wetland Buffer	
DC	Historic Resources	
DO	Significant	
DR	Contributing	
DS	Unrankable	
DOS		



Proposed Comprehensive Plan Land Use Designation and Use File #CPA-08-01



Legend

Comp. Plan Designation

Yellow	LD - Low Density
Orange	MD - Moderate Density
Light Orange	MED. D - Medium Density
Brown	HD - High Density
Red	C - Commercial
Light Brown	C/HD - Mixed Use
Grey	I - Industrial
Green	P - Public
Blue	TC - Town Center

Attachment 2: Recommended Findings in Support of Approval

Sections of the Milwaukie Comprehensive Plan and Milwaukie Municipal Code that are not addressed in these findings are found to not be applicable to the proposed map changes.

1. The City of Milwaukie (the "applicant"), represented by JoAnn Herrigel, has applied for a Comprehensive Plan Map Amendment (CPA-08-01), Zoning Map Change (ZC-08-01) and Historic Resource Review (HR-08-01). The applicant owns the properties for which the map changes have been proposed. The proposed map changes will allow the future development of the Milwaukie Riverfront Park.
2. The tax lots affected by the proposed map changes are Tax Lots 4600 and 3901 on Clackamas County Assessor's Map 1S 1E 35AA. The map change proposed by application CPA-08-01 is to change the Comprehensive Plan Designation on Tax Lot 4600 from Town Center (TC) to Public (P). The map change proposed by application ZC-08-01 is to change the Zoning Map on Tax Lot 4600 from Commercial Limited (CL) to Downtown Open Space (DOS). The map change proposed by application HR-08-01 is to remove the Unranked Historic Resource from the City's list of historic resources and remove the Historic Resource Overlay from Tax Lot 3901.

The Milwaukie Riverfront Park, which contains the affected lots, is bordered on the north by Johnson Creek, on the west by the Willamette River, on the south by the Kellogg Sewage Treatment Plant site, and on the east by SE McLoughlin Boulevard / Highway 99E. Tax Lot 4600 is on the northern portion of the Milwaukie Riverfront Park next to Johnson Creek. Tax lot 3901 runs north to south from Johnson Creek to SE Jefferson Street on the eastern side of the park.

3. Chapter 2 – Plan Review and Amendment Process of the Milwaukie Comprehensive Plan (MCP) governs the procedures for amendments to the MCP. Land Use Applications CPA-08-01 and ZC-08-01 are consistent with this chapter as follows:
 - A. Chapter 2, Objective #1, Policy #2 states: "The Planning Commission will hold at least one public hearing on any proposed modifications to the Plan and forward its recommendations to the City Council." On March 11, 2008, the Planning Commission held a public hearing and forwarded its recommendation to the City Council regarding land use files CPA-08-01, ZC-08-01, and HR-08-01.
 - B. Chapter 2, Objective #1, Policy #4 states: "Submit copies of proposed Plan changes to affected governmental units at the draft amendment stage and following final adoption of changes." The proposed Plan changes were referred to all affected governmental units on February 4, 2008. Following the adoption of final changes, notice will again be provided pursuant to State, Metro, and City of Milwaukie requirements.
 - C. Chapter 2, Objective #1, Policy #6 states: "If the proposed amendment is quasi-judicial, notice of the requested change will be mailed to all residents within 400 feet of the property under consideration at least 30 days prior to the public hearing. Newspaper notice in accordance with the requirements for legislative plan amendments is also required."

All changes proposed by the applicant are Major Quasi-judicial. The notice procedures for Major Quasi-judicial hearings in MMC 19.1011.4(B) for providing newspaper notice, surrounding property owner notices, and a notice sign posted at the site were followed.

- D. Chapter 2, Objective #1, Policy #7 states that all plan amendments be evaluated based on the criteria listed in that Policy. The proposed plan amendment meets these criteria as follows:

i) *Conformance with the Comprehensive Plan, its goals, policies, and spirit*

The proposed changes will rezone Tax Lot 4600 from CL to DOS and change its Comprehensive Plan designation from TC to P. It is necessary to change the zoning designation to allow development of the park outright, since parks and open space are not permitted outright in the CL zone. The change in the Comprehensive Plan Designation is necessary because the type of uses called for in areas designated TC are structures with mixed uses. The Public designation is the most appropriate one to allow a public Riverfront Park to be developed.

As demonstrated in these findings, the proposed Comprehensive Plan Map and Zone Map changes are directly supportive of many of the Comprehensive Plan's goals and policies. The proposed changes are clearly and explicitly in conformance with the applicable goals and policies, and meet the spirit of the Comprehensive Plan and its ancillary documents.

ii) *Public need for the change*

The change allows for the development of the Milwaukie Riverfront Park to better serve the City, its residents, visitors, and users of the Willamette River. Development of the park will provide an economic catalyst for downtown and Milwaukie as a whole. The proposed Riverfront Park is supported by the Milwaukie Downtown and Riverfront Plan, which is an ancillary document to the Comprehensive Plan, and supported by many elements within the Comprehensive Plan itself.

iii) *Public need is best satisfied by this particular change*

Implementation of the proposed Riverfront Park development requires the Comprehensive Plan and Zone Map changes proposed by these applications. This particular change is the best and most straightforward change that will allow for the park to be developed.

iv) *The change will not adversely affect the health, safety, and welfare of the community*

The proposed changes will not result in any direct action that would be inconsistent with this criterion. Development of the Riverfront Park has the support of many diverse groups within the community. The changes to allow a park will bring more people to the area and should increase the overall health, safety and welfare of the community.

v) *The change is in conformance with applicable Statewide Planning Goals*

The proposed change is in conformance with the applicable Statewide Planning Goals as follows:

Goal 1: Citizen Involvement. The development of the Riverfront Park plan and the corresponding proposed zone changes were the result of a broad public involvement effort.

Goal 2: Land Use Planning. The proposed change is in conformance with the land use planning goals and policies embodied in Milwaukie's Comprehensive Plan and the Milwaukie Downtown and Riverfront Plan.

Goal 5: Open Spaces, Scenic and Historic Spaces, and Natural Resources. The proposed changes will allow development of a park that preserves open spaces, protects natural resources through riparian zone restoration and enhancements, and improves the scenic quality of the Milwaukie riverfront area.

Goal 7: Areas Subject to Natural Disasters and Hazards. The proposed changes allow development of a park. The proposed park complies with this goal by providing a use that does not put intensive uses and structures near a flood hazard area and by providing native plantings to stabilize riverbanks and better absorb stormwater.

Goal 8: Recreational Needs. The proposed changes comply with this goal because they allow development of a park in downtown Milwaukie that will serve the recreational needs of various groups of users from Milwaukie and the surrounding area.

Goal 15: Willamette River Greenway. The proposed changes comply with this goal because they allow for development of a park that will increase views to and from the river, provide public access to the riverfront, and provide multiple forms of recreation focused on the river.

- vi) *The change is consistent with Metro Growth Management Functional Plan and applicable regional policies*

The changes will allow for development of open space on the site that preserves and enhances the natural features of the site. This supports Metro's Title 3, Water Quality and Flood Management of the Metro Functional Plan. No other titles of the Functional Plan are applicable.

- 4. The proposed Comprehensive Plan Map Change and Zoning Map Change are consistent with the Milwaukie Comprehensive Plan as follows:

- A. MCP Chapter 1 – Citizen Involvement. The development of the Riverfront Park and the associated map changes are the result of extensive public involvement. This involvement includes a declaration of cooperation for the Milwaukie Riverfront Park Project. Parties to this agreement included Celebrate Milwaukie, Inc., Johnson Creek Watershed Council, Friends of Kellogg Creek and nearby property owner. The Milwaukie Riverfront Park Board was appointed by the City Council to develop and monitor implementation of the Milwaukie Riverfront Park. The City has kept citizens involved and updated through numerous neighborhood district association meetings, discussions with the Riverfront Board and Parks Board, open houses, surveys, information in the City newsletter and its website. The public was properly notified of all public hearings pursuant to Milwaukie Municipal Code (MMC) Section 19.1011.4.

- B. MCP Chapter 3 – Environment and Natural Resources.
 - i) Natural Hazards Element. The proposed park design includes native planting and re-vegetation along the Willamette River and Johnson Creek. These replanting will aide in bank stabilization and flood control. All future development of the Riverfront Park will comply with MMC Title 18, Flood Hazard Regulations. The map changes to allow development of Riverfront Park are consistent with this element.
 - ii) Open Spaces, Scenic Areas, and Natural Resources Element. The proposed park design will create a large, high quality open space in downtown Milwaukie and further utilize the river as a scenic resource for the City. Plantings and re-vegetation in the park will restore the park as an important natural resource for the City.
- C. MCP Chapter 4 – Land Use.
 - i) Recreational Needs Element. The proposed park will better utilize an existing park site in the City. A redeveloped Riverfront Park will be a key asset to the City's livability and civic identity. The size and variety of programming proposed for the park will make it a diverse recreational facility. The development of the park will also increase opportunities for Riverfront Recreation.
 - ii) Willamette Greenway Element. Redevelopment of the Riverfront Park will increase views, interaction, and access to and from the Willamette River, and provide a public recreational use along the river.
- 5. MMC Chapter 19.900, Amendments, governs changes to the zoning map. The proposed Zone Map and Comprehensive Plan Map amendments are consistent with this chapter as follows:
 - A. MMC 19.901 allows amendments to the zoning map to be initiated by the City Council, Planning Commission, or by the application of a property owner. As owner of Tax Lot 4600, the City of Milwaukie has initiated this amendment application.
 - B. MMC 19.902 governs the procedures for processing amendments. The application is a zoning map amendment and has been processed in accordance with MMC 19.1011.4, Major Quasi-judicial review. Notice was provided to the Oregon Department of Land Conservation and Development on February 13, 2008. Notice was provided to Metro on February 19, 2008, and a functional plan analysis will be provided to Metro at least 15 days prior to the final hearing on the proposed change.
 - C. MMC 19.903 provides requirements for zoning map amendments. The applicant's submittal contains all the information required by this subsection.
 - D. MMC 19.905 contains approval criteria for zoning map and text amendments. The proposed change complies with these criteria as follows:
 - i) MMC 19.905.1.A requires that the proposed amendment must conform to applicable Comprehensive Plan goals, policies and objectives and be consistent with the provisions of city ordinances, Metro urban growth management functional plan and applicable regional policies. As

described in Finding 3 above, the proposed zone change complies with this criterion.

- ii) MMC 19.905.1.B requires that the anticipated development must meet the intent of the proposed zone, taking into consideration the following factors: site location and character of the area, the predominant land use pattern and density of the area, the potential for mitigation measures adequately addressing development effects, any expected changes in the development pattern for the area, the need for uses allowed by the proposed zone amendment, and the lack of suitable alternative sites already appropriately zoned for the intended use or uses. The planning commission and city council shall use its discretion to weigh these factors in determining the intent of the proposed zone.

The proposed zone change meets the intent of the proposed zone. MMC 19.312.2.E describes the characteristics of the Downtown Open Space zone. The description is: "The downtown open space zone is established to implement the "Public" designation of the Milwaukie comprehensive plan and to provide a specific zone to accommodate open space, park, and riverfront uses. The downtown open space zone is generally applied to lands that are in public ownership along the Willamette River, Kellogg Creek, Spring Creek, and Johnson Creek in the downtown area. The desired character for the downtown open space zone includes parkland, open space, and riverfront amenities."

The subject site is adjacent to other parcels that make up Riverfront Park and is bordered by the Willamette River, Johnson Creek and McLoughlin Boulevard. The character of the immediate area is recreation (boat ramp with parking) and open space (river bank, undeveloped, grassed and treed areas). The site zoned C-L has grassed areas and a mitigation site related to McLoughlin Boulevard improvements. Across McLoughlin are commercial uses. The previous small-scale commercial uses (a tavern and antique shop) no longer exist and all of the adjacent area is now in open space. Commercial uses nearby are confined to the east side of McLoughlin Boulevard. Therefore, the rezone to DOS from C-L is compatible with the existing and adjacent uses as well as the "Public" comprehensive plan designation.

The predominant land use pattern is natural areas, open space, and recreation. Rezoning from C-L to DOS would be more consistent with the predominant land use pattern west of McLoughlin Boulevard. Density is not a characteristic applicable to this request.

The development effects would primarily be from grading and additional traffic. The proposed park plan would decrease the overall amount of existing impervious surfaces within the park. Mitigation measures would be required through the permitting process to protect the creeks from erosion during construction. Water quality facilities located near the parking areas will address the effects of developing new impervious surfaces within the park. A traffic study would be conducted for the application for site development to determine the best way to manage traffic flows.

Because the proposal replaces open space with open space, no major changes to the existing development pattern within the park are expected. The site is currently developed with mitigation for impacts to the McLoughlin Boulevard road widening project with street landscaping, a sidewalk, a path and grass. The proposed development within the C-L site primarily includes adding grass, restoring the bank along Johnson Creek with native plant materials, and developing a portion of a paved trail and pathway that will lead to a paved overlook. The expected change would be limited to an expansion of existing park uses, which is currently not conforming for the C-L zone but is consistent with the planned land use and the adjacent public park use. No other changes to nearby development patterns would be expected that would not already be supported by the proposed zone change.

- iii) MMC 19.905.1.C requires that the proposed amendment will meet or can be determined to reasonably meet applicable regional, state or federal regulations. No regional, state or federal regulations are anticipated to apply to the proposed rezone of the parcel from C-L to DOS. Therefore, the proposed amendment complies with this criterion.
- iv) MMC 19.905.1.D requires that the proposed amendment demonstrates that existing or planned public facilities and services can accommodate anticipated development of the subject site without significantly restricting potential development within the affected service area.

According to Section 19.312 (E) in the Milwaukie Zoning Ordinance, "The downtown open space zone is established to implement the "Public" designation of the Milwaukie comprehensive plan and to provide a specific zone to accommodate open space, park, and riverfront uses." Anticipated future development of the park would be limited to parkland, open space, and riverfront amenities. Public facilities and services would be subject to less demand from development under the DOS zone than from development under the C-L zone. The main demands would be from operation of the entire Riverfront Park, and the specific impacts from the C-L site would be minimal or none as it is proposed to include trees, grass, and paved areas. Public services would therefore generally be limited to park maintenance.

Existing public facilities include a high voltage PGE overhead powerline that runs the length of the park, water lines, and the Kellogg Creek Waste Treatment Plant located south of Kellogg Creek. Public facilities will remain in their existing locations and the proposed rezone will not increase demand on these facilities. The park will include water quality facilities located near the boat ramp parking area and the proposed parking area near the waste treatment plant.

Therefore, current and future public facilities and services can accommodate anticipated development of the subject site as a result of this proposed rezone.

- v) MMC 19.905.1.E requires that the proposed amendment is consistent with the functional classification, capacity, and level of service of the transportation system. A transportation impact analysis may be required subject to the provisions of Chapter 19.1400.

Highway 99 (McLoughlin Boulevard) borders Riverfront Park on the east side. The City's functional classification of this section of McLoughlin Boulevard is arterial. During a recent traffic analysis for this street, it was projected to be Level of Service E or better. Traffic operational findings, within the McLoughlin Boulevard Retrofit Project (McLoughlin Technical Memo #3, DKS Associates 2003), provide additional capacity and traffic impact analysis information relevant to the proposed amendment.

A transportation impact analysis is required if the proposed change meets the "threshold scoring" method described in the Transportation Design Manual. Because the proposed zone change is from a zoning designation that allows more intense uses to a zoning designation that allows less intense uses, a TIS not required for this zone change.

6. Land Use Application HR-08-01 is a request to remove the Unranked Historic Resource from the City's list of historic resources and remove the Historic Resource Overlay from Tax Lot 3901. This tax lot is the former site of the Portland Traction Line Railway that ran between Portland and Oregon City, through Milwaukie. The tax lot is currently designated as an Unrankable Historic Resource. The procedures for deleting a landmark have been completed, as demonstrated below:

- A. MMC 19.323.4.A allows property owners to make an application for designation or deletion of an historic resource, and states that "the application shall be in such a form and detail as the planning director prescribes." The planning director requested the following information from the applicant: Cultural Resources Survey Form and a narrative describing how the proposal meets the evaluation criteria. The planning director did not require submission of the Cultural Resource Evaluation Form used by the in City 1988 to score potential historic resources. The review procedure for such an application is the Major Quasi-judicial review described in MMC 19.1011.4. The applicant, the City of Milwaukie, is the property owner. The Planning Commission held a public hearing on March 11, 2008, and the application has been processed per the requirements of MMC 19.1011.4.

- B. MMC 19.323.4.B requires the Planning Commission to conduct a public hearing, enter findings, and make a written recommendation to the City Council. The Planning Commission's findings on this request are as follows:

- i) The 40 historic properties on the City's list that are ranked as "Significant" or "Contributing" were evaluated using a Cultural Resource Survey Form that was part of the 1988 Milwaukie Historic and Cultural Resources Inventory. The survey form has three categories of criteria: Historical Association, Architecture and Environment.

In 2007, the City engaged Martha Richards, an historic preservation consultant with URS Corporation, to evaluate the Portland Traction Line. She was asked to use the Cultural Resources Survey Form and her best professional judgment to recommend a course of action for the City among three options: 1) designate the Portland Traction Line as Significant, 2) designate it as Contributing, or 3) remove it from the inventory list.

- ii) The consultant completed the Cultural Resource Survey Form, which provides basic facts and data about the rail line. The consultant also

produced a Statement of Significance for the property, which provides a narrative description of the history and features of the rail line.

The evaluation concluded that the Portland Traction Line was the first streetcar line in Portland, and as such played an important role in Milwaukie's early development. Unfortunately, little physical evidence of the line remains in the Riverfront Park area. The location of the Traction Line is "barely discernable" in the area with the Historic Resource Overlay. Ms. Richards' conclusion is that "although the streetcar line was an important transportation improvement for the residents of Milwaukie, not enough physical evidence remains in this vicinity to warrant its designation as an historic resource."

- iii) MMC 19.323.3 Definitions describes that to be designated as a Contributing Historic Resource, "...an historic resource must receive a rating score level of fifty to sixty percent of the evaluation worksheet or score a high of ten in at least one of the categories of the evaluation worksheet."

The site was not evaluated according to this worksheet. At least 45 of the 86 points possible on the score sheet depend upon the physical state of the resource. Due to the unfortunate loss of most of the physical evidence of the Portland Traction Line, it is not possible for the property to reach 50% of the possible 86 points. Further, it is not likely that the resource would receive a score of 10 for its historical association with a person/group/organization, event, or a broad historical pattern. The Planning Commission finds that despite the line's association with the early development of Milwaukie, this resource could most likely not meet the definition of a Contributing Historic Resource.

- iv) The Planning Commission finds, based on the above evaluation, that it will make a recommendation that the City Council remove Tax Lot 3901 of Clackamas County Assessor's Map 1S 1E 35AA from the local list of historic resources and remove the Historic Resource overlay from this property. The Planning Commission recommends that the City Council make a condition of approval that at least one descriptive or interpretive sign, monument, or work of public art work relating to the historical presence of the Portland Traction Line be placed within the redeveloped Riverfront Park.

7. Notice of the proposed changes were given to the following agencies and persons: City of Milwaukie Engineering Department, Historic Milwaukie Neighborhood District Association (NDA), Clackamas County, Metro, Oregon Department of Transportation, Oregon Department of Land Conservation and Development, North Clackamas Parks and Recreation District, and the Milwaukie Design and Landmarks Committee. The following comments were received:

The Engineering Department commented that a transportation impact study is not required for the proposed zone change because the proposed zoning allows less intensive use of the site.

The Milwaukie Design and Landmarks Committee (DLC) commented on the removal of the Portland Traction Line site from the Historic Resource inventory. They are in favor of placing the Portland Traction Line permanently on the Historic Resource list. They also

commented that they would support the removal of the designation if the leaders of the park project and the park's designers will commit to and offer a more tangible demarcation of the line before the resource is altered. They have proposed conditions for consideration by the Planning Commission that assure the Portland Traction Line will be commemorated on the area where the rail line once ran.

JoAnn Herrigel, on behalf of the Riverfront Board, commented that she and the Riverfront Board they concur with the DLC's comment that the Portland Traction Line should be commemorated within the Riverfront Park. The Riverfront Board prefers that there be flexibility as to final design of the park and how the Portland Traction line is commemorated.

No other comments were received.

Attachment 3:

Recommended Condition of Approval

1. Future development of the Milwaukie Riverfront Park that affects Tax Lot 3901 on Clackamas County Assessor's Map 1S 1E 35AA shall include placement of at least one descriptive or interpretive sign, monument, or work of public art relating to the historical presence of the Portland Traction Line. The sign, monument, or public work of art shall be placed within the Riverfront Park site, which is defined as south of Johnson Creek, north of Kellogg Creek, west of SE McLoughlin Boulevard, and east of the Willamette River.

ATTACHMENT 4

**APPLICANT'S NARRATIVE AND PLANS/DRAWINGS
*TO PLANNING COMMISSION ONLY***

MEMORANDUM

TO: Community Development Department
THROUGH: Gary Parkin, Director of Engineering
FROM: Zach Weigel, Civil Engineer
RE: Zone Change – Milwaukie Riverfront Park
CPA-08-01, ZC-08-02, HR-08-01
DATE: February 19, 2008

The proposal changes the zoning designation of tax lot 1S1E35AA04600 from Limited Commercial (C-L) to Downtown Open Space (DOS). The Limited Commercial use is a much more intensive use than Downtown Open Space. As a result, the proposed zone change will result in a decrease in the intensity of use of the site. A traffic impact study is not required as part of the proposed zone change.



February 21, 2008

Planning Commission
City of Milwaukie
10722 SE Main Street
Milwaukie, OR 97222

RE: CPA-08-01, ZC-08-01, HR-08-01

Dear Planning Commissioners:

This letter formally transmits the recommendation of Milwaukie's Design and Landmarks Committee regarding the request to remove the Portland Traction Line from the City's Inventory of Historic Resources.

The Portland Traction Line is currently listed within the City's Inventory of Historic Resources but has not been ranked as a significant or contributing resource. Beginning in 1893, the line was popularly known as the nation's first true electric railroad, and connected Milwaukie with Portland to the North, and Oregon City to the South until 1967.

While this committee is principally in favor of retaining the Traction Line on the city's Historic Inventory, the recent applications for the development of the Riverfront Park have required us to consider ranking or removing the resource from the inventory. We have been informed by staff that the ranking of, and the continued presence of the Traction Line on the City's inventory may add time and expense to the development of the park.

As we understand it, the design for the Riverfront Park has currently only been prepared on a conceptual level. The changes proposed for the Traction Line site include stairs and a plaza. If made part of the final design, these features would eliminate any sign of the railroad bed and any remaining sections of the line itself.

Instead of recommending the Planning Commission require the Applicant to permanently place this property within the City's Inventory, this Committee is prepared to entertain removal of the resource from the Historic Inventory if the leaders of the park project and the park's designers will commit to and offer a more tangible demarcation of the line before the resource is altered. We are requesting a commitment from the City of Milwaukie that the new park design will in some way visually commemorate the presence of the Portland Traction Line within the physical boundaries of the historic rail line on that property.

COMMUNITY DEVELOPMENT DEPARTMENT
Engineering • Operations • Planning • Building • Fleet • Facilities
6101 S.E. Johnson Creek Blvd., Milwaukie, Oregon 97206
PHONE: (503) 786-7600 • FAX: (503) 774-8236

The Committee is not asking the designer to restore the railroad track and build the park around it, but we do believe the City, the park and the people of Milwaukie will benefit if visual reference elements of the traction line are included and experientially present in the theme or design of the park.

In order to guarantee that a landmark will be included in the final approved park design, we strongly recommend that one or both of the following conditions of approval (or conditions with a similar intent) be added to the approval of the aforementioned applications. (DLC members strongly lean toward both conditions being accepted):

1. At least one descriptive monument, interpretive monument, or public art work, relating directly to the historical presence of the Portland Traction Line shall be placed within the area formerly designated as Historically Significant.
2. The design of any structures, pathways, or features within the Historically Significant portion of the Riverfront Park design shall meaningfully reflect the historical presence of the Portland Traction Line.

We suggest these conditions of approval as a tool to allow the development of the Park to move forward while creating a valuable reminder of Milwaukie's place in the historic growth of the state's largest population center.

The Design and Landmarks Committee is very committed to increase public awareness of historically significant features of downtown Milwaukie. The removal of this long neglected resource from the historic listing without any form of commemoration of this once vital transportation corridor will be a lasting loss to this community. The Design and Landmarks Committee supports your thoughtful consideration of the questions raised by these applications and appreciates the opportunity to be included in any discussion that affects treatment of Milwaukie's culturally significant resources.

The Committee's decision to prepare this recommendation was unanimous. We encourage the Planning Commission to take advantage of this opportunity to creatively celebrate Milwaukie's history while reconnecting the community to our historic roots along the Willamette.

On behalf of all its members,



Patricia Wisner, Chair
Design and Landmarks Committee
City of Milwaukie



February 29, 2008

Milwaukie Planning Commission
Via Katie Mangle
6101 SE Johnson Creek Blvd
Milwaukie, OR 97267

Milwaukie Planning Commission Chair and Members:

At their January 22, 2008 meeting, the Milwaukie Riverfront Board discussed the three land use applications recently submitted to the Planning Commission related to the City's Riverfront Park. The members voted unanimously to recommend the approval of these applications by the Commission.

At their February 26 meeting, the Riverfront Board reviewed the February 2, 2008 letter from the Design and Landmark Commission to the Planning Commission regarding the Traction Line de-listing. They were pleased that the DLC was amenable to the de-listing of the Traction line segment from the City's Inventory of Historic Resources. The Board appreciates the DLC's concern for adequate commemoration of the Portland Traction line. The Board and staff from the management team agree that the Traction line is an important part of the history of the city and the region and are committed to its commemoration.

While committed to memorializing the Traction Line, the Riverfront Board, City project management staff, and the design staff at David Evans and Associates feel that the location and type of commemoration should be left to the design team. The Trolley Trail master plan calls for interpretive signage at strategic locations along the Traction Line's 6.5 mile segment between Milwaukie and Gladstone. The team is confident that in addition to any memorial the City installs, the Traction Line will be well memorialized along the length of the new trail. City staff and North Clackamas Parks District staff have discussed the installation of an interpretive sign describing the Traction Line's history near the trailhead at Jefferson Street in Milwaukie. The District is very supportive of this idea.

The design team and the Riverfront Board have put a great deal of time and effort into setting the design for this Park in motion. There is a great deal of

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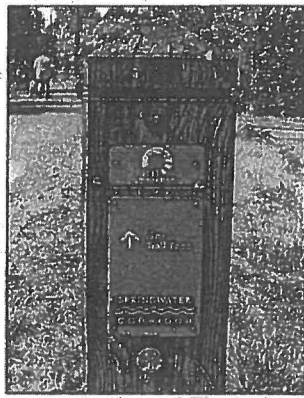
momentum for this project now that we hope to maintain. Many people and organizations have suggested themes and memorials and even infrastructure for the park and the team is doing their best to integrate them all. We appreciate the DLC's comments regarding the Traction Line's history and importance and we are committed to commemorating it in the Park in a meaningful way. We would request that the Planning Commission allow the design team to use their judgment in selecting the type and location for a memorial for this historic feature.

I have attached an excerpt from the Trolley Trail Master Plan showing the type of interpretive signs being considered for installation along the Trolley Trail.

I appreciate your consideration of this issue and look forward to discussing it further at the March 11 hearing.

Sincerely,


JoAnn Herrigel
Community Services Director



Mileage markers should be placed at quarter-mile increments along the Trolley Trail.

TRAIL DESIGN ELEMENTS

Trailhead Access Signage

Since trailheads will serve as access point to people that may not be as familiar with the trail, information signage should be provided that includes a "You Are Here" map and trail etiquette signs. These should be placed on an information kiosk (see Figure 7), designed to be reflective of the former trolley station design. Kiosk must be ADA compliant.

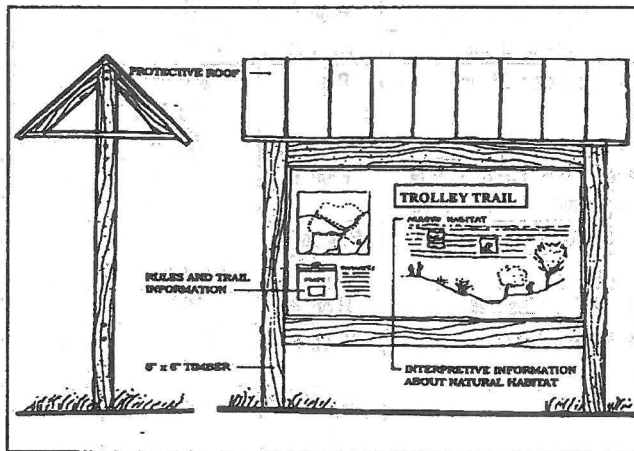


Figure 7. Information Kiosk

Trail Etiquette Sign: Utilize at key access points

The trail etiquette sign will clearly spell out proper rules and customs for trail users. This will be based on national standards and accepted trail practices. A sample sign is shown in Figure 8.



Figure 8. Trail Etiquette Sign

Directional Signage

write out

Directional signage provides orientation to the trail user and emphasizes the continuity of the trail. (St.) names, mileage markers, and place names are key elements that should be called out along the trail. (St.) names should be called out at all trail intersections with roadways. Mileage markers should be based on the historic railroad mileposts, with mileage call outs at quarter-mile increments. In addition to providing trail users with a distance reference, mileage markers are an attraction to joggers and walkers that target exercise for set distances. Directional signage should be used to call out key destinations along the trail route and include the following:

ADDENDUM



To: Planning Commission
From: Brett Kever, Assistant Planner
Date: March 5, 2008, for March 11, 2008 public hearing
Subject: Supplemental information (Milwaukie High School remodel)
Files: CSU-07-05, TPR-07-13, VR-07-07

The applicant has submitted additional information related to the field lights. I am enclosing the new materials for your review prior to the hearing on March 11, 2008.

The new information includes a two-page memo from David Chesley of Interface Engineering explaining photometric analysis of six different scenarios: (1) maintaining the existing lights and poles, (2) 80-foot light poles, (3) 70-foot light poles, (4) 70-foot poles along the east side of the field and 80-foot poles on the west side, (5) 60-foot poles, and (6) 50-foot poles. In the table on page 2 of the memo, the applicant's recommendation is highlighted in yellow.

Attached to the memo are Table 7 from the IESNA manual ("Summary of Outdoor Illuminance Levels") as well as vertical illumination data for each of the five new pole scenarios, with levels measured at 3 feet above the property line. There are also photometric readings for each of the five new pole scenarios showing vertical illumination at 10, 20, and 30 feet above the property line.

Both the applicant and staff can discuss the new material at the hearing next Tuesday night as needed.

Enclosure

1. Memo from David Chesley, Interface Engineering (dated March 4, 2008) with attachments



MAR 05 2008

CITY OF MILWAUKIE
PLANNING DEPARTMENT*Project Memorandum*708 SW 3rd Ave, Suite 400
Portland, OR 97204
503.382.2266 OFFICE
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SUBJECT/PROJECT:	Milwaukie / Rex Putnam HS Sports Fields	DATE:	March 4, 2008
PROJECT NUMBER:	2007-0642	FROM:	David Chesley
TO:	Garry Kryszak North Clackamas School District Physical Plant Dept. 12451 SE Fuller Rd. Milwaukie, OR 97222-1290	APPLIES TO:	<input type="checkbox"/> MECHANICAL <input type="checkbox"/> PLUMBING <input checked="" type="checkbox"/> ELECTRICAL <input type="checkbox"/> FIRE/LIFE SAFETY <input type="checkbox"/> TECHNOLOGIES <input checked="" type="checkbox"/> LIGHTING
PHONE NUMBER:	(503) 353-6058	FAX NUMBER:	(503) 353-6065

This memo addresses six scenarios explored for the football field lighting at Milwaukie HS:

- Scenario #1: Leave the installation unchanged.
- Scenario #2: Change to lighting cut-off-style sports field lighting with 80' poles.
- Scenario #3: Change to lighting cut-off-style sports field lighting with 70' poles.
- Scenario #4: Change to lighting cut-off style sports field lighting with 60' poles
- Scenario #5: Change to lighting cut-off style sports field lighting with 50' poles
- Scenario #6: Change to lighting cut-off-style sports field lighting with 70' poles on the east half, and 80' poles on the west half.

The primary goal of this project is not improved energy efficiency, although watt-for-watt, the new system proposed provides more light on the field for the same energy consumed. *Instead, the primary goal of the project is to reduce illumination on neighboring properties while improving the lighting on the existing field.*

For ease of comparison, we are comparing the six scenarios on six criteria:

- (1) The average illumination on the soccer field. *We are using the soccer field for these calculations, since the soccer field is slightly wider than the football field in the west-east direction, and better represents the actual lighting conditions within the track loop.*
- (2) The range of illumination on the soccer field within the track,
- (3) The max/min ratio, which must be below 2.50 per IESNA RP-6 for Sports and Recreational Area Lighting (see attached Table 7 from IESNA RP-6);
- (4) The range of illumination along the entire property line,
- (5) The three highest illumination levels found along the property line,
- (6) The three highest illumination levels found 10', 20' and 30' above the property line.

Light readings for field illumination listed below, including existing field measurements, are measured horizontally (i.e. observer on the ground looking upward). Light readings at the property line, including existing field measurements, are based on vertical footcandles (i.e. from the point of view of someone looking towards the field from the property line).

Scenario Type	Average Field Illumination (fc)	Range of Field Illumination (fc)	Max/Min Ratio	Range of Values at Property Line	Max Values at Property Line	Max Values 10' Above Property Line	Max Values 20' Above Property Line	Max Values 30' Above Property Line
Existing	12.6	7 to 31	4.42	1.40 to 3.50	3.50, 3.30, 3.10	3.20, 3.00, 2.90	3.10, 3.00, 2.90	3.00, 2.80, 2.70
80' Poles	51.0	40 to 65	1.67	0.92 to 4.39	4.39, 3.98, 3.58	4.00, 3.55, 3.04	3.77, 3.12, 2.66	3.79, 2.53, 2.23
70' Poles	50.1	38 to 75	1.96	1.12 to 4.72	4.72, 4.45, 4.33	3.75, 3.53, 3.33	2.86, 2.42, 2.40	2.09, 1.80, 1.75
80' West Poles, 70' East Poles	51.3	38 to 73	1.92	0.90 to 3.83	3.83, 3.67, 3.56	3.05, 2.91, 2.50	2.44, 2.04, 1.92	1.85, 1.50, 1.44
60' Poles	52.5	38 to 87	2.33	1.61 to 7.08	7.08, 7.03, 6.84	5.38, 5.35, 5.15	3.58, 3.56, 3.46	2.47, 2.45, 2.38
50' Poles	51.3	32 to 97	2.99	2.57 to 12.57	12.57, 12.36, 12.22	9.88, 9.60, 9.07	6.70, 6.56, 6.49	4.35, 4.29, 4.09

We see here that increasing the illumination of the field from an average of 12.6 footcandles to 50 footcandles increases the vertical footcandle levels at 10' above the property line from existing conditions when we use 80' poles. However, we still see a decrease from current levels using the mix of 80' poles on the west side of the field and 70' poles on the east side of the field.

Furthermore, levels at 10' above the property line increase markedly when we look at 60' poles (above 5.0 footcandles) and 50' poles (above 9.0 footcandles). This holds true with the observation that using taller poles on the far west side of the field allows the lighting to be aimed more downward, thus projecting less light towards the property line than would a shorter pole on the west side of the field.

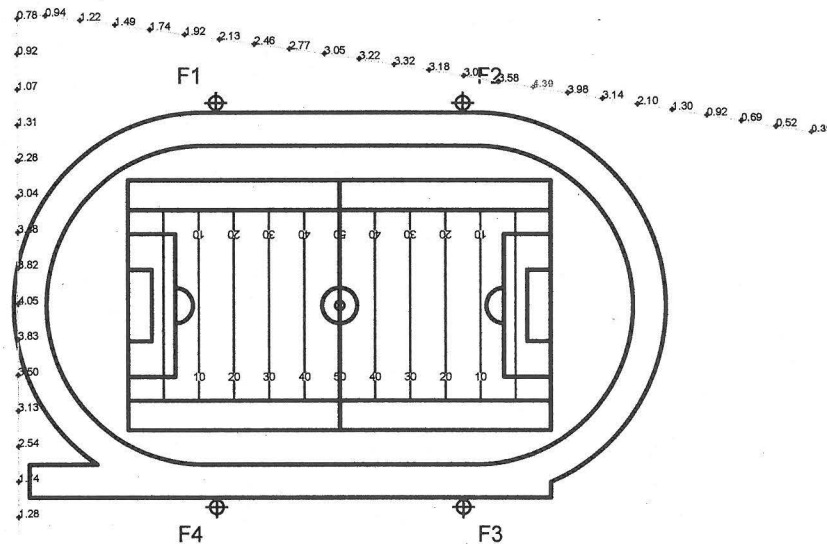
In addition to what these figures describe, we also know from the demonstration slides for the Musco Sports Field Lighting System (Light Structure Green) proposed for this project, that glare will be substantially reduced compared to the existing system. In this case, glare is the apparent brightness of the floodlights as seen from the residences to the east.

Conclusion: By carefully using a mixed height system of 80' and 70' poles, we can keep maximum light levels at the level of the residences 10' above the property line to below existing levels, while providing IESNA recommended levels for safe play on a competitive football and soccer field. Furthermore, the illumination levels at the property line are below 4.00 footcandles, as requested by planning staff recommendation #6.A.

Table 7: Summary of Outdoor Illuminance Levels

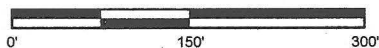
Outdoor Applications										
SPORT	Lighted Area	Class of Play	Horizontal		Vertical		Uniformity		Section	
			Lux	fc	Lux	fc	CV	Max:/Min		
Archery	Shooting Line	III	100	10			0.21 or Less	2.5:1 or Less	6.4	
	Target @ 30.4m (100')				300	30				
	Target @ 91.4m (300')				500	50				
	Shooting Line	IV	100	10			0.25 or Less	3:1 or Less		
	Target @ 30.4m (100')				200	20				
	Target @ 91.4m (300')				300	30				
Baseball & Softball	Infield	I	1500	150			0.07 or Less	1.2:1 or Less	6.5	
	Outfield		1000	100			0.13 or Less	1.7:1 or Less		
	Infield	II	1000	100			0.10 or Less	1.5:1 or Less		
	Outfield		700	70			0.17 or Less	2:1 or Less		
	Infield	III	500	50			0.17 or Less	2:1 or Less		
	Outfield		300	30			0.21 or Less	2.5:1 or Less		
	Infield	IV	300	30			0.21 or Less	2.5:1 or Less		
	Outfield		200	20			0.25 or Less	3:1 or Less		
Basketball		III	300	30			0.25 or Less	3:1 or Less	6.6	
		IV	200	20			0.3 or Less	4:1 or Less		
Bicycle Racing	Track*	III	300	30			0.25 or Less	3:1 or Less	6.7	
	Final 100' & Finish*		500	50						
	Track*	IV	200	20			0.3 or Less	4:1 or Less		
	Final 100' & Finish*		300	30						
Dog Racing*			300	30			0.25 or Less	3:1 or Less	6.8	
Drag Racing	Area 1*	I	200	20			0.21 or Less	2.5:1 or Less	6.9	
	Area 2*		300	30			0.13 or Less	1.7:1 or Less		
	Area 3A*		250	25			0.13 or Less	1.7:1 or Less		
	Area 3B*		200	20			0.21 or Less	2.5:1 or Less		
	Area 4*		100	10			0.25 or Less	3:1 or Less		
	Area 1*	II	100	10			0.25 or Less	3:1 or Less		
	Area 2*		200	20			0.21 or Less	2.5:1 or Less		
	Area 3A*		150	15			0.25 or Less	3:1 or Less		
	Area 3B*		100	10						
	Area 4*		50	5						
Field Hockey		II	500	50			0.21 or Less	2.5:1 or Less	6.10	
		III	300	30			0.25 or Less	3:1 or Less		
		IV	200	20			0.3 or Less	4:1 or Less		
Football		I	1000	100			0.13 or Less	1.7:1 or Less	6.11	
		II	500	50			0.21 or Less	2.5:1 or Less		
		III	300	30			0.25 or Less	3:1 or Less		
		IV	200	20			0.3 or Less	4:1 or Less		
Golf Course	Tee Boxes*		50	5			0.25 or Less	3:1 or Less	6.12	
	Fairways*		30	3			0.35 or Less	5.7:1 or Less		
	Greens*		50	5			0.25 or Less	3:1 or Less		
Golf: Driving Ranges	Tee Boxes*		200	20			0.25 or Less	3:1 or Less	6.13	
	At 183m (600')				100	10	0.25 or Less	3:1 or Less		
Handball, Racquetball and Squash		III	300	30			0.25 or Less	3:1 or Less	6.14	
		IV	200	20			0.3 or Less	4:1 or Less		
Horse Racing	Track		500	50			0.25 or Less	3:1 or Less	6.15	
	Home Stretch		1000	100						
	Finish Line				700	70	0.13 or Less	1.7:1 or Less		
Ice/Roller Hockey*		II	500	50			0.21 or Less	2.5:1 or Less	6.16	
		III	300	30			0.25 or Less	3:1 or Less		
		IV	200	20			0.3 or Less	4:1 or Less		
Ice Skating (Speed*)		III	300	30			0.25 or Less	3:1 or Less	6.17	
		IV	200	20			0.3 or Less	4:1 or Less		

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 80' Pole Design

SCALE IN FEET 1 : 150



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL

Milwaukie High School
Milwaukie, OR

Spill @ PL

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	2.322
Maximum:	4.39
Minimum:	0.39
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

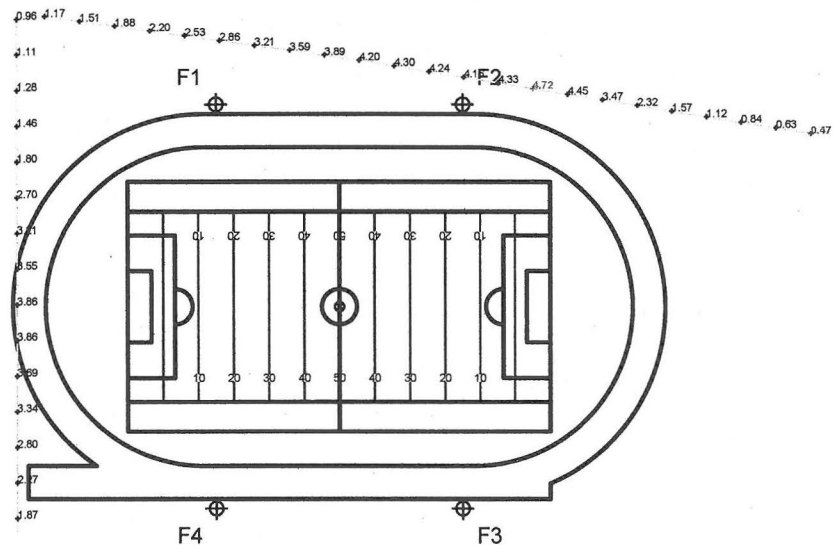
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Date: 04-Mar-08

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Print Date (04/Mar/2008) & Time (15:51)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	70'	-	70'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 70' Pole Design

SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL

Milwaukie High School
Milwaukie, OR

Spill @ PL

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	2.669
Maximum:	4.72
Minimum:	0.47
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/- 10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

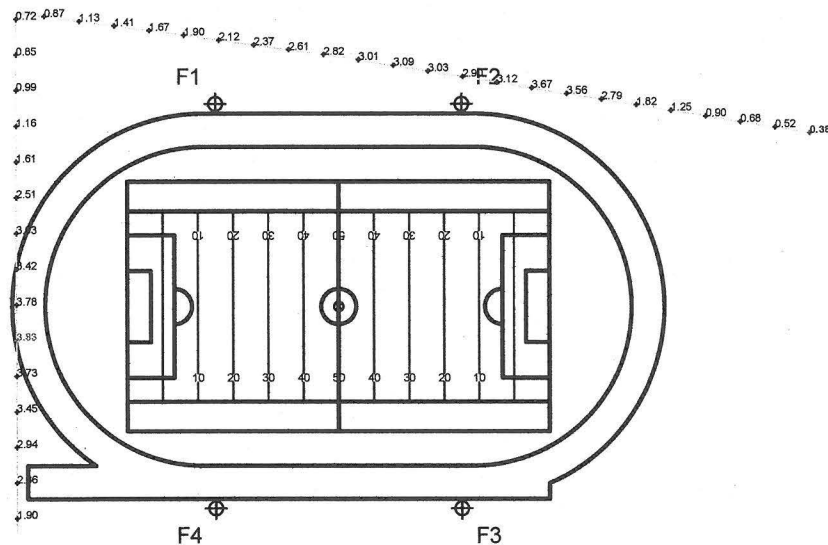
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Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	F1-F2	70'	-	70'	1500W MZ	13	13	0	
2	F3-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 80' & 70' Pole Design

SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL

Milwaukie High School
Milwaukie, OR

Spill @ PL

Grid Spacing = 30.0'
Values given at 3.0' above grade

Luminaire Type: Green Generation
Rated Lamp Life: 5000 hours
Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

Entire Grid	
No. of Target Points:	38
Average:	2.208
Maximum:	3.83
Minimum:	0.38
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r3r

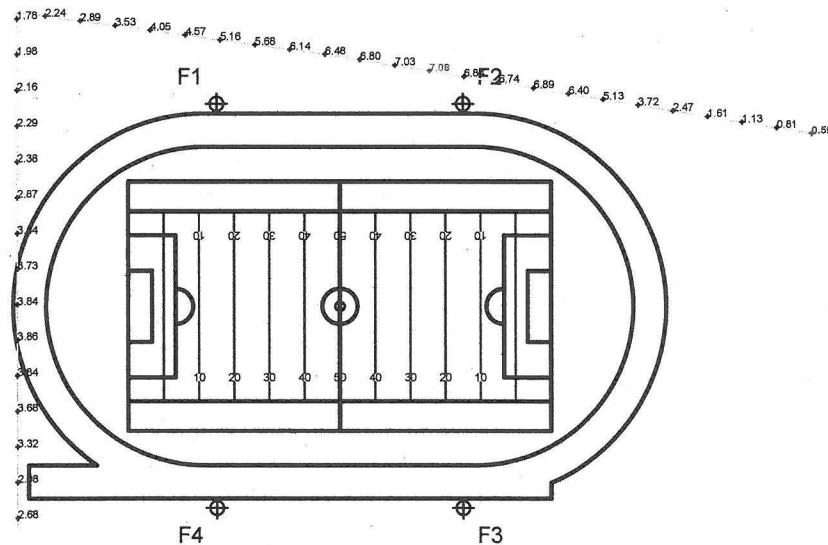
Date: 04-Mar-08

Pole location(s) ⚓ dimensions are relative to 0,0 reference point(s) ⊗

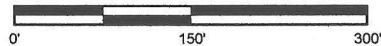
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	1500W MZ	14	14	0
4	TOTALS					56	56	0



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL

Milwaukie High School
Milwaukie, OR

Spill @ PL

- Grid Spacing = 30.0'
- Values given at 3.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	3.916
Maximum:	7.08
Minimum:	0.59
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	56
Avg KW over 5000 hours:	87.58
Max KW:	95.2

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

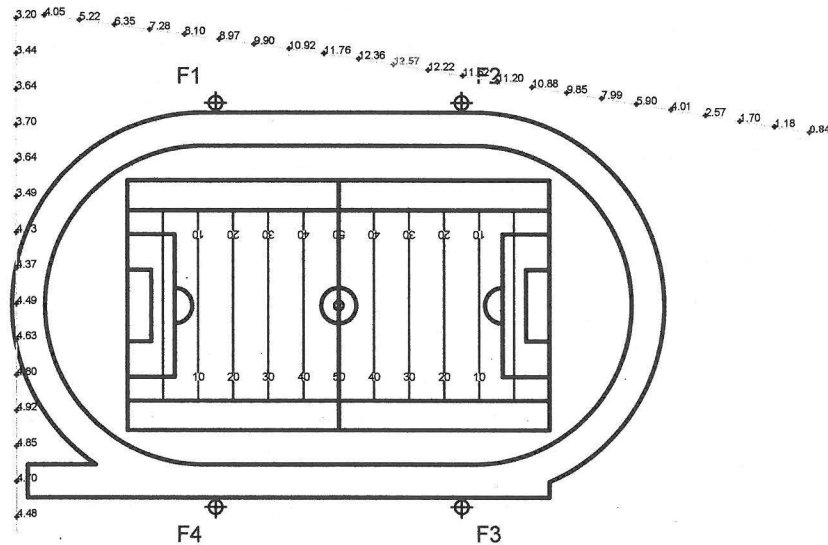
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Date: 04-Mar-08

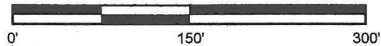
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY/POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	50'	-	50'	1500W MZ	15	15	0	
4	TOTALS					60	60	0	



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL

Milwaukie High School
Milwaukie, OR

Spill @ PL

· Grid Spacing = 30.0'
· Values given at 3.0' above grade

· Luminaire Type: Green Generation
· Rated Lamp Life: 5000 hours
· Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	6.314
Maximum:	12.57
Minimum:	0.84
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	60
Avg KW over 5000 hours:	93.84
Max KW:	102.0

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

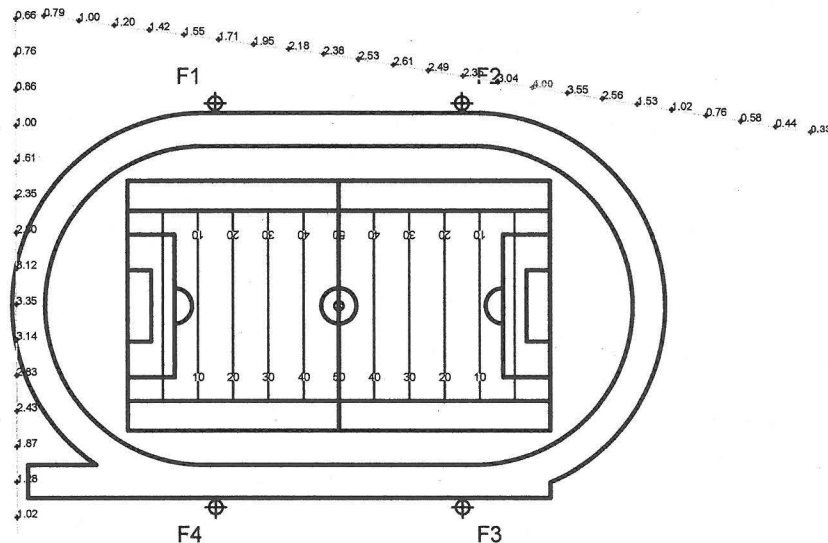
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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 80' Pole Design

SCALE IN FEET 1 : 150



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +10

Milwaukie High School
Milwaukie, OR

Spill @ PL +10

- Grid Spacing = 30.0'
- Values given at 10.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.871
Maximum:	4.00
Minimum:	0.33
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

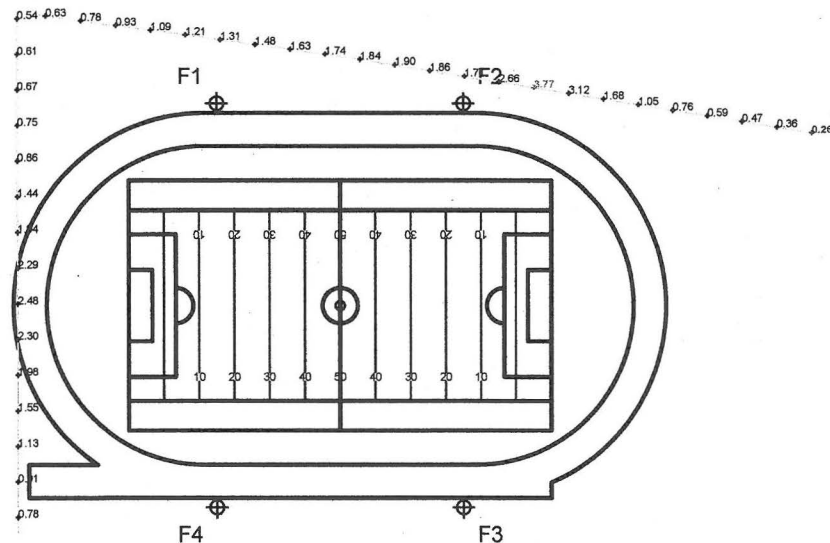
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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY/POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 80' Pole Design

SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +20

Milwaukie High School
Milwaukie, OR

Spill @ PL +20

- Grid Spacing = 30.0'
- Values given at 20.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.396
Maximum:	3.77
Minimum:	0.26
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

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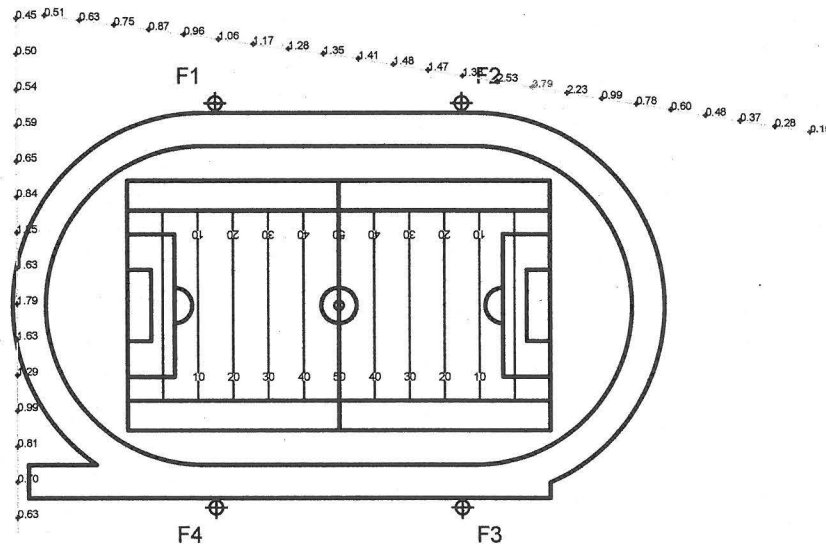
Date: 04-Mar-08

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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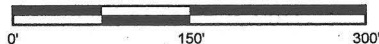
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
4	F1-F4	80'	-	80'	1500W MZ	13	13	0
4	TOTALS					52	52	0



NOTES: 80' Pole Design

SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +30

Milwaukie High School
Milwaukie, OR

Spill @ PL +30

- Grid Spacing = 30.0'
- Values given at 30.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

Entire Grid	
No. of Target Points:	38
Average:	1.073
Maximum:	3.79
Minimum:	0.19
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r1r

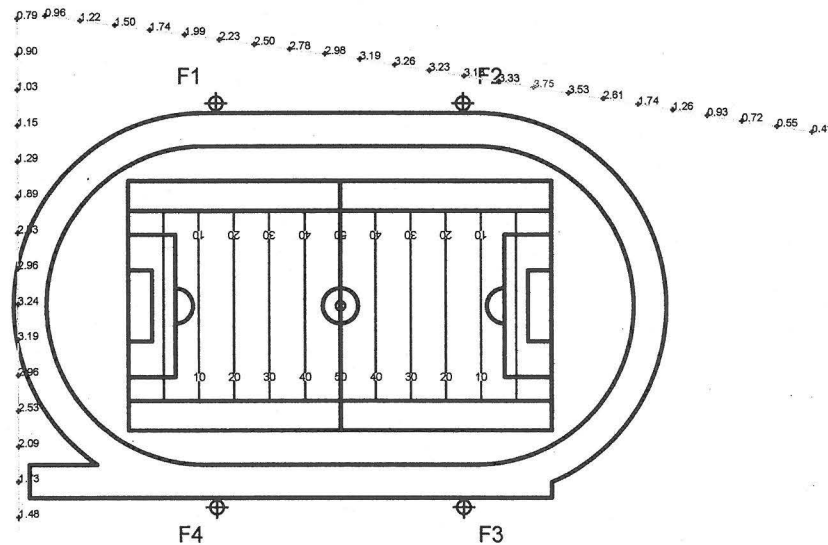
Date: 04-Mar-08

Pole location(s) ⚓ dimensions are relative to 0,0 reference point(s) ⊗

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Print Date (04/Mar/2008) & Time (13:19)

EQUIPMENT LIST FOR AREAS SHOWN							
Pole				Luminaire			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID
4	F1-F4	70'	-	70'	1500W MZ	13	13
4	TOTALS					52	52
							0



NOTES: 70' Pole Design

SCALE IN FEET 1 : 150



Pole location(s) Ⓢ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +10

Milwaukie High School
Milwaukie, OR

Spill @ PL +10

Grid Spacing = 30.0'
Values given at 10.0' above grade

Luminaire Type: Green Generation
Rated Lamp Life: 5000 hours
Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

Entire Grid	
No. of Target Points:	38
Average:	2.087
Maximum:	3.75
Minimum:	0.41
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

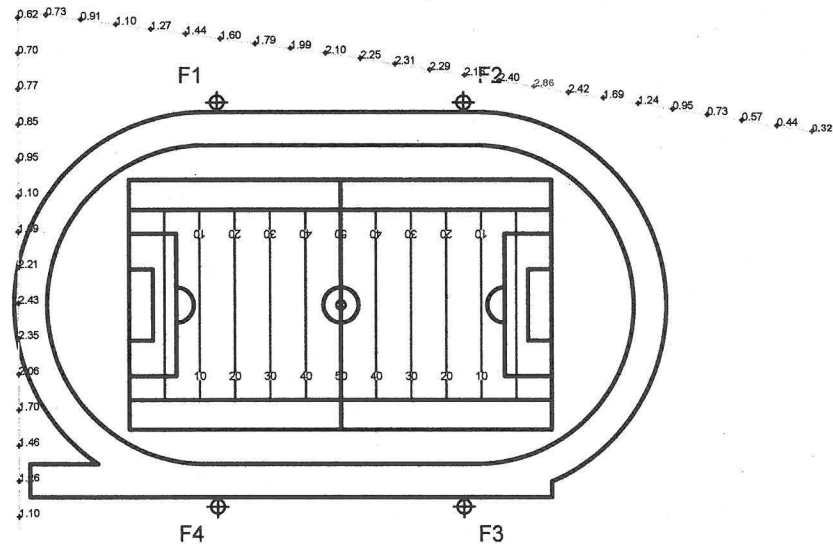
File #: 131171r2r

Date: 04-Mar-08

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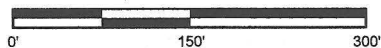
Print Date (04/Mar/2008) & Time (13:23)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	70'	-	70'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 70' Pole Design

SCALE IN FEET 1 : 150



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +20

Milwaukie High School
Milwaukie, OR

Spill @ PL +20

- Grid Spacing = 30.0'
- Values given at 20.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.495
Maximum:	2.86
Minimum:	0.32
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

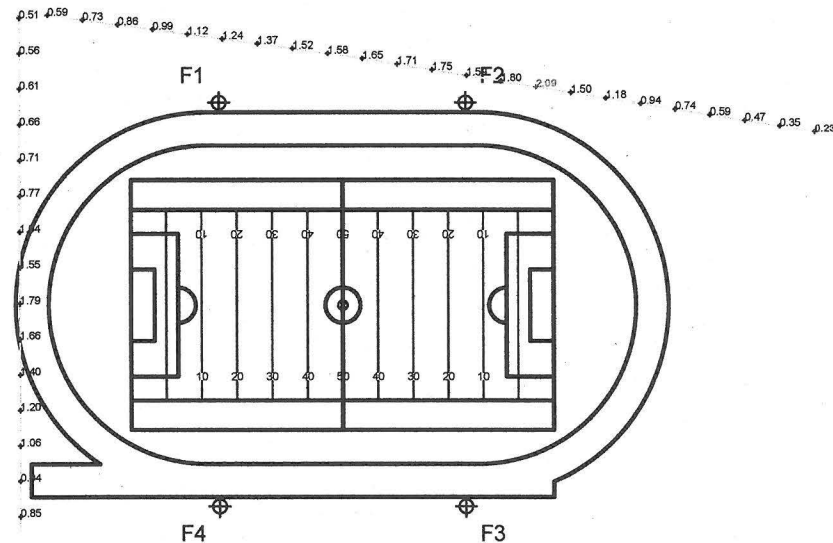
File #: 131171r2r

Date: 04-Mar-08

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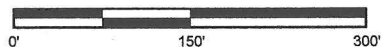
Print Date (04/Mar/2008) & Time (13:23)

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	70'	-	70'	1500W MZ	13	13	0
4	TOTALS					52	52	0



NOTES: 70' Pole Design

SCALE IN FEET 1 : 150



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +30

Milwaukie High School
Milwaukie, OR

Spill @ PL +30

- Grid Spacing = 30.0'
- Values given at 30.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.103
Maximum:	2.09
Minimum:	0.23
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

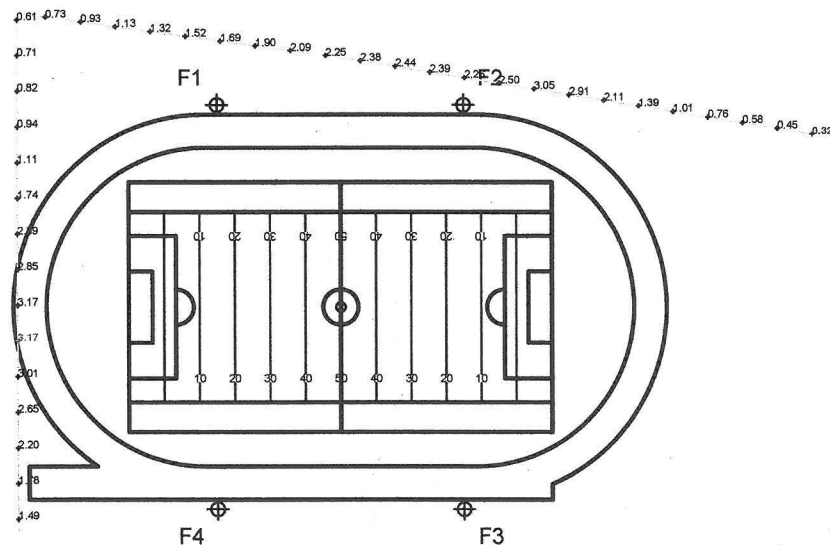
File #: 131171r2r

Date: 04-Mar-08

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Print Date (04/Mar/2008) & Time (13:23)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	F1-F2	70'	-	70'	1500W MZ	13	13	0	
2	F3-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 70' & 80' Poles Design

SCALE IN FEET 1 : 150



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +10

Milwaukie High School
Milwaukie, OR

Spill @ PL +10

- Grid Spacing = 30.0'
- Values given at 10.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.757
Maximum:	3.17
Minimum:	0.32
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

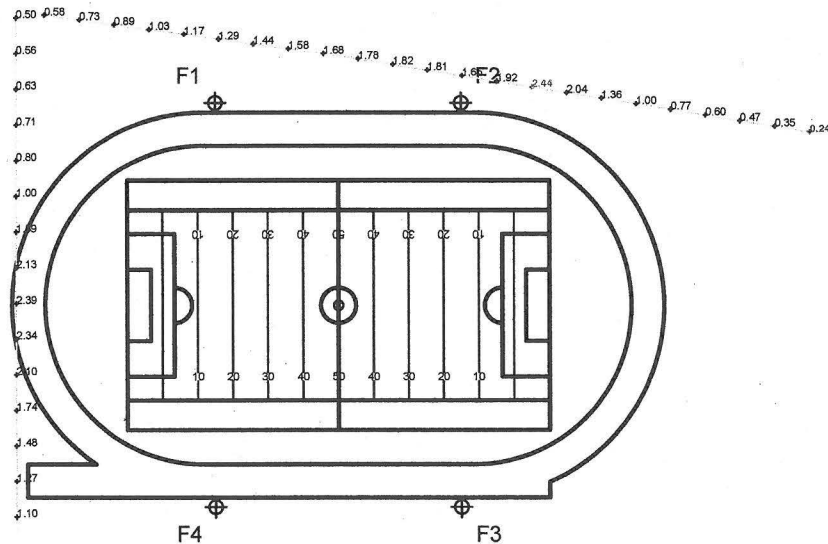
File #: 131171r3r

Date: 26-Feb-08

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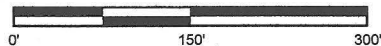
Print Date (26/Feb/2008) & Time (13:07)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	F1-F2	70'	-	70'	1500W MZ	13	13	0	
2	F3-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 70' & 80' Poles Design

SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +20

Milwaukie High School
Milwaukie, OR

Spill @ PL +20

- Grid Spacing = 30.0'
- Values given at 20.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	1.289
Maximum:	2.44
Minimum:	0.24
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r3r

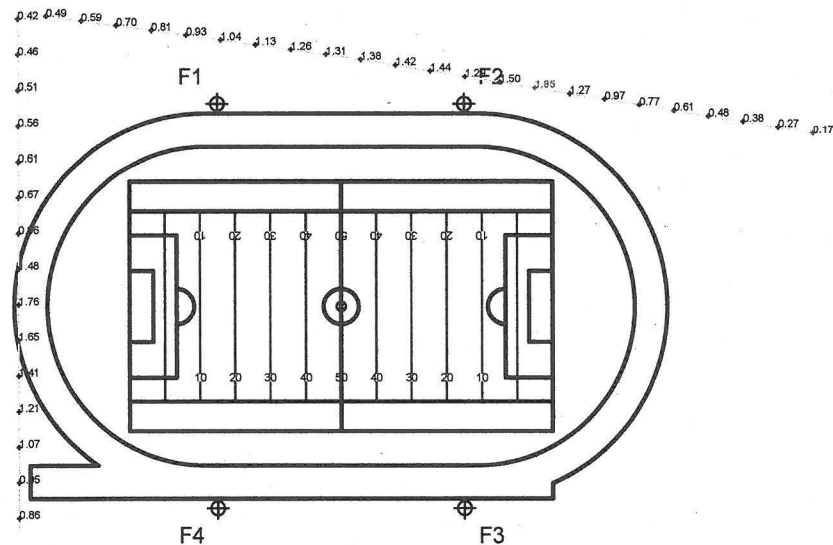
Date: 26-Feb-08

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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Print Date (26/Feb/2008) & Time (13:07)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	F1-F2	70'	-	70'	1500W MZ	13	13	0	
2	F3-F4	80'	-	80'	1500W MZ	13	13	0	
4	TOTALS					52	52	0	



NOTES: 70' & 80' Poles Design

SCALE IN FEET 1 : 150



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +30

Milwaukie High School
Milwaukie, OR

Spill @ PL +30

- Grid Spacing = 30.0'
- Values given at 30.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	0.964
Maximum:	1.85
Minimum:	0.17
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	52
Avg KW over 5000 hours:	81.33
Max KW:	88.4

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

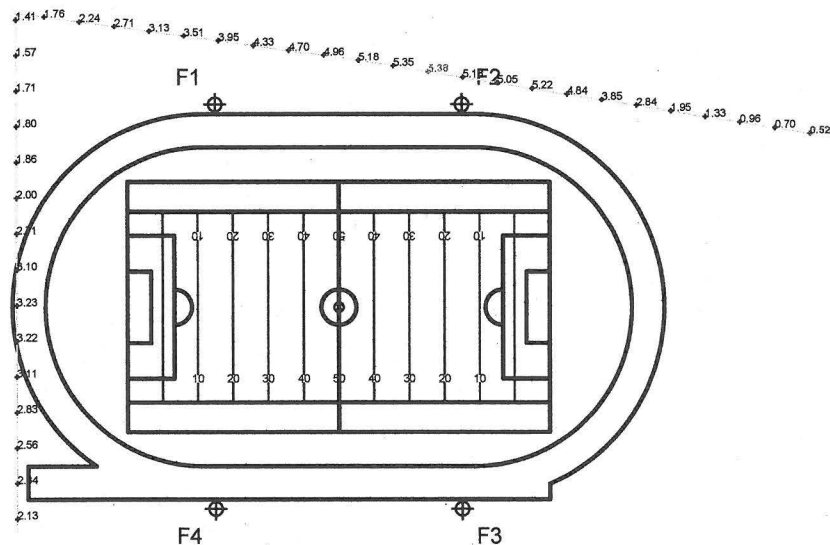
File #: 131171r3r

Date: 26-Feb-08

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Print Date (26/Feb/2008) & Time (13:07)

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	60'	-	60'	1500W MZ	14	14	0	
4	TOTALS					56	56	0	



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +10

Milwaukie High School
Milwaukie, OR

Spill @ PL +10

- Grid Spacing = 30.0'
- Values given at 10.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	3.031
Maximum:	5.38
Minimum:	0.52
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	56
Avg KW over 5000 hours:	87.58
Max KW:	95.2

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r4r

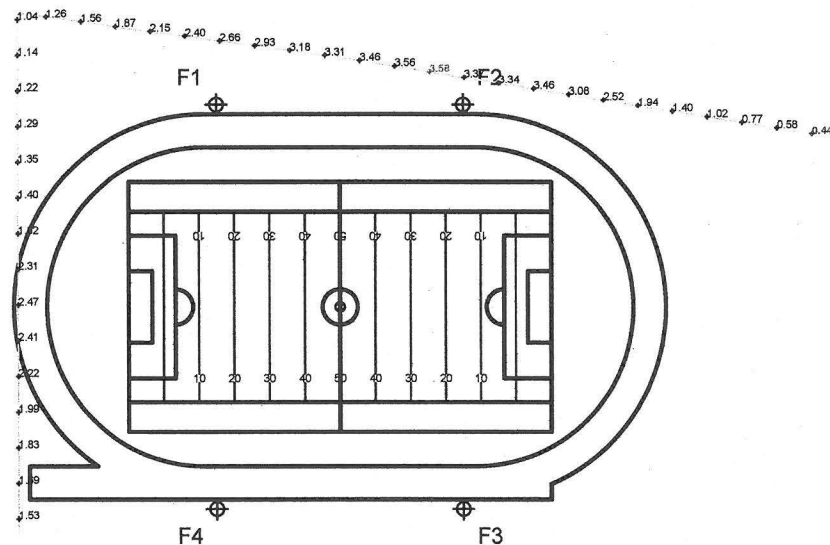
Date: 03-Mar-08

Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗

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Print Date (03/Mar/2008) & Time (11:45)

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	1500W MZ	14	14	0
4	TOTALS					56	56	0



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +20

Milwaukie High School
Milwaukie, OR

Spill @ PL +20

- Grid Spacing = 30.0'
- Values given at 20.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	2.093
Maximum:	3.58
Minimum:	0.44
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	56
Avg KW over 5000 hours:	87.58
Max KW:	95.2

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r4r

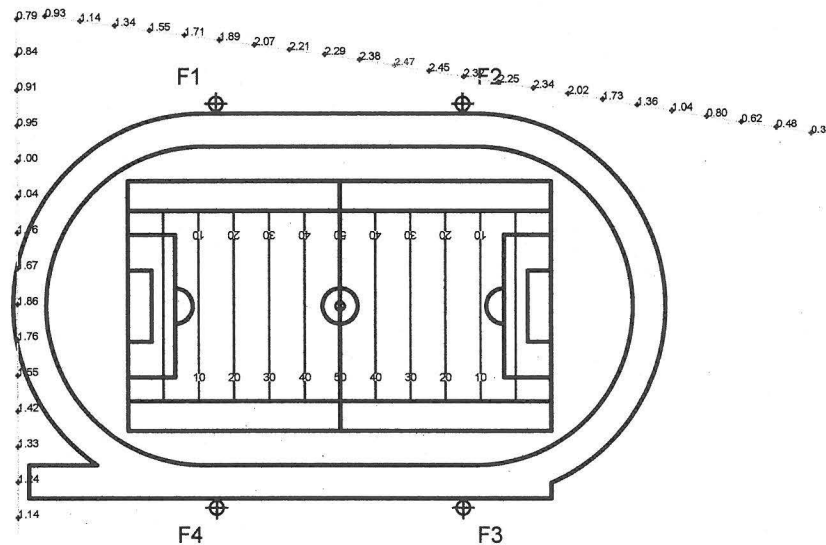
Date: 03-Mar-08

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
4	F1-F4	60'	-	60'	1500W MZ	14	14	0	
4	TOTALS					56	56	0	



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +30

Milwaukie High School
Milwaukie, OR

Spill @ PL +30

Grid Spacing = 30.0'
Values given at 30.0' above grade

Luminaire Type: Green Generation
Rated Lamp Life: 5000 hours
Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

Entire Grid	
No. of Target Points:	38
Average:	1.484
Maximum:	2.47
Minimum:	0.37
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	56
Avg KW over 5000 hours:	87.58
Max KW:	95.2

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

File #: 131171r4r

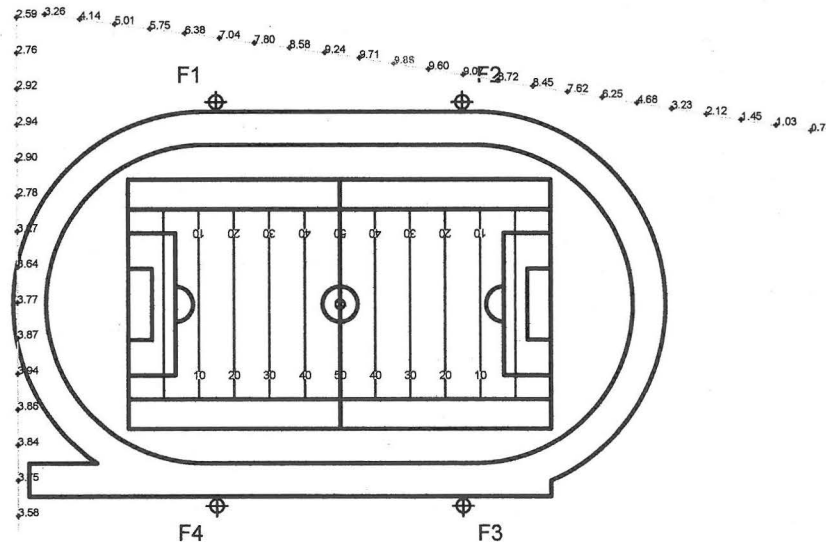
Date: 03-Mar-08

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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Print Date (03/Mar/2008) & Time (11:45)

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	50'	-	50'	1500W MZ	15	15	0
4	TOTALS					60	60	0



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +10

Milwaukie High School
Milwaukie, OR

Spill @ PL +10

- Grid Spacing = 30.0'
- Values given at 10.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	5.004
Maximum:	9.88
Minimum:	0.74
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	60
Avg KW over 5000 hours:	93.84
Max KW:	102.0

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

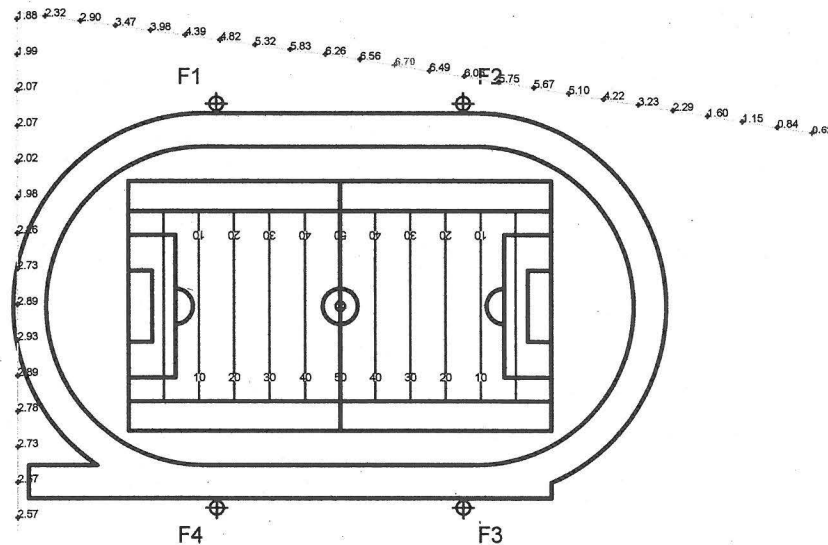
File #: 131171r5r

Date: 03-Mar-08

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	50'	-	50'	1500W MZ	15	15	0
4	TOTALS					60	60	0



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +20

Milwaukie High School
Milwaukie, OR

Spill @ PL +20

- Grid Spacing = 30.0'
- Values given at 20.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

	Entire Grid
No. of Target Points:	38
Average:	3.474
Maximum:	6.70
Minimum:	0.62
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	60
Avg KW over 5000 hours:	93.84
Max KW:	102.0

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

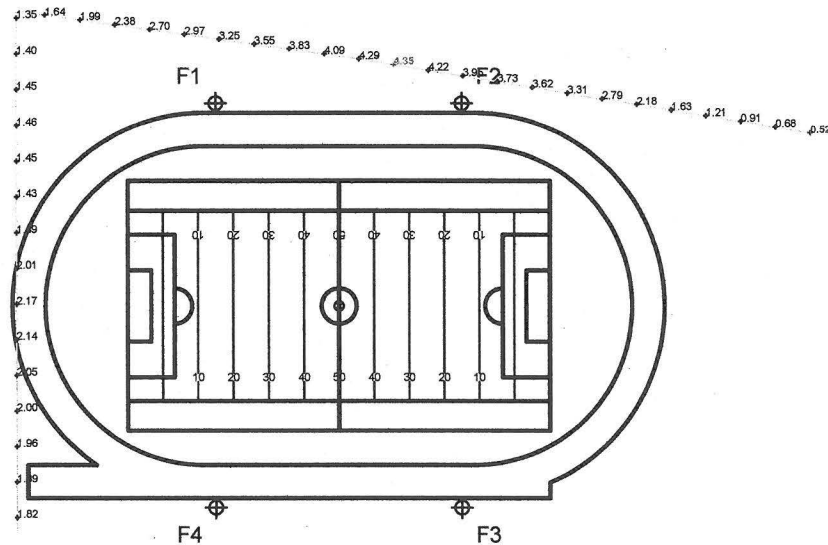
File #: 131171r5r

Date: 03-Mar-08

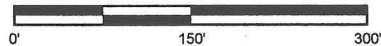
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	50'	-	50'	1500W MZ	15	15	0
4	TOTALS					60	60	0



NOTES: Musco does NOT recommend this design due to the low mounting heights. The aiming angles resulting from these mounting heights can/will produce poor playability conditions on the field, creating some safety concerns.
SCALE IN FEET 1 : 150



GUARANTEED PERFORMANCE

ILLUMINATION SUMMARY

Spill @ PL +30

Milwaukie High School
Milwaukie, OR

Spill @ PL +30

- Grid Spacing = 30.0'
- Values given at 30.0' above grade

- Luminaire Type: Green Generation
- Rated Lamp Life: 5000 hours
- Avg Lumens/Lamp: 134,000

CONSTANT ILLUMINATION MAX VERTICAL FOOTCANDLES

Entire Grid	
No. of Target Points:	38
Average:	2.365
Maximum:	4.35
Minimum:	0.52
Average Lamp Tilt Factor:	1.000
Number of Luminaires:	60
Avg KW over 5000 hours:	93.84
Max KW:	102.0

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Averages shall be +/-10% in accordance with IESNA RP-6-01 and CIBSE LG4. Individual measurements may vary from computer predictions.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

By: Eric Svenby

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