

CITY OF MILWAUKIE
PLANNING COMMISSION MINUTES
TUESDAY, JANUARY 23, 2001

COMMISSIONERS PRESENT

Tracy Cook, Chair
Barbara Cartmill
Judith Borden
Donald Hammang
Mike Miller
Doug Ouderkirk
Howard Steward

STAFF PRESENT

Alice Rouyer,
Planning Director
John Gessner
Associate Planner
Gary Firestone
City Counsel
Shirley Richardson,
Hearings Reporter

COMMISSIONERS ABSENT

1.0 CALL TO ORDER

The meeting was called to order at 6:33 p.m.

2.0 PROCEDURAL QUESTIONS -- None.

3.0 PLANNING COMMISSION MINUTES -- January 9, 2001

Mike Miller moved to approve the minutes of January 9, 2001, as presented.
Barbara Cartmill seconded the motion. MOTION CARRIED 6-0 with one
abstention. Doug Ouderkirk was not at this meeting. .

Ayes: Cook, Borden, Cartmill, Hammang, Miller, Steward; Abstentions: Doug
Ouderkirk; Nays: None.

4.0 INFORMATION ITEMS

- 4.1 City Council Worksession Minutes
- 4.2 City Council Minutes

5.0 PUBLIC COMMENT -- None.

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6.0 PUBLIC HEARINGS

- 6.1 Applicant : North Clackamas School District
Owner: North Clackamas School District
Location: 3606 SE Lake Road – Rowe Middle School
Proposal: Construct classroom facility to provide 6 new classrooms and space for 2 future classrooms. They are also requesting to reconfigure and expand parking and bus loading areas. The area affected by these improvements will also require a Natural Resource Review.
File Numbers: CSO-00-01/NR-00-04/TPR-00-05
NDA: Lake Road

Chair Cook reopened the public hearing on Community Service Overlay CSO-00-01, Natural Resource Review NR-00-04, and Transportation Planning Review TPR-00-05 to allow Rowe Middle School construction of an eight-classroom addition of approximately 13,700 sq.ft., minor modifications to offices, and expansion of the cafeteria.

Chair Cook explained that this hearing was continued from the December 12th meeting and further continued from the January 9, 2001 meeting.

The criteria to be addressed are found in Section 301, Residential Zone R-10; 321, Community Service Overlay Zone; 322, Natural Resources Overlay; 411.1C, Major Street Setback; 500, Off-street Parking and Loading; 1011.3, Minor Quasi-Judicial Review; and 1400, Transportation Planning, Design Standards, and Procedures.

Chair Cook asked if there were any conflicts of interest or ex-parte contacts to declare. There were none. **Chair Cook** asked if any member of the Planning Commission visited the site; five hands were raised. No one who visited the site spoke to anyone at the site or noted anything different from what is indicated in the Staff Report. No one in the audience challenged the impartiality of any Commission member or the jurisdiction of the Planning Commission to hear this matter.

STAFF REPORT

John Gessner reviewed the staff report with the Commission. Tonight's public hearing is a continuation of a earlier hearing where issues related to pedestrian safety and storm water management were raised by the Commission and the applicant was directed to give further attention to these items. The updated staff

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reports highlights these concerns. Overheads were shown of the subject site and surrounding area.

The original plans did not include facilities for storm water management. The applicant has reviewed this issue and they have responded with a 2 and 25-year storm. A letter to Paul Roeger, Milwaukie Civil Engineer, from Todd Nepper, dated January 22, 2001, indicates that there will be no net increase in storm water runoff after development. The school district will not be detaining the runoff from the new impervious surface in front of the school, but they will be detaining the excess that will running off the new parking lot and roof.

City staff has conducted an analysis of the Lake Road crossing issues. It was found that the available gaps between vehicles on Lake Road during the afternoon period when students are leaving the school do not meet traffic standards for safe pedestrian crossing. However, there will be improvements made to Lake Road this spring. The City will be installing two warning beacons at the limits of the 20 mile an hour school zone on the west and east ends of the site.

Additional analysis of traffic circulation and impact on pedestrian safety is warranted. It is difficult to predict what future conditions will impact this situation. Presently most of the traffic enters the site from the west for student drop off and pick up. Improvements proposed are that the buses will be on the west side and parent pick up will be on the east side of the site. This may affect the crossing on Lake Road.

The school district has agreed to pedestrian education and a future study. A condition is proposed to send letters to new student walkers advising them of the safest routes and good pedestrian practices.

Staff is requesting that adult crossing guards be used until there is a better understanding of how the site will work once students have used the new traffic circulation patterns.

QUESTIONS FROM THE COMMISSIONERS -- None.

CORRESPONDENCE RECEIVED -- None.

APPLICANT PRESENTATION

Speaking: Rick Givens,

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Mr. Givens introduced Bruce Golds who will make a presentation on the storm water and detention issues.

Speaking: Bruce Golds, Compass Engineering, 6564 SE Lake Road, Milwaukie

Mr. Golds stated that they have reviewed the hydraulics and collection of the storm water. There are two pre-existing out-falls into Kellogg Creek at and near this property. Overheads were shown detailing the discharge of the proposed construction. Landscaping will replace some of the previous hard surfaces. The rainfall difference between what is proposed and the previous condition is quite small. All the new impervious surfaces are collected and passed through a swale, catch basins, and sump to the Creek.

Storm from 2 years to the 25-year event were compared as pre-developed and developed conditions. It was found that the detention facility was sized to accommodate the net gain in storm water. A small opening was developed to not allow the flow to exceed the pre-developed rate. The control facilities include silt fences, bio-bags, and diapers into the catch basins. The trap catch basins, the storm control manholes, detention facility, and vegetative swale will collect heavy particles, suspended solids, phosphorus, and other chemicals. He feels that the stormwater does not exceed the existing flows and will have minimal impact on Kellogg Creek.

QUESTIONS FROM THE COMMISSIONERS -- None.

Donald Hammang asked how much water would be coming through this site?
Mr. Golds stated that it would be about 5-6 gallons per minute.

Howard Steward asked if this detention plan met all the requirements? **Mr. Golds** stated that Clackamas County, other counties, and other governmental agencies in the area accept the proposed procedures and calculation method.

Speaking: Rick Givens,

Mr. Givens pointed out the school district boundary on a site map. There is a marginal change in the area that will impact pedestrian access. The district buses everyone north of Highway 224. The students south of the school site do not cross Lake Road and are not a part of this issue. The only area for concern of school walkers that cross Lake Road is between Milwaukie Expressway and McLoughlin. It is estimated that there will be about 80 students in this area that will be accessing the school as pedestrians.

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They have no opposition to the conditions of approval requiring a traffic engineering study of the split of traffic, how students are getting to school, and resulting safety issues. They agree with the condition to educate the students regarding the best way to get to school.

They are concerned about the condition requiring adult crossing guards at Lake Road frontage. Because of the small area and how it sits relative to the site, the students will be crossing at the existing signal at the intersection of Oatfield and Lake Road. All of the streets feed down into this area. The existing facilities take care of the issue.

Another concern is that middle-schoolers do not like the idea of adults assisting them across crosswalks. District experience shows that this does not work, as kids go the other direction rather than dealing with adult-assisted crosswalks. The District does not feel that adult crossing guards are effective and are not warranted, and ask that this condition not be imposed.

QUESTIONS FROM THE COMMISSIONERS

Mike Miller noted that the staff report indicates that presently the interval time for students to cross Lake Road is not adequate. He asked how the applicant proposes to make it safer now recognizing that there will be about 80 more students in the future? **Mr. Givens** stated that due to the parent drop off and pick up, the actual amount of future students using this cross will be about 40-50 kids.

The students now are dealing with the situation in a safe manner. Crossing is done safely at this time. Flashing lights will be installed soon to help alert motorists to slow down for the school. This will increase the traffic gaps. They are willing to go along with the traffic study and educate the walkers on pedestrian safety. Adult supervision does not provide much and may cause unsafe behaviors. With the existing service boundary, the majority of walkers come from the same general area and use the Oatfield crossing.

Barbara Cartmill asked if there are adult crossing guards at other schools in the district? **Mr. Givens** stated that the elementary schools use crossing guards. He is not aware of any instances of the middle schools using adult crossing guards.

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Speaking: Ron Naso, Superintendent, North Clackamas School District

Mr. Naso stated that at this time, the school district has no adult crossing guards. There are safety patrols that are supervised by adults. There are students outside assisting the crossing of the road. The district does not hire employees specifically to be crossing guards. There are no programs in place for a safety patrol at the junior high level.

Howard Steward asked if the school district has considered the use of junior high students as crossing guards? **Mr. Naso** stated that this has not been a significant issue in the communities. There has not been any requests from parents for this kind of concern. They have never looked into a middle school safety patrol.

Mike Miller stated that there is an adult crossing guard at Mt. Scott Elementary School every morning assisting crossing. He asked if these are volunteers or hired employees. **Mr. Naso** stated that this is a grade school and this may be a volunteer or an instructional assistant assigned to perform this function.

Chair Cook asked how many students have been hit by a car on Lake Road at Rowe Middle School? **Mr. Naso** stated that he does not know of any accidents at this time. The only traffic casualty over the last decade in the school district was a young lady hit on 32nd Avenue six or seven years ago.

TESTIMONY IN FAVOR -- None.

QUESTIONS OR COMMENTS

Speaking: Teresa Bresaw, 12744 SE Weedman Court, Milwaukie

Ms. Bresaw stated that she is the Co-Chair of the Lake Road Neighborhood Association. She is in favor of the adult crossing guards. Shell Lane is going to be very busy with entering and exiting and will be very congested. The crossing guards should be parent volunteers. The parents should be asked at the school, and their participation shows that they care about the students and their community.

She is glad to see the condition for a traffic study to see how pedestrians are affected by the new construction.

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At the last Lake Road NDA meeting, there was discussion about the Commission considering stop signs for pedestrians and cars that are accessing and exiting. She asked if there would be a planter island on Shell Lane?

John Gessner stated that there would be a planter strip between the curb and sidewalk on both Lake Road and Shell Lane, except the location of the back out from the tennis area.

Ms. Bresaw asked if the applicant has any objection to the neighborhood getting involved with the planting of trees in this planting strip.

Speaking: Garry Kryszak, 12451 SE Lake Road, Milwaukie

Mr. Kryszak stated that he is the project manager for the school district. The District does not have any objection to working with any group to plant trees in the planing strip.

QUESTIONS FROM THE COMMISSIONERS -- None.

Speaking: Jim Jones, 12121 SE 39th, Milwaukie

Mr. Jones stated that he is very concerned about traffic. He is not comfortable with the crossing on Lake Road. As students come across from both directions, this results in a very unsafe situation. The idea of stop signs at 37th and Lake Road is a good idea. He suggested a three-way stop sign like the one on Aldercrest and Theissen. He is very interested in seeing the traffic studies that will be done on this issue.

QUESTIONS FROM THE COMMISSIONERS -- None.

TESTIMONY IN OPPOSITION -- None.

ADDITIONAL COMMENTS FROM STAFF

John Gessner introduced Brion Barnett and invited questions from the Commissioners on traffic.

Judith Borden asked staff to comment on the three-way stop sign or a similar traffic-slowing device.

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Speaking: Brion Barnett, Associate Engineer, City of Milwaukie

Mr. Barnett stated that the stop signs should be included in the recommended traffic survey. A full analysis would need to be done to see if this type of device is warranted.

Judith Borden asked if people do, in fact, slow down at the flashing lights? **Mr. Barnett** stated that they do slow down and studies have shown that they do so because of the increased visual awareness that the flashing yellow beacons give at the existing 20-miles per hour zone. It is reasonable to expect more slowing and to expect the potential for having the slowing affect created by this artificial gap.

Donald Hammang asked if the analysis chosen by the applicant is usual and customary for detention and discharge?

Speaking: Paul Roeger, Civil Engineer, City of Milwaukie

Mr. Roeger stated that the analysis has been reviewed and consistent with the goal of no-net increase.

Barbara Cartmill asked staff to comment on their conclusion about the adult crossing guards. **John Gessner** stated that they acknowledge that the gaps and vehicles do not meet engineering standards. There will be an increase in traffic and increase in pedestrian safety. There must be a recommendation to address the approval criteria.

Mr. Gessner recited the standard from the Community Service Overlay Regulations (321.7C), "Walkways both on and off the site will be provided as necessary for safe pedestrian access to the school." There is an increase in traffic associated with the number of students, due to parent drop off and pick up. There is an increase in pedestrians due to the increase in service boundaries. Adequate pedestrian facilities need to be allowed for access to and from the school. Given the poor gap on Lake Road, pedestrian safety needs to be addressed.

The condition reads that the school district shall use adult crossing guards unless it is shown by future study to the satisfaction of the Planning Commission that it is ineffective, not warranted, or counter-productive.

Mike Miller asked what legality is there for the Commission to be assured that they have approved a safe crossing for students? **Gary Firestone** stated that the

Commissioners must decide for themselves what would make the walkway safe for pedestrian access.

Donald Hammang asked about the feasibility of using a Police Officer for the crossing guard. **Gessner** stated that in the instances when a motorcycle officer was placed at that location to observe traffic, his presence was very effective in controlling driver behavior. Those who were in violation were stopped.

APPLICANT'S CLOSING COMMENTS

Mr. Naso stated that they do not understand how the adult crossing guard would resolve some of the issues they have. He asked that if this condition is imposed, that there be clear criteria for the basis of proving their argument that this is an unnecessary condition. What criteria drawn from the traffic study would constitute necessity of the adult crossing guard?

The crossing guards, two being requested, is not a service that the Police Department as a general rule is interested in providing, even if they are paid. Once the community sees the Police Department providing that type of service at Rowe, it may set a precedent for requests for this function in front of other schools. The Police Department is not the answer to this particular problem.

QUESTION FROM THE COMMISSIONERS

Judith Borden asked if the traffic gap would be below requirements even after the flashing lights are installed? Is there anything that can be done, when traffic is moving at 20 miles an hour, to safely allow a child to cross Lake Road, other than a stoplight? **Barnett** stated that there is nothing right now to stop the cars. He observed that in some cases cars would stop when the crosswalk was occupied. The flashing beacons will increase the awareness to slow down and stop to provide a safe gap.

QUESTIONS FOR CLARIFICATION -- None.

DELIBERATION AMONG THE COMMISSIONERS

Chair Cook closed the public portion of the hearing and opened the meeting to discussion among the Commissioners.

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Howard Steward stated that it would be derelict to take an action that ignores the counsel of the planner and traffic engineer. The code specifies that safe access will be provided. Professional counsel stated that it is not safe to cross Lake Road with its current traffic load.

Doug Ouderkirk stated that it would not be a burden to the District to provide an adult guard in the morning and in the afternoon. The guards do not need to be in uniform, just there to assist students crossing of Lake Road.

Howard Steward asked if the school district had a suggestion to address this crossing issue? He is very concerned about the safety of the students. **Mike Miller** stated that he feels that at some point sooner or later some child is going to be hit by a car. These students still need someone at the crossing to help them get across the street safely. Some sort of action needs to be taken to improve things until a study is done that concludes that this needs to continue or a better alternative is found.

Donald Hammang stated that at his junior high school, there were crossing guards and police in pairs on motorcycles. There is an issue of traffic on this street; the neighbors have talked about it for years. There is criteria for a safe transit because the traffic engineer alluded to the fact that there may be so much traffic that the traffic will never stop. The adult crossing guard may have more of a benefit of changing driver behavior than changing child behavior. He feels the adult crossing guard is necessary.

Donald Hammang asked if it was possible to approve the application and direct staff to work out an arrangement with the school district on the crossing issue?

Alice Rouyer stated that this condition could be just an interim solution where the study might be a way for the school district to address the concerns in their own way and come up with their own recommendations and proposals.

Discussion followed on whether the crossing guard had to be an adult. Possibly it could be junior high students. **Howard Steward** asked that staff work with the applicant to find the best solution or procedure that can be used and this process can be used for future issues of this type.

Brion Barnett stated that usually traffic engineers recommends adult rather than middle school students, because it has been shown that adults are more effective.

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Donald Hammang thanked the school district for coming back with a plan that address the storm water concerns of the previous hearing.

Doug Ouderkirk moved to approve applications CSO-00-01, NR-00-05, and TPR-00-05 for Rowe Middle School, thereby authorizing construction of an eight-classroom addition of approximately 13,700 square feet, minor modifications to offices, and expansion of the cafeteria, and adopt recommended Findings and Conditions of Approval as stated in the staff report with the addition of Condition #3. **Howard Steward** seconded the motion. THE MOTION CARRIED 7-0.

Ayes: Cook, Borden Cartmill, Hammang, Miller, Ouderkirk, Steward

Nays: None

Donald Hammang asked to be excused from the rest of the meeting due to illness.

Recess was taken at 7:55 p.m. and the meeting reconvened at 8:00 p.m.

7.0 WORKSESSION -- None.

8.0 DISCUSSION ITEMS -- None.

9.0 OLD BUSINESS -- None

10.0 OTHER BUSINESS/UPDATES

10.1 Matters from the Planning Director

Alice Rouyer reported that there would be a meeting on February 28, 2001, to discuss design review with the Design and Landmarks Commission. Crandall Arambula will be making a presentation that night.

A new planner has been hired and will begin on February 5, 2001.


11.0 NEXT MEETING -- February 13, 2001

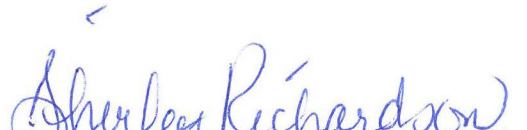
11.1 WG-00-02/NR-00-06, Weagant – 12005 SE 19th

11.2 CSC-00-01/TPR-00-03, Albertson's – 10830/10840 SE Oak Street

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Doug Ouderkirk moved to adjourn the meeting of January 23, 2001. **Mike Miller** seconded. MOTION PASSED UNANIMOUSLY. The meeting adjourned at 8:07 p.m.


Tracy Cook, Chair


Shirley Richardson, Hearings Reporter

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 WHICH 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 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 CHAIR PERSON 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 CHAIR PERSON 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 COMMUNITY DEVELOPMENT 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.

The Planning Commission's decision on these matters may be subject to further review or may be appealed to the City Council. For further information, contact the Milwaukie Planning Department office at 786-7600.

Milwaukie Planning Commission:

Tony Cook, Chair
Borden, Vice Chair
Barbara Cartmill
Donald Hammang
Mike Miller
Doug Ouderkirk
Howard Steward

Community Development Department Staff:

Martha Bennett, Community Development Director
Alice Rouyer, Planning Director
John Gessner, Associate Planner
Ken Kent, Associate Planner
Jeanne Garst, Staff Assistant
Marcia Hamley, Office Assistant
Shirley Richardson, Hearings Reporter



To: Planning Commission

Through: Alice Rouyer, Planning Director *AR*

From: John Gessner, Associate Planner *JG*

Date: January 23, 2001

Subject: Proposed Classroom Addition at Rowe Middle School
3606 SE Lake Road
Applications CSO-00-01, NR-00-05, and TPR-00-05

I. ACTION REQUESTED

Approve applications CSO-00-01, NR-00-05, TPR-00-05 for Rowe Middle School thereby authorizing construction of an eight-classroom addition of approximately 13,700 square feet, minor modifications to offices, and expansion of the cafeteria, and adopt recommended Findings and Conditions of Approval.

II. CODE AUTHORITY AND APPROVAL CRITERIA

Milwaukie Zoning Ordinance Sections

- 301-Residential Zone R-10
- 321-Community Service Overlay Zone
- 322-Natural resources Overlay
- 411.1.C-Major Street Setback
- 500-Offstreet Parking and Loading
- 1011.3-Minor Quasi-Judicial Review
- 1400-Transportation Planning, Design Standards, and Procedures

III. KEY ISSUES ON PEDESTRIAN SAFETY AND DRAINAGE

1. The plans have been revised to include stormwater detention and pollution control structures.
2. City analysis suggests that the number of available gaps in passing traffic on Lake Road do not meet engineering standards for safe pedestrian crossing at the crosswalks in front of the school. Safe crossing is provided at the Oatfield/34th Avenue traffic light. Pedestrian crossing safety will be

enhanced when the City installs flashing warning beacons at the two limits of the 20 miles per hour school speed zone this spring.

Recommended actions to further enhance safety include the following:

1. School District distribution of a safe walking routes map to families of all non-bussed students prior to occupancy of the addition.
2. Since parent drop-off and pick-up traffic patterns will change and traffic will increase due to reconfiguration of the site, adult crossing guards should be stationed at cross walks in the morning and afternoon as an interim safety measure.
3. The School District should evaluate Lake Road pedestrian crossing safety after student occupancy of the addition for identification of additional safety improvements if needed.

IV. Follow-Up Issues from the December 12, 2000 Hearing

On December 12, 2000 the Planning Commission continued the hearing to January 9, 2001 in order to allow time to address concerns about adequacy of pedestrian safety and drainage issues. (The applicant subsequently requested continuance to January 23, 2001.) A discussion of these issues follows:

1. Student Pedestrian Safety

At the December 12, 2000 public hearing, the Planning Commission heard concerns from the Lake Road NDA about pedestrian safety for students who cross Lake Road. The NDA recommended that a raised crosswalk be installed. On December 18, 2000 the Milwaukie Traffic Safety Board submitted a recommendation to staff that that the School District fund an engineering study to determine if traffic calming is needed to enhance pedestrian safety at the school site.

Zoning Ordinance Section 321.7(C) requires that walkways be provided as necessary for safe pedestrian access to schools. On staff's request the School District has provided information regarding the change in the location and number of walkers due to the change in school attendance boundaries for Rowe. See *Exhibit 1-for related materials*.

The School District has reported that it expects an increase of 80-90 new walkers for a total of 160. All of the new students are located north of Lake Road in the area southwest of Washington Street; east of 30th Avenue; and north of Sellwood Street. In its January 4, 2001 letter the School District concludes that a signalized crosswalk along the frontage of the site is not needed based on the following:

1. Approximately 50% of the new walkers will be driven to school based on current patterns.
2. All new walkers will be able to cross Lake Road at the 34th Avenue traffic light based on location of new walkers.
3. Student pedestrian arrivals and departures occur during non-peak traffic times.
4. The City will be installing flashing beacons at the two existing crosswalks.

Summary Analysis

See also Exhibit 1 - Public Works Traffic Comments

City staff observed pedestrian arrivals and departures in order to assess the following:

1. Adequacy of existing pedestrian facilities;
2. Lake Road NDA's request for a raised crosswalk; and
3. Milwaukie Traffic Safety Board's recommendation for a traffic engineering study.

Field observations indicate that there are insufficient gaps in afternoon traffic for safe pedestrian crossings based on traffic engineering standards. However, many drivers stopped to allow waiting students to cross Lake Road. In addition, departing busses aided crossings by temporarily blocking traffic.

The City's installation of flashing lights at the limits of the 20 mile per hour speed zone will improve pedestrian safety. Installation is scheduled for this spring.

Existing traffic patterns will change once site improvements are made. Buses will use the western site driveway while Shell Lane will be used for student drop-off and pick-ups. Under existing conditions, both busses and most vehicles enter from the west and exit at Shell Lane. Changes in traffic patterns that happen after site improvements are completed will affect Lake Road crossings. Traffic volume is expected to increase due to increased student enrollment. Since the extent of the change on Lake Road crossings is unknown, staff believes that a traffic study should be conducted after site improvements are made to ensure continued pedestrian safety.

Staff recommends additional actions including pedestrian education and use of adult crossing guards as an interim measure until the traffic study is completed.

Since Lake Road is classified as a minor arterial roadway, installation of a raised crosswalk requires City Council approval. Present traffic management policy requires a two step eligibility process through the Neighborhood Traffic Management Program (NTMP). An engineering study of the raised crosswalk

would be required under the NTMP. Staff does not recommend raised crosswalks on an arterial without prior traffic engineering analysis.

2. Stormwater Management

At the December 12, 2000 public hearing the Planning Commission raised concerns about stormwater impacts to Kellogg Creek. Stormwater impacts are subject to Commission review under the following sections of the Natural Resource Overlay Zone:

- 322.7(A)(1) Site preparation and construction practices shall be followed that prevent drainage of hazardous materials or erosion, pollution, or sedimentation to the adjacent natural resource location
- 322.7(B)(6) Storm water flows as a result of proposed development within and to natural drainage courses shall not exceed natural flows as determined by the City Public Works Department
- 322.7(B)(8) The development will be designed to have the least amount of impact on the natural features/values of the site as possible. The design should look at alternatives (design and location) to mitigate the impact

The applicant has revised its plans to now include stormwater detention and pollution reduction methods including trapped catch basins, sedimentation manhole, and a grass drainage swale.

The applicant has indicated that the post development run-off will not exceed pre-development run-off. To accomplish this, a subsurface stormwater detention structure will be installed behind the school. Runoff from the addition, eastern fire lane, and new parking lot behind the school will discharge into the structure, which will detain discharges between the 2 and 25 year storms events.

The existing and new impervious surfaces located in the front of the school will discharge directly to Kellogg Creek via existing storm drains. The increase in run-off from the front of the school is compensated by increased detention of run-off from the rear parking lot and addition. The total run-off from the site will not exceed pre-development run-off.

The applicant has proposed a combination of structures that are designed to reduce pollutants. See *Exhibit 2 for additional information.*

V. RECOMMENDED FINDINGS IN SUPPORT OF APPROVAL

The recommended Findings and Conditions contained in the December 12, 2000 staff report have been revised based upon evaluation of stormwater and pedestrian safety issues.

1. North Clackamas School District is proposing the following:
 - a. Construction of a classroom addition of approximately 14,000 square feet;
 - b. expansion of the cafeteria, and other building improvements;
 - c. dedication of property along Shell Lane for right-of-way, and construction of a curb, partial planter island, and sidewalk;
 - d. construction of 8 new classrooms for a total of 34;
 - e. reconstruction of parking and circulation including separation of bus and vehicle parking; and
 - f. installation of parking lot landscaping.
 - g. installation of stormwater management and pollution reduction structures.
2. Applications CSO-00-01, NR-00-05, and TPR-00-05 have been processed, and public notice provided in accordance with Zoning Ordinance Section 1011.3 and Section 1403.
3. As conditioned the proposal is consistent with criteria and standards of Section 321-Community Service Overlay Zone.
4. As conditioned the proposal is consistent with section 1400-Transportation Planning, Design Standards, and Procedures.
5. As conditioned the proposal is consistent with section 500-Offstreet Parking and Loading.
6. The proposal is consistent with Section 322-Natural Resource Overlay Zone. Impacts to Kellogg Creek will be mitigated through stormwater detention and pollution reduction facilities.
7. The proposal is consistent with Section 411.1.C-Major Street Setback.
8. On December 4, 2000, the applicant has revised the originally submitted site plan as follows:
 - a. Modification of the eastern parking area by addition of an aisle that allows for improved vehicle circulation and separation of bus traffic to the benefit of safer and more orderly student drop-off and pick up;
 - b. elimination of the 10 parking spaces at the southwest corner of the building by designating the area for loading only; and
 - c. relocation of the Lake Road sidewalk, and redesign of related improvements to include a bike lane, planter island, and sidewalk

9. As conditioned, the proposal is consistent with the public benefit test of Section 321 as follows:
 - a. Improvements to public schools are in the public interest.
 - b. Facility improvements benefit the community at large by providing a safe, modern, convenient, learning environment for students and school staff.
10. The public benefits of the project include the following:
 - a. Improved physical facilities;
 - b. improved on-site parking and circulation to the benefit of student safety,
 - d. mitigation of stormwater impacts on Kellogg Creek by detention of runoff between the 2 and 25-year storm events;
 - e. mitigation of stormwater borne pollutants by use of pollution reduction structures; and
 - f. construction of improved pedestrian facilities along Lake Road and Shell Lane.
11. Potential adverse impacts include the following:
 - a. Discharge of stormwater borne pollutants into Kellogg Creek if the stormwater system is not maintained;
 - b. additional vehicle traffic on Lake Road due to increased number of staff; increased student enrollment and related increased student drop-off/pick-ups; and
 - c. increased risk to student pedestrians resulting from the increase in the number of students walkers and increased bus and parent traffic during arrival and departure times.
12. As conditioned the, public benefits outweigh the potential adverse impacts as follows:
 - a. Stormwater shall be mitigated by on-site detention pollutant reduction;
 - b. Pedestrian safety will be improved by installation of flashing beacon;
 - c. Pedestrian safety shall be re-evaluated after site improvements are made. As a condition of this approval measures to ensure continued safety can be required where warranted.
13. In reviewing a Community Service Overlay Use, the Planning Commission may impose conditions as necessary to ensure compatibility with surrounding uses. These conditions may include but are not limited to the following:

- a. designating the size, location, screening and design of vehicle access points, and
 - b. requiring improvements within the right-of-way.
 - c. requiring the following improvements in accordance with Section 321.7:
 1. walkways, both on and off the site as needed for safe pedestrian access;
 2. safe loading, ingress, and egress
14. The 15% increase of maximum parking allowed is warranted due to parking needs of the school, which have been observed to exceed the maximum parking requirements based on actual site parking demand.
15. Various salmonid species in the region have been listed as threatened under the Federal Endangered Species Act. The National Marine Fisheries Service has issued regulations that prohibit the "taking" of threatened salmonid species. These regulations list development as an activity that can result in a take. The regulations however, acknowledge that development can be properly conducted without resulting in a take. A condition of approval of this decision requires the applicant to comply with all applicable laws, including the Endangered Species Act. Therefore, the activities authorized by this approval will not result in a violation of the Endangered Species Act because the applicant is required to conduct all its activities in a manner that avoids a taking of listed species.

X. RECOMMENDED CONDITIONS OF APPROVAL

1. Plans submitted for building permit approval shall be in substantial compliance with the plans approved by the Planning Commission.
2. Prior to issuance of a building permit the following shall be submitted to the satisfaction of the Planning Director:
 - a. Narrative of all actions taken to comply with conditions of this approval;
 - b. narrative description of all changes made to the plans but not required by conditions of approval;
 - c. detailed parking and landscaping plan consistent with Section 503.11 through 503.20, including asphalt paving of the rear parking lot;
 - d. erosion control plan;
 - e. site plan with all features dimensioned showing revisions to parking and circulation submitted on December 4, 2000 including revised parking , drop-off/pick-up areas, and elimination of parking spaces at the southwest corner of the building;

- f. construction staging plan showing the location of equipment and material storage;
 - g. tree preservation methods for all trees that may be subject to construction impacts including excavation and soil compaction;
 - h. architectural floor plans and elevations consistent with approved plans;
 - i. installation of hard-surface access route around the landscaping island located between the new bus turn-around and parking lot in accordance with Fire Department requirements.
 - j. installation or relocation of fire hydrants in accordance with Fire Marshal requirements;
 - k. submission of instruments for dedication of 25 feet of Shell Lane right-of-way;
 - l. construction plans showing right-of-way improvements in accordance with specified design standards and dimensions of Section 1405; on Lake Road this includes bike lane, curb; planter island and sidewalk; on Shell Lane this includes curb, planter island, and sidewalk;
 - m. full-engineered plans for public improvements;
 - n. site drainage plan designed in accordance with the proposed stormwater plan as described in the Compass Engineering's December 20, 2000 report.; and
 - o. detailed grading plan.
3. Prior to issuance of a building permit, SDC's for water, sanitary sewer, storm drainage, and transportation must be paid.
 4. Prior to issuance of any temporary occupancy permit the following shall be resolved:
 - a. Required landscaping shall be installed or bonded in accordance with Section 503.19(E);
 - b. all site improvements shall be completed and inspected to the satisfaction of the Planning Director; and
 - c. installation of all improvements in the right-of-way including sidewalks on Lake Road and Shell Lane.
 5. Prior to approval being granted for of occupancy, a detailed narrative of actions taken to comply with all conditions of this approval shall be submitted to the satisfaction of the Planning Director. The Planning Director shall conduct a site

inspection and other investigations as needed to ensure compliance with conditions of this approval prior to granting occupancy approvals.

6. The stormwater system shall be maintained on a regular basis in accordance with Compass Engineering's Maintenance Requirements dated January 5, 2000 to ensure continued and effective pollution reduction.
7. The applicant shall conduct a traffic engineering study of pedestrian safety for Lake Road crossings in the vicinity of the school following completion of site improvements and occupancy of the addition. The engineer's report shall be submitted to the Planning Commission no later than 2 months following student occupancy of the school addition, alteration of the school attendance area, and completion of the bus and parking improvements.

The engineer's report shall identify pedestrian safety issues based on accepted traffic practices and present findings and recommendations and shall be presented to the Planning Commission at a public hearing. The Planning Commission may impose conditions requiring mitigation of adverse safety conditions that are directly related to the proposed school improvements and increased student enrollment under the authority of Zoning Ordinance Section 321-Community Service Overlay Zone.

Prior to commencement of the study, the city staff shall specify required content analyses.

8. The applicant shall comply with all applicable federal, state, and local laws and regulations relating to environmental protections including but not limited to the Endangered Species Act and all water quality and stream protection regulations.

EXHIBITS

1. Traffic Related Materials

- Memo, Brion Barnett, P.E., Associate Engineer, 1/9/01
- Letter, Susan Stone, MTSB Chairperson, 12/18/01
- Letter, Teresa A. Bresaw, Lake Road NDA, 12/14/00
- Letter, Rick Givens on behalf of NCSD, 1/4/01
- Fax, Student pedestrian information, NCSD, 12/27/00

2. Stormwater Related Materials

- City e-mail, Jack Perry, 1/11/01
- Letter, Compass Engineering, 1/5/01
- Water quality report, Compass Engineering, 1/5/01
- Stormwater detention calculations, Compass Engineering, 12/20/00



To: Alice Rouyer, Planning Director

From: Brion Barnett, P.E., Associate Engineer *BB*

Subject: Rowe Middle School Expansion, Lake Road Safety Concerns

Date: January 9, 2001

Background

North Clackamas School District #12 (NCSD#12) is planning on expanding Rowe Middle School. In light of the proposed expansion, and subsequent concerns raised by the Lake Road Neighborhood Association and the city's Traffic Safety Board, staff has performed some field research to evaluate pedestrian safety in the vicinity of the school crossings on Lake Road. It should be noted that field observations performed were broad in nature, and did not include a comprehensive engineering study. Staff also referenced the Lake Road Multimodal Plan (adopted in 1997 as an ancillary document to the City's Comprehensive Plan) to obtain additional background information related to pedestrian and vehicle traffic near the school.

Executive Summary

Based on field observations last week during the afternoon peak 15 minutes when the majority of school students cross Lake Road in the vicinity of the school, there are inadequate gaps in traffic to allow for safe pedestrian crossing movements (see attached appendix detailing traffic observations). This indicates an immediate need to reduce potential risks to pedestrians in the vicinity of the school. In general, staff recommends a phased approach to help reduce potential safety risks by exhausting education and enhanced enforcement efforts prior to considering or implementing engineering options. Staff recommends that the following options be considered in the order presented:

- School district develop a map showing the safest walking routes to school for distribution to all students and parents.
- School district implement an adult crossing guards program (also considering funding for police crossing guards).
- City assist with continued enhanced enforcement in the school area (radar and SMART Trailer).
- School district coordinate with the Lake Road Neighborhood Association, local residents, and the city to provide paved pedestrian paths and/or linkages to school areas.
- When the student enrollment at Rowe Middle School increases due to the closure of Milwaukie Middle School, the school district perform a comprehensive engineering study, including traffic signal warrants. The study would evaluate the safety of the pedestrians in the vicinity of the

existing school crossings, would determine the need for additional school crossing devices, and identify options for control where conditions warrant them.

- School District coordinate with the city to use colored pavement and/or textured pavement at school crossings at locations determined from comprehensive engineering study.

It is important to note that even if a traffic signal is found to be warranted by a comprehensive engineering analysis, practical considerations would require that sidewalks be constructed on both sides of Lake Road prior to signal installation to insure for safe pedestrian passage to and from the signal. Additionally, the City's Neighborhood Traffic Management Program (NTMP) addresses traffic calming (raised crosswalks/speed bumps) on residential streets. Under current NTMP policy, an arterial street such as Lake Road is only considered for traffic calming if approved by City Council. This is due to high traffic volumes and consideration of emergency vehicles on arterial streets.

Existing Conditions

Lake Road is classified as a minor arterial in the Milwaukie Comprehensive Plan, and the posted speed in the vicinity of the school is 30 miles per hour. Traffic counts taken on Lake Road and 40th Avenue indicate that the average daily traffic near the school is approximately 12,256 vehicles (average of counts from 1994, 1995, 1997, and 1998). Subsequent traffic studies performed last year in conjunction with the Clackamas Educational School District's Office Relocation indicate that peak traffic occurs in the morning from 7 a.m. to 8 a.m., and in the evening from 4:45 p.m. to 5:45 p.m.

Recent data from NCSD#12 indicate that the current attendance at Rowe Middle School is 639 students, 79 of whom are not bussed. School classes start at 9:15 a.m. and dismiss at 3:50 p.m. Currently, there are two striped school crossings on Lake Road. The first crossing is located immediately West of Shell Lane, and the second crossing is located immediately East of the school's private drive. The pavement width at the crossings, including the bike lanes, is approximately 37-38 feet.

Future Conditions

This fall, student enrollment at Rowe Middle School will increase due to the closure of Milwaukie Middle School. NCSD#12 projects that attendance will grow to a total of 900 students, 160 of whom will not be bussed. Revised school boundaries indicate that the majority of the new walking students will come from the area North of Sellwood Street and West of 35th Avenue. As part of the expansion, NCSD#12 has proposed to segment their existing parking lot so that school bus traffic is physically separated from standard automobile traffic. The new configuration would require school busses to access the site from the Westerly private drive, while the automobile traffic would only be allowed to access the site from Shell Lane.

Analysis

Last week, staff recorded data related to pedestrian crossing movements in the vicinity of the school crossings and the availability of adequate traffic gaps for pedestrian crossings (see attached

appendix). **Traffic engineering standards indicate that a “safe” school crossing has, on average, at least one acceptable/adequate gap every minute (as recommended by the School Trip Safety Program Guidelines, Institute of Transportation Engineers Technical Committee 4A-1).** An adequate/acceptable gap for Lake Road is the amount of time it takes for the safe crossing of all travel lanes in both directions. Staff estimates that the safe crossing time at the crosswalks is between 12 and 15 seconds, depending on the methodology used to calculate the time (see attached appendix).

Based on field observations during one afternoon’s departure times, an adequate gap was available every 3-4 minutes at the West crossing (private drive) and every 5-10 minutes at the East crossing (Shell Lane). This indicates poor crossing potential and an immediate need to reduce potential risks to pedestrians. It is important to note that although the crossing potential is considered “poor,” the volume of pedestrians crossing in the vicinity of the school was relatively low (average of 14 crossings at Westerly school limits and 8 crossings at the Easterly limits). Additionally, except for two occasions, vehicles stopped when pedestrians attempted to use the crossings. On January 3, 2001, the volume of pedestrian crossings in the vicinity of the school during the peak morning arrival times was 33, which is less than 50 percent of the current 79 unbussed students. Due to the projected student enrollment, and Shell Lane’s proposed designation as automobile access only, potential conflicts at the school crossing near Shell Lane will likely increase.

In evaluating options available to help reduce potential risks to pedestrians utilizing the school crossings, it is important to consider the previous research performed in the Lake Road Multimodal Plan. The following summarizes some of the key recommendations from the plan related to Rowe Middle School:

- Coordinate with school district to provide enhanced School Traffic Control, including strong yellow green signage, flashing lights on the school speed zone sign and school crossing guards, as appropriate.
- Work with school district to create a paved pedestrian link from Licyntra Lane to the school.
- Create pedestrian linkages between any new cul-de-sac near Lake Road and adjacent roadways, focusing on direct paths to transit routes and school areas.
- Provide sidewalks on both sides of Lake Road.
- Consider the use of concrete pavement, colored pavement and/or special textured pavement at school crossing areas. Also consider the use of slightly raised pavement in crossing design.
- Further study for traffic signal warrants on Lake Road at Rowe Middle School.

Staff agrees with all of the key recommendations. Some of these recommendations have already been implemented (strong yellow green school signage), while others are scheduled for completion through the City’s Capital Improvements Plan (flashing yellow beacons will be installed at the limits of 20 miles per hour school speed zone this spring). In addition to the previously mentioned options, staff also recommends that the school district develop a map showing the safest walking routes to school for distribution to students and parents.

APPENDIX, ROWE MIDDLE SCHOOL TRAFFIC DATA

PEDESTRIAN COUNTS

Date	Time	Number of Pedestrians Crossings (West End), Just East of Private Drive	Number of Pedestrians Crossings (East End), Just West of Shell Lane
01/03/2001	8:45 - 9:00 AM	7	4
	9:00 - 9:15 AM	13	9
	9:15 - 9:30 AM	0	0
01/03/2001	3:45 - 4:00 PM	10	3
	4:00 - 4:15 PM	4	5
01/05/2001	3:45 - 4:00 PM	4	2
	4:00 - 4:15 PM	4	1

GAP COUNTS

Date	Time	West Crossing, Number of Gaps > 12 sec , > 15 sec	East Crossing, Number of Gaps > 12 sec , > 15 sec.
01/05/2001	3:45 - 4:00 PM	6 , 2	3 , 0
	4:00 - 4:15 PM	5 , 4	5 , 3
Total		11 6	8 3

DKS Associates Method

Gap = (travel width / walking speed) + perception/reaction time + clearance time

Gap = (31 feet / 3.5 feet per sec.) + 2 sec. + 4 sec. = 14.5 seconds

(clearance based upon three rows of pedestrians [2*(3-1)])

City of Portland Method

Gap = (travel width / walking speed) + perception/reaction/clearance time

Gap = (31 feet / 3.5 feet per sec.) + 3 sec. = 11.5 seconds



December 18, 2000

Alice Rouyer
Director, Planning Department
City of Milwaukie
6101 SE Johnson Creek Blvd.
Milwaukie, Oregon 97206

At our December 18, 2000, meeting, members of the Milwaukie Traffic Safety Board (MTSB) expressed concern regarding the proposed modifications to Rowe Middle School and the potential pedestrian safety implications resulting from negative impacts of increased vehicular traffic on Lake Road. It is the recommendation of the MTSB that North Clackamas School District #12 be required to fund an engineering study to determine if some type of traffic calming may be needed to enhance pedestrian safety at this site.

Respectfully yours,

A handwritten signature in cursive script that reads "Susan Stone, MTSB Chairperson".

Susan Stone, MTSB Chairperson

Dec. 14, 2000
Re: Rowe Middle School Expansion

To the Planning Commission, John Gessner, and Alice Rouyer

I want to first thank all of you for your dedication and hard work to make sure this project is well thought with the appropriate restrictions and conditions to prevent future problems. There are however, some things that need further consideration.

The drainage and environmental impacts may not be planned for as much as they could be. The neighbors on the lower side could be impacted negatively as well as Kellogg creek.

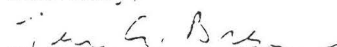
In the Dec. 12th packet on this expansion, on page 6.1; 9, listed under m., it states "construction plans showing right of way improvements in accordance with specified design standards and dimensions of Section 1405; on Lake Road this includes bike lane, curb; planter island and sidewalk; on Shell Lane this includes curb, planter island, and sidewalk;". At the hearing it was stated there would be no planter island on Shell Lane, just curb, sidewalk and chain link fencing. If this is the case then either a condition for a planter island needs to be required or trees planted along the sidewalk on school property. School property doesn't have to look bare and boring as it now looks. The shade is also needed on the small residential lots across the street to the east. There are two day cares side by side and the kids can't play out on hot afternoons, but instead have to stay inside (since there is no back yard - duplexes). Lake Road NDA could plant the trees and possibly get donated trees, so there wouldn't be cost involved coming out of the school budget. But we need the space to do it and permission from the school. I consider this extremely important to improve the looks of the school grounds and provide needed shade along with other environmental benefits.

Along Lake Road I was told the planter island would be 5-6 ft. wide. The 4 ½ ft. wide proposed planting strip is a compromise and may or may not be acceptable. Trees usually need the same space underneath as their canopy. I think the neighborhood would like to see trees along Lake Road. Again this should not be an ignored item. Why can't the expansion and improvements make the property look better as opposed to utilitarian improvements only? There is no good reason I can think of.

Last and not least would be safety considerations on Lake Road including a safe crosswalk (raised) and blinking light. A traffic consultant or engineer could easily tell us the best placement of both. We could ask Peter Koonce, chair of the Ardenwald Neighborhood. Grant money could be used for the crosswalk as suggested by Forris Frick. These are necessary improvements to be done, not just something to be added to a wish list. 37th & Lake Road is a bad corner and it needs to be considered for the crosswalk.

Again thank you for your attention to make sure necessary improvements will be done, not the minimum standards (meaning minimal) as so often happens. We are responsible for the outcome and would like to be proud of the final results.

Sincerely,


Teresa A. Bresaw
Lake Road NDA

6.1 16

January 4, 2001

Mr. John Gessner
City of Milwaukie
Community Development Department
6101 SE Johnson Creek Blvd.
Milwaukie, OR 97222

Re: Rowe Middle School

Dear Mr. Gessner:

This letter is in response to your request for additional information regarding pedestrian traffic that will be generated by the proposed expansion of Rowe Middle School. In particular, you have asked that we respond to the issue of whether the increase in students walking to school would generate the need for improvements to pedestrian crosswalk facilities along Lake Road. The following information is submitted to address this issue relative to the requirements of Section 321.7C of the Specific Standards for Schools section of the City's zoning ordinance, which requires that "walkways, both on and off the site, will be provided as necessary for safe pedestrian access to schools".

Based on North Clackamas School District's analysis of the revised service area for Rowe Middle School, it is anticipated that there will be an increase of 80-90 students who will live within walking distance of the school (1 mile radius). Students beyond a one-mile radius are bused to school. Of the 80 to 90 additional students who live within a one-mile radius of the school, 30 to 50 percent will not walk but will arrive via auto. Thus, the projected increase in students walking to school will range from 40 to 63 students.

An analysis of student data within the revised service area of Rowe Middle School indicates that the majority of new walkers will come from neighborhoods to the northwest of the Rowe campus and will primarily cross Lake Road at its intersection with Oatfield Road. There is an existing traffic signal at Oatfield that provides for safe pedestrian crossing at that intersection.

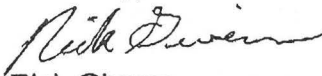
There are additional factors that mitigate any need for a signalized crosswalk along the school frontage on Lake Road. Because of school operating hours, the timing of pedestrian trips will not occur during peak traffic volumes on Lake Road. Crossings will occur primarily between 8:55 and 9:15 a.m. and 3:50 and 4:05 p.m. Additionally, the City of Milwaukie is planning to install flashing school crossing warning signals at the two cross walks serving the site.

6.1 17

The number of walkers attending Rowe Middle School is lower than the number of students who walk to school at Linwood Elementary School. These elementary school students are able to cross Linwood Avenue, an arterial street, safely without the need for signalized crosswalks. The District does provide crossing guards for elementary students, but Seventh and Eighth grade students have a greater traffic awareness. The combination of sidewalks, bike lanes, availability of a crossing at the nearby Oatfield traffic light, and planned flashing lights marking pedestrian crosswalks along the school frontage will allow for safe access across Lake Road for the numbers of students who will walk to Rowe Middle School.

Thank you for your consideration of this information. Please give me a call if you have any questions regarding this matter.

Sincerely,



Rick Givens

Cc: Garry Kryszak

6.1 18

North Clackamas School District
Rowe Middle School
Analysis of Students Living Within Walking Distance

Current Attendance	639
Projected Attendance with new boundary	900
Current number of students not bussed	79
Projected number of students not bussed	160

With the closing of Milwaukie Middle School the attendance boundary for Rowe Middle School will match the boundary for Milwaukie High. District standards call for busing students who live farther than one mile and do not have to cross a four lane street or the Burlington Northern railroad tracks.

Currently 89 students, living within the Milwaukie Middle School attendance area reside within walking distance of Rowe Middle School. There are students living in the current Rowe Middle School attendance area and within walking distance who will be attending Alder Creek Middle School after the boundary change. All of these students currently live south of Lake Road.

The number of students living within walking distance fluctuates annually with changes in demographics of the student population.

Rowe Middle School starts classes at 9:15 a.m. and dismisses at 3:50 p.m.

Roeger, Paul

6.1 19

From: Perry, Jack
To: Thursday, January 11, 2001 9:42 AM
Roeger, Paul
Subject: FW: Compass Engineering / Rowe Middle School

From: Butcher, Dave
Sent: Thursday, January 11, 2001 9:39 AM
To: Perry, Jack
Subject: Compass Engineering / Rowe Middle School

Jack,

As per Paul's request, I reviewed the *anticipated efficiency removal rate* for Trapped Catch Basins, Control / Sedimentation Manholes & Water Quality Swales, submitted by Compass Engineering. I agree with the numbers they submitted. Depending on the planting, the swale could be even more efficient.

I have also reviewed the *proposed water quality and maintenance requirements* for the above devices submitted by Compass and agree with the numbers submitted, with one minor exception. The current recommendations we have adopted for the initial seeding and then reseeding (if needed after maintenance), of a bio swale, is a PDX mix of:

- PR8820 Perennial Ryegrass..... 60%
- Eureka Hard Fescue..... 15%
- Herbaceous Plants & Clovers..... 25%

This mix is a low maintenance mix, probably one mowing per year, self fertilizing, stays fairly green through out the year as well as having some flowers through out the year. The seeding of this mix is very light, only approx. 1 1/2 - 2 # per 1000sq.ft.

One of the places I know of where this mix can be obtained is through *Hobbs & Hopkins LTD* 1712 SE Ankeny ST, Portland, OR 97214 503-239-7518. Hobbs & Hopkins is also a good source for technical information on the bio-swales if needed.

Dave Butcher
Utility Specialist-Stormwater
City of Milwaukie
(503) 786-7675



COMPASS ENGINEERING

ENGINEERING - SURVEYING - PLANNING

6564 SE Lake Road
Milwaukie, Oregon 97222

503/653-9093
FAX 503/653-9095
e-mail: toddk@compass-engineering.com

January 5, 2001

Mr. John Gessner
Associate Planner
City of Milwaukie
6101 SE Johnson Creek Blvd
Milwaukie, Oregon 97206

Via Fax: 503-774-8236

**RE: Rowe Middle School
Water Quality**

Pursuant to our discussion regarding water quality for the improvements at Rowe Middle School, the following is a brief description explaining the benefits of the proposed facilities. In reviewing the site layout, we have tried to incorporate pollution reduction facilities for the parking area run-off. This will include the installation of "trapped" catch basins, water quality swale, and storm detention control manhole.

A good source of literature describing removal efficiencies for the proposed facilities is found in the *Surface Water Quality Facilities Technical Guidance Handbook* by Brown and Caldwell Consultants, dated August 1991.

The following is the anticipated average removal efficiency as shown in the handbook:

Trapped Catch Basins

Total Suspended Solids	30%
Total Phosphorus	15%
Nitrogen	15%
BOD	15%
Metals	15%

Water Quality Swale

Total Suspended Solids	50%
Total Phosphorus	15%
Nitrogen	15%
BOD	25%
Oil/Grease	65%
Metals	30%

Mr. John Gessner
January 5, 2001
Page 2 of 2

6.1 21

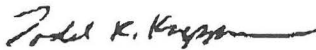
Control / Sedimentation Manhole

Total Suspended Solids	30%
Total Phosphorus	15%
Nitrogen	15%
BOD	15%
Metals	15%

These facilities constructed in conjunction with each other should provide good run-off treatment for the proposed improvements.

If you have any questions or require additional information, please contact our office.

Sincerely,



Todd R. Knepper, P.E.

TRK/
\\COMPASS_1\VOL1_1\CLER\Working\01-01\4754 Rowe MSJan 5x.doc
cc: Sean Scott, Ellis Eslick Architects



PROPOSED WATER QUALITY AND MAINTENANCE REQUIREMENTS

for

ROWE MIDDLE SCHOOL DRAINAGE IMPROVEMENTS

January 5, 2001

Prepared By:
Compass Engineering
6564 SE Lake Road
Milwaukie, Oregon 97222
Phone: (503) 653-9093
Job No. 4754

Contents

Maintenance Requirements For:

Trapped Catch Basins.....	1
Water Quality Swale.....	1-2
Detention Control Manhole	2

It is proposed that water quality for the new improvements at Rowe Middle School would be provided through the installation of "trapped" catch basins, water quality swale, and storm detention control manhole. After these facilities are installed, they must be maintained in order for them to function properly for water quality purposes. The minimum recommended maintenance requirements for these facilities are as follows:

Trapped Catch Basins

- 1) Catch basins should be inspected at least three times a year and sediment accumulation within the basins should be removed.
- 2) Inspect outlet and remove any debris that may block flow out of the catch basin.

Water Quality Swale

- 1) Sediment should be removed when it builds up to 3-inches in depth at any location. The swale should be cleaned with equipment which shall minimize damage to the swale vegetation.
- 2) The swale should be inspected at least three times a year, especially after heavy runoff.
- 3) The swale should be mowed as required to maintain aesthetics and restrict growth of undesirable vegetation. Cuttings should be promptly removed and properly disposed of to prevent pollutants from entering the receiving waters.
- 4) Vegetation may require watering in times of drought, particularly in the first months after construction and during the summer months.

- 5) Any areas that may need reseeding shall be planted with the following biofiltration seed mix:

- 40% Redtop Bentgrass
- 30% Red Fescue
- 20% Tall Fescue
- 5% Perennial Rye
- 5% Russian Wildrye

Detention Control Manhole

- 1) The control manhole should be inspected at least three times a year and sediment accumulation within the manhole should be removed.
- 2) The outlet and overflow structure needs to remain free of debris and should be inspected on a regular basis. The orifice should be inspected and ensured that no debris is blocking the flow.



PRELIMINARY STORMWATER
DETENTION CALCULATIONS

for

ROWE MIDDLE SCHOOL IMPROVEMENTS

December 20, 2000

Prepared by:
Compass Engineering
6564 SE Lake Road
Milwaukie, Oregon 97222
503-653-9093



EXPIRES: 06/30/01
SIGNATURE DATE: 12/20/00

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General

The purpose of this report is to determine the required detention volume for the improvements at Rowe Middle School. The detention facility will be designed so that the peak developed run-off rates for the 2-year through 25-year storm events will not exceed the pre-developed rates for these same storm events.

In reviewing the site layout, topography, and new impervious areas, it is proposed that the detention facility will be located southeast of the new classroom addition. The detention facility will be constructed out of 60-inch diameter aluminized CMP pipe and will provide storage for contributing run-off from the fire lane, south parking area, and the new classroom addition.

Improvements for the area to the north of the existing school will create new impervious areas that will not contribute to the proposed detention facility. Concentrated run-off from these areas will be directed to catch basins and connect to the existing conveyance system that flows to Kellogg Creek. To account for the direct discharge from these areas, the orifice in the detention facility and the tank size will be designed so that the net affect is developed flows will not exceed pre-developed flows up to the 25-year storm event.

Hydraulic Design Computations Method

The King County 'HYD' program (version 4.21B) is used in setting up the required hydrographs and sizing the detention facility based on the calculated allowable release rates.

Water Quality

It is proposed that on-site trapped catch basins and storm control manhole at the detention facility be used to provide pollution control for the proposed site improvements.

Site Soil Type

Soil Type: Woodburn
Hydrologic Group: C

Site Precipitation

- 2-yr, 24-hr, 2.70 inches total precipitation
- 5-yr, 24-hr, 3.10 inches total precipitation
- 10-yr, 24-hr, 3.40 inches total precipitation
- 25-yr, 24-hr, 3.95 inches total precipitation

Detention Facility Contributing Impervious Area (see Figure 1)

Fire Lane: 5,365 ft²

South Parking: 8,640 ft²

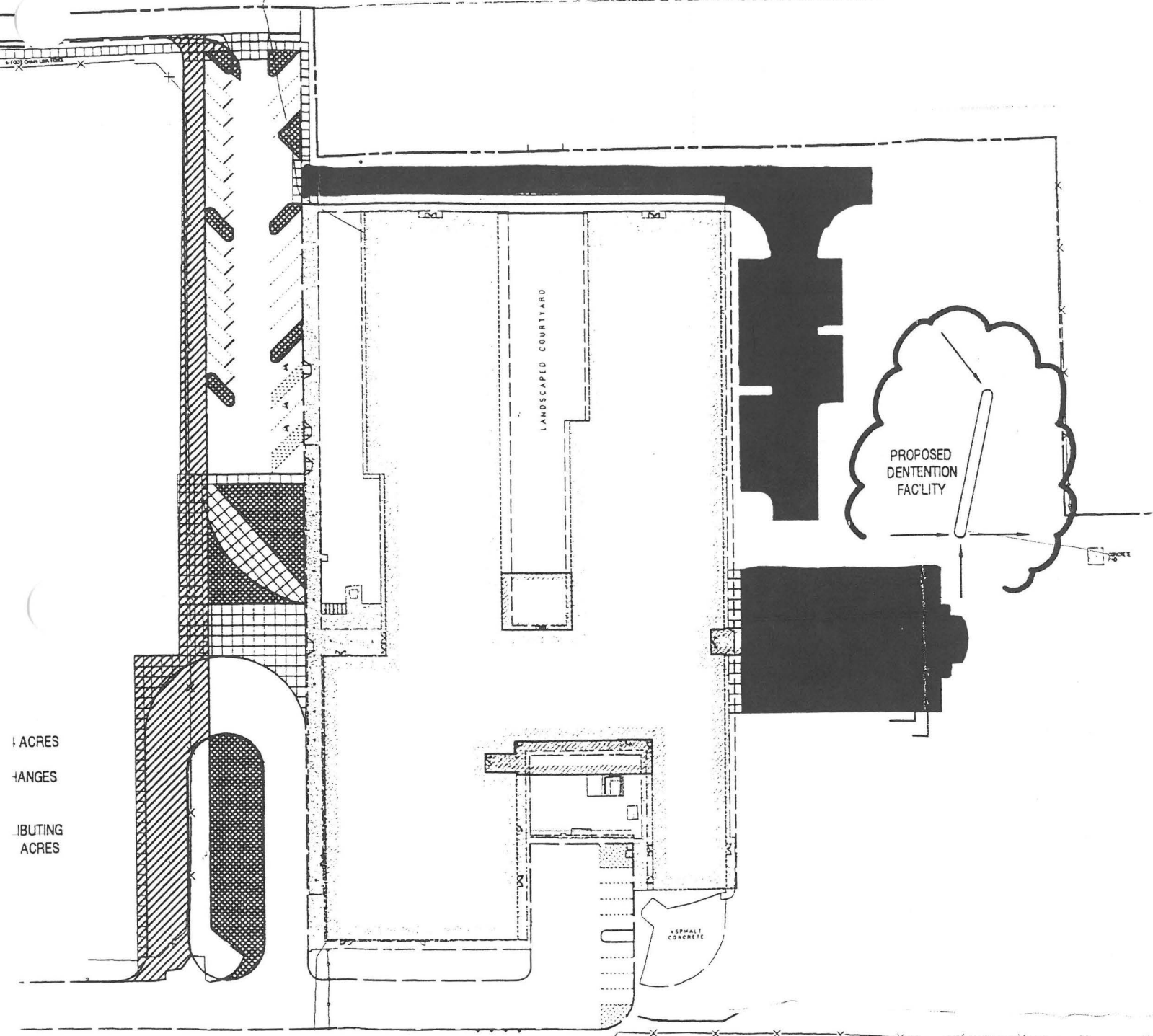
Classroom Addition: 10,100 ft²

Total: 24,105 ft² = 0.55 acres

Direct Discharge Impervious Area

Area that is directly discharged = 2,935 ft² = 0.06 acres

Note: This is the net increase in impervious area after development for the impervious area not contributing to the detention facility.



NORTH CLACKAMAS SCHOOL DISTRICT

ROWE MIDDLE SCHOOL
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MILWAUKIE, OREGON

