ROSEMONT RIDGE MIDDLE SCHOOL
Class II Design Review
July 20, 2009

APPLICATION SUMMARY

For Class II Design Review approval to make the following improvements at Rosemont Ridge Middle School:

- Create a new bus exit driveway, and
- Install lights for the football field, track, and softball field.

GENERAL INFORMATION

Location

20001 Salamo Road (Assessor's Maps and Tax Lots - 2S 1E Section 26, TL 201 and 300; 2S 1E Section 26A, TL 701, 800, 900). Its location is shown in Figure 1.

Comprehensive Plan and Zoning Designations

Comprehensive Plan - Residential.

Zoning – R10 Single Family Residential, Detached.

Applicant and Owner

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West Linn-Wilsonville School District
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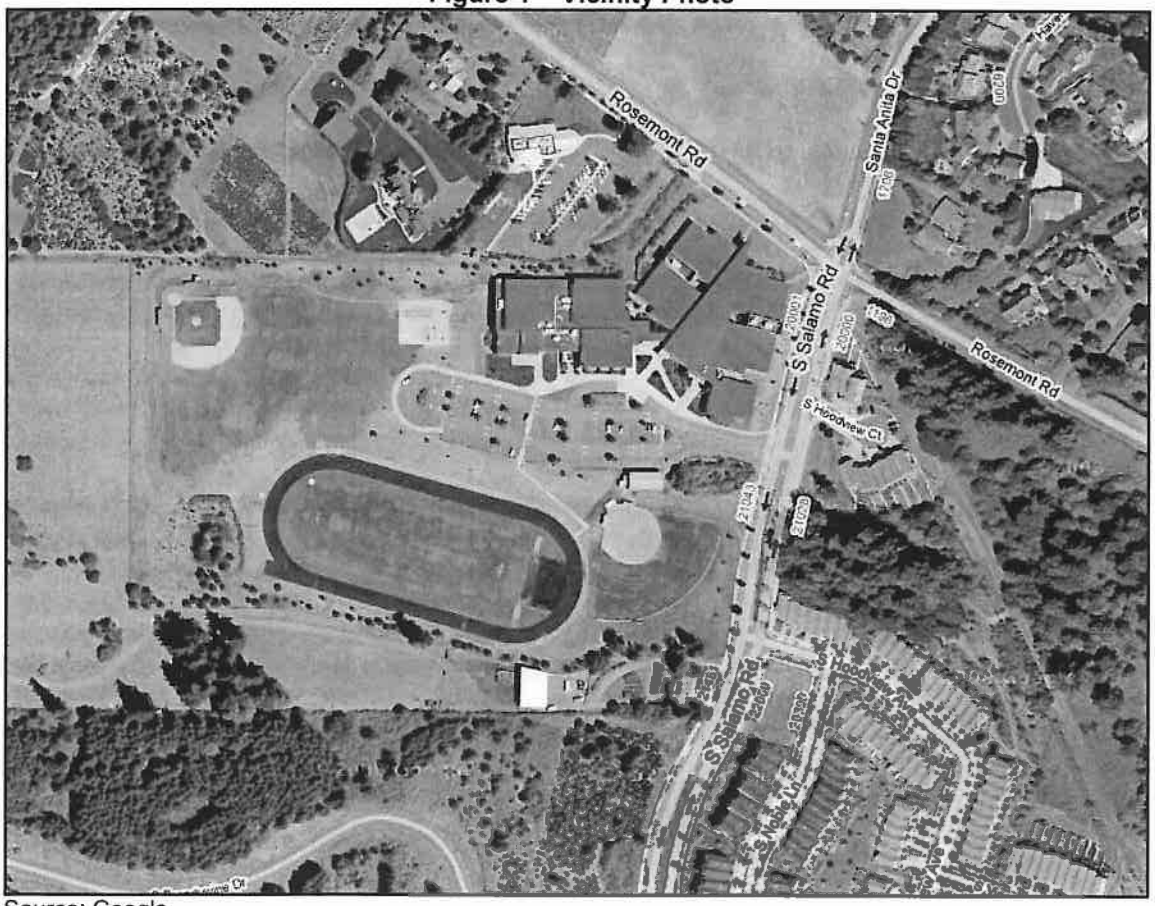
Plan Sheets and Exhibits

C1	Existing Conditions
C2	General Arrangement
C3	Demolition Plan
C4	Site Plan
C5	Grading and Erosion Control
C6	Utility Plan
C7	Wall Profile
C8	Civil Details
L1.1	Overall Landscape Materials Plan
L1.2	Overall Landscape Planting Plan
	Lighting Plan (presented at Rosemont ridge Neighborhood Meeting)
Exhibit A	Geotechnical Investigation Rosemont Middle School Bus Lane
Exhibit B	Stormwater Management Report for Rosemont Ridge Middle School
Exhibit C	Rosemont Ridge Middle School Access/Circulation Study
Exhibit D	Rosemont Ridge Middle School Bus Noise Study

Figure 1 – Vicinity Photo



Source: Google

BACKGROUND INFORMATION

Site Description

The driveway and athletic field improvements are proposed on a 21.56-acre site located along the west side of Salamo Road. The site is developed with Rosemont Ridge Middle School. The school is located in the northeast corner of the site, with parking located directly south of the building. The southern portion of the site includes the running track and softball field. A second baseball field is located in the northwest corner of the site. The property is relatively flat (Sheet C1).

Surrounding Area Description

The zoning designations and current land use of the surrounding area are summarized in Table 1.

Table 1
Land Use Summary

Properties in the Vicinity	***Zone Designation***	***Land Use***
Subject Property	R-10	Middle School
Surrounding Properties		
North	FU10/R7/R10	Senior Center /Single family residences
West	RRFF5	Agricultural
East	R3	Single family residences/open space
South	R3/RRFF5	Single family residences/Agricultural

APPLICATION SUMMARY

On-Site Circulation

The school experiences on-site congestion and circulation problems in the morning and afternoon that are primarily due to conflicts between school buses and parents dropping off and picking up students. Currently, all vehicles must enter and leave via the driveway on Salamo Road. The intermingling of buses and cars continues to be a source of frustration for everyone trying to enter and leave the school.

The district proposes to resolve this circulation problem by creating a separate driveway exit for buses. The new driveway segment would connect the existing parking lot driveway with the existing emergency access driveway on Rosemont Road. Buses would continue to enter on the Salamo Road driveway but then be directed to the new one-way exit-only driveway, which will begin at the western end of the existing parking lot. The

drop-off and pick-up area will be adjacent to the north side of the parking lot and the eastern side of the new driveway. Spaces for 13 buses will be available. Following drop-off in the morning and pick-up in the afternoon, the buses would then exit to Rosemont Road (Sheet C4).

The driveway will have sufficient width to allow buses to pass buses parked along the curb. Once past the loading area, the driveway will be 14.5 feet wide. A sidewalk, with a width of 7 to 10.5 feet, will abut the edge of the new driveway. Construction of the driveway and sidewalk extension will require a modest amount of grading (Sheet C5) and the construction of a retaining wall along the northern property boundary (Sheet C7). The retaining wall will have a setback of over 6 feet from the property line. A 15-foot wide easement will be provided to allow placement of retaining wall anchors below grade on the adjoining property.

The new driveway will require removal of 23 trees, most of which were planted as part of the landscaping improvements for the middle school (Sheet C3). The trees will be replaced adjacent to the new driveway as shown in Sheets L1.1 and L1.2.

A geotechnical analysis concludes that the proposed driveway and retaining wall improvements can be appropriately designed (Exhibit A). Stormwater issues associated with the improvements were also analyzed, and it was found that the existing east detention pond will be adequate to accommodate the increased runoff (Exhibit B).

The potential traffic and noise impacts of this change in circulation were evaluated. Fourteen buses enter and leave the site in the morning and afternoon. DKS Associates, found that the on-site circulation would be improved with the bus-only exit driveway, and the driveway exit location would perform well (Exhibit C). The level-of-service during the morning and afternoon peak hours (B and C respectively) will not be affected by the new bus egress onto Rosemont Road. The new circulation pattern will enhance pedestrian, bus, and vehicle safety on-site, and it will not have an adverse impact on traffic operations or safety in the vicinity of the school.

The potential noise impact of having buses driving around the north side of the school was analyzed by Altermatt Associates, Inc. (Exhibit D). Noise measurements were taken of the existing bus and vehicle operations at the school. Based upon the noise measurements taken, the new bus route through the site is not anticipated to exceed the city's noise standards.

Athletic Field Improvements

It is well known throughout the district that providing sufficient athletic field space to support a variety of district and community sports is always a challenge. To help address this issue, the district proposes to replace the football field grass with artificial turf as well as providing a new surface on the running track. While these improvements do not require Design Review, the proposed field lighting for the football field and eastern softball field do.

The lighting is proposed for the football and softball fields to expand the time they are available throughout the year. The lights will only be on when the fields are in use. The fields typically will not be used past 9 p.m., and the lights will never be on after 10 p.m. The lighting fixtures are specially designed to prevent illumination beyond the fields. A lighting analysis of the proposed lighting system shows that lighting will not extend past

the property line. The lighting plan sheet photos show how the light levels drop off almost completely once beyond the edge of the playing field. The nearest residences are over 100 feet to the south or east from the edge of the field areas to be illuminated. The fields are at a lower elevation than nearby homes. The one residence to the south is also partially buffered by existing fir trees. The homes to the east are separated by Salamo Road, which has street lights. Neighboring properties will not be adversely affected.

CITY OF WEST LINN APPROVAL CRITERIA

55.100 Class II Design Review

A. The provisions of the following chapters shall be met:

1. Chapter 33 - Storm Water Quality and Detention

The approval criteria in Section 33.040 identify a number of things that must be accomplished according to city requirements during construction. These requirements will be met in coordination with the district, Planning Director, and City Engineer.

2. Chapter 34, Accessory Structures

Not applicable - none proposed.

3. Chapter 38, Additional Yard Area Required

This chapter applies to buildings on streets with inadequate right-of-way widths. These standards are not applicable because all of the necessary street right-of-way and related improvements are provided.

4. Chapter 40, Building Height Limitations and Exceptions

Not applicable – no new buildings or building additions are proposed.

5. Chapter 42, Clear Vision Areas

The standards for clear vision areas adjacent to driveways will continue to be satisfied or exceeded. Although the internal driveway system will be modified, the location and design at the street access points will remain essentially unchanged.

6. Chapter 44, Fences and Screening Outdoor Storage

The new bus loading area will continue to be located internally to the site, and it will not be visible from most vantage points on the perimeter of the site.

7. Chapter 46, Off-Street Parking and Loading

Section 46.070 requires parking spaces to be no farther than 200 feet from building entrances. The existing parking layout was previously approved by the city. Parking will not be changed by this application.

Section 46.090 B. 6. requires "0.2 spaces per staff and student" for a high school. In addition, the planning staff indicated during the preapplication meeting that the parking standard for an auditorium, which is one parking space per four seats, would apply. The parking was approved previously by the city and no changes to the size of the school or the design of the parking lot. Therefore, city standards will continue to be met.

Section 46.120 requires a 15-foot wide drive for loading and unloading passengers. This will continue to be provided as shown on the site plan.

Section 46.130 requires two loading spaces for the school (100,000+ sq. ft.). Sufficient loading space will continue to be provided in the service area as shown on the site plan.

Section 46.140 contains the design standards for parking areas. As noted above, the parking lot was previously approved by the city and will not be changed. The site plan complies with all of the relevant standards as shown on the site plan.

Section 46.150 A. contains a variety of standards pertaining to parking lot design, pavement, pedestrian access, handicapped parking, and grades. These standards will be satisfied as illustrated in the attached exhibits and as summarized below:

1. Existing parking space dimensions will remain.

2. Previously approved disabled spaces will remain unchanged.

3. Parking spaces will not require public right-of-way for maneuvering.

4. The proposed driveway system with a separate bus exit provides improved traffic circulation for automobiles, buses, and emergency vehicles.

5. Clear access continues to be provided for every parking space.

6. All existing standard and new handicapped spaces will continue to be marked.

7. All existing and new parking and driveways will be paved.

8. Existing parking and driveways are paved, and the new driveway will be as well.

9. No new access points are proposed, however, the emergency access on Rosemont Road will also become the exit drive for school buses only.

10. Vision clearance standards will continue to be met because no driveway or landscaping changes are proposed near street intersections.

11. Wheel stops meeting city standards are provided for the new handicapped spaces.

12. Drainage will be accommodated as shown in the plans with the approval of the City Engineer.

13. The location and type of lighting fixtures selected in the electrical plan information

will direct light downward. In particular, the new field lighting will be specially designed to not cast light or glare onto nearby properties.

14. Directional arrows will continue to be provided.

15. Not applicable - residential standard.

16. Not applicable - residential standard.

17. The maximum grade of the parking lot is less than 5%.

18. The parking lot locations and configurations will not change.

19. The site design will continue to comply with the parking, space grouping, landscaped island, and pedestrian walkway requirements in this section.

20. Walkways will continue to be provided to connect major entrances and activity areas as required.

21. All walkways and driveways will continue to be easily defined.

22. The parking spaces are as close as possible to the school.

Section 46.150 B. contains standards for handicapped parking. The proposal meets these requirements as noted in the site plan and below:

1. Existing spaces will be retained.

2. These spaces will continue to be provided close to the main school entrances.

3. ADA standards will continue to be satisfied.

4. Not applicable because no differences are identified between the code and federal standards.

5. The necessary 6 and 8-foot wide isles will continue to be provided.

Section 46.150 B. contains bicycle standards, which are satisfied.

1. Bike lanes are currently available along the Salamo and Rosemont road frontages.

2. Bicycle rack spaces are currently provided as previously required by the city.

3. Bicycle rack spaces are currently provided as previously required by the city.

8. *Chapter 48, Access*

Section 48.040 requires that service drives have a minimum width of 24 feet. The driveways will continue to have a minimum width of 24 feet.

Access drives in the parking area (Section 48.020 F.) will continue to meet code requirements.

Section 48.060 requires that the minimum/maximum curb cut should be 16-36 feet. The new driveway will be less than 36 feet, and all other driveways will remain the same.

9. Chapter 52, Signs

This chapter is not applicable because no new or modified signs are proposed.

10. Chapter 54, Landscaping

The landscaping plan and the Irrigation Plan comply with the city's landscaping requirements. The approval criteria are satisfied as noted below:

Sections 54.020 A, B, and C encourage preservation of existing trees. The proposed site and landscaping plans will accomplish this. However, 32 trees must be removed around the northwest and north sides of the school. All landscaping and trees will be replaced.

Section 54.020 D. does not apply because there are no heritage trees on the sight.

Section 54.020 E. is satisfied because well over 20% of the site will be landscaped; dimensional requirements for landscaped areas are met, because the new driveway loop will only involve a very small land area. Vegetation is located as specified as required by this section.

Section 55.100 B. contains the applicable approval standards for a Class II Design Review. These criteria are addressed below.

Section 55.100.B. Relationship to the Natural and Physical Environment

Subsections 1. and 2. require the protection of heritage and other significant trees. Subsection 3. and 4. call for the preservation of natural topography and drainage as well as avoidance of area subject to geologic hazards.

The site is substantially developed with the middle school and associated parking and athletic fields. The loop driveway for the buses will be built on a grassy area between the parking lot and existing emergency access driveway on Rosemont Road. The athletic field improvements and lighting will not expand upon the area currently used for this purpose. No natural features, including trees, natural areas, or geologic hazard areas, will be impacted. As a result, Subsections 55.100 B. 1-4 do not apply.

Subsection 5. requires provision of adequate distance between on-site buildings an those on adjoining properties.

No buildings or building additions are proposed, and therefore, this criterion does not apply.

Subsection 6. deals with the appropriate architectural styles to be used in a variety of circumstances.

No buildings or building additions are proposed, and therefore, this criterion does not apply.

Subsection 7. contains several criteria relating to site and building design and on-site circulation to encourage reduced dependence on automobile travel.

The original school design was reviewed, approved, and constructed according to these criteria. The only change to the site plan and circulation will be the addition of the new bus loading/unloading area

Section 55.100 C. Compatibility Between Adjoining Uses, Buffering, and Screening

This section requires that the provisions of Section 56.100(D), "facility design and relationship to the human environment" apply. The provisions apply to architecture, material, human scale and transparency.

As demonstrated in the application materials, the proposed bus driveway will enhance circulation on the site, and the field lighting will be accomplished in a way that will not have a detrimental impact on surrounding homes.

Section 55.100 D. Privacy and Noise

This section requires that activities, which potential will generate noise, feature exterior lighting, or glare, shall be buffered from adjoining residential uses according to 55.100 C. above. This section also has noise standards that may not be exceeded within 25 feet of residential dwellings.

This section is satisfied as noted under 55.100 above. In addition, the noise study completed by Altermatt Associates demonstrates compliance with the city's noise standards.

Sections 55.100 E and F

These sections apply to residential development and are not relevant to this application.

Section 55.100 G. Demarcation of Public, Semi-public and Private Spaces

The school is completely open to the public, and the existing site arrangement was previously approved by the city. The only importance change is related to the new driveway loop connection. This will support the purpose of this section because the northern side of the school will now become a more public space subject to routine surveillance by people on the school site.

Section 55.100 H. Public Transit

This section does not apply because public transit is not available in this area of West Linn.

Section 55.100 I. Public Facilities

This section requires the provision of adequate public facilities. This requirement was satisfied as the school was first approved and constructed. The proposed change in bus access and lighting the fields will not place additional demands upon existing infrastructure. Therefore, this criterion continues to be satisfied.

CONCLUSION

The proposed bus exist driveway and field lighting satisfies the relevant CDC requirements and the proposal should be approved.

EXHIBIT A
Geotechnical Investigation

GEOTECHNICAL INVESTIGATION

ROSEMONT RIDGE MIDDLE SCHOOL BUS LANE

WEST LINN, OREGON

GEOCON
NORTHWEST, INC.
GEOTECHNICAL &
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

WEST LINN-WILSONVILLE SCHOOL DISTRICT
TUALATIN, OREGON

MARCH 2009

GEOCON
NORTHWEST, INC.
GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

Project No. P1666-05-01
March 20, 2009

Mr. Tim Woodley, Director of Operations
West Linn Wilsonville School District
2755 SW Borland Road
Tualatin, Oregon 97062

Subject: ROSEMONT RIDGE MIDDLE SCHOOL BUS LANE
WEST LINN, OREGON
GEOTECHNICAL INVESTIGATION

Dear Mr. Woodley:

In accordance with our proposal number P09-05-29, dated February 17, 2009 and your authorization, Geocon Northwest has performed a geotechnical investigation for the proposed bus lane at Rosemont Ridge Middle School in West Linn, Oregon. The evaluation included a site reconnaissance, literature review, geotechnical field investigation, geotechnical engineering analyses, and the preparation of this report. The accompanying report is based upon the results of our field investigation, literature review and analyses and provides our conclusions and recommendations regarding the geotechnical aspects of the proposed project. Based on the results of this evaluation, it is our opinion that the bus lane can be constructed as proposed, provided the recommendations of this report are followed. Important geotechnical issues discussed herein include temporary excavation recommendations, soil nail wall performance criteria, pavement design recommendations, and grading provisions.

If you have questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Sincerely,

Geocon Northwest, Inc.

Bryan Wavra, P.E.
Project Engineer

REGISTERED PROFESSIONAL ENGINEER
58088PE
OREGON
JULY 13, 2004
BRYAN JOHN WAVRA
EXPIRATION DATE: 6/30/10

Wesley Spang, Ph.D., P.E.
Principal Engineer

BJW:AWS

cc: Ms. Karina Ruiz, Dull Olson Weekes Architects
Mr. Mark Wharry, Winzler and Kelly

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GEOTECHNICAL INVESTIGATION

1 PURPOSE AND SCOPE

This report presents the results of the geotechnical investigation for the proposed bus lane at Rosemont Ridge Middle School in West Linn, Oregon. The school is located at 20001 Salamo Road as shown in Figure 1, Vicinity Map. The purpose of the geotechnical investigation was to evaluate subsurface soil and geologic conditions at the site and, based on the conditions encountered, provide conclusions and recommendations pertaining to the geotechnical aspects of the proposed bus lane.

The scope of the field investigation consisted of a site reconnaissance, review of published geologic literature, three exploratory borings and several shallow hand-dug excavations. A detailed discussion of the field investigation is presented in Section 4 of this report. Exploratory logs are presented in Appendix A and Appendix B presents the results of laboratory testing.

The recommendations presented herein are based on analyses of the data obtained from the field investigation, laboratory test results, geologic literature review, and on our experience with similar soil and geologic conditions. This report has been prepared for the exclusive use of West Linn-Wilsonville School District, and their agents for specific application to this project, in accordance with generally accepted geotechnical engineering practice. This report may not contain sufficient information for purposes of other parties or other uses.

2 SITE AND PROJECT DESCRIPTION

Rosemont Ridge Middle School is located at 20001 Salamo Road in West Linn, Oregon. The site was originally developed in 1999 with all bus and automobile traffic routed in the same area, south of the existing building. It is understood that a new bus lane has been proposed that will extend from the west end of the existing parking area, loop along the north wall of the gymnasium, and connect with the existing fire/access lane that intersects Rosemont Road.

The construction of the bus lane along the north perimeter of the gymnasium will require a retaining/shoring wall due to site spatial limitations and the presence of an approximate 15 to 20-foot slope at the north property line. It is understood that the proposed alignment of the bus lane and the surcharge imposed by the bus traffic on the north gymnasium wall has been evaluated and deemed acceptable to the project structural engineer, James G. Pierson, Inc.

3 REGIONAL GEOLOGY

Based on the geologic literature reviewed for the site, the near-surface geology of the project area consists of Miocene-age deposits of the Columbia River Basalt Group (CRB). The CRB is composed of gray to black, dense, fine-grained , low-olivine basalt; locally deeply weathered and laterized.

4 SUBSURFACE EXLORATION AND CONDITIONS

4.1 Site Exploration

The subsurface soil conditions in the vicinity of the proposed retaining/shoring wall were determined based on the literature review, the field exploration, and laboratory testing. The field exploration was completed on February 26, 2009, and consisted of 3 exploratory borings and several hand-dug excavations. The explorations were located in the approximate locations shown in Figure 2, Site Plan.

The borings were advanced to depths ranging from approximately 15 to 30 feet below ground surface (bgs) and were completed with a truck mounted drill rig equipped with mud rotary and rock coring drilling capabilities. The borings were excavated at the top of the north slope on the Community Center property adjacent to the north of the school. A member of Geocon Northwest's geotechnical engineering staff logged the subsurface conditions encountered within the borings. Standard penetration tests (SPT) were performed at selected depths in each boring by driving a 2-inch outside diameter split spoon sampler 18 inches into the bottom of the boring, in general accordance with ASTM D 1586. The number of blows required to drive the sampler the last 12 of the 18 inches (blow count) are reported on the boring logs located in Appendix A at the end of this report. The blow counts shown in the boring logs are the values recorded in the field. An automatic SPT hammer was used to drive the sampler into the soil. A correction of 1.3 was applied to the field SPT values to obtain the conventional N_{60} blow count. The correction factor of 1.3 is based on the automatic SPT hammer having an estimated energy of 80% versus the 60% energy of conventional hammers. Disturbed bag samples were obtained from SPT testing. Soil samples were returned to the laboratory for further evaluation. Service providers subcontracted by Geocon Northwest completed the borings.

4.2 Subsurface Conditions

The subsurface explorations were widely spaced across the site and it is possible that some local variations and possible unanticipated subsurface conditions exist. Based on the conditions observed during the reconnaissance and field exploration, the subsurface conditions, in general, consisted of the following:

ORGANIC TOPSOIL/ASPHALT PAVEMENT– The borings were completed within the adjacent property to the north. Borings B-1 and B-3 were excavated in the asphalt paved driveway and boring B-2 was located in a landscaped surface. The pavement section consists of approximately 4 inches of asphalt and is underlain by approximately 8 inches of crushed base rock. The hand-dug excavations were completed on the school property within the existing slope. The portion of the slope adjacent to the gymnasium has overgrown grass and several moderately-size trees. The remaining alignment of the proposed bus lane has a surface of mowed grass. Stripping depths of 6 to 12 inches should be anticipated within

grass covered areas, while locations with trees or significant vegetation may locally require excavation in excess of 2 feet to completely remove the root wad.

RESIDUAL SOIL/WEATHERED BASALT– In general, stiff to hard, moist to wet, reddish brown to gray clayey silt to silty clay was encountered below the surface layer to the maximum depth explored of 30 feet (bgs). The maximum depth extended approximately 15 feet below the bottom of the proposed elevation of the bus lane. Borings B-1 and B-2 were completed without the need to switch to a rock drilling operation. Practical refusal was encountered with a tri-cone bit at a depths of 30 feet and 28feet bgs, respectively. Boring B-3 contained weathered rock with harder consistency (less weathering) and rock coring was completed between depths of 6 feet and the terminal depth of 15 feet. The rock quality designation (RQD) between 6 and 10 feet was 30 while the remaining core runs had RQD values of 0. The differing consistency in subsurface condition could be the result of variable weathering or the presence of large diameter (up to 5 feet) boulders. Difficult excavation and drilling characteristics should be anticipated.

GROUNDWATER – Groundwater was not encountered at the time of the soil borings within the depths explored. While significant groundwater is not anticipated to be a significant issue during construction, perched water, seeps, or springs may occur during excavation, particularly during prolonged periods of wet weather.

Exploration logs documenting the subsurface conditions encountered are presented in Appendix A at the end of this report.

5 LABORATORY TESTING

Laboratory testing was performed on selected soil samples to evaluate moisture content and gradation. Visual soil classification was performed both in the field and laboratory, in general accordance with the Unified Soil Classification System. Moisture content determinations (ASTM D2216) were performed on soil samples to aid in classifying the soil. Grain size analyses were performed on selected samples using procedures ASTM D1140 and ASTM D422. The plasticity index was determined in general accordance with ASTM D4318. Moisture contents are indicated on the boring logs and are located in Appendix A of this report. Other laboratory test results for this project are summarized in Appendix B.

6 DISCUSSION

Drawings provided by project civil engineer, Winzler and Kelly, indicate that the proposed bus lane will extend from the west end of the existing parking area, loop along the north wall of the

gymnasium, and connect with the existing fire/access lane that intersects Rosemont Road. The construction of the bus lane along the north perimeter of the gymnasium will require excavation into the existing slope to accommodate the width of the bus lane and associated curbs and sidewalks. Due to spatial restrictions imposed by the nearby north property line, several retaining wall/shoring wall schemes were evaluated. It appears that wall heights may range from 0 to 12 feet along the alignment. The results of the subsurface exploration program indicate a very stiff soil profile which may be excavated at a slope of 1H:1V and 2H:1V for temporary and permanent applications, respectively.

Retaining wall schemes such as a cast-in-place concrete, Keystone block, ultra block, or lock +load wall all require a temporary excavation to the full depth of the proposed bus lane prior to the onset of construction (bottom-up construction). Excavation in excess of 4 feet will require the temporary excavation slope of 1H:1V behind the wall alignment. A schematic cross section of potential cast in place concrete wall and associated temporary excavation slope is illustrated in Figure 3. The temporary cut slope would have to extend well beyond the property line and into the parking lot of the adjacent Community Center. Underground utilities are also present along the south perimeter of the parking lot. These spatial conflicts render a cast in place wall impractical. The scenario is worse for the block-type walls as they would require geogrid reinforcement that would further extend the temporary excavation into the adjacent property.

The spatial limitations present in the location of the proposed bus lane will require a shoring scheme that utilizes "top down" construction where the excavation is shored thereby allowing a vertical cut. The two most common types of shoring are soldier pile with lagging or soil nail walls. It is our opinion that a soldier pile with lagging wall would be difficult and likely costly due to the requirement of having to drill relatively large diameter (24 inches or more) holes into potential boulders and weather rock. A local shoring contractor performed a site reconnaissance with representatives of Winzler and Kelly and Geocon Northwest and indicated a soil nail wall would likely be the most feasible, cost effective shoring scheme for the project.

Soil nail excavation support consists of installing steel bars into the retained soil to provide an in-place "retaining wall" that resists the lateral soil pressures. Figure 4 shows a schematic soil nail section. A soil nail structure is a passive excavation support system as no tensioning of the steel bars (soil nails) is typically performed before excavating to the next level. The soil nail system develops resistance due to excavation-induced soil movements which mobilize soil-structure interaction within the soil nail mass. Minor soil movements are typically sufficient to develop the required soil-structure interaction. The soil nail system is constructed incrementally as site excavation progresses downward, and allows for incremental vertical excavation. Soil within the excavation is removed to the design soil nail elevation. Soil nails are then installed at the design horizontal spacing. After soil nail installation, steel mesh, prefabricated drainage panels, and shotcrete are placed over the exposed excavation face. Finally, the soil nail is fixed to the shotcrete face with a steel plate and nut.

An important factor in the success of soil nail construction is the ability of the soil to stand unsupported on a vertical excavation. This is due to the time lag between soil excavation and shotcrete operations. Results of the field investigation and laboratory tests indicate that the site soils consist primarily of hard silty clay to clayey silt residual soil with the potential for intact rock and/or boulder-size material. It is our opinion the subsurface conditions encountered during the geotechnical field investigation are capable of the temporary vertical excavation required for soil nail installation. However, difficult excavation characteristics should be anticipated and may require the using of hydraulic "pecking" equipment to chip through the more intact rock and/or boulders. Excavation should proceed with caution so that large boulders extending into the slope are not removed thereby leaving a large void space. The contractor should provide a unit cost for grout and shotcrete quantities due to the likelihood of extra volume being used to fill voids that are occur during excavation.

The soil nail wall should be designed assuming permanent loading conditions and corresponding factors of safety. The soil nails will extend across the property line of the Community Center, but it appears that they will be at a depth of at least 10 feet below grade at that location. However, an easement will have to be obtained to permit installation beyond the property line of the Community Center. The proposed wall location appears to be of sufficient distance from the property line of the private residence adjacent to the west of the Community Center that the soil nails will not extend beyond the schools property. The contractor should complete a design that does not require an easement from the private residence.

It should be noted that the final design, installation, and performance of excavation support systems is the responsibility of the shoring contractor. Geocon Northwest should review the proposed design and construction means and methods.

The soil nail wall will be considered a permanent structure. There are several aesthetic facing elements that may be constructed to improve the appearance of the wall. It is recommended that the owner consult with the shoring contractor to evaluate the type and expense of adding such elements to the wall.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 General

7.1.1 It is our opinion that the proposed Rosemont Ridge Middle School Bus Lane project is geotechnically feasible, provided the recommendations of this report are followed.

7.1.2 The majority of the proposed length of the bus lane will require excavation into the slope along the north perimeter of the property. Spatial limitations prevent temporary excavation sloping for much of this length. Per the discussion in Section 6, soil nail excavation

support is recommended.

7.1.3 Soil nails for excavation support will extend beyond the perimeter of the property. All existing utilities and underground structures should be identified in both the horizontal and vertical distances from the excavation walls to assist in placement of the soil nail locations. An easement will have to be obtained from adjacent Community Center to permit soil nail installation beyond the property line. It is recommended that the soil nails be designed to not extend beyond the property of the private residence adjacent to the west of the Community Center.

7.1.4 Difficult excavation and drilling characteristics should be anticipated. The subsurface conditions consist of a mixture of hard clayey silt to silty clay residual soil, weathered rock (RQD = 30), and potential boulder-size material. Care should be taken during excavation to prevent removal of large diameter particles that extend back into the slope that could result in large void spaces.

7.1.5 A portion of the proposed bus lane will be immediately adjacent to the north wall of the existing gymnasium. It is understood that project structural engineer, James G. Pierson, has evaluated ability of the existing gymnasium wall to withstand the surcharge pressure imposed by bus traffic. However, it is recommended that construction equipment not traverse within a horizontal distance of the wall that is equal to the depth of the footing below the existing grade. The required horizontal distance may be reduced as the excavation proceeds downward.

7.1.6 The soil adjacent to the existing north gymnasium wall was not likely placed as structural fill and could be unsuitable for pavement support. Recommendations for overexcavation of unsuitable soil and geotextile fabric are provided in subsequent sections of this report. The material should be evaluated by Geocon Northwest personnel during construction.

7.1.7 The surface layer of organic topsoil is generally unsuitable for pavement support and will require stripping prior to construction. Moisture conditioning and compaction will be required on material disturbed during site demolition and clearing. Recommendations for both wet and dry weather construction are provided herein. **However, dry weather construction is highly recommended and extra costs should be expected if site grading is completed during wet weather.**

7.2 Site Preparation

7.2.1 Prior to beginning construction, the areas of the site to support pavement should be stripped of vegetation, topsoil, non-engineered fill, previous subsurface improvements, debris, and otherwise unsuitable material, down to firm native soil. Stripping depths of 6 to 12 inches may be anticipated in undeveloped areas across the site. Additional overexcavation should

be anticipated in areas where trees or large shrubs are encountered. Overexcavation should also be anticipated adjacent to the north wall of the gymnasium where wall backfill was likely placed as landscape fill. Excavations made to remove previous subsurface improvements should be backfilled with structural fill per Section 7.4 of this report.

7.2.2 Staging areas and haul roads specifically constructed to accommodate anticipated construction loading must be installed by the contractor to minimize future overexcavation of deteriorated subgrade soil. **The pavement design recommendations presented in the following sections of this report do not include an allowance for construction traffic.** Past experience suggests that 18 inches of rock underlain by a geotextile separator fabric typically provides adequate work pad/haul road thickness. The recommended design section may be "overbuilt" to obtain the necessary working thickness and subsequently reduced to the design section for possible cost savings in lieu of overexcavation of suitable subgrade soil. Alternatively, the working surface may be incorporated into the final design. Recommendations for wet weather haul roads and working pads should be implemented in areas of the site that will experience significant construction traffic.

7.2.3 Moisture contents of near-surface soils were wet of optimum at the time of the field investigation. Due to the moisture sensitive nature of the near surface soils, it is recommended that earthwork-related construction take place during dry weather. Recommendations for both dry weather and wet weather site preparation are provided in the following sections. Wet weather is defined as any time of year that adequate moisture control cannot be obtained. Increased costs, associated with subgrade stabilization, should be anticipated if construction occurs during wet weather.

7.2.4 Dry Weather Construction

Native soil subgrades in structural areas that have been disturbed during stripping, cutting, or demolition operations should be scarified to a depth of at least 8 inches. The scarified soil should be moisture conditioned as necessary to achieve the proper moisture content, then compacted to at least 92% of the maximum dry density as determined by ASTM D 1557. Minimum compaction for the 8 inches immediately underlying pavement sections should be 95%. Even during dry weather it is possible that some areas of the subgrade will become soft or may "pump," particularly in poorly drained areas. Saturated subsurface conditions may be encountered in irrigated or cut areas regardless of the time of year construction occurs. Soft or wet areas that cannot be effectively dried and compacted should be prepared in accordance with Section 7.2.5.

7.2.5 Wet Weather Construction

During wet weather, defined as whenever adequate soil moisture control is not possible, it may be necessary to install a granular working blanket to support construction equipment

and provide a firm base on which to place subsequent fills and pavements. Commonly, the working blanket consists of a bank run gravel or pit run quarry rock (six to eight inch maximum size with no more than 5% by weight passing a No. 200 sieve). A member of Geocon Northwest's engineering staff should be contacted to evaluate the suitability of the material before installation.

The working blanket should be installed on a stripped subgrade in a single lift with trucks end-dumping off an advancing pad of granular fill. It should be possible to strip most of the site with careful operation of track-mounted equipment. However, during prolonged wet weather, or in particularly wet locations, operation of this type of equipment may cause excessive subgrade disturbance. In some areas final stripping and/or cutting may need to be accomplished with a smooth-bucket trackhoe, or similar equipment, working from an advancing pad of granular fill. After installation, the working blanket should be compacted by a minimum of four complete passes with a moderately heavy static steel drum or grid roller. It is recommended that Geocon Northwest be retained to observe granular working blanket installation and compaction.

The working blanket must provide a firm base for subsequent fill installation and compaction. Past experience indicates that about 18 inches of working pad is normally required. This assumes that the material is placed on a relatively undisturbed subgrade prepared in accordance with the preceding recommendations. Areas used as haul routes for heavy construction equipment or construction staging areas may require a work pad thickness of two feet or more.

In particularly soft areas, a heavy-grade, non-degradable geotextile fabric installed on the subgrade may reduce the thickness of working blanket required. The fabric should have a minimum puncture resistance of 80 pounds and a minimum Mullen Burst strength of 300 psi.

Cement treatment may be a suitable alternative wet-weather construction technique for the subgrade conditions encountered at this site. Successful cement treatment is dependent upon the moisture content of the subgrade soils, weather conditions at the time of treatment, percentage of cement used, and adequate mixing of the soil and cement. Past experience indicates that approximately 5 to 8% cement by weight, tilled to a depth of 12 inches, is typically sufficient to produce an acceptable subgrade. Treatment procedures should be completed within an elapsed time of approximately four-hours, and should be protected from all traffic for a minimum of five days. A seven-day unconfined compressive strength of 250 psi for the soil/cement mixture is recommended. Cement treatment design is typically the responsibility of the contractor.

Construction practices can affect the amount of work pad necessary. By using tracked equipment and special haul roads, the work pad area can be minimized. The routing of dump trucks and rubber tired construction equipment across the site can require extensive areas and thicknesses of work pad. Normally, the design, installation and maintenance of a work pad are the responsibility of the contractor.

7.3 Proof Rolling

7.3.1 It is recommended that, prior to on-grade slab construction, the subgrade or granular working blanket be proof-rolled with a fully-loaded 10- to 12-yard dump truck. Areas of the subgrade that pump, weave, or appear soft, muddy, or loose should be scarified, dried and compacted, or overexcavated and backfilled with structural granular fill per Section 7.4. If a significant length of time passes between fill placement and commencement of construction operations, or if significant traffic has been routed over these areas, the subgrade should be similarly proof-rolled before slab construction. It is recommended that a member of our geotechnical engineering staff observe the proof-roll operation.

7.4 Fills

7.4.1 Structural fills should be constructed on a subgrade that has been prepared in accordance with the recommendations in Section 7.2 of this report. Structural fills should be installed in horizontal lifts not exceeding approximately eight inches in thickness and should be compacted to at least 92% of the maximum dry density for the native soils, and 95% for imported granular material. Compaction should be referenced to ASTM D 1557 (Modified Proctor). The compaction criteria may be reduced to 85% in landscape, planter, or other non-structural areas.

7.4.2 Structural fills may consist of native material, free of topsoil, debris, organic matter and oversized material, which can be compacted to the preceding specifications. Material in excess of six inches in diameter is considered oversized. If excess moisture causes the fill to pump or weave, those areas should be scarified and allowed to dry. The soil should then be recompacted, or removed and backfilled with compacted granular fill as discussed in Section 7.2 of this report.

7.5 Surface and Subsurface Drainage

7.5.1 During site contouring, positive surface drainage should be maintained away pavement areas and the top of the soil nail wall. Additional drainage or dewatering provisions may be necessary if soft spots, springs, or seeps are encountered in subgrades. Where possible, surface runoff should be routed independently to a storm water collection system. Surface water should not be allowed to enter subsurface drainage systems.

7.5.2 Drainage systems should be sloped to drain by gravity to a storm sewer or other positive outlet.

7.5.3 Drainage and dewatering systems are typically designed and constructed by the contractor. Failure to install necessary subsurface drainage provisions may result in premature foundation or pavement failure.

7.6 Cut and Fill Slopes

7.6.1 Permanent cut slopes should be sloped no steeper than 2H:1V. These values assume that the slopes will be protected from erosion and that significant drainage will not occur over the face of the slope. They further assume that no loads will be imposed within a horizontal distance of one-half of the slope height measured from the top of the slope face. Cut slopes should be constructed with a smooth bucket excavator to minimize subgrade disturbance. Slope drainage may be required if springs, seeps, or groundwater are encountered.

7.6.2 If permanent fills are placed in areas where ground slopes exceed 5H:1V, the fills should be keyed and benched into existing native, undisturbed non-organic soil. Fill slopes should be obtained by placing and compacting material beyond the design slope and then excavating back to the desired grade or by other means that will result in a dense, compacted sloped face. Filled slopes should not be graded steeper than 2H:1V. The face of the fill slope should be protected from erosion by applying vegetation or other approved erosion control material as soon as practicable after construction. Fill compaction should be as stated in Section 7.4.

7.6.3 Temporary excavation walls may be sloped no steeper than 1H:1V. Shallower slope inclinations or shoring may be required if sloughing occurs due to the presence of non-engineered fill soil or loose soil. Temporary excavation slopes should not be constructed in areas where adjacent improvements are located within a horizontal distance less than or equal to the depth of the excavation (measured from the top of the excavation). The preceding recommendations are only applicable if the slopes will be protected from erosion, and significant drainage will not occur over the face of the slope. Vertical excavation to a maximum depth of 5 feet is recommended during the time between soil nail installation and the application of the shotcrete face.

7.7 Soil Nail Excavation Support

7.7.1 A soil nail wall is recommended for the site excavation support. A preliminary design evaluation was performed to verify the stability of a soil nail excavation . The final design analysis of the soil nail system will be performed by the specialty excavation contractor using performance based/design build process. The soil nail wall should be designed using

the Allowable Stress Design (ASD) method, in general conformance with the recommendations outlined in the Federal Highway Administration Document FHWA0-IF-03-017 Geotechnical Engineering Circular No. 7 "Soil Nail Walls."

7.7.2 The soil nails will extend across the property line of the Community Center, but it appears that they will be at a depth of at least 10 feet below grade at that location. However, an easement will have to be obtained to permit installation beyond the property line of the Community Center. The proposed wall location appears to be of sufficient distance from the property line of the private residence adjacent to the west of the Community Center that the soil nails will not extend beyond the schools property. The contractor should complete a design that does not require an easement from the private residence.

7.7.3 It is understood that the soil nail wall will be permanent and, as such, should be designed using factors of safety recommended for permanent structures. It is recommended that the seismic stability of the wall be evaluated using a pseudostatic coefficient of horizontal acceleration, k_h, equal to 0.15g. The value is one-half of 0.3g, the peak ground acceleration expected at the site.

7.7.4 Geocon Northwest performed a preliminary analysis of a potential soil nail wall design. The method of analysis and software SNAILZWin developed by CalTrans (California Department of Transportation) and the slope stability program SLIDE 5.0 was used to evaluate the global stability of the proposed excavation using soil nail support. Stability analyses were conducted for both static and seismic conditions for cross sections A-A' and B-B' using the input parameters listed in Table 1. The results of the analyses indicate factors of safety of approximately 1.7 and 1.3 for static and seismic conditions, respectively.

TABLE 1: SOIL NAIL DESIGN INPUT PARAMETERS

Wall Height	11 feet (A-A'), 8.5 feet (B-B')
Soil Unit Weight	120 pcf
Soil Cohesion	100 psf
Soil Friction Angle	30 degrees
Reinforcement Length	15 feet
Diameter of Grouted Hole	6 inches
Diameter of Steel Rod	1 inch
Soil Nail Inclination	15 degrees from horizontal
Soil Nail Vertical Spacing	5 feet
Soil Nail Horizontal Spacing	5 feet
Ultimate Soil Nail Bond Strength	3,000 pounds per foot
Punching Shear Capacity	45 kips
Yield Strength of Nail Element	60 kips per square inch
Surcharge	250 psf

7.7.5 The private residence adjacent to the west of the community center has and existing block retaining wall. The soil nail wall design should include an allowance for surcharge pressures associated with the block wall. The location and height of the wall was not known at the time of the preparation of this report.

7.7.6 Difficult excavation and drilling characteristics should be anticipated. The subsurface conditions consist of a mixture of hard clayey silt to silty clay residual soil, weathered rock (RQD = 30), and potential boulder-size material. Care should be taken during excavation to prevent removal of large diameter particles that extend back into the slope that could result in large void spaces. The contractor should provide a unit cost for grout and shotcrete quantities due to the likelihood of extra volume being used to fill voids that occur during excavation.

7.7.7 The soil nail reinforcing bars should be double corrosion protected due to the permanent application of the wall. The bars may be provided with one level of protection by epoxy coating with the second level being the grout.

7.7.8 The soil nail wall should be designed with a drainage system to prevent the buildup of excess porewater pressure behind the wall. The drainage system commonly consists of a vertical geocomposite strip drains placed behind the shotcrete face.

7.7.9 A minimum of two verification tests should be performed on **sacrificial** soil nail elements to confirm the design capacity. The soil nails should be tested to 200 percent of their design load in accordance with the schedule presented in Table 2.

TABLE 2: SOIL NAIL VERIFICATION LOAD TEST SCHEDULE

Load	***Hold Time***
Seating Load	1 minute
0.25 Design Load (DL)	10 minutes
0.50 DL	10 minutes
0.75 DL	10 minutes
1.0 DL	10 minutes
1.25 DL	10 minutes
1.50 DL (Creep Test)	60 minutes
1.75 DL	10 minutes
2.0 DL	10 minutes

7.7.10 The total movement at the maximum load during the verification test shall exceed 80 percent of the theoretical elastic elongation of the test nail unbonded length.

7.7.11 A verification creep test should be completed at 1.50 DL. Nail movements should be recorded during the verification creep test in increments of 1 minute, 2, 3, 5, 6, 10, 20, 30, 50, and 60 minutes. The verification creep test will be considered successful if the movement is less than 0.08 inches between the 6 and 60 minute readings and the creep rate is linear or decreasing during the test.

7.7.12 Approximately 5 percent of the production nails in each row should be proof tested. The recommended proof test loading schedule is presented below in Table 3.

TABLE 3: SOIL NAIL PROOF LOAD TEST SCHEDULE

Load	*Hold Time*
Seating Load	Until Stable
0.25 DL	Until Stable
0.50 DL	Until Stable
0.75 DL	Until Stable
1.00 DL	Until Stable
1.25 DL	Until Stable
1.50 DL	10 or 60 minutes, depending on movement

7.7.13 The total movement at the maximum load during the proof test shall exceed 80 percent of the theoretical elastic elongation of the test nail unbonded length.

7.7.14 A proof creep test should be completed at 1.50 DL. Nail movements should be recorded during the proof creep test in increments of 1 minute, 2, 3, 5, 6, 10 minutes. In the event the nail movements exceeds 0.04 inches between 1 and 10 minutes, the load should be held another 50 minutes with movements recorded at, 20, 30, 50, and 60 minutes. The proof creep test will be considered successful if the movement is less than 0.04 inches between 1 and 10 minutes or less than 0.08 inches between the 6 and 60 minute readings and the creep rate is linear or decreasing during the test.

7.8 Excavation Monitoring

8.6.1. It is recommended that the condition of existing buildings, pavements and other structures around the perimeter of the planned excavation be documented before the start of shoring and excavation work. Special attention should be given to documenting existing cracks or other indications of differential settlement within these adjacent structures, pavements and other improvements. Any underground utilities sensitive to settlement should be video taped prior to construction to verify integrity of pipes.

8.6.2. Lateral movement of shoring is associated with vertical ground settlement beyond the excavation. Therefore, it is recommended that horizontal movements of the soil nail wall be accurately monitored and recorded during excavation and soil nail construction.

7.9 Pavement Design

7.9.1 Near surface soil samples were evaluated to determine pavement design parameters. A CBR of 3 at 95% compaction and a resilient modulus of 4,500 psi were used for pavement design based on our experience with similar soils.

7.9.2 Asphalt pavement designs for asphalt concrete are presented in Table 4. Pavement designs have been prepared in accordance with accepted AASHTO design methods. A range of pavement designs for various traffic conditions is provided in the tables. The designs assume that the top 8 inches of pavement subgrade will be compacted to 95% of ASTM D 1557. Specifications for pavement and base course should conform to current Oregon Department of Transportation specifications. Additionally, the base rock should contain no more than 5% by weight passing a No. 200 Sieve, and the asphaltic concrete should be compacted to a minimum of 92% of ASTM D2041.

Pavement sections were designed using AASHTO design methods with an assumed reliability level (R) of 90%. A terminal serviceability of 2.0 was assumed. The 18 kip design axle loads are estimated from the number of trucks per day using Federal Highway Administration typical axle distributions for truck traffic and AASHTO load equivalency factors, and assuming a 20 year design life.

7.9.3 It is important to note that these pavement design recommendations do not include an allowance for construction traffic. If paving is planned prior to the completion of heavy construction, the construction traffic (i.e. concrete trucks) should be limited to unpaved and untreated roadways, or specially constructed haul roads. If this is not possible, the pavement design should include an allowance for construction traffic.

7.9.4 Non-engineered fill soils are should be expected adjacent to the north wall of the gymnasium. Geocon Northwest personnel should provide recommendations for remediation or overexcavation of the unsuitable soil during construction, if required. It is recommended that a geotextile filter fabric be placed on the subgrade prior to the placement of the crushed rock base course.

Table 4: Asphalt Concrete Pavement Design

Approximate Number of Trucks per Day (each way)	*Approximate Number of 18 Kip Design Axle Load (1000)*	*Asphalt Concrete Thickness (inches)*	*Crushed Rock Base Thickness (inches)*
Auto Parking	10	2.5	8
5	22	3.0	8
10	44	3.0	10
15	66	3.5	10
25	110	4.0	10
50	220	4.0	12
100	440	4.5	12
150	660	5.0	13

8 FUTURE GEOTECHNICAL SERVICES

The analyses, conclusions and recommendations contained in this report are based on site conditions as they presently exist, and on the assumption that the subsurface investigation locations are representative of the subsurface conditions throughout the site. It is the nature of geotechnical work for soil conditions to vary from the conditions encountered during a normally acceptable geotechnical investigation. While some variations may appear slight, their impact on the performance of the proposed improvements can be significant. Therefore, it is recommended that Geocon Northwest be retained to observe portions of this project relating to geotechnical engineering, including site preparation, grading, compaction, and soil nail wall construction. This will allow correlation of observations and findings to actual soil conditions encountered during construction and evaluation of construction conformance to the recommendations put forth in this report.

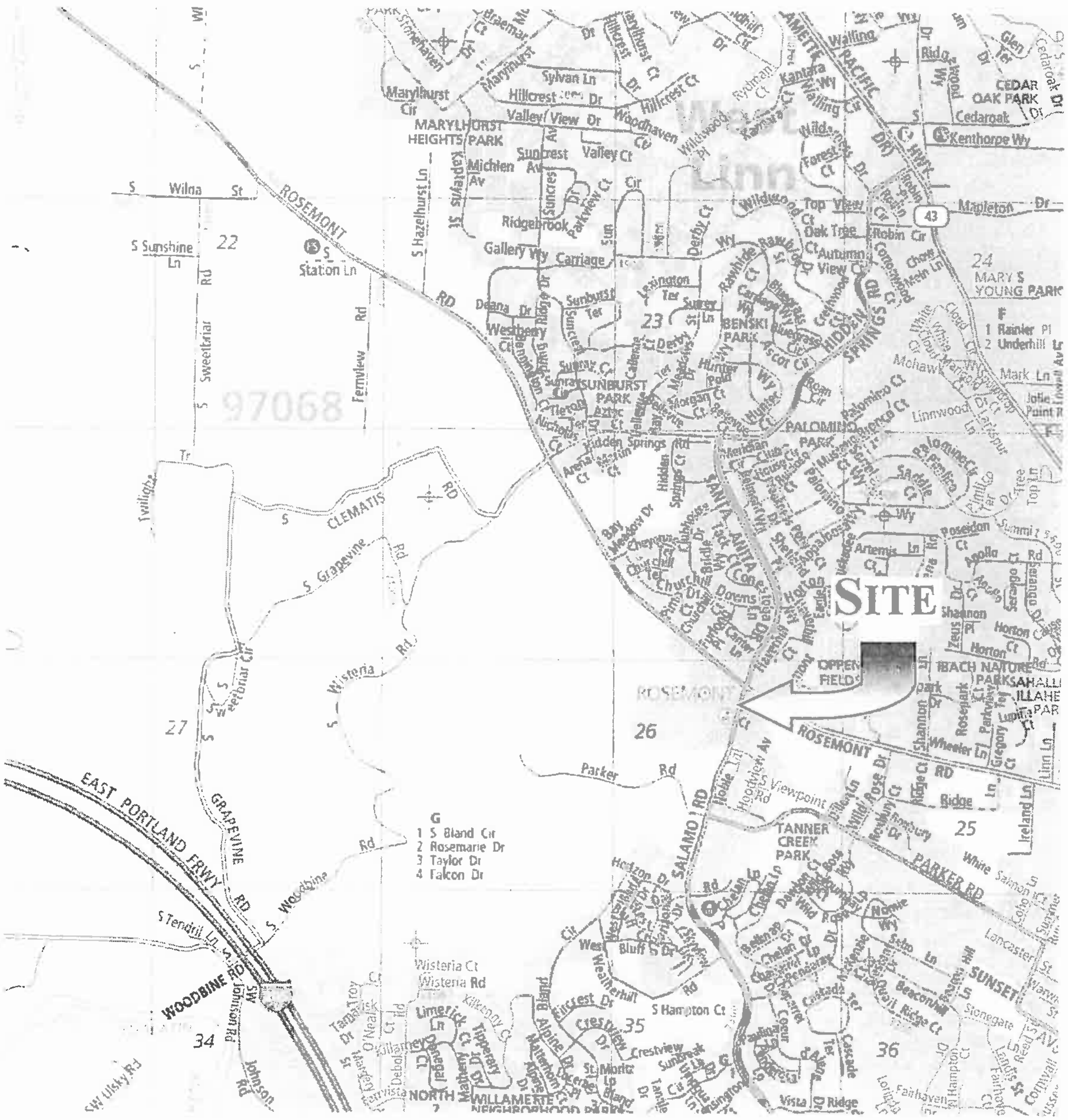
A copy of the plans and specifications should be forwarded to Geocon Northwest so that they may be evaluated for specific conceptual, design, or construction details that may affect the validity of the recommendations of this report. The review of the plans and specifications will also provide the opportunity for Geocon Northwest to evaluate whether the recommendations of this report have been appropriately interpreted.

9 LIMITATIONS

Unanticipated soil conditions are commonly encountered during construction and cannot always be determined by a normally acceptable subsurface exploration program. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Northwest, Inc. should be notified so that supplemental recommendations can be given.

This report is issued with the understanding that the owner, or his agents, will ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, the conclusions and recommendations provided in this letter are subject to review should such changes occur.



SOURCE: **2008 THOMAS BROTHERS MAP**
PORTLAND METROPOLITAN AREA

N

NO SCALE

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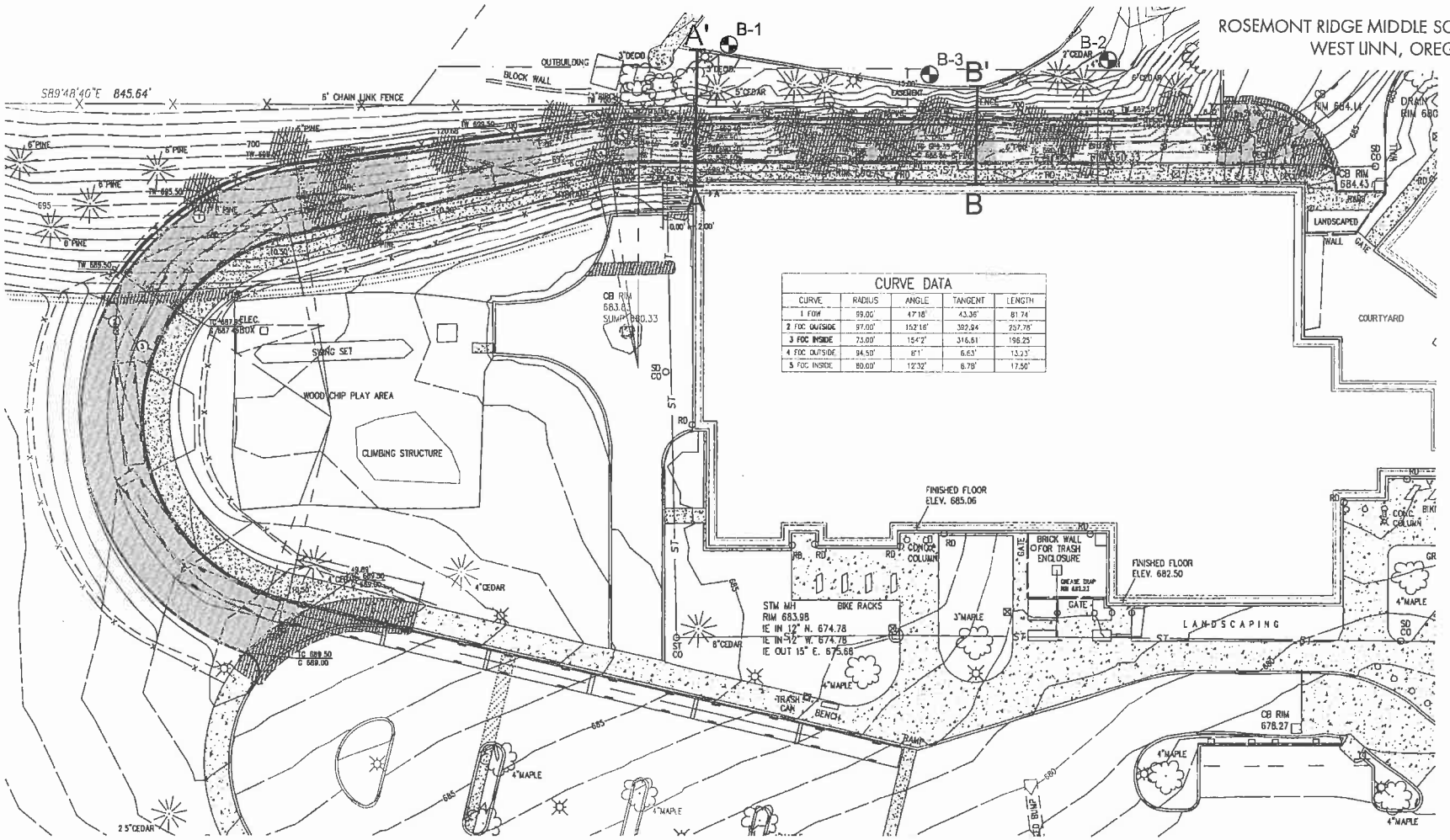
BJW / RSS		DSK / D000D

SITE VICINITY

Rosemont Ridge Middle School
West Linn, Oregon

March 2009	P1666-05-01	FIG. 1

ROSEMONT RIDGE MIDDLE SCHOOL BUS LINE
WEST LINN, OREGON



CURVE DATA

CURVE	RADIUS	ANGLE	TANGENT	LENGTH
1 FOW	99.00'	47°18'	43.36'	81.74'
2 FOC OUTSIDE	97.00'	152°16'	392.94'	257.78'
3 FOC INSIDE	73.00'	154°2'	316.51'	196.25'
4 FOC OUTSIDE	94.50'	8°1'	6.63'	13.23'
5 FOC INSIDE	80.00'	12°32'	8.79'	17.50'

GEOCON LEGEND

B-3 .....APPROX. LOCATION OF BORING

A — A' .....APPROX. LOCATION OF CROSS-SECTION

SITE PLAN

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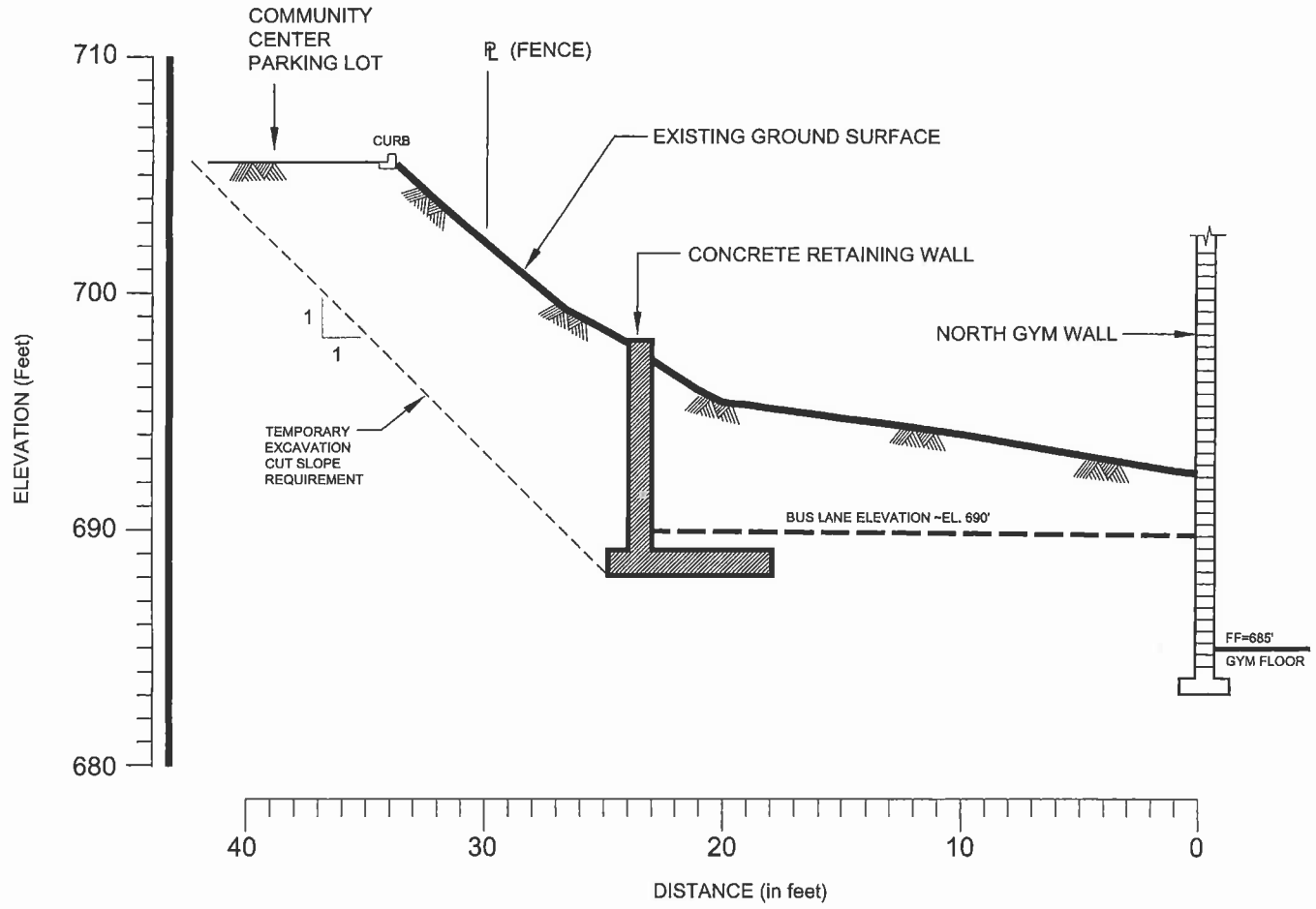
DATE MARCH, 2009 | PROJECT NO. P1666-05-01 | FIG. 2

P1666-05-01_SITEPLAN_FIG2_BW

ROSEMONT RIDGE MIDDLE SCHOOL BUS LANE
. WEST LINN, OREGON



CONCRETE RETAINING WALL AT CROSS-SECTION B-B'

SCALE : 1" = 5' (HORIZONTAL = VERTICAL)

REF. DRAWING BASED ON ROSEMONT RIDGE MIDDLE SCHOOL, FIGURE SK1, WINZLER & KELLY

SCHEMATIC CROSS-SECTION

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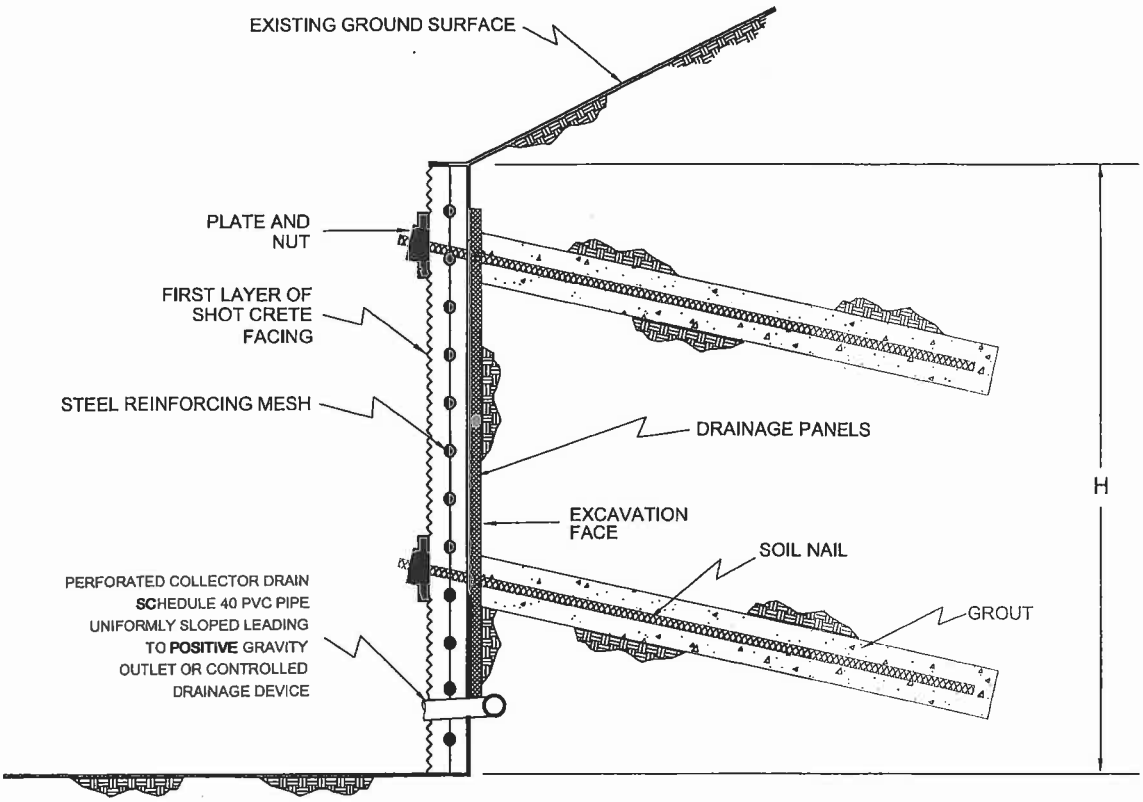
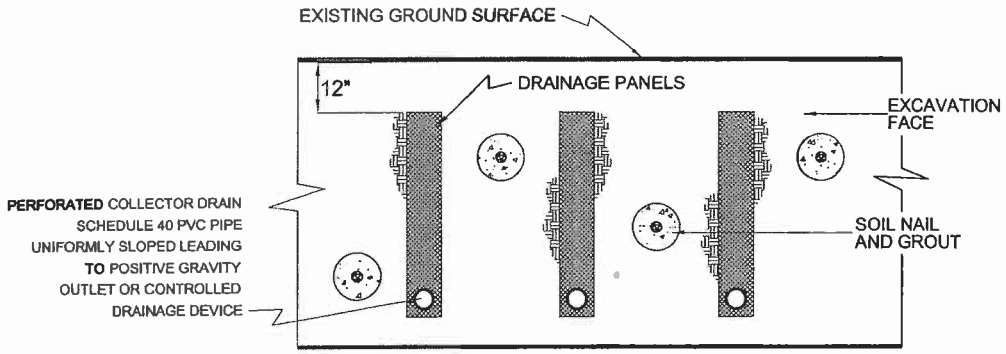
DATE MARCH, 2009	PROJECT NO. P1666 - 05 - 01	FIG. 3

P1666-05-01_FIG3_SD.DWG



SIDE VIEW



SOIL NAILS AND DRAINAGE PANELS TO BE DESIGNED BY WALL CONTRACTOR

FRONT VIEW

GENERAL SOIL NAIL WALL PLAN

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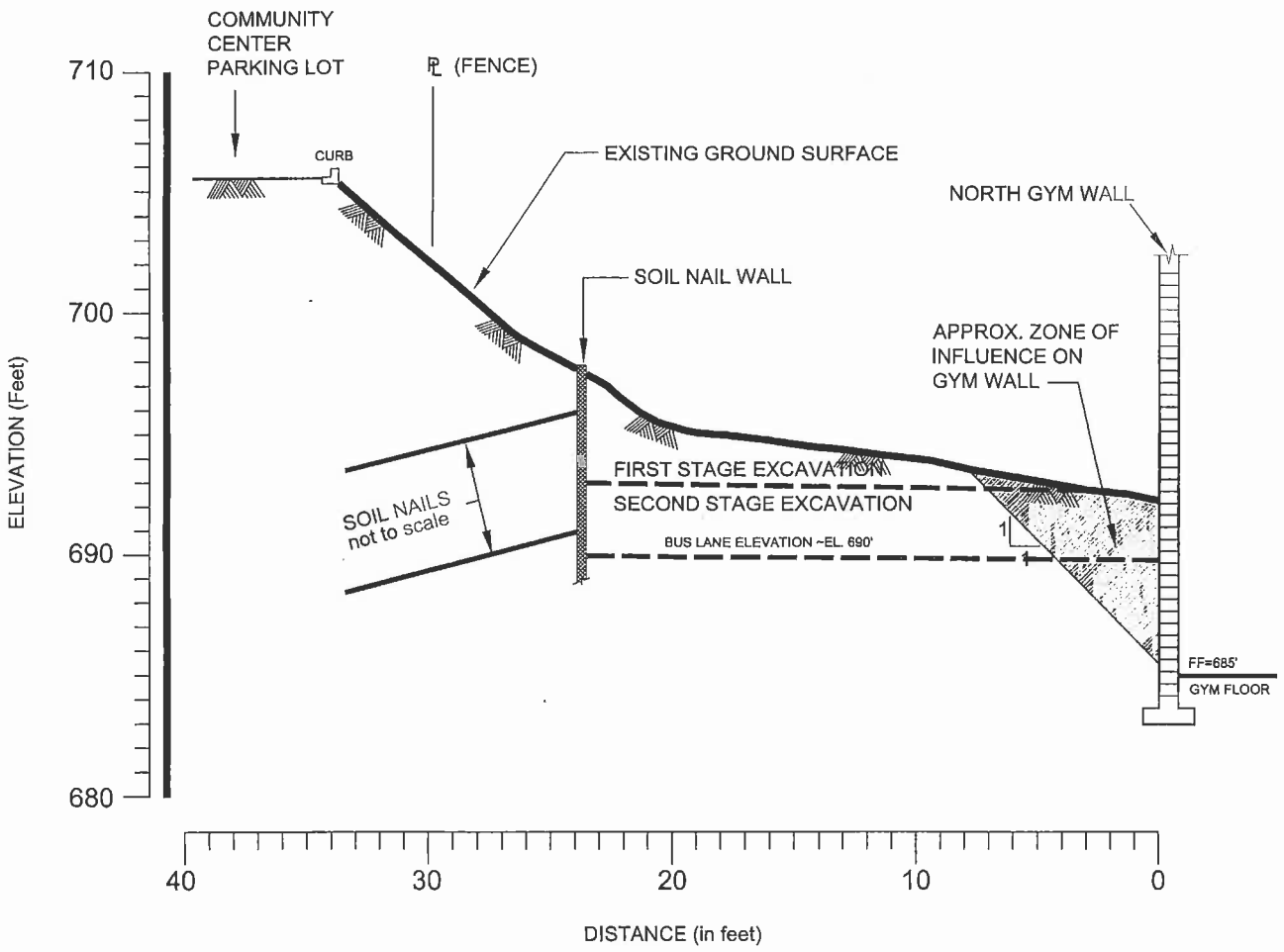
ROSEMONT RIDGE MIDDLE SCHOOL BUS LANE
WEST LINN, OREGON

BW / RSS		DSK/GTYPD

DATE MARCH, 2009	PROJECT NO. P1666 - 05 - 01	FIG. 4

ROSEMONT RIDGE MIDDLE SCHOOL BUS LANE
WEST LINN, OREGON



SOIL NAIL WALL AT CROSS-SECTION B-B'

SCALE : 1" = 5' (HORIZONTAL = VERTICAL)

REF. DRAWING BASED ON ROSEMONT RIDGE MIDDLE SCHOOL, FIGURE SK1, WINZLER & KELLY

SCHEMATIC CROSS-SECTION

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DATE MARCH, 2009	PROJECT NO. P1666 - 05 - 01	FIG. 5

P1666-05-01_FIG5_SD.DWG

APPENDIX A
FIELD INVESTIGATION

The subsurface soil conditions in the vicinity of the proposed retaining/shoring wall were determined based on the literature review, the field exploration, and laboratory testing. The field exploration was completed on February 26, 2009, and consisted of 3 exploratory borings and several hand-dug excavations. The explorations were located in the approximate locations shown in Figure 2, Site Plan.

The borings were advanced to depths ranging from approximately 15 to 30 feet below ground surface (bgs) and were completed with a truck mounted drill rig equipped with mud rotary and rock coring drilling capabilities. The borings were excavated at the top of the north slope on the property adjacent to the school. A member of Geocon Northwest's geotechnical engineering staff logged the subsurface conditions encountered within the borings. Standard penetration tests (SPT) were performed at selected depths in each boring by driving a 2-inch outside diameter split spoon sampler 18 inches into the bottom of the boring, in general accordance with ASTM D 1586. The number of blows required to drive the sampler the last 12 of the 18 inches (blow count) are reported on the boring logs located in Appendix A at the end of this report. The blow counts shown in the boring logs are the values recorded in the field. An automatic SPT hammer was used to drive the sampler into the soil. A correction of 1.3 was applied to the field SPT values to obtain the conventional N_{60} blow count. The correction factor of 1.3 is based on the automatic SPT hammer having an estimated energy of 80% versus the 60% energy of conventional hammers. Disturbed bag samples were obtained from SPT testing. Soil samples were returned to the laboratory for further evaluation. Service providers subcontracted by Geocon Northwest completed the borings.

PROJECT NO. P1666-05-01

BORING B 1

ELEV. (MSL.) _____ DATE COMPLETED 02-26-2009

EQUIPMENT D50-MUD ROTARY BY: S. DIXON

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					4" Asphalt over 8" Base Rock			
2				CL	Medium stiff, moist to wet, brown, Silty CLAY			
	B1-1			CH/MH	**WEATHERED BASALT SOIL** Hard, moist, reddish brown to gray, CLAY and SILT	31		34.6
4								
6	B1-2					40		38.7
8	B1-3					56		42.1
10	B1-4					90		37.8
12								
	B1-5				-Begins to drill as less weathered rock (possibly excavates as large boulder)	65/2"		N/A
14								
16								
18								
					-Becomes less hard			
20	B1-6					48		39.2
22					-Hard, moist to wet, reddish brown to gray CLAY and SILT			
24								
	B1-7				-Becomes harder and drills as less weathered rock	65/2"		21.0
26								
28								
30					BORING TERMINATED AT 30 FEET Groundwater not encountered			

P1666-05-01.GPJ

Figure A-1,
Log of Boring B 1, Page 1 of 1

SAMPLE SYMBOLS

- ☐ ... SAMPLING UNSUCCESSFUL
- ◧ ... STANDARD PENETRATION TEST
- ■ ... DRIVE SAMPLE (UNDISTURBED)
- ▨ ... DISTURBED OR BAG SAMPLE
- ◪ ... CHUNK SAMPLE
- ▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. P1666-05-01

BORING B 2

ELEV. (MSL.) _____ DATE COMPLETED 02-26-2009

EQUIPMENT D50-MUD ROTARY BY: S. DIXON

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					Grass Surface			
				ML	**LANDSCAPE FILL**			
2					Soft, wet, brown, SILT			
	B2-1					3		30.9
4				CL	**WEATHERED BASALT SOIL**			
	B2-2				Stiff, wet, reddish brown, CLAY	10		35.5
6								
				CH/MH	Hard, wet, reddish brown to gray, CLAY and SILT			
8	B2-3					39		42.7
10	B2-4				-Becomes gray	98		33.4
12								
	B2-5				-With less weathered rock	78/4"		26.9
14								
	B2-6				-Becomes reddish brown to gray	46		38.5
16								
	B2-7					39		33.3
18								
20	B2-8				-Becomes very stiff	18		31.4
22					-Becomes hard			
24								
	B2-9				-With less weathered rock	65/4"		53.0
26								
28					BORING TERMINATED AT 28 FEET Refusal in rock Groundwater not encountered			

P1666-05-01.GPJ

Figure A-2,
Log of Boring B 2, Page 1 of 1

SAMPLE SYMBOLS

- ☐ ... SAMPLING UNSUCCESSFUL
- ◧ ... STANDARD PENETRATION TEST
- ■ ... DRIVE SAMPLE (UNDISTURBED)
- ▩ ... DISTURBED OR BAG SAMPLE
- ◪ ... CHUNK SAMPLE
- ▼ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. P1666-05-01

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3 ELEV. (MSL.) _____ DATE COMPLETED 02-26-2009 EQUIPMENT D50-MUD ROTARY BY: S. DIXON	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					MATERIAL DESCRIPTION			
0					4" Asphalt over 8" Base Rock			
2				CH/MH	**WEATHERED BASALT SOIL** Stiff, moist to wet, reddish brown to gray, CLAY and SILT			
4								
6	B3-1				-Becomes less weathered rock -Core 6 feet to 10 feet; approximately 2.5 foot recovery; RQD=30%			
8								
10	B3-2				-Core 10 feet to 15 feet			
12								
14					-Approximate 1 foot recovery RQD=0%			
					BORING TERMINATED AT 15 FEET Groundwater not encountered			

P1666-05-01.GPJ

Figure A-3,
Log of Boring B 3, Page 1 of 1

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

APPENDIX B

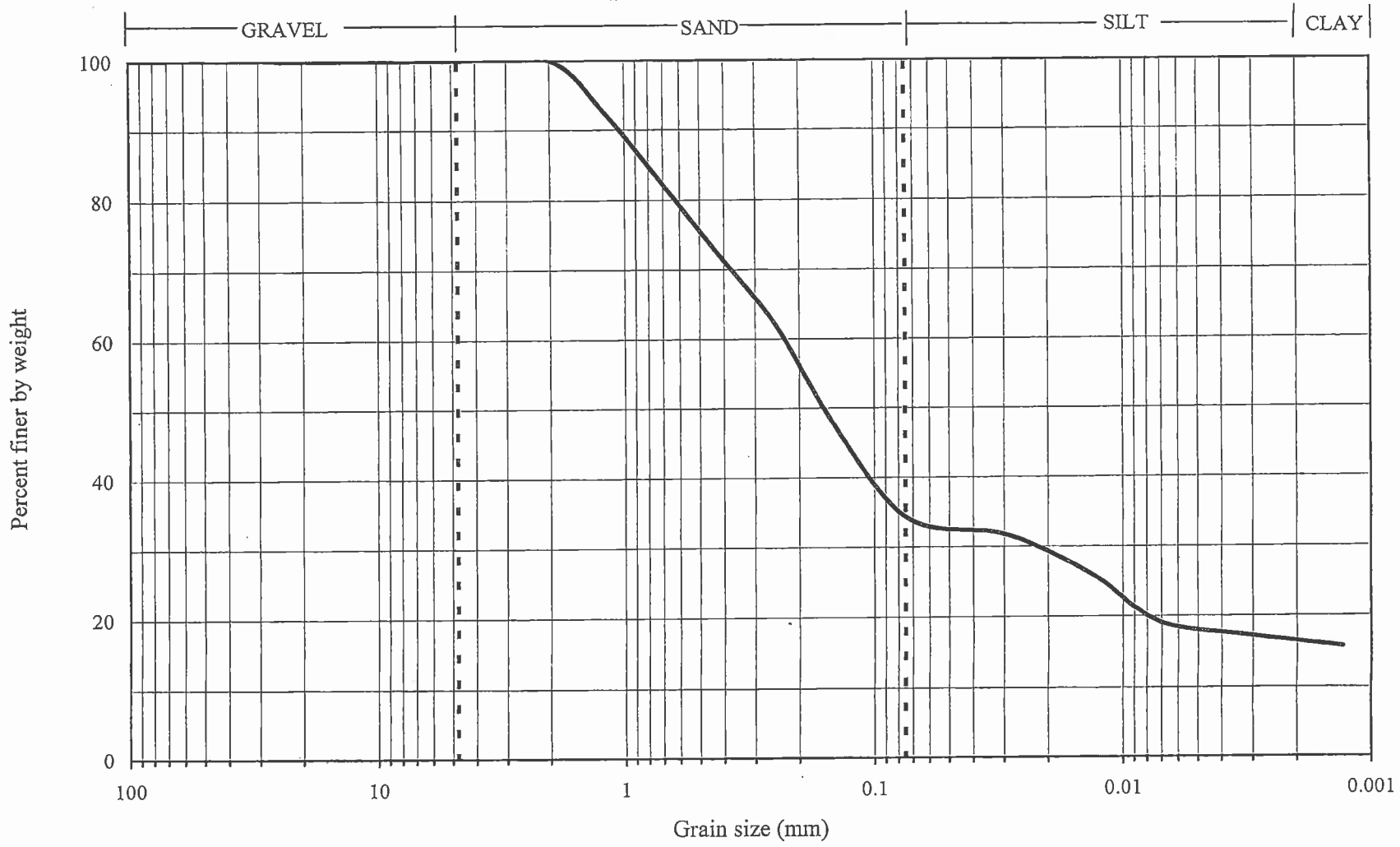
LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected soil samples were tested for their moisture content, plasticity, and gradation. Moisture contents are indicated on the boring logs in Appendix A. The results of the gradation tests are illustrated on the following pages.

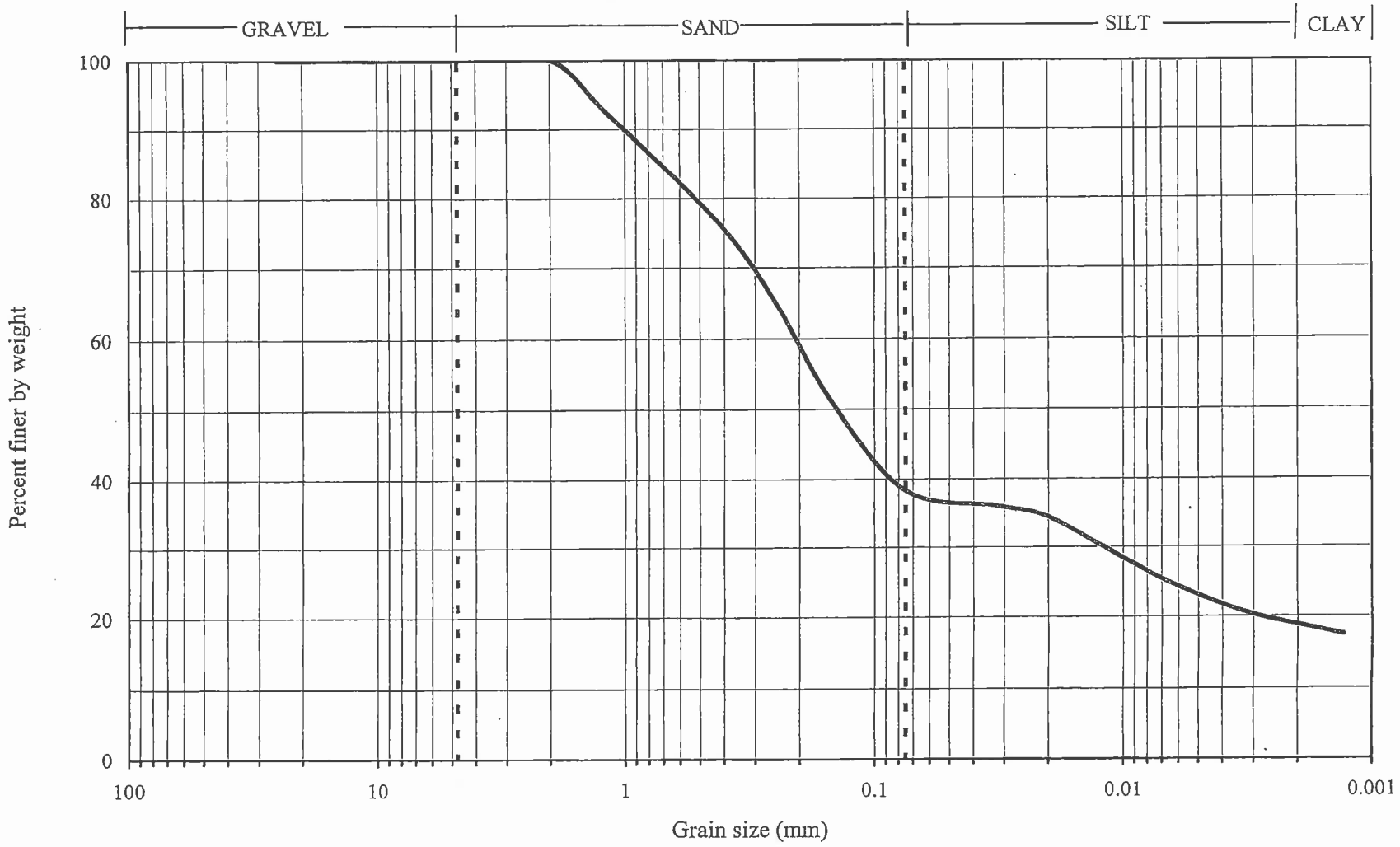
TABLE B-1
SUMMARY OF PLASTICITY INDEX TEST RESULTS
ASTM D4318

Sample Number	*Depth (ft)*	*Liquid Limit*	*Plastic Limit*	*Plasticity Index*	*USCS Classification*
B1-3	7.5-9	57	30	27	MH/CH
B2-8	20-21.5	45	34	11	ML

Grain Size Distribution (ASTM D1140 and D 422)
Rosemont Ridge Middle School Bus Lane
Sample B1-3 Depth = 7.5 feet



Grain Size Distribution (ASTM D1140 and D 422)
Rosemont Ridge Middle School Bus Lane
Sample B2-3 Depth = 7.5 feet



Grain Size Distribution (ASTM D1140 and D 422)
Rosemont Ridge Middle School Bus Lane
Sample B2-8 Depth = 20 feet

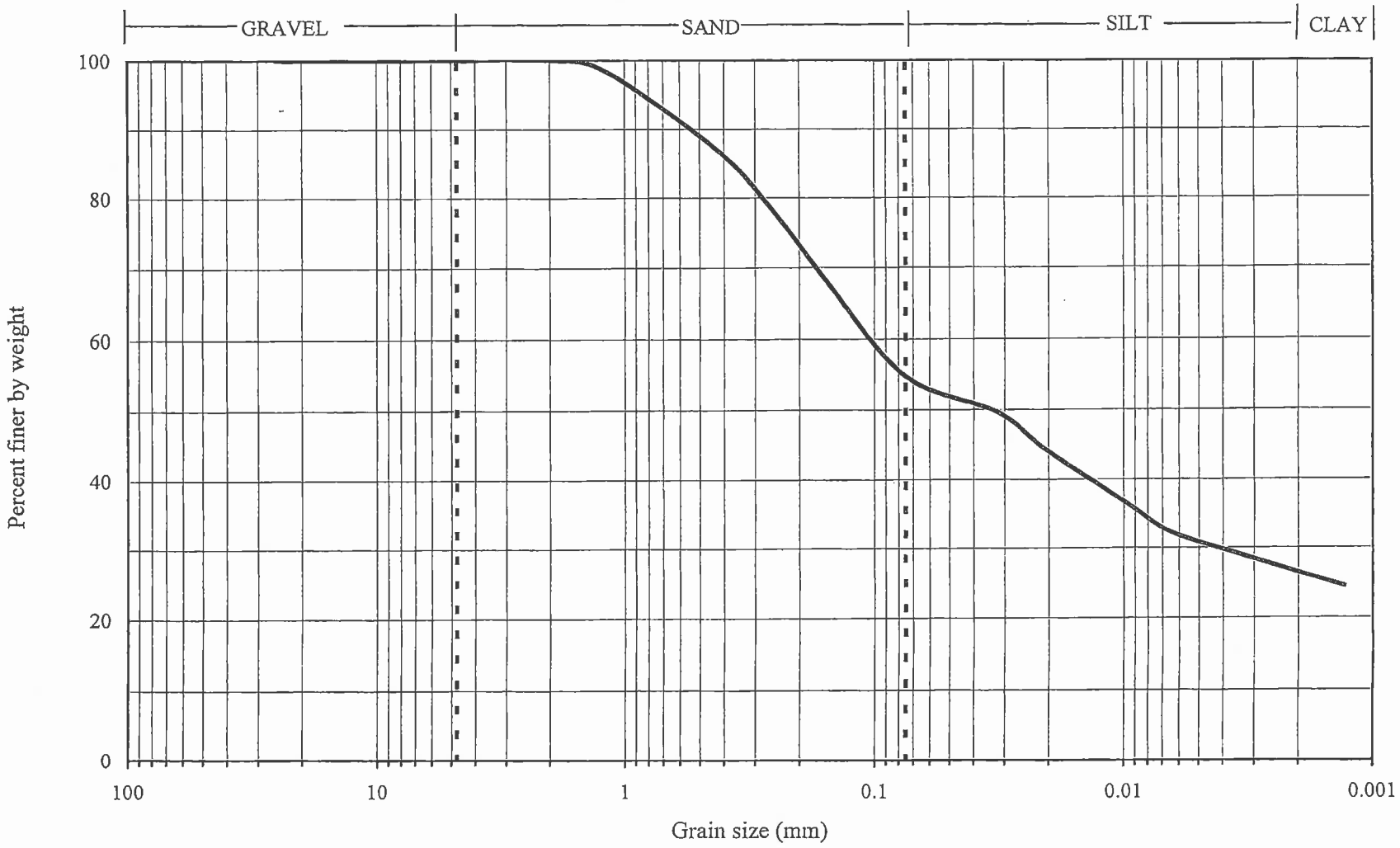
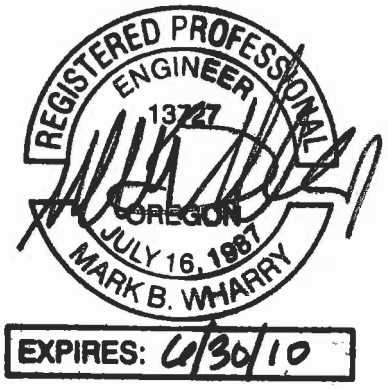


EXHIBIT B
Stormwater Management Report

STORMWATER MANAGEMENT REPORT FOR

ROSEMONT RIDGE MIDDLE SCHOOL

West Linn Wilsonville School District
22210 SW Stafford Road
West Linn, OR



WINZLER & KELLY

15575 SW Sequoia Parkway, Suite 140
Portland, Oregon 97224

July 2009

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose of Study

Upgrades to Rosemont Ridge Middle School are proposed to replace an existing grass softball field with a synthetic turf surface, and to construct a driveway around the north perimeter of the existing school building that will connect the existing driveway and parking lot to Rosemont Road. A study was performed to evaluate the impacts of the proposed construction on existing stormwater characteristics, and to analyze the measures proposed to mitigate those impacts. This report presents the information, methods, and results generated from that study.

1.2 Project Location

The proposed project is located in Clackamas County, Oregon in the City of West Linn. The site is located at 20001 S. Salamo Road.

1.3 Project Description

The West Linn Wilsonville School District proposes to construct a driveway around the north perimeter of the existing school building that will connect the existing driveway and parking lot to Rosemont Road. The proposed driveway is intended to provide improved traffic circulation and increased bus loading and queuing area.

The School District also proposes to replace an existing grass softball field with a synthetic surface to provide an all-weather playing surface.

1.4 Methodologies and Assumptions

The methodologies used in conducting the hydrologic and hydraulic analyses were generated from a variety of sources including existing maps, field data, nomographs, charts, computer programs, standards, and reference manuals.

The hydrologic analysis was performed using the Santa Barbara Urban Hydrograph method with an NRCS Type IA synthetic rainfall distribution. The calculations were executed with the computer program Bently PondPack 10.0. This method was used to generate site runoff hydrographs, determine peak flows, and perform pond routing analysis.

1.5 Agency Stormwater Criteria

This project lies within the jurisdiction of the City of West Linn, which has the following policy regarding stormwater management for new construction.

Quantity Control: The City of West Linn Design Standards (Section Two) defines the criteria for stormwater quantity management. Onsite detention is required to provide quantity control for surface runoff to account for the increase in runoff due to land use changes associated with development. It is required that detention facilities be designed to provide storage for up to the 25-year storm event with the safe overflow conveyance of the 100-year storm event. Allowable post-development peak discharge rates for the 2, 5, 10, and 25-year events are limited to that of the pre-development discharge rates.

Quality Control: The stormwater quality criteria used for this analysis is based on the criteria that was used for the original design of the water quality/detention pond that will be accepting the runoff from the improvements associated with this project. The original stormwater calculations, "Rosemont Ridge Middle School, West Linn, Oregon, Summary of Stormwater Calculations" (Revised December 8, 1998) were prepared by KPFF Consulting

Engineers. The water quality criteria used in the above referenced report is based on "Design and Construction Standards for Sanitary Sewer and Surface Water Management" published by the Unified Sewerage Agency, 1996 (Chapter 33, pp. 33-37). The design criteria is summarized as follows:

Design Rainfall Depth: 0.36 inches
Detention Time: 48 hours
Runoff Area: Impervious Surface

Conveyance Piping: The City of West Linn Design Standards (Section Two) defines the criteria for conveyance piping, which shall be designed to convey the runoff from the 100-year storm event.

2.0 EXISTING DRAINAGE CONDITIONS

2.1 Description of Existing Drainage Conditions

Rosemont Ridge Middle School is currently divided into two drainage basins: the eastern drainage basin consists of 7.4 acres that that discharges to the east detention pond which outlets to the City of West Linn public storm drain system; the western drainage basin consists of 13.2 acres that discharges to the west detention pond which outlets to the Clackamas County storm drain system (KPFF, 1998).

The FEMA Flood Insurance Rate Map Number 41005C 0257 D (Figure 1) shows that the project site is located within "Other Areas - Zone X", which is described as "areas determined to be outside the 0.2% annual chance floodplain".

2.2 Hydrologic Analysis of Existing Conditions

The existing east detention pond and outlet structure were designed per City of West Linn standards to have peak outflows that are less than or equal to the peak runoff from the site in its pre-developed condition. To determine those peak flows, a hydrologic analysis of the site in its pre-developed condition was performed as part of this study; the calculations are contained in Appendix B. The hydrologic analysis was performed using the Santa Barbara Urban Hydrograph method with an NRCS Type IA synthetic rainfall distribution. The 24-hour rainfall depths were obtained from the City of Portland Stormwater Management Manual and are summarized in Table 1 below.

Design Storm	24-Hour Rainfall
2-Year	2.40"
5-Year	2.90"
10-Year	3.40"
25-Year	3.90"
100-Year	4.40"

Table 1: 24-Hour Rainfall Depths (Source: City of Portland Stormwater Management Manual)

The physical characteristics of the site in its pre-developed condition were obtained from the stormwater calculations for the original construction of the site, prepared by KPFF Consulting Engineers (referenced above). The allowable peak outflows from the east detention pond are based on the following criteria:

Tributary Area: 7.40 acres
Time of Concentration: 22.3 minutes
Curve Number (CN): 87

The runoff hydrographs for the various design storms are shown in Appendix B, and the calculated peak runoff rates are summarized in Table 2.

Design Storm	Peak Runoff
2-Year	1.7 cfs
5-Year	2.3 cfs
10-Year	3.0 cfs
25-Year	3.7 cfs
100-Year	4.4 cfs

Table 2: Peak Runoff Rates for Pre-developed Conditions

3.0 PROPOSED DRAINAGE CONDITIONS

3.1 Description of Proposed Drainage Conditions

The proposed drainage design includes curbs, drains, and piping to collect and convey the runoff from the proposed driveway to the existing east detention pond, and subdrainge and surface drainage systems to collect and convey runoff at the proposed synthetic turf field to the existing east detention pond. A portion of the proposed driveway area is currently part of the west basin that drains to the west detention pond, and is proposed to be redirected to drain to the east detention pond. It is intended that the current allowable discharge rate of the pond be maintained, and that the pond volume be increased to account for the additional tributary area and change in runoff rates associated with the proposed improvements.

3.2 Hydrologic Analysis of Proposed Conditions

A hydrologic analysis of the site in the proposed condition was performed as part of this study; the calculations are contained in Appendix C – see Figure 2 for a drainage map of the proposed conditions. The hydrologic analysis was performed using the Santa Barbara Urban Hydrograph method with an NRCS Type IA synthetic rainfall distribution. The 24-hour rainfall depths were obtained from the City of Portland Stormwater Management Manual and are summarized in Table 1 in Section 2.2. To maintain consistency with the original stormwater calculations (KPFF, 1998), a time of concentration of 7 minutes was used for the impervious and landscaped areas. A time of concentration of 10 minutes was used for the synthetic turf softball field. The curve numbers used are summarized below:

Impervious Areas CN: 98
Landscape Areas CN: 80
Synthetic Turf Field CN: 90

The calculated peak runoff rates for each sub-basin for various design storms are summarized in Table 3, and the runoff hydrographs for all sub-basins combined are shown in Appendix C.

Design Storm	Peak Runoff
2-Year	1.7 cfs
5-Year	2.3 cfs
10-Year	3.0 cfs
25-Year	3.7 cfs
100-Year	4.4 cfs

Table 3: Peak Runoff Rates for Proposed Conditions

The existing east detention pond is proposed to be expanded to provide additional water quality and detention capacity. The performance of the proposed pond for the various

analysis showed that the proposed pond has the capacity to store the runoff from the 2, 5, 10, and 25-year storms while not releasing more than the peak runoff that the pond was allowed to release when it was originally designed. Table 4 below summarizes the performance of the pond for various design storms. The available storage in the pond is based on a pond bottom elevation of 664.00 and an outlet structure overflow elevation of 667.94 (see Figure 3). Although the pond has more than enough capacity to store the runoff from a 100-year storm event, the pond volume is controlled by the water quality volume required.

Storm Event	Pre-Developed Peak (cfs)	Proposed Peak (Undetained) (cfs)	Proposed Peak (Detained) (cfs)	Required Storage (cf)	Available Storage (cf)
2-Year	1.7	3.2	1.7	9,150	23,100
5-Year	2.3	4.1	1.9	11,180	23,100
10-Year	3.0	5.0	2.1	13,620	23,100
25-Year	3.7	6.0	2.2	16,530	23,100
100-Year	4.4	7.0	2.4	19,950	23,100

Table 4: Summary of Pond Performance

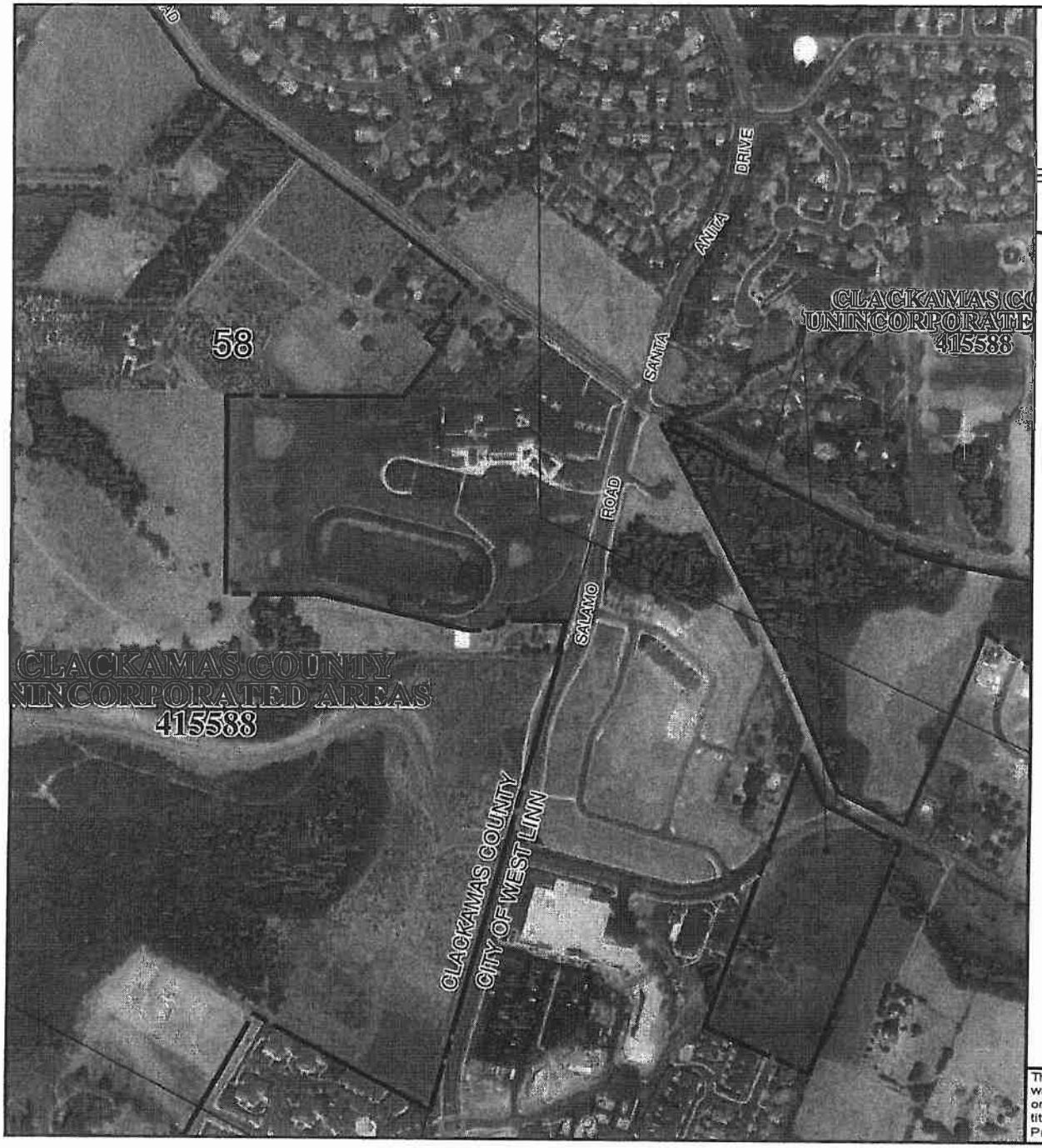
The existing outlet structure for the east pond will remain in place and not be altered as part of the proposed improvements. Based on the construction documents and stormwater calculations for the original construction of the pond, in addition to field survey information, the assumed existing pond outlet structure is shown in Figure 3. A rating curve was developed for the water surface elevation versus discharge for the assumed outlet structure and is included in Appendix C. This rating curve was used for the hydraulic analysis of the pond that was included as part of this study.

3.3 Stormwater Quality Management

Stormwater quality for the proposed improvements will be provided by the existing east pond. The east pond currently provides water quality for the east portion of the site and is proposed to be expanded to accommodate the increased stormwater quality treatment demands associated with the proposed increase in impervious area. The criteria used to size the pond for stormwater quality is described in Section 1.5 of this report. The stormwater quality sizing calculations are contained in Appendix D. The calculations show that a volume of 6270 ft^3 is required for stormwater quality. The existing pond will be expanded and 4" of dead storage will be added to provide a treatment volume of 7150 ft^3 with a ponding depth of 1.68' within the space between the bottom of the pond and the second riser of the outlet structure (see Figure 3).

4.0 SUMMARY

The increase in stormwater runoff associated with the proposed improvements will be managed by increasing the detention and water quality capacity of the existing east pond. The pond will detain the runoff from the proposed tributary area of 8.7 acres such that the peak release rates from the pond will not exceed those allowed when the pond was originally designed, which are equal to the peak runoff rates from the site in its pre-developed condition, considering the tributary area of 7.4 acres associated with the original design of the pond. In addition, a portion of the runoff that currently drains to the west pond will be redirected to the east pond, resulting in a decrease in runoff into and out of the existing west pond.



MAP SCALE 1" = 500'

250 0 500 1000 FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0257D

FIRM

FLOOD INSURANCE RATE MAP

CLACKAMAS COUNTY, OREGON

AND INCORPORATED AREAS

PANEL 257 OF 1175

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CLACKAMAS COUNTY	415588	0257	D
OREGON CITY, CITY OF	410021	0257	D
WEST LINN, CITY OF	410024	0257	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

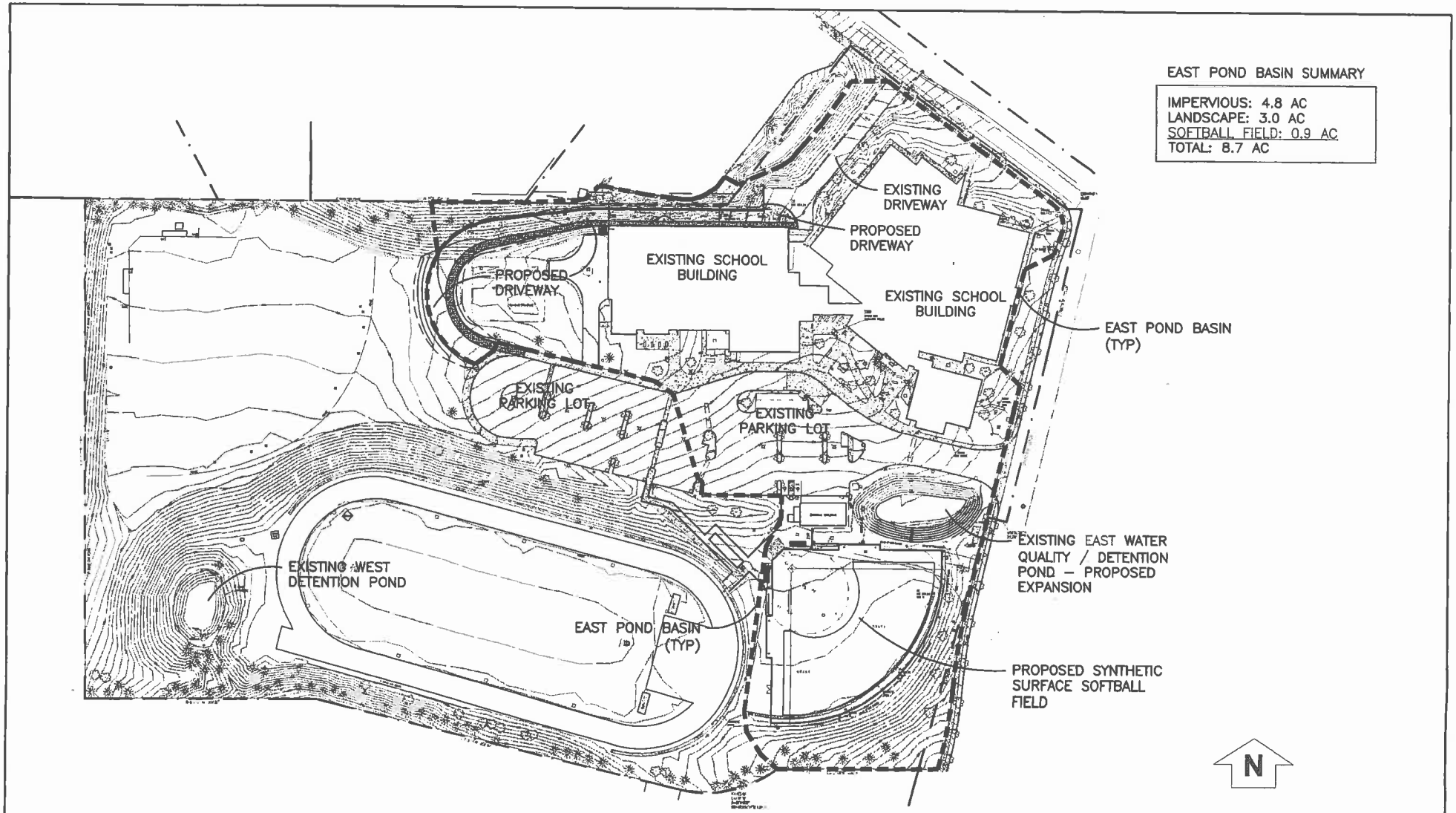
MAP NUMBER
41005C0257D

EFFECTIVE DATE
JUNE 17, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

FIGURE 1



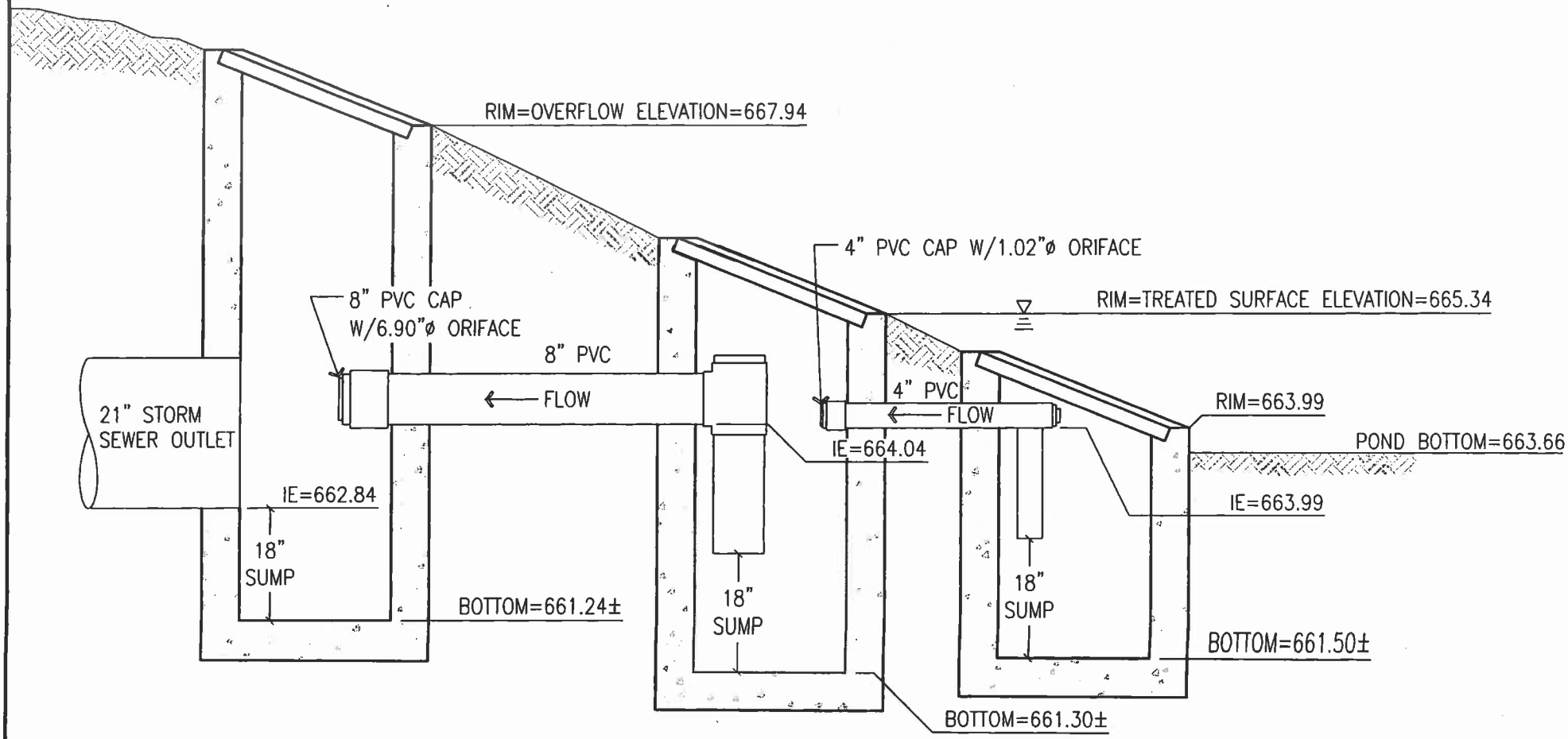
WINZLER & KELLY
15575 SW SEQUOIA PKWY, SUITE 140
PORTLAND, OR 97224
PH: 503-226-3921 FAX: 503-226-3926

PROJECT: ROSEMONT RIDGE MIDDLE SCHOOL

TITLE: DRAINAGE MAP - PROPOSED CONDITIONS

DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
STS	STS		5/29/09	10884-09002	FIGURE 2

O:\10884 - DOWA (DULL OLSON WEEKES ARCHITECTS)\10884-09002 DOWA WLWSD ROSEMONT RIDGE MS\CAD\EXHIBITS\DRAINAGEMAP.DWG Seth Stevens 5/29/2009 1:38 PM



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15575 SW SEQUOIA PKWY, SUITE 140
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PH: 503-226-3921 FAX: 503-226-3926

PROJECT
ROSEMONT RIDGE MIDDLE SCHOOL

DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
					FIGURE 3

TITLE
EXISTING EAST POND OUTLET STRUCTURE

Appendix A

NRCS Hydrologic Soil Group Information

Hydrologic Soil Group---Clackamas County Area, Oregon
(Rosemont Ridge)

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Soil Ratings

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Political Features

- Cities

Water Features

- Oceans
- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,650 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clackamas County Area, Oregon
Survey Area Data: Version 4, Dec 22, 2006

Date(s) aerial images were photographed: 8/3/2005

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Clackamas County Area, Oregon				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
13C	Cascade silt loam, 8 to 15 percent slopes	C	8.7	27.2%
23B	Cornelius silt loam, 3 to 8 percent slopes	C	1.3	4.1%
23C	Cornelius silt loam, 8 to 15 percent slopes	C	16.1	50.4%
23D	Cornelius silt loam, 15 to 30 percent slopes	C	0.3	1.0%
30C	Delena silt loam, 3 to 12 percent slopes	D	5.5	17.3%
Totals for Area of Interest			**31.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

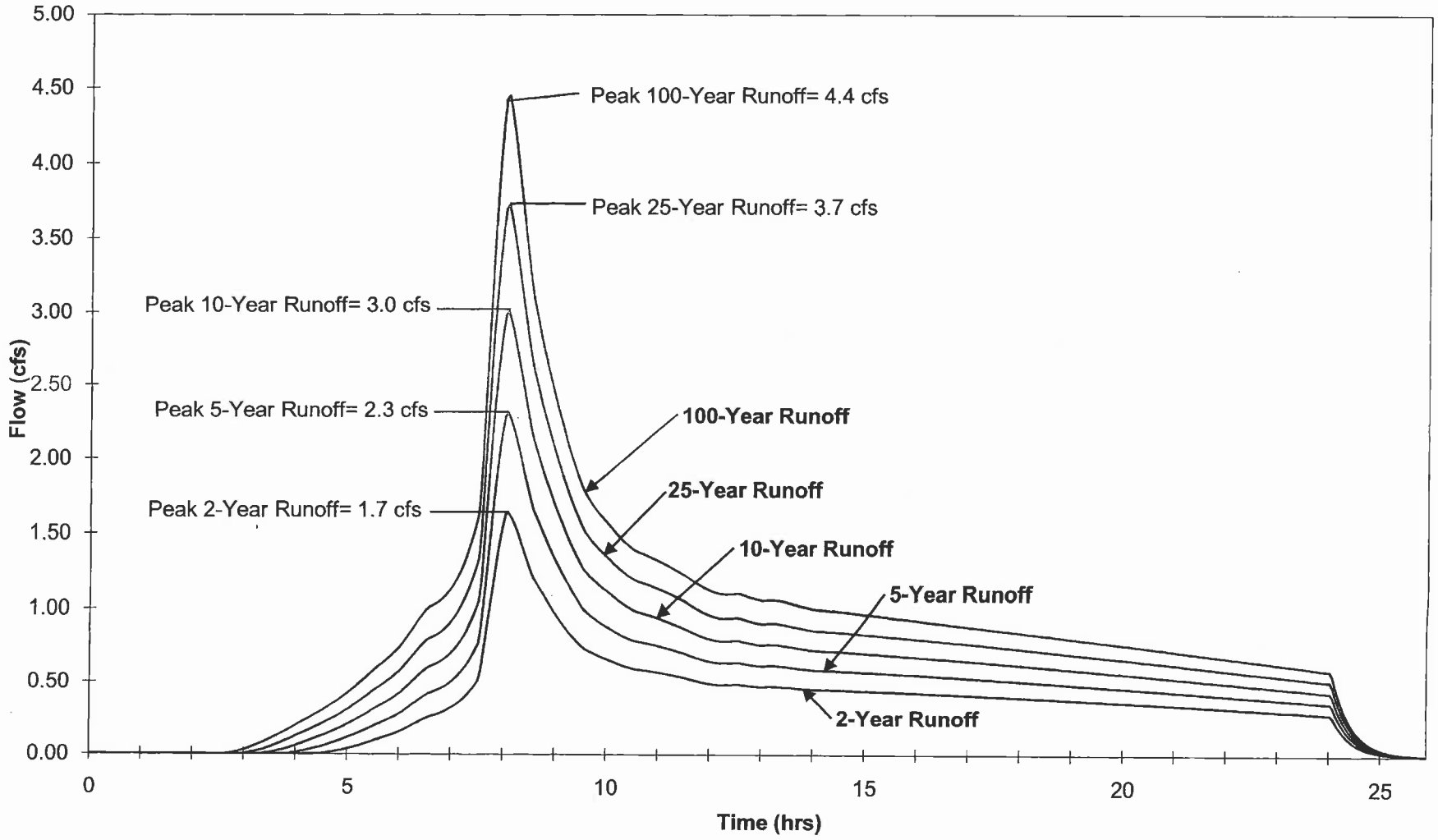
Tie-break Rule: Lower

Appendix B

Calculations for Hydrologic Analysis of Existing Conditions

ROSEMONT RIDGE MIDDLE SCHOOL

Runoff Hydrographs for Pre-developed Conditions



ROSEMONT RIDGE MIDDLE SCHOOL

Runoff Hydrographs for Pre-Developed Conditions

	Runoff (cfs)				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year
0.00	0.00	0.00	0.00	0.00	0.00
0.05	0.00	0.00	0.00	0.00	0.00
0.10	0.00	0.00	0.00	0.00	0.00
0.15	0.00	0.00	0.00	0.00	0.00
0.20	0.00	0.00	0.00	0.00	0.00
0.25	0.00	0.00	0.00	0.00	0.00
0.30	0.00	0.00	0.00	0.00	0.00
0.35	0.00	0.00	0.00	0.00	0.00
0.40	0.00	0.00	0.00	0.00	0.00
0.45	0.00	0.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	0.00	0.00
0.55	0.00	0.00	0.00	0.00	0.00
0.60	0.00	0.00	0.00	0.00	0.00
0.65	0.00	0.00	0.00	0.00	0.00
0.70	0.00	0.00	0.00	0.00	0.00
0.75	0.00	0.00	0.00	0.00	0.00
0.80	0.00	0.00	0.00	0.00	0.00
0.85	0.00	0.00	0.00	0.00	0.00
0.90	0.00	0.00	0.00	0.00	0.00
0.95	0.00	0.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	0.00	0.00
1.05	0.00	0.00	0.00	0.00	0.00
1.10	0.00	0.00	0.00	0.00	0.00
1.15	0.00	0.00	0.00	0.00	0.00
1.20	0.00	0.00	0.00	0.00	0.00
1.25	0.00	0.00	0.00	0.00	0.00
1.30	0.00	0.00	0.00	0.00	0.00
1.35	0.00	0.00	0.00	0.00	0.00
1.40	0.00	0.00	0.00	0.00	0.00
1.45	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00
1.55	0.00	0.00	0.00	0.00	0.00
1.60	0.00	0.00	0.00	0.00	0.00
1.65	0.00	0.00	0.00	0.00	0.00
1.70	0.00	0.00	0.00	0.00	0.00
1.75	0.00	0.00	0.00	0.00	0.00
1.80	0.00	0.00	0.00	0.00	0.00
1.85	0.00	0.00	0.00	0.00	0.00
1.90	0.00	0.00	0.00	0.00	0.00
1.95	0.00	0.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	0.00	0.00
2.05	0.00	0.00	0.00	0.00	0.00
2.10	0.00	0.00	0.00	0.00	0.00
2.15	0.00	0.00	0.00	0.00	0.00
2.20	0.00	0.00	0.00	0.00	0.00
2.25	0.00	0.00	0.00	0.00	0.00
2.30	0.00	0.00	0.00	0.00	0.00
2.35	0.00	0.00	0.00	0.00	0.00
2.40	0.00	0.00	0.00	0.00	0.00
2.45	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	0.00	0.00
2.55	0.00	0.00	0.00	0.00	0.00
2.60	0.00	0.00	0.00	0.00	0.00
2.65	0.00	0.00	0.00	0.00	0.00
2.70	0.00	0.00	0.00	0.00	0.00
2.75	0.00	0.00	0.00	0.00	0.01
2.80	0.00	0.00	0.00	0.00	0.01
2.85	0.00	0.00	0.00	0.00	0.01
2.90	0.00	0.00	0.00	0.00	0.02
2.95	0.00	0.00	0.00	0.00	0.03
3.00	0.00	0.00	0.00	0.00	0.03
3.05	0.00	0.00	0.00	0.01	0.04
3.10	0.00	0.00	0.00	0.01	0.04
3.15	0.00	0.00	0.00	0.01	0.05
3.20	0.00	0.00	0.00	0.02	0.06
3.25	0.00	0.00	0.00	0.02	0.06
3.30	0.00	0.00	0.00	0.03	0.07
3.35	0.00	0.00	0.00	0.03	0.08
3.40	0.00	0.00	0.00	0.04	0.09
3.45	0.00	0.00	0.01	0.04	0.10
3.50	0.00	0.00	0.01	0.05	0.10
3.55	0.00	0.00	0.01	0.06	0.11
3.60	0.00	0.00	0.02	0.06	0.12

		Runoff (cfs)			
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year
3.65	0.00	0.00	0.02	0.07	0.13
3.70	0.00	0.00	0.03	0.08	0.14
3.75	0.00	0.00	0.03	0.09	0.15
3.80	0.00	0.00	0.04	0.09	0.16
3.85	0.00	0.00	0.04	0.10	0.17
3.90	0.00	0.01	0.05	0.11	0.18
3.95	0.00	0.01	0.05	0.12	0.19
4.00	0.00	0.01	0.06	0.13	0.20
4.05	0.00	0.02	0.07	0.13	0.21
4.10	0.00	0.02	0.07	0.14	0.22
4.15	0.00	0.02	0.08	0.15	0.23
4.20	0.00	0.03	0.09	0.16	0.24
4.25	0.00	0.03	0.09	0.17	0.25
4.30	0.00	0.04	0.10	0.18	0.26
4.35	0.00	0.04	0.11	0.18	0.27
4.40	0.00	0.05	0.11	0.19	0.28
4.45	0.00	0.05	0.12	0.20	0.29
4.50	0.01	0.06	0.13	0.21	0.31
4.55	0.01	0.06	0.13	0.22	0.32
4.60	0.01	0.07	0.14	0.23	0.33
4.65	0.01	0.07	0.15	0.24	0.34
4.70	0.02	0.08	0.16	0.25	0.35
4.75	0.02	0.08	0.17	0.26	0.36
4.80	0.02	0.09	0.17	0.27	0.38
4.85	0.03	0.10	0.18	0.28	0.39
4.90	0.03	0.10	0.19	0.29	0.40
4.95	0.03	0.11	0.20	0.30	0.42
5.00	0.04	0.12	0.21	0.31	0.43
5.05	0.04	0.12	0.22	0.33	0.44
5.10	0.05	0.13	0.23	0.34	0.46
5.15	0.05	0.14	0.24	0.35	0.48
5.20	0.06	0.15	0.25	0.37	0.49
5.25	0.06	0.15	0.26	0.38	0.51
5.30	0.07	0.16	0.27	0.39	0.52
5.35	0.08	0.17	0.28	0.41	0.54
5.40	0.08	0.18	0.29	0.42	0.56
5.45	0.09	0.19	0.30	0.43	0.57
5.50	0.09	0.20	0.32	0.45	0.59
5.55	0.10	0.20	0.33	0.46	0.60
5.60	0.10	0.21	0.34	0.47	0.62
5.65	0.11	0.22	0.35	0.48	0.63
5.70	0.12	0.23	0.36	0.50	0.65
5.75	0.12	0.24	0.37	0.51	0.66
5.80	0.13	0.25	0.38	0.52	0.68
5.85	0.14	0.26	0.39	0.54	0.70
5.90	0.14	0.26	0.40	0.55	0.71
5.95	0.15	0.27	0.42	0.57	0.73
6.00	0.16	0.28	0.43	0.58	0.75
6.05	0.17	0.30	0.44	0.60	0.77
6.10	0.18	0.31	0.46	0.63	0.80
6.15	0.18	0.32	0.48	0.65	0.83
6.20	0.19	0.34	0.50	0.67	0.85
6.25	0.20	0.35	0.51	0.69	0.88
6.30	0.21	0.36	0.53	0.71	0.90
6.35	0.22	0.38	0.55	0.73	0.93
6.40	0.23	0.39	0.56	0.75	0.95
6.45	0.24	0.40	0.58	0.77	0.97
6.50	0.25	0.42	0.60	0.79	0.99
6.55	0.26	0.42	0.61	0.80	1.01
6.60	0.26	0.43	0.61	0.81	1.02
6.65	0.27	0.44	0.62	0.82	1.03
6.70	0.28	0.45	0.63	0.83	1.04
6.75	0.28	0.45	0.64	0.84	1.05
6.80	0.29	0.46	0.65	0.85	1.06
6.85	0.30	0.47	0.66	0.87	1.08
6.90	0.31	0.48	0.68	0.88	1.10
6.95	0.32	0.50	0.70	0.90	1.12
7.00	0.33	0.51	0.71	0.93	1.15
7.05	0.34	0.53	0.73	0.95	1.18
7.10	0.35	0.55	0.76	0.98	1.21
7.15	0.37	0.57	0.78	1.01	1.25
7.20	0.38	0.59	0.81	1.04	1.29
7.25	0.40	0.61	0.84	1.08	1.33
7.30	0.42	0.64	0.87	1.12	1.38
7.35	0.44	0.67	0.91	1.17	1.43
7.40	0.46	0.70	0.95	1.22	1.49
7.45	0.49	0.73	1.00	1.27	1.56
7.50	0.52	0.77	1.04	1.33	1.63

		Runoff (cfs)			
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year
7.55	0.59	0.88	1.19	1.52	1.85
7.60	0.72	1.07	1.43	1.82	2.21
7.65	0.85	1.25	1.67	2.11	2.56
7.70	0.98	1.43	1.91	2.40	2.91
7.75	1.11	1.61	2.13	2.68	3.23
7.80	1.23	1.77	2.34	2.94	3.54
7.85	1.34	1.92	2.54	3.17	3.81
7.90	1.45	2.06	2.71	3.38	4.06
7.95	1.54	2.18	2.86	3.55	4.26
8.00	1.61	2.28	2.98	3.69	4.42
8.05	1.64	2.30	3.00	3.72	4.45
8.10	1.61	2.26	2.94	3.63	4.34
8.15	1.57	2.20	2.86	3.54	4.22
8.20	1.53	2.14	2.78	3.43	4.08
8.25	1.49	2.07	2.68	3.31	3.94
8.30	1.44	2.00	2.58	3.18	3.79
8.35	1.39	1.93	2.49	3.06	3.64
8.40	1.34	1.85	2.38	2.93	3.48
8.45	1.28	1.78	2.29	2.81	3.33
8.50	1.23	1.70	2.19	2.69	3.19
8.55	1.20	1.65	2.11	2.59	3.07
8.60	1.17	1.60	2.06	2.52	2.98
8.65	1.14	1.56	2.00	2.45	2.90
8.70	1.11	1.52	1.95	2.38	2.81
8.75	1.08	1.48	1.89	2.31	2.73
8.80	1.06	1.44	1.84	2.25	2.65
8.85	1.03	1.41	1.79	2.18	2.58
8.90	1.01	1.37	1.74	2.12	2.50
8.95	0.98	1.33	1.70	2.06	2.43
9.00	0.96	1.30	1.65	2.01	2.36
9.05	0.93	1.26	1.60	1.95	2.30
9.10	0.91	1.23	1.56	1.90	2.23
9.15	0.89	1.20	1.52	1.84	2.17
9.20	0.86	1.17	1.48	1.79	2.11
9.25	0.84	1.14	1.44	1.74	2.05
9.30	0.82	1.11	1.40	1.70	2.00
9.35	0.80	1.08	1.37	1.65	1.94
9.40	0.78	1.05	1.33	1.61	1.89
9.45	0.77	1.03	1.30	1.57	1.84
9.50	0.75	1.01	1.27	1.53	1.80
9.55	0.74	0.99	1.24	1.50	1.76
9.60	0.73	0.97	1.22	1.48	1.73
9.65	0.72	0.96	1.21	1.46	1.71
9.70	0.71	0.95	1.19	1.44	1.68
9.75	0.70	0.93	1.17	1.42	1.66
9.80	0.69	0.92	1.16	1.40	1.64
9.85	0.68	0.91	1.14	1.38	1.61
9.90	0.68	0.90	1.13	1.36	1.59
9.95	0.67	0.89	1.12	1.35	1.57
10.00	0.66	0.88	1.10	1.33	1.55
10.05	0.65	0.87	1.09	1.31	1.54
10.10	0.65	0.86	1.08	1.30	1.51
10.15	0.64	0.85	1.06	1.28	1.50
10.20	0.63	0.84	1.05	1.26	1.48
10.25	0.63	0.83	1.04	1.25	1.46
10.30	0.62	0.82	1.03	1.23	1.44
10.35	0.61	0.81	1.02	1.22	1.43
10.40	0.61	0.81	1.01	1.21	1.41
10.45	0.60	0.80	1.00	1.20	1.40
10.50	0.60	0.79	0.99	1.19	1.39
10.55	0.59	0.79	0.98	1.18	1.38
10.60	0.59	0.78	0.98	1.17	1.37
10.65	0.59	0.78	0.97	1.17	1.36
10.70	0.59	0.78	0.97	1.16	1.36
10.75	0.59	0.77	0.97	1.16	1.35
10.80	0.58	0.77	0.96	1.15	1.34
10.85	0.58	0.77	0.95	1.14	1.33
10.90	0.58	0.76	0.95	1.14	1.32
10.95	0.57	0.76	0.94	1.13	1.32
11.00	0.57	0.75	0.94	1.12	1.31
11.05	0.57	0.75	0.93	1.12	1.30
11.10	0.56	0.74	0.93	1.11	1.29
11.15	0.56	0.74	0.92	1.10	1.28
11.20	0.56	0.73	0.91	1.09	1.27
11.25	0.55	0.73	0.91	1.08	1.26
11.30	0.55	0.72	0.90	1.08	1.25
11.35	0.55	0.72	0.89	1.07	1.24
11.40	0.54	0.71	0.89	1.06	1.23

Time (hrs)	2-Year	Runoff (cfs) 5-Year	10-Year	25-Year	100-Year
11.45	0.54	0.71	0.88	1.05	1.22
11.50	0.54	0.70	0.87	1.04	1.21
11.55	0.53	0.70	0.86	1.03	1.20
11.60	0.53	0.69	0.86	1.02	1.19
11.65	0.52	0.68	0.85	1.01	1.18
11.70	0.52	0.68	0.84	1.00	1.17
11.75	0.51	0.67	0.83	0.99	1.16
11.80	0.51	0.67	0.83	0.99	1.15
11.85	0.50	0.66	0.82	0.98	1.14
11.90	0.50	0.66	0.81	0.97	1.13
11.95	0.50	0.65	0.81	0.96	1.12
12.00	0.50	0.65	0.80	0.96	1.11
12.05	0.49	0.65	0.80	0.95	1.11
12.10	0.49	0.64	0.80	0.95	1.10
12.15	0.49	0.64	0.79	0.94	1.10
12.20	0.49	0.64	0.79	0.94	1.09
12.25	0.49	0.64	0.79	0.94	1.09
12.30	0.49	0.64	0.79	0.94	1.09
12.35	0.49	0.64	0.79	0.94	1.09
12.40	0.49	0.64	0.79	0.94	1.09
12.45	0.49	0.64	0.79	0.94	1.09
12.50	0.49	0.64	0.79	0.95	1.10
12.55	0.49	0.64	0.79	0.94	1.09
12.60	0.49	0.64	0.79	0.94	1.09
12.65	0.49	0.63	0.78	0.93	1.08
12.70	0.48	0.63	0.78	0.93	1.08
12.75	0.48	0.63	0.78	0.92	1.07
12.80	0.48	0.63	0.77	0.92	1.07
12.85	0.48	0.62	0.77	0.92	1.06
12.90	0.48	0.62	0.77	0.91	1.06
12.95	0.48	0.62	0.76	0.91	1.05
13.00	0.47	0.62	0.76	0.91	1.05
13.05	0.47	0.62	0.76	0.91	1.05
13.10	0.48	0.62	0.77	0.91	1.05
13.15	0.48	0.62	0.77	0.91	1.06
13.20	0.48	0.62	0.77	0.91	1.06
13.25	0.48	0.62	0.77	0.91	1.05
13.30	0.48	0.62	0.76	0.91	1.05
13.35	0.48	0.62	0.76	0.91	1.05
13.40	0.47	0.62	0.76	0.90	1.05
13.45	0.47	0.62	0.76	0.90	1.04
13.50	0.47	0.61	0.75	0.90	1.04
13.55	0.47	0.61	0.75	0.89	1.03
13.60	0.47	0.61	0.75	0.89	1.03
13.65	0.47	0.61	0.75	0.89	1.03
13.70	0.46	0.60	0.74	0.88	1.02
13.75	0.46	0.60	0.74	0.88	1.02
13.80	0.46	0.60	0.74	0.88	1.01
13.85	0.46	0.60	0.73	0.87	1.01
13.90	0.46	0.60	0.73	0.87	1.01
13.95	0.46	0.59	0.73	0.87	1.00
14.00	0.46	0.59	0.73	0.86	1.00
14.05	0.46	0.59	0.73	0.86	1.00
14.10	0.46	0.59	0.73	0.86	1.00
14.15	0.46	0.59	0.73	0.86	1.00
14.20	0.45	0.59	0.72	0.86	0.99
14.25	0.45	0.59	0.72	0.86	0.99
14.30	0.45	0.59	0.72	0.86	0.99
14.35	0.45	0.59	0.72	0.86	0.99
14.40	0.45	0.59	0.72	0.85	0.99
14.45	0.45	0.59	0.72	0.85	0.99
14.50	0.45	0.58	0.72	0.85	0.98
14.55	0.45	0.58	0.72	0.85	0.98
14.60	0.45	0.58	0.72	0.85	0.98
14.65	0.45	0.58	0.72	0.85	0.98
14.70	0.45	0.58	0.71	0.85	0.98
14.75	0.45	0.58	0.71	0.84	0.98
14.80	0.45	0.58	0.71	0.84	0.97
14.85	0.45	0.58	0.71	0.84	0.97
14.90	0.45	0.58	0.71	0.84	0.97
14.95	0.45	0.58	0.71	0.84	0.97
15.00	0.45	0.58	0.71	0.84	0.97
15.05	0.45	0.58	0.71	0.84	0.97
15.10	0.45	0.57	0.70	0.83	0.96
15.15	0.44	0.57	0.70	0.83	0.96
15.20	0.44	0.57	0.70	0.83	0.96
15.25	0.44	0.57	0.70	0.83	0.96
15.30	0.44	0.57	0.70	0.83	0.96

Time (hrs)	Runoff (cfs) 2-Year	5-Year	10-Year	25-Year	100-Year
15.35	0.44	0.57	0.70	0.83	0.95
15.40	0.44	0.57	0.70	0.82	0.95
15.45	0.44	0.57	0.70	0.82	0.95
15.50	0.44	0.57	0.69	0.82	0.95
15.55	0.44	0.57	0.69	0.82	0.95
15.60	0.44	0.56	0.69	0.82	0.94
15.65	0.44	0.56	0.69	0.82	0.94
15.70	0.44	0.56	0.69	0.82	0.94
15.75	0.44	0.56	0.69	0.81	0.94
15.80	0.44	0.56	0.69	0.81	0.94
15.85	0.44	0.56	0.69	0.81	0.94
15.90	0.43	0.56	0.68	0.81	0.93
15.95	0.43	0.56	0.68	0.81	0.93
16.00	0.43	0.56	0.68	0.81	0.93
16.05	0.43	0.56	0.68	0.80	0.93
16.10	0.43	0.56	0.68	0.80	0.93
16.15	0.43	0.55	0.68	0.80	0.92
16.20	0.43	0.55	0.68	0.80	0.92
16.25	0.43	0.55	0.68	0.80	0.92
16.30	0.43	0.55	0.67	0.80	0.92
16.35	0.43	0.55	0.67	0.79	0.92
16.40	0.43	0.55	0.67	0.79	0.91
16.45	0.43	0.55	0.67	0.79	0.91
16.50	0.43	0.55	0.67	0.79	0.91
16.55	0.42	0.55	0.67	0.79	0.91
16.60	0.42	0.54	0.67	0.79	0.91
16.65	0.42	0.54	0.66	0.78	0.90
16.70	0.42	0.54	0.66	0.78	0.90
16.75	0.42	0.54	0.66	0.78	0.90
16.80	0.42	0.54	0.66	0.78	0.90
16.85	0.42	0.54	0.66	0.78	0.90
16.90	0.42	0.54	0.66	0.78	0.89
16.95	0.42	0.54	0.66	0.77	0.89
17.00	0.42	0.54	0.65	0.77	0.89
17.05	0.42	0.54	0.65	0.77	0.89
17.10	0.42	0.53	0.65	0.77	0.89
17.15	0.42	0.53	0.65	0.77	0.89
17.20	0.41	0.53	0.65	0.77	0.88
17.25	0.41	0.53	0.65	0.76	0.88
17.30	0.41	0.53	0.65	0.76	0.88
17.35	0.41	0.53	0.64	0.76	0.88
17.40	0.41	0.53	0.64	0.76	0.87
17.45	0.41	0.53	0.64	0.76	0.87
17.50	0.41	0.53	0.64	0.76	0.87
17.55	0.41	0.52	0.64	0.75	0.87
17.60	0.41	0.52	0.64	0.75	0.87
17.65	0.41	0.52	0.64	0.75	0.86
17.70	0.41	0.52	0.64	0.75	0.86
17.75	0.41	0.52	0.63	0.75	0.86
17.80	0.41	0.52	0.63	0.75	0.86
17.85	0.40	0.52	0.63	0.74	0.86
17.90	0.40	0.52	0.63	0.74	0.85
17.95	0.40	0.52	0.63	0.74	0.85
18.00	0.40	0.51	0.63	0.74	0.85
18.05	0.40	0.51	0.63	0.74	0.85
18.10	0.40	0.51	0.62	0.73	0.85
18.15	0.40	0.51	0.62	0.73	0.84
18.20	0.40	0.51	0.62	0.73	0.84
18.25	0.40	0.51	0.62	0.73	0.84
18.30	0.40	0.51	0.62	0.73	0.84
18.35	0.40	0.51	0.62	0.73	0.84
18.40	0.39	0.51	0.62	0.72	0.83
18.45	0.39	0.50	0.61	0.72	0.83
18.50	0.39	0.50	0.61	0.72	0.83
18.55	0.39	0.50	0.61	0.72	0.83
18.60	0.39	0.50	0.61	0.72	0.83
18.65	0.39	0.50	0.61	0.72	0.82
18.70	0.39	0.50	0.61	0.71	0.82
18.75	0.39	0.50	0.60	0.71	0.82
18.80	0.39	0.50	0.60	0.71	0.82
18.85	0.39	0.49	0.60	0.71	0.82
18.90	0.39	0.49	0.60	0.71	0.81
18.95	0.39	0.49	0.60	0.71	0.81
19.00	0.38	0.49	0.60	0.70	0.81
19.05	0.38	0.49	0.60	0.70	0.81
19.10	0.38	0.49	0.59	0.70	0.80
19.15	0.38	0.49	0.59	0.70	0.80
19.20	0.38	0.49	0.59	0.70	0.80

		Runoff (cfs)			
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year
19.25	0.38	0.48	0.59	0.69	0.80
19.30	0.38	0.48	0.59	0.69	0.80
19.35	0.38	0.48	0.59	0.69	0.79
19.40	0.38	0.48	0.59	0.69	0.79
19.45	0.38	0.48	0.58	0.69	0.79
19.50	0.38	0.48	0.58	0.69	0.79
19.55	0.37	0.48	0.58	0.68	0.79
19.60	0.37	0.48	0.58	0.68	0.78
19.65	0.37	0.48	0.58	0.68	0.78
19.70	0.37	0.47	0.58	0.68	0.78
19.75	0.37	0.47	0.57	0.68	0.78
19.80	0.37	0.47	0.57	0.67	0.77
19.85	0.37	0.47	0.57	0.67	0.77
19.90	0.37	0.47	0.57	0.67	0.77
19.95	0.37	0.47	0.57	0.67	0.77
20.00	0.37	0.47	0.57	0.67	0.77
20.05	0.37	0.47	0.57	0.67	0.76
20.10	0.36	0.46	0.56	0.66	0.76
20.15	0.36	0.46	0.56	0.66	0.76
20.20	0.36	0.46	0.56	0.66	0.76
20.25	0.36	0.46	0.56	0.66	0.76
20.30	0.36	0.46	0.56	0.66	0.75
20.35	0.36	0.46	0.56	0.65	0.75
20.40	0.36	0.46	0.55	0.65	0.75
20.45	0.36	0.46	0.55	0.65	0.75
20.50	0.36	0.45	0.55	0.65	0.75
20.55	0.36	0.45	0.55	0.65	0.74
20.60	0.35	0.45	0.55	0.64	0.74
20.65	0.35	0.45	0.55	0.64	0.74
20.70	0.35	0.45	0.55	0.64	0.74
20.75	0.35	0.45	0.54	0.64	0.73
20.80	0.35	0.45	0.54	0.64	0.73
20.85	0.35	0.45	0.54	0.64	0.73
20.90	0.35	0.44	0.54	0.63	0.73
20.95	0.35	0.44	0.54	0.63	0.73
21.00	0.35	0.44	0.54	0.63	0.72
21.05	0.35	0.44	0.53	0.63	0.72
21.10	0.35	0.44	0.53	0.63	0.72
21.15	0.34	0.44	0.53	0.62	0.72
21.20	0.34	0.44	0.53	0.62	0.71
21.25	0.34	0.44	0.53	0.62	0.71
21.30	0.34	0.43	0.53	0.62	0.71
21.35	0.34	0.43	0.53	0.62	0.71
21.40	0.34	0.43	0.52	0.62	0.71
21.45	0.34	0.43	0.52	0.61	0.70
21.50	0.34	0.43	0.52	0.61	0.70
21.55	0.34	0.43	0.52	0.61	0.70
21.60	0.34	0.43	0.52	0.61	0.70
21.65	0.33	0.43	0.52	0.61	0.70
21.70	0.33	0.42	0.51	0.60	0.69
21.75	0.33	0.42	0.51	0.60	0.69
21.80	0.33	0.42	0.51	0.60	0.69
21.85	0.33	0.42	0.51	0.60	0.69
21.90	0.33	0.42	0.51	0.60	0.68
21.95	0.33	0.42	0.51	0.59	0.68
22.00	0.33	0.42	0.50	0.59	0.68
22.05	0.33	0.41	0.50	0.59	0.68
22.10	0.33	0.41	0.50	0.59	0.68
22.15	0.32	0.41	0.50	0.59	0.67
22.20	0.32	0.41	0.50	0.58	0.67
22.25	0.32	0.41	0.50	0.58	0.67
22.30	0.32	0.41	0.49	0.58	0.67
22.35	0.32	0.41	0.49	0.58	0.66
22.40	0.32	0.41	0.49	0.58	0.66
22.45	0.32	0.40	0.49	0.58	0.66
22.50	0.32	0.40	0.49	0.57	0.66
22.55	0.32	0.40	0.49	0.57	0.66
22.60	0.32	0.40	0.49	0.57	0.65
22.65	0.31	0.40	0.48	0.57	0.65
22.70	0.31	0.40	0.48	0.57	0.65
22.75	0.31	0.40	0.48	0.56	0.65
22.80	0.31	0.40	0.48	0.56	0.64
22.85	0.31	0.39	0.48	0.56	0.64
22.90	0.31	0.39	0.48	0.56	0.64
22.95	0.31	0.39	0.47	0.56	0.64
23.00	0.31	0.39	0.47	0.55	0.64
23.05	0.31	0.39	0.47	0.55	0.63
23.10	0.31	0.39	0.47	0.55	0.63

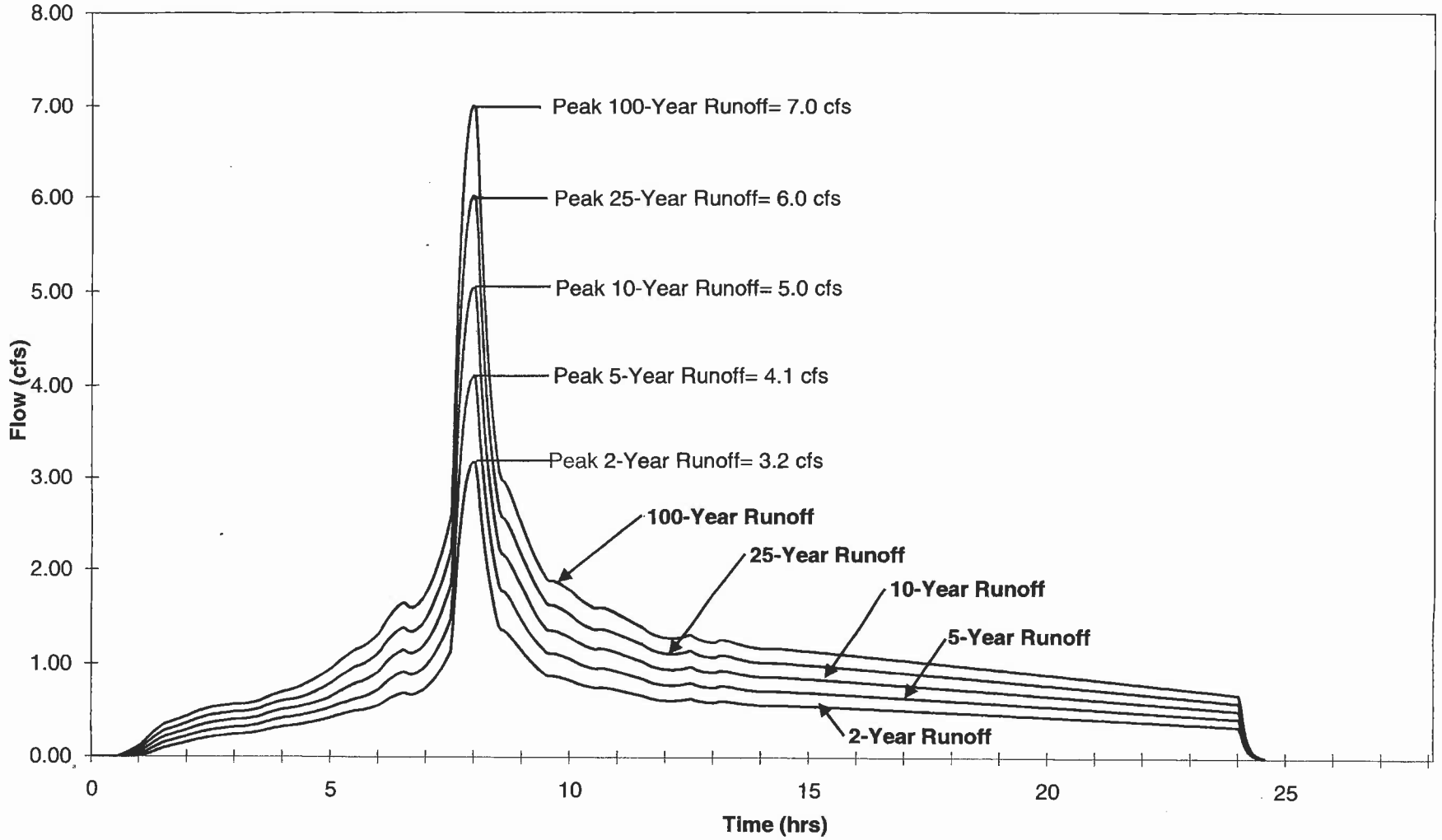
		Runoff (cfs)			
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year
23.15	0.30	0.39	0.47	0.55	0.63
23.20	0.30	0.38	0.47	0.55	0.63
23.25	0.30	0.38	0.46	0.54	0.62
23.30	0.30	0.38	0.46	0.54	0.62
23.35	0.30	0.38	0.46	0.54	0.62
23.40	0.30	0.38	0.46	0.54	0.62
23.45	0.30	0.38	0.46	0.54	0.62
23.50	0.30	0.38	0.46	0.53	0.61
23.55	0.30	0.38	0.45	0.53	0.61
23.60	0.30	0.37	0.45	0.53	0.61
23.65	0.29	0.37	0.45	0.53	0.61
23.70	0.29	0.37	0.45	0.53	0.60
23.75	0.29	0.37	0.45	0.53	0.60
23.80	0.29	0.37	0.45	0.52	0.60
23.85	0.29	0.37	0.44	0.52	0.60
23.90	0.29	0.37	0.44	0.52	0.60
23.95	0.29	0.36	0.44	0.52	0.59
24.00	0.29	0.36	0.44	0.52	0.59
24.05	0.27	0.34	0.41	0.48	0.55
24.10	0.23	0.30	0.36	0.42	0.48
24.15	0.21	0.26	0.31	0.37	0.42
24.20	0.18	0.23	0.27	0.32	0.37
24.25	0.16	0.20	0.24	0.28	0.32
24.30	0.14	0.17	0.21	0.25	0.28
24.35	0.12	0.15	0.18	0.22	0.25
24.40	0.10	0.13	0.16	0.19	0.22
24.45	0.09	0.12	0.14	0.16	0.19
24.50	0.08	0.10	0.12	0.14	0.16
24.55	0.07	0.09	0.11	0.13	0.14
24.60	0.06	0.08	0.09	0.11	0.13
24.65	0.05	0.07	0.08	0.10	0.11
24.70	0.05	0.06	0.07	0.08	0.10
24.75	0.04	0.05	0.06	0.07	0.08
24.80	0.04	0.05	0.05	0.06	0.07
24.85	0.03	0.04	0.05	0.06	0.06
24.90	0.03	0.03	0.04	0.05	0.06
24.95	0.02	0.03	0.04	0.04	0.05
25.00	0.02	0.03	0.03	0.04	0.04
25.05	0.02	0.02	0.03	0.03	0.04
25.10	0.02	0.02	0.02	0.03	0.03
25.15	0.01	0.02	0.02	0.03	0.03
25.20	0.01	0.02	0.02	0.02	0.03
25.25	0.01	0.01	0.02	0.02	0.02
25.30	0.01	0.01	0.01	0.02	0.02
25.35	0.01	0.01	0.01	0.01	0.02
25.40	0.01	0.01	0.01	0.01	0.01
25.45	0.01	0.01	0.01	0.01	0.01
25.50	0.01	0.01	0.01	0.01	0.01
25.55	0.00	0.01	0.01	0.01	0.01
25.60	0.00	0.01	0.01	0.01	0.01
25.65		0.00	0.01	0.01	0.01
25.70		0.00	0.00	0.01	0.01
25.75			0.00	0.01	0.01
25.80				0.00	0.01
25.85					0.00

Appendix C

Calculations for Hydrologic Analysis of Proposed Conditions

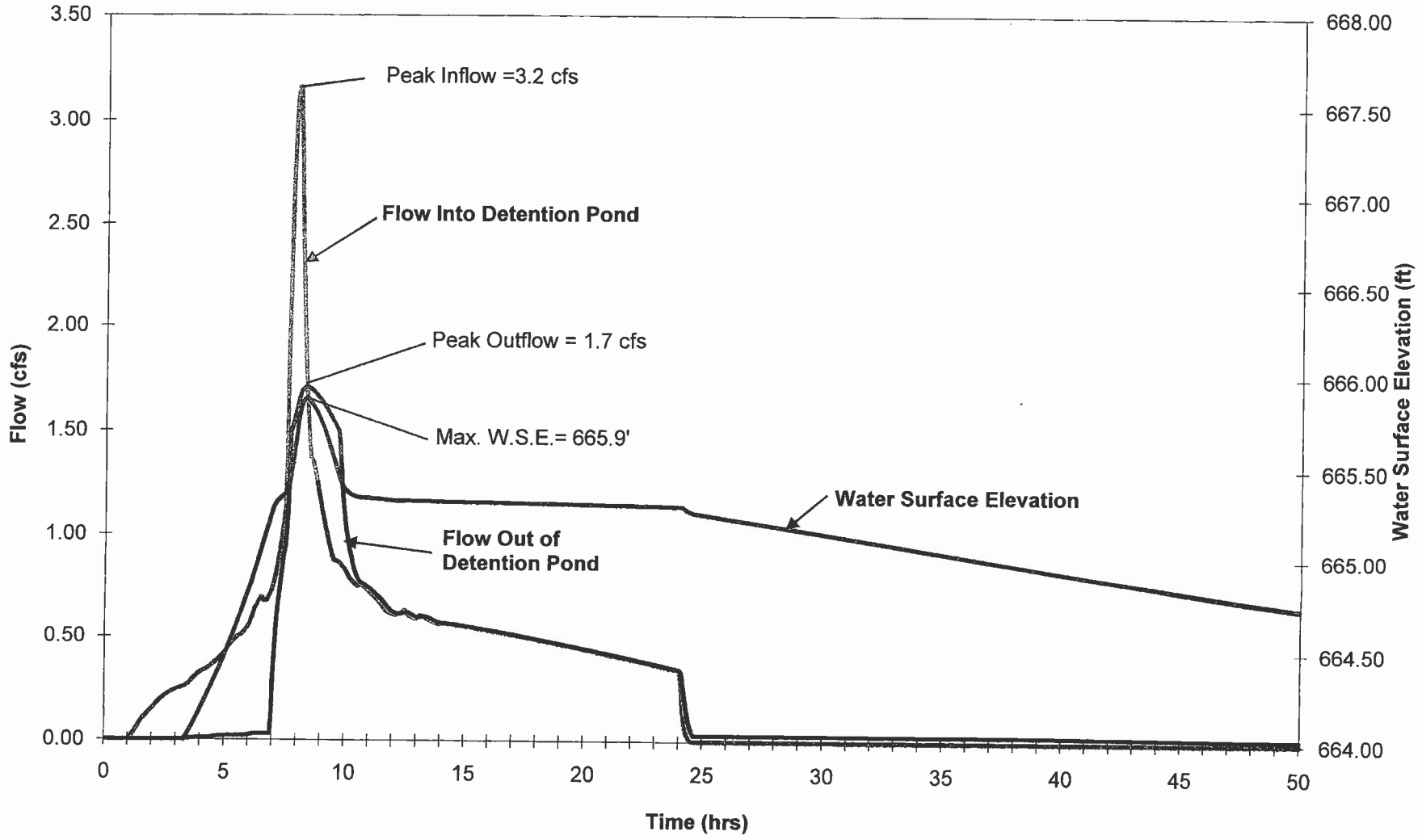
ROSEMONT RIDGE MIDDLE SCHOOL

Runoff Hydrographs for Proposed Conditions



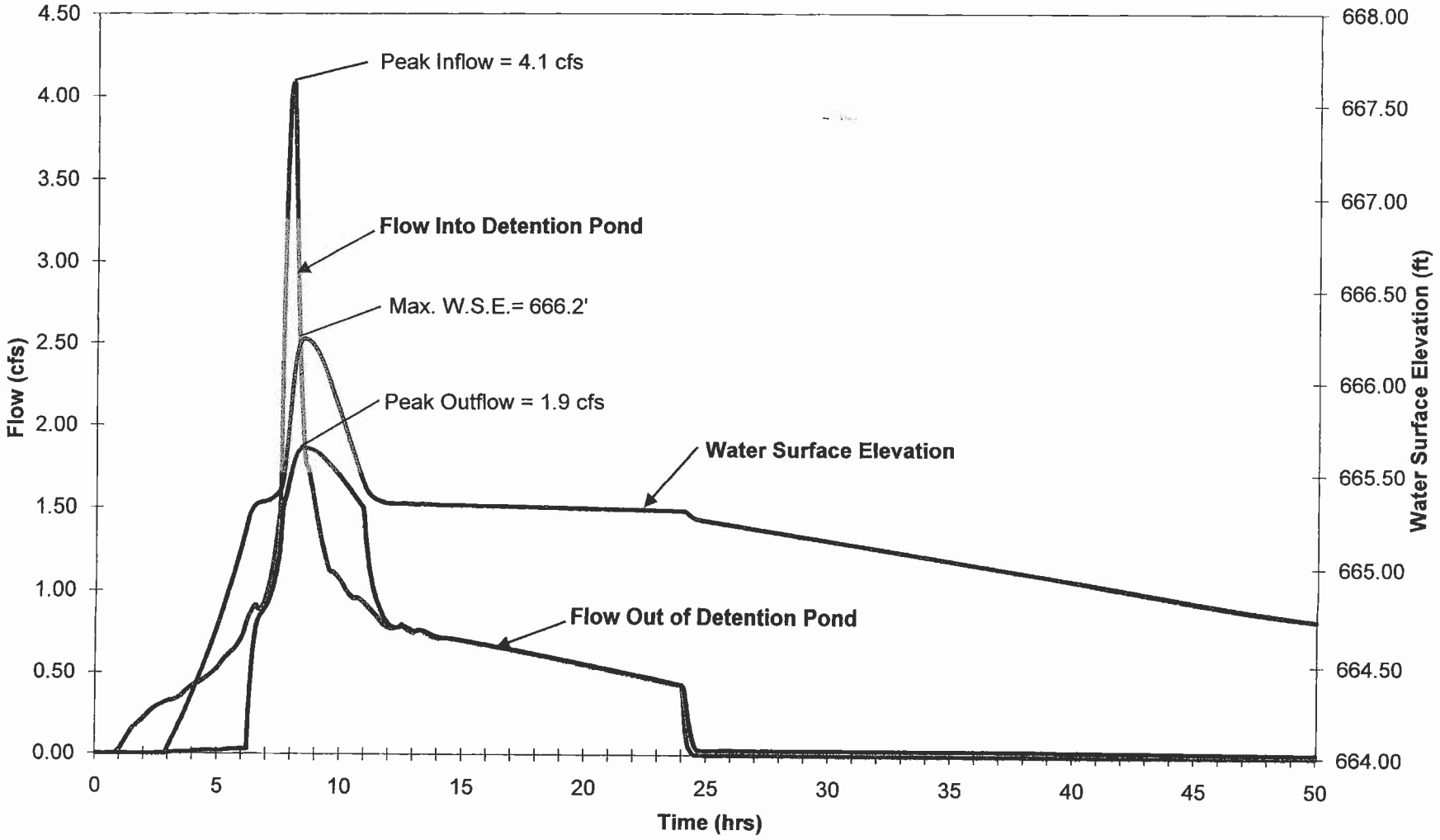
ROSEMONT RIDGE MIDDLE SCHOOL

Hydrograph and Detention Summary for Proposed Conditions 2-Year Storm



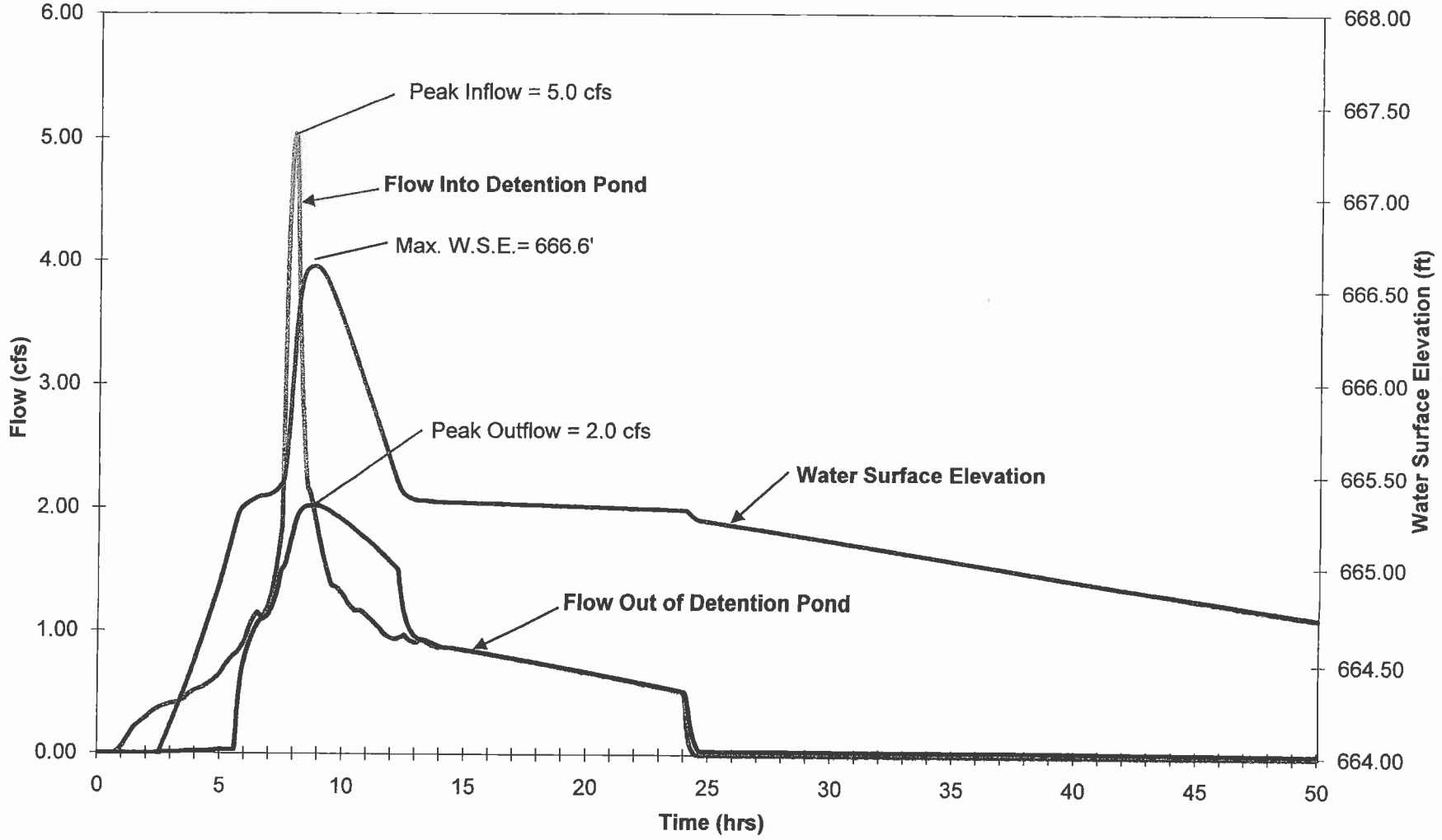
ROSEMONT RIDGE MIDDLE SCHOOL

Hydrograph and Detention Summary for Proposed Conditions 5-Year Storm



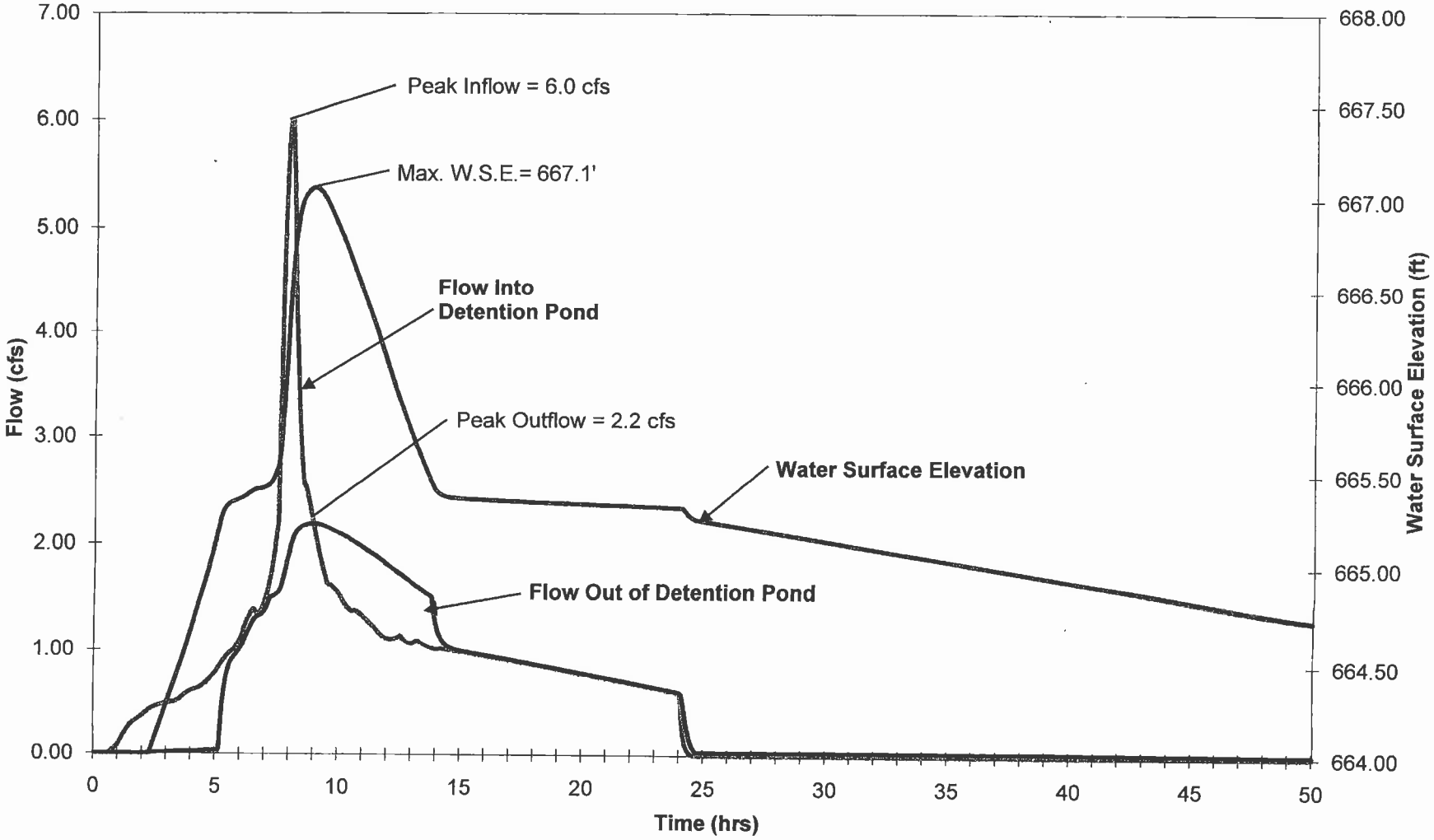
ROSEMONT RIDGE MIDDLE SCHOOL

Hydrograph and Detention Summary for Proposed Conditions 10-Year Storm



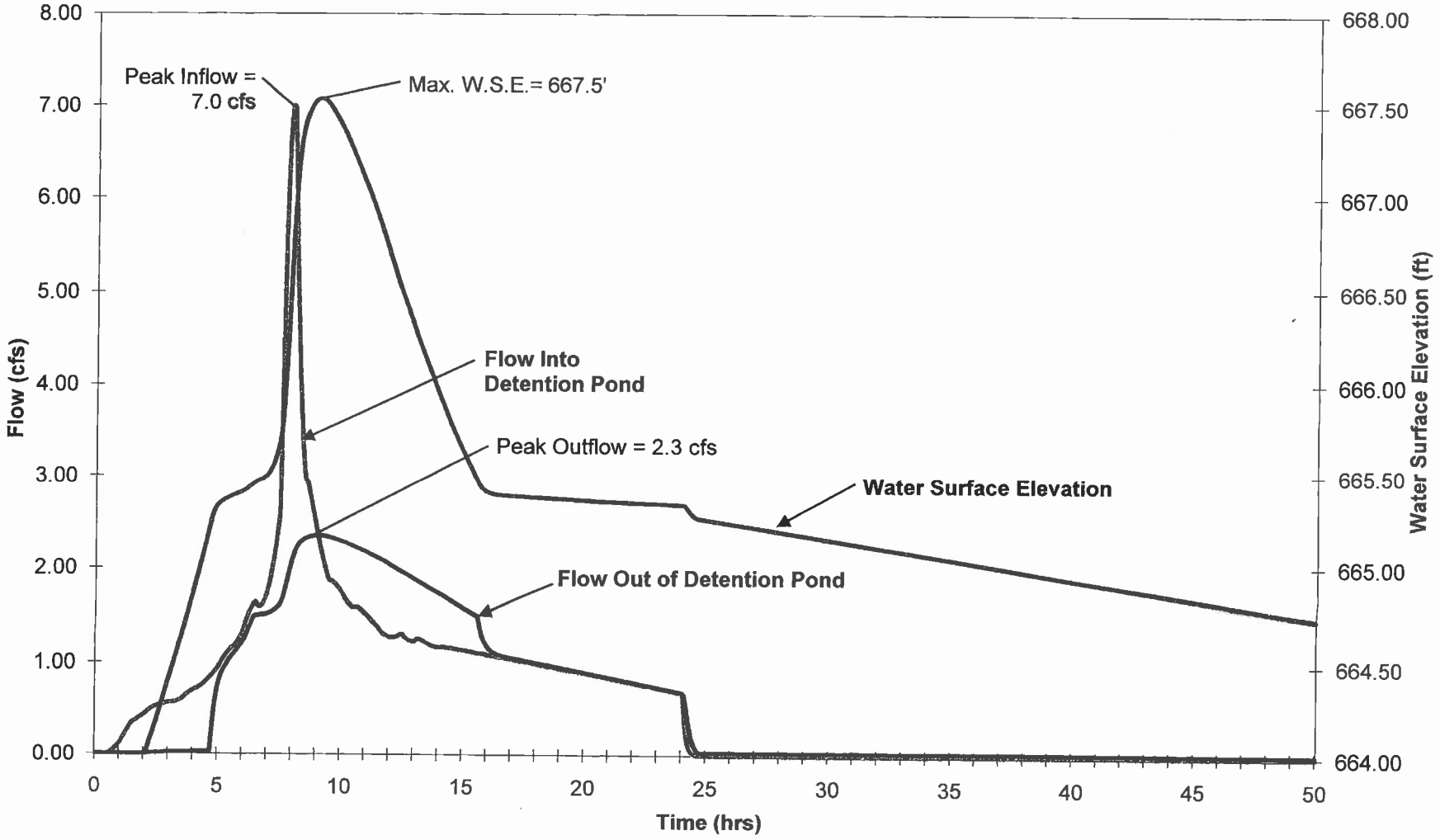
ROSEMONT RIDGE MIDDLE SCHOOL

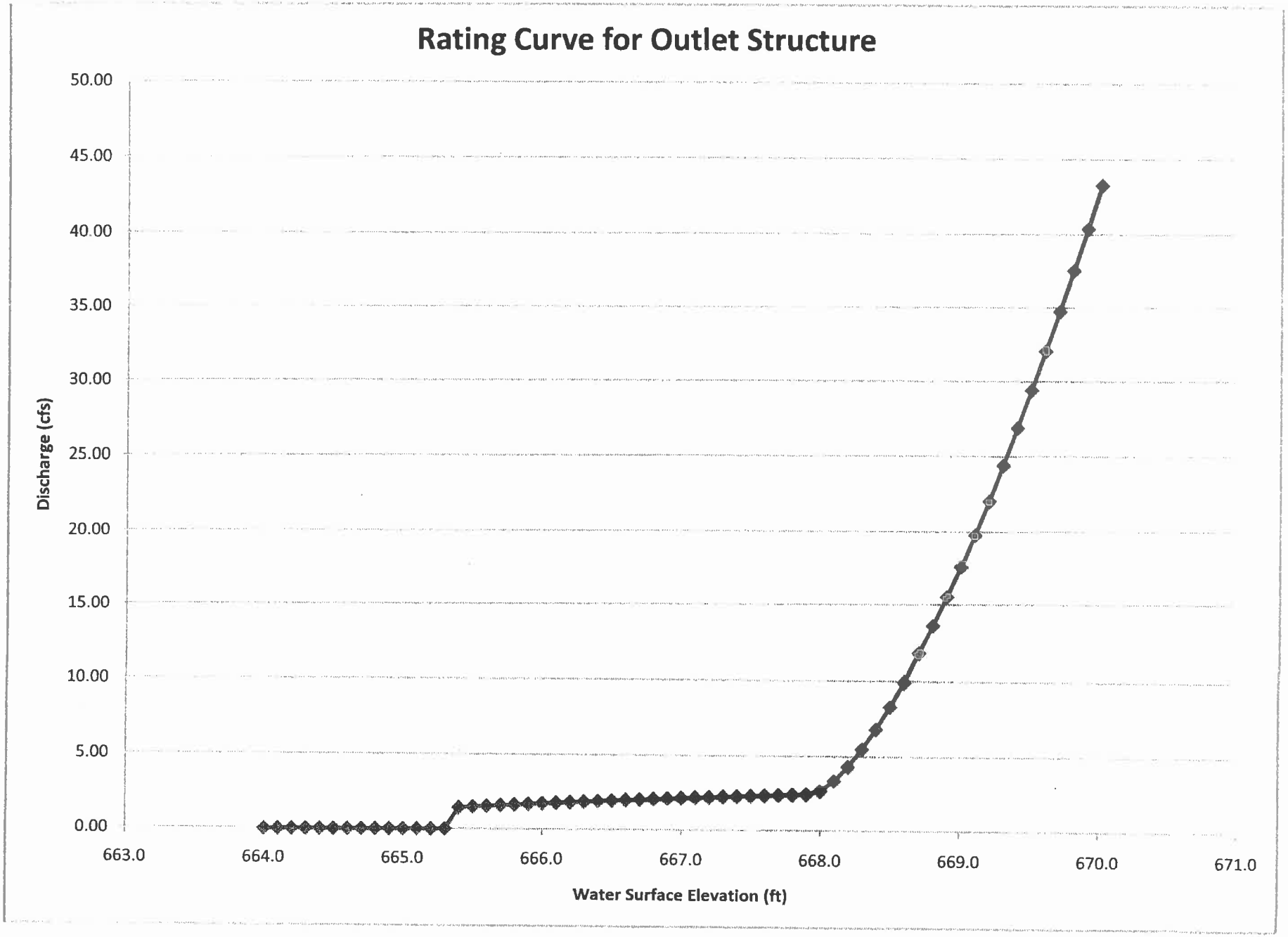
Hydrograph and Detention Summary for Proposed Conditions 25-Year Storm



ROSEMONT RIDGE MIDDLE SCHOOL

Hydrograph and Detention Summary for Proposed Conditions 100-Year Storm




Rating Curve for Outlet Structure
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Discharge (cfs)
663.0
664.0
665.0
666.0
667.0
668.0
669.0
670.0
671.0
Water Surface Elevation (ft)

PROPOSED CONDITIONS

Table 2-2a Runoff curve numbers for urban areas [1]

Cover description		Curve numbers for hydrologic soil group			
Cover type and hydrologic condition	Average percent impervious area [2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1] Average runoff condition, and $I_a = 0.2S$.

[2] The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

[3] CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

[4] Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

[5] Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

ROSEMONT RIDGE MIDDLE SCHOOL

Hydrographs and Water Surface Elevation for Proposed Conditions (All Sub-Basins)

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.60	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.65	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.70	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.75	0.00	0.00	0.01	0.02	0.05	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.66
0.80	0.00	0.00	0.01	0.03	0.06	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.66	663.67
0.85	0.00	0.01	0.02	0.05	0.07	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.67	663.67
0.90	0.00	0.01	0.03	0.06	0.09	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.67	663.67
0.95	0.00	0.02	0.04	0.07	0.10	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.66	663.67	663.68
1.00	0.01	0.03	0.05	0.08	0.12	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.67	663.67	663.68
1.05	0.01	0.04	0.07	0.10	0.14	0.00	0.00	0.00	0.00	0.00	663.66	663.66	663.67	663.68	663.69
1.10	0.02	0.05	0.08	0.12	0.17	0.00	0.00	0.00	0.00	0.00	663.66	663.67	663.67	663.68	663.70
1.15	0.03	0.06	0.10	0.15	0.19	0.00	0.00	0.00	0.00	0.00	663.66	663.67	663.68	663.69	663.71
1.20	0.03	0.07	0.12	0.17	0.22	0.00	0.00	0.00	0.00	0.00	663.66	663.67	663.68	663.70	663.72
1.25	0.04	0.09	0.13	0.19	0.24	0.00	0.00	0.00	0.00	0.00	663.67	663.68	663.69	663.71	663.73
1.30	0.05	0.10	0.15	0.21	0.27	0.00	0.00	0.00	0.00	0.00	663.67	663.68	663.70	663.72	663.74
1.35	0.06	0.11	0.17	0.23	0.29	0.00	0.00	0.00	0.00	0.00	663.67	663.68	663.70	663.73	663.75
1.40	0.07	0.13	0.18	0.25	0.31	0.00	0.00	0.00	0.00	0.00	663.67	663.69	663.71	663.74	663.77
1.45	0.08	0.14	0.20	0.26	0.33	0.00	0.00	0.00	0.00	0.00	663.68	663.70	663.72	663.75	663.78
1.50	0.09	0.15	0.21	0.28	0.35	0.00	0.00	0.00	0.00	0.00	663.68	663.70	663.73	663.76	663.80
1.55	0.10	0.16	0.22	0.29	0.36	0.00	0.00	0.00	0.00	0.00	663.69	663.71	663.74	663.77	663.81
1.60	0.11	0.16	0.23	0.30	0.37	0.00	0.00	0.00	0.00	0.00	663.69	663.72	663.75	663.79	663.83
1.65	0.11	0.17	0.24	0.31	0.38	0.00	0.00	0.00	0.00	0.00	663.70	663.73	663.76	663.80	663.85
1.70	0.12	0.18	0.24	0.31	0.39	0.00	0.00	0.00	0.00	0.00	663.70	663.73	663.77	663.82	663.86
1.75	0.12	0.19	0.25	0.32	0.39	0.00	0.00	0.00	0.00	0.00	663.71	663.74	663.78	663.83	663.88
1.80	0.13	0.19	0.26	0.33	0.40	0.00	0.00	0.00	0.00	0.00	663.71	663.75	663.80	663.85	663.90
1.85	0.14	0.20	0.27	0.34	0.41	0.00	0.00	0.00	0.00	0.00	663.72	663.76	663.81	663.86	663.92
1.90	0.14	0.21	0.28	0.35	0.42	0.00	0.00	0.00	0.00	0.00	663.73	663.77	663.82	663.88	663.94
1.95	0.15	0.21	0.28	0.36	0.43	0.00	0.00	0.00	0.00	0.00	663.73	663.78	663.83	663.89	663.96
2.00	0.15	0.22	0.29	0.37	0.44	0.00	0.00	0.00	0.00	0.00	663.74	663.79	663.85	663.91	663.98
2.05	0.16	0.23	0.30	0.38	0.45	0.00	0.00	0.00	0.00	0.00	663.75	663.80	663.86	663.93	664.00
2.10	0.17	0.24	0.31	0.39	0.46	0.00	0.00	0.00	0.00	0.00	663.76	663.81	663.88	663.94	664.02
2.15	0.17	0.25	0.32	0.40	0.48	0.00	0.00	0.00	0.00	0.00	663.76	663.82	663.89	663.96	664.04
2.20	0.18	0.25	0.33	0.41	0.49	0.00	0.00	0.00	0.00	0.01	663.77	663.83	663.90	663.98	664.06
2.25	0.19	0.26	0.34	0.42	0.50	0.00	0.00	0.00	0.00	0.01	663.78	663.85	663.92	664.00	664.08
2.30	0.19	0.27	0.34	0.42	0.50	0.00	0.00	0.00	0.00	0.01	663.79	663.86	663.93	664.02	664.10
2.35	0.20	0.27	0.35	0.43	0.51	0.00	0.00	0.00	0.00	0.01	663.80	663.87	663.95	664.04	664.12
2.40	0.20	0.28	0.36	0.44	0.52	0.00	0.00	0.00	0.01	0.01	663.81	663.88	663.97	664.05	664.14
2.45	0.21	0.28	0.36	0.45	0.53	0.00	0.00	0.00	0.01	0.01	663.82	663.90	663.98	664.07	664.17
2.50	0.21	0.29	0.37	0.45	0.53	0.00	0.00	0.00	0.01	0.01	663.83	663.91	664.00	664.09	664.19
2.55	0.22	0.29	0.37	0.46	0.54	0.00	0.00	0.00	0.01	0.01	663.84	663.92	664.02	664.11	664.21
2.60	0.22	0.30	0.38	0.46	0.54	0.00	0.00	0.00	0.01	0.01	663.85	663.94	664.03	664.13	664.23
2.65	0.22	0.30	0.38	0.46	0.55	0.00	0.00	0.01	0.01	0.01	663.86	663.95	664.05	664.15	664.26
2.70	0.23	0.31	0.39	0.47	0.55	0.00	0.00	0.01	0.01	0.01	663.87	663.96	664.07	664.17	664.28
2.75	0.23	0.31	0.39	0.47	0.55	0.00	0.00	0.01	0.01	0.01	663.88	663.98	664.08	664.19	664.30
2.80	0.23	0.31	0.39	0.47	0.56	0.00	0.00	0.01	0.01	0.01	663.89	663.99	664.10	664.21	664.33
2.85	0.24	0.32	0.40	0.48	0.56	0.00	0.00	0.01	0.01	0.02	663.90	664.00	664.12	664.23	664.35
2.90	0.24	0.32	0.40	0.48	0.56	0.00	0.00	0.01	0.01	0.02	663.91	664.02	664.13	664.25	664.37
2.95	0.24	0.32	0.40	0.48	0.57	0.00	0.00	0.01	0.01	0.02	663.92	664.03	664.15	664.27	664.39
3.00	0.24	0.32	0.41	0.49	0.57	0.00	0.01	0.01	0.01	0.02	663.93	664.05	664.17	664.29	664.42
3.05	0.25	0.33	0.41	0.49	0.57	0.00	0.01	0.01	0.01	0.02	663.94	664.06	664.18	664.31	664.44
3.10	0.25	0.33	0.41	0.49	0.57	0.00	0.01	0.01	0.01	0.02	663.95	664.07	664.20	664.33	664.46
3.15	0.25	0.33	0.41	0.49	0.57	0.00	0.01	0.01	0.02	0.02	663.96	664.09	664.22	664.35	664.48
3.20	0.25	0.33	0.41	0.49	0.57	0.00	0.01	0.01	0.02	0.02	663.98	664.10	664.23	664.37	664.51
3.25	0.25	0.33	0.41	0.50	0.58	0.00	0.01	0.01	0.02	0.02	663.99	664.12	664.25	664.39	664.53
3.30	0.26	0.34	0.42	0.50	0.58	0.00	0.01	0.01	0.02	0.02	664.00	664.13	664.27	664.41	664.55
3.35	0.26	0.34	0.42	0.50	0.59	0.00	0.01	0.01	0.02	0.02	664.01	664.15	664.29	664.43	664.57
3.40	0.26	0.35	0.43	0.51	0.59	0.00	0.01	0.01	0.02	0.02	664.02	664.16	664.30	664.45	664.59
3.45	0.27	0.35	0.43	0.52	0.60	0.00	0.01	0.01	0.02	0.02	664.03	664.17	664.32	664.47	664.62
3.50	0.27	0.36	0.44	0.52	0.60	0.01	0.01	0.01	0.02	0.02	664.04	664.19	664.34	664.49	664.64
3.55	0.28	0.36	0.45	0.53	0.62	0.01	0.01	0.02	0.02	0.02	664.06	664.20	664.36	664.51	664.66
3.60	0.29	0.37	0.46	0.54	0.63	0.01	0.01	0.02	0.02	0.02	664.07	664.22	664.37	664.53	664.69

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
3.65	0.29	0.38	0.47	0.55	0.64	0.01	0.01	0.02	0.02	0.02	664.08	664.24	664.39	664.55	664.71
3.70	0.30	0.39	0.48	0.56	0.65	0.01	0.01	0.02	0.02	0.02	664.09	664.25	664.41	664.57	664.73
3.75	0.30	0.39	0.48	0.57	0.66	0.01	0.01	0.02	0.02	0.02	664.11	664.27	664.43	664.59	664.76
3.80	0.31	0.40	0.49	0.58	0.67	0.01	0.01	0.02	0.02	0.02	664.12	664.28	664.45	664.62	664.78
3.85	0.32	0.41	0.50	0.59	0.68	0.01	0.01	0.02	0.02	0.02	664.13	664.30	664.47	664.64	664.81
3.90	0.32	0.41	0.50	0.60	0.69	0.01	0.01	0.02	0.02	0.02	664.15	664.32	664.49	664.66	664.83
3.95	0.32	0.42	0.51	0.60	0.70	0.01	0.01	0.02	0.02	0.03	664.16	664.33	664.51	664.68	664.86
4.00	0.33	0.42	0.52	0.61	0.70	0.01	0.02	0.02	0.02	0.03	664.17	664.35	664.53	664.71	664.88
4.05	0.33	0.43	0.52	0.61	0.71	0.01	0.02	0.02	0.02	0.03	664.19	664.37	664.55	664.73	664.91
4.10	0.33	0.43	0.52	0.62	0.71	0.01	0.02	0.02	0.02	0.03	664.20	664.38	664.57	664.75	664.93
4.15	0.34	0.43	0.53	0.62	0.72	0.01	0.02	0.02	0.02	0.03	664.22	664.40	664.59	664.78	664.96
4.20	0.34	0.44	0.53	0.62	0.73	0.01	0.02	0.02	0.02	0.03	664.23	664.42	664.61	664.80	664.99
4.25	0.34	0.44	0.53	0.63	0.74	0.01	0.02	0.02	0.02	0.03	664.24	664.44	664.63	664.82	665.01
4.30	0.35	0.44	0.54	0.64	0.75	0.01	0.02	0.02	0.03	0.03	664.26	664.45	664.65	664.84	665.04
4.35	0.35	0.45	0.55	0.64	0.76	0.01	0.02	0.02	0.03	0.03	664.27	664.47	664.67	664.87	665.06
4.40	0.36	0.45	0.55	0.65	0.77	0.01	0.02	0.02	0.03	0.03	664.29	664.49	664.69	664.89	665.09
4.45	0.36	0.46	0.56	0.66	0.78	0.01	0.02	0.02	0.03	0.03	664.30	664.50	664.71	664.91	665.12
4.50	0.37	0.47	0.56	0.67	0.80	0.01	0.02	0.02	0.03	0.03	664.32	664.52	664.73	664.94	665.14
4.55	0.37	0.47	0.57	0.68	0.81	0.01	0.02	0.02	0.03	0.03	664.33	664.54	664.75	664.96	665.17
4.60	0.38	0.48	0.58	0.69	0.82	0.02	0.02	0.02	0.03	0.03	664.35	664.56	664.77	664.98	665.20
4.65	0.38	0.48	0.58	0.70	0.84	0.02	0.02	0.02	0.03	0.03	664.36	664.58	664.79	665.01	665.23
4.70	0.39	0.49	0.59	0.71	0.85	0.02	0.02	0.02	0.03	0.03	664.38	664.60	664.82	665.03	665.26
4.75	0.39	0.50	0.60	0.72	0.86	0.02	0.02	0.02	0.03	0.21	664.39	664.61	664.84	665.06	665.28
4.80	0.40	0.50	0.61	0.74	0.88	0.02	0.02	0.03	0.03	0.38	664.41	664.63	664.86	665.08	665.30
4.85	0.40	0.51	0.62	0.75	0.90	0.02	0.02	0.03	0.03	0.51	664.42	664.65	664.88	665.11	665.32
4.90	0.41	0.52	0.63	0.77	0.91	0.02	0.02	0.03	0.03	0.61	664.44	664.67	664.90	665.13	665.33
4.95	0.42	0.53	0.64	0.78	0.93	0.02	0.02	0.03	0.03	0.69	664.45	664.69	664.93	665.16	665.34
5.00	0.42	0.53	0.65	0.80	0.95	0.02	0.02	0.03	0.03	0.76	664.47	664.71	664.95	665.19	665.34
5.05	0.43	0.54	0.66	0.81	0.97	0.02	0.02	0.03	0.03	0.81	664.49	664.73	664.97	665.22	665.35
5.10	0.44	0.56	0.68	0.83	0.99	0.02	0.02	0.03	0.03	0.85	664.50	664.75	664.99	665.24	665.36
5.15	0.45	0.57	0.70	0.85	1.01	0.02	0.02	0.03	0.12	0.89	664.52	664.77	665.02	665.27	665.36
5.20	0.46	0.58	0.71	0.87	1.03	0.02	0.02	0.03	0.31	0.91	664.54	664.79	665.04	665.29	665.36
5.25	0.47	0.58	0.72	0.89	1.05	0.02	0.02	0.03	0.45	0.94	664.56	664.81	665.07	665.31	665.37
5.30	0.47	0.59	0.74	0.90	1.07	0.02	0.02	0.03	0.57	0.96	664.57	664.84	665.09	665.32	665.37
5.35	0.48	0.60	0.75	0.92	1.09	0.02	0.03	0.03	0.66	0.98	664.59	664.86	665.12	665.33	665.38
5.40	0.49	0.61	0.77	0.93	1.11	0.02	0.03	0.03	0.73	1.01	664.61	664.88	665.15	665.34	665.38
5.45	0.49	0.62	0.78	0.95	1.13	0.02	0.03	0.03	0.78	1.03	664.63	664.90	665.17	665.35	665.38
5.50	0.50	0.63	0.79	0.96	1.15	0.02	0.03	0.03	0.83	1.05	664.65	664.92	665.20	665.35	665.39
5.55	0.50	0.63	0.80	0.97	1.16	0.02	0.03	0.03	0.86	1.07	664.67	664.94	665.23	665.36	665.39
5.60	0.50	0.64	0.81	0.98	1.16	0.02	0.03	0.03	0.89	1.08	664.68	664.97	665.25	665.36	665.39
5.65	0.51	0.64	0.81	0.99	1.18	0.02	0.03	0.17	0.91	1.10	664.70	664.99	665.28	665.36	665.40
5.70	0.51	0.65	0.82	1.00	1.19	0.02	0.03	0.34	0.93	1.12	664.72	665.01	665.30	665.37	665.40
5.75	0.52	0.66	0.84	1.02	1.21	0.02	0.03	0.47	0.94	1.13	664.74	665.03	665.31	665.37	665.40
5.80	0.53	0.67	0.85	1.04	1.23	0.02	0.03	0.56	0.96	1.15	664.76	665.06	665.32	665.37	665.40
5.85	0.53	0.69	0.87	1.05	1.25	0.02	0.03	0.64	0.97	1.16	664.78	665.08	665.33	665.37	665.41
5.90	0.54	0.70	0.88	1.07	1.27	0.02	0.03	0.70	0.99	1.18	664.80	665.10	665.34	665.38	665.41
5.95	0.55	0.71	0.90	1.09	1.29	0.02	0.03	0.75	1.01	1.20	664.82	665.13	665.34	665.38	665.41
6.00	0.56	0.73	0.92	1.12	1.32	0.02	0.03	0.79	1.03	1.22	664.84	665.15	665.35	665.38	665.42
6.05	0.57	0.75	0.95	1.15	1.36	0.03	0.03	0.83	1.05	1.24	664.86	665.18	665.35	665.39	665.42
6.10	0.59	0.78	0.98	1.19	1.41	0.03	0.03	0.86	1.07	1.27	664.88	665.20	665.36	665.39	665.42
6.15	0.61	0.80	1.01	1.23	1.45	0.03	0.03	0.89	1.10	1.30	664.90	665.23	665.36	665.39	665.43
6.20	0.63	0.83	1.04	1.26	1.49	0.03	0.03	0.92	1.12	1.33	664.92	665.26	665.37	665.40	665.43
6.25	0.64	0.84	1.06	1.29	1.52	0.03	0.23	0.94	1.15	1.36	664.95	665.28	665.37	665.40	665.44
6.30	0.65	0.86	1.08	1.31	1.55	0.03	0.39	0.97	1.18	1.39	664.97	665.30	665.37	665.41	665.44
6.35	0.66	0.88	1.10	1.33	1.57	0.03	0.52	0.99	1.20	1.42	664.99	665.32	665.38	665.41	665.45
6.40	0.67	0.89	1.12	1.35	1.59	0.03	0.61	1.01	1.23	1.45	665.02	665.33	665.38	665.42	665.45
6.45	0.68	0.90	1.13	1.37	1.61	0.03	0.68	1.03	1.25	1.48	665.04	665.34	665.38	665.42	665.46
6.50	0.69	0.91	1.14	1.38	1.63	0.03	0.74	1.05	1.28	1.49	665.06	665.34	665.39	665.42	665.46
6.55	0.69	0.91	1.14	1.38	1.62	0.03	0.79	1.07	1.30	1.49	665.09	665.35	665.39	665.43	665.47
6.60	0.68	0.89	1.12	1.35	1.60	0.03	0.82	1.08	1.31	1.50	665.11	665.35	665.39	665.43	665.47
6.65	0.67	0.89	1.11	1.34	1.58	0.03	0.83	1.09	1.32	1.50	665.13	665.35	665.39	665.43	665.47
6.70	0.68	0.89	1.11	1.34	1.58	0.03	0.85	1.09	1.32	1.50	665.16	665.36	665.39	665.43	665.48
6.75	0.68	0.89	1.12	1.35	1.59	0.03	0.86	1.10	1.33	1.50	665.18	665.36	665.39	665.43	665.48
6.80	0.69	0.91	1.13	1.37	1.61	0.03	0.87	1.10	1.33	1.50	665.20	665.36	665.40	665.43	665.48
6.85	0.70	0.92	1.15	1.39	1.64	0.03	0.88	1.11	1.34	1.50	665.23	665.36	665.40	665.44	665.49
6.90	0.72	0.94	1.17	1.42	1.67	0.03	0.89	1.12	1.35	1.51	665.25	665.36	665.40	665.44	665.49
6.95	0.73	0.96	1.20	1.45	1.71	0.13	0.90	1.13	1.37	1.51	665.27	665.36	665.40	665.44	665.50
7.00	0.76	0.99	1.24	1.49	1.75	0.29	0.92	1.15	1.39	1.51	665.29	665.36	665.40	665.44	665.51
7.05	0.78	1.02	1.27	1.54	1.80	0.41	0.93	1.17	1.41	1.52	665.30	665.37	665.41	665.45	665.51
7.10	0.81	1.06	1.32	1.59	1.86	0.51	0.95	1.19	1.44	1.52	665.32	665.37	665.41	665.45	665.52
7.15	0.84	1.09	1.36	1.64	1.93	0.59	0.98	1.22	1.47	1.53	665.33	665.37	665.42	665.46	665.54
7.20	0.87	1.14	1.42	1.70	2.00	0.66	1.00	1.25	1.49	1.54	665.33	665.38	665.42	665.46	665.55
7.25	0.91	1.18	1.47	1.77	2.08	0.72	1.03	1.29	1.50	1.54	665.34	665.38	665.43	665.47	665.57
7.30	0.94	1.23	1.53	1.85	2.17	0.77	1.06	1.33	1.50	1.55	665.35	665.39	665.43	665.48	665.59
7.35	0.99	1.29	1.60	1.93	2.26	0.82	1.10	1.37	1.51	1.56	665.35	665.40	665.44	665.49	665.61
7.40	1.03	1.35	1.67	2.01	2.36	0.87	1.14	1.42	1.51	1.58	665.36	665.40	665.45	665.51	665.63
7.45	1.08	1.41	1.75	2.10	2.47	0.91	1.18	1.48	1.52	1.59	665.36	665.41	665.46	665.53	665.66
7.50	1.13	1.48	1.83	2.20	2.58	0.95	1.23	1.49	1.53	1.60	665.37	665.42	665.47	665.55	665.69

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
7.55	1.43	1.86	2.31	2.77	3.24	1.01	1.31	1.50	1.55	1.63	665.38	665.43	665.49	665.58	665.73
7.60	1.89	2.45	3.04	3.65	4.27	1.13	1.47	1.52	1.58	1.66	665.40	665.46	665.53	665.63	665.80
7.65	2.24	2.91	3.60	4.32	5.05	1.30	1.51	1.55	1.62	1.70	665.43	665.50	665.58	665.71	665.89
7.70	2.53	3.28	4.06	4.86	5.67	1.49	1.53	1.59	1.66	1.75	665.46	665.55	665.66	665.81	666.00
7.75	2.74	3.56	4.40	5.26	6.14	1.51	1.57	1.63	1.71	1.81	665.50	665.61	665.74	665.91	666.13
7.80	2.92	3.78	4.67	5.58	6.52	1.53	1.60	1.68	1.76	1.87	665.54	665.68	665.83	666.02	666.26
7.85	3.04	3.93	4.85	5.80	6.76	1.56	1.64	1.72	1.81	1.92	665.59	665.75	665.93	666.14	666.40
7.90	3.12	4.04	4.98	5.95	6.93	1.58	1.67	1.76	1.87	1.98	665.64	665.82	666.03	666.26	666.54
7.95	3.16	4.08	5.03	6.00	6.99	1.61	1.71	1.80	1.91	2.03	665.69	665.90	666.13	666.38	666.68
8.00	3.16	4.07	5.02	5.99	6.97	1.63	1.74	1.85	1.96	2.08	665.74	665.97	666.22	666.50	666.81
8.05	2.97	3.83	4.71	5.62	6.54	1.65	1.77	1.88	2.00	2.13	665.79	666.04	666.31	666.60	666.94
8.10	2.65	3.41	4.20	5.01	5.83	1.67	1.79	1.91	2.04	2.17	665.82	666.09	666.38	666.70	667.04
8.15	2.39	3.08	3.80	4.52	5.26	1.68	1.81	1.94	2.07	2.20	665.85	666.14	666.44	666.77	667.13
8.20	2.18	2.81	3.45	4.11	4.78	1.69	1.83	1.96	2.09	2.22	665.87	666.17	666.49	666.83	667.20
8.25	2.00	2.58	3.17	3.77	4.38	1.70	1.84	1.97	2.10	2.24	665.88	666.20	666.53	666.88	667.26
8.30	1.85	2.37	2.92	3.47	4.04	1.70	1.84	1.98	2.12	2.26	665.89	666.22	666.56	666.92	667.31
8.35	1.71	2.20	2.70	3.22	3.74	1.70	1.85	1.99	2.13	2.27	665.89	666.23	666.58	666.95	667.35
8.40	1.59	2.05	2.51	2.99	3.47	1.70	1.85	2.00	2.14	2.29	665.89	666.24	666.60	666.98	667.38
8.45	1.49	1.92	2.35	2.80	3.25	1.70	1.86	2.00	2.15	2.30	665.88	666.24	666.61	667.00	667.41
8.50	1.40	1.80	2.21	2.63	3.05	1.70	1.86	2.01	2.15	2.30	665.88	666.24	666.62	667.01	667.43
8.55	1.36	1.75	2.15	2.55	2.96	1.69	1.85	2.01	2.16	2.31	665.87	666.24	666.62	667.02	667.45
8.60	1.36	1.74	2.13	2.54	2.94	1.69	1.85	2.01	2.16	2.32	665.86	666.24	666.63	667.03	667.46
8.65	1.34	1.72	2.11	2.50	2.90	1.68	1.85	2.01	2.17	2.32	665.84	666.23	666.63	667.04	667.48
8.70	1.32	1.69	2.07	2.45	2.84	1.68	1.85	2.01	2.17	2.32	665.83	666.23	666.63	667.05	667.49
8.75	1.29	1.65	2.02	2.40	2.78	1.67	1.85	2.01	2.17	2.33	665.82	666.22	666.63	667.06	667.50
8.80	1.26	1.61	1.97	2.34	2.71	1.66	1.84	2.01	2.17	2.33	665.81	666.22	666.63	667.06	667.51
8.85	1.22	1.57	1.92	2.27	2.64	1.66	1.84	2.01	2.18	2.33	665.80	666.21	666.63	667.06	667.52
8.90	1.19	1.52	1.87	2.21	2.56	1.65	1.84	2.01	2.18	2.34	665.78	666.20	666.63	667.07	667.53
8.95	1.16	1.48	1.82	2.15	2.49	1.64	1.83	2.01	2.18	2.34	665.77	666.19	666.62	667.07	667.53
9.00	1.13	1.44	1.76	2.09	2.42	1.64	1.83	2.01	2.18	2.34	665.75	666.18	666.62	667.07	667.53
9.05	1.10	1.40	1.72	2.03	2.36	1.63	1.82	2.00	2.17	2.34	665.73	666.17	666.61	667.06	667.54
9.10	1.07	1.37	1.67	1.98	2.29	1.62	1.82	2.00	2.17	2.34	665.72	666.15	666.60	667.06	667.54
9.15	1.04	1.33	1.62	1.92	2.23	1.61	1.81	2.00	2.17	2.34	665.70	666.14	666.59	667.05	667.53
9.20	1.01	1.29	1.58	1.87	2.17	1.60	1.80	1.99	2.17	2.34	665.68	666.12	666.58	667.05	667.53
9.25	0.99	1.26	1.54	1.82	2.11	1.59	1.80	1.99	2.16	2.34	665.66	666.11	666.57	667.04	667.53
9.30	0.96	1.23	1.50	1.78	2.06	1.58	1.79	1.98	2.16	2.33	665.64	666.09	666.55	667.03	667.52
9.35	0.94	1.20	1.46	1.73	2.01	1.57	1.78	1.98	2.16	2.33	665.62	666.08	666.54	667.02	667.51
9.40	0.92	1.17	1.43	1.69	1.96	1.56	1.77	1.97	2.15	2.33	665.60	666.06	666.53	667.01	667.50
9.45	0.90	1.14	1.40	1.65	1.91	1.55	1.77	1.96	2.15	2.33	665.58	666.04	666.51	666.99	667.49
9.50	0.88	1.12	1.37	1.62	1.87	1.54	1.76	1.96	2.14	2.32	665.56	666.02	666.49	666.98	667.48
9.55	0.87	1.11	1.36	1.60	1.85	1.53	1.75	1.95	2.14	2.32	665.53	666.00	666.48	666.97	667.47
9.60	0.87	1.11	1.36	1.61	1.86	1.52	1.74	1.94	2.13	2.31	665.51	665.98	666.46	666.95	667.46
9.65	0.87	1.11	1.35	1.60	1.85	1.51	1.73	1.94	2.13	2.31	665.49	665.96	666.44	666.94	667.45
9.70	0.87	1.10	1.35	1.59	1.84	1.50	1.73	1.93	2.12	2.31	665.47	665.94	666.43	666.92	667.44
9.75	0.86	1.10	1.34	1.58	1.83	1.43	1.72	1.92	2.12	2.30	665.45	665.92	666.41	666.91	667.43
9.80	0.85	1.09	1.33	1.57	1.81	1.33	1.71	1.92	2.11	2.30	665.43	665.90	666.39	666.90	667.42
9.85	0.85	1.08	1.32	1.56	1.80	1.24	1.70	1.91	2.11	2.29	665.42	665.88	666.38	666.88	667.40
9.90	0.84	1.07	1.30	1.54	1.78	1.16	1.69	1.90	2.10	2.29	665.41	665.86	666.36	666.87	667.39
9.95	0.83	1.06	1.29	1.53	1.76	1.10	1.68	1.90	2.10	2.28	665.40	665.85	666.34	666.85	667.38
10.00	0.82	1.05	1.28	1.51	1.75	1.05	1.67	1.89	2.09	2.28	665.39	665.83	666.32	666.84	667.37
10.05	0.81	1.04	1.26	1.49	1.73	1.01	1.66	1.88	2.08	2.28	665.38	665.81	666.31	666.82	667.35
10.10	0.80	1.02	1.25	1.47	1.70	0.97	1.65	1.87	2.08	2.27	665.37	665.79	666.29	666.80	667.34
10.15	0.79	1.01	1.23	1.45	1.68	0.94	1.64	1.87	2.07	2.27	665.37	665.77	666.27	666.79	667.32
10.20	0.78	1.00	1.22	1.44	1.66	0.91	1.63	1.86	2.07	2.26	665.36	665.75	666.25	666.77	667.31
10.25	0.78	0.99	1.20	1.42	1.64	0.89	1.62	1.85	2.06	2.26	665.36	665.72	666.23	666.75	667.29
10.30	0.77	0.98	1.19	1.41	1.63	0.86	1.61	1.84	2.05	2.25	665.36	665.70	666.21	666.74	667.28
10.35	0.76	0.97	1.18	1.40	1.61	0.83	1.60	1.83	2.05	2.24	665.35	665.68	666.19	666.72	667.26
10.40	0.76	0.96	1.17	1.39	1.60	0.82	1.59	1.83	2.04	2.24	665.35	665.66	666.17	666.70	667.25
10.45	0.75	0.96	1.17	1.38	1.59	0.80	1.58	1.82	2.03	2.23	665.35	665.64	666.15	666.68	667.23
10.50	0.75	0.95	1.16	1.37	1.58	0.79	1.57	1.81	2.03	2.23	665.35	665.62	666.13	666.66	667.21
10.55	0.75	0.95	1.16	1.37	1.58	0.78	1.56	1.80	2.02	2.22	665.35	665.60	666.11	666.65	667.20
10.60	0.75	0.95	1.16	1.37	1.58	0.77	1.55	1.79	2.01	2.22	665.35	665.58	666.10	666.63	667.18
10.65	0.75	0.95	1.16	1.37	1.58	0.76	1.54	1.78	2.00	2.21	665.35	665.56	666.08	666.61	667.16
10.70	0.75	0.95	1.16	1.37	1.58	0.76	1.53	1.77	2.00	2.20	665.35	665.54	666.06	666.59	667.15
10.75	0.75	0.95	1.15	1.36	1.57	0.76	1.52	1.77	1.99	2.20	665.34	665.52	666.04	666.58	667.13
10.80	0.74	0.94	1.15	1.35	1.56	0.75	1.51	1.76	1.98	2.19	665.34	665.51	666.02	666.56	667.12
10.85	0.74	0.94	1.14	1.35	1.55	0.75	1.50	1.75	1.98	2.19	665.34	665.49	666.00	666.54	667.10
10.90	0.73	0.93	1.13	1.34	1.54	0.75	1.49	1.74	1.97	2.18	665.34	665.47	665.98	666.52	667.08
10.95	0.73	0.92	1.12	1.33	1.53	0.74	1.43	1.74	1.96	2.18	665.34	665.45	665.96	666.50	667.07
11.00	0.72	0.92	1.12	1.32	1.52	0.74	1.34	1.73	1.95	2.17	665.34	665.43	665.95	666.49	667.05
11.05	0.72	0.91	1.11	1.31	1.51	0.73	1.26	1.72	1.95	2.16	665.34	665.42	665.93	666.47	667.03
11.10	0.71	0.90	1.10	1.29	1.49	0.73	1.19	1.71	1.94	2.16	665.34	665.41	665.91	666.45	667.02
11.15	0.71	0.90	1.09	1.28	1.48	0.72	1.14	1.70	1.93	2.15	665.34	665.40	665.89	666.43	667.00
11.20	0.70	0.89	1.08	1.27	1.47	0.72	1.09	1.69	1.93	2.14	665.34	665.39	665.87	666.41	666.98
11.25	0.69	0.88	1.07	1.26	1.46	0.71	1.05	1.68	1.92	2.14	665.34	665.39	665.85	666.39	666.96
11.30	0.69	0.87	1.06	1.25	1.44	0.71	1.02	1.68	1.91	2.13	665.34	665.38	665.83	666.38	666.94
11.35	0.68	0.87	1.05	1.24	1.43	0.70	0.99	1.67	1.90	2.12	665.34	665.38	665.81	666.36	666.93
11.40	0.68	0.86	1.04	1.23	1.42	0.70	0.97	1.66	1.89	2.12	665.34	665.37	665.79	666.34	666.91

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
11.45	0.67	0.85	1.03	1.22	1.41	0.69	0.95	1.65	1.89	2.11	665.34	665.37	665.77	666.32	666.89
11.50	0.67	0.84	1.02	1.21	1.39	0.68	0.93	1.64	1.88	2.10	665.34	665.37	665.75	666.30	666.87
11.55	0.66	0.83	1.01	1.19	1.38	0.68	0.91	1.63	1.87	2.10	665.34	665.36	665.73	666.28	666.85
11.60	0.65	0.82	1.00	1.18	1.36	0.67	0.90	1.62	1.86	2.09	665.33	665.36	665.71	666.26	666.83
11.65	0.64	0.81	0.99	1.16	1.34	0.66	0.88	1.61	1.85	2.08	665.33	665.36	665.69	666.24	666.81
11.70	0.63	0.80	0.98	1.15	1.33	0.66	0.86	1.60	1.85	2.07	665.33	665.36	665.67	666.22	666.79
11.75	0.63	0.80	0.97	1.14	1.31	0.65	0.85	1.59	1.84	2.07	665.33	665.36	665.65	666.20	666.77
11.80	0.62	0.79	0.96	1.13	1.31	0.64	0.83	1.58	1.83	2.06	665.33	665.35	665.63	666.18	666.75
11.85	0.62	0.79	0.96	1.13	1.30	0.64	0.82	1.57	1.82	2.05	665.33	665.35	665.61	666.16	666.73
11.90	0.62	0.78	0.95	1.12	1.29	0.63	0.81	1.56	1.81	2.04	665.33	665.35	665.59	666.14	666.71
11.95	0.62	0.78	0.95	1.11	1.28	0.63	0.80	1.55	1.80	2.04	665.33	665.35	665.57	666.11	666.69
12.00	0.61	0.78	0.94	1.11	1.28	0.63	0.80	1.54	1.79	2.03	665.33	665.35	665.55	666.09	666.67
12.05	0.61	0.78	0.94	1.11	1.28	0.62	0.79	1.53	1.78	2.02	665.33	665.35	665.53	666.07	666.65
12.10	0.61	0.77	0.94	1.11	1.27	0.62	0.79	1.52	1.77	2.01	665.33	665.35	665.51	666.05	666.63
12.15	0.61	0.77	0.94	1.11	1.27	0.62	0.78	1.51	1.76	2.00	665.33	665.35	665.50	666.03	666.61
12.20	0.61	0.78	0.94	1.11	1.28	0.62	0.78	1.50	1.76	2.00	665.33	665.35	665.48	666.01	666.59
12.25	0.61	0.78	0.94	1.11	1.28	0.62	0.78	1.48	1.75	1.99	665.33	665.35	665.46	665.99	666.57
12.30	0.62	0.78	0.95	1.12	1.28	0.62	0.78	1.38	1.74	1.98	665.33	665.35	665.44	665.97	666.55
12.35	0.62	0.78	0.95	1.12	1.29	0.62	0.78	1.30	1.73	1.97	665.33	665.35	665.43	665.96	666.53
12.40	0.62	0.79	0.96	1.13	1.30	0.62	0.78	1.24	1.72	1.96	665.33	665.35	665.42	665.94	666.51
12.45	0.63	0.79	0.96	1.13	1.30	0.62	0.78	1.19	1.72	1.96	665.33	665.35	665.41	665.92	666.49
12.50	0.63	0.80	0.97	1.14	1.31	0.62	0.79	1.14	1.71	1.95	665.33	665.35	665.40	665.90	666.47
12.55	0.63	0.79	0.96	1.13	1.31	0.62	0.79	1.11	1.70	1.94	665.33	665.35	665.40	665.88	666.45
12.60	0.62	0.78	0.95	1.12	1.29	0.62	0.79	1.08	1.69	1.93	665.33	665.35	665.39	665.86	666.44
12.65	0.61	0.77	0.94	1.10	1.27	0.62	0.79	1.06	1.68	1.93	665.33	665.35	665.39	665.85	666.42
12.70	0.61	0.77	0.93	1.10	1.26	0.62	0.78	1.03	1.67	1.92	665.33	665.35	665.38	665.83	666.40
12.75	0.60	0.76	0.92	1.09	1.25	0.61	0.78	1.01	1.67	1.91	665.33	665.35	665.38	665.81	666.38
12.80	0.60	0.76	0.92	1.08	1.24	0.61	0.77	1.00	1.66	1.90	665.33	665.35	665.38	665.79	666.36
12.85	0.60	0.75	0.92	1.08	1.24	0.61	0.77	0.98	1.65	1.90	665.33	665.35	665.38	665.77	666.34
12.90	0.60	0.75	0.91	1.07	1.24	0.60	0.77	0.97	1.64	1.89	665.33	665.35	665.37	665.76	666.32
12.95	0.59	0.75	0.91	1.07	1.23	0.60	0.76	0.96	1.63	1.88	665.33	665.35	665.37	665.74	666.30
13.00	0.59	0.75	0.91	1.07	1.23	0.60	0.76	0.95	1.62	1.87	665.33	665.34	665.37	665.72	666.28
13.05	0.60	0.75	0.91	1.07	1.24	0.60	0.76	0.94	1.61	1.87	665.33	665.34	665.37	665.70	666.27
13.10	0.60	0.76	0.92	1.09	1.25	0.60	0.76	0.94	1.60	1.86	665.33	665.34	665.37	665.69	666.25
13.15	0.61	0.77	0.93	1.09	1.26	0.60	0.76	0.94	1.59	1.85	665.33	665.35	665.37	665.67	666.23
13.20	0.61	0.77	0.93	1.09	1.26	0.60	0.76	0.93	1.59	1.84	665.33	665.35	665.37	665.65	666.21
13.25	0.60	0.76	0.93	1.09	1.25	0.60	0.76	0.93	1.58	1.84	665.33	665.35	665.37	665.64	666.20
13.30	0.60	0.76	0.92	1.08	1.25	0.60	0.76	0.93	1.57	1.83	665.33	665.35	665.37	665.62	666.18
13.35	0.60	0.76	0.92	1.08	1.24	0.60	0.76	0.93	1.56	1.82	665.33	665.35	665.37	665.60	666.16
13.40	0.60	0.75	0.91	1.07	1.23	0.60	0.76	0.93	1.55	1.81	665.33	665.35	665.37	665.59	666.14
13.45	0.59	0.75	0.91	1.06	1.22	0.60	0.76	0.92	1.55	1.80	665.33	665.34	665.37	665.57	666.13
13.50	0.59	0.74	0.90	1.06	1.22	0.60	0.75	0.92	1.54	1.80	665.33	665.34	665.37	665.56	666.11
13.55	0.58	0.74	0.89	1.05	1.21	0.59	0.75	0.92	1.53	1.79	665.33	665.34	665.36	665.54	666.09
13.60	0.58	0.73	0.89	1.05	1.20	0.59	0.75	0.91	1.52	1.78	665.33	665.34	665.36	665.53	666.07
13.65	0.58	0.73	0.88	1.04	1.20	0.59	0.74	0.91	1.51	1.77	665.33	665.34	665.36	665.51	666.06
13.70	0.58	0.73	0.88	1.03	1.19	0.59	0.74	0.90	1.51	1.77	665.32	665.34	665.36	665.49	666.04
13.75	0.57	0.72	0.88	1.03	1.18	0.58	0.74	0.90	1.50	1.76	665.32	665.34	665.36	665.48	666.02
13.80	0.57	0.72	0.87	1.03	1.18	0.58	0.73	0.89	1.49	1.75	665.32	665.34	665.36	665.46	666.00
13.85	0.57	0.72	0.87	1.02	1.18	0.58	0.73	0.89	1.42	1.74	665.32	665.34	665.36	665.45	665.99
13.90	0.57	0.72	0.87	1.02	1.17	0.58	0.73	0.88	1.34	1.74	665.32	665.34	665.36	665.44	665.97
13.95	0.57	0.72	0.87	1.02	1.17	0.57	0.72	0.88	1.28	1.73	665.32	665.34	665.36	665.43	665.95
14.00	0.57	0.71	0.86	1.02	1.17	0.57	0.72	0.88	1.23	1.72	665.32	665.34	665.36	665.42	665.93
14.05	0.57	0.71	0.87	1.02	1.17	0.57	0.72	0.87	1.19	1.72	665.32	665.34	665.36	665.41	665.92
14.10	0.57	0.72	0.87	1.02	1.17	0.57	0.72	0.87	1.16	1.71	665.32	665.34	665.36	665.41	665.90
14.15	0.57	0.72	0.87	1.02	1.17	0.57	0.72	0.87	1.13	1.70	665.32	665.34	665.36	665.40	665.88
14.20	0.57	0.72	0.87	1.02	1.17	0.57	0.72	0.87	1.11	1.69	665.32	665.34	665.36	665.40	665.87
14.25	0.57	0.72	0.87	1.02	1.17	0.57	0.72	0.87	1.10	1.69	665.32	665.34	665.36	665.39	665.85
14.30	0.57	0.71	0.86	1.02	1.17	0.57	0.72	0.87	1.08	1.68	665.32	665.34	665.36	665.39	665.83
14.35	0.57	0.71	0.86	1.01	1.17	0.57	0.72	0.87	1.07	1.67	665.32	665.34	665.36	665.39	665.82
14.40	0.57	0.71	0.86	1.01	1.16	0.57	0.72	0.87	1.06	1.66	665.32	665.34	665.36	665.39	665.80
14.45	0.56	0.71	0.86	1.01	1.16	0.57	0.71	0.86	1.05	1.65	665.32	665.34	665.36	665.39	665.79
14.50	0.56	0.71	0.86	1.01	1.16	0.57	0.71	0.86	1.04	1.65	665.32	665.34	665.36	665.39	665.77
14.55	0.56	0.71	0.86	1.01	1.16	0.56	0.71	0.86	1.04	1.64	665.32	665.34	665.36	665.38	665.76
14.60	0.56	0.71	0.86	1.01	1.16	0.56	0.71	0.86	1.03	1.63	665.32	665.34	665.36	665.38	665.74
14.65	0.56	0.71	0.85	1.00	1.15	0.56	0.71	0.86	1.03	1.62	665.32	665.34	665.36	665.38	665.73
14.70	0.56	0.71	0.85	1.00	1.15	0.56	0.71	0.86	1.02	1.62	665.32	665.34	665.36	665.38	665.71
14.75	0.56	0.70	0.85	1.00	1.15	0.56	0.71	0.86	1.02	1.61	665.32	665.34	665.36	665.38	665.70
14.80	0.56	0.70	0.85	1.00	1.15	0.56	0.71	0.85	1.01	1.60	665.32	665.34	665.36	665.38	665.68
14.85	0.56	0.70	0.85	0.99	1.14	0.56	0.71	0.85	1.01	1.59	665.32	665.34	665.36	665.38	665.67
14.90	0.55	0.70	0.85	0.99	1.14	0.56	0.70	0.85	1.01	1.59	665.32	665.34	665.36	665.38	665.65
14.95	0.55	0.70	0.84	0.99	1.14	0.56	0.70	0.85	1.00	1.58	665.32	665.34	665.36	665.38	665.64
15.00	0.55	0.70	0.84	0.99	1.14	0.56	0.70	0.85	1.00	1.57	665.32	665.34	665.36	665.38	665.62
15.05	0.55	0.70	0.84	0.99	1.14	0.56	0.70	0.85	1.00	1.56	665.32	665.34	665.36	665.38	665.61
15.10	0.55	0.70	0.84	0.99	1.13	0.55	0.70	0.85	1.00	1.56	665.32	665.34	665.36	665.38	665.59
15.15	0.55	0.69	0.84	0.98	1.13	0.55	0.70	0.84	1.00	1.55	665.32	665.34	665.35	665.38	665.58
15.20	0.55	0.69	0.84	0.98	1.13	0.55	0.70	0.84	0.99	1.54	665.32	665.34	665.35	665.38	665.57
15.25	0.55	0.69	0.84	0.98	1.13	0.55	0.70	0.84	0.99	1.54	665.32	665.34	665.35	665.38	665.55
15.30	0.55	0.69	0.83	0.98	1.12	0.55	0.69	0.84	0.99	1.53	665.32	665.34	665.35	665.38	665.54

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
15.35	0.55	0.69	0.83	0.98	1.12	0.55	0.69	0.84	0.99	1.52	665.32	665.34	665.35	665.38	665.53
15.40	0.54	0.69	0.83	0.97	1.12	0.55	0.69	0.84	0.98	1.52	665.32	665.34	665.35	665.38	665.51
15.45	0.54	0.69	0.83	0.97	1.12	0.55	0.69	0.83	0.98	1.51	665.32	665.34	665.35	665.38	665.50
15.50	0.54	0.68	0.83	0.97	1.11	0.55	0.69	0.83	0.98	1.50	665.32	665.34	665.35	665.38	665.49
15.55	0.54	0.68	0.82	0.97	1.11	0.55	0.69	0.83	0.98	1.50	665.32	665.34	665.35	665.38	665.47
15.60	0.54	0.68	0.82	0.97	1.11	0.54	0.69	0.83	0.98	1.49	665.32	665.34	665.35	665.37	665.46
15.65	0.54	0.68	0.82	0.96	1.11	0.54	0.68	0.83	0.97	1.42	665.32	665.34	665.35	665.37	665.45
15.70	0.54	0.68	0.82	0.96	1.10	0.54	0.68	0.83	0.97	1.37	665.32	665.34	665.35	665.37	665.44
15.75	0.54	0.68	0.82	0.96	1.10	0.54	0.68	0.82	0.97	1.32	665.32	665.34	665.35	665.37	665.43
15.80	0.54	0.68	0.82	0.96	1.10	0.54	0.68	0.82	0.97	1.28	665.32	665.34	665.35	665.37	665.42
15.85	0.54	0.68	0.82	0.96	1.10	0.54	0.68	0.82	0.97	1.24	665.32	665.34	665.35	665.37	665.42
15.90	0.54	0.67	0.81	0.95	1.10	0.54	0.68	0.82	0.96	1.22	665.32	665.34	665.35	665.37	665.41
15.95	0.53	0.67	0.81	0.95	1.09	0.54	0.68	0.82	0.96	1.19	665.32	665.34	665.35	665.37	665.41
16.00	0.53	0.67	0.81	0.95	1.09	0.54	0.68	0.82	0.96	1.17	665.32	665.34	665.35	665.37	665.41
16.05	0.53	0.67	0.81	0.95	1.09	0.54	0.67	0.81	0.96	1.16	665.32	665.34	665.35	665.37	665.41
16.10	0.53	0.67	0.81	0.95	1.09	0.53	0.67	0.81	0.96	1.15	665.32	665.33	665.35	665.37	665.40
16.15	0.53	0.67	0.80	0.94	1.08	0.53	0.67	0.81	0.95	1.13	665.32	665.33	665.35	665.37	665.40
16.20	0.53	0.66	0.80	0.94	1.08	0.53	0.67	0.81	0.95	1.12	665.32	665.33	665.35	665.37	665.40
16.25	0.53	0.66	0.80	0.94	1.08	0.53	0.67	0.81	0.95	1.12	665.32	665.33	665.35	665.37	665.40
16.30	0.53	0.66	0.80	0.94	1.08	0.53	0.67	0.81	0.95	1.11	665.32	665.33	665.35	665.37	665.40
16.35	0.53	0.66	0.80	0.94	1.07	0.53	0.67	0.80	0.95	1.10	665.32	665.33	665.35	665.37	665.40
16.40	0.52	0.66	0.80	0.93	1.07	0.53	0.66	0.80	0.94	1.10	665.32	665.33	665.35	665.37	665.39
16.45	0.52	0.66	0.79	0.93	1.07	0.53	0.66	0.80	0.94	1.09	665.32	665.33	665.35	665.37	665.39
16.50	0.52	0.66	0.79	0.93	1.07	0.53	0.66	0.80	0.94	1.09	665.32	665.33	665.35	665.37	665.39
16.55	0.52	0.66	0.79	0.93	1.06	0.52	0.66	0.80	0.94	1.08	665.32	665.33	665.35	665.37	665.39
16.60	0.52	0.65	0.79	0.93	1.06	0.52	0.66	0.80	0.94	1.08	665.32	665.33	665.35	665.37	665.39
16.65	0.52	0.65	0.79	0.92	1.06	0.52	0.66	0.79	0.93	1.08	665.32	665.33	665.35	665.37	665.39
16.70	0.52	0.65	0.79	0.92	1.06	0.52	0.66	0.79	0.93	1.07	665.32	665.33	665.35	665.37	665.39
16.75	0.52	0.65	0.78	0.92	1.05	0.52	0.65	0.79	0.93	1.07	665.32	665.33	665.35	665.37	665.39
16.80	0.52	0.65	0.78	0.92	1.05	0.52	0.65	0.79	0.93	1.07	665.32	665.33	665.35	665.37	665.39
16.85	0.51	0.65	0.78	0.91	1.05	0.52	0.65	0.79	0.93	1.06	665.32	665.33	665.35	665.37	665.39
16.90	0.51	0.65	0.78	0.91	1.05	0.52	0.65	0.78	0.92	1.06	665.32	665.33	665.35	665.37	665.39
16.95	0.51	0.64	0.78	0.91	1.04	0.52	0.65	0.78	0.92	1.06	665.32	665.33	665.35	665.37	665.39
17.00	0.51	0.64	0.78	0.91	1.04	0.51	0.65	0.78	0.92	1.06	665.32	665.33	665.35	665.37	665.39
17.05	0.51	0.64	0.77	0.91	1.04	0.51	0.65	0.78	0.92	1.05	665.32	665.33	665.35	665.36	665.39
17.10	0.51	0.64	0.77	0.90	1.04	0.51	0.64	0.78	0.91	1.05	665.32	665.33	665.35	665.36	665.39
17.15	0.51	0.64	0.77	0.90	1.04	0.51	0.64	0.78	0.91	1.05	665.32	665.33	665.35	665.36	665.39
17.20	0.51	0.64	0.77	0.90	1.03	0.51	0.64	0.77	0.91	1.05	665.32	665.33	665.35	665.36	665.39
17.25	0.51	0.64	0.77	0.90	1.03	0.51	0.64	0.77	0.91	1.04	665.32	665.33	665.35	665.36	665.39
17.30	0.50	0.63	0.76	0.90	1.03	0.51	0.64	0.77	0.91	1.04	665.32	665.33	665.35	665.36	665.39
17.35	0.50	0.63	0.76	0.89	1.02	0.51	0.64	0.77	0.90	1.04	665.32	665.33	665.35	665.36	665.38
17.40	0.50	0.63	0.76	0.89	1.02	0.51	0.64	0.77	0.90	1.03	665.32	665.33	665.35	665.36	665.38
17.45	0.50	0.63	0.76	0.89	1.02	0.50	0.63	0.77	0.90	1.03	665.32	665.33	665.35	665.36	665.38
17.50	0.50	0.63	0.76	0.89	1.02	0.50	0.63	0.76	0.90	1.03	665.32	665.33	665.35	665.36	665.38
17.55	0.50	0.63	0.76	0.89	1.02	0.50	0.63	0.76	0.90	1.03	665.32	665.33	665.35	665.36	665.38
17.60	0.50	0.63	0.75	0.88	1.01	0.50	0.63	0.76	0.89	1.02	665.31	665.33	665.35	665.36	665.38
17.65	0.50	0.62	0.75	0.88	1.01	0.50	0.63	0.76	0.89	1.02	665.31	665.33	665.34	665.36	665.38
17.70	0.50	0.62	0.75	0.88	1.01	0.50	0.63	0.76	0.89	1.02	665.31	665.33	665.34	665.36	665.38
17.75	0.49	0.62	0.75	0.88	1.01	0.50	0.63	0.76	0.89	1.02	665.31	665.33	665.34	665.36	665.38
17.80	0.49	0.62	0.75	0.88	1.00	0.50	0.62	0.75	0.88	1.02	665.31	665.33	665.34	665.36	665.38
17.85	0.49	0.62	0.75	0.87	1.00	0.50	0.62	0.75	0.88	1.01	665.31	665.33	665.34	665.36	665.38
17.90	0.49	0.62	0.74	0.87	1.00	0.49	0.62	0.75	0.88	1.01	665.31	665.33	665.34	665.36	665.38
17.95	0.49	0.61	0.74	0.87	0.99	0.49	0.62	0.75	0.88	1.01	665.31	665.33	665.34	665.36	665.38
18.00	0.49	0.61	0.74	0.87	0.99	0.49	0.62	0.75	0.87	1.01	665.31	665.33	665.34	665.36	665.38
18.05	0.49	0.61	0.74	0.86	0.99	0.49	0.62	0.74	0.87	1.00	665.31	665.33	665.34	665.36	665.38
18.10	0.49	0.61	0.74	0.86	0.99	0.49	0.62	0.74	0.87	1.00	665.31	665.33	665.34	665.36	665.38
18.15	0.48	0.61	0.73	0.86	0.98	0.49	0.61	0.74	0.87	1.00	665.31	665.33	665.34	665.36	665.38
18.20	0.48	0.61	0.73	0.86	0.98	0.49	0.61	0.74	0.86	0.99	665.31	665.33	665.34	665.36	665.38
18.25	0.48	0.61	0.73	0.86	0.98	0.49	0.61	0.74	0.86	0.99	665.31	665.33	665.34	665.36	665.38
18.30	0.48	0.61	0.73	0.85	0.98	0.49	0.61	0.73	0.86	0.99	665.31	665.33	665.34	665.36	665.38
18.35	0.48	0.60	0.73	0.85	0.98	0.48	0.61	0.73	0.86	0.99	665.31	665.33	665.34	665.36	665.38
18.40	0.48	0.60	0.73	0.85	0.97	0.48	0.61	0.73	0.86	0.99	665.31	665.33	665.34	665.36	665.38
18.45	0.48	0.60	0.72	0.85	0.97	0.48	0.61	0.73	0.85	0.98	665.31	665.33	665.34	665.36	665.38
18.50	0.48	0.60	0.72	0.84	0.97	0.48	0.60	0.73	0.85	0.98	665.31	665.33	665.34	665.36	665.38
18.55	0.48	0.60	0.72	0.84	0.97	0.48	0.60	0.73	0.85	0.98	665.31	665.33	665.34	665.36	665.38
18.60	0.47	0.60	0.72	0.84	0.96	0.48	0.60	0.72	0.85	0.98	665.31	665.33	665.34	665.36	665.37
18.65	0.47	0.59	0.72	0.84	0.96	0.48	0.60	0.72	0.85	0.97	665.31	665.33	665.34	665.36	665.37
18.70	0.47	0.59	0.71	0.84	0.96	0.48	0.60	0.72	0.84	0.97	665.31	665.33	665.34	665.35	665.37
18.75	0.47	0.59	0.71	0.83	0.96	0.48	0.60	0.72	0.84	0.97	665.31	665.33	665.34	665.35	665.37
18.80	0.47	0.59	0.71	0.83	0.95	0.47	0.59	0.72	0.84	0.97	665.31	665.33	665.34	665.35	665.37
18.85	0.47	0.59	0.71	0.83	0.95	0.47	0.59	0.71	0.84	0.96	665.31	665.33	665.34	665.35	665.37
18.90	0.47	0.59	0.71	0.83	0.95	0.47	0.59	0.71	0.83	0.96	665.31	665.33	665.34	665.35	665.37
18.95	0.47	0.59	0.70	0.83	0.95	0.47	0.59	0.71	0.83	0.96	665.31	665.33	665.34	665.35	665.37
19.00	0.47	0.58	0.70	0.82	0.94	0.47	0.59	0.71	0.83	0.96	665.31	665.33	665.34	665.35	665.37
19.05	0.46	0.58	0.70	0.82	0.94	0.47	0.59	0.71	0.83	0.95	665.31	665.33	665.34	665.35	665.37
19.10	0.46	0.58	0.70	0.82	0.94	0.47	0.59	0.71	0.83	0.95	665.31	665.32	665.34	665.35	665.37
19.15	0.46	0.58	0.70	0.82	0.94	0.47	0.58	0.70	0.82	0.95	665.31	665.32	665.34	665.35	665.37
19.20	0.46	0.58	0.70	0.81	0.93	0.46	0.58	0.70	0.82	0.95	665.31	665.32	665.34	665.35	665.37

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
19.25	0.46	0.58	0.69	0.81	0.93	0.46	0.58	0.70	0.82	0.94	665.31	665.32	665.34	665.35	665.37
19.30	0.46	0.57	0.69	0.81	0.93	0.46	0.58	0.70	0.82	0.94	665.31	665.32	665.34	665.35	665.37
19.35	0.46	0.57	0.69	0.81	0.93	0.46	0.58	0.70	0.82	0.94	665.31	665.32	665.34	665.35	665.37
19.40	0.46	0.57	0.69	0.81	0.92	0.46	0.58	0.69	0.81	0.94	665.31	665.32	665.34	665.35	665.37
19.45	0.46	0.57	0.69	0.80	0.92	0.46	0.58	0.69	0.81	0.93	665.31	665.32	665.34	665.35	665.37
19.50	0.45	0.57	0.68	0.80	0.92	0.46	0.57	0.69	0.81	0.93	665.31	665.32	665.34	665.35	665.37
19.55	0.45	0.57	0.68	0.80	0.92	0.46	0.57	0.69	0.81	0.93	665.31	665.32	665.34	665.35	665.37
19.60	0.45	0.57	0.68	0.80	0.91	0.46	0.57	0.69	0.80	0.93	665.31	665.32	665.34	665.35	665.37
19.65	0.45	0.56	0.68	0.80	0.91	0.45	0.57	0.69	0.80	0.92	665.31	665.32	665.34	665.35	665.37
19.70	0.45	0.56	0.68	0.79	0.91	0.45	0.57	0.68	0.80	0.92	665.31	665.32	665.34	665.35	665.37
19.75	0.45	0.56	0.68	0.79	0.90	0.45	0.57	0.68	0.80	0.92	665.31	665.32	665.34	665.35	665.36
19.80	0.45	0.56	0.67	0.79	0.90	0.45	0.56	0.68	0.80	0.91	665.31	665.32	665.34	665.35	665.36
19.85	0.44	0.56	0.67	0.78	0.90	0.45	0.56	0.68	0.79	0.91	665.31	665.32	665.34	665.35	665.36
19.90	0.44	0.56	0.67	0.78	0.90	0.45	0.56	0.68	0.79	0.91	665.31	665.32	665.34	665.35	665.36
19.95	0.44	0.55	0.67	0.78	0.89	0.45	0.56	0.67	0.79	0.91	665.31	665.32	665.34	665.35	665.36
20.00	0.44	0.55	0.67	0.78	0.89	0.45	0.56	0.67	0.79	0.90	665.31	665.32	665.33	665.35	665.36
20.05	0.44	0.55	0.66	0.78	0.89	0.44	0.56	0.67	0.78	0.90	665.31	665.32	665.33	665.35	665.36
20.10	0.44	0.55	0.66	0.77	0.89	0.44	0.56	0.67	0.78	0.90	665.31	665.32	665.33	665.35	665.36
20.15	0.44	0.55	0.66	0.77	0.89	0.44	0.55	0.67	0.78	0.90	665.31	665.32	665.33	665.35	665.36
20.20	0.44	0.55	0.66	0.77	0.88	0.44	0.55	0.67	0.78	0.89	665.31	665.32	665.33	665.35	665.36
20.25	0.44	0.55	0.66	0.77	0.88	0.44	0.55	0.66	0.78	0.89	665.31	665.32	665.33	665.35	665.36
20.30	0.43	0.54	0.66	0.77	0.88	0.44	0.55	0.66	0.77	0.89	665.31	665.32	665.33	665.35	665.36
20.35	0.43	0.54	0.65	0.76	0.87	0.44	0.55	0.66	0.77	0.89	665.31	665.32	665.33	665.35	665.36
20.40	0.43	0.54	0.65	0.76	0.87	0.44	0.55	0.66	0.77	0.88	665.31	665.32	665.33	665.35	665.36
20.45	0.43	0.54	0.65	0.76	0.87	0.43	0.54	0.66	0.77	0.88	665.31	665.32	665.33	665.35	665.36
20.50	0.43	0.54	0.65	0.76	0.87	0.43	0.54	0.65	0.76	0.88	665.31	665.32	665.33	665.35	665.36
20.55	0.43	0.54	0.65	0.75	0.86	0.43	0.54	0.65	0.76	0.87	665.31	665.32	665.33	665.35	665.36
20.60	0.43	0.53	0.64	0.75	0.86	0.43	0.54	0.65	0.76	0.87	665.31	665.32	665.33	665.35	665.36
20.65	0.43	0.53	0.64	0.75	0.86	0.43	0.54	0.65	0.76	0.87	665.31	665.32	665.33	665.34	665.36
20.70	0.42	0.53	0.64	0.75	0.86	0.43	0.54	0.65	0.76	0.86	665.31	665.32	665.33	665.34	665.36
20.75	0.42	0.53	0.64	0.75	0.85	0.43	0.54	0.64	0.75	0.86	665.31	665.32	665.33	665.34	665.36
20.80	0.42	0.53	0.64	0.74	0.85	0.43	0.53	0.64	0.75	0.86	665.31	665.32	665.33	665.34	665.36
20.85	0.42	0.53	0.63	0.74	0.85	0.43	0.53	0.64	0.75	0.86	665.31	665.32	665.33	665.34	665.36
20.90	0.42	0.53	0.63	0.74	0.85	0.42	0.53	0.64	0.75	0.86	665.31	665.32	665.33	665.34	665.36
20.95	0.42	0.52	0.63	0.74	0.84	0.42	0.53	0.64	0.74	0.85	665.31	665.32	665.33	665.34	665.36
21.00	0.42	0.52	0.63	0.73	0.84	0.42	0.53	0.63	0.74	0.85	665.31	665.32	665.33	665.34	665.36
21.05	0.42	0.52	0.63	0.73	0.84	0.42	0.53	0.63	0.74	0.85	665.31	665.32	665.33	665.34	665.36
21.10	0.41	0.52	0.62	0.73	0.84	0.42	0.52	0.63	0.74	0.84	665.31	665.32	665.33	665.34	665.35
21.15	0.41	0.52	0.62	0.73	0.83	0.42	0.52	0.63	0.74	0.84	665.31	665.32	665.33	665.34	665.35
21.20	0.41	0.52	0.62	0.73	0.83	0.42	0.52	0.63	0.73	0.84	665.31	665.32	665.33	665.34	665.35
21.25	0.41	0.51	0.62	0.72	0.83	0.42	0.52	0.63	0.73	0.84	665.30	665.32	665.33	665.34	665.35
21.30	0.41	0.51	0.62	0.72	0.83	0.41	0.52	0.62	0.73	0.83	665.30	665.32	665.33	665.34	665.35
21.35	0.41	0.51	0.61	0.72	0.82	0.41	0.52	0.62	0.73	0.83	665.30	665.32	665.33	665.34	665.35
21.40	0.41	0.51	0.61	0.72	0.82	0.41	0.52	0.62	0.72	0.83	665.30	665.32	665.33	665.34	665.35
21.45	0.41	0.51	0.61	0.71	0.82	0.41	0.51	0.62	0.72	0.83	665.30	665.32	665.33	665.34	665.35
21.50	0.40	0.51	0.61	0.71	0.81	0.41	0.51	0.62	0.72	0.82	665.30	665.32	665.33	665.34	665.35
21.55	0.40	0.51	0.61	0.71	0.81	0.41	0.51	0.61	0.72	0.82	665.30	665.32	665.33	665.34	665.35
21.60	0.40	0.50	0.61	0.71	0.81	0.41	0.51	0.61	0.71	0.82	665.30	665.32	665.33	665.34	665.35
21.65	0.40	0.50	0.60	0.71	0.81	0.41	0.51	0.61	0.71	0.82	665.30	665.32	665.33	665.34	665.35
21.70	0.40	0.50	0.60	0.70	0.80	0.40	0.51	0.61	0.71	0.81	665.30	665.32	665.33	665.34	665.35
21.75	0.40	0.50	0.60	0.70	0.80	0.40	0.50	0.61	0.71	0.81	665.30	665.32	665.33	665.34	665.35
21.80	0.40	0.50	0.60	0.70	0.80	0.40	0.50	0.60	0.71	0.81	665.30	665.32	665.33	665.34	665.35
21.85	0.40	0.50	0.60	0.70	0.80	0.40	0.50	0.60	0.70	0.81	665.30	665.31	665.33	665.34	665.35
21.90	0.39	0.49	0.59	0.69	0.79	0.40	0.50	0.60	0.70	0.80	665.30	665.31	665.33	665.34	665.35
21.95	0.39	0.49	0.59	0.69	0.79	0.40	0.50	0.60	0.70	0.80	665.30	665.31	665.33	665.34	665.35
22.00	0.39	0.49	0.59	0.69	0.79	0.40	0.50	0.60	0.70	0.80	665.30	665.31	665.33	665.34	665.35
22.05	0.39	0.49	0.59	0.69	0.79	0.40	0.49	0.59	0.69	0.80	665.30	665.31	665.33	665.34	665.35
22.10	0.39	0.49	0.59	0.69	0.78	0.39	0.49	0.59	0.69	0.79	665.30	665.31	665.33	665.34	665.35
22.15	0.39	0.49	0.58	0.68	0.78	0.39	0.49	0.59	0.69	0.79	665.30	665.31	665.33	665.34	665.35
22.20	0.39	0.48	0.58	0.68	0.78	0.39	0.49	0.59	0.69	0.79	665.30	665.31	665.33	665.34	665.35
22.25	0.39	0.48	0.58	0.68	0.78	0.39	0.49	0.59	0.69	0.78	665.30	665.31	665.32	665.34	665.35
22.30	0.38	0.48	0.58	0.67	0.77	0.39	0.49	0.58	0.68	0.78	665.30	665.31	665.32	665.34	665.35
22.35	0.38	0.48	0.58	0.67	0.77	0.39	0.48	0.58	0.68	0.78	665.30	665.31	665.32	665.34	665.35
22.40	0.38	0.48	0.57	0.67	0.77	0.39	0.48	0.58	0.68	0.78	665.30	665.31	665.32	665.34	665.35
22.45	0.38	0.48	0.57	0.67	0.76	0.38	0.48	0.58	0.68	0.77	665.30	665.31	665.32	665.34	665.35
22.50	0.38	0.47	0.57	0.67	0.76	0.38	0.48	0.58	0.67	0.77	665.30	665.31	665.32	665.34	665.35
22.55	0.38	0.47	0.57	0.66	0.76	0.38	0.48	0.58	0.67	0.77	665.30	665.31	665.32	665.33	665.35
22.60	0.38	0.47	0.57	0.66	0.76	0.38	0.48	0.57	0.67	0.77	665.30	665.31	665.32	665.33	665.35
22.65	0.38	0.47	0.57	0.66	0.75	0.38	0.48	0.57	0.67	0.76	665.30	665.31	665.32	665.33	665.35
22.70	0.37	0.47	0.56	0.66	0.75	0.38	0.47	0.57	0.67	0.76	665.30	665.31	665.32	665.33	665.35
22.75	0.37	0.47	0.56	0.66	0.75	0.38	0.47	0.57	0.66	0.76	665.30	665.31	665.32	665.33	665.34
22.80	0.37	0.47	0.56	0.65	0.75	0.38	0.47	0.57	0.66	0.76	665.30	665.31	665.32	665.33	665.34
22.85	0.37	0.46	0.56	0.65	0.74	0.38	0.47	0.56	0.66	0.75	665.30	665.31	665.32	665.33	665.34
22.90	0.37	0.46	0.55	0.65	0.74	0.37	0.47	0.56	0.66	0.75	665.30	665.31	665.32	665.33	665.34
22.95	0.37	0.46	0.55	0.65	0.74	0.37	0.47	0.56	0.65	0.75	665.30	665.31	665.32	665.33	665.34
23.00	0.37	0.46	0.55	0.64	0.74	0.37	0.46	0.56	0.65	0.74	665.30	665.31	665.32	665.33	665.34
23.05	0.37	0.46	0.55	0.64	0.73	0.37	0.46	0.56	0.65	0.74	665.30	665.31	665.32	665.33	665.34
23.10	0.36	0.45	0.55	0.64	0.73	0.37	0.46	0.55	0.65	0.74	665.30	665.31	665.32	665.33	665.34

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
23.15	0.36	0.45	0.54	0.64	0.73	0.37	0.46	0.55	0.64	0.74	665.30	665.31	665.32	665.33	665.34
23.20	0.36	0.45	0.54	0.63	0.73	0.37	0.46	0.55	0.64	0.73	665.30	665.31	665.32	665.33	665.34
23.25	0.36	0.45	0.54	0.63	0.72	0.36	0.46	0.55	0.64	0.73	665.30	665.31	665.32	665.33	665.34
23.30	0.36	0.45	0.54	0.63	0.72	0.36	0.45	0.55	0.64	0.73	665.30	665.31	665.32	665.33	665.34
23.35	0.36	0.45	0.54	0.63	0.72	0.36	0.45	0.54	0.64	0.73	665.30	665.31	665.32	665.33	665.34
23.40	0.36	0.45	0.54	0.63	0.72	0.36	0.45	0.54	0.63	0.72	665.30	665.31	665.32	665.33	665.34
23.45	0.36	0.44	0.53	0.62	0.71	0.36	0.45	0.54	0.63	0.72	665.30	665.31	665.32	665.33	665.34
23.50	0.35	0.44	0.53	0.62	0.71	0.36	0.45	0.54	0.63	0.72	665.30	665.31	665.32	665.33	665.34
23.55	0.35	0.44	0.53	0.62	0.71	0.36	0.45	0.54	0.63	0.72	665.30	665.31	665.32	665.33	665.34
23.60	0.35	0.44	0.53	0.62	0.70	0.36	0.44	0.53	0.62	0.71	665.30	665.31	665.32	665.33	665.34
23.65	0.35	0.44	0.53	0.61	0.70	0.35	0.44	0.53	0.62	0.71	665.30	665.31	665.32	665.33	665.34
23.70	0.35	0.44	0.52	0.61	0.70	0.35	0.44	0.53	0.62	0.71	665.30	665.31	665.32	665.33	665.34
23.75	0.35	0.43	0.52	0.61	0.70	0.35	0.44	0.53	0.62	0.71	665.30	665.31	665.32	665.33	665.34
23.80	0.35	0.43	0.52	0.61	0.69	0.35	0.44	0.53	0.61	0.70	665.30	665.31	665.32	665.33	665.34
23.85	0.34	0.43	0.52	0.60	0.69	0.35	0.44	0.52	0.61	0.70	665.30	665.31	665.32	665.33	665.34
23.90	0.34	0.43	0.52	0.60	0.69	0.35	0.43	0.52	0.61	0.70	665.30	665.31	665.32	665.33	665.34
23.95	0.34	0.43	0.51	0.60	0.69	0.35	0.43	0.52	0.61	0.69	665.30	665.31	665.32	665.33	665.34
24.00	0.34	0.43	0.51	0.60	0.68	0.35	0.43	0.52	0.61	0.69	665.30	665.31	665.32	665.33	665.34
24.05	0.28	0.35	0.42	0.49	0.56	0.34	0.42	0.51	0.59	0.67	665.30	665.31	665.32	665.33	665.34
24.10	0.18	0.23	0.28	0.32	0.37	0.31	0.39	0.47	0.54	0.62	665.29	665.30	665.31	665.32	665.33
24.15	0.12	0.15	0.18	0.21	0.24	0.27	0.34	0.40	0.47	0.54	665.29	665.30	665.30	665.31	665.32
24.20	0.08	0.10	0.12	0.14	0.16	0.23	0.28	0.34	0.40	0.45	665.28	665.29	665.30	665.30	665.31
24.25	0.05	0.07	0.08	0.09	0.11	0.18	0.23	0.28	0.32	0.37	665.28	665.28	665.29	665.29	665.30
24.30	0.03	0.04	0.05	0.06	0.07	0.15	0.19	0.22	0.26	0.30	665.27	665.28	665.28	665.29	665.29
24.35	0.02	0.03	0.03	0.04	0.05	0.12	0.15	0.18	0.21	0.24	665.27	665.27	665.28	665.28	665.28
24.40	0.01	0.02	0.02	0.03	0.03	0.09	0.12	0.14	0.16	0.19	665.27	665.27	665.27	665.28	665.28
24.45	0.01	0.01	0.02	0.02	0.02	0.07	0.09	0.11	0.13	0.14	665.26	665.27	665.27	665.27	665.27
24.50	0.00	0.00	0.01	0.01	0.01	0.05	0.07	0.08	0.10	0.11	665.26	665.26	665.27	665.27	665.27
24.55	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.06	0.07	0.08	665.26	665.26	665.26	665.27	665.27
24.60	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.05	0.05	0.06	665.26	665.26	665.26	665.26	665.26
24.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.04	0.05	665.26	665.26	665.26	665.26	665.26
24.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.26	665.26	665.26	665.26	665.26
24.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.26	665.26	665.26	665.26	665.26
24.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.26	665.26	665.26	665.26	665.26
24.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.26	665.26	665.26	665.26
24.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.26	665.26	665.26
24.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.26
25.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.25	665.25	665.25	665.25	665.25
25.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.25	665.25	665.25
25.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.25	665.25
25.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.24	665.24	665.24	665.24	665.24
25.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.24	665.24	665.24	665.24
25.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.24	665.24	665.24
25.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.24
25.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.23	665.23	665.23	665.23	665.23
26.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.23	665.23	665.23
26.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.23	665.23
26.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.22	665.22	665.22	665.22	665.22
26.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.22	665.22	665.22	665.22
26.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.22	665.22	665.22
26.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.22
26.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
26.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
27.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation In Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
27.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
27.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
27.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
27.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.21	665.21	665.21	665.21	665.21
27.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.21	665.21	665.21
27.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.21	665.21
27.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.20	665.20	665.20	665.20	665.20
27.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.20	665.20	665.20	665.20
27.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.20	665.20
27.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.20
27.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
27.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
27.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
28.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
28.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
28.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.19	665.19	665.19	665.19	665.19
28.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.19	665.19	665.19	665.19
28.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.19	665.19	665.19
28.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.19	665.19
28.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.18	665.18	665.18	665.18	665.18
28.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.18	665.18	665.18	665.18
28.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.18	665.18
28.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.18
28.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
28.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
28.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
28.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
29.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
29.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.17	665.17	665.17	665.17	665.17
29.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.17	665.17	665.17	665.17
29.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.17	665.17	665.17
29.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.17	665.17
29.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.16	665.16	665.16	665.16	665.16
29.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.16	665.16	665.16	665.16
29.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.16	665.16
29.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
29.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
29.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
29.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
29.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
29.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
30.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.15	665.15	665.15	665.15	665.15
30.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.15	665.15	665.15	665.15
30.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.15	665.15	665.15
30.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.15
30.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.14	665.14	665.14	665.14	665.14
30.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.14	665.14	665.14	665.14
30.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.14	665.14	665.14
30.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.14	665.14
30.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
30.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
30.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
30.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
30.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
30.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
30.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.13	665.13	665.13	665.13	665.13
31.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.13	665.13	665.13	665.13
31.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.13	665.13
31.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.12	665.12	665.12	665.12	665.12
31.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.12	665.12	665.12	665.12
31.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.12	665.12	665.12
31.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.12
31.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.11	665.11	665.11	665.11	665.11
31.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.11	665.11	665.11	665.11
31.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.11	665.11	665.11
32.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.11
32.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.10	665.10	665.10	665.10	665.10
32.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.10	665.10	665.10	665.10
32.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.10	665.10
32.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.09	665.09	665.09	665.09	665.09
32.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.09	665.09	665.09	665.09
32.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.09	665.09	665.09
32.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.09
33.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.08	665.08	665.08	665.08	665.08
33.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.08	665.08	665.08	665.08
33.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.08	665.08	665.08
33.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.08
33.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.07	665.07	665.07	665.07	665.07
33.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.07	665.07	665.07
33.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.07	665.07
33.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
33.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.06	665.06	665.06	665.06	665.06
34.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.06	665.06	665.06	665.06
34.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.06	665.06
34.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.05	665.05	665.05	665.05	665.05
34.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.05	665.05	665.05	665.05
34.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.05	665.05
34.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.05

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
34.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
34.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
34.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
35.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
35.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
35.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.04	665.04	665.04	665.04	665.04
35.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.04	665.04	665.04	665.04
35.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.04	665.04	665.04
35.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.04
35.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.03	665.03	665.03	665.03	665.03
35.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.03	665.03	665.03	665.03
35.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.03	665.03	665.03
35.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.03
35.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
35.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
35.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
35.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
35.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
36.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.02	665.02	665.02	665.02	665.02
36.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.02	665.02	665.02	665.02
36.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.02	665.02	665.02
36.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.02	665.02
36.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.01	665.01	665.01	665.01	665.01
36.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.01	665.01	665.01
36.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.01	665.01
36.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
36.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	665.00	665.00	665.00	665.00	665.00
37.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	665.00	665.00	665.00
37.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	665.00	665.00
37.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.99	664.99	664.99	664.99	664.99
37.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.99	664.99	664.99	664.99
37.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.99	664.99
37.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.98	664.98	664.98	664.98	664.98
37.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.98	664.98	664.98	664.98
37.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.98	664.98
38.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.98
38.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.97	664.97	664.97	664.97	664.97
38.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.97	664.97	664.97	664.97
38.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.97	664.97	664.97
38.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.97
38.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96
38.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96
38.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96
38.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96
38.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
38.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.96	664.96	664.96	664.96	664.96
38.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.96	664.96	664.96	664.96
38.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.96	664.96	664.96
38.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.96
38.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.95	664.95	664.95	664.95	664.95
39.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.95	664.95	664.95	664.95
39.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.95	664.95	664.95
39.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.95
39.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.94	664.94	664.94	664.94	664.94
39.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.94	664.94	664.94	664.94
39.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.94	664.94	664.94
39.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.94	664.94
39.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
39.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
39.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
40.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
40.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
40.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
40.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.93	664.93	664.93	664.93	664.93
40.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.93	664.93	664.93	664.93
40.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.93	664.93
40.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.92	664.92	664.92	664.92	664.92
40.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.92	664.92	664.92	664.92
40.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.92	664.92	664.92
40.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.92
40.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
40.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
40.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
40.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
41.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
41.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
41.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.91	664.91	664.91	664.91	664.91
41.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.91	664.91	664.91	664.91
41.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.91	664.91
41.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.90	664.90	664.90	664.90	664.90
41.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.90	664.90	664.90
41.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.90	664.90
41.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
41.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
41.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
41.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
41.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
42.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
42.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
42.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.89	664.89	664.89	664.89	664.89
42.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.89	664.89	664.89
42.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.89	664.89
42.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88
42.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.88	664.88	664.88	664.88	664.88

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
42.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.88	664.88	664.88
42.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.88	664.88
42.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
42.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
42.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
42.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
42.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
43.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
43.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
43.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.87	664.87	664.87	664.87	664.87
43.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.87	664.87	664.87	664.87
43.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.87	664.87
43.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.30	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.35	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.40	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.45	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.50	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.55	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.60	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.86	664.86	664.86	664.86	664.86
43.65	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.86	664.86	664.86	664.86
43.70	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.86	664.86	664.86
43.75	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.86
43.80	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
43.85	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
43.90	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
43.95	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
44.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
44.05	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
44.10	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.85	664.85	664.85	664.85	664.85
44.15	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.84	664.85	664.85	664.85	664.85
44.20	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.84	664.84	664.85	664.85	664.85
44.25	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	664.84	664.84	664.84	664.85	664.85
44.30	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.03	0.03	0.03	664.84	664.84	664.84	664.84	664.84
44.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.03	0.03	664.84	664.84	664.84	664.84	664.84
44.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.03	664.84	664.84	664.84	664.84	664.84
44.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.84	664.84	664.84	664.84	664.84
44.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.84	664.84	664.84	664.84	664.84
44.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.84	664.84	664.84	664.84	664.84
44.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.84	664.84	664.84	664.84	664.84
44.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.84	664.84	664.84	664.84	664.84
44.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.84	664.84	664.84	664.84
44.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.84	664.84	664.84
44.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.84
44.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
44.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
44.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.83	664.83	664.83	664.83	664.83
45.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.83	664.83	664.83	664.83
45.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.83	664.83	664.83
45.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.83
45.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.82	664.82	664.82	664.82	664.82
45.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.82	664.82	664.82	664.82
45.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.82	664.82	664.82
45.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.82
45.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.81	664.81	664.81	664.81	664.81
46.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.81	664.81	664.81
46.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.81	664.81
46.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
46.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.80	664.80	664.80	664.80	664.80
46.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.80	664.80	664.80	664.80
47.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.80	664.80	664.80
47.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.80
47.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.79	664.79	664.79	664.79	664.79
47.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.79	664.79	664.79
47.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.79	664.79
47.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
47.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
47.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
47.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
47.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
47.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
48.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
48.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
48.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
48.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.78	664.78	664.78	664.78	664.78
48.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.78	664.78	664.78	664.78
48.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.78	664.78
48.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.78
48.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.77	664.77	664.77	664.77	664.77
48.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.77	664.77	664.77	664.77
48.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.77	664.77
48.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.76	664.76	664.76	664.76	664.76
49.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.76	664.76	664.76	664.76
49.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.76	664.76
49.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
49.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
50.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
50.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
50.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.75	664.75	664.75	664.75	664.75
50.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.75	664.75	664.75	664.75
50.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.75	664.75
50.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
50.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.74	664.74	664.74	664.74	664.74
50.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.74	664.74	664.74
50.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.74	664.74
50.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
50.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.73	664.73	664.73	664.73	664.73
51.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.73	664.73	664.73
51.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.73	664.73
51.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
51.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
52.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
52.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.72	664.72	664.72	664.72	664.72
52.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.72	664.72	664.72
52.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.72	664.72
52.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.71	664.71	664.71	664.71	664.71
52.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.71	664.71	664.71
52.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.71	664.71
52.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
52.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
52.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.70	664.70	664.70	664.70	664.70
53.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.70	664.70	664.70	664.70
53.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.70	664.70	664.70
53.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.70
53.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
53.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.69	664.69	664.69	664.69	664.69
54.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.69	664.69	664.69	664.69
54.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.69	664.69	664.69
54.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.69
54.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
54.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.68	664.68	664.68	664.68	664.68
54.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.68	664.68	664.68	664.68
54.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.68	664.68	664.68
54.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.68
54.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
54.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
54.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
54.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.67	664.67	664.67	664.67	664.67
55.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.67	664.67	664.67	664.67
55.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.67	664.67	664.67
55.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.67
55.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.66	664.66	664.66	664.66	664.66
55.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.66	664.66	664.66	664.66
56.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.66	664.66	664.66
56.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.66
56.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.65	664.65	664.65	664.65	664.65
56.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.65	664.65	664.65	664.65
56.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.65	664.65
56.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
56.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
56.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
56.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
56.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
56.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
57.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
57.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
57.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
57.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.64	664.64	664.64	664.64	664.64
57.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.64	664.64	664.64	664.64
57.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.64	664.64	664.64
57.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.64
57.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.63	664.63	664.63	664.63	664.63
57.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.63	664.63	664.63	664.63
57.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.63	664.63	664.63
57.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.63
58.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62

	Flow into Basin (cfs)					Flow Out of Outlet Structure (cfs)					Water Surface Elevation in Basin				
Time (hrs)	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year	2-Year	5-Year	10-Year	25-Year	100-Year
58.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.62	664.62	664.62	664.62	664.62
58.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.62	664.62	664.62	664.62
58.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.62	664.62
58.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
58.95	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
59.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
59.05	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.61	664.61	664.61	664.61	664.61
59.10	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.61	664.61	664.61	664.61
59.15	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.61	664.61	664.61
59.20	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.61	664.61
59.25	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.30	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.35	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.40	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.45	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.50	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.55	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.60	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.65	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.70	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.60	664.60	664.60	664.60	664.60
59.75	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.59	664.60	664.60	664.60	664.60
59.80	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.59	664.59	664.60	664.60	664.60
59.85	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.59	664.59	664.59	664.59	664.60
59.90	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	664.59	664.59	664.59	664.59	664.59

Appendix D

Water Quality Calculations

WINZLER & KELLY
15575 SW Sequoia Parkway, Suite 140
Portland, OR 97224-7233
(503) 226-3921

By STS Date 5/29/09 Client _____ Sheet No. _____ of _____

Subject EAST POND WATER QUALITY CALCULATION Job No. _____

CRITERIA

DESIGN RAINFALL DEPTH: 0.36"
DETENTION TIME: 48 HOURS
TRIBUTARY AREA: IMPERVIOUS AREA = 4.8 AC

REQUIRED VOLUME

$V = (0.36")(1\ FT/12")(4.8\ AC)(43{,}560\ FT/AC) = 6270\ FT^3$

ALLOWABLE PONDING DEPTH = 665.34 − 663.66 = 1.68' (FOR TREATMENT - SEE FIGURE 3)
TREATMENT VOLUME OF PROPOSED POND: 7150 FT³

PEAK OUTFLOW

ORIFICE FLOW: $Q = CA\sqrt{2gh}$

$A = \pi\left(\frac{1.02}{24}\right)^2 = 5.67 \times 10^{-3}\ FT^2$

$Q = (0.60)(5.67 \times 10^{-3}\ FT^3)\sqrt{2(32.2\ FT/S^2)(1.34')} = 0.032\ CFS$

DETENTION TIME

ASSUME CONSERVATIVELY THAT FLOW OUT OF POND = PEAK FLOW

$t_D = \frac{V}{Q} = \frac{7150\ FT^3}{0.032\ CFS}\left(\frac{1\ HR}{3600\ S}\right) = 62\ HRS > 48\ HRS$, OKAY

EXHIBIT C
Access/Circulation Study

DKS *Associates*
TRANSPORTATION SOLUTIONS

MEMORANDUM

TO: Tim Woodley, West Linn Wilsonville School District

FROM: Pamela O'Brien, P.E., PTOE, DKS Associates

DATE: April 28, 2009

SUBJECT: **Rosemont Ridge Middle School Access/Circulation Study** P09031-002

This memorandum summarizes work conducted by DKS Associates regarding the existing and proposed parking lot circulation at Rosemont Ridge Middle School.

The school site is located in the southwest quadrant of the intersection of Rosemont Road and Salamo Road in West Linn. Currently, a single access drive for buses and autos is located off of South Salamo Road south of Rosemont Road. The bus loading/unloading area is located next to the sidewalk along the front of the school and the buses must circulate back through the parking lot to exit the site. The parent pick-up/drop-off zone is located just prior to the exit drive from the parking lot. The conflict between the buses, autos and pedestrians have led to a proposal to change the bus access through the site. It is proposed to construct a bus drive aisle around the school and have the buses exit the school grounds using an existing maintenance access driveway onto Rosemont Road west of Salamo Road.

This access/circulation memorandum summarizes the impacts of modifications to the bus access to/from the school site and the impacts to the driveways on Rosemont Road and on Salamo Road along with the intersection of Rosemont Road/Salamo Road. The memo will also summarize the internal circulation pattern changes based on the modification of the bus exit.

Bus Circulation

Currently, fourteen school buses access Rosemont Ridge Middles School via a driveway on Salamo Road south of Rosemont Road. It is anticipated that the number of school buses will not change in the future. The access and circulation characteristics are different for the AM drop off than for the PM pick up.

AM Drop Off

Based on a recent site visit, the buses started to arrive at the school at 8:45 am with the last bus arriving at 9:02 am. The majority of the buses arrived within a four minute window between 8:58 am and 9:02 am. The buses dropped the students off at the curb in front of the school. Once the students were dropped off, the buses would exit the site. All of the buses turned right onto Salamo Road. While the buses were dropping students off in front of the school and circulating through and out of the parking lot, parents were also dropping students off. The designated drop-off area was located within the parking lot, right where the exit drive begins. It appeared that only one or two cars were able to drop students off at a time, which created a queue of parents

waiting to drop their student off. Since there is only one exit for the parking lot, the buses also had to wait in this queue. The auto/bus queue was cleared by 9:10 am.

PM Pick Up

During the afternoon pick-up, the buses started to arrive at the school at 3:30 pm and parked along the sidewalk in front of the school and around the corner in the parking lot. Parents also started to arrive around 3:30 pm and formed a line, starting at the pick-up/drop zone and winding through the parking lot, to wait for the students. For approximately 15 minutes, the parking lot was very crowded, but the vehicles flowed through in an orderly fashion. By the time the buses were ready to exit the site, most of the parents were gone and the buses had a minimal queue to wait behind. At the parking lot exit, 10 buses turned left and four buses turned right. All the buses and autos were cleared by 3:59 pm.

Figure 1: Bus and Auto interaction during afternoon pick-up

Operational Impacts

It is proposed to create a bus-only exit onto Rosemont Road. This new access will alter the circulation patterns within the parking lot and also alter the traffic volumes accessing Salamo Road and Rosemont Road. The buses exiting the site via the driveway on Rosemont Road will help to ease the congestion within the parking lot and reduce the friction between the autos, pedestrians and buses.

Queues

During the AM drop off, all of the buses exiting the site via Rosemont Road will turn right onto Rosemont Road and then right onto Salamo Road. A queue of 400 feet or more may be created at the proposed bus exit pm Rosemont Road as the buses approach the intersection after dropping the students off. The buses will also create a queue in the eastbound lane at the intersection of Salamo Road/Rosemont Road, but it should dissipate quickly, since there are only 14 buses.

During the PM pick up, all of the buses exiting the site via Rosemont Road will turn right onto Rosemont Road. Seven of the buses will turn left at Salamo Road, while three will go straight through the intersection and four will turn right. As with the AM peak, a queue of 400 feet or

more may be created at the new exit as the buses approach the intersection after dropping the students off. The buses will also create a queue in the eastbound lane at the intersection of Salamo Road/Rosemont Road, but it should dissipate quickly, since there are only 14 buses.

Intersection Level of Service

Existing turning movement volumes were collected at the intersection of Salamo Road/Rosemont Road. The intersection operation was evaluated to determine the impacts of modifying the bus circulation to and from the school on the all-way stop controlled intersection. The AM and PM peaks of the school do not coincide with the AM and PM peaks of the traffic along Rosemont Road and Salamo Road. The AM peak for the school was assumed to be from 8:30 to 9:30 am, while the PM peak for the school was assumed to be 3:30 to 4:30 pm. It was determined that the changes to the bus turning movements at the intersection do not have a negative impact on the operation of the intersection. During the AM peak, the intersection operates at a Level-of-Service B under existing and proposed conditions. During the PM peak, the intersection operates at a Level-of-Service C under existing and proposed conditions.

Intersection Sight Distance

The intersection sight distance was evaluated at the proposed driveway location. Rosemont Road, along the school frontage, is posted with a 20 mile per hour school speed zone during school hours. Since the buses will use the driveway during school hours, the required sight distance of 225 feet is based on the 20 mile per hour speed. There is adequate sight distance at the proposed driveway location.

Internal Circulation

The AM drop-off and PM pick-up are short, but intense events when looking a school parking lot access and circulation. The combination of the buses and autos creates more friction during the AM drop-off than the PM pick-up. This is due to the fact the buses arrive randomly and can exit the sight once all the students are dropped off, which coincides with the time the parents are dropping their kids off. The buses become incorporated into the drop-off queue. During the PM pick-up, the buses must wait until all the students are on board before departing. The PM bus departure is typically after the parents have picked up their kids and have exited the parking lot. The buses all depart at the same time, and typically do not have to wait in the pick-up queue.

Removing the buses from the current circulation pattern will help to alleviate the friction between the autos, pedestrians and buses. It will not, however, eliminate the queuing that is a result of the drop-off and pick-up events.

Considering the geographical constraints of the parking lot and circulation drive, the current method of drop-off and pick-up is a good solution. It provides a single, safe location for students to exit the vehicle and enter the school (with the assistance of a crossing guard). It does, however, create a queue of vehicles waiting to drop students off. One way to reduce the queue would be to create additional drop-off/pick-up locations. The existing pick-up drop-off area could possibly be expanded to allow for multiple vehicles to drop students off at the same time. If the buses are relocated to a new drive aisle on the west side of the school, there may be an

opportunity to create an additional drop off zone directly in front of the school, where the buses are located today.

Summary

- Creating a new drive aisle on the west side of Rosemont Ridge Middle School will allow the buses to be separated from the autos upon exiting the parking lot. This will ease the congestion within the parking lot and reduce the friction between the autos, pedestrians and buses.
- The unsignalized intersection of Rosemont Road/Salamo Road will continue to operate in an acceptable manner with the modification to the bus turning movement volumes.
- A queue of 400 feet or more may be created along the bus drive aisle as buses exit the sight at Rosemont Road. The buses will also create a queue in the eastbound lane at the intersection of Salamo Road/Rosemont Road, but it should dissipate quickly, since there are only 14 buses.
- There is adequate sight distance at the proposed driveway location.
- The existing pick-up drop-off area could possibly be expanded to allow for multiple vehicles to drop students off at the same time.
- If the buses are relocated to a new drive aisle on the west side of the school, there may be an opportunity to create an additional drop off zone directly in front of the school, where the buses are located today.

EXHIBIT D
School Bus Noise Study

May 11, 2009

Dull Olson Weekes
907 S.W. Stark St.
Portland, OR 97205

Attention: Ms. B. Karina Ruiz

Reference: Rosemont Ridge Middle School
West Linn/Wisonville School District
Bus Noise Study

Proposal 09034

Dear Ms. Ruiz:

At your request, a study was made of the noise generated by bus activities at the Rosemont Ridge Middle School. The study was undertaken to ensure that future modifications to the bus delivery route does not cause sound levels at a nearby residential property to exceed the City of West Linn Noise Code.

1. Criterion

1.1 Noise in the City of West Linn is regulated by the Noise Code of Chapter 55 of the community development code. Specifically, for this project, the requirement is that the school bus activity on the project site does not cause measured sound levels at an adjacent residence to exceed L_{50} = 55 dBA, L_{10} = 60 dBA and L_1 = 75 dBA between the hours of 7 AM and 7 PM. The school busses only arrive and depart during these daytime hours, so the more strict nighttime criteria do not apply.

1.2 The City of West Linn Noise Code also requires that octave band sound levels do not exceed the following limits.

31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
68 dB	65 dB	61 dB	55 dB	52 dB	49 dB	46 dB	43 dB	40 dB

1.3 When the receiver is a residential property, these limits are assessed at any location within 25 feet of the residence.

522 SW Fifth Avenue, Suite 1200 Portland, Oregon 97204 (503) 221-1044 Fax: 221-1445

2. Existing Noise Levels & Background Sound Levels

2.1 Project site noise levels were measured on May 1, 2009. Overall measurements were made using a sound level meter meeting American National Standards Institute (ANSI) for a Type 2 Sound Level meter. The output of the sound level meter was recorded for Octave Band Analysis at a later date. The weather conditions were partially cloudy with winds of approximately 6-9 mph gusting to 20 mph.

2.2 Vehicle sound level measurements were made approximately 30 feet south of the existing car and bus exit lanes. The measurement location was approximately 315 feet west of the nearest lane of South Salmon Road. Idling car levels were measured between 65 and 68 dBA. A large diesel passenger truck was measured at 73 dBA while idling. This truck had left the parking lot before the buses started their engines.

2.3 When the buses slowly drove past the measurement position, the measured sound level was 71 dBA. After most of the vehicles had left the parking lot, the sound level was 58 dBA.

2.4 The sound level meter was moved approximately 40 feet to the east of the original measurement site to measure additional background sound levels. This location was shielded from wind gusts by nearby storage containers. The background sound level was measured at 45-47 dBA. The minimum measured sound level (L_{min}) was 44 dBA at this location.

2.5 Additional background sound level measurements were made approximately 40 feet south of the northwest corner of the school, approximately 6 feet out from the building. The background sound level was measured at 42-46 dBA. The minimum measured sound level (L_{min}) was 42 dBA at this location.

3. Observations

3.1 At the middle school, the busses were parked in the turn-about at the west end of the parking lot. While waiting for school to be dismissed and before the majority of parents vehicles had left the parking lot, the school bus engines were turned off. The duration of time from when the busses started their engines to when all the busses had left the school was less than 8 minutes.

3.2 Parents who were picking up there children lined up along the southern edge of the parking lot in front of the line of busses. A flagger directed traffic flow out of the main parking area. Most parents engines were left idling as they waited for school to dismiss.

4. Proposed Site Design & Predicted Sound Levels

4.1 The planned bus exit realignment will route busses along the north side of the existing school. To accomplish this, a roadway will be cut into the landscaping at the north side of the building. A 10 foot tall retaining wall is planned at the north side of the bus path.

4.2 The closest residence to the north is approximately 85 north of the center of the proposed new bus exit path. The compliance with the sound level limits would be assessed at a location 25 feet south of the residence. The distance between the bus path and the nearest site for determination of sound level compliance would be 60 feet.

4.3 The residential property is also elevated above the proposed bus path by about 16 feet.

4.4 Sound levels were predicted assuming a 10 foot tall retaining wall at 10 from the buses and total distance of 60 between the buses and the nearest residential receiver. During bus movements, the predicted short term L_{eq} (1 minute duration) sound level at the residential property was estimated to be 52 dBA with an L_{max} of 66 dBA.

4.5 The L_{50} sound level due to bus activities was estimated to be less than 50 dBA and the L_{10} to be less than 60 dBA (considering a total of 20 minutes of bus idling and driving at the project site). With a predicted L_{max} sound level for bus activity of 66 dBA the L_1 should also be below 66 dBA.

4.6 The predicted octave band sound levels did not exceed the West Linn Noise Code maximums.

5. Conclusion

5.1 Based on the above review, the proposed bus exit realignment should meet the sound level limit requirements of the West Linn Noise Code at the adjacent residential property.

Please contact me with any questions.

Sincerely,
ALTERMATT ASSOCIATES

Kent McKelvie
Staff Engineer

09034L01

CITY OF West Linn

Parker Crest Neighborhood Association
Monthly Meeting
Wednesday May 27, 2009 at 7:00 PM
Meeting Location: City of West Linn, City Hall

AGENDA

7:00 - Meeting Opens - Call to Order

7:05 - General Discussion

7:15 - West Linn Wilsonville School District Presentation

8:00 - Community Comments

8:15 - Resolution 1-2009 calling for support of the White Oak Savanna

8:30 - Community Comments

9:00 - Closing Remarks and Adjournment

Note: Scheduled times and items of discussion may change based upon variables within the presentations and community comments or concerns.

Parker Crest Neighborhood Association
Monthly Meeting
Wednesday May 27, 2009 at 7:00 PM
Meeting Location: City of West Linn, City Hall

Meeting Minutes

Parties In Attendance
William Relyea
Gerald Pasquantonio
Keith Liden
Norman Dull
Tim Woodley

PCNA Members voting on Resolution 1-2009 by Person, Proxy, Absentee or via email
Joanne Pinelli
Janet Hull
Josh Hull
Gerald Pasquantonio
William Relyea

7:00 - Meeting Opens - Call to Order
PCNA President, William Relyea called the meeting to order and welcomed the parties. A round of introductions was conducted.

7:05 - General Discussion -
A general discussion ensued about general planning concerns surrounding the annexation process and at what point school district capacity, impacts to the school sites versus zoning considerations should be presented in the land use planning process.

7:15 - West Linn Wilsonville School District Presentation
The following parties presented information about facility improvements at Rosemont Ridge Middle School:

- Norman Dull, Dull Olson Weekes,
- Keith Liden, Parsons Brinkerhoff

- Tim Woodley, West Linn Wilsonville School District

Planned Improvements:

- A bus drive thru path is planned which will take bus traffic around the school and egress onto Rosemont.
- A sport lighting system for the football and baseball fields.
- Artificial turf for the football and baseball fields with drainage systems
- Stormwater treatment system

8:00 - Community Comments

1. Comments focused on the positive aspects of separating car traffic from bus traffic. Questions arose about adequate diffusion of the lights so that neighbors are not disturbed. The lights will be focused on the field and a series of photos were shown, indicating the spread of the lighting would not extend beyond the sports fields.
2. Question arose about timing of the lights. It was stated that the lights would be off by 10:00 PM and only on when a function is taking place.
3. Stormwater runoff in the area behind the school, where the bus traffic will be diverted was questioned. The area has steep banks and is constrained by the existing school facility. It was suggested that stormwater treatment and a drain system be included in the plans.

8:15 - Resolution 1-2009 calling for support of the White Oak Savanna

- Motion made and carried by the membership.

8:30 - Closing Remarks and Adjournment

- The meeting was adjourned at 8:30 PM

City of West Linn

Parker Crest Neighborhood Association
Wednesday, May 27, 2007 at 7:00 PM
Meeting Location: City of West Linn, City Hall,

AGENDA

7:00 - Meeting Opens – Call to Order

7:05 – General Discussion:

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9:00- Closing Remarks and Adjournment

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5.27.09

Presentation of Rosemont Ridge Middle School Site Improvement Project: Bus Drive
All-weather turf
Field lighting

Tim Woodley
Norm Dull
Keith Liden

PUBLIC NOTICE

THE PUBLIC IS INVITED to attend a Parker Crest Neighborhood Association meeting to discuss the proposed Site Improvement Project at ROSEMONT RIDGE SCHOOL

May 27, 2009 at 7:00 pm
West Linn City Hall
22500 Salamo Road
West Linn, OR 97068

Property Information:

- LOCATION: Rosemont Ridge Middle School
- ADDRESS: 20001 Salamo Road
  West Linn, OR 97068
- DESCRIPTION: Tax Lot 201, 300, 701, 800, 900
  Assessor's Map T2S R1E S26

Site Improvement Description:

The major elements of this renovation work include:

- Construct new one-way bus drive around back of school to access driveway on Rosemont Road including retaining wall and landscaping
- Reconstruct track
- Install all-weather turf sports field inside track
- Install lights for sports field and women's softball field
- Construct new restroom/concession/storage building
- Site fencing
- Site pedestrian improvements

This is an informal meeting to discuss the site improvements planned for Rosemont Ridge Middle School. This meeting is in support of a Conditional Use/Design Review application and is required by City of West Linn Community Development Code Section 99.038. The plan may be modified or altered prior to actual submittal to the city of West Linn for Conditional Use and Design Review approval.

For further information, please contact Amy Berger, West Linn-Wilsonville School District 503-673-7195.

Notice dated May 6, 2009

C. Where a requirement is waived, the Planning Director shall cite in the staff report on the application, the specific requirements waived and the reasons for the waiver. The decision of the Planning Director to waive the requirement is subject to review and denial by the approval authority or the appeal authority. (ORD 1568)

99.038 NEIGHBORHOOD CONTACT REQUIRED FOR CERTAIN APPLICATIONS

Prior to submittal of an application for any subdivision, conditional use permit, multi-family project, planned unit development, commercial, office, or industrial development of over 1,500 square feet, or a zone change that requires a Comprehensive Plan Amendment, the applicant shall contact and discuss the proposed development with any affected neighborhood as provided in this section. Although not required for other or smaller projects, contact with neighbors is highly recommended. The Planning Director may require neighborhood contact pursuant to this section prior to the filing of an application for any other development permit if the Director deems neighborhood contact to be beneficial. (ORD. 1425)

1. Purpose. The purpose of neighborhood contact is to identify potential issues or conflicts regarding a proposed application so that they may be addressed prior to filing. This contact is intended to result in a better application and to expedite and lessen the expense of the review process by avoiding needless delays, appeals, remands, or denials. The City expects an applicant to take the reasonable concerns and recommendations of the neighborhood into consideration when preparing an application. The City expects the neighborhood association to work with the applicant to provide such input.
2. The applicant shall contact by letter all recognized neighborhood associations whose boundaries contain all or part of the site of the proposed development and all property owners within 500 feet of the site.

3. The letter shall be sent by certified mail, return receipt requested, to the Chair of the neighborhood association, and shall be sent by regular mail to the other officers of the association and the property owners within 500 feet. The letter shall briefly describe the nature and location of the proposed development, and invite the association and interested persons to a meeting to discuss the proposal in more detail. The meeting shall be scheduled at the association's regularly scheduled monthly meeting, or at the discretion of the association, and not less than 20 days from the date of mailing of the notice. If the neighborhood association does not want to meet within a reasonable amount of time, or if there is no neighborhood association, the applicant may hold a public meeting during the evening after 6 p.m., or on the weekend no less than 20 days from the date of mailing of the notice. All meetings shall be held at a location open to the public within the boundaries of the association or at a public facility within the City of West Linn. If the meeting is held at a private residence or business, it shall be posted at the time of the meeting as the meeting place and shall note that the meeting is open to the public and all interested persons may attend.

4. On the same date the letters described in subsection 1 through 3 of this section are mailed, the applicant shall provide and post notice on the property subject to the proposed application. The notice shall be posted at a location visible from the public right-of-way. If the site is not located adjacent to a through street, then an additional sign shall be posted on the nearest through street. The sign notice shall be at least 11" X 17" in size on durable material and in clear, legible writing. The notice shall state that the site may be subject to a proposed development (e.g., subdivision, variance, conditional use) and shall set forth the name of the applicant and a telephone number where the applicant can be reached for additional information. The site shall remain posted until the conclusion of the

meeting.

5. An application shall not be accepted as complete unless and until the applicant demonstrates compliance with this section by including with the application:

   a. A copy of the certified letter to the neighborhood association with a copy of return receipt.

   b. A copy of the letter to officers of the association and to property owners within 500 feet, including an affidavit of mailing and a copy of the mailing list containing the names and addresses of such owners and residents.

   c. A copy of the required posted notice, along with an affidavit of posting; and,

   d. A copy of the minutes of the meetings, produced by the neighborhood association, which shall include a record of any verbal comments received, and copies of any written comments from property owners, residents, and neighborhood association members. If there are no minutes, the applicant may provide a summary of the meeting comments. The applicant shall also send a copy of the summary to the Chair of the neighborhood association. The Chair shall be allowed to supplement the summary with any additional comments regarding the content of the meeting, as long as such comments are filed before the record is closed.

   e. An audiotape of the meeting.

   f. In the event that it is discovered by staff that the aforementioned procedures of this section were not followed, or that a review of the audio tape and meeting minutes show the applicant has made a material misrepresentation of the project at the neighborhood meeting, the application shall be deemed incomplete until the applicant demonstrates compliance with CDC Section 99.038.

AFFIDAVIT

I, Tim Woodley so hereby solemnly attest that the following statement is true.

A copy of the letter to officers of the Parker Crest Neighborhood Association and property owners within 500 feet of the proposed structure was mailed on May 6, 2009. A copy of the mailing list with names and addresses is attached.

Tim Woodley: _____ **Date:** 5-5-09

State of Oregon

County of Clackamas

Signed or attested before me on May 5, 2009
by Tara DuBois, **Notary Public State of Oregon.**
My Commission expires: October 20, 2012

Notary: _____

OFFICIAL SEAL
TARA LYNN DU BOIS
NOTARY PUBLIC - OREGON
COMMISSION NO. 433598
MY COMMISSION EXPIRES OCT. 20, 2012

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- Site pedestrian improvements

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For further information, please contact Amy Berger, West Linn-Wilsonville School District 503-673-7195.

Notice dated May 6, 2009

James B Baggett
6105 Canter Ln
West Linn, OR 97068

Thomas F Dunlap
6117 Canter Ln
West Linn, OR 97068

Steven L & Lori L Faccio
6101 Canter Ln
West Linn, OR 97068

Steven & Julea Gulbrandson
6102 Canter Ln
West Linn, OR 97068

Scott Michael & Kimberly K Hardin
6103 Canter Ln
West Linn, OR 97068

Alan M Holzer
6119 Canter Ln
West Linn, OR 97068

Janet S Mangel
6107 Canter Ln
West Linn, OR 97068

Susan Mautz
6110 Canter Ln
West Linn, OR 97068

Grant W & Sylvia E Oakes
6104 Canter Ln
West Linn, OR 97068

Lori Randall
6109 Canter Ln
West Linn, OR 97068

Rockey E Sagers
6115 Canter Ln
West Linn, OR 97068

Daniel M & Megan K Schumaker
6113 Canter Ln
West Linn, OR 97068

Terrence G Sullivan
6100 Canter Ln
West Linn, OR 97068

Daniel R & Suzanne Tye
6108 Canter Ln
West Linn, OR 97068

Michael D & Dawn K Walters
6111 Canter Ln
West Linn, OR 97068

Mark A & Frances Ward
6106 Canter Ln
West Linn, OR 97068

Timothy & Sharon Rand
6107 Chuchill Down Dr
West Linn , OR 97068

Thomas N & Nanette C Boggess
1901 Churchill Ct
West Linn, OR 97068

Alesha & Edward D Buturla
1903 Churchill Ct
West Linn, OR 97068

Bertrand J & Charlotte J Close
1902 Churchill Ct
West Linn, OR 97068

Gary L & Mary E Dowen
1900 Churchill Ct
West Linn, OR 97068

Joseph C & Janine M Paschal Jr.
1905 Churchill Ct
West Linn, OR 97068

Robert R & Emily M Ail
6113 Churchill Downs Dr
West Linn, OR 97068

Steven P & Jeani C Arena
6120 Churchill Downs Dr
West Linn, OR 97068

Clare Cleveland
6130 Churchill Downs Dr
West Linn, OR 97068

Ted R Crego
6106 Churchill Downs Dr
West Linn, OR 97068

Harding W & Jennifer Dicenzo
6109 Churchill Downs Dr
West Linn, OR 97068

Stephen P & Cynthia L Flyte
6108 Churchill Downs Dr
West Linn, OR 97068

Stephen A & Janet M Freiling
6128 Churchill Downs Dr
West Linn, OR 97068

David P Glenn
6140 Churchill Downs Dr
West Linn, OR 97068

John M & Deborah J Haner
6122 Churchill Downs Dr
West Linn, OR 97068

Michael J Huss
6136 Churchill Downs Dr
West Linn, OR 97068

Charles J & Betty C Jones
6133 Churchill Downs Dr
West Linn, OR 97068

Keelan K & Kellie M Kwei
6115 Churchill Downs Dr
West Linn, OR 97068

Nancy G Marquette
6104 Churchill Downs Dr
West Linn, OR 97068

Peter J & Elizabeth A McGovern
6138 Churchill Downs Dr
West Linn, OR 97068

Christopher W & Lara E Miller
6105 Churchill Downs Dr
West Linn, OR 97068

John C & Carlene M Nienstadt
6111 Churchill Downs Dr
West Linn, OR 97068

Darlyn Nowack
6127 Churchill Downs Dr
West Linn, OR 97068

Ronnie L & Sharon A Parton
6134 Churchill Downs Dr
West Linn, OR 97068

David W & Sandra J Pedersen
6131 Churchill Downs Dr
West Linn, OR 97068

Donald L Prasnikar
6100 Churchill Downs Dr
West Linn, OR 97068

Dan J & Melinda L Schmitz
1904 Churchill Downs Dr
West Linn , OR 97068

Curtis W & Tiffany J Schroeder
6102 Churchill Downs Dr
West Linn, OR 97068

Dennis L & Julie G Wilhelm
6132 Churchill Downs Dr
West Linn, OR 97068

David A & Sara Wolf
6129 Churchill Downs Dr
West Linn, OR 97068

Timothy J Broberg
2004 Conestoga Ln
West Linn, OR 97068

David B & Terry L Durocher
2002 Conestoga Ln
West Linn, OR 97068

David L Glivinski
2001 Conestoga Ln
West Linn, OR 97068

James L Houston
2003 Conestoga Ln
West Linn, OR 97068

Robert A & Virginia A Johnson
2000 Conestoga Ln
West Linn, OR 97068

Charles Lytle
2006 Conestoga Ln
West Linn, OR 97068

Kelley J Marold
2008 Conestoga Ln
West Linn, OR 97068

Anthony John Bardana
1944 Furlong Pl
West Linn, OR 97068

Philip T & Cynthia Brus
1948 Furlong Pl
West Linn, OR 97068

Gregory G & Mary A Chee
1950 Furlong Pl
West Linn, OR 97068

Diane L Ogle
1946 Furlong Pl
West Linn, OR 97068

Donald R & Karen R Bailey
6330 Haverhill Ct
West Linn, OR 97068

Cory A Betts
6353 Haverhill Ct
West Linn, OR 97068

Jeff & Kaye Bonnington
6260 Haverhill Ct
West Linn, OR 97068

Ann C Cunningham
6343 Haverhill Ct
West Linn, OR 97068

Dale E & Linda Ebel
6273 Haverhill Ct
West Linn, OR 97068

Bruce Gordon & Jeanette C Gold
6320 Haverhill Ct
West Linn, OR 97068

Richard T & Debby S Hennessy
6283 Haverhill Ct
West Linn, OR 97068

Gennaro A & Barbara Iervolino
6290 Haverhill Ct
West Linn, OR 97068

Lane Oden Kagey
6250 Haverhill Ct
West Linn, OR 97068

Steven M & Maxine L Levine
6383 Haverhill Ct
West Linn , OR 97068
RTN'D

Michael D & Una McLaughlin
6310 Haverhill Ct
West Linn, OR 97068

Mark J & Heather McNown
6270 Haverhill Ct
West Linn, OR 97068

Cindy G Nicholson
6263 Haverhill Ct
West Linn, OR 97068

James D & Darcy E Sandilands
6223 Haverhill Ct
West Linn, OR 97068

Dan & Kerri Schockley
6280 Haverhill Ct
West Linn, OR 97068

Thomas P & Elizabeth A Taylor
6333 Haverhill Ct
West Linn, OR 97068

Joseph R & Barbara K Williams
6210 Haverhill Ct
West Linn, OR 97068

Robert T Dingle Jr.
1945 Haverhill Way
West Linn , OR 97068

Richard L Halliday
1920 Haverhill Way
West Linn, OR 97068

Lynn Marie Salisbury
1935 Haverhill Way
West Linn, OR 97068

Jeffrey E & Holly H Scheid
1910 Haverhill Way
West Linn, OR 97068

Robert A & Cherie Shevlin
1960 Haverhill Way
West Linn, OR 97068

Marc & Lori VonAhn
1955 Haverhill Way
West Linn, OR 97068

Peter B & Kathryn L Whitlock
1950 Haverhill Way
West Linn, OR 97068

City Of West Linn
6470 Horton Rd
West Linn, OR 97068
RTN'D

Merrill Lynch First
6481 Horton Rd
West Linn, OR 97068
RTN'D

Bruce T & Jean C Benjamin Jr.
1945 Pinto Ct
West Linn, OR 97068

Douglas R & Emily H Boleyn
1935 Pinto Ct
West Linn, OR 97068
RTN'D

Matthew G Brown
1930 Pinto Ct
West Linn, OR 97068

John H & Gail B Grosness
1925 Pinto Ct
West Linn, OR 97068

Michael T & Jodi A Hughes
1915 Pinto Ct
West Linn, OR 97068

S Scott Nicholson
1950 Pinto Ct
West Linn, OR 97068

Brett & Nicole Susany
1940 Pinto Ct
West Linn, OR 97068

Andrew Paul Graves
1205 Rosemont Rd
West Linn, OR 97068

Stuart O & Phyllis A Kendall
1255 Rosemont Rd
West Linn, OR 97068

Everett R & Susan C Mastrich Jr.
1267 Rosemont Rd
West Linn, OR 97068

Jake & Darnell M Nichol
1156 Rosemont Rd
West Linn, OR 97068

Mary L Nichols
1215 Rosemont Rd
West Linn, OR 97068

Michael P & Londa Quisling
1225 Rosemont Rd
West Linn, OR 97068

Fred A & Gwendolyn L Reinke
1160 Rosemont Rd
West Linn, OR 97068

Kenneth E Thorpe
1263 Rosemont Rd
West Linn, OR 97068

City Of West Linn
1180 Rosemont Rd
West Linn, OR 97068

Frazier
1235 Rosemont Rd
West Linn, OR 97068

Centurion Homes Inc
1165 Rosemont Rd
West Linn, OR 97068
RTN'D

Katherine Marie Blake
20275 S Hoodview Ave
West Linn, OR 97068

Michele Provost Brasfield
20248 S Hoodview Ave
West Linn, OR 97068

Mark Bussey
20154 S Hoodview Ave
West Linn, OR 97068
RTN'D

James Calder
20305 S Hoodview Ave
West Linn, OR 97068

Alan Cramer
20161 S Hoodview Ave
West Linn, OR 97068

Marlene L Cunha
20282 S Hoodview Ave
West Linn, OR 97068

Laura Anne Cvitanich
20295 S Hoodview Ave
West Linn, OR 97068

Pamela M Dalmolin
20288 S Hoodview Ave
West Linn, OR 97068

Holly Danna
20263 S Hoodview Ave
West Linn, OR 97068
RTN'D

Victoria D Deeks
20201 S Hoodview Ave
West Linn, OR 97068

Bruce C Empey
20226 S Hoodview Ave
West Linn, OR 97068

Janice Kay Erickson
20239 S Hoodview Ave
West Linn, OR 97068

Christopher A Gonzales
20276 S Hoodview Ave
West Linn, OR 97068

Kenneth D & Carrie L Goodwin
20225 S Hoodview Ave
West Linn, OR 97068

Lloyd D & Sandra Hale
20249 S Hoodview Ave
West Linn, OR 97068

Anne Hedman
20173 S Hoodview Ave
West Linn, OR 97068

Susan E Laszlo
20147 S Hoodview Ave
West Linn, OR 97068

James A & Ann L McCabe
20185 S Hoodview Ave
West Linn , OR 97068

Mark McCarty
20287 S Hoodview Ave
West Linn, OR 97068

Keith & Diane Meisenheimer
20264 S Hoodview Ave
West Linn, OR 97068

Piergiorgio & Catherine Parisio
20123 S Hoodview Ave
West Linn, OR 97068

Emily Randall
20111 S Hoodview Ave
West Linn, OR 97068

Rebecca A Richards
20291 S Hoodview Ave
West Linn, OR 97068

Shelly M Ryan
20281 S Hoodview Ave
West Linn, OR 97068

Marsha A Seymour
20251 S Hoodview Ave
West Linn, OR 97068

Molly F Smith
20214 S Hoodview Ave
West Linn, OR 97068

Scott Thomas Tribou RTN'D
20252 S Hoodview Ave
West Linn, OR 97068

Lavon M Watson
20213 S Hoodview Ave
West Linn, OR 97068

Jennifer Wessling
20135 S Hoodview Ave
West Linn, OR 97068

Michael Yung-Jen Wu
20238 S Hoodview Ave
West Linn, OR 97068

Mark L & Angela Crandall
20003 S Hoodview Ct
West Linn, OR 97068

Mark L & Angela Crandall
20027 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20015 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC RTN'D
20060 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20058 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20046 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20034 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20022 S Hoodview Ct
West Linn, OR 97068

Salamo Terrace LLC
20010 S Hoodview Ct
West Linn, OR 97068

Carmen Mazzia
20315 S Noble Ln
West Linn, OR 97068

Christine Ortiz RTN'D
20321 S Noble Ln
West Linn, OR 97068

William H & Lynne P Saphir
20322 S Noble Ln
West Linn, OR 97068

Bkr Investment Group LLC
20334 S Noble Ln
West Linn, OR 97068

West Linn-Wils Sch Dist #3j
20001 S Salamo Rd
West Linn, OR 97068

Cascade Summit Retail LLC
21400 S Salamo Rd
West Linn, OR 97068

West Linn-Wils Sch Dist #3j
20001 S Salamo Rd
West Linn, OR 97068

West Linn-Wils Sch Dist #3j
20001 S Salamo Rd
West Linn, OR 97068

Linda J Bergeson
1700 Santa Anita Dr
West Linn, OR 97068

CITY OF WEST LINN
22500 Salamo Rd.
West Linn, OR. 97068
(503) 656-4211

PLANNING RECEIPT
Receipt: # 934784
Date : 07/21/2009
Project: #DR-09-05
BY: JN

NAME : WL/WV SCHOOL DISTRICT

ADDRESS : PO BOX 35

CITY/STATE/ZIP: WEST LINN OR 97068

PHONE # : 673-7976

SITE ADD. : **20001 SALAMO RD**

TYPE I HOME OCCUPATIONS		HO	$
PRE-APPLICATIONS	Level I ( ), Level II ( )	DR	$
HISTORIC REVIEW	Residential Major ( ), Minor ( ), New ( )	DR	$
	Commercial Major ( ), Minor ( ), New ( )		
SIGN PERMIT	Face ( ), Temporary ( ), Permanent ( )	DR	$
SIDEWALK USE PERMIT		DR	$
APPEALS	Plan. Dir. Dec. ( ), Subdivsion ( ), Plan Comm./City Coun. ( ), Nbhd ( )	DR	$
LOT LINE ADJUSTMENT		LA	$
CITY/METRO BUSINESS LICENSE		BL	$

The following items are paid by billing against the up-front deposit estimate. If the amount of time billed to your project exceeds the amount coverered by the deposit, additional payment may be required.

DESIGN REVIEW	Class I ( ), Class II (X)	RD	$ 19000.00
VARIANCE	Class I ( ), Class II ( )	RD	$
SUBDIVISION	Standard ( ), Expedited ( )	RD	$
ANNEXATION	"Does Not Include Election Cost"	RD	$
CONDITIONAL USE		RD	$
ZONE CHANGE		RD	$
MINOR PARTITION		RD	$
MISCELLANEOUS PLANNING		RD	$

Boundry Adjustments	( )		
Modification to approval	( )	Water Resource	
Code Amendments	( )	Area Protection	( )
Comp. Plan Amendments	( )	Street Vacations	( )
Temporary Permit Admin.	( )	Easement Vacations	( )
Temporary Permit Council	( )	Will. River Greenway	( )
Flood Management	( )	Tualatin River Grwy.	( )
Inter-Gov. Agreements N/C	( )	Street Name Change	( )
Alter Non-Conforming Res.	( )	Code Interpretations	( )
Alter Non-Conforming Comm.	( )	Type II Home Occ.	( )
Measure 37 Claims	( )	Planned Unit Dev. PUD	( )

TOTAL REFUNDABLE DEPOSIT		RD	$ 19000.00
GENERAL MISCELLANEOUS Type:		PM	$

TOTAL Check # Credit Card (X) Cash ( ) $ 19000.00

DEVELOPMENT REVIEW APPLICATION

DR-09-05

TYPE OF REVIEW (Please check all boxes that apply):

[ ]	Annexation	[ ]	Non-Conforming Lots, Uses & Structures
[ ]	Appeal and Review *	[ ]	One-Year Extension *
[ ]	Conditional Use	[ ]	Planned Unit Development
[X]	Design Review	[ ]	Pre-Application Meeting *
[ ]	Easement Vacation	[ ]	Quasi-Judicial Plan or Zone Change
[ ]	Extraterritorial Ext. of Utilities	[ ]	Street Vacation
[ ]	Final Plat or Plan	[ ]	Subdivision
[ ]	Flood Plain Construction	[ ]	Temporary Uses *
[ ]	Hillside Protection and Erosion Control	[ ]	Tualatin River Greenway
[ ]	Historic District Review	[ ]	Variance
[ ]	Legislative Plan or Change	[ ]	Water Resource Area Protection/Wetland
[ ]	Lot Line Adjustment * /**	[ ]	Willamette River Greenway
[ ]	Minor Partition (Preliminary Plat or Plan)	[ ]	Other/Misc

RECEIVED
JUL 20 2009
PLANNING & BUILDING
CITY OF WEST LINN
INT. _____ TIME _____

Home Occupation / Pre-Application / Sidewalk Use Application * / Permanent Sign Review * / Temporary Sign Application require individual application forms available in the forms and application section of the City Website or at City Hall.

TOTAL FEES/DEPOSIT $19,000.00 *** No CD required / ** Only one copy needed**

West Linn-Wilsonville Sch. Dist. P.O. Box 35 West Linn, OR 97062 503-673-7976

OWNER'S	ADDRESS	CITY	ZIP	PHONE(res.& bus.)
Tim Woodley	Same as above			

APPLICANT'S	ADDRESS	CITY	ZIP	PHONE(res.& bus.)
Keith Liden, Parsons Brinckerhoff,	**400 SW 6th Ave., Suite 802**	**Portland, OR**	**97204**	**503-478-2348**

CONSULTANT	ADDRESS	CITY	ZIP	PHONE

SITE LOCATION 20001 Salamo Road (Assessor's Maps and Tax Lots - 2S 1E Section 26, TL 201 and 300; 2S 1E Section 26A, TL 701, 800, 900)

Assessor's Map No.: _____ **Tax Lot(s):** _____ **Total Land Area:** 21.5 acres

1. All application fees are non-refundable (excluding deposit).
2. The owner/applicant or their representative should be present at all public hearings.
3. A denial or grant may be reversed on appeal.. No permit will be in effect until the appeal period has expired.
4. **Four (4) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format.**

The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application.

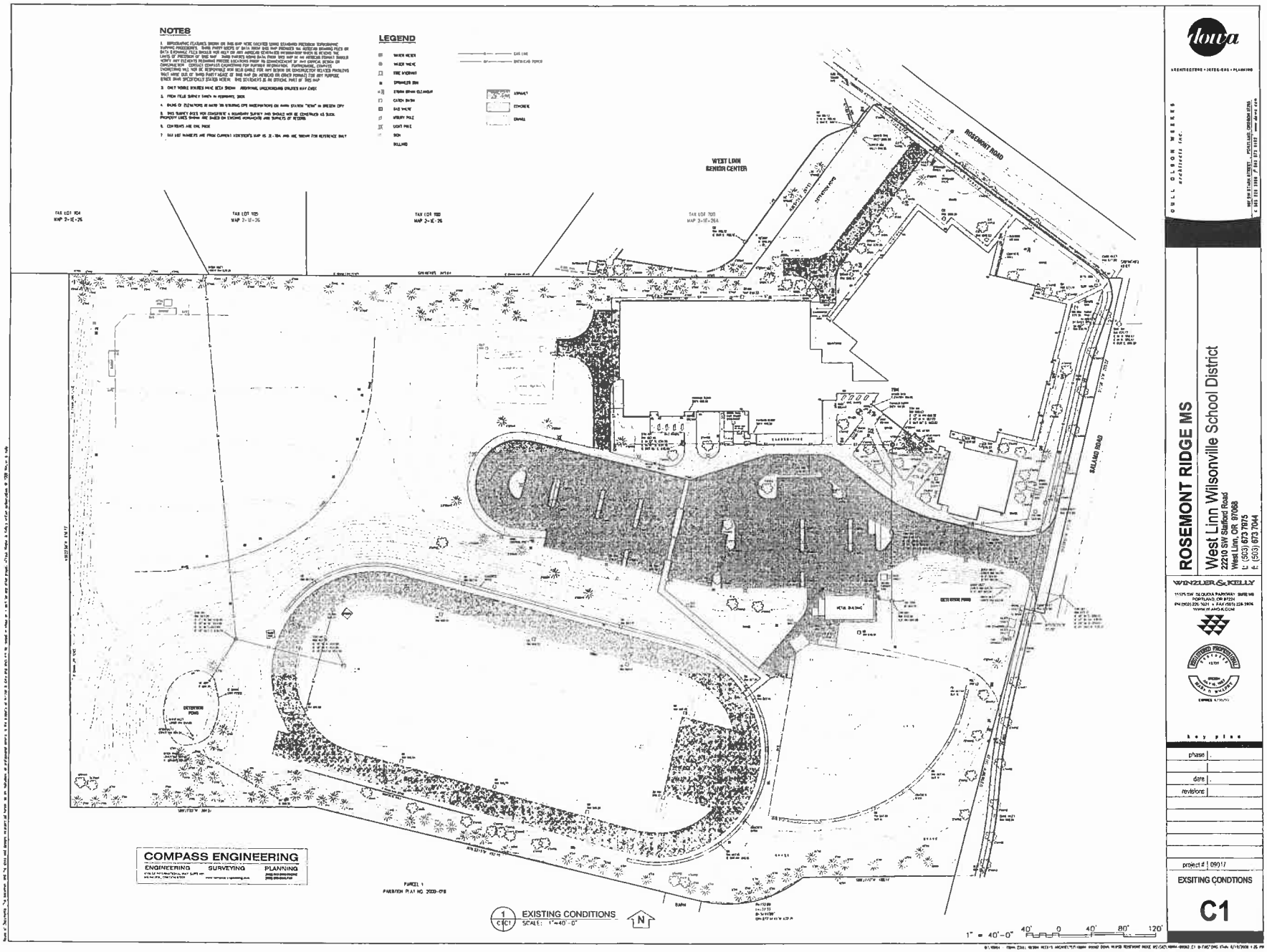
SIGNATURE OF PROPERTY OWNER(S)

X Tim K. Woodley **Date** 7.15.09

SIGNATURE OF APPLICANT(S)

X Keith Liden **Date** 7.15.09

BY SIGNING THIS APPLICATION, THE CITY IS AUTHORIZED REASONABLE ACCESS TO THE PROPERTY.
ACCEPTANCE OF THIS APPLICATION DOES NOT INFER A COMPLETE SUBMITTAL.
COMPLETENESS WILL BE DETERMINED WITHIN 30 DAYS OF SUBMITTAL.



GULL OLSON WEEKES architects inc.

ROSEMONT RIDGE MS

West Linn Wilsonville School District
22210 SW Stafford Road
West Linn, OR 97068
T: (503) 673 7975
F: (503) 673 7044

WINZLER & KELLY

Key plan

phase

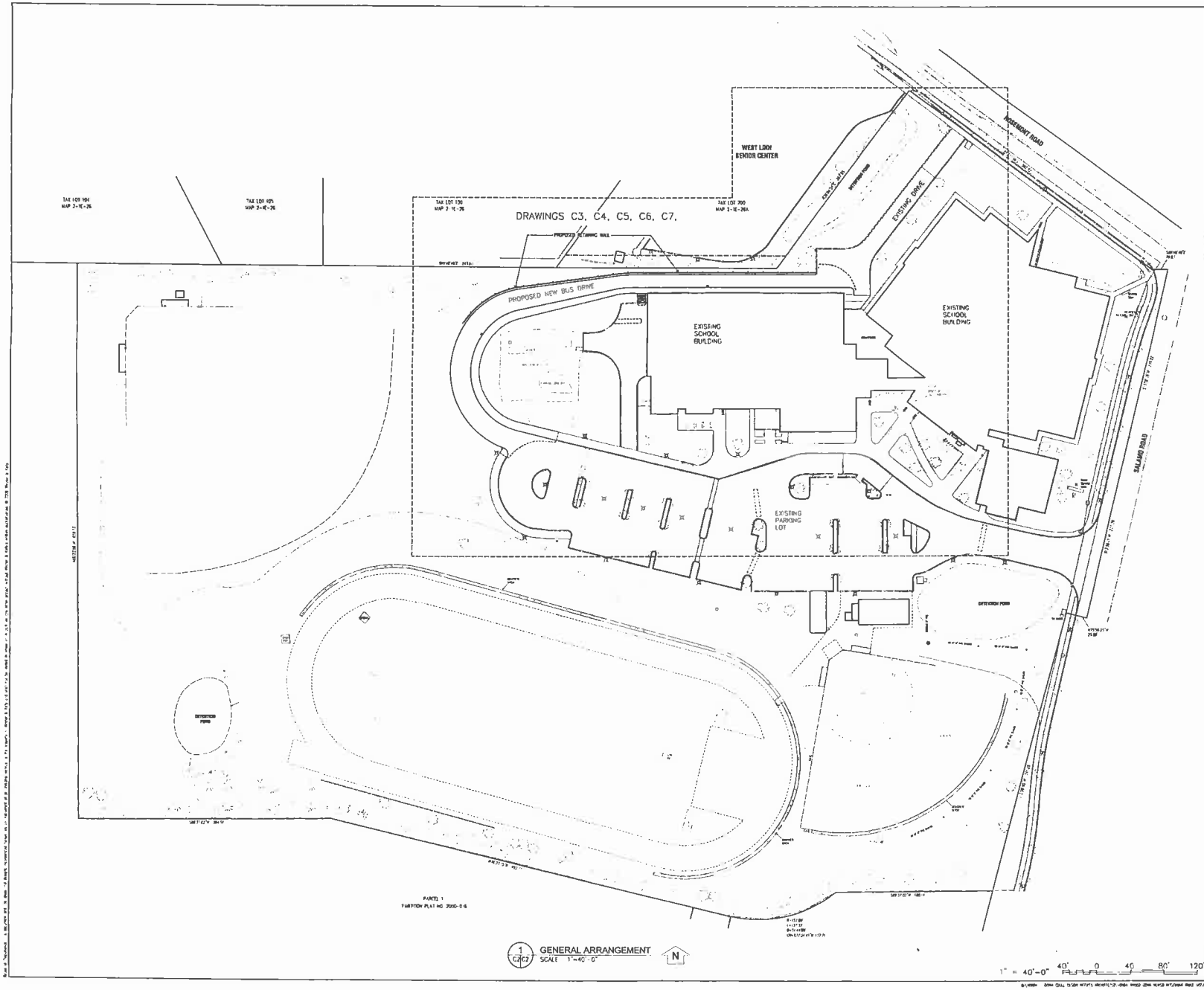
date

revisions

project # 09017

EXSITING CONDITIONS

C1



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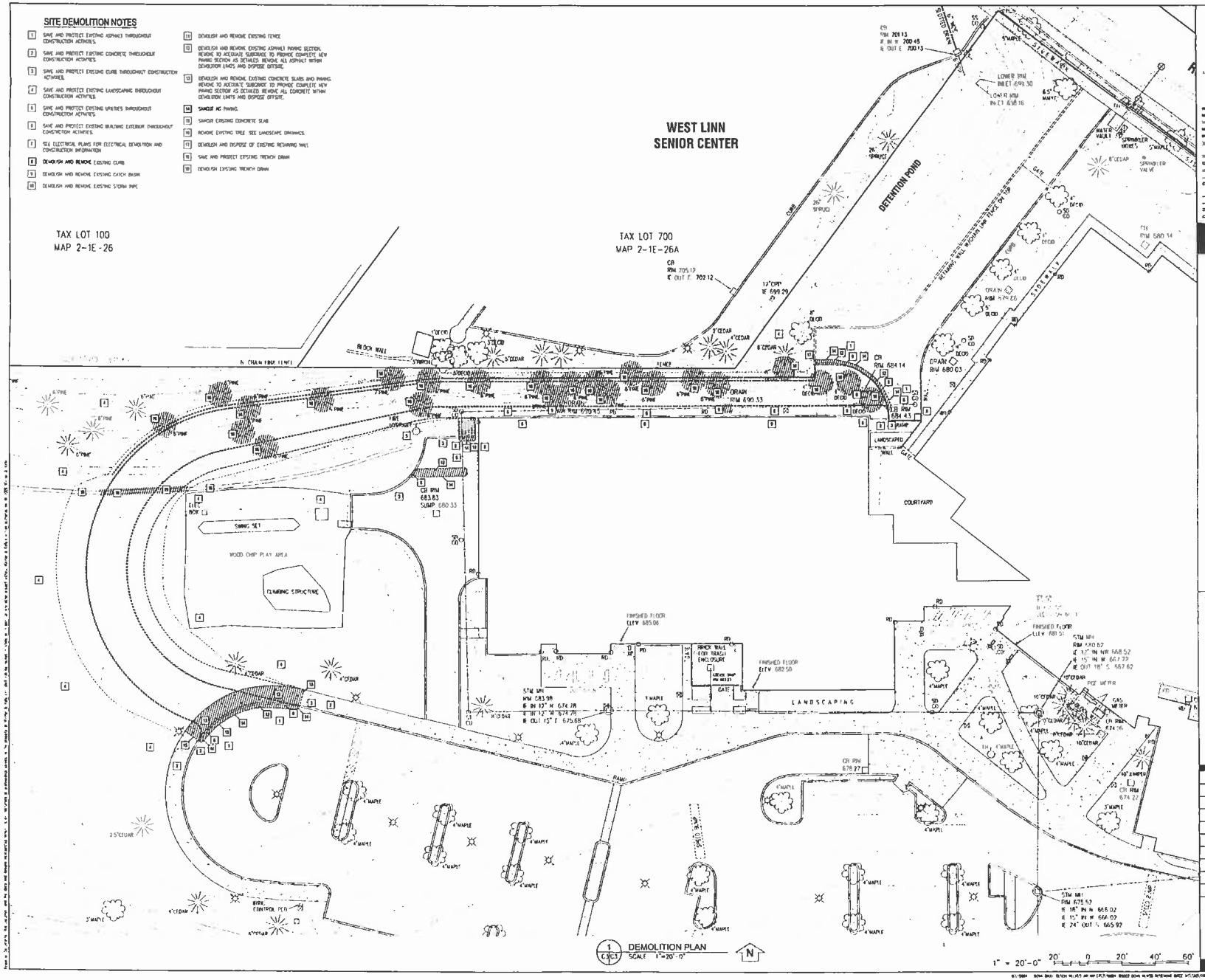
phase	
date	
revisions	

project # 09017

GENERAL ARRANGEMENT

C2



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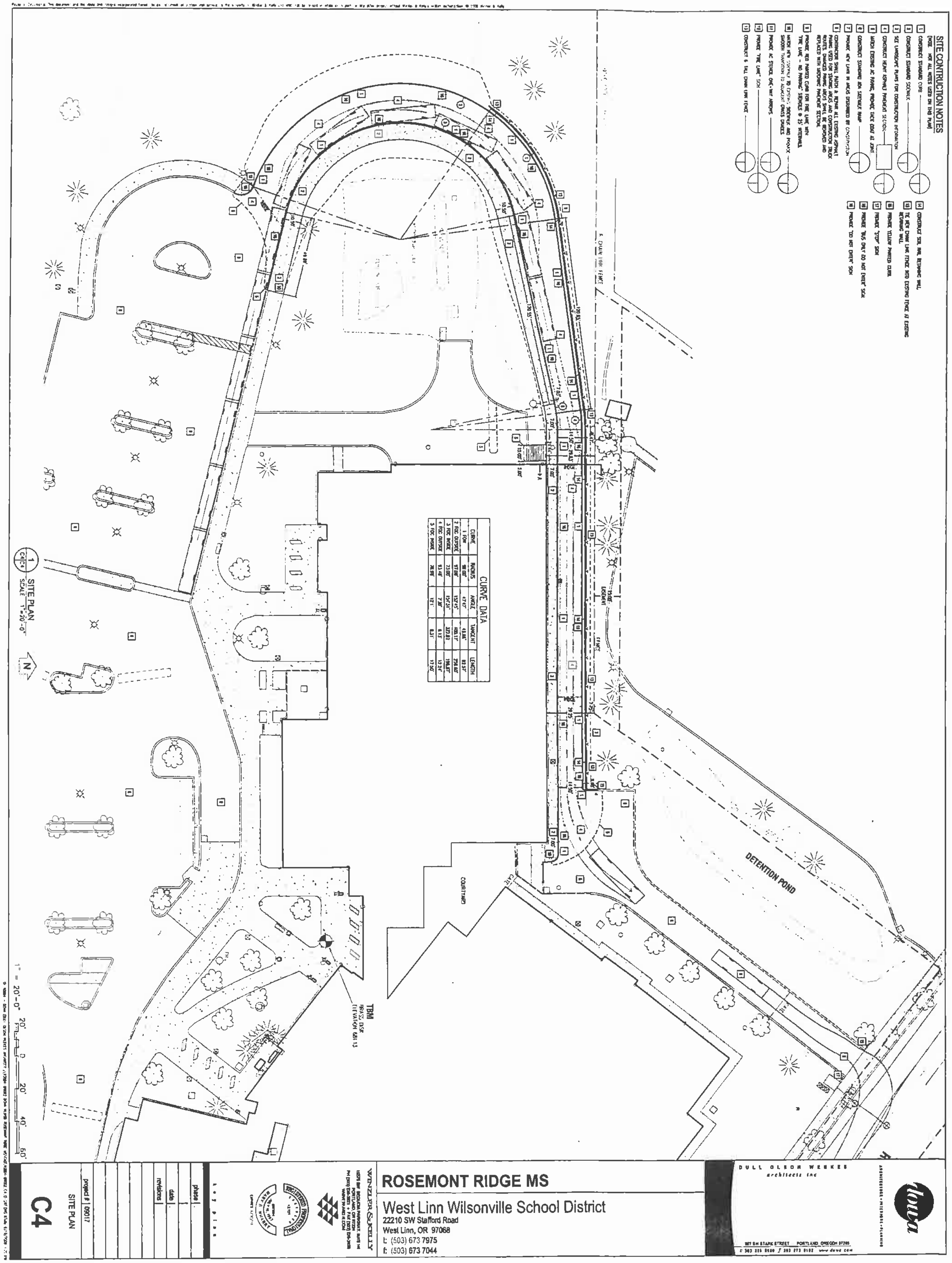
DEMOLITION PLAN

C3


SITE CONSTRUCTION NOTES
CURVE DATA
SITE PLAN
SCALE 1"=20'-0"
DETENTION POND
COURTYARD
TBM
ROSEMONT RIDGE MS
West Linn Wilsonville School District
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West Linn, OR 97068
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architects inc
phase
date
revisions
project # 09017
SITE PLAN
C4

GRADING NOTES

1. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TOWARD ALL EXISTING STORMWATER FEATURES.
2. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING.
3. SEE LANDSCAPE PLANS FOR PEDESTRIAN SIDEWALK GRADES AROUND BUILDING.
4. COMPLETELY COVER ANY SOIL STOCKPILES WHICH REMAIN UNWORKED FOR MORE THAN TWO WEEKS WITH 6MIL BLACK PLASTIC AND PROVIDE MULTIWAYS TO HOLD PLASTIC IN PLACE. MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN. INSTALL SILT FENCE COMPLETELY AROUND STOCKPILE.
5. STRIP TOPSOIL AND PROVIDE EXCAVATION AS NEEDED TO ACHIEVE SUBGRADE. PROVIDE STRUCTURAL FILL AS SPECIFIED UNDER BUILDING AND PAVEMENT TO ACHIEVE INDICATED FINISH ELEVATIONS.
6. MATCH EXISTING PAVEMENT GRADES AT JOINTS BETWEEN NEW AND EXISTING PAVEMENTS.

EROSION CONTROL NOTES

1. INSTALL INLET PROTECTION (TYPICAL ONCE ALL OPEN GRATES AND INCLUDING CATCH BASINS AND TYPES (SHAPES))
2. INSTALL SEDIMENT FENCE. (TYPICAL)
3. CONSTRUCT TRUCK "TRACK OUT" PAD
4. MINIMIZE WASHOUT CONCRETE WASHOUT AREA. ALL WATER COLLECTED THROUGH WASHOUT AREA IS CONSIDERED HAZARDOUS WASTE AND SHALL BE CAPTURED AND HANDLED AS SUCH. ALL CONCRETE FROM PH SHALL BE REMOVED. PIT SHALL BE WASHDOWN & MAINTAINED BY CONTRACTOR TO ENSURE NO OVERFLOW OCCURS. CONTRACTOR MAY ADJUST LOCATION WITH OWNERS PERMISSION

GENERAL EROSION CONTROL NOTES

THE PROPOSED EROSION CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURES TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE OR ENTERS THE EXISTING STORMWATER SYSTEMS. THE CONTRACTOR MAY ALSO BE DIRECTED BY THE CITY ENGINEER, CITY INSPECTOR, OR PROJECT ENGINEER TO CONTROL DUST AND AIRBORNE EROSION.

PRIOR TO COMMENCEMENT OF GRADING ACTIVITY AND AFTER INSTALLATION OF EROSION CONTROL MEASURES, CONTRACTOR IS TO CONTACT THE CITY OF WEST LINN FOR THEIR SITE REVIEW AND APPROVAL.

EROSION CONTROL STABILIZATION SEEDING

PERENNIAL RYEGRASS	80% BY SEED COUNT
CREEPING RED FESCUE	20% BY SEED COUNT
APPLICATION RATE	100 LB/ACRE MINIMUM

WEST LINN SENIOR CENTER

TAX LOT 100
MAP 2-1E-26

TAX LOT 700
MAP 2-1E-26A

DETENTION POND

COURTYARD

LANDSCAPING

1 C5/C5 GRADING AND EROSION CONTROL PLAN
SCALE 1"=20'-0"

N

1" = 20'-0" 20' 0 20' 40' 60'

DULL OLSON WEEKES architects inc

ROSEMONT RIDGE MS

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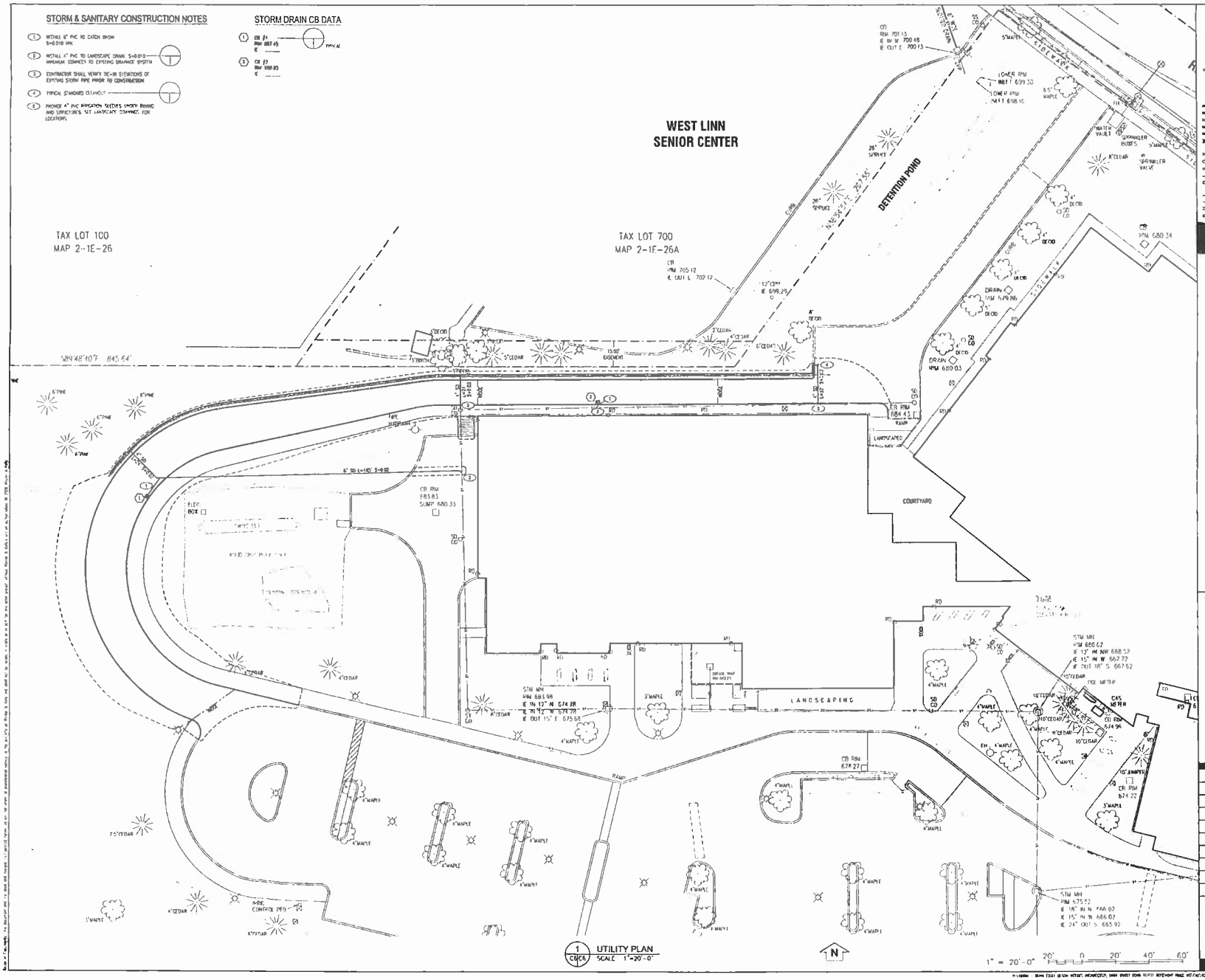
GRADING AND EROSION CONTROL PLAN

C5



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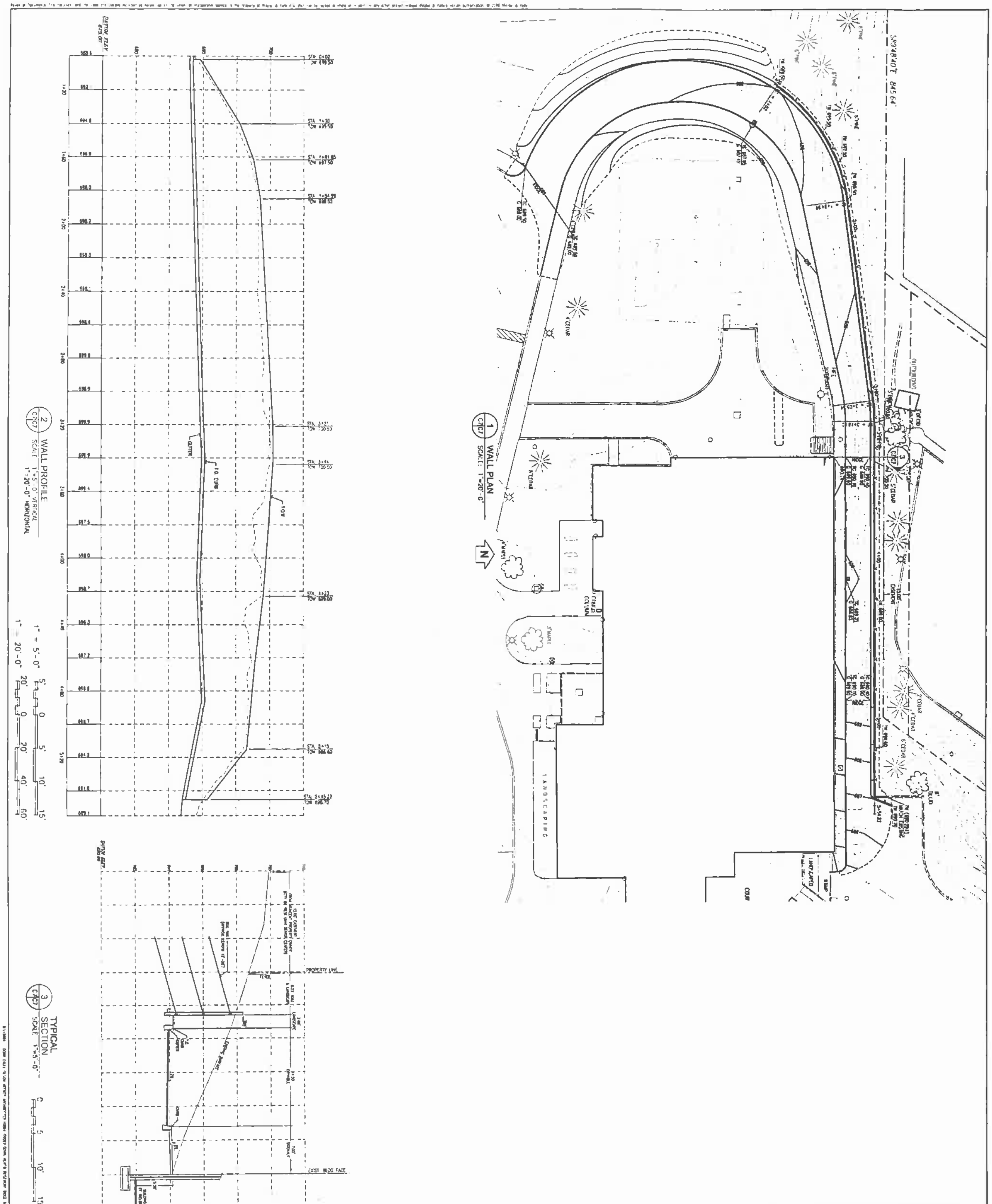
bay plan

phase | 1
date |
revisions |

project # | 05017

UTILITY PLAN

C6



ROSEMONT RIDGE MS

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West Linn, OR 97068
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f: (503) 673 7044

DULL OLSON WEEKES architects inc.
907 SW STARK STREET PORTLAND OREGON 97205

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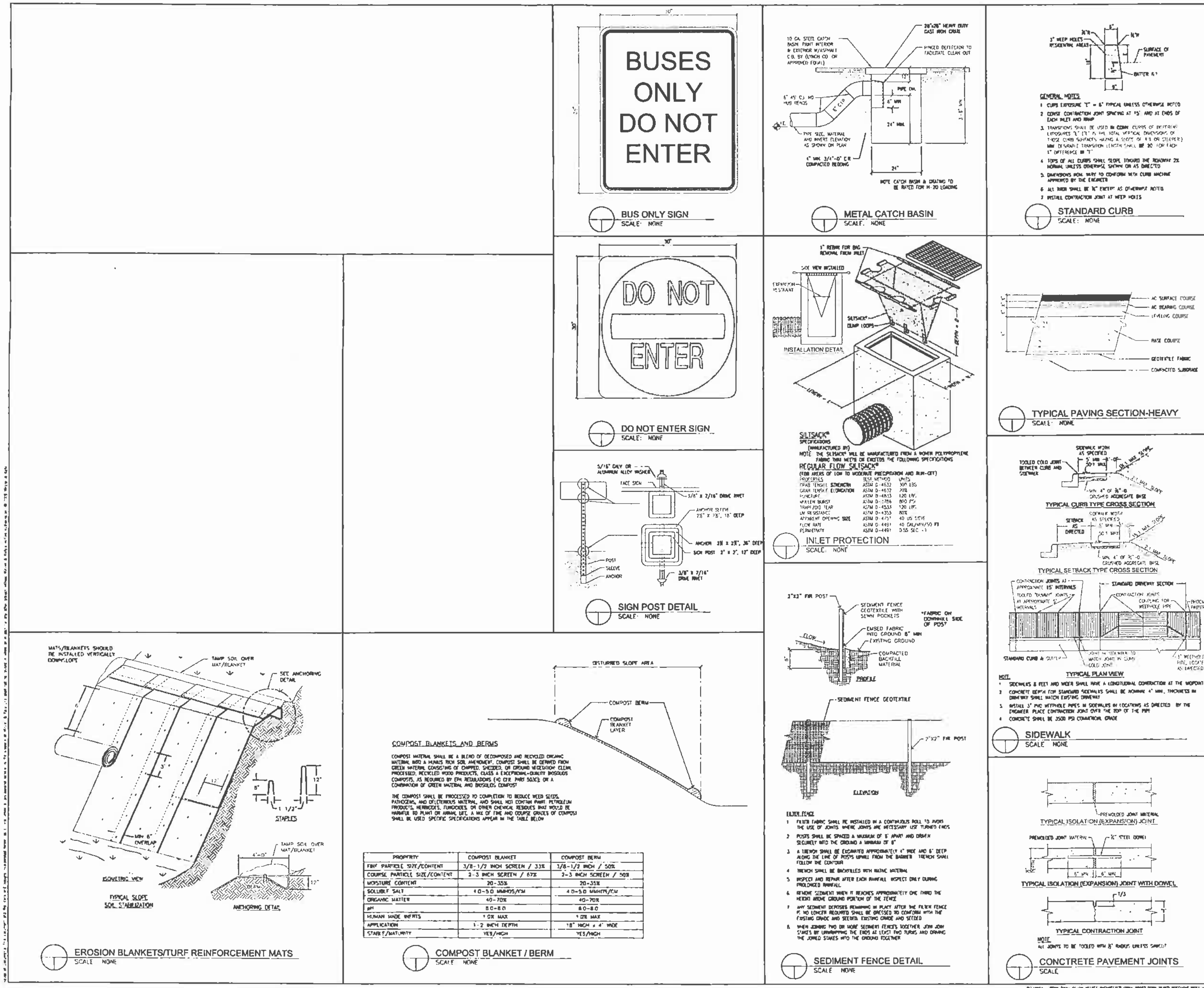
phase
date
revisions
project # 09017
WALL PROFILE
C7



PROPERTY	COMPOST BLANKET	COMPOST BERM
FINE PARTICLE SIZE/CONTENT	3/8-1/2 INCH SCREEN / 33%	3/8-1/2 INCH / 50%
COURSE PARTICLE SIZE/CONTENT	2-3 INCH SCREEN / 67%	2-3 INCH SCREEN / 50%
MOISTURE CONTENT	20-35%	20-35%
SOLUBLE SALT	4.0-5.0 MMHOS/CM	4.0-5.0 MMHOS/CM
ORGANIC MATTER	40-70%	40-70%
pH	5.0-8.0	6.0-8.0
HUMAN MADE INERTS	1.0% MAX	1.0% MAX
APPLICATION	1-2 INCH DEPTH	18" HIGH x 4' WIDE
STABLE/MATURITY	YES/HIGH	YES/HIGH

COMPOST BLANKET / BERM
SCALE: NONE

HULL OLSON WEEKES architects inc

ROSEMONT RIDGE MS

West Linn Wilsonville School District
22210 SW Stafford Road
West Linn, OR 97068
t: (503) 673 7975
f: (503) 673 7044

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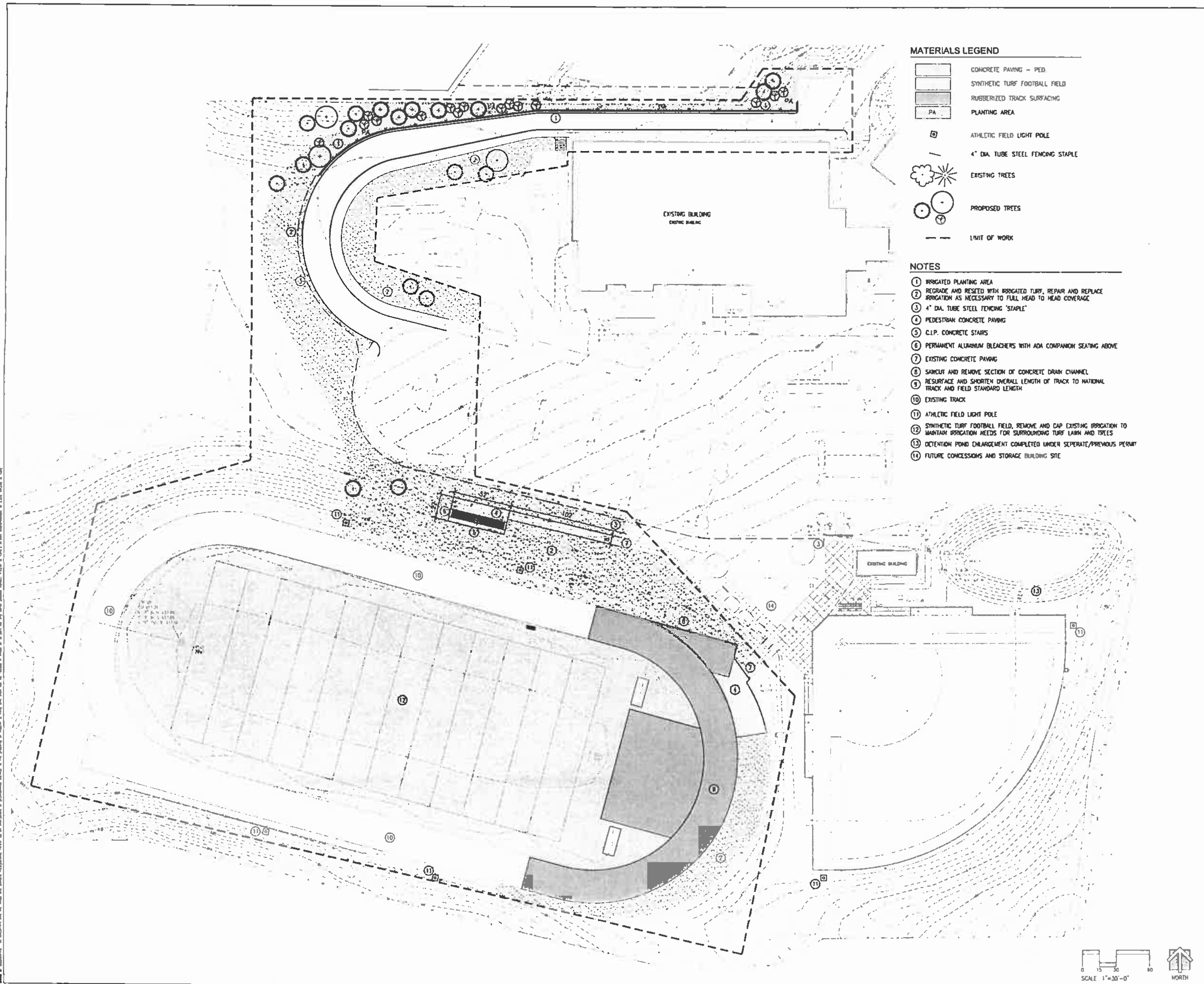
date	
revisions	

project # | 09017

CIVIL DETAILS

C8



MATERIALS LEGEND

- CONCRETE PAVING – PED.
- SYNTHETIC TURF FOOTBALL FIELD
- RUBBERIZED TRACK SURFACING
- PA — PLANTING AREA
- ATHLETIC FIELD LIGHT POLE
- 4" DIA. TUBE STEEL FENCING STAPLE
- EXISTING TREES
- PROPOSED TREES
- LIMIT OF WORK

NOTES

1. IRRIGATED PLANTING AREA
2. REGRADE AND RESEED WITH IRRIGATED TURF, REPAIR AND REPLACE IRRIGATION AS NECESSARY TO FULL HEAD TO HEAD COVERAGE
3. 4" DIA. TUBE STEEL FENCING 'STAPLE'
4. PEDESTRIAN CONCRETE PAVING
5. C.I.P. CONCRETE STAIRS
6. PERMANENT ALUMINUM BLEACHERS WITH ADA COMPANION SEATING ABOVE
7. EXISTING CONCRETE PAVING
8. SAWCUT AND REMOVE SECTION OF CONCRETE DRAIN CHANNEL
9. RESURFACE AND SHORTEN OVERALL LENGTH OF TRACK TO NATIONAL TRACK AND FIELD STANDARD LENGTH
10. EXISTING TRACK
11. ATHLETIC FIELD LIGHT POLE
12. SYNTHETIC TURF FOOTBALL FIELD, REMOVE AND CAP EXISTING IRRIGATION TO MAINTAIN IRRIGATION NEEDS FOR SURROUNDING TURF LAWN AND TREES
13. DETENTION POND ENLARGEMENT COMPLETED UNDER SEPERATE/PREVIOUS PERMIT
14. FUTURE CONCESSIONS AND STORAGE BUILDING SITE

dowa
ARCHITECTURE • INTERIORS • PLANNING
DULL OLSON WEEKES architects inc

ROSEMONT RIDGE MIDDLE SCHOOL

West Linn Wilsonville School District
22210 SW Stafford Road
West Linn, OR 97068
t: (503) 673 7975
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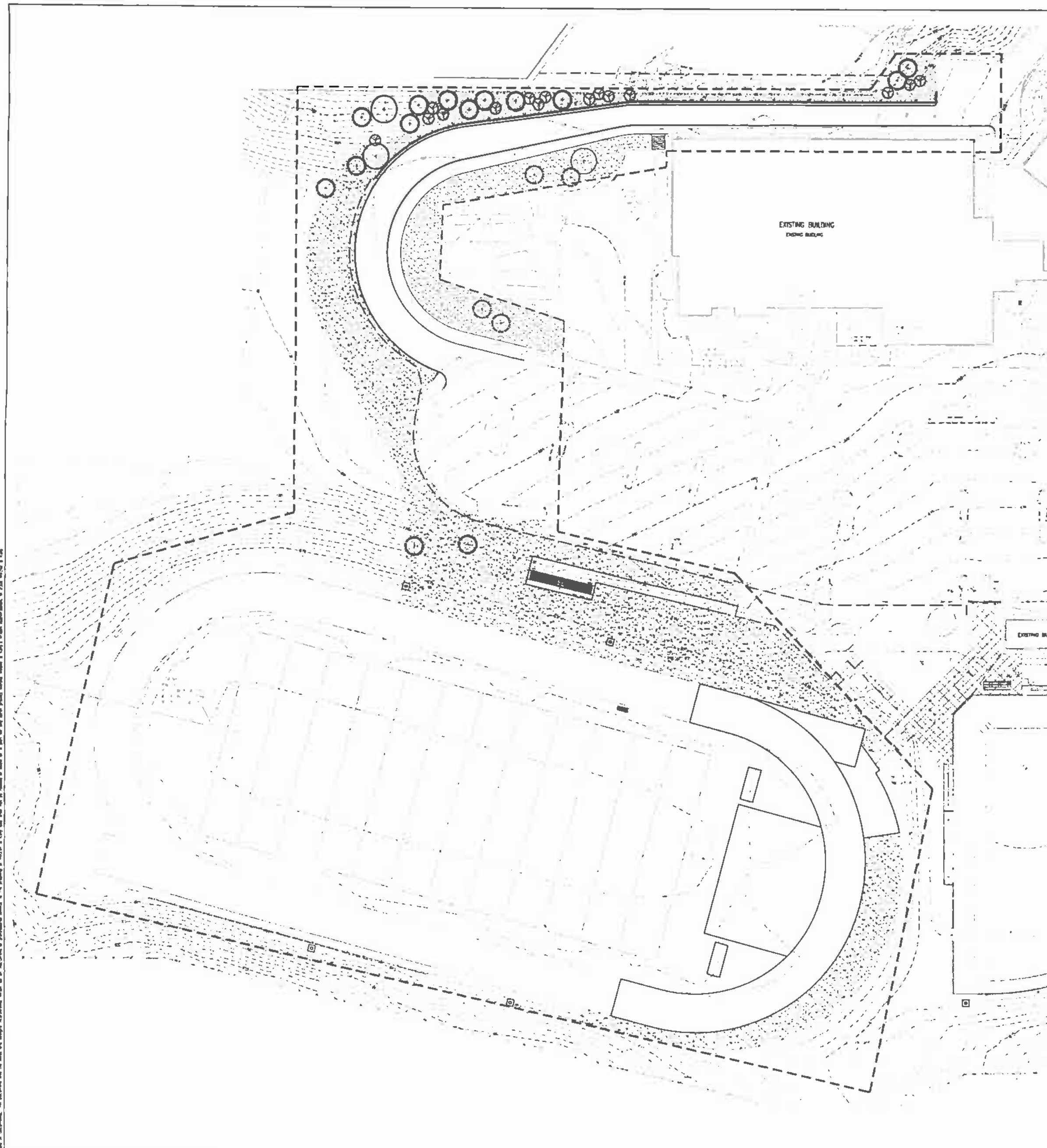
Planning
Urban Design Landscape
Architecture
WALKER·MACY

key plan

phase	DESIGN REVIEW
date	JUNE 26, 2009
revisions	
project #	09017

OVERALL LANDSCAPE MATERIALS PLAN

L1.1



LANDSCAPE PLANT SCHEDULE (TO BE SELECTED FROM)

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE/CONDITION	SPACING
	EVERGREEN TREES			
	PINUS CONTORTA 'CONTORTA'	SHORE PINE	8' HT./B&B.	AS SHOWN
	PINUS PONDEROSA	PONDEROSA PINE	8' HT./B&B.	AS SHOWN
	PSUEDOTSUGA MENZIESII	DOUGLAS FIR	8' HT./B&B.	AS SHOWN
	DECIDUOUS TREES			
	ACER TRUNC. X A. PLAT. 'KEITHSFORM'	NORWEGIAN SUNSET MAPLE	3" CAL./B&B	AS SHOWN
	FRAXINUS PENNSYLVANICA 'MARSHALL'	MARSHALL SEEDLESS ASH	3" CAL./B&B	AS SHOWN
	QUERCUS GARRYANA VAR. BREWERI	BREWERS OREGON OAK	6' HT./B&B.	AS SHOWN
	ZELCOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	3" CAL./B&B	AS SHOWN
	GROUNDCOVER			
	HYPERICUM CALYCINUM	CREEPING ST. JOHNS WORT	1 GAL.	18" O.C.
	MAHONIA REPENS	CREEPING MAHONIA	1 GAL.	18" O.C.
	PARTHENOCISSUS TRICUSPIDATA	BOSTON IVY	1 GAL.	18" O.C.

PLANTING LEGEND

- IRRIGATED GROUNDCOVER PLANTING
- IRRIGATED LAWN
- PROPOSED TREES
- LIMIT OF WORK

SITE ANALYSIS DATA

TREES REMOVED	
3" CAL. EVERGREEN	2
4" CAL. EVERGREEN	1
6" CAL. EVERGREEN	19
7" CAL. EVERGREEN	1
4" CAL. DECIDUOUS	2
6" CAL. EVERGREEN	1
8" CAL. EVERGREEN	1
TOTAL	27
TREES PROPOSED	
8' HT. EVERGREEN	18
3" CAL. DECIDUOUS	3
6' HT. DECIDUOUS	15
TOTAL	36

DOWA
ARCHITECTURE • INTERIORS • PLANNING
DULL OLSON WEEKES architects inc

ROSEMONT RIDGE MIDDLE SCHOOL

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Planning
Urban Design Landscape Architecture
WALKER·MACY

key plan

phase | DESIGN REVIEW

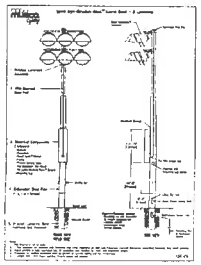
date | JUNE 26, 2009

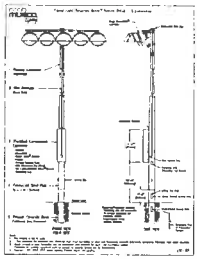
revisions |

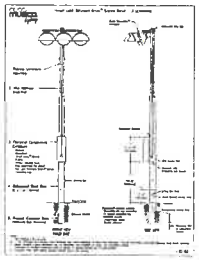
project # | 09017

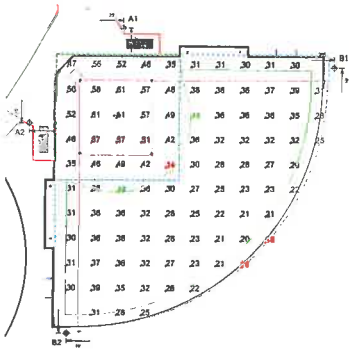
OVERALL LANDSCAPE PLANTING PLAN

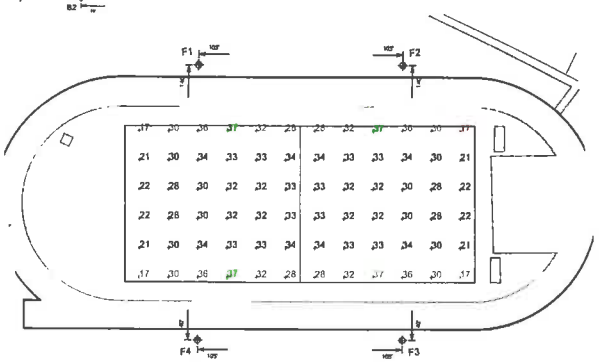
L1.2

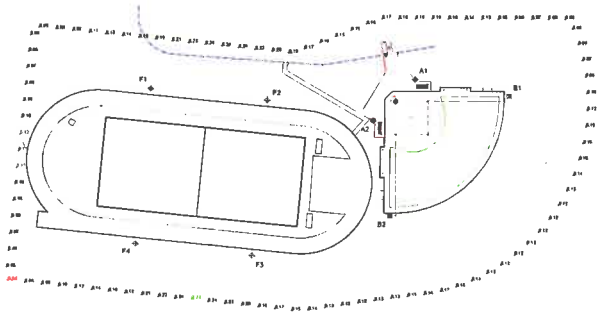












Rosemont Ridge Neighborhood Meeting

WEST LINN- WILSONVILLE SCHOOL DISTRICT

WALKER·MACY Landscape Architecture Urban Design Planning

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