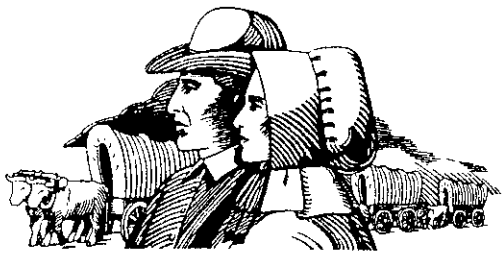
CITY OF OREGON CITY

PLANNING COMMISSION

320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
TEL (503) 657-0891 FAX (503) 657-7892



AGENDA

City Commission Chambers - City Hall
August 8, 2005 at 7:00 P.M.

The 2005 Planning Commission Agendas, including Staff Reports and Minutes, are available on the Oregon City Web Page (www.orcity.org) under PLANNING.

PLANNING COMMISSION MEETING

1. **CALL TO ORDER**

2. **PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA**

3. **HEARING:**

MD 05-01 ***(Quasi-Judicial Hearing),*** Applicant: Icon Construction & Development, LLC. The applicant is proposing a modification to an approved Planned Unit Development (File PD 99-01, Glen Oak Meadows) to remove a road connection between Mossy Meadows Avenue and Glen Oak Road, replacing it with a pedestrian bridge. The site is located on the northernmost section of Mossy Meadows Avenue near Glen Oak Road. *(formerly Clackamas County Map 3-2E-16A Tax Lot 800)*

CU 05-01: Conditional Use ***(Quasi-Judicial Hearing),*** Applicant: City of Oregon City, Nancy Kraushaar. The applicant is requesting a Conditional Use and Site Plan and Design Review for the construction of a City water supply reservoir and appurtenant piping and valves at the Mountainview Reservoir (Zoned "I" Institutional). The site is located at 437 Mountain View Street and identified as Clackamas County Map 3-2E-05BB, Tax Lot 6800.

SP 05-14: Site Plan and Design Review ***(Quasi-Judicial Hearing),*** Applicant: City of Oregon City, Nancy Kraushaar. The applicant is requesting a Conditional Use and Site Plan and Design Review for the construction of a City water supply reservoir and appurtenant piping and valves at the Mountainview Reservoir (Zoned "I" Institutional). The site is located at 437 Mountain View Street and identified as Clackamas County Map 3-2E-05BB, Tax Lot 6800.

4. **ADJOURN PLANNING COMMISSION MEETING**

RENE,

PLEASE ATTEND

NOTE: HEARING TIMES AS NOTED ABOVE ARE TENTATIVE. FOR SPECIAL ASSISTANCE DUE TO DISABILITY, PLEASE CALL CITY HALL, 657-0891, 48 HOURS PRIOR TO MEETING DATE.

THANK YOU

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PLANNING COMMISSION

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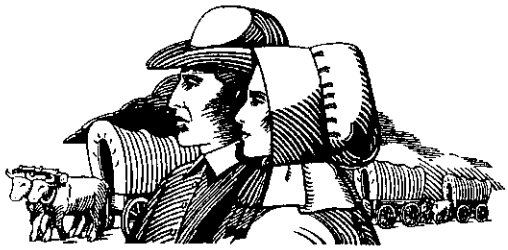

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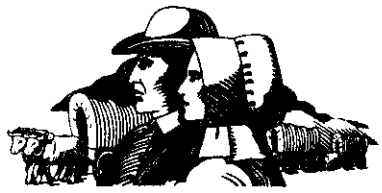

STAFF REPORT (Type III Decision)
Date: August 1, 2005

FILE NO.:	MD 05-01; Modification
HEARING DATE:	Monday, August 8, 2005 7:00 p.m., City Commission Chambers 320 Warner Milne Road Oregon City, Oregon 97045
APPLICANT:	Icon Construction & Development 2008 Willamette Falls Drive, Suite B West Linn, Oregon 97068
APPLICANT'S REPRESENTATIVE:	Reeve Kearns, PC 610 SW Alder Street, Suite 910 Portland, Oregon 97205 Contact: Daniel Kearns
OWNER:	City of Oregon City 320 Warner Milne Road Oregon City, Oregon 97045 Nancy Kraushaar, P.E., City Engineer/ PublicWorks Dir.
REQUEST:	Modification to approved PUD (Glen Oaks Meadows) to remove a road connection to Glen Oak Road and replace with pedestrian bridge.
LOCATION:	Clackamas County Tax Assessor number 3-2E-16AB, Tax Lot 3900 & 4000.
REVIEWERS:	Sean Cook, Associate Planner Bob Cullison, Engineering Manager Dan Drentlaw, AICP, Community Development Director
RECOMMENDATION:	Approval

The decision of the Planning Commission is final unless appealed to the City Commission within ten (10) days following the decision in accordance with OCMC 17.50. Only persons who participated either orally or in writing have standing to appeal the decision of the Planning Commission. Grounds for the appeal are limited to those issues raised either orally or in writing before the close of the public record. If you have any questions about this application, please contact the planning division at (503) 657-0891. The application, decision (including specific conditions of approval), and supporting documents are available for inspection at the Oregon City Planning Division during scheduled business hours. Copies of these documents are available (for a fee) upon request.

CRITERIA:

Municipal Code

Section 17.13	R-6/MH Single-Family Dwelling District
Section 17.50	Administration and Procedures
Section 17.64.150(A)	Final PUD Plan
Section 17.64	Planned Unit Development (PUD)

DESCRIPTION OF THE MODIFICATION:

The applicant (Icon Construction) and the owner (City of Oregon City) are requesting a Type III Modification to the approved Glen Oaks Meadows Planned Unit Development (Case File PD 99-01). This proposal is to remove a street connection to Glen Oak Road and replace it with a pedestrian bridge (Exhibit 1). If approved, the construction of the pedestrian bridge and other related improvements shall be constructed by the applicant (Icon Construction). The site is located at the proposed intersection of Mossy Meadows Avenue and Glen Oak Road in a stormwater tract area owned by the City of Oregon City.

BACKGROUND:

The Glen Oak Meadows PUD was approved in 2003 for 57 residential dwelling units (including an open space) on 9.68 acres. A separate Type II Site Plan and Design Review approval was issued in January of 2002 (SP 01-13), which provided minor improvements within the open space tract in Glen Oaks Meadows. The proposed modification does not change the approved final plat, which was recorded, including right-of-way dedications, lot sizes, open space tracts, etc, but only addresses the access onto Glen Oak Road. Therefore, the analysis of this proposal is limited to access and natural resource related criteria.

A modification (MD 03-01) similar to the current proposal was denied by the Planning Commission and City Commission in 2003. The main reason for the denial was based on neighborhood input that did not want more traffic and construction traffic on Heider Drive. Additionally, the commenting neighbors did not want Heider Drive to be a main access to Glen Oak Road for several new housing developments.

Since the time of the previous modification application, several significant changes have occurred. Firstly, the Glen Oak Meadows development is now fully built-out and the homes are occupied. This means the construction traffic that was a major concern to the Pioneer Place residents is now finished. Secondly, a new development called Bailey Estates has been approved with roads constructed. This development provides a main connection (Quiet Oak Street) to Glen Oak Road. As such, the additional access point at the intersection of Mossy Meadows and Glen Oak Road appears to not be needed and if built, would be unsafe. A detailed explanation of this is described in this staff report. As required by City Code, the applicant has waited over a year to re-apply for this application.

BASIC FACTS:

1. The site is zoned "R-6/MH" Single-Family Dwelling District and is designated "LR/MH" Urban Low Density Residential on the Oregon City Comprehensive Plan.

2. The subject property is the proposed intersection of Mossy Meadows Avenue and Glen Oak Road (Clackamas County Tax Assessor number 3-2E-16AB, Tax Lot 3900 & 4000). Currently, the Glen Oak Meadow development is fully built-out.

3. Transmittals on the proposal were sent to various City departments, affected agencies and property owners within 300 feet. The Caufield Neighborhood Association, the neighborhood in which the property would be located, is currently inactive. Other agency comments that affect the proposed application are incorporated into the analysis and findings section below. Public comments concerning this application are presented in Exhibit 3 and are briefly described below:

Mike and Irene Mermelstein, 20114 Kimberly Rose Drive
The authors wish denial of the application. The authors state that they wish the street connecting Mossy Meadows to Glen Oak Road to be constructed in accordance with a previous Planning Commission and City Commission decision (2003).

The Oregon City Transportation Advisory Committee (TAC)
The TAC voted unanimously to support the application to eliminate the street connection and replace it with a pedestrian bridge. The TAC states the following reasons for support:

1.) Conditions have changed since the plat was approved with a Glen Oak Road connection. Now Quiet Oak Street has been platted and constructed, the Mossy Meadows connection is not needed.
2.) Safety for pedestrians and vehicles will be decreased if Mossy Meadows is constructed.
3.) The modification alleviates a traffic conflict.
4.) The modification helps avoid a future capital improvement project to fix the intersection.
5.) The modification alleviates an intersection spacing problem.

The Oregon City Natural Resources Committee (NRC)
The NRC made the following observations and findings:

The stream channel and riparian improvements along Caufield Creek between Heider Road and Quiet Oak provide a valuable natural area and habitat resource. The value of this habitat is further enhanced by the proximity of the upstream ponds and wetlands at Pioneer Place. It is the opinion of the NRC that connecting Mossy Meadows Avenue to Glen Oaks Road would impact the habitat area. (The impacts could be mitigated with proper culvert design and other onsite measures.) However, unless the connection is necessary for traffic and/or public safety, it is the opinion of the NRC that the value of the natural area would be diminished by reducing the connectivity of the habitat area

resulting in smaller, isolated habitat areas where there is now a relatively large, continuous area. While the NRC would prefer no development across this area, temporary trails are already apparent crossing the stream, demonstrating a need for a safe and controlled pedestrian crossing to reduce impacts to the riparian corridor. Therefore, the NRC supports the proposal for a pedestrian bridge.

REASONS FOR THE MODIFICATION:

The Glen Oaks Meadows PUD was approved with Mossy Meadows connecting to Glen Oak Road. As contained in Exhibit 4, the City Engineer has described the reasons and benefits associated with removing this particular vehicular access and approving the modification. In summary, the environmental and transportation benefits associated with the requested closure includes:

- Elimination of a stream crossing which will enhance the riparian value and fish habitat of the Caufield Creek natural resource;
- Elimination of a potentially unsafe intersection spacing that does not meet street design standards;
- and Enhancement of the capacity of Glen Oak Road, classified as a collector in our transportation system plan (TSP), by limiting access points.

See **Exhibit 2** for the location of the streets, subdivisions, and other developments involved with this proposed modification.

ANALYSIS AND FINDINGS:

The analysis and findings presented below in this report reflect the proposed modification to the approved Glen Oaks Meadows PUD and shall specifically address criteria only as it relates to the proposed changes per OCMC 17.64.150, which states:

A. If the planning manager determines that the final PUD plan submitted by the applicant materially deviates from the approved preliminary PUD plan, review of the final PUD plan shall be referred to the planning commission for a public hearing and a determination of consistency with the preliminary PUD plan approval standards. In that event, the planning commission may limit the hearing to issues directly affected by the element that was the material deviation. All other aspects of the preliminary PUD plan not directly affected by the material deviation shall not be addressed.

A. PUD Approval Criteria:

Section 17.64.120. This section identifies the effected PUD plan approval criteria.

CRITERION 1: *17.64.120.A. The proposed preliminary PUD plan is consistent with the purpose of this chapter set forth in Section 17.64.010 and any applicable goals and policies of the Oregon City Comprehensive Plan.*

Consistency with the Planned Unit Development purpose:

Section 17.64.010.B. The purpose of this section is "To preserve existing natural features and amenities and/or provide useful common open space available to the residents and users of the proposed PUD. Specifically, it can be accomplished through the PUD process by preserving existing natural features and amenities, or by creating new neighborhood amenities.

Section 17.64.010.C. This section requires the applicant "To protect and enhance public safety on sites with natural or other hazards and development constrains through the clustering of development on those portions that are suitable for development.

Analysis: This application achieves the objectives of both preserving and enhancing the natural features and amenities on the site and creating new amenities. The originally approved PUD application allowed for an approximately 50 foot wide road, crossing over Caufield Creek and wetlands, created with boxed culverts approximately 80 feet in length and associated footings within the wetland. The modification application replaces this road crossing with a five-foot wide timber pedestrian bridge that will span the enhanced wetlands on the site. In addition, the location of the pedestrian bridge provides a direct connection between Glen Oak Road and the open space park amenity and trail system on the site and will be in alignment with a pedestrian cross walk on Glen Oak Road creating direct access to the open space park area and a safer environment for pedestrians.

Conclusion: The applicant's proposal meets this standard.

Consistency of the proposed development with Comprehensive Plan:

Natural Resources Goal: Preserve and manage our scarce natural resources while building a livable urban development.

The application is meeting this standard by providing for a pedestrian bridge instead of a 50-foot wide stream crossing. Road crossings have negative impacts on riparian areas due to the loss of vegetative areas and increased amount of impervious surface. The proposal allows for more of the natural features of Caufield Creek to remain. These natural features were enhanced and reclaimed by a City enhancement project in 2003. Caufield Creek is a fish-bearing stream.

The proposal also improves the open space amenity by allowing more of the natural resource area to remain. This proposal will improve the quality of the open space park area and its usefulness as an amenity for recreational use by the community.

The City Engineer also sites relevant State Land Use Goal 5 objectives (Fish and Wildlife protection) as described in detail in Exhibit 4.

Transportation: The Oregon City Transportation System Plan (TSP) is an ancillary document of the Comprehensive Plan.

Glen Oak Road is a collector according to the TSP. As such, the TSP states that *...as Oregon City continues to grow, its street system will become more heavily traveled. Consequently, it will become increasing important to manage access on collector street systems in order to preserve carrying capacity. The City of Oregon City will implement access management measures to limit the number of redundant access points along roadways. This will enhance roadway capacity and benefit circulation.*

Additionally, standards stated from the TSP are described further throughout this report. As such, standards from the TSP are consistent with the policies of the Comprehensive Plan.

Conclusion: Based on the above analysis, the proposed Modification satisfies this standard.

CRITERION 2 *Section 17.64.120.B. The proposed preliminary PUD plan meets the applicable requirements of the underlying zoning district, any applicable overlay zone (e.g., Chapters 17.44 and 17.49) and applicable provisions of Title 16 of this code, unless an adjustment from any these requirements is specifically allowed pursuant to this chapter.*

This standard directs us to Title 16 of the Oregon City Municipal Code, which addresses the creation of safe and well-design streets and street layouts. These following sections have been reviewed by the Engineering Division and the City Engineer/ Public Works Director (Exhibit 4).

16.12.020 Street design--Generally.

The location, width and grade of street shall be considered in relation to: existing and planned streets, topographical conditions, public convenience and safety for all modes of travel, existing and identified future transit routes and pedestrian/bicycle accessways, and the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain.

Analysis: This section was reviewed by the City Engineering Division. The applicant has not proposed a change to the street design other than the connection of the proposed Mossy Meadows Avenue to Glen Oak Road. An emergency vehicle turn-around has been provided at the northern end of Mossy Meadows Avenue. This vehicle turnaround is

made of grass-crete and will be marked with curbs and signs as required by the Clackamas County Fire District. A June 16, 2005 letter prepared by Michael Ard of Lancaster Engineering suggests that Heider Drive (825 trips per day) and the recently completed Quiet Oak Street (950 trips per day) will provide adequate street connections to Glen Oaks Meadows; both falling within the expected traffic counts for Local Streets of 1,000 to 1,500 trips per day.

In addition to the applicant's traffic engineer, the proposal was reviewed by the City's Traffic Engineer, John Replinger with David Evans and Associates (Exhibit 5). Mr. Replinger reports that he concurs with the applicant's traffic engineer. He reports:

I find the engineer used appropriate values to calculate the traffic impact from new single-family residences and properly calculated the total increase in traffic. I concur with the engineer's conclusion that most of the traffic from new development will use Quiet Oak Street, rather than Heider Drive, to gain access to Glen Oak Road. I concur with the engineer's conclusion that the predicted traffic volumes are within the range of traffic volumes expected for residential streets. From a traffic engineering standpoint, I recommend approval of the modification based on the avoidance of closely spaced intersections and the safety issues that could arise from that condition.

The City Engineering Division understands that Glen Oak Meadows and other new subdivision residents relied on Heider, Coquille and Quinalt Drives to access Glen Oak Road until Quiet Oak Street was available as mentioned in the Planning File MD 03-01, however, this impact is over now that Quiet Oak Street is open to Glen Oak Road. There is now a well-connected transportation network for the overall southside community on Glen Oak Road. Again, according to the applicant's traffic engineer, both Heider Drive and Quiet Oak Street will function well within the standard anticipated trips per day.

In addition to the review by the Engineer Division and the City's Traffic consultant, the following is a summary of information provided by the City Engineer/ Public Works Director:

Intersection Spacing Standards and Dimensional Requirements

Spacing Standards. There are two existing local street accesses on Glen Oak Road in the vicinity of Glen Oak Meadows. When the platted Mossy Meadows Drive is constructed, it will lie between these two local street accesses to Glen Oak Road: High School Lane and Heider Drive. Heider Drive existed when Glen Oak Meadows was originally approved, but High School Lane did not exist. The Oregon City High School site plan resulted in High School Lane being located along the school's west property line in order to maximize use of the site for sports fields, etc.

The current Oregon City Municipal Code (OCMC) 16.12.055 addresses minimum intersection spacing standards for the five functional street classifications in Oregon City (local street, neighborhood collector, collector, minor arterial, and major arterial). The minimum spacing between local streets accessing a collector is 300 feet. A lesser

standard may be allowed if mitigation is provided to preclude a safety hazard. The spacing between High School Lane and Mossy Meadows would be approximately 106 feet, and the spacing between Mossy Meadows and Heider Drive would be approximately 254 feet. Allowing a lesser standard should not be considered because the Mossy Meadows access location is not required for system connectivity.

Please note that these standards became part of the OCMC with recent code changes; however, these intersection spacing standards were included in the 2001 Transportation System Plan (TSP).

Dimensional Requirements. The former Oregon City Municipal Code addressed dimensional requirements for offset "T" intersections. The former OCMC 16.12.050 required that local streets that are staggered and result in "T" intersections shall, whenever practicable, leave a minimum distance of 200 feet, and in no case shall be less than 100 feet. The 106-foot spacing between High School Lane and Mossy Meadows Avenue raises concerns because it approaches the absolute minimum and falls well below the required minimum.

Please note that today's code is silent on dimensional standards for offset "T" intersections. However, the location of conflict points on a collector is of significance. Vehicular conflict points that are created by closely spaced accesses on a collector increase safety hazards. Additional conflicts occur with pedestrians using the pedestrian crossing at High School Lane within the school zone on Glen Oak Road. While the hazard potential is somewhat reduced due to the relative position of Mossy Meadows Drive and High School Lane (left turns to these two local streets do not directly conflict), allowing an access spacing or offset intersection of 100 feet is not desirable or recommended for this application.

Future Impacts

The opportunity to eliminate the Mossy Meadows Avenue stream crossing will have a positive impact on Caufield Creek. In addition, the existing plat for Glen Oak Meadows represents permanent negative traffic impacts due to closely spaced local streets on a collector street, an offset intersection, and the resulting conflict points and safety concerns. Restricting Glen Oak Road access to just pedestrians and bicycles will eliminate these concerns.

In conclusion, careful planning of this transportation network is critical given the presence of the natural resource in the area. In addition, adequate connectivity to the residential area south of Glen Oak Road is available via existing local street connections. An added local street connection will result in more conflict points and safety concerns in a school zone that likely would be recognized as a system deficiency in future Transportation System Plan updates.

Conclusion: The applicant has met this standard.

16.12.050 Street design--Alignment.

As far as is practicable, streets other than local or constrained streets shall be aligned with existing streets by continuation of the center lines. For local streets, staggered street alignment resulting in "T" intersections shall, wherever practicable, leave a minimum distance of two hundred feet between the center lines of streets having approximately the same direction and, in no case, shall be less than one hundred feet. The minimum distance between streets intersecting a collector or arterial shall be five hundred feet between center lines, unless the decision-maker finds that a lesser distance will not pose a safety hazard. This standard was superceded with the Adoption of the Transportation System Plan (TSP) in April of 2001. As such, the current intersection spacing distance for a local street and a collector street (Glen Oak Road) is 300 feet.

Analysis: Street spacing and alignment was previously discussed in detail in Section 16.12.020. In summary, as constructed, the distance between High School Lane and Heider Drive is approximately 360 feet. The spacing between High School Lane and Mossy Meadows is approximately 106 feet, and the spacing between Mossy Meadows and Heider Drive is approximately 254 feet. The approval for these streets, based on the intersection spacing, was historically granted erroneously by the City. As such, the applicant is requesting this modification to alleviate the existing condition.

Conclusion: The applicant has met this standard.

16.12.150 Street design--Pedestrian and bicycle safety.

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

Analysis: This standard addresses public safety and the promotion of pedestrian and bicycle welfare. As previously discussed, the applicant is requesting the construction of a pedestrian bridge to provide safe access for pedestrian and bicyclist to Glen Oak Road from the development. The elimination of a public street crossing would reduce the number of potential automotive and pedestrian conflict points associated with the creation of Mossy Meadow Avenue.

Conclusion: The applicant's proposal meets this standard.

CRITERION 3	*No phasing has been proposed as part of this application. This standard is not applicable.*
CRITERION 4	*Section 17.64.120.D. The applicant has demonstrated that all public services and facilities have adequate capacity to serve the proposed development or adequate capacity is assured to be available concurrent with development.*

Analysis: With regard to water, sewer, storm, and drainage facilities, all of the improvements required by the Engineering Division that were part of the original approvals are provided. The proposed modifications to remove a street connection and replace it with a five-foot wide timber pedestrian bridge do not require the use or upgrade of any of these facilities.

With regard to transportation issues, the proposal improves safety by removing a vehicle access to Glen Oak Road in order prevent a conflict between the location of this access intersection and an access intersection on the north side of Glen Oak Road (High School Lane). Pedestrian connectivity and safety will be improved with the addition of a pedestrian bridge between the open space park area and sidewalks and a striped and signed cross walk on Glen Oak Road. Additionally, information provided by Lancaster Engineering (Exhibit 6) reports that Heider Drive will provide an adequate street connection for Glen Oaks Meadows. Additionally, the completion of Quiet Oak Street provides another nearby connection to Glen Oak Road; thereby providing an additional alternative route to Glen Oak Road for Glen Oak Meadows residents wishing to go west on Glen Oak Road. This adjacent development, Bailey Estates, has completed their Quiet Oak Street connection to Glen Oak Road that did not have to cross Caufield Creek as it crosses Glen Oak Road just east of the connection. Caufield Creek is located across the road along the frontage of the Bailey Estates subdivision.

Conclusion: The proposal has met this standard.

Planned Unit Development standards:

The modification of this application only applies to various impacted criteria of Section 17.64.40.

Section 17.64.040.E. This section requires the applicant demonstrate that adequate water, sewer, storm water, and traffic and transportation infrastructure capacity to serve the proposed PUD.

Analysis: No changes are proposed to water, sewer, and storm water. The material change involves traffic and transportation infrastructure only.

With regard to transportation issues, the proposal improves safety by removing a vehicle access to Glen Oak Road in order prevent a conflict between the location of this access intersection and an access intersection on the north side of Glen Oak Road (High School Lane). Pedestrian connectivity and safety will be improved with the addition of a pedestrian bridge between the open space park area and sidewalks and a striped and signed cross walk on Glen Oak Road. Additionally, information provided by Lancaster Engineering (Exhibit 6) reports that Heider Drive will provide an adequate street connection for Glen Oaks Meadows. Additionally, the completion of Quiet Oak Street provides another nearby connection to Glen Oak Road; thereby providing an additional

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Conclusion: The proposal has met this standard.

Section 17.64.040.G. This section requires the applicant to preserve the natural features of the property by integrating the site plan design with the constraints of the subject property.

Analysis: This application is designed to preserve natural features. Elimination of a road crossing will be beneficial to the resource by allowing more of the natural features to remain. Less impervious surface and less direct in-water impact will improve water quality and provide for wildlife habitat.

Conclusion: The applicant has met this standard.

CONCLUSION AND RECOMMENDATION:

Based on the analysis and findings contained in this staff report, staff recommends approval of the application for the modification to the Glen Oaks Meadows PUD. (MD 05-01) for the property Clackamas County Tax Assessor number 3-2E-16AB, Tax Lot 3900 & 4000.

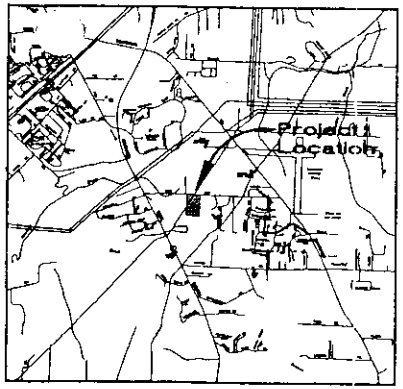
Exhibits

1. **Site Plan of Glen Oaks Meadows with Modifications**
2. **Vicinity Map with adjacent developments**
3. **Comment Letters:**
   3a. Mike and Irene Mermelstein
   3b. Transportation Advisory Committee (TAC)
   3c. Natural Resources Committee (NRC)
4. **Memorandum from the City Engineer, dated July 27, 2005**
5. **Memorandum from DEA, City's Traffic Consultant, dated July 25, 2005**
6. **Comments from Lancaster Engineering, dated June 16, 2005**
7. **Applicant's application (on file)**

SITE DATA

ASSESSOR'S MAP: 3S-2E-16A TAX LOT 800
AREA: 9.68 ACRES
ZONING: R-6 / MH
ADDRESS: 14608 GLEN OAK ROAD

SHEET INDEX



Vicinity Map
NTS

Exhibit 1

Bailey Estates

SUBDIVISION BOUNDARY (TYP)

TRACT "D" OPEN SPACE

TRACT "C" OPEN SPACE

6' WOOD CHIP PATH w/ EDGING

TRACT "A" WETLAND/OPEN SPACE w/ DEED RESTRICTION

GLEN OAK ROAD

SCHOOL ACCESS POINT TO GLEN OAK ROAD

5' AC PATH

LIMITS OF PROPOSED MODIFICATION

PROVIDE 20'-25' PEDESTRIAN BRIDGE

PROVIDE GRASS PAVER FIRE ACCESS / STORM AND SANITARY MAINTENANCE ROAD

BRITTANY TERRACE DRIVE

TRACT "E"

TRACT "F"

MOSSY MEADOWS AVE.

REMOVE STREET CONNECTION INSTALL BARRICADE

FUTURE DEVELOPEMENT BY OTHERS

EXISTING PIONEER PLACE SUBDIVISION

HEIDER DRIVE

SITE PLAN
GLEN OAK MEADOWS - PUD AMENDMENT
OREGON CITY, OREGON

SHEET NO.
1 OF 4

NOTICE OF LIMITED LAND USE APPLICATION
Mailed on: June 28, 2005

COMMENT DEADLINE:	On Monday, **August 8, 2005,** the **City of Oregon City - Planning Commission** will conduct a public hearing at 7:00 p.m. in the Commission Chambers at City Hall, 320 Warner-Milne Road, Oregon City 97045 on the following Type III Land Use Application. Any interested party may testify at the public hearing or submit written testimony at or prior to the close of the Planning Commission hearing. Written comments on this Type III Land Use Application must be received by the Oregon City Planning Division, no later than **July 25, 2005** to be included in the Staff Report. Comments received after this date will be provided to the Planning Commission at the August 8, 2005 hearing. The public record will remain open until the Planning Commission closes the public hearing.
FILE NUMBER:	MD 05-01: Modification of an approved Planned Unit Development (File PD 99-01)
APPLICANT:	Icon Construction & Development, LLC 2008 Willamette Falls Drive West Linn, Oregon 97068 Contact: Mark Handris
OWNER:	City of Oregon City P.O. Box 3040 Oregon City, Oregon 97045 Contact: Nancy Kraushaar, City Engineer/ Public Works Dir.
APPLICANT'S REPRESENTATIVE:	Reeve Kearns, PC 610 SW Alder Street, Suite 910 Portland, Oregon 97205 Contact: Daniel Kearns
REQUEST:	The applicant is proposing a modification to an approved Planned Unit Development (File PD 99-01, Glen Oak Meadows) to remove a road connection between Mossy Meadows Avenue and Glen Oak Road, replacing it with a pedestrian bridge.
LOCATION:	The site is located on the northernmost section of Mossy Meadows Avenue near Glen Oak Road. *(formerly Clackamas County Map 3-2E-16A Tax Lot 800)*
CONTACT PERSON:	Sean Cook, Associate Planner (503) 657-0891
NEIGHBORHOOD ASSOCIATION:	Caufield Neighborhood Association (Inactive)
CRITERIA:	**Administration and Procedures** are set forth in **Chapter 17.50** and **Planned Unit Development** in **Chapter 17.64** of the Oregon City Municipal Code. *Note: Chapter 17.64 was removed from the Oregon City Municipal Code on June 18, 2004.* The City Code Book is available on-line at www.orcity.org.

The applicant and all documents submitted by or on behalf of the applicant are available for inspection at no costat the Oregon City Planning Division, City Hall, 320 Warner-Milne Road, Oregon City, Oregon 97045, from 8:00 a.m. to 1:00 p.m Monday thru Friday. The staff report, with all the applicable approval criteria, will also be available for inspection seven days prior to the hearing. Copies of these materials may be obtained for a reasonable cost in advance.

Any interested party may testify at the public hearing or submit written testimony at or prior to the hearing.**Written comments must be received at City Hall by 5:00 pm on July 25, 2005 to be included in the staff report.** The procedures that govern the hearing will be posted at the hearing and are found in OCMC Chapter 17.50 and ORS 197.763.

Please be advised that any issue that is intended to provide a basis for appeal must be raised before the close of the Planning Commission hearing, in person or by letter, with sufficient specificity to afford the Planning Commission and the parties an opportunity to respond to the issue. Failure to raise an issue with sufficient specificity will preclude any appeal on that issue. The decision of the Planning Commission may be appealed to the City Commission by parties with standing. Any appeal will be based on the record. The procedures that govern the hearing will be posted at the hearing and are found in OCMC Chapter 17.50 and ORS 197.763.

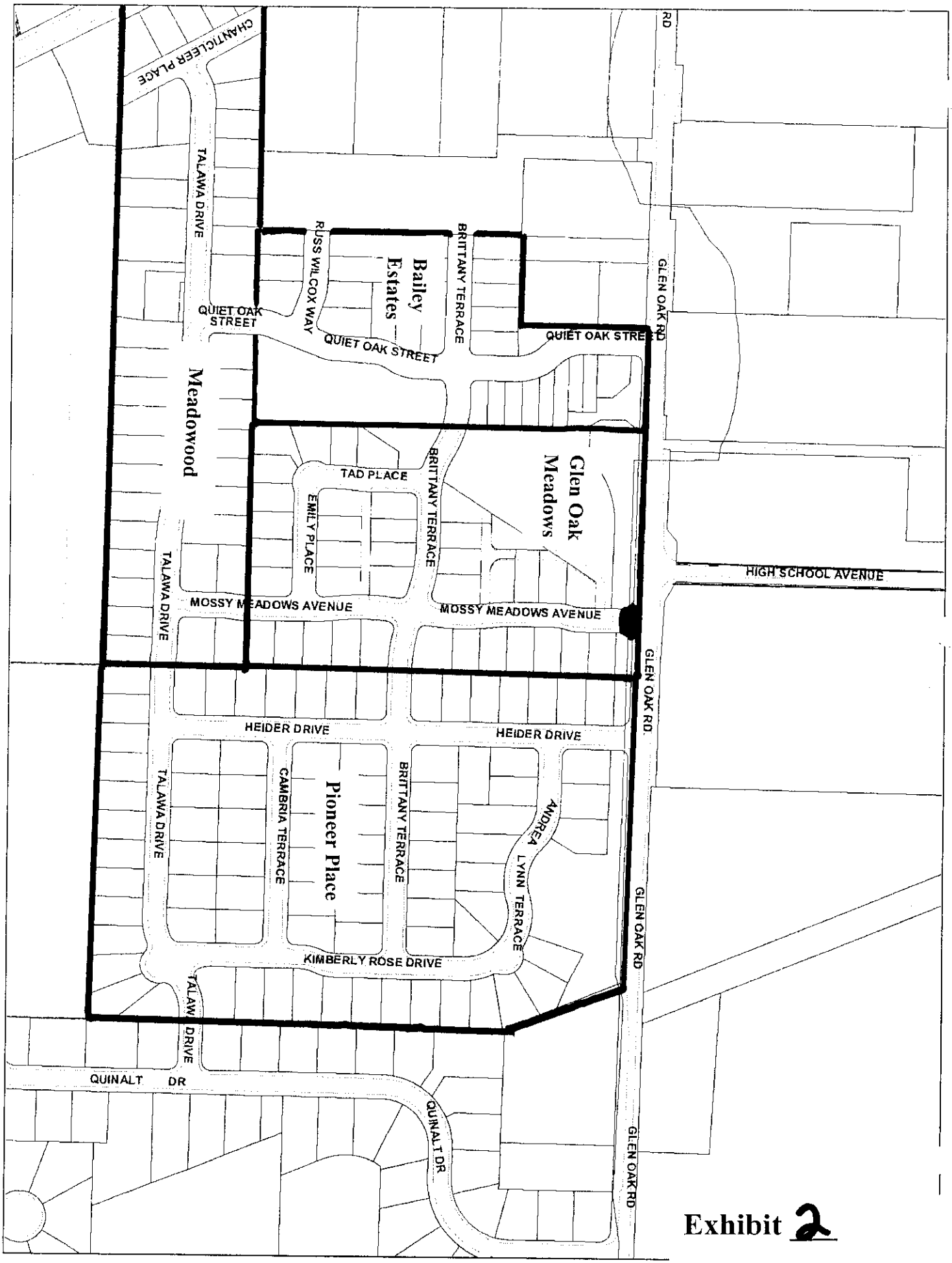

CHANTICLEER PLACE
TALAWA DRIVE
RUSS WILCOX WAY
Bailey Estates
BRITTANY TERRACE
GLEN OAK RD
QUIET OAK STREET
QUIET OAK STREET
QUIET OAK STREET
Meadowood
TAD PLACE
EMILY PLACE
BRITTANY TERRACE
Glen Oak Meadows
HIGH SCHOOL AVENUE
TALAWA DRIVE
MOSSY MEADOWS AVENUE
MOSSY MEADOWS AVENUE
GLEN OAK RD
HEIDER DRIVE
HEIDER DRIVE
TALAWA DRIVE
CAMBRIA TERRACE
Pioneer Place
BRITTANY TERRACE
ANDREA LYNN TERRACE
GLEN OAK RD
KIMBERLY ROSE DRIVE
TALAWA DRIVE
QUINALT DR
QUINALT DR
GLEN OAK RD

Exhibit 2

05 JUL 22 PM 2:03

RECEIVED
CITY OF OREGON CITY

Mike and Irene Mermelstein
20114 Kimberly Rose Drive
Oregon City, OR 97045
(503) 518-2410

July 22, 2005

City of Oregon City
Planning Commission
320 Warner Milne Road
Oregon City, OR 97045

RE: LET STAND THE DECISIONS OF THE PLANNING COMMISSION AND THE CITY COMMISSION

Dear City Planning Commission Members:

I along with several other residents of the Pioneer Place subdivision wish to testify at the August 8, 2005 Planning Commission meeting regarding the modification of the Mossy Meadows Avenue intersection. We believe that the developer, Mr. Handris, the City of Oregon City and the City of Oregon City Public Works Department are in violation of the edict given by the Planning Commission on August 25, 2003 and the edicts given by the City Commission on October 15, 2003 and on September 15, 2004 to build the intersection as planned. Therefore, the request for modification should be denied. Additionally, the developer and the City of Oregon City should be mandated to build the intersection as originally planned and in compliance with the decisions of the Planning Commission and the City Commission.

Sincerely,

Mike Mermelstein

Exhibit 3a

05 JU 5 PM 4:30
RECEIVED
CITY OF OREGON CITY

CITY OF OREGON CITY
PUBLIC WORKS

OPERATIONS DIVISION
122 S. Center Street
Oregon City, OR 97045
(503) 657-8241
Fax (503) 650-9590

PUBLIC PROJECTS DIVISION
CODE ENFORCEMENT / PARKING
City Engineer/Public Works Director
P.O. Box 3040
320 Warner Milne Road
Oregon City, OR 97045
(503) 657-0891

July 25, 2005

Sean Cook, Associate Planner
Community Development Department
PO Box 3040
Oregon City, OR 97045

Subject: MD 05-01 - Modification to PD 99-01 (Glen Oak Meadows Plat)

At their June 28, 2005 meeting, the Transportation Advisory Committee (TAC) discussed the subject plat modification that would eliminate the Mossy Meadows Drive connection to Glen Oak Road (see attached agenda). All nine committee members were present. The following observations were made during the discussion:

1) Conditions have changed since the plat was approved with the connection to Glen Oak Road. Now that Quiet Oaks Road has been platted and constructed, the Mossy Meadows connection is not necessary.
2) Safety should be number one for the traveling public. Safety of pedestrians and motorists will be decreased if Mossy Meadows Road is constructed.
3) The location of High School Lane conflicts with a future Mossy Meadows Drive connection to Glen Oak Road. Such a conflict will likely result in the need for a future capital improvement project to realign the intersections because they compromise safety and the City's offset intersection spacing standards.
4) Keeping Mossy Meadows Drive on the plat allows for future construction. Heider Drive would be 254 feet east of the future road. Such construction will result in a road that violates the City's local to collector spacing standards (see adopted Transportation System Plan).

The TAC concluded that a) the roadway system has changed considerably in the Glen Oak Road area since Glen Oak Meadows was platted; and b) not modifying the plat and allowing construction of Mossy Meadows Drive will result in an unsafe local street connection that does not meet City design standards. **The TAC voted unanimously to support the application for MD 05-01.**

Respectfully submitted,
The Oregon City Transportation Advisory Committee
Comprised of :

Donald Belshaw	Scott Failmezger	Laurence Juhnke
George Kosboth	Doug Neeley	Melanie Paulo
Betty Schafsma	Donald Slack	Mary Smith

Attachment: June 28, 2005 Agenda

Exhibit 36

CITY OF OREGON CITY

Incorporated 1844

PUBLIC WORKS

OPERATIONS DIVISION
122 S. Center Street
Oregon City, OR 97045
(503) 657-8241
Fax (503) 650-9590

PUBLIC PROJECTS DIVISION
City Engineer/Public Works Director
P.O. Box 3040
320 Warner Milne Road
Oregon City, OR 97045
(503) 657-0891
Fax (503) 657-7892

City of Oregon City
Transportation Advisory Committee
Meeting Announcement
June 28, 2005

The Transportation Advisory Committee will be meeting for a *regular meeting* on the fourth Tuesday of this month.

The topics of discussion are:

1) Citizen Request – Front Ave. School zone and speed bumps – *Discussion*
2) Citizen Request – King Street safety improvements – *Discussion*
3) Mossy Meadows Drive – ROW vacation – *Discussion*
4) Citizen Request – Filbert Drive speed bump modification and additional speed bump - *Discussion*
5) Future Agenda Items

Enclosures:

1) King Street safety improvements email
2) Mossy Meadow Drive ROW vacation email and background information
3) Filbert Drive speed bump modification and additional speed bump emails

Meeting Date: Tuesday, June 28, 2005
Meeting Time: 6:00 pm
Meeting Place: City Hall GIS Trailer Meeting Room

See you there!

H:\wrdfiles\TAC-CAC\letters\CA062805.DOC

Oregon City Natural Resources Committee

July 25, 2005

Oregon City Planning Commission
Oregon City City Hall
320 Warner Milne Road
Oregon City, Oregon 97045

RECEIVED
CITY OF OREGON CITY
05 JUL 25 AM 9:55

RE: Modification to Planned Unit Development – File PD 99-01, Glen Oak Meadows

Dear Oregon City Planning Commissioners:

At the June 16, 2005 Natural Resources Committee (NRC) meeting, Nancy Kraushaar, City Engineer and Public Works Director, presented information regarding the Caufield Creek enhancement project in the vicinity of the Mossy Meadow Avenue and Glen Oaks Road. Ms. Kraushaar requested that the NRC review a proposal for a modification to an approved Planned Unit Development (File PD 99-01, Glen Oak Meadows) to evaluate impacts, if any, to natural resources in the area and to the Caufield Creek enhancement if Mossy Meadows Avenue is connected to Glen Oaks Road, as platted. The platted extension is in a Water Resource Overlay District.

At the July 21, 2005 NRC meeting, after lengthy discussion regarding the road extension, the full committee accompanied by Sean Cook, staff to the NRC, made a site visit to Glen Oaks Road at Mossy Meadows Avenue. The NRC made the following observations and findings.

The stream channel and riparian improvements along Caufield Creek between Heider Road and Quiet Oaks provide a valuable natural area and habitat resource. The value of this habitat is further enhanced by the proximity of the upstream ponds and wetlands at Pioneer Place (east of Heider Road) and the detention pond and habitat on the north side of Glen Oaks Road. While making the site walk, several small fry (species unknown) and frogs were observed in Caufield Creek, and several species of birds were observed using the riparian vegetation.

It is the opinion of the NRC that connecting Mossy Meadows Avenue to Glen Oaks Road would impact the habitat area. The impacts could be mitigated with proper culvert design and other onsite measures. However, unless the connection is necessary for traffic and/or public safety, it is the opinion of the NRC that the value of the natural area would be diminished by reducing the connectivity of the habitat area resulting in smaller, isolated habitat areas where there is now a relatively large, continuous area.

While the NRC would prefer no development across this area, temporary trails are already apparent crossing the stream, demonstrating a need for a safe and controlled pedestrian crossing to reduce impacts to the riparian corridor. Therefore the NRC supports the proposal for a pedestrian bridge. The NRC requests that mitigation for impacts to the natural area from the bridge or other development in the area be performed within the vicinity of the disturbed area. Examples of mitigation would be plantings of low growing evergreens, conifers, adjacent to the residences on either side of Mossy Meadows Avenue, south of Glen Oaks Road, to shield the stream from the residences to create a more natural habitat area for wildlife and a more natural look as viewed from Glen Oaks Road. Options for additional mitigation funds might include natural plantings to replace

Exhibit 3c

the grass in the large detention area under the power transmission lines directly west of Mossy Meadows Avenue. The NRC further recommends that excess mitigation funds be spent to enhance the upstream wetlands area at Pioneer Place as this wetlands area is integral to the value and health of Caufield Creek through the project area.

Please contact the undersigned with questions regarding this item. Thank you for your consideration.

Sincerely,

Ralph W. Kiefer

Ralph Kiefer, Vice Chair
Oregon City Natural Resources Committee

cc: Dan Drentlaw, Community Development Director
Nancy Kraushaar, City Engineer and Public Works Director

CITY OF OREGON CITY
PUBLIC WORKS

OPERATIONS DIVISION
122 S. Center Street
Oregon City, OR 97045
(503) 657-8241
Fax (503) 650-9590

PUBLIC PROJECTS DIVISION
CODE ENFORCEMENT / PARKING
City Engineer/Public Works Director
P.O. Box 3040
320 Warner Milne Road
Oregon City, OR 97045
(503) 657-0891

MEMORANDUM

To: Sean Cook, Associate Planner
From: Nancy J.T. Kraushaar, PE, City Engineer/Public Works Director
Date: July 27, 2005
Subject: MD 05-01 – Glen Oak Meadows

Introduction

I have reviewed the subject application and support the request to modify the plat for Glen Oak Meadows to restrict the Mossy Meadows Drive access to pedestrian and bicycle traffic. The applicant has reported that the restriction will result in a pedestrian bridge rather than a two-lane roadway with sidewalks over a culvert.

There are valuable environmental and transportation benefits associated with the requested plat modification, including:

- *Eliminate a stream crossing which will enhance the riparian value and fish habitat of the Caufield Creek natural resource;*
- *Eliminate a potential future unsafe intersection spacing that does not meet Oregon City local street spacing standards or our former code offset intersection dimensional requirements; and*
- *Enhance the capacity of Glen Oak Road, classified as a collector in our transportation system, by limiting access points.*

State Land Use Goal 5 – Fish and Wildlife Protection

Oregon City has been working with Metro to establish new standards and guidelines for development along streams and in fish and wildlife habitat areas. Road crossings have negative impacts on riparian areas due to the loss of vegetative area and increased impervious surface and unnatural shading. Although specific minimum distances between stream crossings have not been adopted at this time, minimizing stream crossings and eliminating them when possible is a credible best management practice. With fewer stream crossings, a higher overall value of stream and habitat functions can be expected.

Caufield Creek already is subject to numerous road crossings by virtue of its meandering channel (crossing Glen Oak Road three times between Heider and Highway 213) and miscellaneous road

Exhibit 4

and driveway access points to Glen Oak Road. Future access points to Glen Oak Road should be strategized and carefully located to avoid additional stream crossings.

Restricting the Glen Oak Meadows access from Glen Oak Road to pedestrians and bicycles provides the opportunity to eliminate a stream crossing and thus rely on the Heider Drive crossing to the east and the Quiet Oaks Drive crossing to the west (which does not cross the creek) for traffic circulation. The proposed pedestrian bridge would provide needed connectivity for pedestrians and bicycles from the residential area south of Glen Oak Road to several pedestrian generators, including the Oregon City High School and Clackamas Community College.

Intersection Spacing Standards and Dimensional Requirements

Spacing Standards. There are two existing local street accesses on Glen Oak Road in the vicinity of Glen Oak Meadows. When the platted Mossy Meadows Drive is constructed, it will lie between these two local street accesses to Glen Oak Road: High School Lane and Heider Drive. Heider Drive existed when Glen Oak Meadows was originally approved, but High School Lane did not exist. The Oregon City High School site plan resulted in High School Lane being located along the school's west property line in order to maximize use of the site for sports fields, etc.

The current Oregon City Municipal Code (OCMC) 16.12.055 addresses minimum intersection spacing standards for the five functional street classifications in Oregon City (local street, neighborhood collector, collector, minor arterial, and major arterial). The minimum spacing between local streets accessing a collector is 300 feet. A lesser standard may be allowed if mitigation is provided to preclude a safety hazard. The spacing between High School Lane and Mossy Meadows would be approximately 106 feet, and the spacing between Mossy Meadows and Heider Drive would be approximately 254 feet. Allowing a lesser standard should not be considered because the Mossy Meadows access location is not required for system connectivity.

Please note that these standards became part of the OCMC with recent code changes; however, these intersection spacing standards were included in the 2001 Transportation System Plan (TSP).

Dimensional Requirements. The former Oregon City Municipal Code addressed dimensional requirements for offset "T" intersections. The former OCMC 16.12.050 required that local streets that are staggered and result in "T" intersections shall, whenever practicable, leave a minimum distance of 200 feet, and in no case shall be less than 100 feet. The 106-foot spacing between High School Lane and Mossy Meadows Avenue raises concerns because it approaches the absolute minimum and falls well below the required minimum.

Please note that today's code is silent on dimensional standards for offset "T" intersections. However, of significance is the location of conflict points on a collector. Vehicular conflict points that are created by closely spaced accesses on a collector increase safety hazards. Additional conflicts occur with pedestrians using the pedestrian crossing at High School Lane within the school zone on Glen Oak Road. While the hazard potential is somewhat reduced due

to the relative position of Mossy Meadows Drive and High School Lane (left turns to these two local streets do not directly conflict), allowing an access spacing or offset intersection of 100 feet is not desirable or recommended for this application.

Future Impacts

The opportunity to eliminate the Mossy Meadows Avenue stream crossing will have a positive impact on Caufield Creek. In addition, the existing plat for Glen Oak Meadows represents permanent negative traffic impacts due to closely spaced local streets on a collector street, an offset intersection, and the resulting conflict points and safety concerns. Restricting Glen Oak Road access to pedestrians and bicycles will eliminate these concerns.

In conclusion, careful planning of this transportation network is critical given the presence of the natural resource in the area. In addition, adequate connectivity to the residential area south of Glen Oak Road is available via existing local street connections. An added local street connection will result in more conflict points and safety concerns in a school zone that likely would be recognized as a system deficiency in future Transportation System Plan updates.

DAVID EVANS
AND ASSOCIATES INC.

July 25, 2005

Mr. Sean Cook
City of Oregon City
PO Box 351
Oregon City, OR 97045

SUBJECT: REVIEW OF TRANSPORTATION ANALYSIS – MODIFICATION OF AN APPROVED PUD - MD05-01

Dear Mr. Cook:

In response to your request, I have reviewed the information supplied by the applicant relating to a modification of the Glen Oak Meadows PUD (PD99-01). Items submitted by the applicant included a letter prepared by Michael Ard, PE of Lancaster Engineering. His letter is dated June 16, 2005 and provides information on the likely traffic impact of the proposal in which Mossy Meadows Avenue would not connect to Glen Oak Road.

The modification is designed to eliminate the connection of Mossy Meadows Avenue with Glen Oak Road, which, if built as originally proposed, would intersect approximately 106 feet from the intersection of High School Lane and Glen Oak Road.

The engineer provides information on current traffic volumes on Heider Drive and Quiet Oak Street. He also provides an estimate of the additional development potential of the subdivisions and the volume of traffic that would result from the new dwellings. Finally, he estimates the likely traffic volumes on Heider Drive and Quiet Oak Street with the additional traffic with no Mossy Meadows Avenue connection to Glen Oak Road.

I find the engineer used appropriate values to calculate the traffic impact from new single-family residences and properly calculated the total increase in traffic. I concur with the engineer's conclusion that most of the traffic from new development will use Quiet Oak Street, rather than Heider Drive, to gain access to Glen Oak Road. I concur with the engineer's conclusion that the predicted traffic volumes are within the range of traffic volumes expected for residential streets.

I share the opinion of the applicant's engineer and other city staff that it would be highly desirable to avoid two closely spaced intersections (Glen Oak Road with High School Lane and Mossy Meadows Avenue). This spacing would violate the City's standards for intersection spacing.

Exhibit 5

From a traffic engineering standpoint, I recommend approval of the modification based on the avoidance of closely spaced intersections and the safety issues that could arise from that condition.

If you have any questions or need any further information concerning this review, please call me at 503-499-0310.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

John Replinger, PE
Senior Transportation Engineer

JGRE:pao

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LANCASTER
engineering

June 16, 2005

Dan Kearns
Reeve Kearns
610 SW Alder Street, Suite 803
Portland, OR 97205

RE: Mossy Meadows Avenue – Street Connection to Glen Oak Road

Dear Dan:

This letter is written to address the residential street operation on Heider Drive and Quiet Oak Street, both of which currently provide direct access to Glen Oak Road near the Glen Oak Meadows subdivision. I understand that Mossy Meadows Avenue was previously intended to provide an additional direct access to Glen Oak Road, but that connection is no longer desirable for three reasons: (1) conflicts with the wetlands, stream and riparian rehabilitation work recently completed by the City, (2) an offset alignment with the recently completed High School Lane, and (3) a failure to meet the minimum access spacing requirements of the City's Transportation System Plan. The Transportation System Plan calls for a minimum access spacing of 300 feet on Glen Oak Road, and, if connected, Mossy Meadows Avenue would be offset from High School Lane by approximately 106 feet, and from Heider Drive by approximately 260 feet. The access spacing standards were adopted to minimize conflicts from closely spaced intersections and preserve mobility for the major street.

Without the direct street connection of Mossy Meadows Avenue to Glen Oak Road, there has been some concern that traffic volumes on alternative routes, *i.e.*, Heider Drive and Quiet Oak Street, may exceed those intended for these residential streets.

The attached drawing shows the layout of the existing street system and indicates the locations of the Bailey Estates, Glen Oak Meadows, Meadowood and Pioneer Place subdivisions. Pioneer Place is on the eastern side of the investigated area, and is fully built out. Meadowood is on the southern side of the investigated area and is 85 percent complete. Bailey Estates is on the west side of the area and is currently under construction, with no homes completed at this time.

Exhibit 6

The roadway access for Bailey Estates to Glen Oak Road will be primarily on Quiet Oak Street. This roadway was completed as part of Bailey Estates. Heider Drive provides the main connection to Glen Oak Road for Pioneer Place. Glen Oak Meadows and Meadowood are expected to use both Heider Drive and Quiet Oak Street to access Glen Oak Road.

Heider Drive and Quiet Oak Street are residential local streets, which are generally expected to carry traffic volumes of approximately 1,000 to 1,500 vehicles per day. Manual turning movement counts were performed at the intersections of Heider Drive at Glen Oak Road and Quiet Oak Street at Glen Oak Road on May 24th and May 25th during the morning and evening peak hours in order to determine the existing traffic volumes at these locations. Based on these data we have determined that Heider Drive currently carries approximately 800 vehicles per day. Quiet Oak Street currently carries approximately 650 vehicles per day.

The full build-out condition for these developments will include one additional home in Glen Oak Meadows, six additional homes in the Meadowood subdivision, and 27 additional homes in Bailey Estates. These homes will generate approximately 325 additional vehicle trips per day. The majority of these trips will access Glen Oak Road via Quiet Oak Street. Upon completion of construction, Heider Drive is projected to carry approximately 825 vehicles per day, and Quiet Oak Street is projected to carry approximately 950 vehicles per day. These volumes are consistent with the planned capacity of these residential streets, and at full build-out they are projected to operate within the expected traffic volume range for residential streets.

By not making a direct extension and connection of Mossy Meadows Avenue to Glen Oak Road, the potential operational and safety problems associated with offset intersection alignment will be avoided, as will the wetland impacts. The City's access spacing standards will also be maintained, ensuring that traffic can progress smoothly along Glen Oak Road.

If the street connection is not provided, a pedestrian and bicycle bridge and path should be provided to convey pedestrians and bicycles over Caulfield Creek to Glen Oak Road, thus facilitating access to High School Lane at the designated pedestrian crossing across Glen Oak Road. Such a connection will provide access between the above-mentioned neighborhoods and the high school, minimizing the need for non-motorized traffic to travel on Glen Oak Road and providing a safe walking/biking route for children to and from the school. The intersection of Glen Oak Road and High School Lane has existing marked crosswalks, including a raised crosswalk on Glen Oak Road on the east side of the intersection. The path should terminate at the south side of this raised crosswalk.

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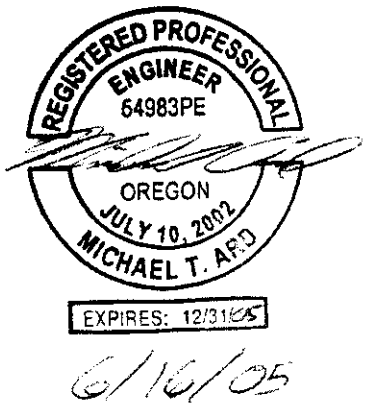
In summary, if Mossy Meadows Avenue is not directly connected to Glen Oak Road, both Heider Drive and Quiet Oak Street are projected to operate within the expected traffic volume range for residential streets.

If you have any questions or would like any further information, please don't hesitate to call.

Yours truly,

Michael Ard, PE
Transportation Engineer

cc: Mark Handris



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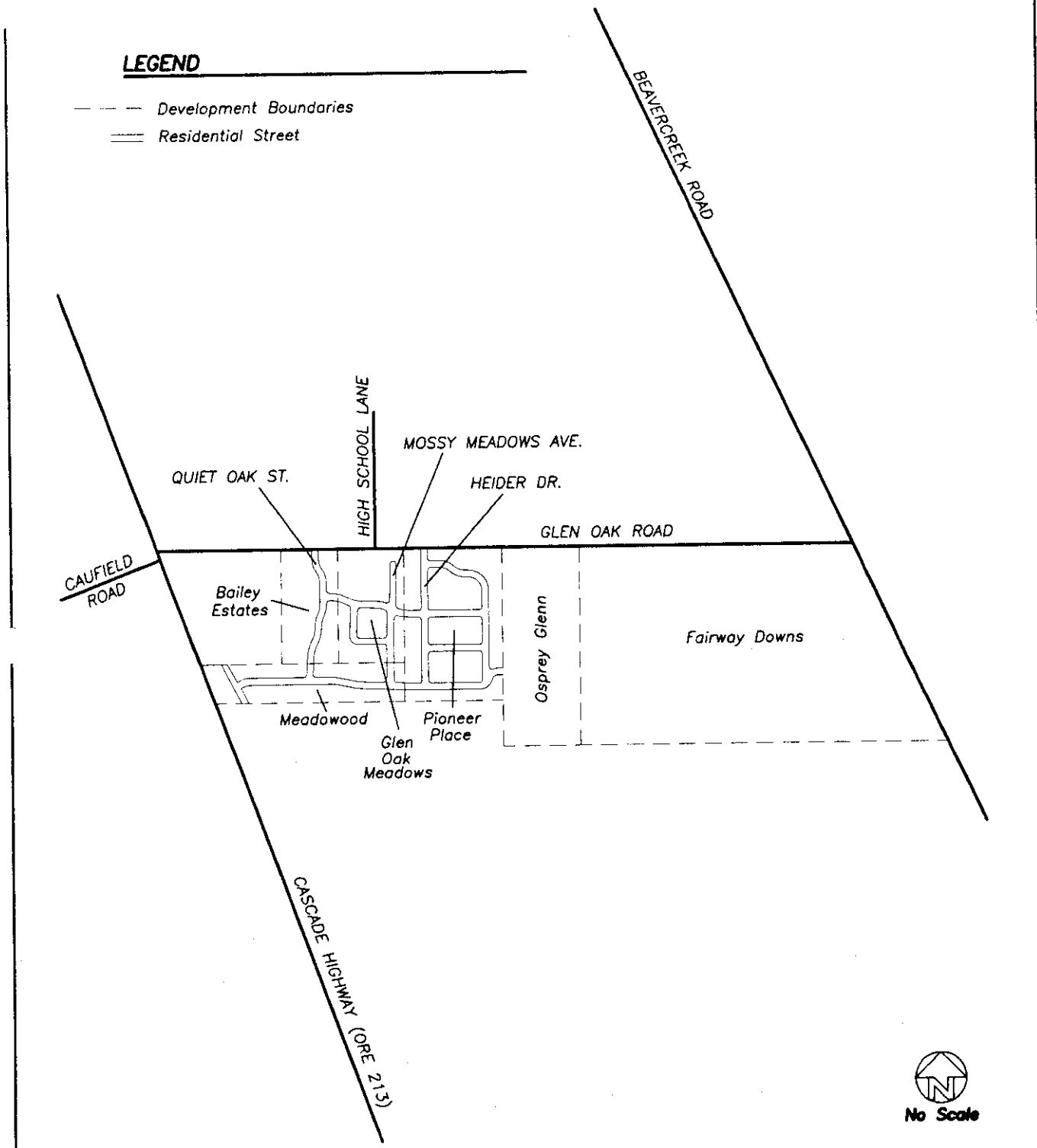

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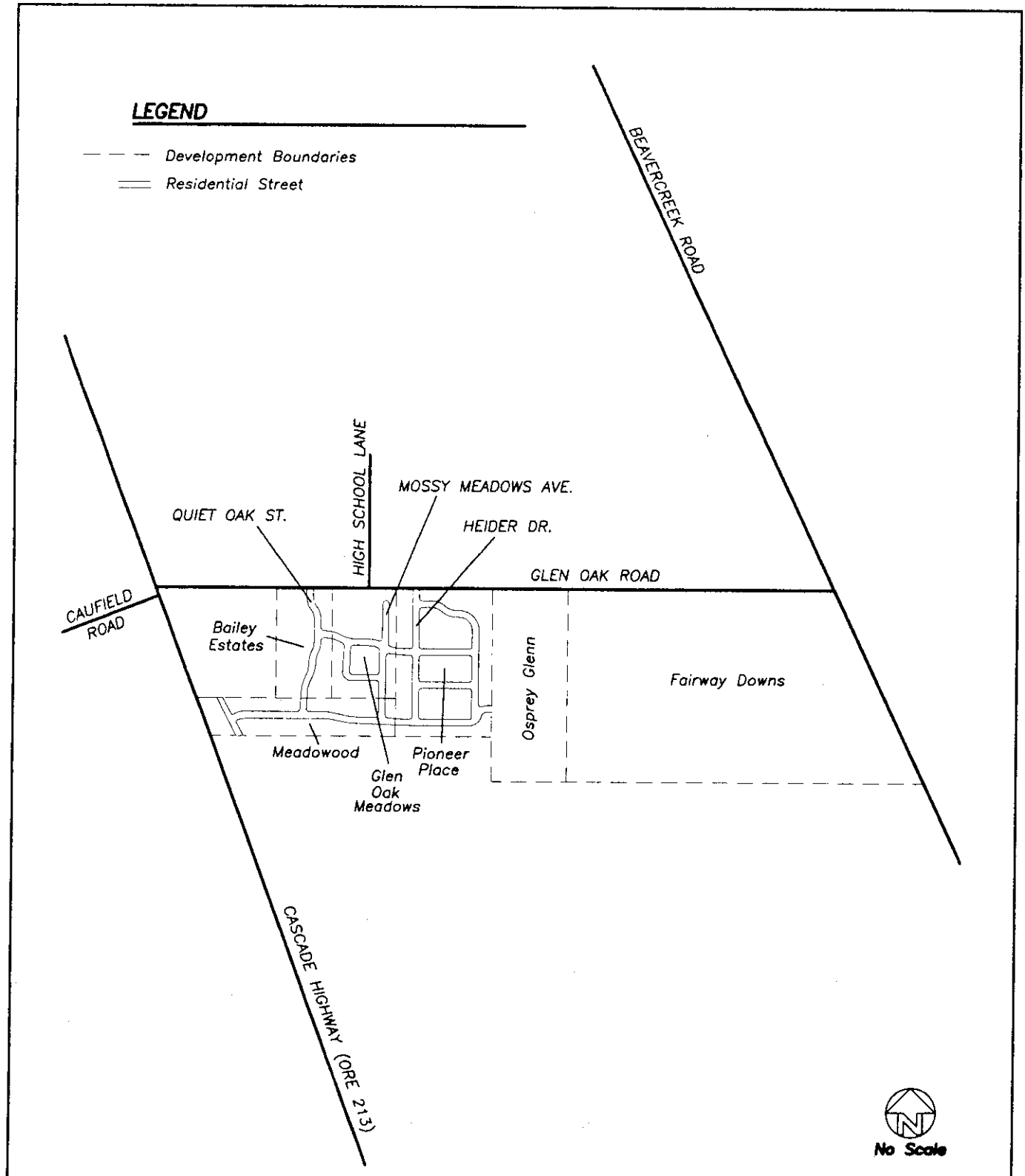
VICINITY MAP

MossyMeadows.dwg



VICINITY MAP

MossyMeadows.dwg

CITY OF OREGON CITY
TYPE III – CONDITIONAL USE PERMIT
320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
Tel 657-0891 Fax 657-7892

STAFF REPORT

FILE NO.:	CU 05-01 & SP 05-14
APPLICATION TYPE:	Type III
APPLICANT/OWNER:	City of Oregon City Nancy Kraushaar, PE – City Engineer / Public Works Director 320 Warner-Milne Road Oregon City, Oregon 97045
APPLICANT'S REPRESENTATIVE:	Black & Veatch Corporation John Dummer, PE 4800 Meadows Road, Suite 200 Lake Oswego, Oregon 97035
REQUEST:	Conditional Use Permit and Site Plan and Design Review approval for the demolition of the existing water reservoir and construction of a new water reservoir.
LOCATION:	The site is located at 437 Mountain View Street and identified as Clackamas County Map 3S-2E-05BB, Tax Lot 6800.
REVIEWER:	Tony Konkol – Senior Planner, City of Oregon City
RECOMMENDATION:	Approval with Conditions.

Complete: June 28, 2005
120-Day: October 26, 2005

Type III decisions involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the city commission, except upon appeal. Applications evaluated through this process include conditional use permits, preliminary planned unit development plans, variances, code interpretations, similar use determinations and those rezonings upon annexation under Section 17.06.050 for which discretion is provided. In the event that any decision is not classified, it shall be treated as a Type III decision. The process for these land use decisions is controlled by ORS 197.763. Notice of the application and the planning commission or the historic review board hearing is published and mailed to the applicant, recognized neighborhood association and property owners within three hundred feet. Notice must be issued at least twenty days pre-hearing, and the staff report must be available at least seven days pre-hearing. At the evidentiary hearing held before the planning commission or the historic review board, all issues are addressed. The decision of the planning commission or historic review board is appealable to the city commission, on the record. The city commission decision on appeal from the historic review board or the planning commission is the city's final decision and is appealable to LUBA within twenty-one days of when it becomes final.

IF YOU HAVE ANY QUESTIONS ABOUT THIS DECISION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 657-0891.

DECISION CRITERIA: *Chapter 17.39 INSTITUTIONAL DISTRICT*
Chapter 17.50 ADMINISTRATION AND PROCEDURES
Chapter 17.56 CONDITIONAL USES
Chapter 17.62 SITE PLAN AND DESIGN REVIEW

I. BACKGROUND

The Mountain View Reservoir Number 1 project consists of the demolition of the existing 1.45 million gallon (MG) in-ground water reservoir and construction of a new 2 MG concrete tank and associated infrastructure. The site has been used for a municipal water supply for approximately 100 years. The reservoir on the subject site was decommissioned by the City in 2001 and identified for redevelopment in the Oregon City Water Master Plan. "Public Utilities", which include water storage tanks, are identified as a conditional use in the Institutional zone of the Oregon City Municipal Code. Directly south of the subject site is a second City Water Reservoir. The applicant has indicated a desire to prepare a Master Plan for all of the facilities located along Mountain View to create a comprehensive plan for the redevelopment of the entire area.

II. FACTS

1. **Location.** The site is located at 437 Mountain View Street and identified as Clackamas County Map 3S-2E-05BB, Tax Lot 6800.

2. **Surrounding Zoning and Land Uses.** The properties to the north and west are zoned Multi-Family and developed with homes. The properties to the east are zoned Mixed-Use Corridor 1 and the properties to the south are zoned Institutional.

3. **Public Comment.** The subject site was posted and notice of this proposal was sent to property owners within three hundred feet of the subject property and various City departments and other agencies on June 28, 2005. The Planning Commission Hearing was advertised in the Clackamas Review requesting comments. No comments were received concerning this application.

III. CONDITIONAL USE PERMIT FINDINGS:

Comprehensive Plan Policies

B. Citizen Participation Element

Oregon City has two major components in its Citizen Participation Program; Neighborhood Associations and the Citizen Involvement Committee (CIC) Council. The City recognizes neighborhood associations as a mechanism to facilitate citizen participation in Oregon City. The City Commission and City staff *"provide the neighborhood associations through the appropriate CIC representative with accurate and current information on policies, programs and land use related projects"* including conditional use requests. Under *Citizen Involvement Goals and Policies, Policy 4* states, *"Encourage citizen participation in all functions of government and land use planning."*

Finding: Complies. The application has followed the public notification requirements as outlined in the Oregon City Zoning Code Sections 17.50.050 and 17.50.090. The applicant held a neighborhood

meeting on April 27, 2005. In addition to the owners of property within 300 feet of the subject area, the subject was posted and the city notified the CIC and the neighborhood association as part of the notification. The city also published notice of the planning commission hearing and agenda in the Clackamas Review.

F. Natural Resource Element

Goal

Preserve and manage our scarce natural resources while building a livable urban environment.

Findings: Complies. The improvements associated with the proposed use are to be in areas that are already developed and will meet the city standards for infrastructure improvements. As a result, the net effect of the project will be negligible with regard to the stormwater and habitat impacts.

Policy 9. Preserve the environmental quality of major water resources by requiring site plan review, and/or other appropriate procedures on new developments.

Findings: The project-specific improvements associated with the reservoir demolition and construction will be reviewed under Site Plan and Design Review requirements below. This permit looks at the overall adequacy of systems and finds that generally the improvements can be site designed and/or conditioned to not adversely affect the major water resources (natural water features, wetlands, riparian corridors and water quality resource areas) in the project vicinity. The applicant has looked at the stormwater treatment and detention associated with the site. The project will provide a stormwater facility to help maintain environmental quality.

The Natural Resource Element identifies Newell Creek and tributaries as river and creek water resources that should be protected. The proposed project is reviewed under city requirements for compliance with stormwater standards. This site is not located in the Oregon City Water Resource Overlay District. The proposed construction area is relatively flat and will be located on areas that have existing buildings, parking lots or grass.

As a result, this report finds that the impact on natural resource areas and associated stormwater facilities will be negligible. The proposed expansion meets the applicable Goals and Policies of the Natural Resource Element.

I. Community Facilities

Guided by State Planning Goal 11, this element supports development *"being guided and supported by timely, orderly and efficient provision of public facilities and services."* Services include sewer, water, stormwater drainage, solid waste disposal, electricity, gas and telephone facilities, health services, education and the various governmental services.

The main goal is *"Serve the health, safety, education, welfare and recreational needs of all Oregon City residents through the planning and provision of adequate community facilities."*

Finding: Complies. The upgrade of the Mountain View Reservoir Number 1 is necessary to provide a safe, efficient and adequate water supply for the citizens of Oregon City.

L. Transportation Element

Goal

Improve the systems for movement of people and products in accordance with land use planning, energy conservation, neighborhood groups and appropriate public and private agencies.

Policy 6. Sidewalks will be of sufficient width to accommodate pedestrian traffic.
Policy 7. Use of additional easements or underground utilities for utility poles will be encouraged.

Finding: Complies (if condition added). The applicant has indicated that the north side of Mountain View Street will be improved to City Standards for the street design as part of this project. The street design standards provide sufficient sidewalks to accommodate pedestrian traffic.

With the conditions of approval for site plan/design review, the proposed re-development meets the applicable Goals and Policies of the Transportation Element.

The applicant can meet this standard by complying with condition of approval 1.

Transportation System Plan

The city's Transportation System Plan (TSP) is an adopted document under the City's Comprehensive Plan and the Transportation Element of that Plan. Mountain View Street is identified as a local street in the TSP. Local streets require 42 to 54 feet of right-of-way with associate improvements.

Finding: Compliant (if conditions added). Tax lot 6800 has approximately 50 feet of right-of-way on Mountain View Street. The redevelopment of tax lot 6800 would result in the approximately 50 feet of Mountain View being improved. The applicant has indicated a desire to provide a Master Plan for the entire complex on the north and south sides of Mountain View Street. Staff would recommend that a Master Plan for the entire complex be required and that the street improvements for this project be tied into a future land use decision to allow a larger section of Mountain View Street to be improved at one time. Deferring the street improvements will allow the needs of the entire complex to be reviewed and a site specific street design to be created if such an alternative is found to be appropriate for the use proposed on the sites.

The applicant can meet this standard by complying with condition of approval 1.

OREGON CITY ZONING CODE

Chapter 17.39 – I Institutional Office District

17.39.040 Conditional uses.

Uses requiring conditional use permit are:

A. Any uses listed under Section 17.39.030 that are not accessory to the primary institutional use;
B. Boarding and lodging houses, bed and breakfast inns and assisted living facilities for senior citizens;
C. Cemeteries, crematories, mausoleums and columbariums;
D. Correctional facilities;
E. Helipad in conjunction with a permitted use, excluding residential districts;
F. Nursing homes;
G. Parking lots not in conjunction with a primary use;
H. Private clubs and lodges, excluding residential districts;
I. Public utilities, including sub-stations (such as buildings, plants and other structures);
J. Welfare institutions and social service organizations, excluding residential districts; and
K. Fire stations. (Ord. 03-1014, Att. B3 (part), 2003)

Finding: The applicant has proposed a "Public Utility", which is listed under Section 17.39.030 of the Condition Use section.

17.39.050 Dimensional standards.

Dimensional standards in the I district are:
A. Maximum building height: within one hundred feet of any district boundary, not to exceed thirty-five feet; elsewhere, not to exceed seventy feet.
B. Minimum required setbacks: twenty-five feet from property line except when the development is adjacent to a public right-of-way. When adjacent to a public right-of-way, the minimum setback is zero feet and the maximum setback is five feet. (Ord. 03-1014, Att. B3 (part), 2003)

Finding: Complies. The applicant has proposed a water reservoir that meets the dimensional requirements of the zone.

Chapter 17.56 Conditional Uses

17.56.010 Permit--Authorization--Standards--Conditions.

A conditional use listed in this title may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this title. Any expansion to, alteration of, or accessory use to a conditional use shall require planning commission approval of a modification to the original conditional use permit.

Finding: ***Complies.*** The applicant is requesting to re-develop a "Public Utility", which is identified as a conditional use in this section.

A. The following conditional uses, because of their public convenience and necessity and their effect upon the neighborhood shall be permitted only upon the approval of the planning commission after due notice and public hearing, according to procedure as provided in Chapter 17.50.

Finding: ***Complies.*** This application has been properly noticed.

The planning commission may allow a conditional use, provided that the applicant provides evidence substantiating that all the requirements of this title relative to the proposed use are satisfied, and demonstrates that the proposed use also satisfies the following criteria:

1. The use is listed as a conditional use in the underlying district;

Finding: ***Complies.*** Conditional Uses are identified in the Institutional Zone and the "Public Utility" use is listed in Chapter 17.56.030 – Conditional Uses.

2. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features;

Finding: ***Complies.*** The applicant proposes using the existing developed property for the project. The new reservoir will be located in the same location as the exiting reservoir, which has been in place for approximately 100 years. The area is flat, with no significant natural features and is a good location to match the existing reservoir south of Mountain View Street.

3. The site and proposed development are timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use;
Finding: ***Complies.*** The area is served by Mountain View Street and utilities exist in the street. The re-development of the reservoir is identified in the Oregon City Water Master Plan and is part of the City's water distribution system. The re-development of the site will have a minimal impact on the transportation system and will not impact the other public facilities and services.

Utility connections and improvements have been reviewed with this application and requirements are addressed under the separate site plan/design review conditions of approval.

4. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district;
Finding: Complies. The site has been used as a water reservoir for approximately 100 years. There is a second water reservoir on the south side of Mountain View Street and a cell tower adjacent to the site. The applicant has proposed to re-develop the existing use on the site, thus the proposed project will not alter the character of the surrounding area.

5. The proposal satisfies the goals and policies of the city comprehensive plan which apply to the proposed use.
Finding: Complies (with conditions added). See specific Comprehensive Plan Elements above for findings and conditions.

B. Permits for conditional uses shall stipulate restrictions or conditions which may include, but are not limited to, a definite time limit to meet such conditions, provisions for a front, side or rear yard greater than the minimum dimensional standards of the zoning ordinance, suitable landscaping, off-street parking, and any other reasonable restriction, condition or safeguard that would uphold the spirit and intent of the zoning ordinance, and mitigate adverse effect upon the neighborhood properties by reason of the use, extension, construction or alteration allowed as set forth in the findings of the planning commission.
Finding: Complies. The applicant has not requested any restriction, condition or safeguard beyond what is normally required by the city to uphold the spirit and intent of the zoning ordinance and mitigate adverse effect upon neighborhood properties.

C. Any conditional use shall meet the dimensional standards of the zone in which it is to be located pursuant to subsection B of this section unless otherwise indicated, as well as the minimum conditions listed below.
Finding: Complies. The applicant has indicated that the dimensional standards of the zone will be met.

D. In the case of a use existing prior to the effective date of the ordinance codified in this title and classified in this title as a conditional use, any change of use expansion of lot area or expansion of structure shall conform with the requirements for conditional use.

Finding: Not Applicable. There are no other existing uses on the tax lot other than the reservoir.

E. The planning commission may specifically permit, upon approval of a conditional use, further expansion to a specified maximum designated by the planning commission without the need to return for additional review. (Ord. 91-1025 §1, 1991; prior code §11-6-1)

Finding: Not Applicable. Further expansion to a specified maximum has not been requested. The applicant will be required to prepare a master plan for future permits that will make use of this provision.

17.56.020 Permit--Application.

Finding: Complies. The applicant has properly filed the conditional use request and a public hearing to be held before the planning commission is scheduled for August 8, 2005.

17.56.030 Uses requiring conditional use permit.

Uses requiring conditional use permit are:

T. Public utilities, including sub-stations and communication facilities (such as towers, transmitters, buildings, plants and other structures);

Finding: *Complies.* The reservoir, which is a "Public Utility", is listed as a conditional uses.

17.56.040 Criteria and standards for conditional uses.

In addition to the standards listed herein in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards shall be applicable:

A. Building Openings. The city may limit or prohibit building openings within fifty feet of residential property in a residential zone if the openings will cause glare, excessive noise or excessive traffic which would adversely affect adjacent residential property as set forth in the findings of the planning commission.

Finding: Not Applicable. There are no "buildings" proposed that will cause glare, excessive noise or traffic.

B. Additional Street Right-of-Way. The dedication of additional right-of-way may be required where the city plan indicates need for increased width and where the street is inadequate for its use; or where the nature of the proposed development warrants increased street width.

Finding: Complies (with conditions added). Additional right-of-way is required on Mountain View Street. The applicant shall provide a minimum of 26.5 feet of right-of-way from the centerline of Mountain View Street along the frontage of the subject site.

The applicant can meet this standard by complying with condition of approval 2.

C. Public Utility or Communication Facility. Such facilities as a utility substation, water storage tank, radio or television transmitter, tower, tank, power transformer, pumping station and similar structures shall be located, designed and installed with suitable regard for aesthetic values. The base of these facilities shall not be located closer to the property line than a distance equal to the height of the structure. Hydroelectric generation facilities shall not exceed ninety megawatts of generation capacity.

Finding: Complies. The base of the water supply reservoir is not closer to the property line that a distance equal to the height of the structure. The applicant has proposed to landscape approximately 29% of the site to provide a buffer from the adjoining properties. The reservoir has been located and designed and will be installed with a suitable regard for aesthetic values.

17.56.060 Revocation of conditional use permits.
Finding: Not Applicable. No previous conditional use permit is being revoked.

17.56.070 Periodic review of conditional use permits.
Finding: Not Applicable. The reservoir does not have identified items that would require periodic review of an issued conditional use permit.

Chapter 17.62 – Site Plan and Design Review
Section 17.62.050 - Site Plan and Design Review Standards

A. All development shall comply with the following standards:

1. This standard requires that a minimum of fifteen percent of the site area being developed shall be landscaped.

Finding: Complies as proposed. The applicant has proposed to provide a variety of grasses, plants, shrubs and coniferous and deciduous trees on the site to serve as a buffer to the surrounding properties. The applicant will provide approximately 12,000 square feet of landscaping, which is approximately 29% of the 42,000 square feet site.

2. This section requires that the size, shape, height, and spatial and visual arrangement of structures, including color shall be compatible with existing surroundings and future allowed uses.

Finding: Complies as proposed. The applicant has proposed to construct a 2 MG water storage reservoir where the existing water reservoir is currently located. The reservoir will be approximately 28.5 feet tall, of which approximately 10 feet will be below grade. The proposed reservoir will be setback from the adjacent properties and the street. Due to the nature of the use being proposed, the size, shape and height are in part determined by the need to provide for 2 MG of water storage. In addition to providing a structure similar to the existing reservoir on the site, the applicant has proposed extensive landscaping around the facility that will reduce the visibility of the site from adjacent properties and the street.

3. This standard requires that grading and contouring will meet the requirements of Chapter 15.48 and shall minimize the possible adverse effects of grading on the natural vegetation and physical appearance of the site.

Finding: Complies as proposed. The applicant has indicated that all grading will comply the requirement of Chapter 15.48 and the Oregon City Public Works Department Stormwater and Grading Design Standards.

4. Development subject to the requirements of the unstable slopes overlay district shall comply with the requirements of that district. The review authority may impose such conditions as are necessary to minimize the risk of erosion and slumping and assure that landslides and property damage will not occur.

Finding: Not Applicable. The subject site is identified as having slopes in excess of 35%; however, it is apparent that the site is flat and this section is not applicable. The mapping error is due to the slope of the interior of the existing reservoir, not the topography of the land.

5. *This standard requires the City to ensure that drainage waters from the proposed development do not degrade water quality in the surrounding areas.*

Finding: Complies as proposed. The applicant has provided preliminary stormwater calculations and proposed to construct a stormwater facility on the site to treat the drainage waters from the proposed development. Currently, there are no water quality improvements or facilities on the site. The construction of the stormwater facility to City standards will ensure that the drainage from the site will not degrade the water quality of the surrounding areas. It appears the detention pond can meet City requirements with a few modifications.

6. *This standard requires the development shall comply with City's parking standards as provided in Chapter 17.52.*

Finding: Complies as proposed. The applicant has not proposed new or additional parking. Parking for maintenance of the site will occur on the maintenance access way along the west side of the subject site. This site will occasionally be visited by city employees and will not serve the public nor have offices for staff members, thus off-street parking is not necessary for this use.

The applicant can meet this standard by complying with condition of approval 3.

7. *This section requires that sidewalks and curbs shall meet the City's requirements for street design standards.*

Finding: Complies as proposed. The applicant has indicated that street improvements will meet the Oregon City Street Design Standards, which provide for sidewalks and curbs.

8. *This standard requires that circulation within the boundary of the site shall facilitate direct and convenient pedestrian and bicycle access.*

Finding: Complies as proposed. The applicant has proposed to re-develop a water reservoir that will provide the city's water needs. Public access to the site will be limited for security reasons. The applicant has not proposed, nor will be required, to provide pedestrian and bicycle access through the subject site.

9. *The standard requires adequate means to ensure continued maintenance and necessary normal replacement of common facilities and areas.*

Finding: Complies as proposed. The applicant has indicated that the proposed development will become part of the City's water supply system and will be operated and maintained in accordance with the City's standards practices for such facilities.

10. *This standard requires that outdoor lighting must be provided in a manner that enhances security and is appropriate for the use.*

Finding: Complies as proposed. The applicant has indicated that permanent on-site lighting be limited to one light near the access ladder to the reservoir. The light is considered a safety need and will be hand-switch activated for use only during emergencies or maintenance calls during the night. As stated above, the public will not access this facility nor will city employees have offices at the site. The applicant will be providing a fence around the facility for security.

11. *This section requires the applicant to protect significant trees on the subject site.*

Finding: Complies as proposed. There are no existing trees on the site

12. *This standard requires that all development shall be designed and maintained to protect water resources areas.*

Finding: Not Applicable. The subject site is not located in the Oregon City Water Quality Resource Area Overlay District.

13. *This standard requires that the development shall comply with all applicable City's regulations protecting natural resources.*

Finding: Not Applicable. There are no identified natural resources located on the property.

14. *This standard requires that all development shall maintain compliance with applicable Federal, State, and City standards pertaining to air, water, odor, heat, glare, noise and vibration, outdoor storage, and toxic material.*

Finding: Complies as proposed. The applicant has indicated that all standards and conditions of approval shall be met and will be in compliance with federal, state, and city standards.

15. *This standard requires that the applicant shall demonstrate that adequate public water and sanitary sewer facilities and services are presently available or can be made available concurrent with development.*

Finding: Not Applicable. The applicant has not proposed new water or sanitary sewer facilities in association with the re-development of the reservoir site. The site appears to have adequate facilities for the proposed use.

16. *This standard requires that all traffic related impacts should be mitigated. The traffic mitigation elements may include adequate right-of-way improvements, pedestrian ways, and bike routes.*

Finding: Complies (with condition added). The proposed re-develop of the site will not increase the traffic to the site and will not impact the Level-of-service of the Mountain View / Molalla Avenue intersection. No off-site traffic mitigation improvements are necessary. The applicant shall provide a ROW dedication for ½ of a 53-foot ROW section and half-street plus an additional 10 feet of paving for the 50-foot of street frontage along the project site. Staff has recommended that the street improvement be delayed until a master plan for the entire Mountain View complex is completed. The street improvement will be included with the next improvements or expansion of the complex.

The applicant can meet this standard by complying with conditions of approval 1, 2 and 4.

17. *Major industrial, institutional, retail and office developments shall provide direct, safe and convenient bicycle and pedestrian travel as appropriate both within the development and between the development and other residential or neighborhood activity centers such as shopping, schools, parks and transit centers.*

Finding: Complies as proposed. The applicant has indicated that pedestrian and bicycle access from the site to adjoining properties will be not be provided since the water reservoir will be a secure facility that will not have public access.

18. *This standard requires the proposed development to be reviewed by Tri-Met to determine whether transit service is or reasonably can be made available to serve the site.*

Finding: Not applicable. The subject site is not located on a transit street nor will the site provide offices or public amenities that would be accessed through public transportation.

19. *This standard requires that all utilities shall be placed underground.*

Finding: Complies as proposed. The applicant has indicated that the improvements will be underground.

20. *This standard requires that access and facilities for handicapped shall be incorporated into the design.*

Finding: Complies as proposed. The applicant has indicated that this facility will not serve the general public and access to the site will be for maintenance and repair, thus provisions for handicap access and facilities are not required.

21. *Pedestrian and bicycle access ways shall be provided as appropriate in accordance with the requirements and standards in Chapter 12.24 and such other design standards as the City may adopt.*

Finding: Not Applicable. The applicant has not proposed, nor will be required to provide pedestrian access ways through the site to surrounding properties.

22. *In office parks and commercial centers, clustering of buildings shall be provided to the extent reasonably practicable to accommodate off-site pedestrian access.*

Finding: Not Applicable. The applicant has not proposed the development of an office park or commercial center.

CONCLUSION AND DECISION:

Based on the analysis and findings as described above, the demolition and construction of the Mountain View Reservoir expansions can meet the requirements as described in the Oregon City Municipal Code for Conditional Use Permit and Site Plan and Design Review by complying with the Conditions of Approval provided in this report.

Therefore, staff recommends approval of files CU 05-01 and SP 05-14 with conditions, based upon the findings and exhibits contained in this staff report.

EXHIBITS:

1. Vicinity Map
2. Applicant's Narrative (Complete application on file)
3. Applicant's Site Plan

Recommended Conditions of Approval
Planning Files: CU 05-01 and SP 05-14
August 1, 2005

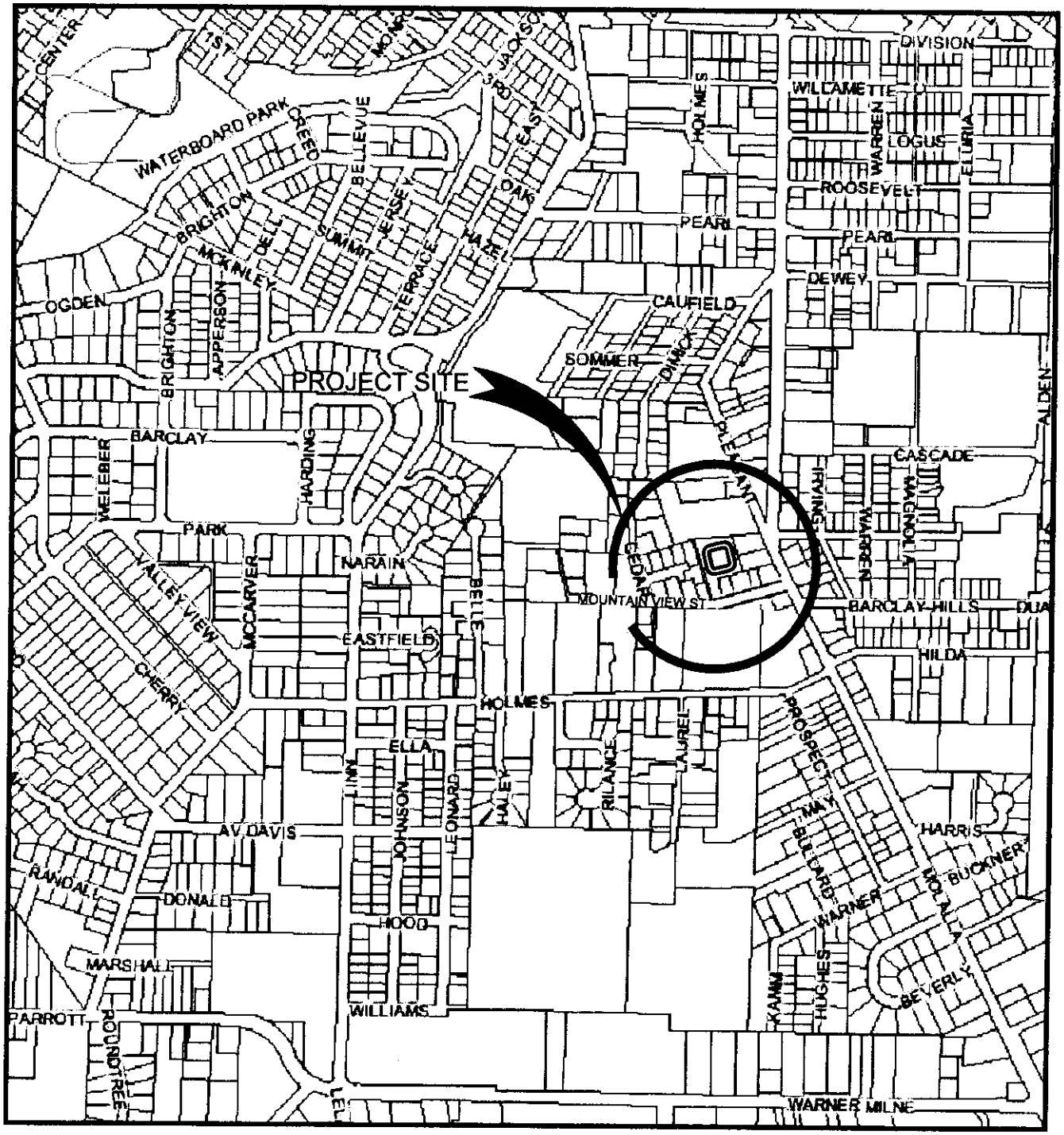
1. The applicant shall provide a local half-street improvement for Mountain View Street. A ½ street improvement includes: Centerline monument boxes, curb return radii and curb (handicap) ramps. The improved street portions that the applicant is required to provide includes, but is not limited to, base rock, paved street width of 26 feet (8-foot travel lanes, 8-foot parking areas and 10-feet past the center line), curb, gutter, 5-foot concrete sidewalks, 5-foot grass planter strips with street trees, city utilities (water, sanitary and storm drainage facilities), traffic control devices and street lights in compliance with the City code for Oregon City and its various Master Plans.

   The applicant may defer the half-street improvement of Mountain View Street until a Master Plan for the complex is completed. If the improvement is deferred, the street improvements shall be made when any additional re-development or development on any of the following tax lots occurs: 3-2E305BB, Tax Lots 6500, 6600, 6800 or 8400.

2. The applicant shall provide a minimum of 26.5 feet of right-of-way from the centerline of Mountain View Street along the frontage of the subject site.

3. A Master Plan for the properties identified as 3S-2E-05BB, tax lots 6500, 6600, 6800 and 8400 shall occur prior to any further Site Plan and Design Review of facilities on these properties, other than those indicated under this CUP.

4. The applicant is responsible for this project's compliance to Engineering Policy 00-01. The policies pertain to any land use decision requiring the applicant to provide any public improvements.



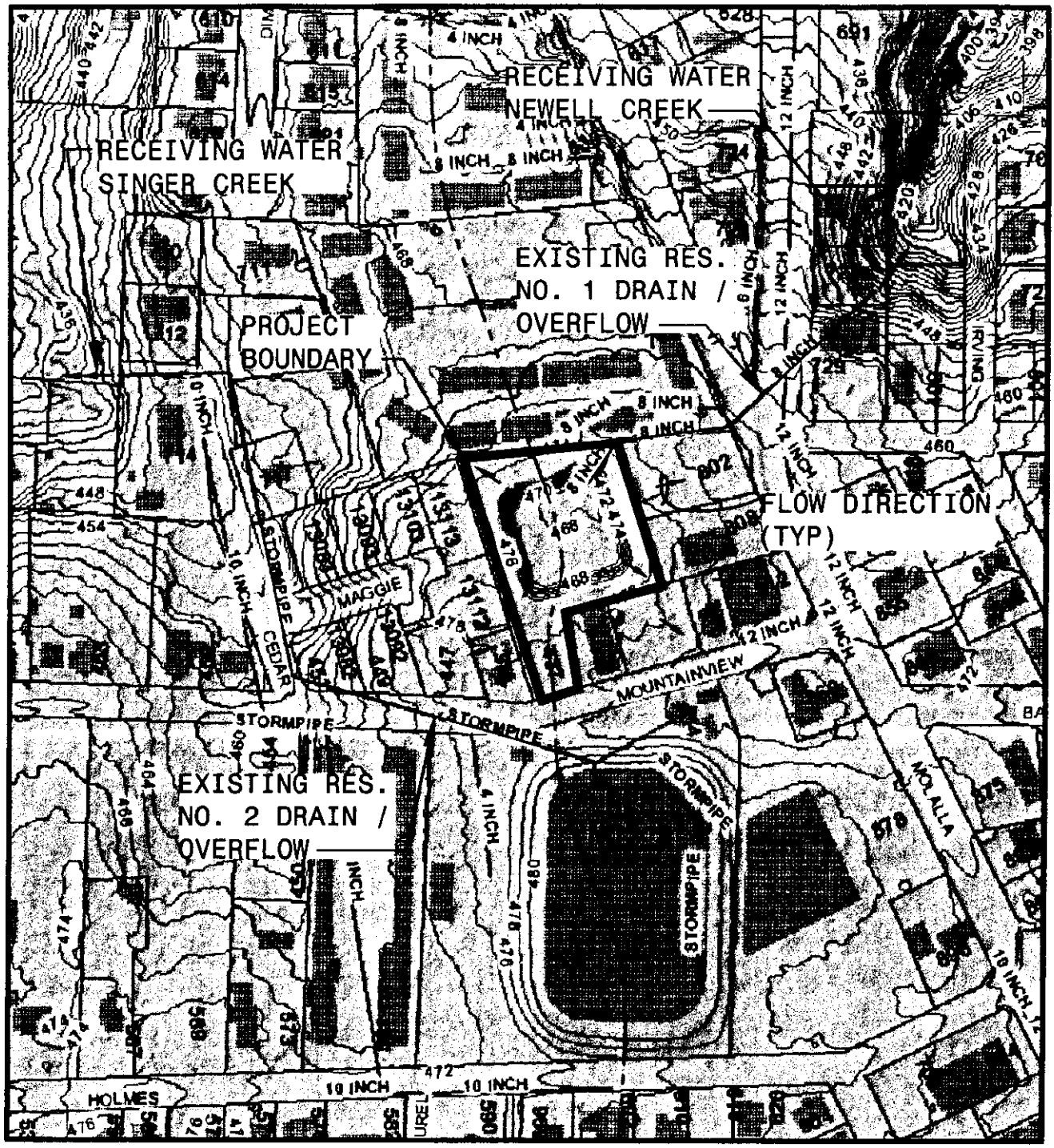
SOURCE OF TOPOGRAPHIC INFORMATION:
CITY OF OREGON CITY OC WEB MAPS

BLACK & VEATCH
Corporation
Portland, Oregon

MOUNTAIN VIEW RESERVOIR NO. 1
SITE IMPROVEMENTS
CITY OF OREGON CITY

F

Exhibit: 1



SOURCE OF TOPOGRAPHIC INFORMATION:
CITY OF OREGON CITY OC WEB MAPS

BLACK & VEATCH
Corporation
Portland, Oregon

MOUNTAIN VIEW RESERVOIR NO. 1
SITE IMPROVEMENTS
CITY OF OREGON CITY
FIGURE 2 BASIN MAP

Project:	Mountain View Reservoir No. 1

Existing Site Conditions

The Mountain View Reservoir No. 1 project consists of demolition of the existing 1.45 million gallon (MG) in-ground water reservoir and construction of a new 2 MG concrete tank and associated piping and valves. The site has been used for municipal water supply for approximately 100 years. The existing in-ground reservoir was decommissioned in 2001 and has not been used since that time. The existing reservoir covers approximately 25,500 square feet of the 46,609 square foot lot. The remainder of the site is covered with grass and an asphalt driveway.

Existing Buildings

There is an existing building (called out as the abandoned chlorine building on the site plan) on the site which is approximately 12 feet by 15 feet and is used by the City of Oregon City to store equipment and supplies related to operating and maintaining the facilities at the site. This building will be demolished as part of this project.

Public Facilities and Services

The site is, and will remain, a public facility. The new 2 MG reservoir will be constructed partially below the grade of the surrounding area, taking advantage of the foundation of the existing in-ground reservoir. In addition to the new reservoir capacity, it is anticipated that some of the asphalt area on the site currently used for storage by City water operations will continue to be used for storage of materials related to operation and maintenance of City facilities.

Presence of the Wetlands, Steep Slopes, and Other Natural Features

There are no wetlands on the site. The site has been identified as a geologic hazard area due to the steep slopes on the interior of the existing, abandoned reservoir. Demolition of the existing reservoir will result in elimination of the steep slopes. With regard to natural features, the site has been developed for over 100 years. The landscaping plan for the proposed development will enhance the aesthetics of the site and add to the natural appearance of the surrounding area.

Code Criteria

Specific code criteria related to the proposed development and an explanation of how the criteria are met for the Conditional Use permit and for the Site Plan and Design Review permit are included in separate sections in this application packet.

BLACK & VEATCH

Conditional Use Code Criteria
City of Oregon City

Black & Veatch Corporation

Project:	Mountain View Reservoir No. 1

Code Criteria - 17.56.010 Permit--Authorization--Standards--Conditions.

A conditional use listed in this title may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this title. A conditional use permit listed in this section may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this section. Any expansion to, alteration of, or accessory use to a conditional use shall require planning commission approval of a modification to the original conditional use permit.

A. The following conditional uses, because of their public convenience and necessity and their effect upon the neighborhood shall be permitted only upon the approval of the planning commission after due notice and public hearing, according to procedure as provided in Chapter 17.50. The planning commission may allow a conditional use, provided that the applicant provides evidence substantiating that all the requirements of this title relative to the proposed use are satisfied, and demonstrates that the proposed use also satisfies the following criteria:
1. The use is listed as a conditional use in the underlying district;

Response: *Oregon City Municipal Code Chapter 17.39.40 I includes "Public Utilities" as a conditional use.*

2. The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features;

Response: *The site is well suited for a water supply reservoir. Historically the site has been used for water storage. The proposed water tank fits within the dimensional standards set forth in 17.39.50.*

3. The site and proposed development are timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use;

Response: *The proposed development is included in the City's Water Master Plan and will serve the existing water distribution system. A copy of the appropriate sections of the City's Water Master Plan are included in this application packet. Minimal maintenance will be required at the site, periodic visits by City operations and maintenance personnel will be similar to those that currently take place at the site, therefore, transportation systems will not be affected by the proposed development.*

4. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Response: *This site has historically had a water reservoir on it. There is another water supply reservoir to the south across Mountain View Street, therefore the proposed use will not alter the character of the surrounding area..*

5. The proposal satisfies the goals and policies of the city comprehensive plan which apply to the proposed use.

Response: *The Comprehensive plan goal which applies to the proposed use is Goal 11.3 Water Distribution, Policy 11.3.3 Maintain adequate reservoir capacity to provide all equalization, operational, emergency, and fire flow storage required for the City's distribution system. The proposed development is consistent with this goal and policy.*

Code Criteria - 17.56.040 Criteria and standards for conditional uses.

In addition to the standards listed herein in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards shall be applicable:

C. Public Utility or Communication Facility. Such facilities as a utility substation, water storage tank, radio or television transmitter, tower, tank, power transformer, pumping station and similar structures shall be located, designed and installed with suitable regard for aesthetic values. The base of these facilities shall not be located closer to the property line than a distance equal to the height of the structure. Hydroelectric generation facilities shall not exceed ninety megawatts of generation capacity.

Response: *As can be seen on the site plan included in this application packet, the base of the water supply reservoir is not closer to the property line than a distance equal to the height of the structure. In addition landscaping will be provided as indicated in the landscaping plan included in this application packet to buffer the site. The water supply reservoir will be located, designed and installed with a suitable regard for aesthetic values.*

Project:	Mountain View Reservoir No. 1

Review Criteria - 17.62.050 Standards.

A. All development shall comply with the following standards:

1. A minimum of fifteen percent of the lot area being developed shall be landscaped. Natural landscaping comprised of native species shall be retained where possible to meet the landscaping requirement. Landscape design and landscaping areas shall serve their intended functions and not adversely impact surrounding areas. The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.). No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees. The community development department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping. for properties within the downtown design district, and for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the fifteen percent requirement. Landscaping also shall be visible from public thoroughfares to the extent practicable.

Response: *The landscaping plan for the site shows landscaping of approximately 12,000 square feet. The total area of the lot being developed is approximately 41,000 square feet. Approximately 29% of the lot area being developed will be landscaped. Landscaping will be visible from the adjacent properties where the reservoir is visible. This criterion is met.*

2. The size, shape, height, and spatial and visual arrangement of uses, structures, fences and walls, including color and material selection, shall be compatible with existing surroundings and future allowed uses. Consideration may be given to common driveways, shared parking, increased setbacks, building heights, and the like.

Response: *The site has historically been used for water supply and is part of a larger complex that includes a large water supply reservoir on the south side of Mountain View Street. The proposed water supply tank will be set back from adjacent properties a distance greater than its height above grade. The tank is set back from the street and will also be fenced for security purposes. For those reasons the proposed development is compatible with existing and future uses of surrounding area.*

3. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.

Response: *Site grading will be constructed as described in the drainage report. The new reservoir will be the dominant feature on the site. The area around the reservoir is relatively flat and will be graded such that runoff will be conveyed away from the reservoir and away from the property line such that runoff will be contained on-site as much as possible and conveyed to the stormwater detention facility. Further information is included in the drainage report which is included in this application packet.*

4. Development subject to the requirements of the unstable slopes overlay district shall comply with the requirements of that district. The review authority may impose such conditions as are

necessary to minimize the risk of erosion and slumping and assure that landslides and property damage will not occur.

Response: *Based on the information provided at the Pre-application conference this site is in a geologic hazard zone. It is believed that this is due to the slopes of the interior of the existing reservoir. The existing reservoir will be demolished as part of this project, therefore the developed site will no longer have areas with steep slopes.*

5. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.

Response: *The drainage report included in this application packet describes the drainage plan for the site.*

6. Parking, including carpool, vanpool and bicycle parking, shall comply with city off-street parking standards, Chapter 17.52. Off-street parking and loading/un-loading facilities shall be provided in a safe, well-designed and efficient manner. Off-street parking design shall consider the layout of parking, opportunities to reduce the amount of impervious surface, storage of all types of vehicles and trailers, shared parking lots and common driveways, garbage collection and storage points; and the surfacing, lighting, screening, landscaping, concealing and other treatment of the same. The review authority, at its discretion, may reduce the required number of off-street parking spaces for the purpose of preserving an existing specimen tree.

Response: *The new facility will require minimal parking. Occasional visits by City operation and maintenance staff will be necessary, but staff will not be assigned to the site on a full time basis and therefore the need for parking will be minimal. The developed site will maintain existing parking on the asphalt concrete driveway at the entrance to the facility. This area will be within the security perimeter established for the site. The City staff needing to access the facility will have access to the secured facility and therefore no off-street parking outside the security perimeter will be necessary or provided.*

7. Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the planning commission may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.

Response: *The north side of Mountain View Street along the site will be improved per the City's street design standards.*

8. Circulation boundaries within the boundary of the site shall facilitate direct and convenient pedestrian and bicycle access. Consideration shall include the layout of the site with respect to the location, number, design and dimensions of all vehicular and pedestrian accesses, exits, drives, walkways, bikeways, pedestrian/bicycle access ways, buildings, emergency equipment ways, and other related facilities. Ingress and egress locations on public thoroughfares shall be located in the interest of public safety and determined by the review authority. Reasonable access for emergency services (fire and police) shall be provided.

Response: *In the interest of public safety and security the site will have limited access. There will be one point of access. It will be at the same location as the existing point of access along Mountain View Street.*

9. There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.

Response: *The proposed development will become part of the City's water supply system and will be operated and maintained in accordance with the City's standard practices for such facilities.*

10. Outdoor lighting shall be provided in a manner that enhances security, is appropriate for the use, and avoids adverse impacts on surrounding properties. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 foot-candles of light.

Response: *This site will only require temporary task lighting for operation and maintenance, therefore, there is no plan to provide outdoor lighting.*

11. Site planning, including the siting of structures, roadways and utility easements, shall provide for the protection of tree resources. Trees of six-inch caliper or greater measured four feet from ground level shall, whenever practicable, be preserved. Where the community development director determines that it is impractical or unsafe to preserve such trees, the trees shall be replaced in accordance with an approved landscape plan that includes new plantings of at least two inches in caliper, and the plan must at a minimum meet the requirements of Table 16.12.310-1.

Table 16.12.310-1	
Tree Replacement Requirements	
Size of Tree Removed (Inches in diameter)	Number of Trees to be Planted
6 to 12	3 trees
13 to 18	5 trees
19 to 24	8 trees
25 to 30	10 trees

Specimen trees shall be preserved where practicable. Where these requirements would cause an undue hardship, the review authority may modify the requirements in a manner which, in its judgment, reasonable satisfies the purposes and intent of this subsection. The review authority may impose conditions to avoid disturbance to tree roots by grading activities and to protect trees and other significant vegetation identified for retention from harm. Such conditions may include, if deemed necessary by the review authority, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance and management program to provide protection to the resources as recommended by the arborist or horticulturist.

Response: *There are no trees on the site at the present time. The landscaping plan will include trees.*

12. Development shall be planned, designed, constructed and maintained to protect water resources in accordance with the requirements of the city's water resources overlay district, Chapter 17.49, as applicable.

Response: *The site is not within the water resources overlay district.*

13. Development shall comply with applicable city regulations protecting natural resources. For inventoried natural resources, the siting and design of buildings and other improvements shall be appropriate to protect these resources as provided by the comprehensive plan and this title. Elsewhere, development shall be planned, designed and constructed to avoid or minimize adverse impacts on natural resources to the extent practicable.

Response: *The proposed water supply reservoir will be sited in the same location as the existing reservoir, minimizing disturbance to the site.*

14. All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the principal planner or building official may require submission of evidence demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

Response: *So noted, the planner's requirements will be included in the construction contract documents for the project.*

15. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

Response: *Operation and maintenance will be minimal. The need for personnel to be present will be infrequent, therefore water or sanitary sewer facilities are not planned for the site.*

16. Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided, consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation.

When approving land use actions, Oregon City requires all relevant intersections to be maintained at the minimum acceptable level of service (LOS) upon full build-out of the proposed land use action. The minimum acceptable LOS standards are as follows:

a. For signalized intersection areas of the city that are located outside the Regional Center boundaries a LOS of "D" or better for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of critical movements.

b. For signalized intersections within the Regional Center boundaries a LOS "D" can be exceeded during the peak hour; however, during the second peak hour, LOS "D" or better will be required as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0.

c. For unsignalized intersection throughout the city a LOS "E" or better for the poorest approach and with no movement serving more than twenty peak hour vehicles operating at worse than LOS "F" will be tolerated for minor movements during a peak hour.

Response: *The proposed development will not generate traffic. Therefore the LOS at any intersection should not be impacted.*

17. Major industrial, institutional, retail and office developments shall provide direct, safe and convenient bicycle and pedestrian travel as appropriate both within the development and between the development and other residential or neighborhood activity centers such as shopping, schools, parks and transit centers. Where practicable, new office parks and commercial developments shall enhance internal pedestrian circulation through clustering of buildings, construction of pedestrian ways, or similar techniques. Bicycle parking facilities shall be required as part of new multifamily residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots.

Response: *In the interest of security of the drinking water supply, the site will not be accessible to the public, and, bicycle access will not be provided between this development and adjacent properties.*

18. If Tri-Met, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, bus landing pad or transit stop connection be constructed at the time of development, the review authority shall require such improvement, using designs supportive of transit use, if the development is of a type which generates transit rider ship and the review authority determines that the recommended condition is reasonably related to the scale and intensity of the development. Where transit service is or reasonably can be made available to serve the site, the development shall include sidewalks or pedestrian easements as necessary to provide safe and direct access to transit stops.

Response: *Since the proposed development will not regularly require personnel on site to operate the facility, additional transportation facilities will not be required.*

19. All utility lines shall be placed underground.

Response: *Piping and valves required for the new reservoir will be buried and will be shown underground on construction drawings.*

20. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

Response: *The proposed development will not regularly require personnel on site to operate the facility, therefore additional access and facilities for physically handicapped people are not required and will not be included in design.*

21. Pedestrian/bicycle access ways shall be provided as appropriate in accordance with the requirements and standards in Chapter 12.24 and such other design standards as the city may adopt.

Response: *Pedestrian/bicycle access ways associated with improvements to Mountain View Street will be provided.*

22. In office parks and commercial centers, clustering of buildings shall be provided to the extent reasonably practicable to facilitate off-site pedestrian access. If located along transit streets, clustering of buildings near the transit street shall be provided to the extent reasonably practicable to facilitate access by transit.

Response: *In the interest of security of the drinking water supply, off-site pedestrian access will not be provided.*

23. For a residential development, site layout shall achieve at least eighty percent of the maximum density of the base zone for the net developable area. Net developable area excludes all areas for required right-of-way dedication, land protected from development through water resource and steep slopes, and required open space or park dedication.

Response: *Proposed development is institutional development, therefore this criteria does not apply.*

17.62.060 Building structures.

A. Building structures shall be complimentary to the surrounding area as provided by the design guidelines adopted by the city commission. All exterior surfaces shall present a finished appearance. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the city manager from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable. (Ord. 94-1002 §1(part), 1994)

Response: *The site has historically been used for water supply and is part of a larger complex that includes a large water supply reservoir on the south side of Mountain View Street. The proposed water supply tank will be set back from adjacent properties a distance greater than its height above grade. The tank is set back from the street and will also be fenced for security purposes. For those reasons the proposed development is compatible with existing and future uses of surrounding area.*

17.62.070 On-site pedestrian access.

All commercial, industrial, institutional and multi-family residential developments shall provide an on-site pedestrian circulation system that provides convenient, accessible and direct route design.

A. The on-site pedestrian circulation system shall provide direct and barrier-free connections between buildings and existing public rights-of-way, pedestrian/bicycle access ways and other on-site pedestrian facilities while minimizing out-of-direction travel. The pedestrian circulation system and pedestrian walkways and facilities shall be designed and constructed, as appropriate, to connect:

1. The main building entrance(s) of the primary structure(s) on the site with the nearest sidewalk or other walkway leading to a sidewalk;

2. New building entrances on a development site with other new and existing building entrances except those used for loading and unloading;

3. Other pedestrian-use areas on-site, such as parking areas, transit stops, recreation or play areas, common outdoor areas, and any pedestrian amenities such as plazas, resting areas and viewpoints;

4. To adjacent developments where feasible. Development patterns shall not preclude eventual site-to-site pedestrian connections where feasible, even if infeasible at the time of development. Public and private schools, and parks over one acre in size, shall provide direct pedestrian access

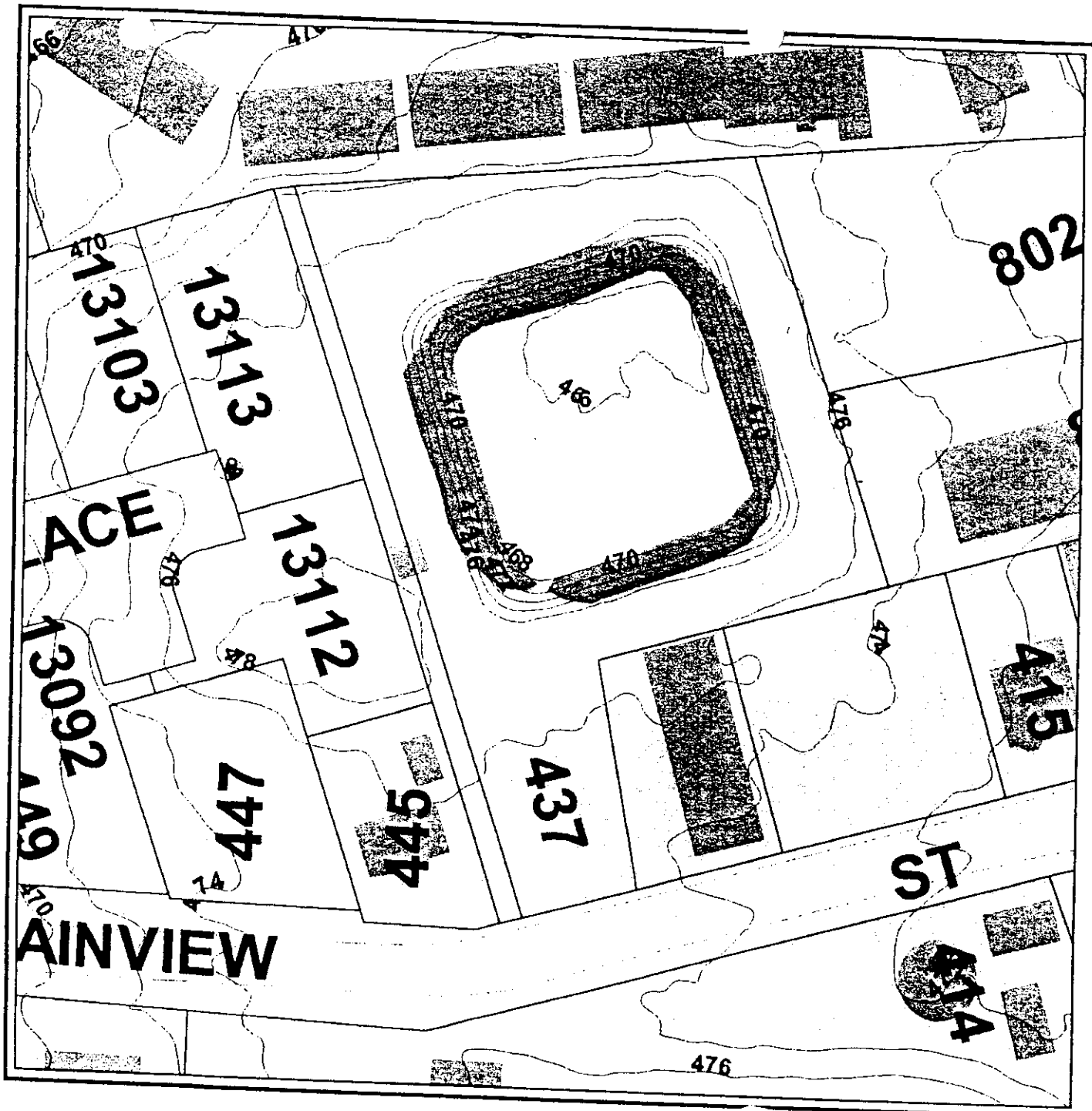
from adjacent neighborhoods, using multiple-access points in all directions as reasonably practicable to minimize neighborhood walking distance to a site. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.

B. On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be increased to seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the safety of the pedestrian must be assured by raising the walkway or separating it from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel.

C. The on-site pedestrian circulation system shall be lighted to a minimum level of 0.5 foot-candles, a 1.5 foot-candle average, and a maximum to minimum ratio of seven-to-one to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to a 0.5 foot-candle average and a maximum to minimum ratio of ten-to-one to light the walkway and enhance pedestrian safety. Artificial lighting which may be provided shall enhance security, be appropriate for the use, and avoid adverse impacts on surrounding properties and the night sky through appropriate shielding. The lighting shall not cause a measurement in excess of 0.5 foot-candles of light on other properties.

D. On-site vehicular and pedestrian circulation patterns shall be designed to minimize vehicular/pedestrian conflicts through measures such as minimizing driveway crossings, creating separate pedestrian walkways through the site and parking areas, and designating areas for pedestrians by marking crossings with changes in textural material. Such textural material shall be consistent with Chapter 31 of the Uniform Building Code. Pedestrian walkways in parking areas shall comply with the requirements of Section 17.52.080.
(Ord. 03-1014, Att. B3 (part), 2003: Ord. 95-1004 §4(part), 1995)

Response: *The proposed development will include a water reservoir. Access to the water reservoir for operations and maintenance staff will be via hatches in the roof. A ladder will be provided to reach the roof from the ground. The ladder will have a locking cover to exclude public access and prevent intrusion. Access to the site for the general public will not be allowed. Sufficient pedestrian access for the operations and maintenance staff will be provided. This criterion is met.*



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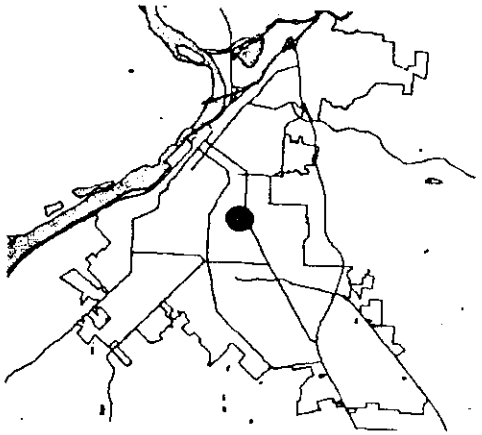
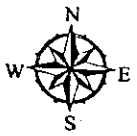




City of Oregon City
P.O. Box 3040
320 Warner Milne Road
Oregon City, OR 97045

The data on this map is the best information available from the records of the City of Oregon City. Errors and omissions may exist.

Map created with OCMap 2004

03/29/2005

Drainage Report

Project Name:	Mountain View Reservoir No. 1
City Planning File Number:	PA 05-17
Proponent's Name:	City of Oregon City John Burrell, Project Manager or Nancy Kraushaar, City Engineer
Address:	P.O. Box 3040 Oregon City, Oregon 97045
Telephone:	503-496-1556
Date of Submittal:	June __, 2005

Table of Contents

Purpose

The purpose of this report is to document the criteria that the facility was designed to meet, the sources of information upon which it is based, the design methodology, and the results of the analysis.

Project Description

The City of Oregon City is proposing to construct a new concrete water tank for potable water supply. The tank will replace an existing in-ground reservoir that was decommissioned by the City in 2001 and has not been used since that time.

The proponent (City) is applying for Conditional Use and Site Plan and Design Review permits for the project. The project site is located at 437 Mountainview Street (see Figure 1 - Vicinity Map) and the size of the lot is approximately 1.1 acres. The property is zoned "I", institutional and has been used for municipal supply for approximately 100 years. In addition to the Conditional Use and Site Plan and Design Review permits an NPDES 1200c permit will be required since the site is over 1 acre. The contractor will be required to apply for and secure the 1200c permit from DEQ.

The Mountain View Reservoir No. 1 project consists of demolition of the existing 1.45 million gallon (MG) in-ground water reservoir and construction of a new 2 MG concrete tank and associated piping for water supply for the City of Oregon City.

Existing Conditions

- Topography – In general the site slopes gently (approximately 1% slope) away from the existing reservoir. The site is located at the top of a drainage divide, which makes it a good location for a water distribution reservoir, and runoff flows to the north, west and primarily to the south (see site plan).

- Land cover and land use – The site has historically been used for water supply and includes asphalt concrete pavement, a small building (12' x 14'), grassy areas around the existing reservoir and an existing paved reservoir that covers approximately 25,500 square feet.

  Calculations for pre-development runoff from the site do not include runoff from the reservoir. This has been done to reflect the fact that stormwater that would have fallen on the site when the reservoir was in use would have left the site by entering the City's water supply system.

- Abutting property land cover and land use – Parcels on the north and west sides of the site are Residential (R-2), the parcels to the south and east are industrial and parcels to the east are Mixed-Use Corridor 1 (MUC-1). Land cover on abutting property is primarily vegetated with grass and landscaping. The site abuts Mountainview Street to the south, which is paved.

- Offsite drainage to the property – Based on field investigation, there appears to be no offsite drainage to the property.

- Natural and constructed channels – Based on field investigation, there are no natural or constructed channels on the site.

- Environmentally sensitive areas on or adjacent to the project site – There are no creeks, lakes, ponds, wetlands, ravines, gullies, steep slopes, springs or other environmentally sensitive areas on or adjacent to the project site.

- Water Quality Resource Areas and Flood Management Areas – The site is not within a water quality resource area or a flood management area.

There are no known wells on the property or on adjacent property and there are no existing fuel tanks, in-use or abandoned, within the project boundaries.

Soils within the project site are classified in the Soil Survey of Clackamas County as Jory silty clay loam, and are SCS type "C" Soils which have a moderately high runoff potential.

Existing drainage facilities - There is an 8-inch drain line that functioned as the overflow and drain for the existing reservoir that drains from the site to the north east. There is also a 12-inch drain line that functions as the overflow and drain line for the existing reservoir on the south side of Mountainview Street.

Existing drainage - At the present time, stormwater flows overland away from the existing reservoir, through the landscaping surrounding the existing reservoir and onto Mountainview Street and potentially to adjacent properties.

Based on information provided by the City planning department at the pre-application conference, the site is not in any special hazard district or greenway, floodplain or water resource overlay district. The area has been identified as being in a geologically hazardous area. It is believed that this is based on the steep slopes on the inside of the existing reservoir and that when the reservoir is demolished as part of this project, the site will no longer be included in this classification.

Developed Site Drainage Conditions

The developed site will include a concrete storage tank for water supply, appurtenant piping and valves, landscaping, and a stormwater detention pond. Ground cover at the site for the developed condition will be essentially the same as it was for the pre-developed condition, with the exception that the new reservoir will be covered and the small existing chlorine building will be demolished. The site will be graded such that stormwater will be conveyed from the top of the reservoir and the landscaped areas around it to a stormwater detention pond on the northwest corner of the site. Flows will

be routed through the stormwater detention facility and then conveyed to the drain line on the south side of Mountainview Street. The paved area on the south west portion of the property which drains to Mountainview Street will not be modified, runoff from the small area (approximately 5,800 square feet) will continue to be drained to Mountainview Street. A grading plan is included in the appendix.

Drainage Basin Description

The site is at the top of a drainage basin and is relatively flat. It sits on the divide between Singer (to the west) and Newell (to the east) drainage basins.

Description of Upstream Basins

The site is at the top of a drainage divide, therefore there are no upstream basins.

Downstream Analysis

Flows from the on-site detention pond will be conveyed off site via 12-inch and 24-inch drain pipe that will join the drain and overflow conveyance for the 10.5 Million Gallon Reservoir on the south side of Mountainview Street.

Soils Report

A geotechnical investigation for the site has been undertaken. A copy of the report associated with that investigation is included in this application packet.

Hydrologic Analysis

Regulatory Design Criteria

Following are the City of Oregon City's peak rate stormwater runoff control requirements (ref. City of Oregon City Stormwater and Grading Design Standards, December 1999):

- The post-development peak stormwater discharge rate from the development site for the two-year, 24-hour duration design storm events shall at no time exceed fifty percent (50%) of the pre-development peak stormwater runoff rate for the same design storm event.
- The post-development peak stormwater discharge rate from the development site for the five-year, 24-hour duration design storm events shall at no time exceed the pre-development peak stormwater runoff rate for the same design storm event.
- The post-development peak stormwater discharge rate from the development site for the 25-year, 24-hour duration design storm events shall at no time exceed the pre-development peak stormwater runoff rate for the ten-year, 24-hour duration design storm events.

With regard to stormwater quality, "The City of Oregon City requires that all new development and redevelopment projects address their potential impacts on the quality of surface water runoff that would eventually feed receiving waters." (ref. City of Oregon City Stormwater and Grading Design Standards, December 1999)

- The water quality design storm, to be used in the design of treatment facilities, shall be 1/3 of the SCS 2-yr/24-hour design storm.

Summary of Stormwater Detention Results

Following is a summary of the results of the hydrologic analysis:

Design Storm	Target Release Rate Pre-developed conditions (cfs)	Release Rate Without the Proposed Stormwater Detention Facilities Post-developed conditions (cfs)	Release Rate With the Proposed Stormwater Detention Facilities Post-developed conditions (cfs)
2-year	0.09 (1/2 of pre-developed condition)	0.33	0.09
5-year	0.22	0.43	0.15
25-year	0.26 (10-year pre-developed condition)	0.60	0.26

Design Parameters

Design storm events used in the analysis were as follows (ref. City of Oregon City Stormwater Design Standards)

Recurrence Interval	Total Depth (inches)
2-yr, 24-hour	2.6
5-yr, 24-hour	3.1
10-yr, 24-hour	3.4
25-yr, 24-hour	4.0

Calculation Methodology

The detention facility was designed using the HYD v4.20 computer program developed and released by the King County Washington Department of Public Works. A data set containing stage/storage/discharge information was generated and the post-developed

stormwater runoff hydrograph was routed via a level pool routing analysis. Development of the input used and output from the analysis are included in the appendix of this report.

It is intended that the stormwater detention facility also function as a water quality facility, therefore the stormwater detention facility will be a "wet pond". The detention volume required will be "stacked" on top of the water quality volume as described in the City's Stormwater design standards.

The water quality design storm used was 1/3 of the 2-yr 24-hr event. The resulting peak flow was 0.05 cfs and the resulting total volume was 1,268 cubic feet. A summary of the determination of the water quality storm discharge rate and volume is included in the appendix of this report.

Operation of Pond – Quantity

The detention pond will have a riser with two orifices. The bottom orifice will be 1.35 inches in diameter and will be at the top of the dead storage area. A 3.02 inch diameter orifice will be 2.5 feet above the dead storage area. Flows will enter the detention pond and first fill the dead storage area. This will allow sedimentation to occur. As the flow increases and the detention pond fills, flows will be released through the bottom orifice and then through the top orifice. The top orifice is sized such that the peak release rate from the 25-year post development storm does not exceed the 10-year pre-development storm peak release rate. A grading plan for the site is included in the appendix.

Operation of Pond – Quality

The total volume of the water quality storm does not exceed the volume of the dead storage of the wet pond. Therefore, the dead storage area will act as the required water quality volume for the pond. Requirements included in the City's Stormwater and Grading Standards for wet ponds will be incorporated into the design. This will include a device to allow draining the water from dead storage within 24 hours for maintenance, and landscaping the area.

Description of Stormwater Detention Pond Safeguards

In the event of a blockage, overflow will be conveyed to the 8-inch drain pipe on the north east side of the site that has served as a drain and overflow conveyance for the existing reservoir. During a 100-year design storm flows would be conveyed through the outlet structure. Should the outlet structure be unable to convey some portion of the 100-year design storm, flows would enter a secondary outlet which leads to the 8-inch drain pipe. The post development 100-year peak release rate into the detention facility is 0.70 cfs and the routed flow is 0.55 cfs with the stage not exceeding the volume of the pond (depth = 3.05 feet).

Hydraulic Design Calculations

Hydraulic design calculations are included in the appendix.

Erosion and Sedimentation Control

The Erosion and Sediment Control Plan is included in the appendix.

Maintenance Strategy

Maintenance will include periodic cleaning of stormwater pipes and removal of grit from the stormwater pond. Landscaping will require watering to establish and periodic maintenance (pruning and removal of leaves, etc.). Required maintenance will be performed by the City.

Landscape Plan

The Landscape Plan is included in the appendix.

Operation and Maintenance Manual

The operation and maintenance manual will be completed at a later date.

CITY OF OREGON CITY

WATER MASTER PLAN

WEST YOST & ASSOCIATES

OCTOBER 2004

Mountainview Reservoir Issues

It is important to note that Mountainview Reservoir is owned by Oregon City but effectively operates as a regional storage facility. As a result of the regional system configuration, Mountainview Reservoir's storage capacity is shared with the SFWB and City of West Linn. Given the current operating situation, the reservoir is over-allocated and only approximately half of the reservoir's capacity can be relied upon for Oregon City use. If Oregon City continues to share Mountainview Reservoir's capacity for regional storage, then the analysis shown in Table 6-1 indicates that Oregon City is in immediate need of new storage. Since Oregon City needs the entire capacity of Mountainview Reservoir to meets its existing and future storage requirements,,the City is actively working with the SFWB and City of West Linn to relieve the regional system's reliance on the reservoir. Appendix D contains a technical memorandum that presents an analysis of the regional storage issues and a recommended plan.

Another issue related to Mountainview Reservoir is that there is no redundant reservoir to provide backup supply to the Intermediate Pressure Zone or the Mountainview Pump Station. As a result, it is currently impossible to take this reservoir off-line for maintenance or repair. To remedy this backup supply problem, one option is to construct a redundant reservoir adjacent to Mountainview Reservoir at the site of the now decommissioned open reservoir. However, given the strong need for new storage capacity serving the Upper Pressure Zone and the excess capacity serving the Intermediate Pressure Zone, the City would be advised to select a relatively small capacity for this redundant reservoir. If the reservoir were sized minimally to provide equalization and fire flow storage only for the Intermediate Pressure Zone at build-out, the required volume would be approximately two million gallons. Alternatively, the City might consider a joint project with the SFWB to obtain a share in a relatively large reservoir at the site.

Mountainview Reservoir also needs to be upgraded to maintain reliable service in the future. The proposed improvement projects include the following:

- Reinforce the perimeter wall of the reservoir as recommended in the seismic vulnerability assessment. The necessary reinforcement can be completed on the exterior of the perimeter wall without taking the reservoir out of service.
- Reroof the reservoir to ensure continued protection of the underlying wooden support structure and plywood sheathing.
- Repair steel structural supports for the roof.
- Provide interior lighting improvements.
- Install outlet piping improvements to improve circulation in the reservoir.

Boynton Reservoir Circulation

Boynton Reservoir is fed by a single pipe that terminates at the bottom of the reservoir and serves as both the reservoir's inlet and outlet. This arrangement does not ensure that there is good circulation of water in this standpipe style reservoir. Although the City's regular water quality monitoring has not indicated problems during regular reservoir operation, it is possible that old water in the upper portions of the reservoir could be pumped into the system in the event

Table 7-4. Estimated Capital Costs for CIP Projects
Improvement Phase 1 – Years 2004 to 2008 – ENR 6650

Recommended Improvements	Capital Cost, $1,000
Reservoirs	
Redundant reservoir for Intermediate Zone	2,180
Roof replacement for Mountainview Reservoir	490
Structural repair for Mountainview Reservoir	90
Piping improvements for Mountainview Reservoir	230
Seismic improvements for Mountainview Reservoir	1,015
Demolition of elevated tank	52
Interior lighting for Mountainview Reservoir	20
New reservoir for Upper Zone	4,130
Subtotal	8,207
Pump Stations	
Diesel Generator at Mountainview Pump Station	450
Decommission Livesay Road Pump Station	22
Seismic upgrade at Mountainview Pump Station	30
Fairway Downs Pump Sta. Modifications	22
Misc. seismic improvements	10
Subtotal	534
Pipelines	
Leak detection (approx. 30 miles of pipeline network)	20
Leak repair	150
P-101 Highway 99 near 205 (FF[a], R[b])	375
P-102 Blanchard – Canemah (FF)	182
P-103 Center Street and Sunset (FF- new PRV)	292
P-104 Third and East (FF)	159
P-105 Oak Tree Terrace to Livesay Road (FF – new PRVs)	314
P-106 King Street (FF)	229
P-107 Modify 16th and Division PRV Sta. (R[b])	29
P-108 Linn to 4th Street (R)	197
P-109 Remaining Mountain Line (R)	1,051
P-110 Swan Avenue (R)	384
P-111 Hunter Avenue (R)	128
P-112 View Manor (R)	457
P-113 Partlow Road (R)	16
P-114 Meyers Road (R)	197
P-115 Livesay Road (R)	75
P-116 Leland Road from Caddis to McCord (E[c])	47
P-117 McCord from Pease to Leland (E)	113
P-118 New Upper Zone Reservoir Extension (E)	1,035
Subtotal	5,450
Total	14,191

[a]FF – Pipeline projects motivated by fire flow deficiencies.
[b]R – High priority pipeline replacement projects.
[c]E – Pipeline network expansion projects.

BLACK & VEATCH

MEETING SUMMARY **Black & Veatch Corporation**

To:	John Burrell, Project Manager Nancy Kraushaar, Public Works Director
From:	Alan Peck, Project Manager John Dummer, Project Engineer
List of Attendees:	See Attached
Title of Meeting:	Neighborhood Meeting
Where and When Held:	April 27, 2005, 7:00 p.m.- 8:30 p.m. at City Hall
Project:	City of Oregon City Mountain View Reservoir, Pump Station, On-Site and Off-Site Seismic, and Overall Site Improvements B&V Project Number 141269.0100
Minutes by:	John Dummer, Black & Veatch

Introductions were made and the project introduced and summarized as outlined in the meeting agenda (see attached).

Processes associated with site master planning for the entire site and conditional use permitting for Reservoir No. 1 were reviewed. It was explained that Reservoir No. 1 will be constructed first beginning in the Fall of 2005 and that the improvements to Reservoir No. 2 will be constructed during late 2006 and early 2007 with all work to be completed by the summer of 2007. The schedule is dictated by the need to meet the conditions of the FEMA grant funding the City has obtained for the project.

The following issues were discussed by attendees:

SUMMARY AND CONCLUSIONS OF ISSUES DISCUSSED

1. When was reservoir No.1 built?

   It was speculated by attendees that the reservoir was constructed in 1918 in response to public health concern related to an influenza outbreak, or perhaps in 1905.

   Subsequent check of the City's schematic of the site indicates that the reservoir was constructed in 1898.

2. Where is the water that goes into the reservoirs from?

   South Fork Water Board (SFWB) Treatment Plant

3. Will both reservoirs be covered?

Yes

4. How big of an earthquake will they stand?

We're in seismic zone 3 and this is a lifeline type facility, therefore it will be designed to seismic zone 4 standards, like California.

5. What is the history of Reservoir No. 2?

Walls were constructed in the 1950's and the cover was constructed in the 1970's. As part of the FEMA Pre-Disaster Mitigation Grant Application the City evaluated the historical significance of the reservoirs. It was found that neither reservoir was a structure of historical significance.

6. Comment was made: "I'm glad it will be covered."

7. Is the elevated tank being used now?

No. It is only being used to support a communications antenna.

8. Crime has been a problem on east side of the reservoirs; how will that change?

We will work with site to create a barrier that we hope will make the site safer for everyone. There is currently an open space between the reservoir site and the adjacent apartments. The open space is on the apartment property so there isn't much we can do about that.

9. Could access from Molalla Avenue be improved to make it safer? Cars park on the south side of Mountain View at the Chevron station. A dumpster and the cabinet that holds it at the carpet shop on the north side of Mountain View is very close to traffic. Exiting Mountain View on to Molalla Ave. is a safety concern. Bicyclists can't be seen. There is a lot of pedestrian traffic in the area going to and from a local store, school, and carpet shop. Stripes might help if they were added.

City code enforcement will check into the dumpster at the carpet shop to see if it is in the public right of way. Part of this project is improvement of Mountain View, this will include sidewalks, curbs and gutters in the area within the site.

10. Comment was made: "Changing the look of Mountain View to that of a "normal street" will help."

11. It was suggested that an alternative route be looked at for access to areas to the west of the site. That alternative would be a new road through Stafford Park to Holmes.

City representatives indicated that they can check with the Parks Department and also look at the transportation plan to see if this alternative would be possible.

12. Survey may help determine what is on public right of way and what is not.

13. What is happening with the abandoned gas station in the Canned Food Outlet parking lot?

The Canned Food Outlet didn't want the liability associated with the old gas station so they decided not to purchase it.

14. Comment was made: "Molalla Avenue looks really good!"

15. Question was asked regarding completion of the 7th Street project.

7th St. project is scheduled to be completed by the end of June if all goes well.

City of Oregon City

Mountain View Reservoir, Pump Station, On-Site and Off-Site Seismic, and Overall Site Improvements

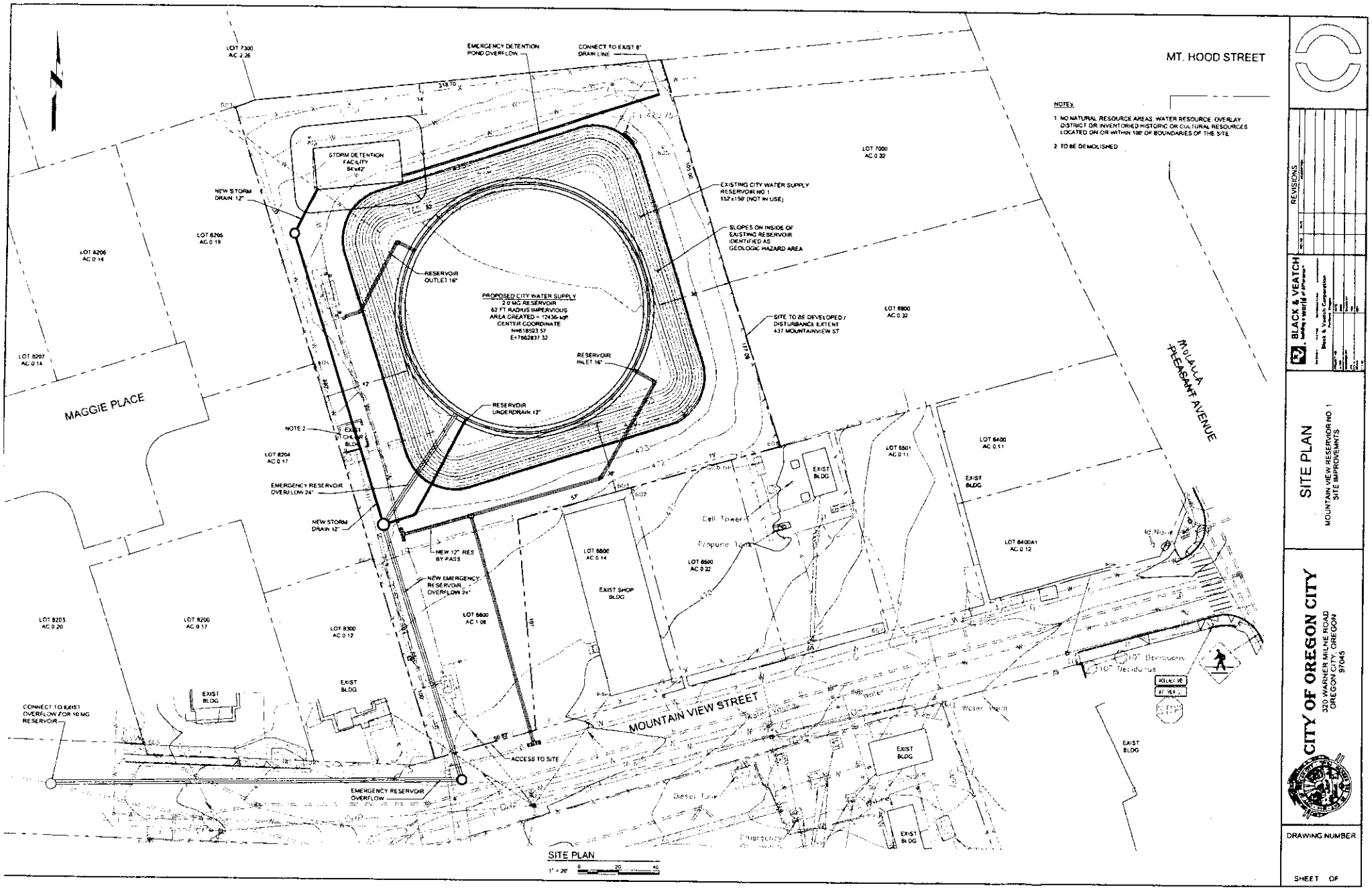
Neighborhood Meeting
Meeting Date: April 27, 2005
Meeting Time: 7:00 PM; City Hall

Please sign in:

NAME	ADDRESS	PHONE #
Alan Peck	Black & Veatch 4800 Meadows Lk Oswego 97035	503-699-7556
Edith Riseo	717 Cedar Lane Oregon City 97045	503 656-2476
Dorothy Webb	788 Pleasant Ave. #7 - O. C. 97045	503-656-4586
JOAN BURRELL	OCPW - 320 Warner Milne Rd Oregon City, OR 97045	503-496-1554
Stan Shukla	13092 Maggie Place	503-887-4970
Nancy Kraushaar	Oregon City Public Works	
Bob Ward	Black + Veatch	503-699-7556
Doris Abraham	581 Holmes Lane #13, Oregon City	(503) 723-9997

Site Plan

Exhibit: 3



REVISIONS

BLACK & VEATCH
Building a world of difference

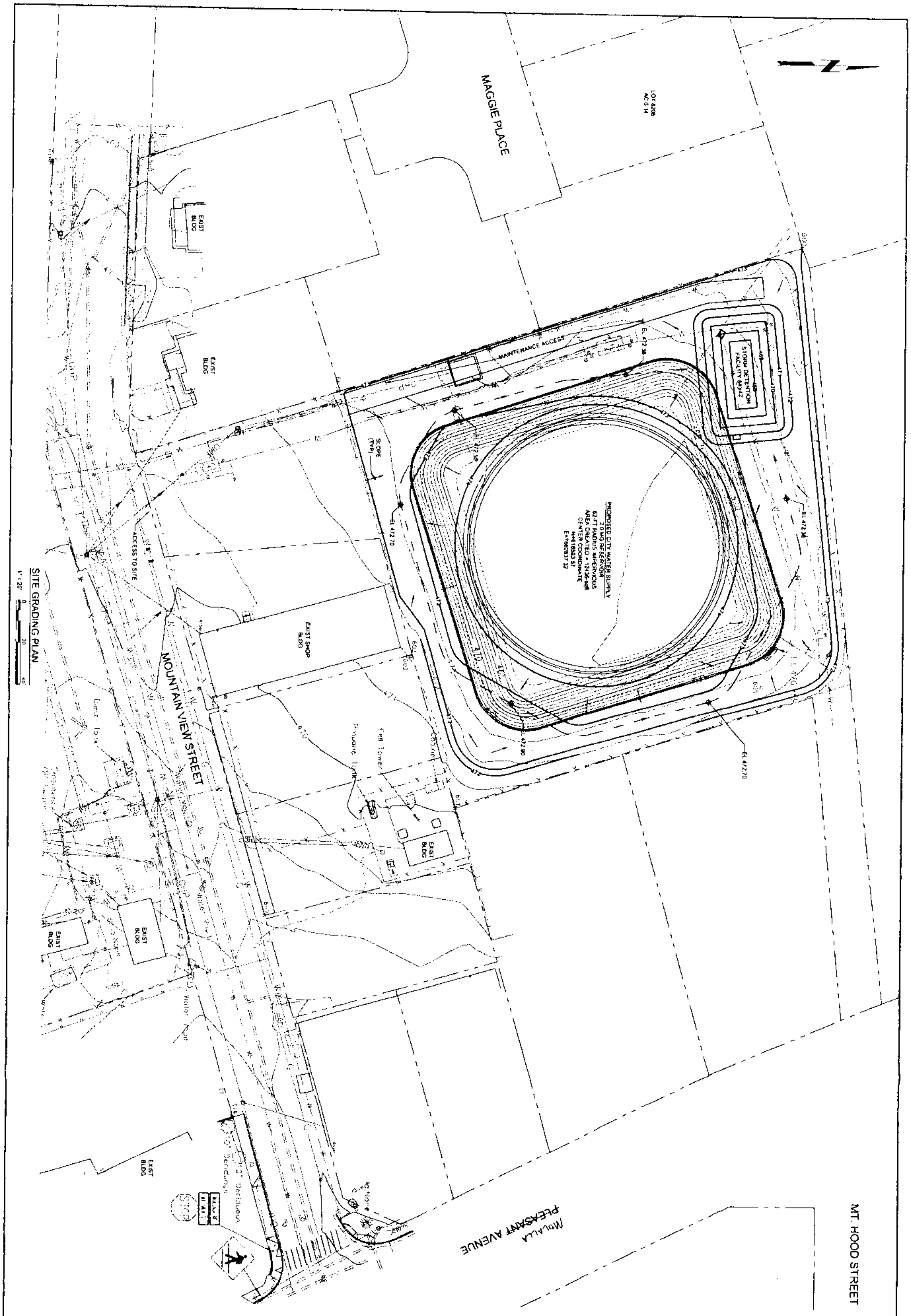
SITE PLAN
MOUNTAIN VIEW RESERVOIR NO. 1
SITE IMPROVEMENTS

CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

DRAWING NUMBER

SHEET OF

Grading Plan



CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

GRADING PLAN

MOUNTAIN VIEW RESERVIOR NO. 1
SITE IMPROVEMNTS

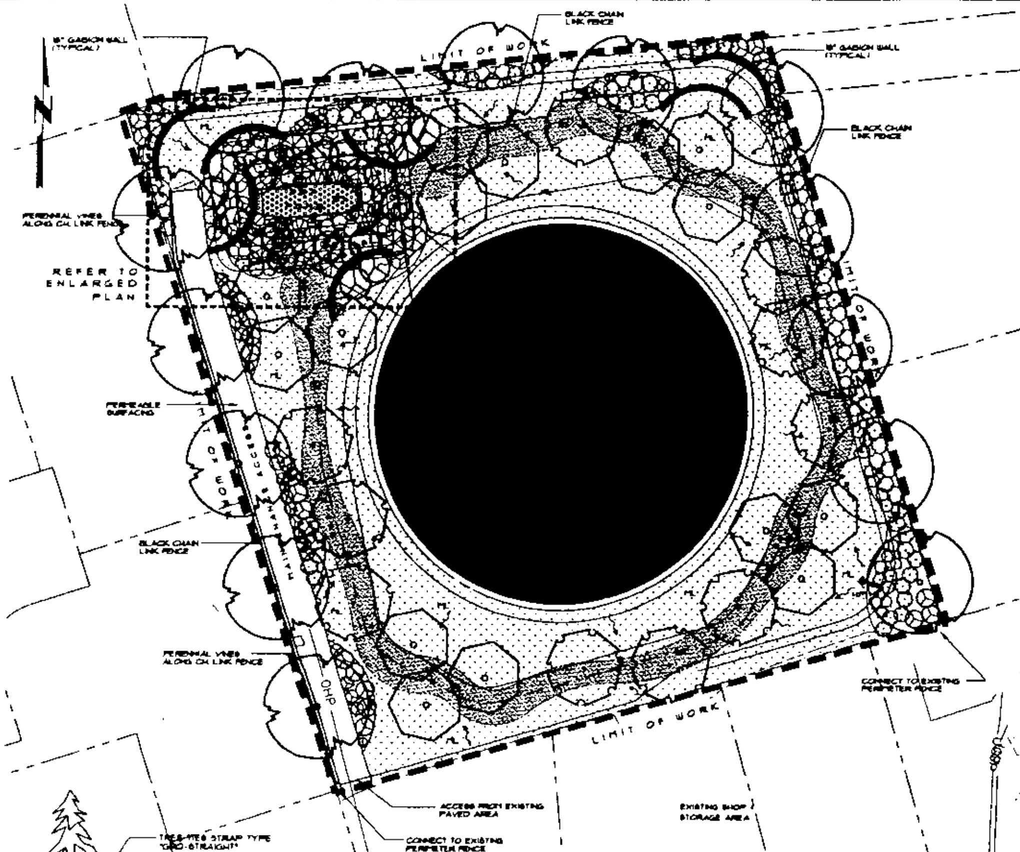
BLACK & VEATCH
Black & Veatch Corporation

REVISIONS

DRAWING NUMBER

SHEET OF

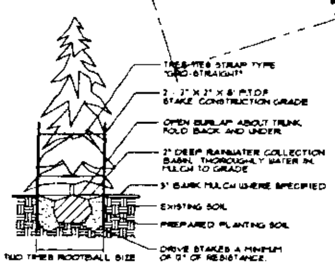
Landscaping Plan



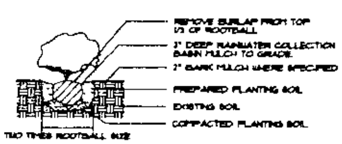
PLANT LEGEND

SYMBOL	PLANT NAME	SITE QTY.	SITE SIZE	SWALE QTY.	SWALE SIZE	WET POND QTY.	WET POND SIZE	CONDITION
TREES								
	ACER CIRCINATUM VINE MAPLE					5	7 GAL.	CONTAINER 3 TRUNK MIN.
	FRAXINUM LATIFOLIA OREGON ASH			10	1.5" CAL.			B/B
	QUERCUS GARRYANA OREGON OAK			8	1.5" CAL.			B/B
	ULMUS PARVIFLORA 'DYNASTY' DYNASTY ELM	14	2.5" CAL.					B/B
	CALOCEDRUS DECURRENS INCENSE CEDAR	24	6-7'					B/B
	PSEUDOTSUGA MENZIESII DOUGLAS FIR					6	3-4'	CONTAINER
	THUJA PLICATA WESTERN RED CEDAR					7	3-4'	CONTAINER
SHRUBS								
	CORNUS SERICEA RED-TWIGGED DOGWOOD					12	1 GAL.	CONTAINER
	CORYLUS CORNUTA WESTERN BEAKED HAZELNUT	8	3 GAL.			6	1 GAL.	CONTAINER
	HOLODISCUS DISCOLOR OCEANSPRAY					5	3 GAL.	CONTAINER
	MAHONIA AQUIFOLIUM TALL OREGON GRAPE	6	2 GAL.			6	1 GAL.	CONTAINER
	MYRICA CALIFORNICA PACIFIC WAX MYRTLE	33	1 GAL.					CONTAINER
	OEMLERIA CERASIFORMIS INDIAN PLUM					5	3 GAL.	CONTAINER
	PHYSOCARPUS CAPITATUS PACIFIC NINEBARK	12	3 GAL.			5	1 GAL.	CONTAINER
	RHODODENDRON MACROPHYLLUM PACIFIC RHODODENDRON	28	1 GAL.					CONTAINER
	RIBES SANGUINEUM RED-FLOWERING CURRANT	16	3 GAL.					CONTAINER
	SALIX HOOKERIANA HOOKERS WILLOW					9	1 GAL.	CONTAINER
	SPIRAEA DOUGLASII DOUGLAS SPIRAEA	29	5 GAL.			12	2 GAL.	CONTAINER
	SYMPHORICARPOS ALBA SNOWBERRY	16	3 GAL.					CONTAINER
GRASSES, SEDGES, FERNS								
	CAREX DEWEYANA DEWEY SEDGE					22	1 GAL.	CONTAINER
	MISCANTHUS SINENSIS 'GRACILLIMUS' MAIDENHAIR GRASS	12	1 GAL.					CONTAINER
	POLYSTICHUM MUNITUM WESTERN SWORD FERN					12	1 GAL.	CONTAINER
GROUND COVERS								
WP	WET POND COVER MIX HOBBS & HOPKINS PRO-TIME 1					EST.	40#/ACRE	
	EMERGENT WET POND MIX (BROMUS CARINATUS, ELYMUS GLAUCUS, AGROSTIS OREGONENSIS)					EST.	8#/ACRE	SUPPLEMENT SEED MIX WITH JUNCUS PATENS SCIRPUS MICRO (4" PLUGS @ 12" O.C.)
ML	MEADOW LAWN WATER GARDEN W/ WILDFLOWERS	EST.	10#/ACRE					
SG	SWALE GRASS HOBBS & HOPKINS PRO-TIME 940			EST.	25#/ACRE			

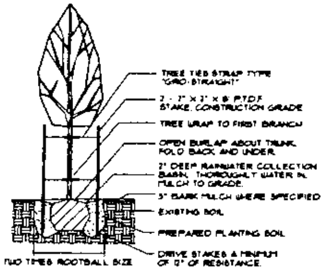
NOTE: WET POND LAYOUT FOR SIZING PURPOSES AND COULD CHANGE CONFIGURATION AND SHAPE SLIGHTLY.



CONIFER TREE PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.



DECIDUOUS TREE PLANTING
N.T.S.

GENERAL NOTES

THE CONTRACTOR SHALL INSTALL PLANT MATERIALS USING TOPSOIL WHICH CONSISTS OF ONE PART COMPOST AND TWO PARTS SANDY LOAM, AS INDICATED ON THE DETAILS.

ALL PLANTING AREAS SHALL RECEIVE A MINIMUM OF TWO INCHES OF MEDIUM, FINE AND NON-TOXIC BARK MULCH.

FERTILIZER SHALL BE STANDARD APPROVED BRAND, DELIVERED IN ORIGINAL CONTAINERS DRY AND FREE FLOWING BEARING GUARANTEED ANALYSIS OF THE MANUFACTURER. THE ORGANIC BASE SHALL BE 16-16-16.

COMPACT PREPARED SOIL MIX AND FLOAT LANDSCAPE AREAS TO PERIMETER ELEVATIONS REPRESENTED BY CURBS AND WALKS.

TOPSOIL SHALL BE FREE OF NOXIOUS WEEDS AND WEED SEEDS. CONTRACTOR SHALL GUARANTEE THAT WEEDS HAVE BEEN REMOVED PRIOR TO INSTALLATION.

ALL PLANTS SELECTED SHALL BE CONSISTENT WITH CURRENT AMERICAN NURSERYMEN'S STANDARDS. ANY PLANTS THAT ARE DISEASED, DEFORMED, ROOT BOUND, POORLY SHAPED OR DEFICIENT OF HEALTHY CHARACTERISTICS SHALL NOT BE ACCEPTED.

ALL PLANT MATERIAL SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR AND SHALL BE IN A HEALTHY CONDITION AT THAT TIME. ALL PLANTS DEAD OR EXHIBITING UNHEALTHY CHARACTERISTICS SHALL BE REPLACED AT NO EXPENSE TO THE OWNER.

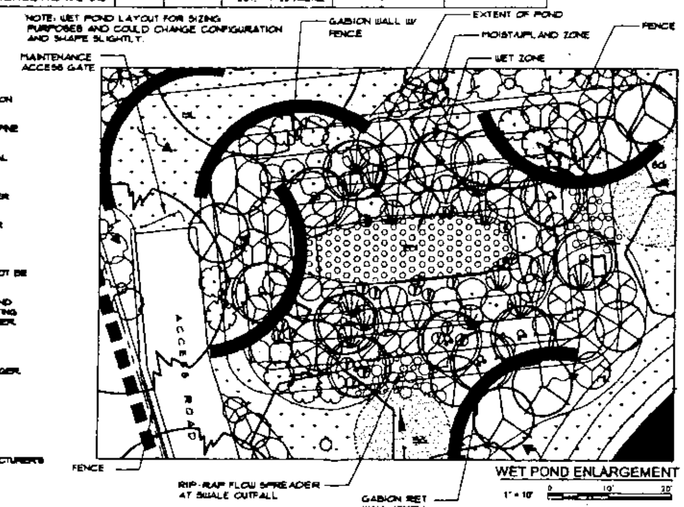
CONTRACTOR TO DESIGN AND TO INSTALL AN IRRIGATION SYSTEM PER MANUFACTURER'S SPECIFICATION, PROVIDING COMPLETE COVERAGE.

GUY ALL CONIFERS TALLER THAN 8' & ALL DECIDUOUS TREES 4" CAL. OR LARGER. STAKE ALL OTHER TREES.

QUANTITY OF PLANTS ON THE PLAN TAKES PRECEDENCE OVER QUANTITY OF PLANTS IN THE PLANT SCHEDULE.

IRRIGATION NOTES

CONTRACTOR TO DESIGN AND TO INSTALL AN IRRIGATION SYSTEM PER MANUFACTURER'S SPECIFICATION, PROVIDING COMPLETE COVERAGE.



WET POND ENLARGEMENT
1" = 10'

MACDONALD ENVIRONMENTAL PLANNING, P.C.

REGISTERED LANDSCAPE ARCHITECT OREGON

REVISIONS

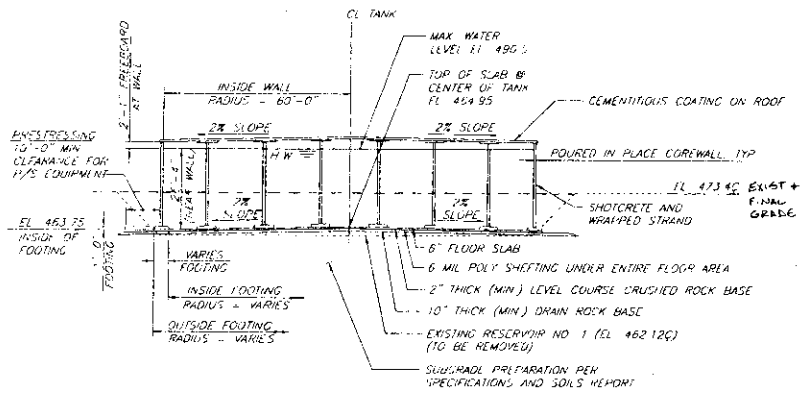
BLACK & VEATCH
Black & Veatch Corporation

LANDSCAPE PLAN
PHASE I-A
MOUNTAIN VIEW RESERVIOR NO. 1
SITE IMPROVEMNTS

CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

DRAWING NUMBER:
L01
SHEET 1 OF 1

Architectural Drawings



SECTION OF TANK (1 / S101)
SCALE 1"=20'

DESIGN NOTES

I. PRELIMINARY PLAN AND ELEVATION OF NEW 2MG RESERVOIR IS IDENTICAL FOR ALL RESERVOIR ALTERNATES EXCEPT FOR WALL DESIGN. SEE PRELIMINARY REPORT FOR DESCRIPTION OF RESERVOIR ALTERNATIVES

II. DESIGN LOADS

1	ROOF LIVE LOAD	25.0 PSF SNOW
2	LIQUID (WATER)	62.5 PCF
3.	SOIL BEARING CAPACITY	4000 PSF (GROSS)
4	SEISMIC ACCELERATION	ZONE4 (AWWA D110-04)
5	BACKFILL HEIGHT (ABOVE FLOOR)	17'-6" MAX, 9'-6" MIN

6 USE AWWA D110-04 AND IBC 2003 IBC AND OREGON AMENDMENTS FOR DESIGN REQUIREMENTS
7 SEE SECTION 1709 OF 2003 IBC FOR REQUIREMENTS OF STRUCTURAL OBSERVATION BY THE ENGINEER OF RECORD
8 SEE 2003 IBC CH 17 FOR WORK REQUIRING SPECIAL INSPECTION

III. BUCKLING CRITERIA OF WALL DESIGN

1 THE INTEGRITY OF THE WALL SHOWN ON THESE DRAWINGS IS STRICTLY PREDICATED ON THE FOLLOWING CONDITIONS
A THE STRICT CONFORMANCE OF THE CLOSE STRESS-TOLERANCE AND OTHER REQUIREMENTS OF THE CIRCUMFERENTIAL PRESTRESSING APPLICATION AND IN THE TECHNICAL SPECIFICATIONS.
B SEE SPECIFICATIONS FOR OUT OF ROUND TOLERANCE
C THERE SHALL BE NO BLOCKOUTS OR OTHER TYPES OF WALL OPENINGS OTHER THAN THOSE SHOWN ON THESE DRAWINGS

IV. CONCRETE REQUIREMENTS

1	FLOOR AND FOOTINGS	4000 PSI (7.0 SK/CY)
2	ROOF SLAB AND COLUMNS	4000 PSI (7.0 SK/CY)
3	COREWALL	4500 PSI (7.5 SK/CY)
4	SHOTCRETE	4000 PSI (10.35)

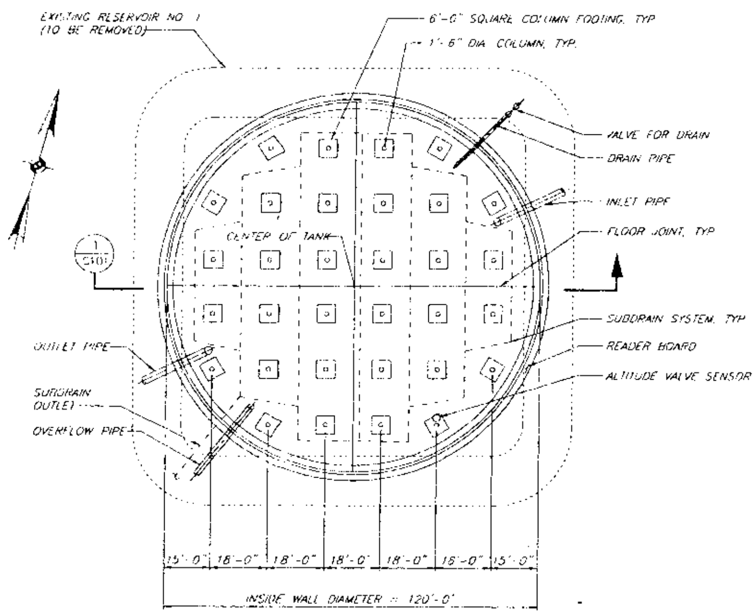
5 SEE TECHNICAL SPECIFICATION FOR COMPLETE MIX DESIGN INFORMA INCLUDING WATER-CEMENT RATIO, AGGREGATE SIZE AND ACCEPTABL ADMIXTURES
6. SEE TECHNICAL SPECIFICATION FOR CONCRETE PLACING AND FORMIN PROCEDURES

V. REINFORCEMENT REQUIREMENTS:

1 ALL REINFORCING IN TANK SHALL CONFORM TO ASTM A-615 GRADE UNLESS OTHERWISE NOTED ON THESE DRAWINGS
2 REINFORCING CALLED OUT TO BE GALVANIZED SHALL HAVE A CLASS COATING IN ACCORDANCE WITH ASTM A767

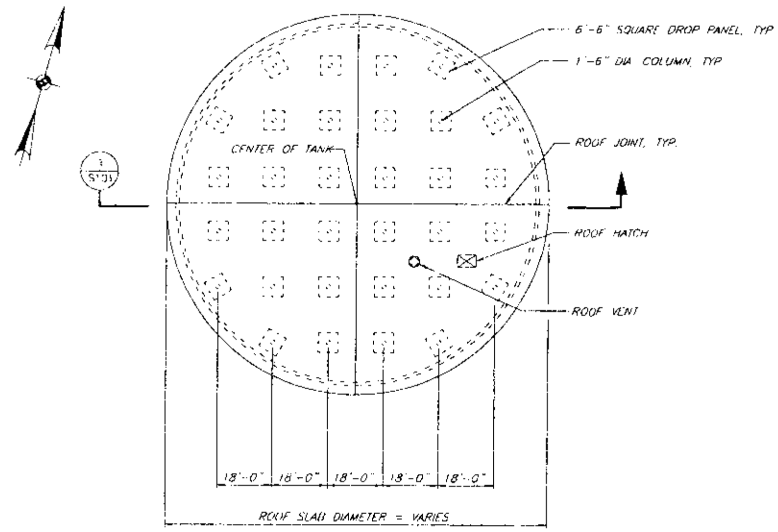
VI. EARTHWORK PREPARATION

1 MINIMUM COMPACTION OF DRAIN AND CRUSHED ROCK AND SUBGRAL AND AROUND PIPE BLOCKS AND UNDER FLOOR AND FOOTINGS SHA 95% OF MAX DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM
2 MINIMUM COMPACTION OF BACKFILL AROUND TANK SHALL EQUAL 90 MAXIMUM DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D15 USE ONLY HAND HELD COMPACTION EQUIPMENT WITHIN 3' OF THE WALL AND LIGHTWEIGHT EQUIPMENT BEYOND THE 3' SO AS NOT TO THE WALL. BRING UP THE BACKFILL AROUND THE TANK IN UNIFOR IF THE TANK IS EMPTY DURING THE BACKFILLING OPERATION AROUN TANK, THE INWARD MOVEMENT OF THE COREWALL MUST BE MONITOI VARIOUS LOCATIONS AROUND THE INSIDE CIRCUMFERENCE TO ENSUR A UNIFORM BACKFILL COMPACTION IS BEING ACHIEVED



FLOOR PLAN (A / S101)
SCALE 1"=20'

NOTE
BUILD 6" CAMBER IN ROOF SLAB MIDSPAN BETWEEN COLUMNS, TYP



ROOF PLAN (B / S101)
SCALE 1"=20'

REVISIONS
06

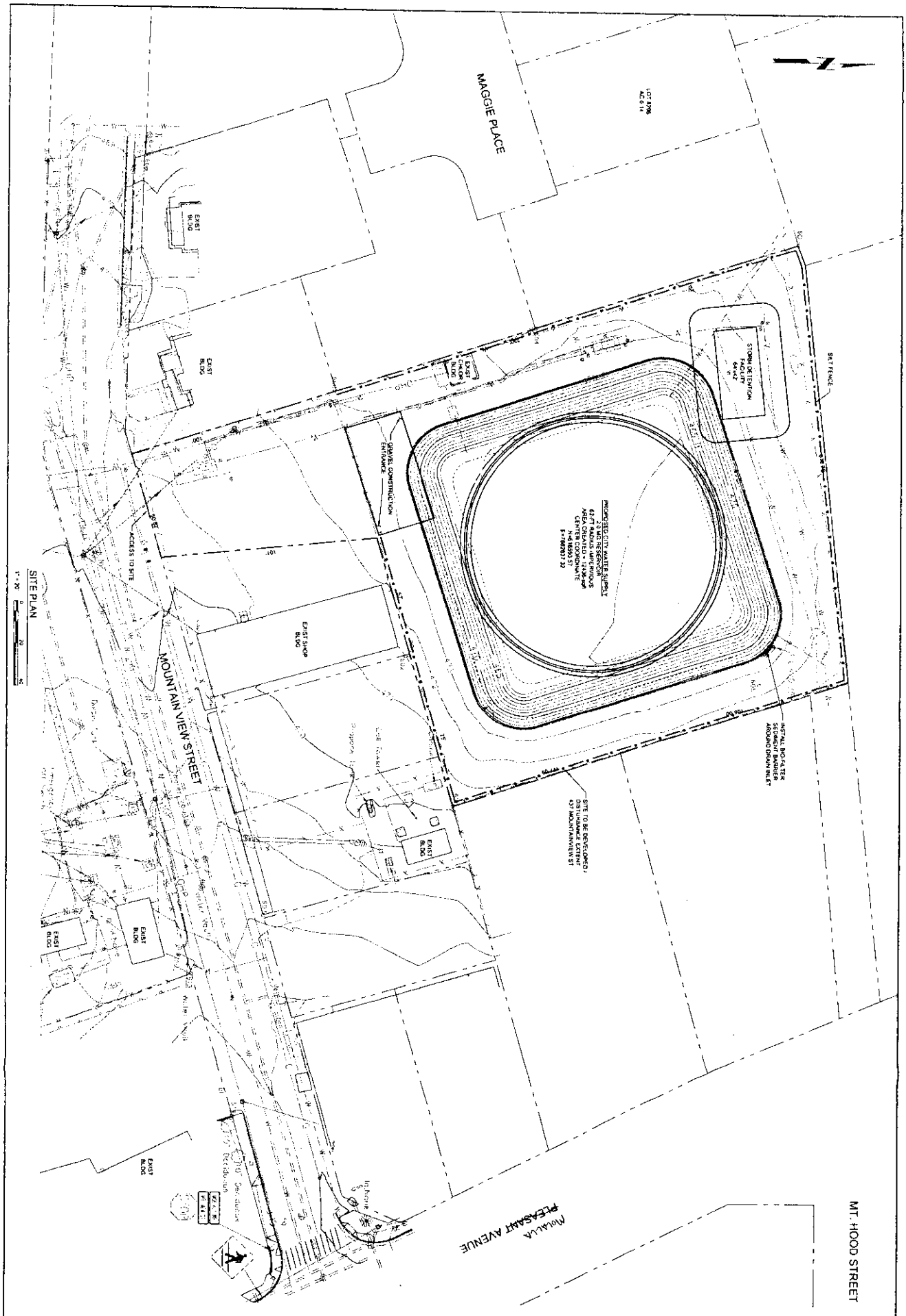
OBEC CONSULTING ENGINEERS
Eugene, Oregon
560-2 | APR 2005
GER | YC
NOTED

NEW 2.0 MG RESERVOIR NO. 1
GENERAL ARRANGEMENT
(ALL ALTERNATES)

CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

DRAWING NUMBER
1
SHEET 1 OF 1

Erosion and Sediment Control Plan



CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

EROSION & SEDIMENT CONTROL PLAN

MOUNTAIN VIEW RESERVIOR NO 1
SITE IMPROVEMNTS

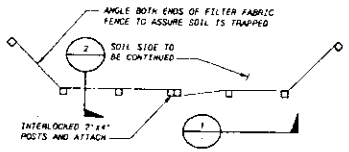
BLACK & VEATCH
Building a world of difference

Black & Veatch Corporation
Portland, Oregon

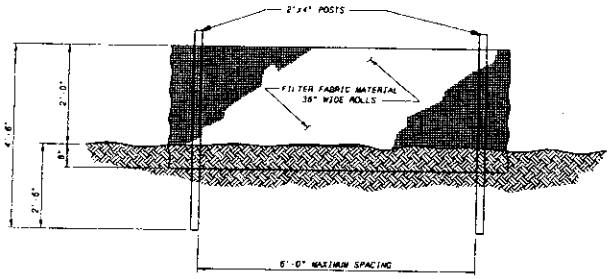
REVISIONS

DRAWING NUMBER

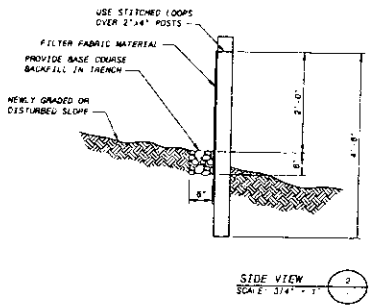
SHEET OF



SILT FENCE PLAN VIEW (A)
NO SCALE



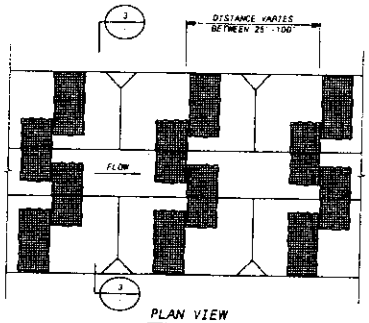
FRONT VIEW (1)
SCALE: 3/4" = 1'



SIDE VIEW (2)
SCALE: 3/4" = 1'

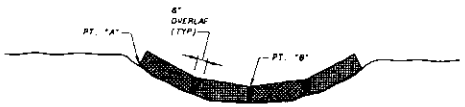
SILT FENCE NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x4" POSTS ARE DOUGLAS FIR OR STEEL FENCE POSTS
3. STITCHED LOOPS TO BE INSTALLED ON DOWNHILL SIDE OF SLOPE
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH



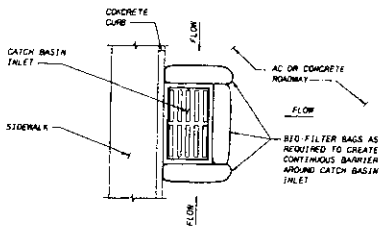
PLAN VIEW

WATERCOURSE
BIO-FILTER BAG SEDIMENT BARRIER (B)
NO SCALE



NOTE:
PT. "A" MUST BE 6" MIN HIGHER THAN PT. "B".

SECTION VIEW (3)
NO SCALE

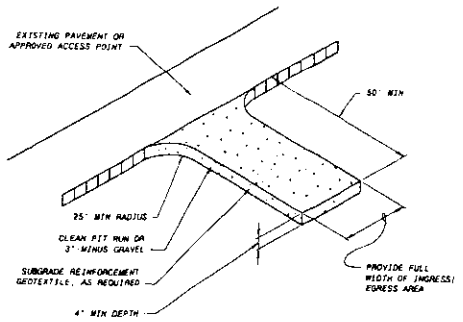


IF CONCRETE CURB NOT PRESENT USE BIO-FILTER BAGS TO FORM CONTINUOUS BARRIER AROUND CATCH BASIN.

CATCH BASIN BIO-FILTER BAG SEDIMENT BARRIER (C)
NO SCALE

BIO-FILTER BAG SEDIMENT BARRIER NOTES:

1. STAKE BAGS USING (2) 2"X2" WOOD STAKES OR APPROVED EQUAL PER BAG.
2. BIO-FILTER BAGS SHALL BE CLEAN 100 PERCENT RECYCLED WOOD PRODUCT WASTE, FREE OF KNOWN HARMFUL SUBSTANCES. SIZE OF BAG SHALL BE 18"x18"x30" AND WEIGH APPROXIMATELY 45 POUNDS, AND MADE OF 1/2" PLASTIC MESH
3. BIO-FILTER BAGS SHALL BE APPLIED TO PROTECT ALL DISTURBED AREAS TO THE SATISFACTION OF ENGINEER.



NOTE: CONTRACTOR TO REMOVE GRAVEL CONSTRUCTION ENTRANCE AT CONCLUSION OF PROJECT AND REPLACE WITH LANDSCAPING PER LANDSCAPING PLAN AND SPECIFICATIONS.

GRAVEL CONSTRUCTION ENTRANCE (D)
NO SCALE

GENERAL
EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PROVIDE FOR EROSION CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. SHOWN EROSION CONTROL MEASURES ARE MINIMUM.
2. CONTRACTOR IS RESPONSIBLE FOR SECURING AN NPDES 1200C PERMIT PER SPECIFICATION.

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EROSION CONTROL DETAILS
MOUNTAIN VIEW RESERVOIR NO. 1
SITE IMPROVEMENTS

CITY OF OREGON CITY
320 WARNER MILNE ROAD
OREGON CITY, OREGON
97045

DRAWING NUMBER

SHEET OF