



# CITY OF West Linn

## PLANNING AND DEVELOPMENT

### STAFF REPORT

### PLANNING DIRECTOR DECISION

DATE: May 16, 2012

FILE NO.: DR-12-10/WAP-12-02

REQUEST: Class I Design Review and Water Resources Area permit for a proposed stormwater detention facility at Cedaroak Primary School at 4515 Cedaroak Drive

PLANNER: Tom Soppe, Associate Planner

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## **SPECIFIC DATA**

**APPLICANT/  
OWNER:**

West Linn-Wilsonville School District, 22210 SW Stafford Rd.,  
Tualatin, OR 97062

**CONSULTANTS:**

Keith Liden, Parsons Brinckerhoff, 400 SW 6<sup>th</sup> Ave., Ste. 802,  
Portland, OR 97204

Nancy Hubbard, Hubbard & Associates, P.O. Box 702, Tualatin, OR  
97062

**SITE LOCATION:**

4515 Cedaroak Drive

**SITE SIZE:**

11.2 acres

**LEGAL  
DESCRIPTION:**

Assessor's Map 2S-1E-24BA Tax Lot 1800

**ZONING:**

R-10

**COMP PLAN  
DESIGNATION:**

Low Density Residential

**APPROVAL  
CRITERIA:**

CDC Chapter 32 Water Resource Area Protection; Chapter 55 Design  
Review; Chapter 11, Single-Family Residential Detached, R-10

**120-DAY RULE:**

The application became complete on April 18, 2012. The 120-day  
period therefore ends on August 16, 2012.

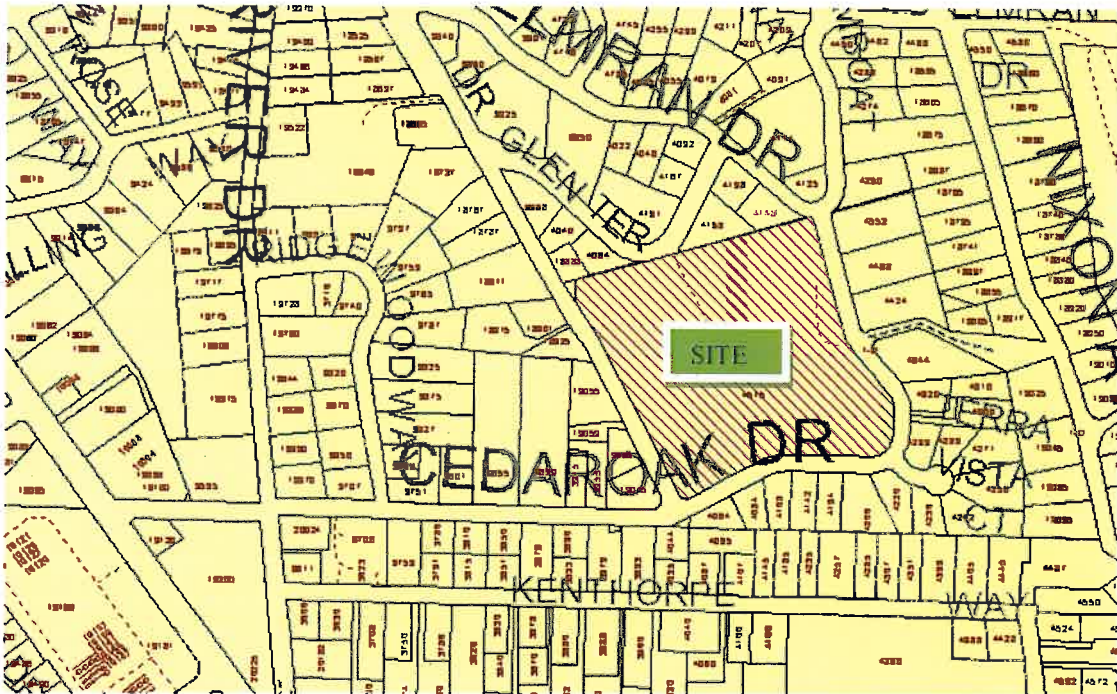
**PUBLIC NOTICE:**

Notice was mailed to property owners within 500 feet of the subject  
property and the Robinwood Neighborhood Association on April 25,  
2012. A sign was posted on the property on April 26, 2012. The  
notice was printed in the West Linn Tidings on May 3, 2012. The  
notice was also posted on the City's website. Therefore, public  
notice requirements of Community Development Code Chapter 99  
have been met.

## **BACKGROUND**

The subject property is shown with red hatch lines on the following map. It is an R-10 zoned parcel located in the Robinwood neighborhood. It is located on a curved section of Cedaroak Drive, so this street borders the site to both the east and north. The front entrance to the school faces the east section of Cedaroak Drive, and the parking lot accesses this section of the street also. Therefore the front of the site is the east side.

Trillium Drive borders the rear or west side of the site. A curve of Glen Terrace tangentially borders part of the north side of the site as well. Cedaroak Primary School has been on this site since the 1950's. It has been expanded and modified with Conditional Use and Design Review permits through the years, the most recent for a trash compactor enclosure (file DR-11-04). As part of previous approvals, some of the impervious surface area runoff that previously drained to the drywell system on site was redirected to be treated and drained to the unnamed creek in the north central area of the site, west of the school building. The current proposal would further reconfigure and update the storm water system on site as a follow-up, and allow the drywell system to be decommissioned completely. See the Project Description section below.



**Vicinity Map**

**Site Conditions.** The 1-story school building takes up much of the central, east-central, and northeastern parts of the site. The parking lot is along the north and east edges of the building, between the building and the boundaries of the site. The south sections of the site consist of playing fields. The playground area is west of the building and north of the playing fields, in the central area of the site. Northwest of this in the north-central area of the site is a drainageway corridor (the unnamed creek mentioned above) lined with trees on both sides. The drainageway begins on this portion of the site and drains out of the site to the north. Another relatively natural area of the site with a mixture of trees and grass is located west of this, in the northwest corner of the site. South of this area and north of the playing fields are a set of tennis courts. See also the Existing Conditions map, Sheet C1.2, on Page 41 of Exhibit PD-4.

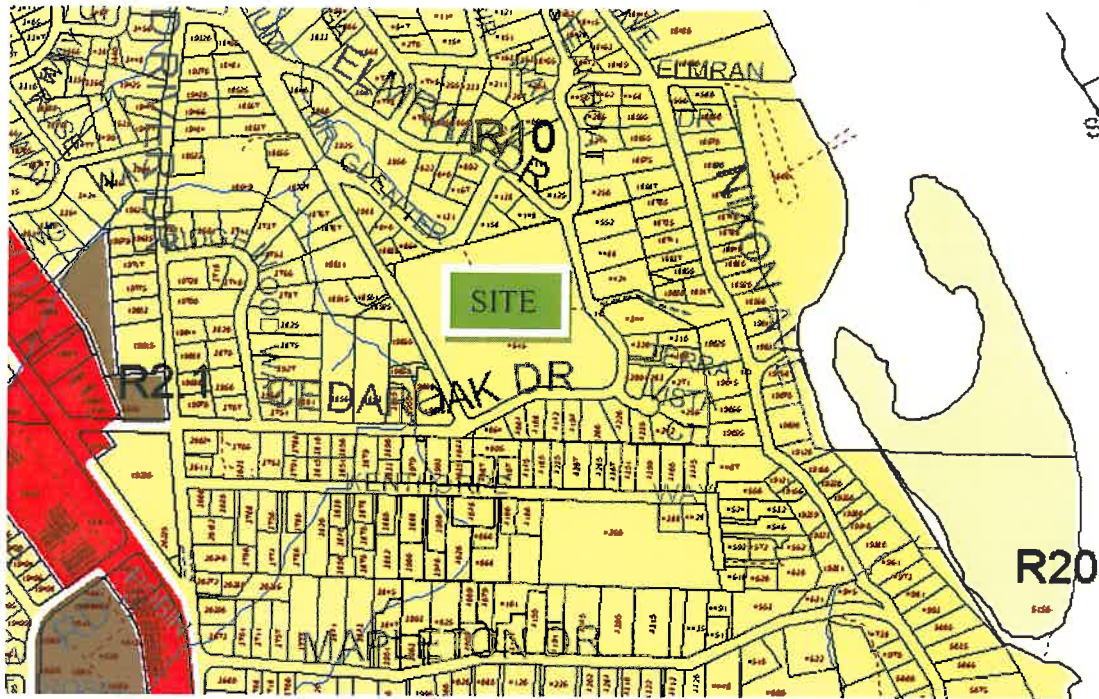
**Project Description.** The proposal calls for installation of a new storm drainage pond southwest of the headwaters of the creek, west of the north end of the playground and

east of the tennis courts (see sheet C1.3 on page 42 of Exhibit PD-4). The applicant proposes to connect the proposed pond to the headwaters of the creek via a pipe and rip-rap. Under the proposal, the remainder of building runoff not currently collected by the previously installed system would be piped to this pond. The piping directing water from the building to the pond is not within the creek transition area. Therefore, unlike part of the pond and all of the pipe to the creek, the piping to the pond is not covered under the provisions of Chapter 32. Fencing is also proposed around the proposed pond.



**Looking from the northeast, the creek headwaters are in the foreground. The proposed pond would take up much of the grassy area behind the trees and in front of the baseball field fence in the background.**





**Vicinity/Zoning Map (Light Yellow is R-10 District; Red is General Commercial)**

Surrounding Land Use. The site is both in and surrounded by the R-10 zone, with single-family residential uses throughout the surrounding area. As can be seen on the Vicinity/Zoning Map above, there are other uses and zones several blocks away.

**Table 1 Surrounding Land Use and Zoning**

DIRECTION FROM SITE	LAND USE	ZONING
North	Single-family residential	R-10
East	Single-family residential, parkland along Willamette River	R-10, R-20
South	Single-family residential, Lake Oswego Water Treatment Plan.	R-10
West	Single-family residential	R-10

**Source:** West Linn GIS, 2012

Approval Criteria. As a site feature including new fences and a new storm water pond, this proposal requires Class I Design Review approval per CDC sections 55.020(C) and (M) respectively, requiring compliance with the criteria of Section 55.090. As part of the proposed pond is within the water resource transition area, and as facilities to drain the pond connect it to the on-site creek, a Water Resource Area permit is required per Section 32.020(B). The site is in the R-10 zone, so Chapter 11 criteria also apply.

Staff finds that the application meets the criteria of chapters 11, 55, and 32, as long as a conservation easement is recorded to protect the areas of the transition area to remain undeveloped (required by Section 32.050[D]) and the fee-in-lieu proposed for mitigation is paid to the Parks Department. Proposed Conditions of Approval 2 and 3 address these issues, respectively.

## **PUBLIC COMMENTS**

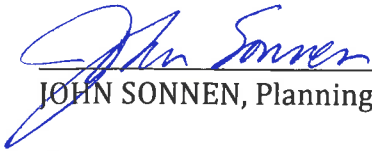
No public comments have been received as of the publishing of this staff report.

## **RECOMMENDATION**

Based on findings contained in the applicant's submittal in the City record and the staff findings, there are sufficient grounds to **approve** this application (DR-12-10/WAP-12-02) subject to the following conditions of approval:

1. Tentative Plan. The improvements shall conform to the Overall Site Plan, Sheet C1.3, on Page 42 of Exhibit PD-4, the Detention Pond Plan, Sheet C3.1 dated April 13, 2012, on page 45 Exhibit PD-4, and Detention Pond Planting Plan, Sheet L1.1, on Page 47 of Exhibit PD-4, dated March 2, 2012, except as modified by these conditions of approval.
2. Conservation Easement. A conservation easement shall be placed over the creek and the areas of the 50-foot transition zone that will remain undeveloped (outside the proposed pond, and the tennis courts). The easement document shall include the City's standard water resource conservation easement language, available from the Planning Department. The applicant shall record the easement with Clackamas County. The edge of the conservation easement, on all sides, shall be identified with City-approved permanent markers at 30- to 50-foot intervals. A City-approved permanent marker shall be placed at each boundary direction change.
3. Mitigation Fee-in-Lieu. The applicant shall pay a fee-in-lieu to the Parks and Recreation Department to fulfill the mitigation requirements of Section 32.070. The fee shall be \$1.00 for every square foot of transition area to be developed with the pond, fencing, and the underground pipe between the pond and the creek. The fee shall be paid before the project's final inspection is approved.

I declare to have no interest in the outcome of this decision due to some past or present involvement with the applicant, the subject property, or surrounding properties, and therefore, can render an impartial decision. The provisions of the Community Development Code Chapter 99 have been met.

  
JOHN SONNEN, Planning Director

May 16, 2012  
DATE

Appeals to this decision must be filed with the West Linn Planning Department within 14 days of mailing date. Cost is \$400. The appeal must be filed by an individual who has established standing by submitting comments prior to or on May 16, 2012.

Mailed this 17<sup>th</sup> day of May, 2012.

Therefore, the 14-day appeal period ends at 5 p.m., on

May 31, 2012

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# ADDENDUM

## APPROVAL CRITERIA AND FINDINGS

### DR-12-10/WAP-12-01

Staff recommends adoption of the findings for approval contained within the applicant's submittal, with the following exceptions and additions:

#### **Chapter 11 SINGLE-FAMILY RESIDENTIAL DETACHED, R-10**

##### **11.060 CONDITIONAL USES**

*The following are conditional uses which may be allowed in this zoning district subject to the provisions of Chapter 60 CDC, Conditional Uses.*

##### *7. Schools.*

##### **FINDING NO. 1:**

The site has accommodated a school since the 1950's, before the current Community Development Code existed. It has been modified via Conditional Use and Design Review permits in the more recent past, the most recent ones being for the library expansion (file CUP-10-01/DR-10-02/VAR-10-03/MISC-10-05) and the trash compactor enclosure (file DR-11-04). The proposal would not enlarge, alter, or intensify the conditional use itself but rather adds facilities that require design review for aesthetic reasons, require a Water Resource Area permit for environmental reasons, and help reconfigure the existing storm water collection system. Therefore only Design Review and the Water Resource Area approvals are required, not a Conditional Use approval. The conditional use is legally established already. The criterion is met.

##### **11.070 DIMENSIONAL REQUIREMENTS, USES PERMITTED OUTRIGHT AND USES PERMITTED UNDER PRESCRIBED CONDITIONS**

##### **11.080 DIMENSIONAL REQUIREMENTS, CONDITIONAL USES**

*Except as may otherwise be established by this code, the appropriate lot size for a conditional use shall be determined by the approval authority at the time of consideration of the application based upon the criteria set forth in CDC 60.070(A) and (B).*

##### **FINDING NO. 2:**

The large site continues to be appropriate for a school of this size, including upon the addition of a new storm water pond. The criterion is met.



## **CHAPTER 55**

### **DESIGN REVIEW**

#### **55.090 APPROVAL STANDARDS – CLASS I DESIGN REVIEW**

*The Planning Director shall make a finding with respect to the following criteria when approving, approving with conditions, or denying a Class I design review application:*

*A. The provisions of the following sections shall be met:*

*1. CDC 55.100(B)(1) through (4), Relationship to the natural and physical environment, shall apply except in those cases where the proposed development site is substantially developed and built out with no remaining natural physical features that would be impacted.*

*2. CDC 55.100(B)(5) and (6), architecture, et al., shall only apply in those cases that involve exterior architectural construction, remodeling, or changes.*

*3. Pursuant to CDC 55.085, the Director may require additional information and responses to additional sections of the approval criteria of this section depending upon the type of application.*

#### **FINDING NO. 3:**

Subsections 55.100(B)(5) and (6) do not apply as architectural work is not proposed. Applicant findings to subsections 55.100(B)(1) through (4) can be found on page 35 of Exhibit PD-4, and staff findings to the appropriate subsections constitute findings 9-10 below. Per Subsection (3) above, the applicant has responded to additional approval criteria sections from 55.100 as requested by staff. These are addressed on pages 35-36 of Exhibit PD-4 in the applicant's findings and below in staff findings 6-8 and 11-13.

*B. An application may be approved only if adequate public facilities will be available to provide service to the property at the time of occupancy.*

#### **FINDING NO. 4:**

Public facilities will be adequate to serve the project.

*C. The Planning Director shall determine the applicability of the approval criteria in subsection A of this section.*

#### **FINDING NO. 5:**

Subsections 55.100(B)(2-4) are applicable as development is proposed on a small area of land where there is none now. Subsection 55.100(B)(1) is not applicable as there are no heritage trees, and Subsections 55.100(B)(5-6) are not applicable as no architectural work is proposed. Applicant findings to subsections 55.100(B)(1) through (4) can be

found on Page 36 of Exhibit PD-4, and staff findings to the appropriate subsections constitute findings 9-10 below.

## **55.100 APPROVAL STANDARDS – CLASS II DESIGN REVIEW**

*The approval authority shall make findings with respect to the following criteria when approving, approving with conditions, or denying a Class II design review application.*

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

1. *Chapter 33 CDC, Stormwater Quality and Detention.*

### **FINDING NO. 6:**

Staff accepts the applicant's finding on Page 35 of Exhibit PD-4 that the proposed system will be installed and maintained in a manner compatible with Chapter 33.

6. *Chapter 44 CDC, Fences.*

### **FINDING NO. 7:**

The City generally prefers ponds to not have fences, for aesthetic reasons. However this pond is deep within a large school site, and a fence around the 6-foot-deep pond would make children more safe. The fence proposed is 4 feet tall and is not within a front setback, so it meets the criteria of Chapter 44.

10. *Chapter 54 CDC, Landscaping.*

*54.020(E)(2). Non-residential uses. A minimum of 20 percent of the gross site area shall be landscaped. Parking lot landscaping may be counted in the percentage.*

### **FINDING NO. 8:**

Well over 20% of the site will still be landscaped after installation of the pond. This and other provisions of Chapter 54 are met.

B. *Relationship to the natural and physical environment.*

2. *All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. In cases where there is a difference of opinion on the significance of a tree or tree cluster, the City Arborist's findings shall prevail. It is important to acknowledge that all trees are not significant and, further, that this code section will not necessarily protect all trees deemed significant.*

*a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by either the dedication of these areas or establishing tree conservation easements. Development of Type I and II lands shall require the careful layout of streets, driveways, building pads, lots, and utilities to avoid heritage trees and significant trees and tree clusters, and other natural resources pursuant to this code. The method for delineating the protected trees or tree clusters (“dripline + 10 feet”) is explained in subsection (B)(2)(b) of this section. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply.*

*b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees. Therefore, in the event that the City Arborist determines that a significant tree cluster exists at a development site, then up to 20 percent of the non-Type I and II lands shall be devoted to the protection of those trees, either by dedication or easement. The exact percentage is determined by establishing the driplines of the trees or tree clusters that are to be protected. In order to protect the roots which typically extend further, an additional 10-foot measurement beyond the dripline shall be added. The square footage of the area inside this “dripline plus 10 feet” measurement shall be the basis for calculating the percentage (see figure below). The City Arborist will identify which tree(s) are to be protected. Development of non-Type I and II lands shall also require the careful layout of streets, driveways, building pads, lots, and utilities to avoid significant trees, tree clusters, heritage trees, and other natural resources pursuant to this code. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply. Please note that in the event that more than 20 percent of the non-Type I and II lands comprise significant trees or tree clusters, the developer shall not be required to save the excess trees, but is encouraged to do so.*

**FINDING NO. 9:**

No trees will be removed. The criteria are met.

*3. The topography and natural drainage shall be preserved to the greatest degree possible.*

*4. The structures shall not be located in areas subject to slumping and sliding. The Comprehensive Plan Background Report’s Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination.*

**FINDING NO. 10:**

The topography is relatively level, but there is a general basin effect towards the stream. By collecting the storm water from the buildings on site and draining it into the stream, the proposed pond would respect the topography and natural drainage. The only

structure proposed is the fencing. The site is not in a landslide hazard area or landslide vulnerability area according to the City's Natural Hazards Mitigation Plan.

C. Compatibility between adjoining uses, buffering, and screening.

1. *In addition to the compatibility requirements contained in Chapter 24 CDC, buffering shall be provided between different types of land uses; for example, buffering between single-family homes and apartment blocks. However, no buffering is required between single-family homes and duplexes or single-family attached units. The following factors shall be considered in determining the adequacy of the type and extent of the buffer:*

- a. *The purpose of the buffer, for example to decrease noise levels, absorb air pollution, filter dust, or to provide a visual barrier.*
- b. *The size of the buffer required to achieve the purpose in terms of width and height.*
- c. *The direction(s) from which buffering is needed.*
- d. *The required density of the buffering.*
- e. *Whether the viewer is stationary or mobile.*

**FINDING NO. 11:**

The proposed storm pond and fencing are deep within the site, and buffered from the west by tennis courts, from the south by the play areas, from the east by the buildings, and from the north by the wooded creek corridor. Further buffering and screening are not needed.

1. Public facilities. *An application may only be approved if adequate public facilities will be available to provide service to the property prior to occupancy.*

2. Drainage. *A registered civil engineer shall prepare a plan and statement which shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts. The plan and statement shall, at a minimum, determine off-site impacts from a 25-year storm. The City Engineer shall adjust storm drainage facilities for applications which contain permeable parking surfaces based upon a quantitative analysis of the increased water retention and water quality characteristics of the permeable parking surface.*

*Catch basins shall be installed and connected to pipelines leading to storm sewers or drainageways.*

*All plans will then be reviewed by the City Engineer.*

**FINDING NO. 12:**

The plans have been prepared by a registered civil engineer. City Engineering will review the plans as part of the building permit process. The proposed system handles only existing impervious surfaces, as none more are proposed. It represents an improvement in storm water treatment and detention over the previous system. Pipelines connect runoff to the pond, which drains to the creek through another pipe. The criterion is met.

*J. Crime prevention and safety/defensible space.*

*8. Security fences for utilities (e.g., power transformers, pump stations, pipeline control equipment, etc.) or wireless communication facilities may be up to eight feet tall in order to protect public safety. No variances are required regardless of location.*

**FINDING NO. 13:**

The fence will be 4 feet tall, meeting this criterion.

**32.050 APPROVAL CRITERIA**

*No application for development on property containing a water resource area shall be approved unless the decision-making authority finds that the following standards have been satisfied, or can be satisfied by conditions of approval.*

*A. Proposed development submittals shall identify all water resource areas on the project site. The most currently adopted Surface Water Management Plan shall be used as the basis for determining existence of drainageways. The exact location of drainageways identified in the Surface Water Management Plan, and drainageway classification (e.g., open channel vs. enclosed storm drains), may have to be verified in the field by the City Engineer. The Local Wetlands Inventory shall be used as the basis for determining existence of wetlands. The exact location of wetlands identified in the Local Wetlands Inventory on the subject property shall be verified in a wetlands delineation analysis prepared for the applicant by a certified wetlands specialist. The Riparian Corridor Inventory shall be used as the basis for determining existence of riparian corridors.*

**FINDING NO. 14:**

The submittal identifies the unnamed stream on site, and the 50-foot transition area of the stream.

*B. Proposed developments shall be so designed as to maintain the existing natural drainageways and utilize them as the primary method of stormwater conveyance through the project site unless the most recently adopted West Linn Surface Water Management Plan calls for alternate configurations (culverts, piping, etc.). Proposed development shall, particularly in the case of subdivisions, facilitate reasonable access to the drainageway for maintenance purposes.*



**FINDING NO. 15:**

The project would redirect the school building runoff from the drywell system to the proposed pond, which would drain to the natural drainageway headwaters on site. The criterion is met.

*C. Development shall be conducted in a manner that will minimize adverse impact on water resource areas. Alternatives which avoid all adverse environmental impacts associated with the proposed action shall be considered first. For unavoidable adverse environmental impacts, alternatives that reduce or minimize these impacts shall be selected. If any portion of the water quality resource area is proposed to be permanently disturbed, the applicant shall prepare a mitigation plan as specified in CDC 32.070 designed to restore disturbed areas, either existing prior to development or disturbed as a result of the development project, to a healthy natural state.*

**FINDING NO. 16:**

The pond is proposed partially in the transition area, but treatment facilities are allowed to encroach 25 feet into the transition area, per (M) below. See Finding 23 below. The facility will not encroach more than 25 feet into the 50-foot-wide transition area. It is proposed in a part of the transition area that consists of grass rather than trees, wetlands, or riparian vegetation. Mitigation is proposed for this area, and for the area affected by the pipe proposed to drain pond water to the creek. The criterion is met.

*D. Water resource areas shall be protected from development or encroachment by dedicating the land title deed to the City for public open space purposes if either: (1) a finding can be made that the dedication is roughly proportional to the impact of the development; or (2) the applicant chooses to dedicate these areas. Otherwise, these areas shall be preserved through a protective easement. Protective or conservation easements are not preferred because water resource areas protected by easements have been shown to be harder to manage and, thus, more susceptible to disturbance and damage. Required 15-foot-wide structural setback areas do not require preservation by easement or dedication.*

**FINDING NO. 17:**

The only development proposed is the pond and associated piping and fencing, so the finding cannot be made that land should be dedicated fee simple to the City in rough proportionality to the proposed development. Therefore a conservation easement is appropriate for all areas of the 50-foot setback that would remain undeveloped. Proposed Condition of Approval 2 requires this.

*E. The protected water resource area shall include the drainage channel, creek, wetlands, and the required setback and transition area. The setback and transition area shall be determined using the following table:*

**FINDING NO. 18:**

The stormwater treatment and detention facility would encroach just under 25 feet into the transition area, as allowed by Section (M) below. A narrow underground pipe is

proposed to connect this to the creek. Otherwise, the required 50-foot transition area and the creek will not be modified.

*F. Roads, driveways, utilities, or passive use recreation facilities may be built in and across water resource areas when no other practical alternative exists. Construction shall minimize impacts. Construction to the minimum dimensional standards for roads is required. Full mitigation and revegetation is required, with the applicant to submit a mitigation plan pursuant to CDC 32.070 and a revegetation plan pursuant to CDC 32.080. The maximum disturbance width for utility corridors is as follows:*

- 1. For utility facility connections to utility facilities, no greater than 10 feet wide.*
- 2. For upgrade of existing utility facilities, no greater than 15 feet wide.*
- 3. For new underground utility facilities, no greater than 25 feet wide, and disturbance of no more than 200 linear feet of water quality resource area, or 20 percent of the total linear feet of water quality resource area, whichever is greater.*

**FINDING NO. 19:**

The stormwater treatment and detention facility encroaches just under 25 feet into the transition area, as allowed by Section (M) below. See Finding 23. A narrow pipe, compliant with the above dimensional criteria, connects the facility to the creek. The criteria are met.

*G. Prior to construction, the water resource area shall be protected with an anchored chain link fence (or approved equivalent) at its perimeter and shall remain undisturbed except as specifically allowed by an approved water resource area permit. Such fencing shall be maintained until construction is complete. The water resource area shall be identified with City-approved permanent markers at all boundary direction changes and at 30- to 50-foot intervals that clearly delineate the extent of the protected area.*

**FINDING NO. 20:**

The applicant will install fencing during the construction phase. Condition of Approval 2 ensures that the required conservation easement (which is to be placed over the undeveloped areas of the 50-foot creek setback) will have its boundary marked at 30- to 50-foot intervals, and will have its boundary direction changes marked with City-approved signage.

*I. Sound engineering principles regarding downstream impacts, soil stabilization, erosion control, and adequacy of improvements to accommodate the intended drainage through the drainage basin shall be used. Storm drainage shall not be diverted from its natural watercourse. Inter-basin transfers of storm drainage shall not be permitted.*

*J. Appropriate erosion control measures based on Chapter 31 CDC requirements shall be established throughout all phases of construction.*

**FINDING NO. 21:**

Appropriate erosion control measures will be established and sound engineering principles used. There will be no inter-basin transfers. The storm water from the building will be directed to this basin's natural drainageway instead of the drywells.

*K. Vegetative improvements to areas within the water resource area may be required if the site is found to be in an unhealthy or disturbed state, or if portions of the site within the water resource area are disturbed during the development process. "Unhealthy or disturbed" includes those sites that have a combination of native trees, shrubs, and groundcover on less than 80 percent of the water resource area and less than 50 percent tree canopy coverage in the water resource area. Vegetative improvements will be documented by submitting a revegetation plan meeting CDC 32.080 criteria that will result in the water resource area having a combination of native trees, shrubs, and groundcover on more than 80 percent of its area, and more than 50 percent tree canopy coverage in its area. Where any existing vegetation is proposed to be permanently removed, or the original land contours disturbed, a mitigation plan meeting CDC 32.070 criteria shall also be submitted. Interim erosion control measures such as mulching shall be used to avoid erosion on bare areas. Upon approval of the mitigation plan, the applicant is responsible for implementing the plan during the next available planting season.*

**FINDING NO. 22:**

Tree canopy coverage exceeds 50% in the water resource area on site, so vegetative improvements, besides the revegetation plan for temporarily disturbed areas (see Finding 28 below), are not required.

*M. Stormwater treatment facilities may only encroach a maximum of 25 feet into the outside boundary of the water resource area; and the area of encroachment must be replaced by adding an equal area to the water quality resource area on the subject property. Facilities that infiltrate stormwater on site, including the associated piping, may be placed at any point within the water resource area outside of the actual drainage course so long as the forest canopy and the areas within 10 feet of the driplines of significant trees are not disturbed. Only native vegetation may be planted in these facilities.*

**FINDING NO. 23:**

As stated by the applicant on in their finding related to Chapter 33, "some level of storm water treatment will be provided by the storm water pond." Therefore the pond is a stormwater treatment facility and is allowed to encroach a maximum of 25 feet into the water resource area. It falls just short of encroaching 25 feet into the transition area. The criterion is met.

**32.070 MITIGATION PLAN**

*A mitigation plan shall be required if any portion of the water resource area is proposed to be permanently disturbed by development.*

*A. All mitigation plans must contain an alternatives analysis demonstrating that:*

1. *No practicable alternatives to the requested development exist that will not disturb the water resource area; and*
2. *Development in the water resource area has been limited to the area necessary to allow for the proposed use; and*
3. *An explanation of the rationale behind choosing the alternative selected, including how adverse impacts to the water resource area will be avoided and/or minimized.*

**FINDING NO. 24:**

32.050(M) allows stormwater treatment facilities to encroach 25 feet into the transition area, with proper mitigation per 32.070's provisions. The location of the proposed facility encroaches less than 25 feet into the 50-foot transition area. A large majority of the facility is outside the transition area. Due to the location of existing play areas, tennis courts, and baseball fields, the area selected for the pond is the only area available on site that works with the natural drainage of the site to properly transmit building runoff to the creek. The criteria are met.

*B. A mitigation plan shall contain the following information:*

1. *A description of adverse impacts that will be caused as a result of development.*
2. *An explanation of how adverse impacts to resource areas will be avoided, minimized, and/or mitigated in accordance with, but not limited to, the revegetation provisions of CDC 32.050(K).*
3. *A list of all responsible parties including, but not limited to, the owner, applicant, contractor, or other persons responsible for work on the development site.*
4. *A map showing where the specific mitigation activities will occur.*
5. *An implementation schedule, including timeline for construction, mitigation, mitigation maintenance, monitoring, reporting, and a contingency plan. All in-stream work in fish-bearing streams shall be done in accordance with the Oregon Department of Fish and Wildlife water work periods.*
6. *Assurances shall be established to rectify any mitigation actions that are not successful. This may include bonding or other surety.*

**FINDING NO. 25:**

The applicant's finding on Page 38 of Exhibit PD-4 seems to be referring accidentally to the other proposed school district, DR-12-09/WAP-12-01 at Bolton School, as it refers to bank stabilization. However it correctly refers to the applicant's plans to work with the Parks Department to pursue a fee-in-lieu for off-site mitigation done by Parks. The adverse impacts are the placement of part of a storm pond and associated fencing in a

vegetated area of the 50-foot transition area. No trees will be removed. A revegetation plan is provided on Sheet L1.1 on Page 47 of Exhibit PD-4 for temporarily disturbed areas. Due to the fee-in-lieu proposal, the schedule and location of the mitigation are not known, but the Parks Department will add the fee to pooled funds to provide for appropriate mitigation, as part of larger-scale restoration projects. This is beneficial in that these larger restoration projects have the greatest possible lasting impact on the environment, compared to smaller individual projects that would otherwise be fulfilled through the process set forth by Section 32.070. Condition of Approval 3 requires the properly calculated fee-in-lieu be paid before the project's final inspection.

*C. Mitigation of any water resource areas that are not wetlands that are permanently disturbed shall be accomplished by creation of a mitigation area equal in size to the area being disturbed. Mitigation areas may be land that is either:*

- 1. On site, not within the water resource area, and is characterized by existing vegetation that does not meet the standard set forth in CDC 32.050(K); or*
- 2. Off site, and is characterized by existing vegetation that does not meet the standard set forth in CDC 32.050(K).*

*The applicant shall prepare and implement a revegetation plan for the mitigation area pursuant to CDC 32.080, and which shall result in the area meeting the standards set forth in CDC 32.050(K). Adequacy of off-site mitigation areas on City property must be consistent with and meet approval of the City Department of Parks and Recreation. Any off-site mitigation occurring on privately owned land shall be protected with a conservation easement.*

**FINDING NO. 26:**

The applicant proposes off-site mitigation via a fee-in-lieu to the Parks Department to pool with other funds for larger restoration projects. Since the location of the mitigation is not known and will be done by the Park Department, it is not possible for the applicant to submit the revegetation plan for a mitigation area. The mitigation will be done on public land, so the conservation easement is not relevant.

*E. To ensure that the mitigation area will be protected in perpetuity, proof that the area has been dedicated to the City or that a conservation easement has been placed on the property where the mitigation is to occur is required. (Ord. 1545, 2007)*

**FINDING NO. 27:**

Mitigation will occur on City property as it is being fulfilled via a fee-in-lieu to the Parks Department.

**32.080 REVEGETATION PLAN REQUIREMENTS**

*Metro's Native Plant List is incorporated by reference as a part of this chapter, and all plants used in revegetation plans shall be plants found on the Metro Native Plant List.*



*Performance standards for planting upland, riparian and wetland plants include the following:*

*A. Native trees and shrubs will require temporary irrigation from June 15th to October 15th for the three years following planting.*

*B. Invasive non-native or noxious vegetation shall be removed within the area to be revegetated prior to planting.*

*C. Replacement trees must be at least one-half inch in caliper, measured at six inches above the ground level for field grown trees or above the soil line for container grown trees (the one-half inch minimum size may be an average caliper measure, recognizing that trees are not uniformly round) unless they are oak or madrone, which may be one-gallon size. Shrubs must be in at least a one-gallon container or the equivalent in ball and burlap and must be at least 12 inches in height.*

*D. Trees shall be planted between eight and 12 feet on center and shrubs shall be planted between four and five feet on center, or clustered in single species groups of no more than four plants, with each cluster planted between eight and 10 feet on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing requirements.*

*E. Shrubs must consist of at least two different species. If 10 trees or more are planted, then no more than 50 percent of the trees may be of the same species.*

*F. The responsible party shall provide an appropriate level of assurance documenting that 80 percent survival of the plants has been achieved after three years, and shall provide annual reports to the Planning Director on the status of the revegetation plan during the three-year period.*

**FINDING NO. 28:**

Temporary irrigation will be provided, and non-native plants in the affected area will be removed and replaced with natives. No trees will be removed. Proposed trees and plant species are compatible with the requirements of density and species variety in this criteria. This can be seen on Sheet L1.1, Page 47 of Exhibit PD-4. The district will maintain and report on the plants as required by (F). See also the applicant's findings on Page 39 of Exhibit PD-4.

# EXHIBITS

PD-1	AFFADAVIT OF NOTICE .....	19
PD-2	NOTICE MAILING PACKET.....	20-26
PD-3	COMPLETENESS LETTER.....	27
PD-4	APPLICANT'S SUBMITTAL.....	28-47

**AFFIDAVIT OF NOTICE**

We, the undersigned do hereby certify that, in the interest of the party (parties) initiating a proposed land use, the following took place on the dates indicated below:

**GENERAL**

File No. SR-12-10/WAP-12-02 Applicant's Name WLWV School Dist / Tim Woodley  
Development Name Cedarook Park Primary School  
Scheduled Meeting/Decision Date May 16, 2012

**NOTICE:** Notices were sent at least 20 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

**TYPE A**

- A. The applicant (date) 4-25-12 (signed) S. Skoyev
- B. Affected property owners (date) 4-25-12 (signed) S. Skoyev
- C. School District/Board (date) \_\_\_\_\_ (signed) \_\_\_\_\_
- D. Other affected gov't. agencies (date) 4-25-12 (signed) S. Skoyev
- E. Affected neighborhood assns. (date) 4-25-12 (signed) S. Skoyev
- F. All parties to an appeal or review (date) \_\_\_\_\_ (signed) \_\_\_\_\_

At least 10 days prior to the scheduled hearing or meeting, notice was published/posted:

Tidings (published date) 5-3-12 (signed) S. Skoyev  
City's website (posted date) 4-25-12 (signed) S. Skoyev

**SIGN**

At least 10 days prior to the scheduled hearing, meeting or decision date, a sign was posted on the property per Section 99.080 of the Community Development Code.

(date) 4-26-12 (signed) [Signature]

**NOTICE:** Notices were sent at least 14 days prior to the scheduled hearing, meeting, or decision date per Section 99.080 of the Community Development Code. (check below)

**TYPE B**

- A. The applicant (date) \_\_\_\_\_ (signed) \_\_\_\_\_
- B. Affected property owners (date) \_\_\_\_\_ (signed) \_\_\_\_\_
- C. School District/Board (date) \_\_\_\_\_ (signed) \_\_\_\_\_
- D. Other affected gov't. agencies (date) \_\_\_\_\_ (signed) \_\_\_\_\_
- E. Affected neighborhood assns. (date) \_\_\_\_\_ (signed) \_\_\_\_\_

Notice was posted on the City's website at least 10 days prior to the scheduled hearing or meeting.

Date: \_\_\_\_\_ (signed) \_\_\_\_\_

**STAFF REPORT** mailed to applicant, City Council/Planning Commission and any other applicable parties 10 days prior to the scheduled hearing.

(date) \_\_\_\_\_ (signed) \_\_\_\_\_

**FINAL DECISION** notice mailed to applicant, all other parties with standing, and, if zone change, the County surveyor's office.

(date) 5-17-12 (signed) S. Skoyev

**CITY OF WEST LINN  
PLANNING DIRECTOR DECISION**

**FILE NO. DR-12-10/WAP-12-02**

The West Linn Planning Director is considering a request for a Water Resources Area permit and Class I Design Review approval for a new stormwater pond and associated piping, located partially within the water resource area, at Cedaroak Primary School at 4515 Cedaroak Drive. Class I Design Review is necessary for upgrades to the stormwater detention system and for new fencing. The Water Resources Area permit is required for development within the 50-foot transition area of the stream on site. The decision will be based on the approval criteria in chapters 32 and 55 of the Community Development Code (CDC). The approval criteria from the CDC are available for review at City Hall, at the City Library, and at <http://www.westlinnoregon.gov/cdc>.

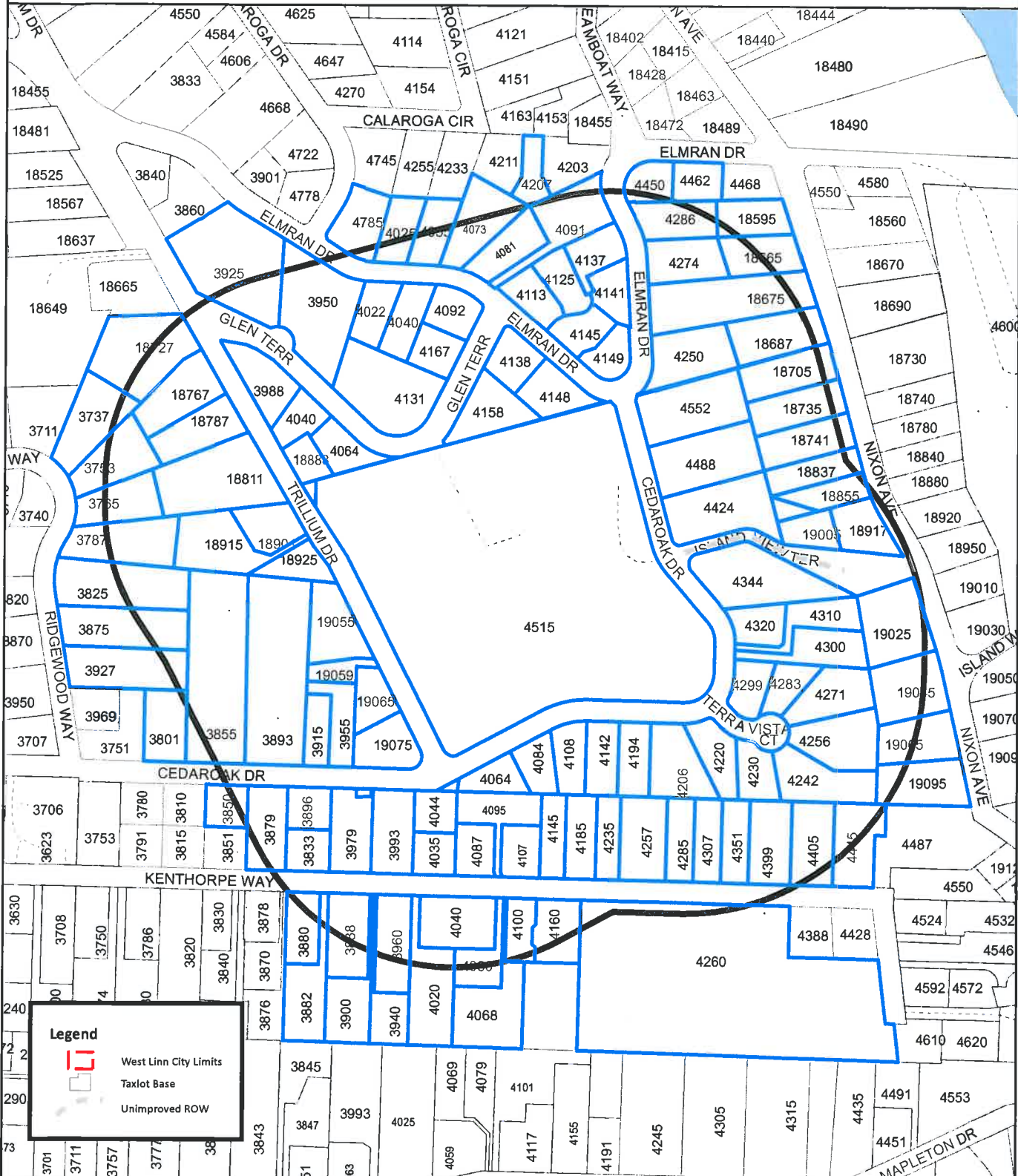
The property is located at Tax Lot 1800 of Clackamas County Assessor's Map 2-1E-24BA. You have received this notice because you own property within 500 feet of this property or as otherwise required by the CDC.

All relevant materials in the above noted file are available for inspection at no cost at City Hall, and on the city web site at <http://westlinnoregon.gov/planning/4515-cedaroak-dr-class-1-design-review-water-resource-area-protection-storm-drain-improveme> or copies may be obtained for a minimal charge per page. Although there is no public hearing, your comments and ideas are invited and can definitely influence the final decision of the Planning Director. Planning staff looks forward to discussing the application with you. **The final decision is expected to be made on, and no earlier than, May 16, 2012**, so please get in touch with us prior to this date. For further information, please contact Tom Soppe, Associate Planner, City Hall, 22500 Salamo Rd., West Linn, OR 97068, (503) 742-8660, [tsoppe@westlinnoregon.gov](mailto:tsoppe@westlinnoregon.gov)




Any appeals to this decision must be filed within 14 days of the final decision date with the Planning Department. Failure to raise an issue in person or by letter, or failure to provide sufficient specificity to afford the decision-maker an opportunity to respond to the issue, precludes the raising of the issue at a subsequent time on appeal or before the Land Use Board of Appeals.

SHAUNA SHROYER  
Planning Administrative Assistant

# DR-12-10/WAP-12-02 Notice 500' Buffer



**Legend**

-  West Linn City Limits
-  Taxlot Base
-  Unimproved ROW

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Taxlot Base Source: Clackamas County GIS

NOT TO SCALE



SNAPNOTIFY.MXD / AHA APP 3-24-2011

User Name:  
Map Creation Date: Apr 23, 2012



✓ BAKER THOMAS C  
PO BOX 157  
EAGLE CREEK, OR 97022

✓ BALES SHIRLEY A TRUSTEE  
18855 NIXON AVE  
WEST LINN, OR 97068

✓ BALTAZAR ROBERT D & SHIRLEY L  
4220 TERRA VISTA CT  
WEST LINN, OR 97068

✓ BARTLEY PATRICIA F TRUSTEE  
4310 CEDAROAK DR  
WEST LINN, OR 97068

✓ BEECHLER GEORGE J & TAMERA L  
7287 SW LINETTE WAY  
BEAVERTON, OR 97007

✓ BELL MARTY C TRUSTEE  
4552 CEDAROAK DR  
WEST LINN, OR 97068

✓ BERGER MICHAEL J & PEGGY E  
4081 ELMRAN DR  
WEST LINN, OR 97068

✓ BURNS DENNEL G  
4351 KENTHORPE WAY  
WEST LINN, OR 97068

✓ BYER JACKIE M  
4283 TERRA VISTA CT  
WEST LINN, OR 97068

✓ CANYON DEVELOPMENT LLC  
PO BOX 42310  
PORTLAND, OR 97242

✓ CARLSON ERIC R & MARYANNE  
3875 RIDGEWOOD WAY  
WEST LINN, OR 97068

✓ CITY OF LAKE OSWEGO  
PO BOX 369  
LAKE OSWEGO, OR 97034

✓ CLIFTON KENNETH E & LISA M  
3765 RIDGEWOOD WAY  
WEST LINN, OR 97068

✓ COKER RUSSELL ARTHUR & PEGGY M  
3950 ELMRAN DR  
WEST LINN, OR 97068

✓ CONKLE LEO E TRUSTEE  
4307 KENTHORPE WAY  
WEST LINN, OR 97068

✓ CROY LOU ANN LIVING TRUST  
4399 KENTHORPE WAY  
WEST LINN, OR 97068

✓ CURTISS ALAN C & JACQUELYN M  
18812 UPPER MIDHILL DR  
WEST LINN, OR 97068

✓ DASSO JAMES F TRUSTEE  
3893 CEDAROAK DR  
WEST LINN, OR 97068

✓ DAVIDS DORIS J TRUSTEE  
18767 TRILLIUM DR  
WEST LINN, OR 97068

✓ DEAN DENNIS G & CHERYL V WIDEMAN  
3988 GLEN TER  
WEST LINN, OR 97068

✓ DELANO RAMONA CO-TRUSTEE  
3737 RIDGEWOOD WAY  
WEST LINN, OR 97068

✓ DELUCA RAYNOLD E JR & DEBRA A  
4206 CEDAROAK DR  
WEST LINN, OR 97068

✓ DENEKAS BRIAN D & NAOMI K  
4131 GLEN TER  
WEST LINN, OR 97068

✓ DONOVAN KEVIN & DIANA KENDALL  
4250 ELMRAN DR  
WEST LINN, OR 97068

✓ DULY DEBORAH M  
18888 TRILLIUM DR  
WEST LINN, OR 97068

✓ DURHAM KATHERINE A  
3833 KENTHORPE WAY  
WEST LINN, OR 97068

✓ FASTABEND RANDALL J & CORINN  
BROWN  
18787 TRILLIUM DR  
WEST LINN, OR 97068

✓ FLETTER ALEXANDER H  
18917 NIXON AVE  
WEST LINN, OR 97068

✓ FOSBERG DAVID  
4055 ELMRAN DR  
WEST LINN, OR 97068

✓ FUNK DUANE H  
4405 KENTHORPE WAY  
WEST LINN, OR 97068

✓GEORGE PETER W & DIANE M  
4445 KENTHORPE WAY  
WEST LINN, OR 97068

✓GERBER SCOTT  
3940 KENTHORPE WAY  
WEST LINN, OR 97068

✓GOLDSCHMIDT JOSHUA A  
3960 KENTHORPE WAY  
WEST LINN, OR 97068

✓GRANT JUDITH A  
4158 GLEN TER  
WEST LINN, OR 97068

✓GREILING RODNEY W & JEANETTE L  
4040 ELMRAN DR  
WEST LINN, OR 97068

✓GRIFFITH THOMAS & LORIE  
4068 KENTHORPE WAY  
WEST LINN, OR 97068

✓GUIMARY FLORENCE  
4022 ELMRAN DR  
WEST LINN, OR 97068

✓GUNTER TODD J & WENDY G  
4320 CEDAROAK DR  
WEST LINN, OR 97068

✓GUNTHER STEPHAN W & DAWN G  
18665 NIXON AVE  
WEST LINN, OR 97068

✓HAATIA LLOYD WARREN TRUSTEE  
4271 TERRA VISTA CT  
WEST LINN, OR 97068

✓HACKETT JAMES E & KATHLEEN M  
KREUTZER  
PO BOX 193  
LAKE OSWEGO, OR 97034

✓HAINS PROPERTIES LLC  
11295 SE PINE CT  
PORTLAND, OR 97216

✓HARMON DAVID W & JUDITH N  
CITTERMAN  
2351 EISENHOWER AVE 619  
ALEXANDRIA, VA 22314

✓HARTFELL ADOLF & BARBARA  
4230 TERRA VISTA CT  
WEST LINN, OR 97068

✓HAYES ROBERT L TRUSTEE  
4424 CEDAROAK DR  
WEST LINN, OR 97068

✓HENDERSON ROBERT B  
19095 NIXON AVE  
WEST LINN, OR 97068

✓HOLM DARIN R TRUSTEE  
4785 CALAROGA DR  
WEST LINN, OR 97068

✓HOPPE HEATHER MARIE  
2308 HEATHERFIELD RD  
NORMAN, OK 73071

✓HORVATH E MARIE  
4256 TERRA VISTA CT  
WEST LINN, OR 97068

✓HOXHA ARTAN  
4064 GLEN TER  
WEST LINN, OR 97068

✓HUDSON CHRISTOPHER T  
4160 KENTHORPE WAY  
WEST LINN, OR 97068

✓IUS GINO L & GERMAINE A  
4040 GLEN TER  
WEST LINN, OR 97068

✓JAEGER CRAIG L & KATHLEEN A  
18705 NIXON AVE  
WEST LINN, OR 97068

✓JONES JASON & CYNTHIA  
13585 GLENCLIFF WAY  
SAN DIEGO, CA 92130

✓KEARNEY PATRICK M & HEIDI S  
19055 TRILLIUM DR  
WEST LINN, OR 97068

✓KILIAN RICHARD M & SHARON L  
18837 NIXON AVE  
WEST LINN, OR 97068

✓KILSTROM LONN K & ANN M  
3855 CEDAROAK DR  
WEST LINN, OR 97068

✓KING EVALOIS A  
4145 KENTHORPE WAY  
WEST LINN, OR 97068

✓KING LAMONT A  
4257 KENTHORPE WAY  
WEST LINN, OR 97068

✓KING MARSHALL R & NANCY L  
18687 NIXON AVE  
WEST LINN, OR 97068

- ✓ KURZENBERGER CARL T  
4148 ELMRAN DR  
WEST LINN, OR 97068
- ✓ LORANCE ESTHER I & MICHAEL C  
MONICAL  
18735 NIXON AVE  
WEST LINN, OR 97068
- ✓ MACNAUGHTON SCOTT C & TERE R  
122 SW GIBBS ST  
PORTLAND, OR 97239
- ✓ MAGEE GERALD J & JUDITH C  
18925 TRILLIUM DR  
WEST LINN, OR 97068
- ✓ MCCARTHY SEAN G  
4142 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ MCDONALD CARMEN M & JENNIFER A  
3882 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ MCDONALD RYAN A & JENNIFER A  
4194 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ MCLACHLAN MONTE E & MARLA J  
19045 NIXON AVE  
WEST LINN, OR 97068
- ✓ MCNAMARA JOHN E & MARIANA  
PIERCEY  
1611 6TH AVE  
WEST LINN, OR 97068
- ✓ MEYERS GRACE J  
4100 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ MILLER JEFFREY & SUSAN  
4300 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ MILLER JOHN M & DONNA D  
3825 RIDGEWOOD WAY  
WEST LINN, OR 97068
- ✓ MILLER MILES J  
18595 NIXON AVE  
WEST LINN, OR 97068
- ✓ MOXON CHRISTOPHER J  
3850 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ NICHOLS JAMES M & SHEILA M  
4073 ELMRAN DR  
WEST LINN, OR 97068
- ✓ NIELSON JAY & LISA M  
4344 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ NORBY JOHN C & KARLENE A  
4040 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ OLSEN LAWRENCE O  
3993 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ OREILLY MARGARET TESKE  
4025 ELMRAN DR  
WEST LINN, OR 97068
- ✓ OSTERGARD WALTER A & BONITA J  
4450 ELMRAN DR  
WEST LINN, OR 97068
- ✓ PALMER DAVID & JANICE A  
18741 NIXON AVE  
WEST LINN, OR 97068
- ✓ PASS DAVID A & MARLYNN A  
PO BOX 382  
WEST LINN, OR 97068
- ✓ PENNINGTON TERRY LEE SR & KARYN A  
19065 TRILLIUM DR  
WEST LINN, OR 97068
- ✓ PERRY MAUREEN & JOSEPH A  
4064 CEDAROAK DR  
WEST LINN, OR 97068
- ✓ PIERCE DAVID O & METTE K IPSEN  
PO BOX 615  
WEST LINN, OR 97068
- ✓ PLETCHER BRIAN J  
PO BOX 106  
MARYLHURST, OR 97036
- ✓ POLLMANN DENNIS A & SHARON M  
3879 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ PORTER MICHELLE P  
3927 RIDGEWOOD WAY  
WEST LINN, OR 97068
- ✓ PREDEEK ERIC D & JENNIFER L  
3880 KENTHORPE WAY  
WEST LINN, OR 97068
- ✓ PRICE WYLIADA M & DARYL  
3787 RIDGEWOOD WAY  
WEST LINN, OR 97068

✓ RIDGEWAY STEVEN & KRISTI J  
3915 CEDAROAK DR  
WEST LINN, OR 97068

✓ ROLLINSON KEITH THOMAS & M A  
JANSEN  
3925 GLEN TER  
WEST LINN, OR 97068

✓ RONNING GERALD J & DONNA M  
3753 RIDGEWOOD WAY  
WEST LINN, OR 97068

✓ SAMS GREGORY W & JANET L  
18811 TRILLIUM DR  
WEST LINN, OR 97068

✓ SCHELOT STEVEN N & SUSAN I  
4167 GLEN TER  
WEST LINN, OR 97068

✓ SCHOEPPER BRETT B  
4095 KENTHORPE WAY  
WEST LINN, OR 97068

✓ SCHWARK RYERSON E  
18915 TRILLIUM DR  
WEST LINN, OR 97068

✓ SHERMAN STEVE & RITA  
19065 NIXON AVE  
WEST LINN, OR 97068

✓ SHIIKI MICHAEL J & SARAH  
18901 TRILLIUM DR  
WEST LINN, OR 97068

✓ SOMMERSET SCOTT T & DENAIRE N  
PO BOX 62  
WHEELER, OR 97147

✓ SPEARS TONY L & LINDA L  
4138 ELMRAN DR  
WEST LINN, OR 97068

✓ TOBIN STEPHAN A TRUSTEE  
19025 NIXON AVE  
WEST LINN, OR 97068

✓ TORKAMAN AKIE  
PO BOX 1053  
LAKE OSWEGO, OR 97034

✓ TREADGOLD SHARON M  
4044 CEDAROAK DR  
WEST LINN, OR 97068

✓ VANCE DELBERT CLARK & JEANNE A  
4087 KENTHORPE WAY  
WEST LINN, OR 97068

✓ WALKER SALLY A  
1521 N JANTZEN ST  
PORTLAND, OR 97217

✓ WEDDLE CARSON FRANCIS & NORMA R  
18675 NIXON AVE  
WEST LINN, OR 97068

✓ WELLS GEORGE A & RICHETTA M  
3888 KENTHORPE WAY  
WEST LINN, OR 97068

✓ WEST LINN-WILS SCH DIST #3J  
22210 SW STAFFORD RD  
TUALATIN, OR 97062

✓ WHITBEY WAYNE ALLEN & LORA LEE  
2104 18TH ST  
WEST LINN, OR 97068

✓ WIITANEN RICHARD M & SHEILA  
4092 ELMRAN DR  
WEST LINN, OR 97068

✓ WILLIAMS KRISTI A & BRIAN D  
19075 TRILLIUM DR  
WEST LINN, OR 97068

✓ WILLIAMS PATRICIA B TRUSTEE  
3896 CEDAROAK DR  
WEST LINN, OR 97068

✓ WOODARD DONNA  
3979 KENTHORPE WAY  
WEST LINN, OR 97068

✓ OREGON DEPT OF STATE LANDS  
775 SUMMER ST NE  
SALEM, OR 97301-1279

✓ US ARMY CORP OF ENGINEERS  
PO BOX 2946  
PORTLAND, OR 97208

✓ TIM WOODLEY  
DIR OF OPERATIONS  
2755 BORLAND RD  
TUALATIN, OR 97062

✓ KEITH LIDEN, AICP  
Parsons Brinckerhoff  
400 SW 6<sup>th</sup> Ave., Ste. 802  
Portland, OR 97204

✓ Nancy Hubbard  
Hubbard & Associates  
PO Box 702  
Tualatin, OR 97062

✓ WEST LINN CHAMBER OF  
COMMERCE  
1745 WILLAMETTE FALLS DR  
WEST LINN OR 97068

/ STEVE GARNER  
BHT NA PRESIDENT  
3525 RIVERKNOLL WAY  
WEST LINN OR 97068

/ SALLY MCLARTY  
BOLTON NA PRESIDENT  
19575 RIVER RD # 64  
GLADSTONE OR 97027

/ ALEX KACHIRISKY  
HIDDEN SPRINGS NA PRESIDENT  
6469 PALOMINO WAY  
WEST LINN OR 97068

/ JEF TREECE  
MARYLHURST NA PRESIDENT  
1880 HILLCREST DR  
WEST LINN OR 97068

/ BILL RELYEA  
PARKER CREST NA PRESIDENT  
3016 SABO LN  
WEST LINN OR 97068

/ ANTHONY BRACCO  
ROBINWOOD NA PRESIDENT  
2716 ROBINWOOD WAY  
WEST LINN OR 97068

DEAN SUHR  
ROSEMONT SUMMIT NA PRESIDENT  
21345 MILES DR  
WEST LINN OR 97068

/ DAVE RITTENHOUSE  
SAVANNA OAKS NA PRESIDENT  
2101 GREENE ST  
WEST LINN OR 97068

/ KRISTIN CAMPBELL  
SKYLINE RIDGE NA PRESIDENT  
1391 SKYE PARKWAY  
WEST LINN OR 97068

/ TROY BOWERS  
SUNSET NA PRESIDENT  
2790 LANCASTER ST  
WEST LINN OR 97068

/ BETH SMOLENS  
WILLAMETTE NA PRESIDENT  
1852 4TH AVE  
WEST LINN OR 97068

/ ALMA COSTON  
BOLTON NA DESIGNEE  
PO BOX 387  
WEST LINN OR 97068

/ SUSAN VAN DE WATER  
HIDDEN SPRINGS NA DESIGNEE  
6433 PALOMINO WAY  
WEST LINN OR 97068

/ KEVIN BRYCK  
ROBINWOOD NA DESIGNEE  
18840 NIXON AVE  
WEST LINN OR 97068

/ DOREEN VOKES  
SUNSET NA SEC/TREAS  
4972 PROSPECT ST  
WEST LINN OR 97068

DR-1210/WAP-12-02

**MAILED**  
4/25/12 *SB*





CITY OF  
**West Linn**

April 19, 2012

Tim Woodley  
Director of Operations  
West Linn-Wilsonville School District  
27585 SW Borland Rd.  
Tualatin, OR 97062

SUBJECT: DR-12-10/WAP-12-02 application for storm water system modifications at Cedaroak Primary School, 4515 Cedaroak Dr.

Dear Mr. Woodley:

You submitted this application on March 28, 2012. The Planning Department finds that this application is **complete** as of your resubmittal on April 18, 2012. The City now has 120 days (until August 16, 2012) to exhaust all local review per state statute. The application will shortly be scheduled for a Planning Director decision. At least 20 days before the scheduled decision date you will be sent a copy of the decision notice.

Please contact me at 503-742-8660, or by email at [tsoppe@westlinnoregon.gov](mailto:tsoppe@westlinnoregon.gov) if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Soppe', is written over a light blue horizontal line.

Tom Soppe  
Associate Planner

c: Keith Liden, AICP, Parsons Brinckerhoff, 400 SW 6<sup>th</sup> Ave., Ste. 802, Portland, OR 97204

c: Nancy Hubbard, Hubbard & Associates, PO Box 702, Tualatin, OR 97062

c: Tony Bracco, Robinwood Neighborhood Association President, 2716 Robinwood Way, West Linn, OR 97068

p:/devrww/projects folder/projects 2012/DR-12-10 Cedaroak School/compl-DR-12-10





CITY OF  
**West Linn**  
PLANNING AND DEVELOPMENT

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**FILE NO.:** DR-12-10/WAP-12-02

**REQUEST:** CLASS I DESIGN REVIEW AND WATER RESOURCE AREA  
PERMIT FOR NEW STORMWATER POND AND  
ASSOCIATED PIPING AND FENCING AT CEDAROAK  
PRIMARY SCHOOL AT 4515 CEDAROAK DRIVE

**APPLICANTS SUBMITTAL**

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**to:** Tom Soppe **from:** Keith Liden

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City of West Linn Planning Department **date:** 4.18.12

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22500 Salamo Road **project:** Cedaroak Primary School DR I

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West Linn, OR 97068 **file number:** DR-12-10/WAP-12-02

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**via:**  mail  messenger  fed-ex

**for your:**  Information/use  approval  review/comment

**the following:**  shop drawings  copy of letter  prints  change order  plans  samples  specifications  CD  application packages

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Signed application form	1	3.27.12
CD of all materials	1	-
Application packet including:	3	4.18.12
1. Narrative		
2. Plan sheets (full size) – C1.1, C1.2, C1.3, C2.1, C2.2, C3.1, C4.1, and L1.1		
3. Plan sheets (11x17 reductions)		
4. Response to incomplete items		

**Comments:**

Questions/additional information contact:

Keith Liden, 503.224.4066 / [liden@pbworld.com](mailto:liden@pbworld.com)

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**copy to:**

April 18, 2012

Tom Soppe, Associate Planner  
West Linn Planning Department  
22500 Salamo Road  
West Linn, OR 97068

RE: DR-12-10/WAP 12-02 Cedaroak Primary School

Dear Tom,

In response to your April 6<sup>th</sup> letter indicating the Design Review application was incomplete, we made the requested changes. Attached are three sets of the narrative, amended plan sheets, reduced 11X17-inch versions of the plan sheets, and a CD of all the materials.

The information related to the Community Development Code sections in your letter have been provided in the following manner:

- **55.090(A)** - This criterion is now addressed in the narrative.
- **55.120(D) and 32.060(B)(3)** - The plan sheets have added an “unnamed drainage” label for the stream.
- **32.040(G)** - A table was added to Sheet C1.3 showing the ground cover percentages.
- **32.040(G)** - A table was added to Sheet C1.3 showing the ground cover percentages.
- **32.060(A)** - The name and address information is provided on the cover sheet.
- **32.060(B)(2)** - Shading of the 25% slope areas is provided on Sheet C1.3.
- **32.060(B)(6)** - A general description of the site vegetation is provided on Sheet C1.3.
- **32.070(B)** - The proposed fee-in-lieu arrangement proposed in coordination with parks is described in more detail in the narrative.

Please contact me if you need anything further.

Sincerely,



Keith S. Liden, AICP

cc: Nancy Hubbard  
Seth Stevens, GHD

**DEVELOPMENT REVIEW APPLICATION**

For Office Use Only		
STAFF CONTACT	PROJECT No(s).	
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S)	TOTAL

**Type of Review (Please check all that apply):**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Annexation (ANX)                      | <input type="checkbox"/> Historic Review                                  | <input type="checkbox"/> Subdivision (SUB)  |
| <input type="checkbox"/> Appeal and Review (AP) *              | <input type="checkbox"/> Legislative Plan or Change                       | <input type="checkbox"/> Temporary Uses *   |
| <input type="checkbox"/> Conditional Use (CUP)                 | <input type="checkbox"/> Lot Line Adjustment (LLA) */**                   | <input type="checkbox"/> Time Extension *   |
| <input checked="" type="checkbox"/> Design Review (DR)I        | <input type="checkbox"/> Minor Partition (MIP) (Preliminary Plat or Plan) | <input type="checkbox"/> Variance (VAR)   |
| <input type="checkbox"/> Easement Vacation                     | <input type="checkbox"/> Non-Conforming Lots, Uses & Structures           | <input checked="" type="checkbox"/> Water Resource Area Protection/Single Lot (WAP) |
| <input type="checkbox"/> Extraterritorial Ext. of Utilities    | <input type="checkbox"/> Planned Unit Development (PUD)                   | <input type="checkbox"/> Water Resource Area Protection/Wetland (WAP)               |
| <input type="checkbox"/> Final Plat or Plan (FP)               | <input type="checkbox"/> Pre-Application Conference (PA) */**             | <input type="checkbox"/> Willamette & Tualatin River Greenway (WRG)                 |
| <input type="checkbox"/> Flood Management Area                 | <input type="checkbox"/> Street Vacation                                  | <input type="checkbox"/> Zone Change  |
| <input type="checkbox"/> Hillside Protection & Erosion Control |   |   |

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

<b>Site Location/Address:</b> 4515 S. CEDAROAK DRIVE WEST LINN, OR 97068	Assessor's Map No.: <b>2S 1E 24BA</b>
	Tax Lot(s): <b>1800</b>
	Total Land Area: <b>11.22 acres</b>

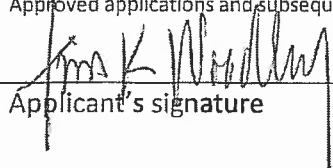
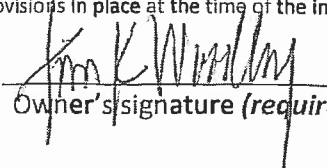
**Brief Description of Proposal: PROVIDE STORM DRAINAGE IMPROVEMENTS ON THE CEDAROAK PRIMARY SCHOOL SITE**

<b>Applicant Name:</b> TIM WOODLEY <small>(please print)</small> <b>Address:</b> 2755 SW BORLAND RD <b>City State Zip:</b> TUALATIN, OR 97062	Phone: 503-673-7995 Email: woodleyt@wlwv.k12.or.us
<b>Owner Name (required):</b> WEST LINN WILSONVILLE <small>(please print)</small> <b>Address:</b> 22210 SW STAFFORD RD <b>City State Zip:</b> TUALATIN, OR 97062	Phone: 503-673-7995 Email: woodleyt@wlwv.k12.or.us
<b>Consultant Name:</b> KEITH LIDEN, PARSONS BRINCKERHOFF <small>(please print)</small> <b>Address:</b> 400 SW 6 <sup>TH</sup> AVE., SUITE 802 <b>City State Zip:</b> PORTLAND OR 97204	Phone: 503-478-2348 Email: liden@pbworld.com

- All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.
- The owner/applicant or their representative should be present at all public hearings.
- A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.
- Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format. If large sets of plans are required in application please submit only two sets.

\* No CD required / \*\* Only one hard-copy set needed

The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not infer a complete submittal. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.

	<u>3.27.12</u>		<u>3.27.12</u>
Applicant's signature	Date	Owner's signature (required)	Date

**CEDAROAK PARK PRIMARY SCHOOL**  
**Class I Design Review and Water Resource Area Permit**  
April 18, 2012

**APPLICATION SUMMARY**

For Class I Design Review and Water Resource Area Permit to reconfigure some of the existing storm water collection, detention, and treatment system at Cedaroak Park Primary School.

**GENERAL INFORMATION**

**Location**

4515 South Cedaroak Drive (2S 1E Section 24 BA, Tax Lot 1800). Its location is shown in Figure 1.

**Comprehensive Plan and Zoning Designations**

The Comprehensive Plan designation is Low Density Residential.

Consistent with the Comprehensive Plan, the property is zoned Single Family Residential Detached (R10).

**Applicant and Owner**

Tim Woodley, Director of Operations  
West Linn-Wilsonville School District  
2755 SW Borland Road  
Tualatin, OR 97062  
Phone: 503-673-7976  
E-mail: [woodleyt@wlwv.k12.or.us](mailto:woodleyt@wlwv.k12.or.us)

**Applicant's Representatives**

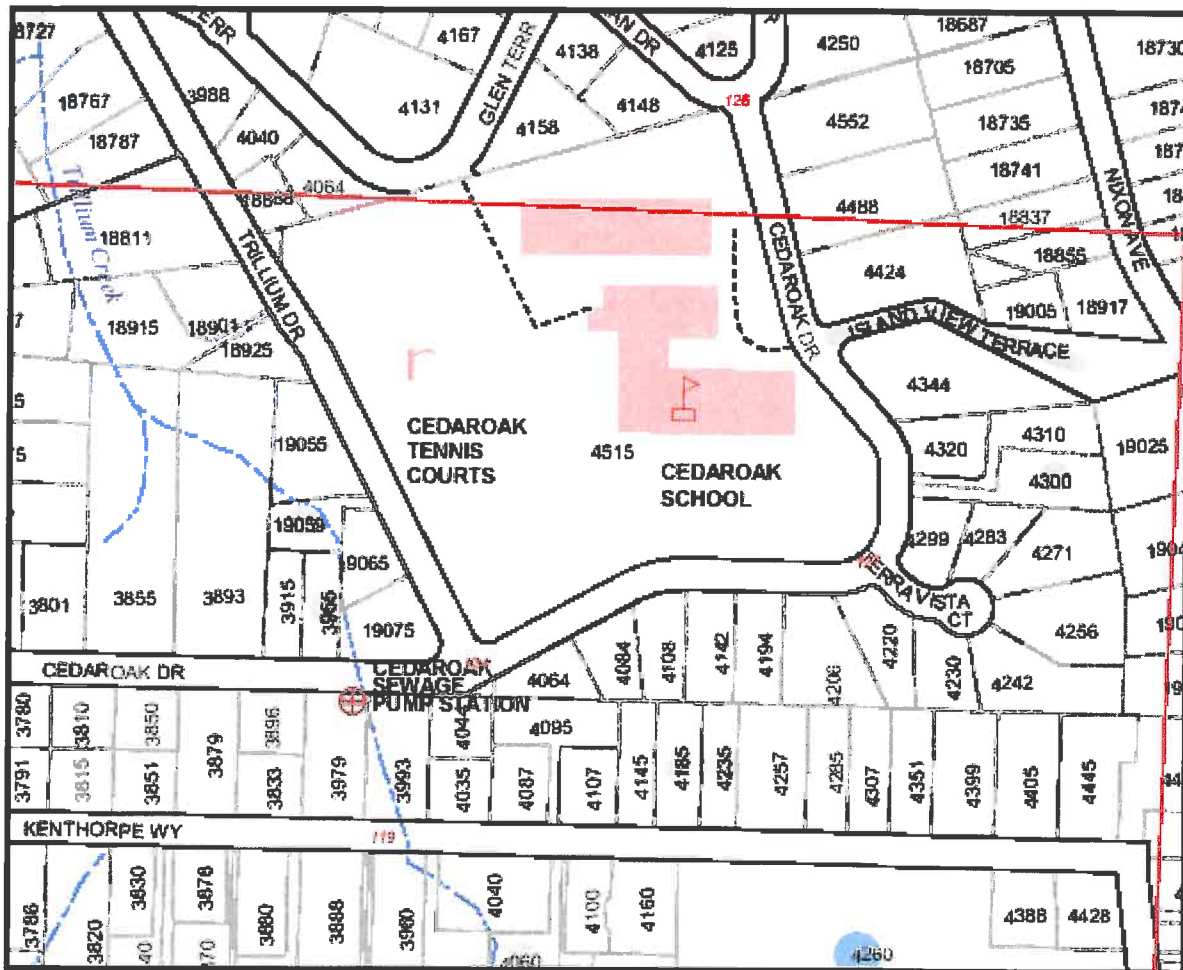
Keith Liden, AICP  
Parsons Brinckerhoff  
400 S. W. 6<sup>th</sup> Avenue, Suite 802  
Portland, OR 97204  
Phone: 503-478-2348  
Fax: 503-274-1412  
E-mail: [liden@pbworld.com](mailto:liden@pbworld.com)

Nancy Hubbard  
Hubbard & Associates  
PO Box 702  
Tualatin, OR 97062  
Phone: 503-819-7505  
E-mail: [hubbard.associates@frontier.com](mailto:hubbard.associates@frontier.com)

## Plan Sheets

- C1.1 Cover Sheet
- C1.2 Existing Conditions
- C1.3 Overall Site Plan
- C2.1 Utility Plan - North
- C2.2 Utility Plan - South
- C3.1 Detention Pond Plan and Details
- C4.1 Erosion Control Plan
- L1.1 Detention Pond Planting Plan

Figure 1: Vicinity Map



Source: City of West Linn



Figure 2: Aerial Photo



Source: City of West Linn

## BACKGROUND INFORMATION

### Site Description

The site is developed with Cedar Oak Park Primary School, including the school building, driveway, parking, and play fields. The entire site is approximately 11.22 acres. In addition to the school building, an athletic field is located on the southwest side of the school. Primary access to the school is provided by South Cedar Oak Drive, which runs along the south and east sides of the site.

Much of the site storm drainage is handled by a system of drywells. The dry well system is old and has been showing signs of failure. Areas of the site frequently have standing water during and after moderate rainfall events.

April 18, 2012

Cedar Oak Primary School – DR I  
Page - 3

## Surrounding Area Description

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

**Table 1**  
**Land Use Summary**

<i>Properties in the Vicinity</i>	<i>Zone Designation</i>	<i>Land Use</i>
<u>Subject Property</u>		
2S 1E Section 24 BA, Tax Lot 1800 (11.22 acre school site owned by school district)	R10	Primary School building, ancillary facilities, and parking.
<u>Surrounding Properties</u>		
North/East/South/West	R10	Single family residences

## SCHOOL SITE IMPROVEMENTS

The district proposes to install a new underground piping system and storm water detention pond to accommodate the roof drainage from the school and replace the dry well system. The pond is proposed immediately south of the headwaters of an open channel in the north central portion of the site on the west side of the school building. A 4-foot high chain link fence is proposed around the upper bank of the detention pond. A pipe and discharge are proposed to drain the pond into the open channel at its beginning. This open channel is classified as a stream by the city once it flows north of Glen Terrace, which is along the northern property boundary.

The proposed storm water detention pond will be partially located within the 50-foot setback area from the creek, which the city defines as a Water Resources Area. The city requires that areas disturbed within Water Resources Area be mitigated either on-site or off-site. The school district has opted to pay into the city's fund for off-site mitigation in lieu of providing mitigation on-site. The total disturbed area within this setback is approximately 1,400 square feet. In addition to the off-site mitigation, the district also proposes re-vegetating the disturbed area in a manner consistent with CDC Chapter 32 requirements (Sheet L1.1).

The district has initiated preliminary discussions with the West Linn Parks Department to provide the off-site mitigation on city park property. The details of the specific location and design of the off-site mitigation has not yet been determined. Therefore, some of the information requested in Section 32.070(B) regarding location, design, and schedule cannot be provided at this time.

## **DESIGN REVIEW CRITERIA**

Section 55.090(A) refers to specific portions of Section 55.100 that apply to Class I Design Review applications. Sections (A)(1) and (2), which refer to Sections 55.100 (B)(1) through (6) are addressed below under Section 55.100. Regarding Section 55.090 (A)(3), the additional information and findings requested in the preapplication notes are addressed as noted below.

Section 55.090(B) states that adequate public facilities must be available. This criterion is satisfied because the school is currently served by a full range of public utilities and streets.

Section 55.100 contains the applicable approval standards for a Class I Design Review. At the conclusion of the preapplication conference, the planning staff determined that the application must meet the following criteria in Chapter 55:

- 55.100(A)(1) Storm water
- 55.100(A)(6) Fences
- 55.100(A)(10) Landscaping
- 55.100(C) Compatibility, buffering, and screening
- 55.100(I)(2) Drainage

These criteria are addressed below.

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

#### **1. Chapter 33 - Storm Water Quality and Detention**

The approval criteria in Section 33.040 identify a number of things that must be accomplished according to city requirements during construction. These requirements will be met in coordination with the district, Planning Director, and City Engineer. A new storm water pond is proposed and will be designed to provide storm water detention in accordance with CDC chapter 33. Explicit storm water treatment is not proposed as there is no new impervious area proposed as part of this project, although some level of storm water treatment will be provided by the storm water pond.

#### **6. Chapter 44, Fences and Screening Outdoor Storage**

The proposed 4-foot high chain link fence for the detention pond is below the maximum height allowed, and therefore meets this criterion.

#### **10. Chapter 54, Landscaping**

The landscaping plan to re-establish landscaping removed during construction will comply with the city's landscaping requirements. The approval criteria are satisfied as noted below:

*Sections 54.020 A, B, and C* encourage preservation of existing trees. No trees will be removed.

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

Section 54.020 E. is satisfied because well over 20% of the site will be landscaped, and dimensional requirements for landscaped areas will continue to be met.

**B. Relationship to the Natural and Physical Environment**

Sections 55.100 B. 1. and 2. are not relevant because there are no heritage trees on the site.

Section 55.100 B. 3. is satisfied because grading will only involve the storm water improvements, and the natural drainage pattern will not be altered.

Section 55.100 B. 4. is satisfied because the property is geologically stable. Furthermore, the existing school building will not be modified.

Sections 55.100 B. 5. through 6. are not relevant because the site improvements will not involve any modifications to the school building.

**C. Compatibility Between Adjoining Uses, Buffering and Screening**

The school has operated in the neighborhood for a sustained period, and it has proven to be a good neighbor. The modification of the storm water system and the related stream corridor restoration will be environmentally beneficial, and it will not change the current school operation in any way.

**I.2. Public Facilities - Drainage**

The plans were created by a registered civil engineer, and the storm water detention pond and outfall culvert have been designed to prevent any inappropriate volumes of storm water to flow downstream. Also, this project does not include expanding any impervious surfaces on the property.

**WATER RESOURCES AREA PERMIT CRITERIA**

At the conclusion of the preapplication conference, the city staff determined that the Water Resource Area permit application must meet the following criteria in Chapter 32 – Water Resource Area Protection of the Community Development Code (CDC):

- 32.040 Application
- 32.050 Approval Criteria
- 32.060 Site Plan
- 32.070 Mitigation Plan
- 32.080 Revegetation Plan Requirements

**Section 32.040 Application**

This section is satisfied because the plan sheet package provides all of the information and narrative responses required by this section.

### **Section 32.050 Approval Criteria**

This section contains a number of requirements relating to the protection of water resources.

- A.** This section is satisfied because the required information and evaluation is provided as part of this application, including analysis and design by a registered civil engineer.
- B.** This section calls for maintaining existing natural drainageways. In this case, the district proposes to minimize encroachment into the headwater of the unnamed creek. This storm water detention pond will be partially within the 50-foot setback area for the creek, but none of the storm drainage facilities will require any modification of the creek. The southern edge of the creek headwater will need to be re-graded to accommodate the storm water detention pond, but the integrity of the natural creek drainage will be retained.
- C.** The storm water facilities are located to provide proper drainage of the school property, and locating the storm water detention pond in close proximity to the natural channel where this run-off should flow. A small portion of the water quality resource associated with the creek headwater area will be affected, and a mitigation plan and restoration plan are proposed, consistent with CDC Chapter 32 requirements.
- D.** The district is committed to protect the water resource areas on the site into the future. It will work with the city staff during final design and permitting to accomplish this. Buildings and structures on the site will not be enlarged or moved closer to the creek, and therefore, existing setbacks shall be maintained.
- E.** This section describes how the protected water resource area setback and transition areas are determined. These structures shall remain in their current locations. A mitigation plan will compensate for the minor encroachment of the storm water detention pond within the 50-foot setback area for the creek headwater. The district has had preliminary communication with the city parks department regarding off-site mitigation on city park property.
- F.** This criterion does not apply because no roads, driveways, or utility crossings are proposed.
- G.** The district will work with the city to maximize the protection of the resource as intended by this criterion, which calls for chain link fencing (or approved equivalent). Orange construction fencing is proposed as an alternative. As noted above, a permanent 4-foot chain link fence is proposed to be installed at the top of bank of the detention pond.
- H.** This criterion does not apply because no new paved surfaces are proposed.
- I.** All plans have been developed by experienced civil engineers and landscape architects with the goal of maintaining and enhancing the water and natural resources on the site. Storm drainage will not be diverted into another basin with this proposal. The design of these elements will meet the city requirements.

- J.* All erosion control measures prescribed by the city shall be followed at all times. Design of these elements will meet the city of West Linn and Oregon Stated Department of Environment Quality requirements.
- K.* Due to the nature of this project and the amount of disturbance, a re-vegetation plan is required. The re-vegetation plan proposed by the district will provide the combination of ground cover, shrubs, and trees required by this section and CDC 32.080 (addressed below).
- L.* As noted above, no new structures are proposed within or near the setback area.
- M.* This criterion does not apply because storm water treatment facilities are not proposed.
- N.* This criterion is not applicable because opening a covered or piped drainage is not proposed.
- O.* This criterion does not apply because no new buildings or building remodeling is proposed.
- P.* This criterion is not applicable because all relevant storm drainage channels have been identified.

**Section 32.060 Site Plan**

This section is satisfied because the plan sheet package provides all of the information required by this section.

**Section 32.070 Mitigation Plan**

This section contains a number of requirements relating to the mitigation of potential adverse impacts on water resource areas.

- A.* This section is satisfied because the proposed restoration within the water resource area will retain or improve the existing vegetation. Because of how storm water leaves the site, the storm water detention pond and outfall must be located as proposed. The restoration work includes the minimum area necessary, and it avoids any work in the stream channel.
- B.* As noted, this project is not designed to accommodate new development. The bank stabilization improvements are proposed to correct an existing situation. The stream corridor on the property will be properly restored and replanted as shown in this application. The district and its contractors will be responsible for the on-site work and assuring its proper completion.

Because of the limited size of the site, there is no room available for 1:1 on-site mitigation, and the district has initiated preliminary discussions with the West Linn Parks Department to pay a fee-in-lieu to provide of off-site mitigation on city park property. However, the location, design, and schedule have not been determined at this time.

- C. Because of the limited mitigation area on the school site, off-site mitigation is proposed. Conversations with city staff concur with this approach. The total disturbed area, which requires mitigation, is approximately 1,400 square feet.
- D. This criterion is not applicable because no wetland areas are involved.
- E. Once an off-site mitigation area is identified, the district will work with the city, to ensure its protection. Preliminary communication with the parks department indicates that the off-site mitigation can be located on park property.

**Section 32.080 Revegetation Plan Requirements**

This section contains a number of requirements relating to revegetating water resource areas. These standards were followed when the landscaping and planting plans were developed for this application.

- A. Temporary irrigation shall be provided by the district until the plants are established.
- B. As shown in the Detention Pond Planting Plan (Sheet L1.1), any non-native plants shall be removed and replaced with native vegetation.
- C. This section is not relevant because no existing trees or shrubs will be removed.
- D. The new trees proposed to surround the detention pond will be distributed in a manner consistent with this CDC section. The densest planting is proposed within the 50-foot setback area for the stream headwater.
- E. The proposed landscaping plan contains a variety of trees and shrubs, which comply with the requirements in this section.
- F. The district plans to hand water the new vegetation until it becomes established. It shall provide the necessary assurances for plant survival as required by the city.

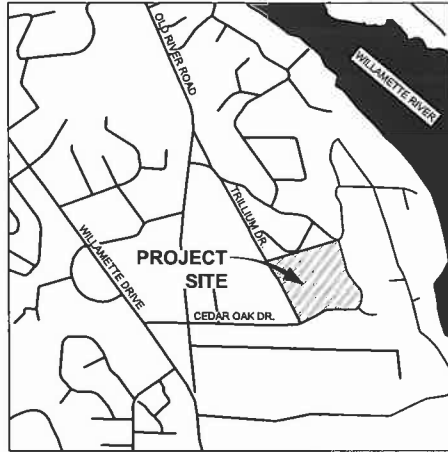
**CONCLUSION**

The proposed storm water improvements satisfy all the relevant criteria as demonstrated above.

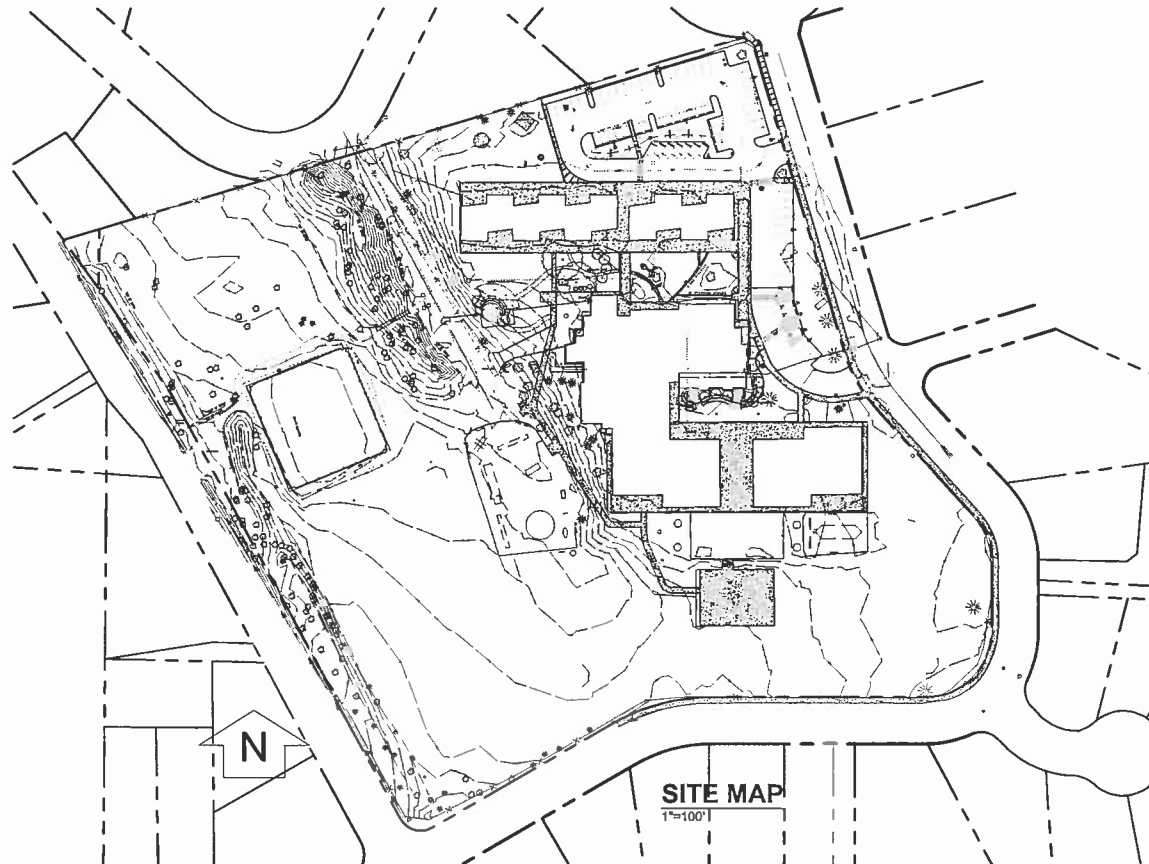


# DRAINAGE IMPROVEMENT PLANS FOR CEDAROAK PARK PRIMARY SCHOOL CITY OF WEST LINN, OREGON

## DESIGN REVIEW DRAWINGS



**VICINITY MAP**



**SITE MAP**  
1"=100'

### ATTENTION EXCAVATORS

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS BEFORE COMMENCING ANY EXCAVATION, CALL 503-246-6699.

### GRADING NOTES

- SURVEY OF EXISTING CONDITIONS PREPARED BY COMPASS ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING RIGHT-OF-WAY LINES, SLOPE EASEMENTS, AND ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING WITH A LICENSED SURVEYOR. STAKING WILL BE REVIEWED BY OWNER FOR CONFORMANCE TO DESIGN PRIOR TO CONSTRUCTION.
- ALL GRADES BETWEEN SPOT ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION. ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION.
- ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH AND RETURNED TO ORIGINAL EXISTING CONDITIONS. DISTURBED LANDSCAPED AREAS SHALL RECEIVE BARK DUST AND REPLACEMENT PLANTINGS. DISTURBED NATURAL AREAS SHALL BE HYDROSEED TO REPLACE NATIVE COVER. DISTURBED GRAVEL AREAS SHALL RECEIVE REPLACEMENT GRAVEL OR CRUSHED ROCK SURFACING.
- ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK AREAS DURING CONSTRUCTION.
- DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS.
- ALL EXISTING MONUMENTS SHALL BE PROTECTED DURING CONSTRUCTION. IF ANY MONUMENTS ARE DISTURBED OR DESTROYED DURING CONSTRUCTION, CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED LAND SURVEYOR TO RESTORE THE MONUMENT TO ITS ORIGINAL CONDITION AND FILE THE NECESSARY SURVEYS AS REQUIRED BY STATE LAW.
- COMPLETELY COVER ANY SOIL STOCKPILES WITH 6 MIL BLACK PLASTIC AND PROVIDE RESTRAINTS TO HOLD PLASTIC IN PLACE. MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN. PLACE SILT FENCE COMPLETELY AROUND STOCKPILE.
- A GRADING PERMIT MUST BE OBTAINED PRIOR TO ANY GRADING ACTIVITIES TAKING PLACE.

### GENERAL EROSION CONTROL NOTES

- THE PROPOSED EROSION CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURES TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE OR ENTERS THE EXISTING STORMWATER SYSTEMS. THE CONTRACTOR MAY ALSO BE DIRECTED BY THE CITY ENGINEER, CITY INSPECTOR, OR PROJECT ENGINEER TO CONTROL DUST AND AIRBORNE EROSION.
- PRIOR TO COMMENCEMENT OF GRADING ACTIVITY AND AFTER INSTALLATION OF EROSION CONTROL MEASURES, CONTRACTOR IS TO CONTACT THE CITY OF WEST LINN FOR THEIR SITE REVIEW AND APPROVAL.
- ALL EROSION CONTROL PERMITS MUST BE OBTAINED PRIOR TO ANY GRADING ACTIVITIES TAKING PLACE.

### DEMOLITION NOTES

- DEMOLITION REQUIREMENTS SHOWN ON THESE DRAWINGS ARE INTENDED TO ILLUSTRATE THE GENERAL SCOPE OF DEMOLITION AND ARE GENERALLY DIAGRAMMATIC. THEY DO NOT IDENTIFY EVERY ELEMENT TO BE REVISED. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A DETAILED SCOPE OF DEMOLITION FROM OWNER AND FROM EXAMINATION OF EXISTING SITE CONDITIONS.
- CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN, PRIOR TO CONSTRUCTION, OUTLINING ALL ITEMS TO BE REMOVED.
- DEMOLISHED ITEMS SHALL BE REMOVED FROM THE SITE EXCEPT THOSE ITEMS IDENTIFIED AS "TO REMAIN", "SAVE AND PROTECT", OR "SALVAGE FOR OWNER".
- ALL LINES THAT ARE CUT AT THE LIMITS OF DEMOLITION OR POINT OF DISCONNECTION WITHIN THE WORK AREA SHALL BE CAPPED OR PLUGGED WATER TIGHT TO CITY'S OR OWNER'S APPROVAL.
- DEMOLITION PERMIT MUST BE OBTAINED AND APPROPRIATE EROSION CONTROL MEASURES IN PLACE PRIOR TO ANY DEMOLITION ACTIVITIES TAKING PLACE.

### GENERAL SITE NOTES

- CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.
- CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT NEW FEATURES TIE INTO EXISTING SITE DEVELOPMENT, PAVEMENT JOINTS MATCH CORRECTLY, AND THAT GENERAL DESIGN ELEVATIONS FOR NEW CONSTRUCTION PROVIDE PROPER PAVEMENT AND DRAINAGE SLOPES FROM EXISTING TIE-IN POINTS. REPORT DISCREPANCIES TO OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- IN AREAS WHERE ASPHALT PAVING IS BEING REWORKED, PROVIDE NEW PAINT STRIPING FOR ALL REVISED PAVING WORK AND PARKING STALLS. EXISTING STRIPING TO BE BLACKENED OUT IN RECONFIGURED AREAS AS REQUIRED.
- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH CITY INSPECTOR(S). CONTRACTOR SHALL NOTIFY CITY INSPECTOR(S) 48 HOURS PRIOR TO START OF CONSTRUCTION.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL HAVE A MINIMUM OF ONE (1) SET OF PERMIT APPROVED PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- UPON COMPLETION OF THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL. ALL DAMAGE CAUSED BY THE CONTRACTOR SHALL BE RESTORED TO AN "AS GOOD OR BETTER" CONDITION.
- ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO CITY OF WEST LINN STANDARDS AND SPECIFICATIONS.

### SHEET INDEX

- C1.1 COVER SHEET
- C1.2 EXISTING CONDITIONS
- C1.3 OVERALL SITE PLAN
- C2.1 UTILITY PLAN - NORTH
- C2.2 UTILITY PLAN - SOUTH
- C3.1 DETENTION POND PLAN & DETAILS
- L1.1 PLANTING PLAN & DETAILS

### OWNER

WEST LINN-WILSONVILLE SCHOOL DISTRICT  
2755 SW BORLAND ROAD  
TUALATIN, OR 97062  
(503) 673-7976

### CIVIL ENGINEER

GHD INC.  
15575 SW SEQUOIA PARKWAY, SUITE 140  
PORTLAND, OR 97224  
(503) 228-3621

### LANDSCAPE ARCHITECT

WALKER-MACY  
111 SW OAK STREET, SUITE 200  
PORTLAND, OR 97204  
(503) 228-3122

### CIVIL ABBREVIATIONS

AC	ASPHALT CONCRETE
EG	EXISTING GROUND
CL	CENTER LINE
FG	FINISHED GROUND
FL	FLOW LINE
FS	FINISHED SURFACE
G	GUTTER / GAS
IE	INVERT ELEVATION
L	LENGTH
LF	LINEAL FEET
NTS	NOT TO SCALE
S	SLOPE
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDMH	STORM DRAIN MANHOLE
TC	TOP OF CURB
TP	TOP OF PIPE
TYP	TYPICAL
W	WATER

### UTILITY NOTES

- LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE PLOTTED FROM RECORD DRAWINGS AND INTERPOLATION OF PHYSICAL EVIDENCE ON THE SITE AND ARE SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR.
- ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION UNDER THIS SECTION OR ANY OTHER SECTION.
- THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, OR FITTING REQUIRED TO COMPLETE THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL COORDINATE A UTILITY LOCATE 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION FOR LOCATION MARK-UP OF ALL EXISTING UTILITIES BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY. CONTRACTOR SHALL COORDINATE THE UTILITY LOCATE WITH MUNICIPALITY HAVING JURISDICTION FOR ALL UTILITY WORK WITHIN A PUBLIC RIGHT-OF-WAY. INFORM ENGINEER IMMEDIATELY IF LOCATE INDICATES THAT EXISTING UTILITIES ARE DIFFERENT THAN SHOWN ON DRAWINGS. PRE-SURVEY LOCATING REQUESTS SHALL BE 14 DAYS IN ADVANCE.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, FEATURES, AND STRUCTURES LOCATED ON THE SITE. LOCATE, PROTECT, AND AVOID DISRUPTION OF ALL ABOVE AND BELOW GRADE UTILITIES DURING CONSTRUCTION.
- ALL UTILITY CONSTRUCTION ON PRIVATE PROPERTY SHALL CONFORM TO THE LATEST EDITION OF THE OREGON PLUMBING SPECIALTY CODE. ALL UTILITY CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE STANDARD REQUIREMENTS OF THE MUNICIPALITY HAVING JURISDICTION.
- ALL BURIED LINES TO HAVE 2 FEET MINIMUM COVER, UNLESS NOTED OTHERWISE.
- DOWNSPOUT AND BUILDING UTILITY CONNECTIONS TO BE SHOWN ON BUILDING PLUMBING DRAWINGS. REFER TO PLUMBING DRAWINGS FOR CONTINUATION OF UTILITY LINES INTO BUILDING.
- THRUST RESTRAINTS IS REQUIRED ON ALL PRESSURE LINE BENDS AND FITTINGS.
- SEE LANDSCAPE DRAWINGS FOR IRRIGATION LINES.
- ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.
- CONFIRM FIRE HYDRANT TYPE, NOZZLE SIZES, AND THREAD CONFIGURATIONS WITH LOCAL MUNICIPALITY HAVING JURISDICTION PRIOR TO CONSTRUCTION.
- CONFIRM ALL UTILITY VALVE VAULTS, VALVES, METERS, BACKFLOW PREVENTION ASSEMBLIES, AND OTHER PUBLIC UTILITY APPURTENANCES IN THE RIGHT-OF-WAY WITH THE MUNICIPALITY HAVING JURISDICTION.

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WEST LINN-WILSONVILLE SCHOOL DISTRICT  
CEDAROAK PARK PRIMARY SCHOOL  
DRAINAGE IMPROVEMENTS  
COVER SHEET

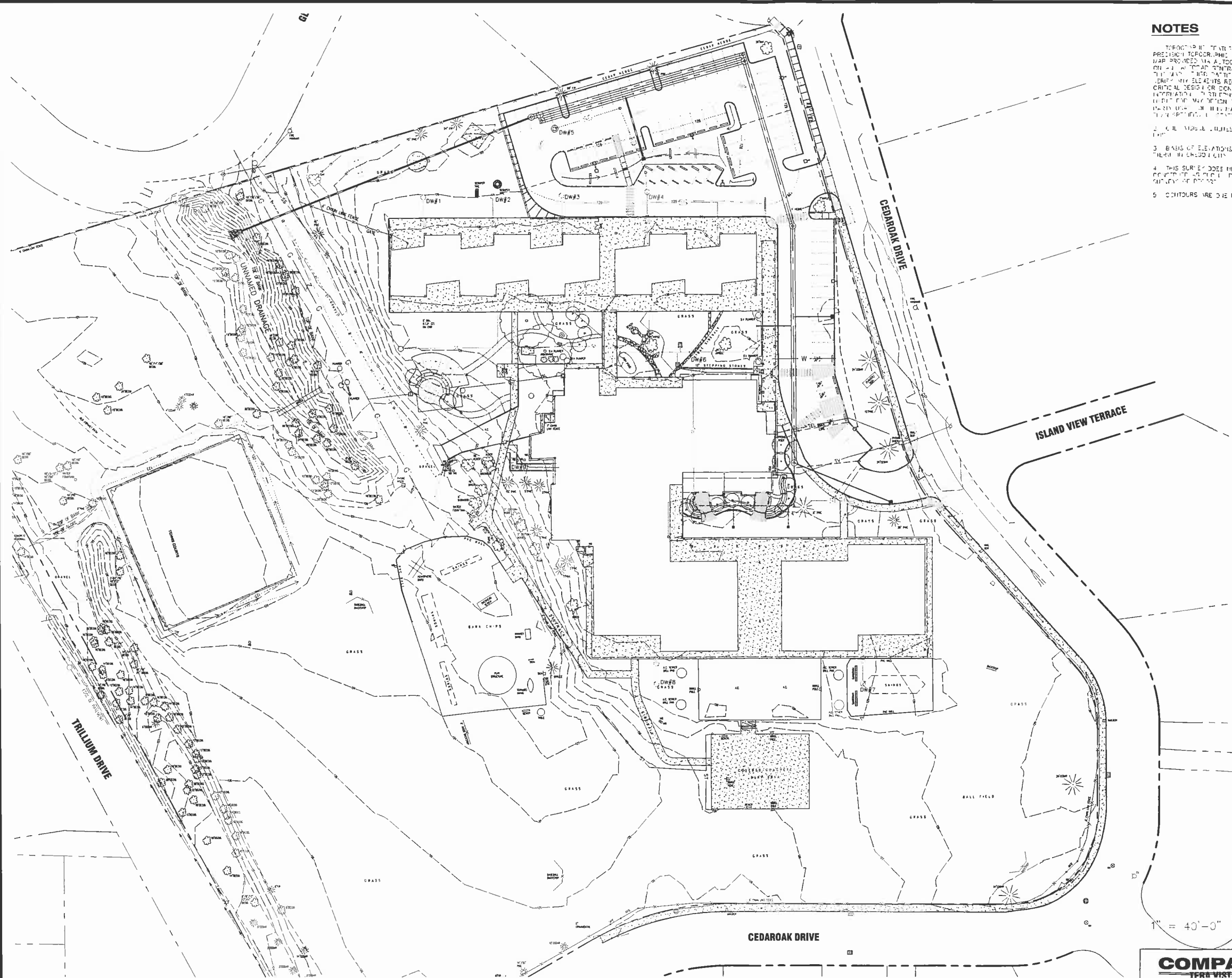
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DRWN: STS CHKD: MBW

C1.1

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2012-04-13 10:28 AM KTOLE  
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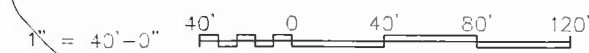


**NOTES**

1. PROJECT INFORMATION IS SUBJECT TO THE LIMITS OF THE DATA PROVIDED BY THE CLIENT. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES.
2. ALL ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED.
3. BASIS OF ELEVATIONS IS HATCH FIELD ELEVATION OF 1147.00.
4. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY AND SHOULD NOT BE USED FOR THAT PURPOSE.
5. CONTOURS ARE 2'00".

**LEGEND**

- ⊗ WATER METER
- ⊙ SEWER METER
- LIGHT POLE
- WATER VALVE
- ⊕ STOP SIGN
- DRIVE CURB
- ⊖ CURB CUT
- ⊙ LIGHT POLE
- ⊕ DRIVE
- ⊙ DRIVE



**1** EXISTING CONDITIONS  
C1.2/C1.2 SCALE: 1"=40'-0"

**COMPASS ENGINEERING**  
TRAFFIC ENGINEERING SURVEYING PLANNING  
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MELBAURIE, OREGON 97222 www.compass-engineering.com (503) 653-9095 FAX

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**WEST LINN-WILSONVILLE SCHOOL DISTRICT  
CEDARROAK PARK PRIMARY SCHOOL  
DRAINAGE IMPROVEMENTS**

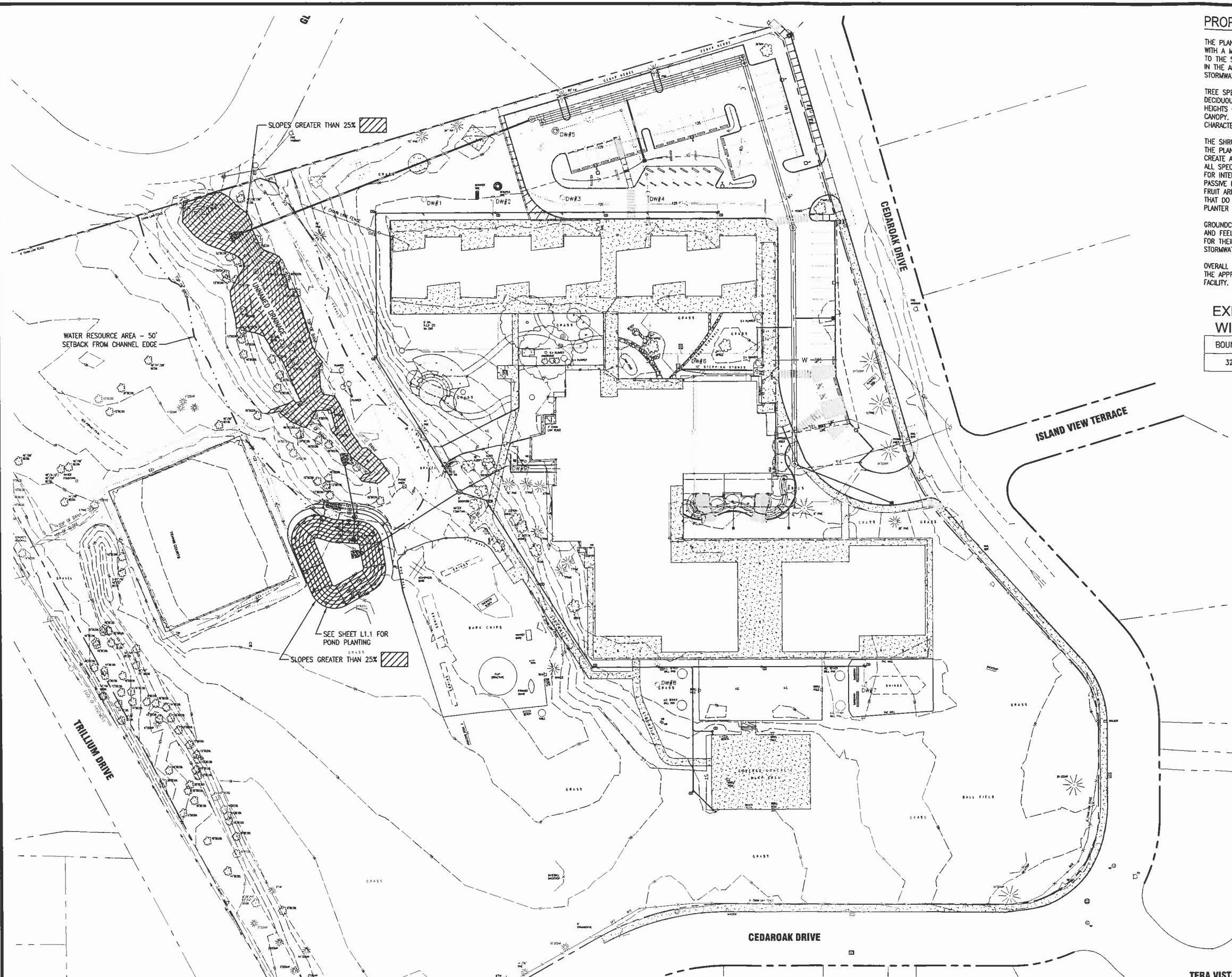
**EXISTING CONDITIONS**

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**C1.2**

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**PROPOSED POND VEGETATION DESCRIPTION**

THE PLANTING CONCEPT IS STRUCTURED TO PROVIDE THE STORMWATER PLANTER WITH A MIX OF NATIVE TREES, SHRUBS AND GRASSES THAT ARE WELL ADAPTED TO THE SITE AND ARE INTENDED TO ACCOMPANY THE EXISTING PLANT SPECIES IN THE ADJACENT NATURAL AREA HELPING TO BLEND THE PROPOSED STORMWATER PLANTER INTO THE EXISTING SITE CONTEXT.

TREE SPECIES PROVIDED IN THE PLANTING PLAN ALLOW FOR A MIX OF DECIDUOUS AND EVERGREEN TREES, AND ARE OF MIXED HEIGHT. THE VARYING HEIGHTS OF THE PROPOSED TREES WILL CREATE A VARIED OPEN OVERSTORY CANOPY. TWO OF THE DECIDUOUS SPECIES ALSO HAVE ADDITIONAL INTERESTING CHARACTERISTICS THAT WILL ADD INTEREST TO THE PLANTER.

THE SHRUB SPECIES PROVIDED HAVE A GREATER HEIGHT VARIATION THROUGH THE PLANTING ZONES. USING LARGE SHRUBS AND MEDIUM SHRUBS WILL CREATE A LAYERED EFFECT WHILE MOVING DOWN THE BANK OF THE PLANTER. ALL SPECIES ARE NATIVE, AND HAVE UNIQUE CHARACTERISTICS THAT PROVIDE FOR INTEREST IN MULTIPLE SEASONS, AS WELL AS CREATE THE POTENTIAL FOR PASSIVE LEARNING AND EXPLORATION. SPECIES THAT FLOWER AND PROVIDE A FRUIT ARE ALL NON-TOXIC, AND CREATE LITTLE VEGETATIVE LITTER. PLANTS THAT DO HAVE POTENTIAL FOR INCREASED LITTER WILL BE USED LOWER IN THE PLANTER AWAY FROM HIGHER TRAFFIC AREAS.

GROUNDCOVERS AND BASIN PLANTINGS ARE PROVIDED TO EXTEND THE LOOK AND FEEL OF THE EXISTING NATURAL AREA. THE PLANTS HAVE BEEN SELECTED FOR THEIR VIGOR, AND ADAPTABILITY TO VARYING WATER DEMANDS OF A STORMWATER PLANTER.

OVERALL THE STORMWATER PLANTER WILL BE LOW MAINTENANCE, AND PROVIDE THE APPROPRIATE AMOUNT OF SCREENING FOR THE STORMWATER MANAGEMENT FACILITY.

**EXISTING VEGETATION SUMMARY WITHIN WATER RESOURCE AREA**

BOUNDARY AREA	TREE COVER%	GROUND COVER %
32420.49 SF	22750.16 SF (69.6%)	6503.27 SF (20%)

**1 OVERALL SITE PLAN**  
 C1.3/C1.3 SCALE: 1"=40'-0"

TFRA VIST.

1" = 40'-0"

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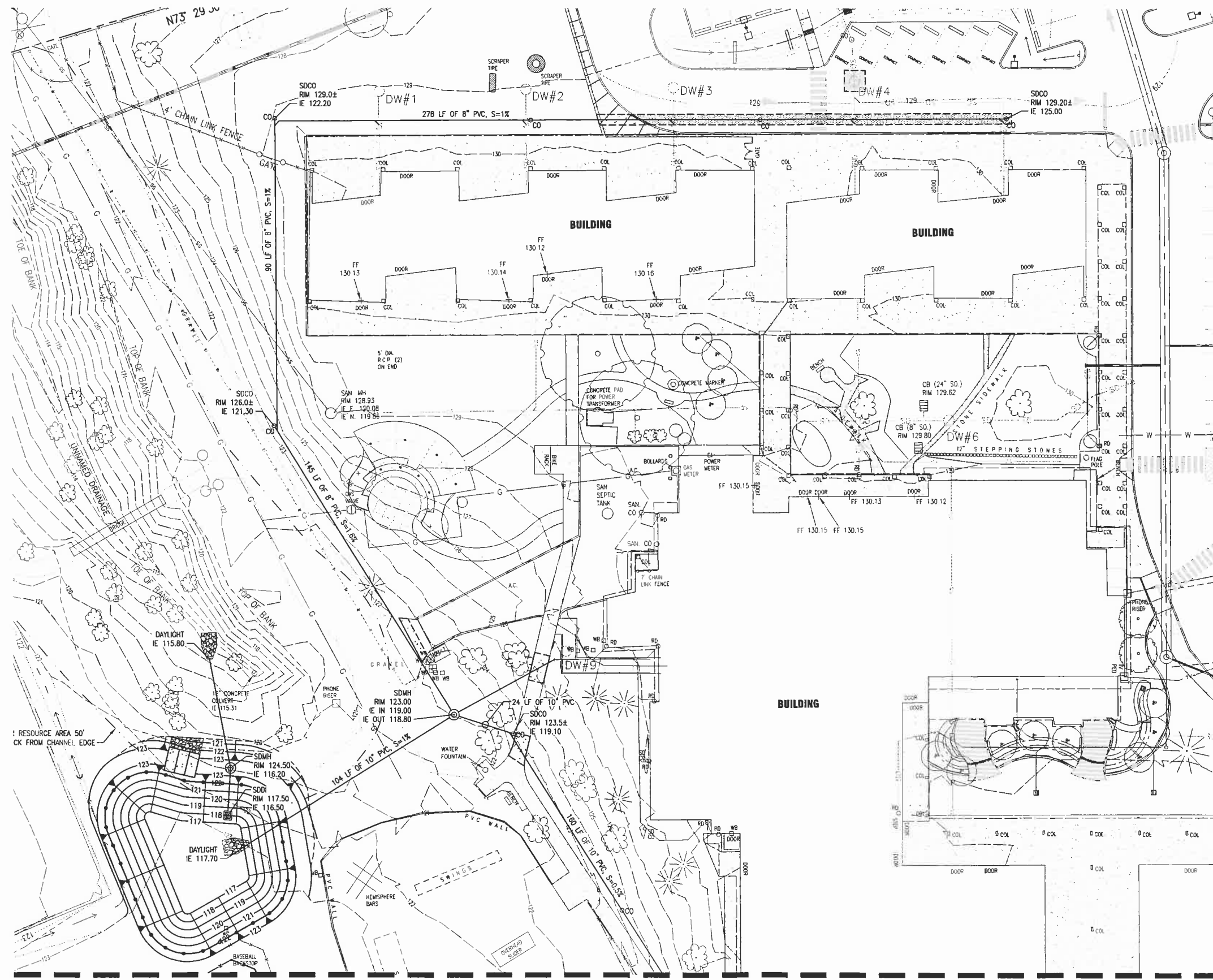
**OVERALL SITE PLAN**

PROJ NO: 11456-11008  
 DRWN: STS CHKD: MBW

**C1.3**

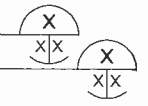
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**CONSTRUCTION NOTES**

- 1 INSTALL PVC STORM DRAIN PIPE - SIZE PER PLAN.
- 2 INSTALL STANDARD CLEANOUT.
- 3 INSTALL STANDARD MANHOLE.
- 4 INSTALL FLOW CONTROL MANHOLE.
- 5 INSTALL STORM DRAIN OUTFALL.
- 6 CONNECT TO EXISTING STORM DRAIN SYSTEM. CONTRACTOR TO CONFIRM TIE-IN ELEVATION OF EXISTING SYSTEM PRIOR TO CONSTRUCTION.
- 7 INSTALL STORM DRAIN DAYLIGHT.
- 8 INSTALL DITCH INLET.
- 9 DECOMMISSION EXISTING DRYWELL.



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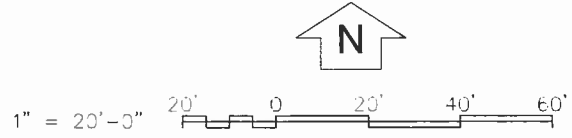
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WEST LINN-WILSONVILLE SCHOOL DISTRICT  
 CEDAROK PARK PRIMARY SCHOOL  
 DRAINAGE IMPROVEMENTS  
 UTILITY PLAN - NORTH

PROJ NO: 11456-11008  
 DRWN: STS CHKD: MBW

**C2.1**

SHEET - OF -

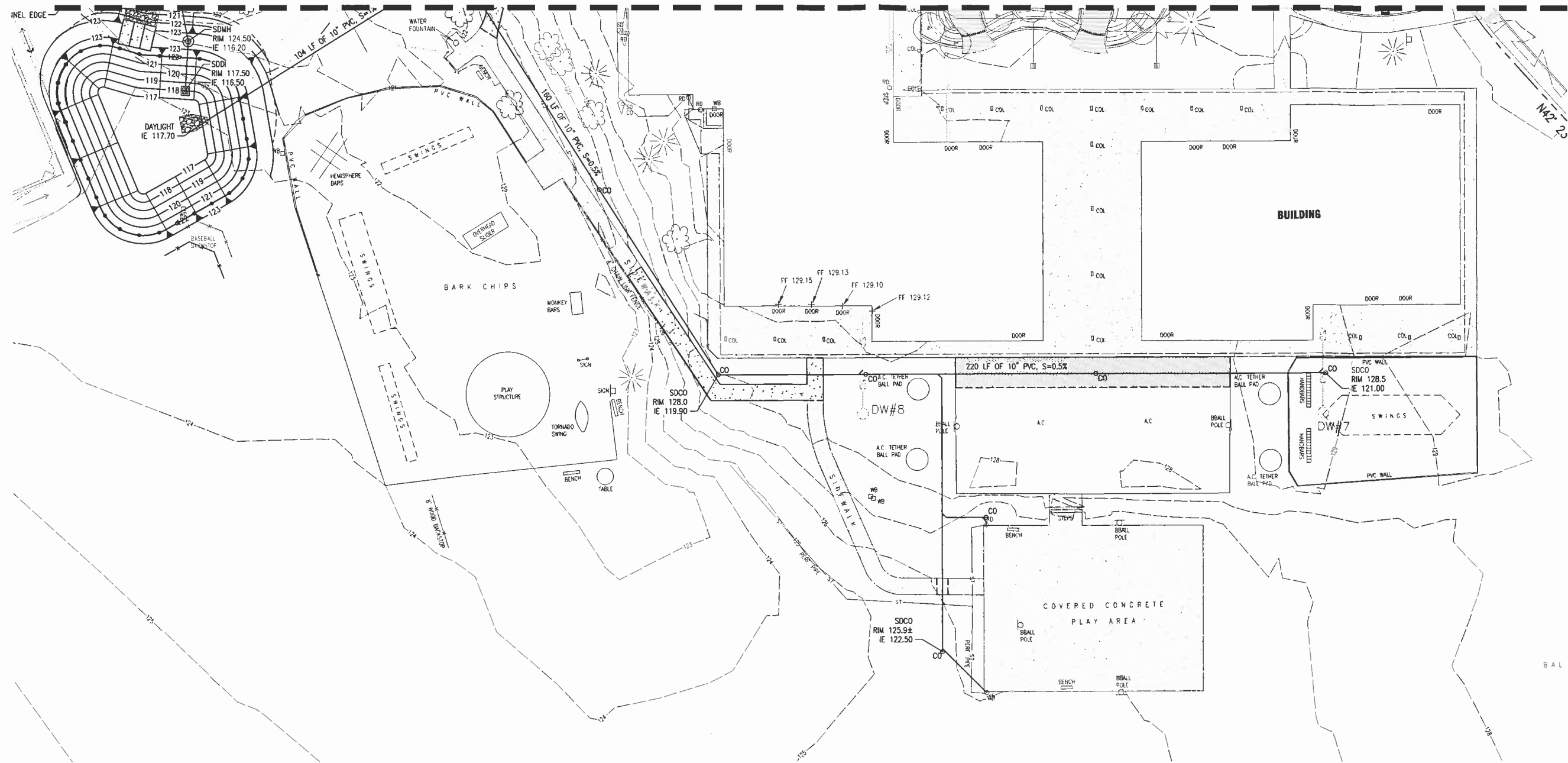


MATCH LINE - SEE SHEET C2.2

1 UTILITY PLAN - NORTH  
 C2.1/C2.1 SCALE: 1"=20'-0"

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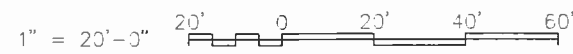
MATCH LINE - SEE SHEET C2.1



**1** UTILITY PLAN - SOUTH  
C2.2/C2.2 SCALE: 1"=20'-0"

**CONSTRUCTION NOTES**

- 1 INSTALL PVC STORM DRAIN PIPE - SIZE PER PLAN.
- 2 INSTALL STANDARD CLEANOUT.
- 3 INSTALL STANDARD MANHOLE.
- 4 INSTALL FLOW CONTROL MANHOLE.
- 5 INSTALL STORM DRAIN OUTFALL.
- 6 CONNECT TO EXISTING STORM DRAIN SYSTEM. CONTRACTOR TO CONFIRM TIE-IN ELEVATION OF EXISTING SYSTEM PRIOR TO CONSTRUCTION.
- 7 INSTALL STORM DRAIN DAYLIGHT.
- 8 INSTALL DITCH INLET.
- 9 DECOMMISSION EXISTING DRYWELL.



2013.04.13 10:25 AM K.TOLLE C:\11456-WLWSD (WEST LINN-WILSONVILLE SCHOOL DISTRICT)\11456-11008 WILSD CEDAROK PARK DRAINAGE IMPROVEMENTS\06-CAD\DESIGN REVIEW\11456-11008 C2.DWG

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DRAINAGE IMPROVEMENTS

UTILITY PLAN - SOUTH

PROJ NO: 11456-11008  
DRWN: STS CHKD: MBW

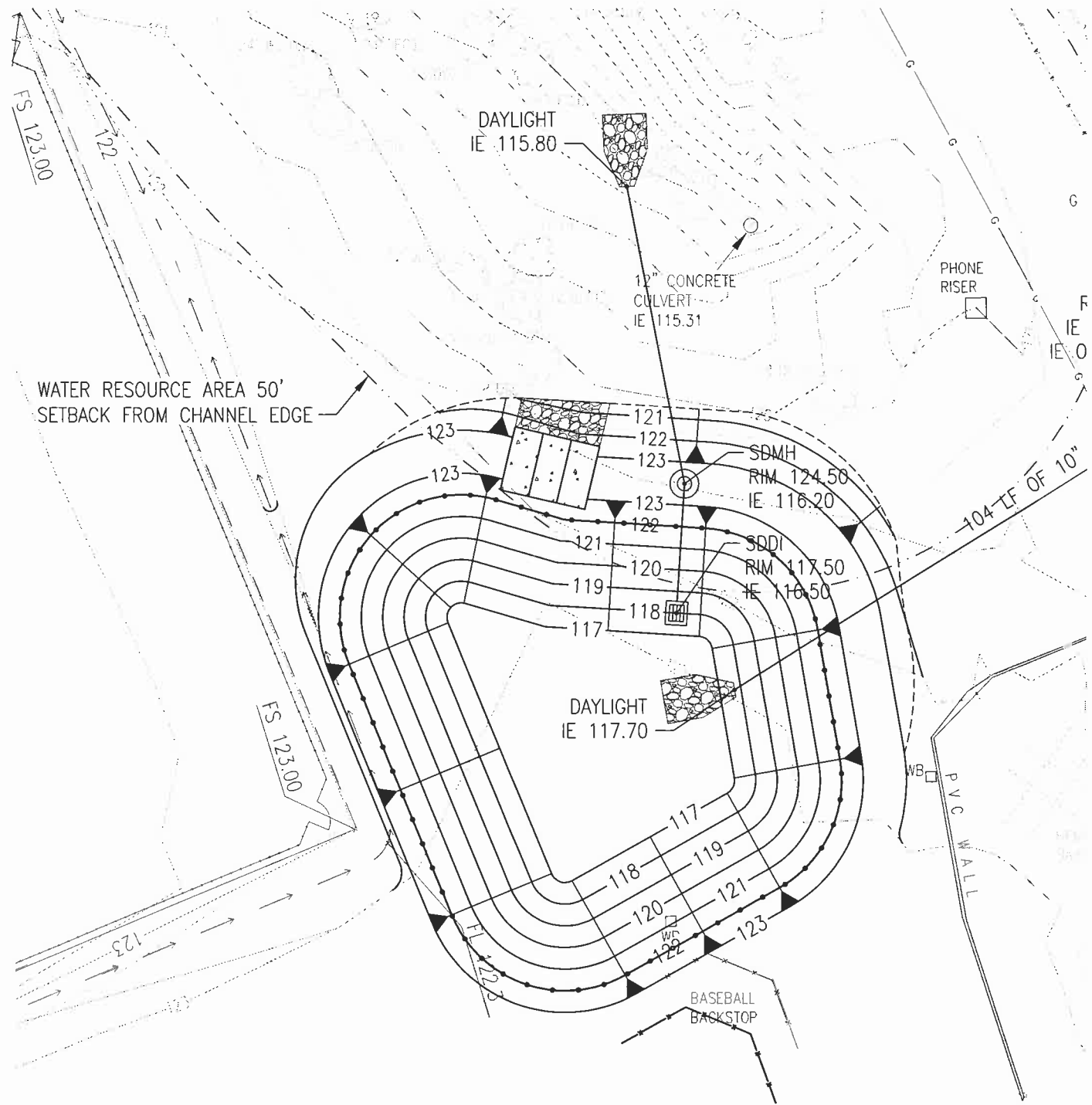
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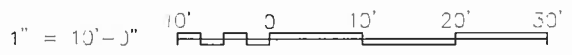
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**1** DETENTION POND PLAN  
 C3.1|C3.1 SCALE: 1"=10'-0"



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 DRAINAGE IMPROVEMENTS**

**DETENTION POND PLAN  
 & DETAILS**

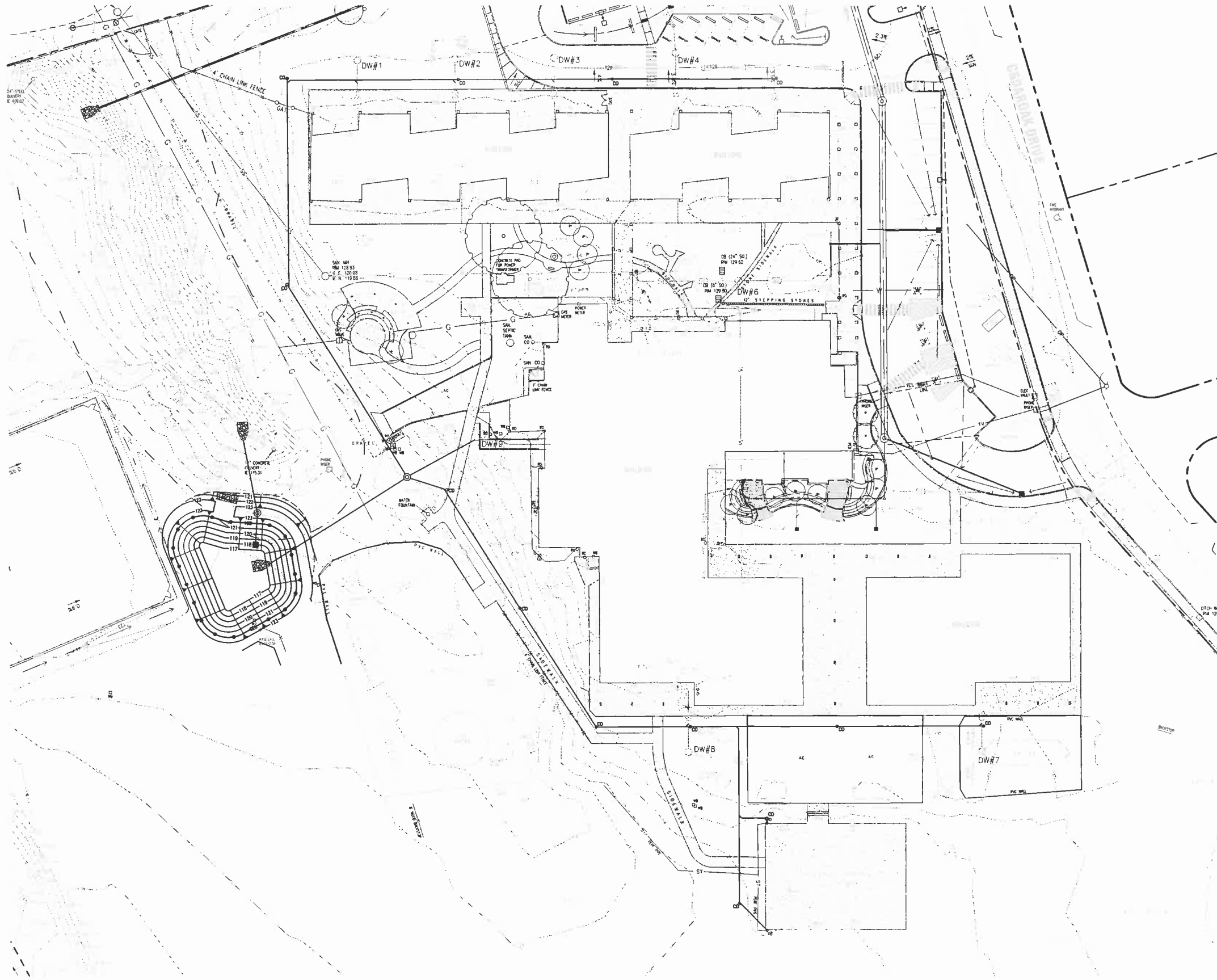
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**C3.1**

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1" = 30'-0"



**1** EROSION CONTROL PLAN  
 C4.1 | C4.1 SCALE: 1"=30'-0"

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**EROSION CONTROL PLAN**

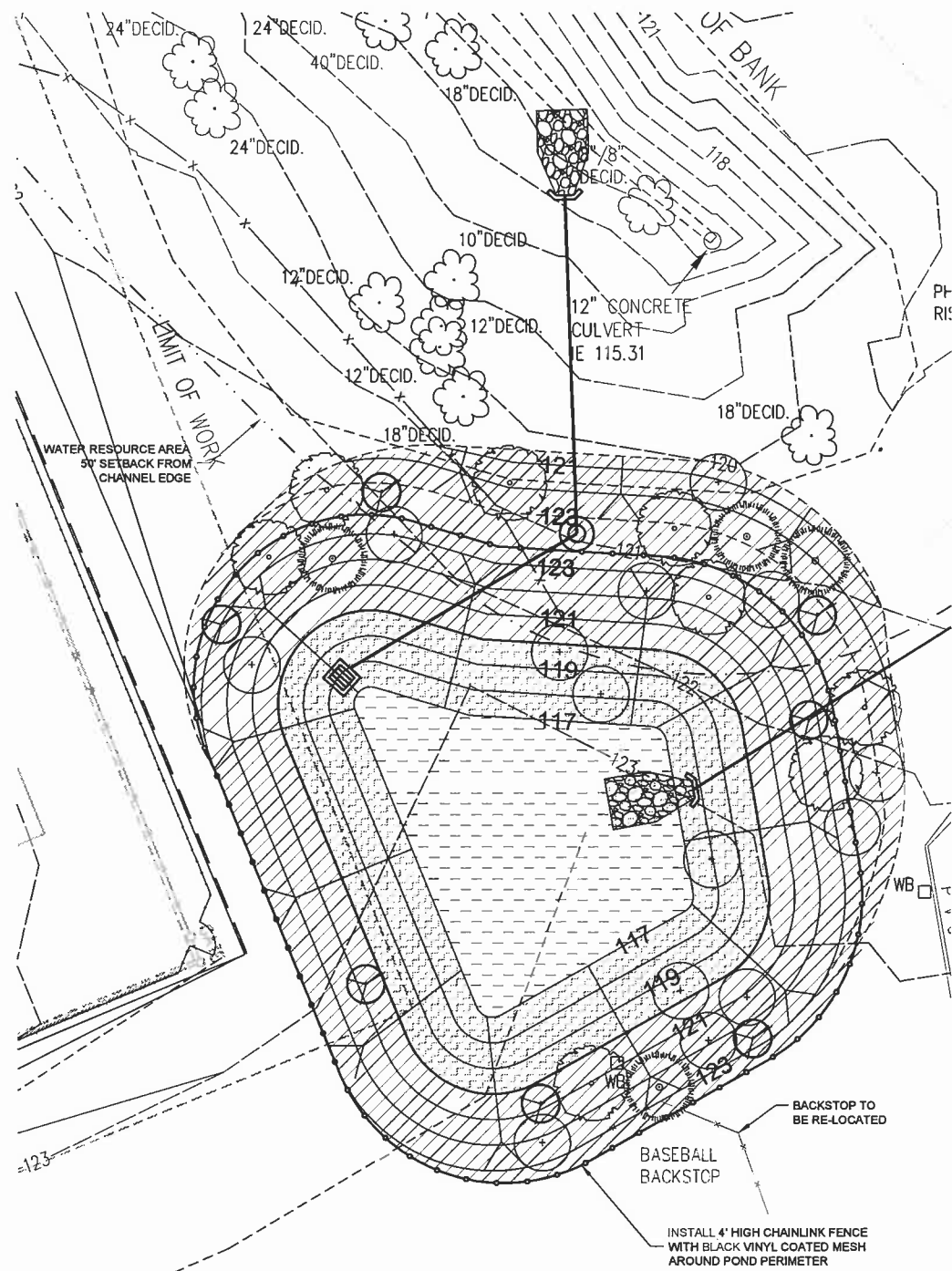
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**C4.1**

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**LEGEND**



**POND PLANT SCHEDULE**

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	SIZE/CONDITION	SPACING	QUANTITY	COMMENTS	DTL/SHEET
<b>ZONE A 915sf</b>								
		<b>BASIN PLANTINGS</b>				NOTE: 115 (1GAL) PLANTS/100 SF MIN. PER (SWMM) @ 915 SF = 1,052		
25%		CAREX DENSA	DENSE SEDGE	1 GAL. CONT.	12" O.C.	263		
25%		CAREX OBNUPTA	SLOUGH SEDGE	1 GAL. CONT.	12" O.C.	263		
15%		JUNCUS PATENS 'ELK BLUE'	ELK BLUE RUSH	1 GAL. CONT.	12" O.C.	158		
35%		SCRIPTUS MICROCARPUS	SMALL FRUITED BULRUSH	1 GAL. CONT.	12" O.C.	368		
						TOTAL 1,052		
<b>ZONE B 4,710sf</b>								
		<b>TREES</b>				NOTE: 7 TREE/1000 SF MIN. PER (SWMM) @ 4,710 SF = 33		
ALRU		ALNUS RUBRA	RED ALDER	2 GAL.	AS SHOWN	14		
CONU		CORNUS NUTTALII	WESTERN DOGWOOD	2 GAL.	AS SHOWN	7		
FRLA		FRAXINUS LATIFOLIA	OREGON ASH	1" CAL. B&B	AS SHOWN	8		
ABGR		ABIES GRANDIS	GRAND FIR	5-6' HT.	AS SHOWN	4		
						TOTAL 33		
		<b>LARGE SHRUBS</b>				NOTE: 3 SHRUBS/100 SF MIN. PER (SWMM) @ SF 1,435 = 43		
OECE		OEMLERIA CERASIFORMUS	INDIAN PLUM	1 GAL. CONT.	4' O.C.	8		
RISA		RIBES SANGUINEUM	RED FLOWERING CURRENT	1 GAL. CONT.	10' O.C.	20		
SACE		SAMBUCUS RACEMOSA	RED ELDERBERRY	1 GAL. CONT.	4' O.C.	15		
						TOTAL 43		
		<b>MEDIUM SHRUBS</b>				NOTE: 4 SHRUBS/100 SF MIN. PER (SWMM) @ 3,275 SF = 131		
COSE		CORNUS SERICEA	REDTWIG DOGWOOD	1 GAL. CONT.	4' O.C.	20		
SPBE		SPIRAEA BETULIFOLIA	BIRCHLEAF SPIREA	1 GAL. CONT.	2' O.C.	25		
SYAL		SYMPHORICARPOS ALBA	COMMON SNOWBERRY	1 GAL. CONT.	3' O.C.	16		
		<b>GROUNDCOVERS</b>						
DECE		DESCHAMPSIA CESPIIOSA	TUFTED HAIR GRASS	1 GAL. CONT.	12" O.C.	40		
POMU		POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL. CONT.	24' O.C.	30		
						TOTAL 131		

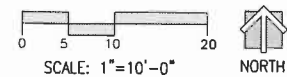
**PLANTING NOTES:**

- CONTRACTOR TO VERIFY LOCATION OF EXISTING TREES INDICATED TO REMAIN PRIOR TO SOIL PREPARATION. PROTECT ALL TREES AND SHRUBS INDICATED TO REMAIN. COORDINATE WITH THE OWNER'S REPRESENTATIVE.
- PLANTING AREAS TO BE SUFFICIENTLY CLEANED OF ALL CONSTRUCTION MATERIALS, INCLUDING IMPORTED ROCK, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE BEFORE BEGINNING ANY LANDSCAPE WORK.
- IDENTIFY ALL PLANTING AREAS IN FIELD WITH WHITE FIELD-MARKING CHALK OR APPROVED EQUAL. PLANTING BEDS TO BE ADJUSTED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANT LOCATION.
- FOR PLANTING OCCURRING IN MASSES OF SAME SPECIES PLANT, LABELING REFERS TO ALL ADJACENT IDENTICAL SYMBOLS. REFER TO DETAILS AND LEGEND FOR SPACING INFORMATION.
- THE OWNER'S REPRESENTATIVE WILL APPROVE INDIVIDUAL PLANT MATERIAL AND LOCATION OF PLANT MATERIAL PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR PROCEDURE.
- PLANT QUANTITIES INDICATED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANTS IN QUANTITIES AND LOCATIONS SHOWN ON DRAWINGS.
- PROVIDE JUTE NETTING ON ALL SLOPES WITH GRADIENT OF 3:1 OR GREATER AS DIRECTED IN THE FIELD BY THE OWNER'S REPRESENTATIVE. STAPLE FABRIC TO GROUND WITH METAL STAKES AT 4' O.C.

**WATER QUALITY PLANTING NOTES**

- WATER QUALITY PLANTING TO CONFORM TO CITY OF PORTLAND STORMWATER MANAGEMENT MANUAL (SWMM) REQUIREMENTS FOR INFILTRATION BASIN FACILITIES. MINIMUM CONTAINER SIZE TO BE 1 GALLON AT THE FOLLOWING RATE:
  - ZONE (A) (BASIN PLANTING MIX): 115 PLANTS PER 100 SF OF FACILITY AREA.
  - ZONE (B) (TREES, SHRUBS, AND GROUNDCOVER SEED MIX): 1 TREE AND 3 LARGE SHRUBS AND 4 MEDIUM SHRUBS PER 100 SF OF FACILITY AREA.
- SEE PLANTING SCHEDULE FOR SPACING AND QUANTITIES REQUIRED.
- ZONE A: BASIN PLANTINGS TO BE PLANTED IN RANDOM NATURALISTIC DRIFTS OF SAME SPECIES PLANTS IN GROUPS OF 15, 25, AND 35 PLANTS.
- ZONE B: TREES TO BE PLANTED IN NATURALISTIC DRIFTS OF SAME SPECIES TREES IN GROUPS OF 3, 5, AND 7 PLANTS IN AREAS AS DRAWN. SRUBS TO BE PLANTED IN RANDOM NATURALISTIC DRIFTS OF SAME SPECIES PLANTS IN GROUPS OF 5, 10, AND 15 PLANTS IN AND AROUND GROUPS OF TREES. ALL OF ZONE B TO BE SEEDED WITH GROUNDCOVER SEED MIX PER PLANTING SCHEDULE.

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PRELIMINARY - NOT FOR CONSTRUCTION

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BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
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MARK	DATE	DESIGN REVIEW SUBMITTAL	DESCRIPTION	ISSUE
	3/2/12			

**WEST LINN-WILSONVILLE SCHOOL DISTRICT  
CEDAR OAK PARK PRIMARY SCHOOL  
DRAINAGE IMPROVEMENTS  
DETENTION POND PLANTING PLAN**

PROJ NO: 11456-11008  
DRWN: GD CHKD: DO

**L1.1**

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