

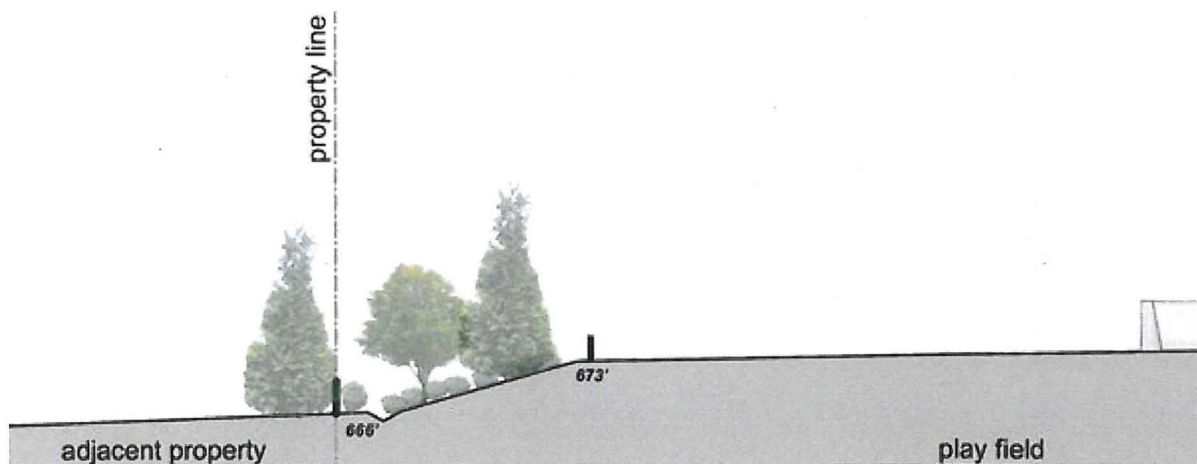
## Spir, Peter

---

**From:** Karina Ruiz [KarinaR@dowa.com]  
**Sent:** Friday, October 08, 2010 11:59 AM  
**To:** Spir, Peter; Tim Woodley; Liden, Keith S.  
**Subject:** RE: letter from a neighbor

Thanks for this, Peter. It's a shame that they did not accept the invitation to participate in the community meeting we held last night at Rosemont Ridge MS to review the specific conditions along all the properties lines and witness how we worked with individual neighbors to locate buffer planting in locations that work best for them. I don't know what plans they are referring to, but had they come last night, they would have also learned that the District has reached an easement agreement with the HSRRA in which the existing tennis and basketball courts will not only be maintained, but will be improved as part of our project.

On a separate but related note, we spent some time talking with April Peterson who lives directly adjacent to the school property on the north in the Arena Court subdivision about her concerns. She reiterated what was conveyed in some of the emails; namely, that the biggest concern for those neighbors is management of storm water run-off. We explained our three-tiered approach for management of storm drainage along the north property line and she was quite satisfied to hear that we will install measures to ensure that water on our site does not travel onto their property. We also reviewed our proposed grading, landscaping and fencing design as show in this section.



As you can see, we are currently proposing a 6' chain link fence along the property line with 25' of buffer planting along the graded slope up to the multi-purpose field. We are then proposing to install a 3' high fence along the top of the slope to keep balls from rolling downhill and into the planted buffer. We asked April if she and her neighbors would prefer this solution over a tall fence at the property line or lowering the field and reducing the buffer to the required 5 feet and she indicated a strong preference for the currently proposed design. We talked with her (as well as the other neighbors along the other edges of the property) about specific plant species and location and worked out a solution that was to her liking. The District is committed to being a good neighbor and I think everyone at the meeting last night (about 12-15 residents) left the meeting feeling assured that we were doing everything we could to mitigate our impact to their property.

If you should have any more questions, please do not hesitate to call. Thanks.

Karina

---

**From:** Spir, Peter [mailto:pspir@westlinnoregon.gov]  
**Sent:** Friday, October 08, 2010 9:34 AM

**To:** Tim Woodley; Liden, Keith S.; Karina Ruiz  
**Subject:** FW: letter from a neighbor



Peter Spir  
[pspir@westlinnoregon.gov](mailto:pspir@westlinnoregon.gov)  
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Web: [westlinnoregon.gov](http://westlinnoregon.gov)

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**From:** PWKonica@ci.west-linn.or.us [mailto:PWKonica@ci.west-linn.or.us]

**Sent:** Friday, October 08, 2010 10:26 AM

**To:** Spir, Peter

**Subject:** Message from PWKonica

---





## West Linn – Wilsonville Schools

September 28, 2010

City of West Linn  
Planning Department  
Peter Spir, Associate Planner  
22500 Salamo Road  
West Linn, OR 97068

Re: West Linn-Wilsonville School District  
Development Application for New Primary School  
CUP-10-03

Peter:

Thank you again for agreeing to review the draft staff report for the above referenced application with us this morning. I think it was very helpful to both parties.

Because some additional time would be beneficial for the City and the District to consider a number of issues related to the New West Linn Primary School application, the West Linn-Wilsonville School District, herein, requests that the October 13, 2010 Planning Commission Hearing be rescheduled to November 3, 2010. With this request, the District also agrees to extend the 120-day limit by 21 days.

We believe that with this extension, various details can be worked out such that both interests are well served.

Best Regards

DEPARTMENT OF OPERATIONS

Tim K. Woodley, Director

Cc: Karina Ruiz, DOWA  
Keith Liden, Planner  
Tony Vandenberg, Project Manager  
10036 [5.4]



**Parsons** 400 SW Sixth Avenue  
**Brinckerhoff** Suite 802  
Portland, OR 97204-1628  
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Fax: 503-274-1412

September 28, 2010

Peter Spir, Associate Planner  
West Linn Planning Department  
22500 Salamo Road  
West Linn, OR 97068

RE: CUP-10-03 New West Linn Primary School  
Potential Phased Development

Dear Peter,

The purpose of this letter is to elaborate upon the potential construction phasing of the proposed new West Linn Primary School (File No. CUP-10-03). The application narrative (p. 4) and supporting plan sheets (LU3.01 and LU3.02) described the potential phasing and identified the portions of the building that might be constructed at a later date.

The 67,000 square foot school, with 22 classrooms plus 1 special education room, will feature a two-story design in the northern classroom wing with the library, gym, administrative offices, and kindergarten classes on one level on the southern portion of the building. The building footprint will be slightly less than 42,000 square feet, and it will be able to accommodate about 500 students.

The district will request contractors to bid the construction of a 350- and a 500-student school. Depending upon the bids received and the status of the funding for all of the 2008 bond projects, the district will decide whether to fully build the school now, or to construct additional classrooms on the east side of the building at a later date. Sheets LU 3.01 and 3.02 (attached) in the application show the areas on the floor plan that potentially will be built in a second phase. In addition, the district has developed Sheet LU 3.08 to show how the temporary east building elevation would appear until the second phase is constructed. All of the proposed site improvements would be completed with the 350-student first phase or with a single-phase construction of the 500-student facility.

#### Potential Phase 1

If the district elects to build the school in two phases, the 350-student facility would have 15 classrooms (versus 23). The southeastern classroom wing, plus 3 classrooms in the northeastern wing (2 ground floor and one 2<sup>nd</sup> floor) would not be constructed as part of this first phase. They are shown as the "Additive Alternate" areas on Sheets LU3.01 and LU3.02. All of the site improvements shown in the application (e.g., driveways, parking and landscaping) would be completed as part of this phase.

Because portions of the eastern façade would be temporary until the second phase classrooms are added, the district would use less costly siding, which would be removed when the “additive alternate” portions of the building are constructed in Phase 2. The materials will be fiber cement siding painted to match the adjacent metal panel as shown in the attached Sheet LU3.08.

Potential Phase 2

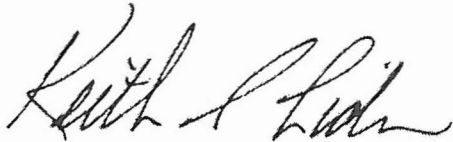
The second phase would include the remaining classrooms to increase the capacity from 350 to 500 students. The temporary siding on portions of the eastern building elevation would be removed to construct the remaining classrooms as shown on the plan sheets.

Timing

If not constructed using proceeds from the 2008 bond, the funding to build the second phase would come from a future school bond. With many projects included in the current bond still over one year from completion, it is too early for the district to plan for a future bond measure. Assuming that a future school bond is not placed on the ballot before 2014, the earliest potential date for completion of a second phase would probably be no sooner than 2016.

Because of the uncertainty regarding timing of a second phase, should it become necessary, the district requests that the city approve a phasing plan, which would allow initiation of construction of the eastern classrooms for a period of 8 years, from the approval date of this conditional use application. This request is consistent with the provisions of West Linn Community Development Code Section 99.125 Staged or Phased Development.

Sincerely,

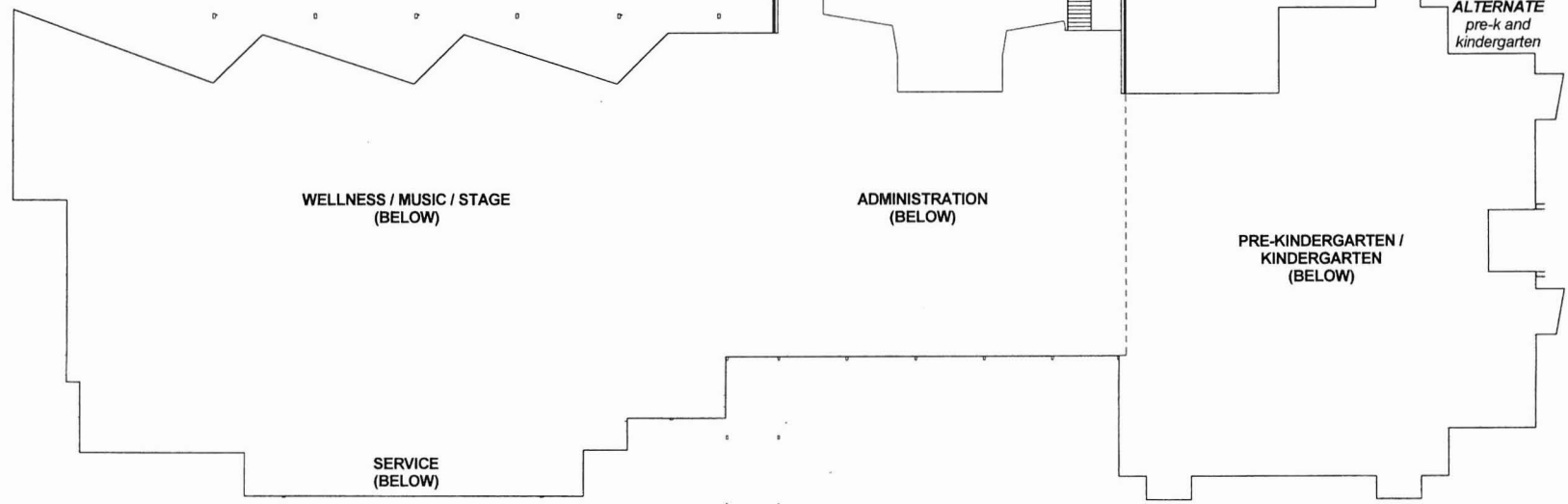
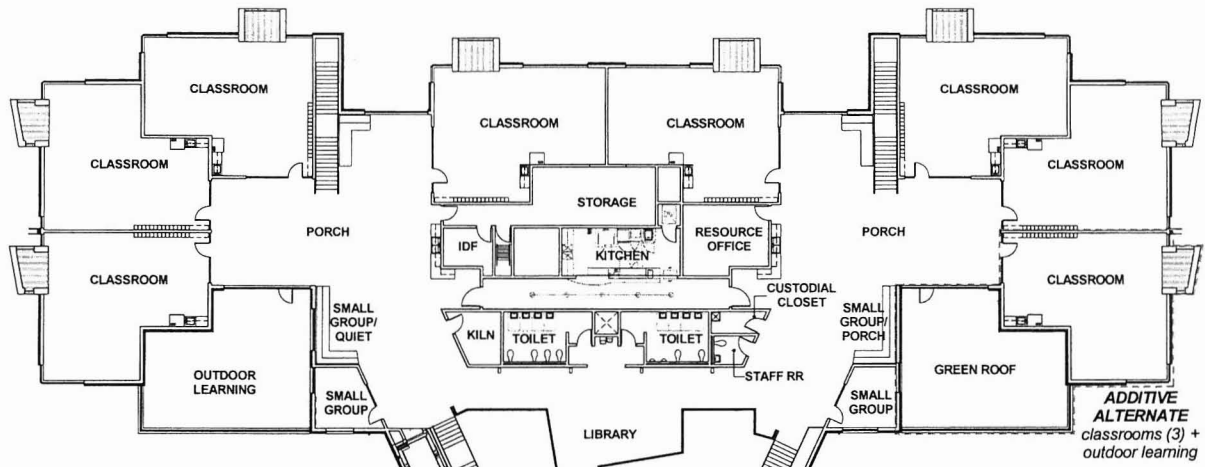


Keith S. Liden, AICP

cc: Tim Woodley, WLWV School District  
Karina Ruiz, DOWA  
Norm Dull, DOWA  
Mark Wharry, Winzler & Kelly







SECOND FLOOR PLAN 1  
SCALE: 1/8" = 1'-0"



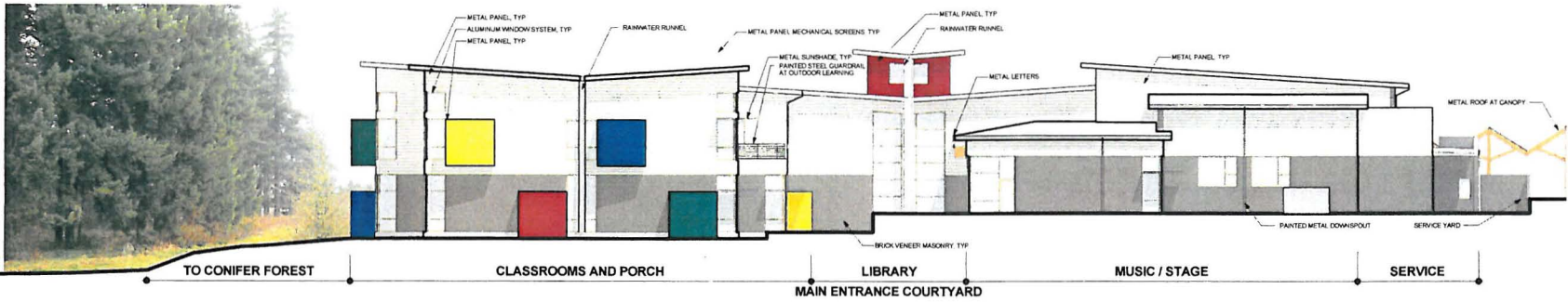
ARCHITECTURE - INTERIORS - PLANNING  
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architects, inc.  
111 THE PARK DRIVE - HOUSTON, TX 77056  
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West Linn Wilsonville School District  
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f: (503) 673 7044

phase	LAND USE APPLICATION
date	05/03/2010
revisions	

project # | 09014  
SECOND FLOOR PLAN

**LU3.02**

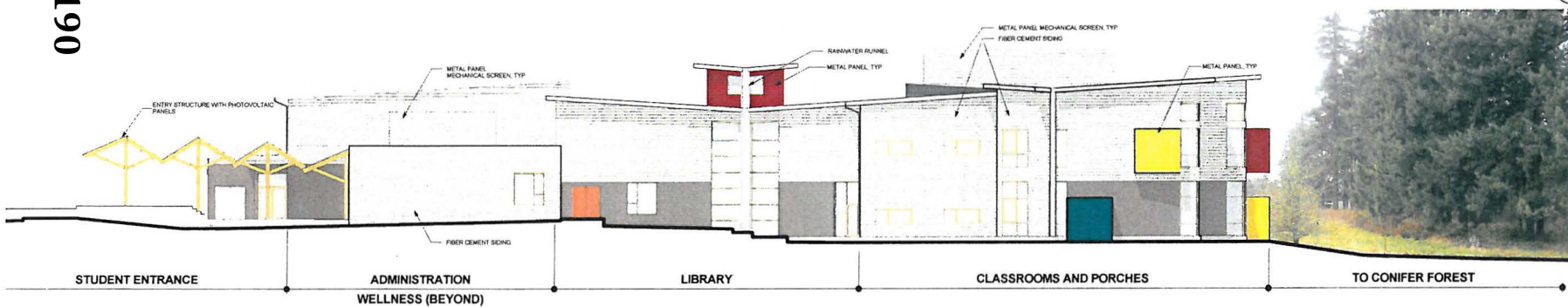


WEST ELEVATION 4  
SCALE 1"=10'-0"

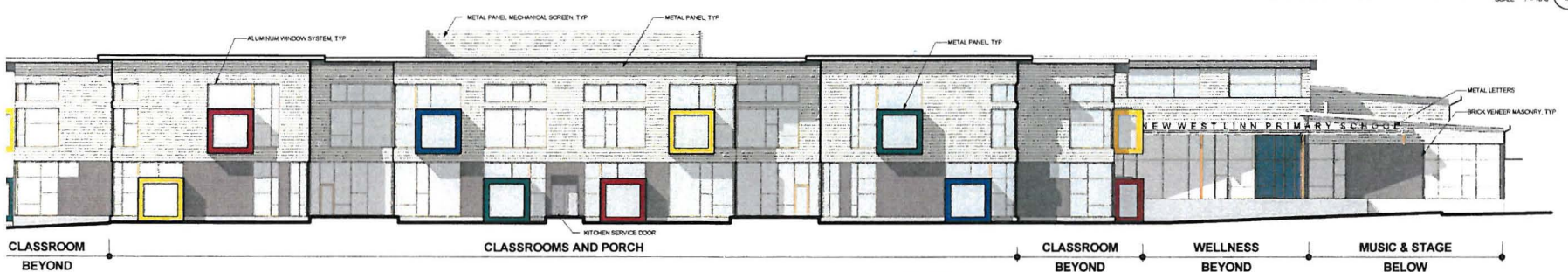


SOUTH ELEVATION 3  
SCALE 1"=10'-0"

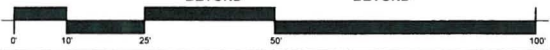
190



EAST ELEVATION 2  
SCALE 1"=10'-0"



NORTH ELEVATION 1  
SCALE 1"=10'-0"



**NEW WEST LINN PRIMARY SCHOOL**  
West Linn Wilsonville School District  
22210 SW STAFFORD ROAD - WEST LINN, OR 97088  
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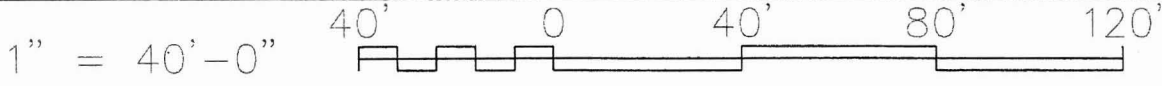
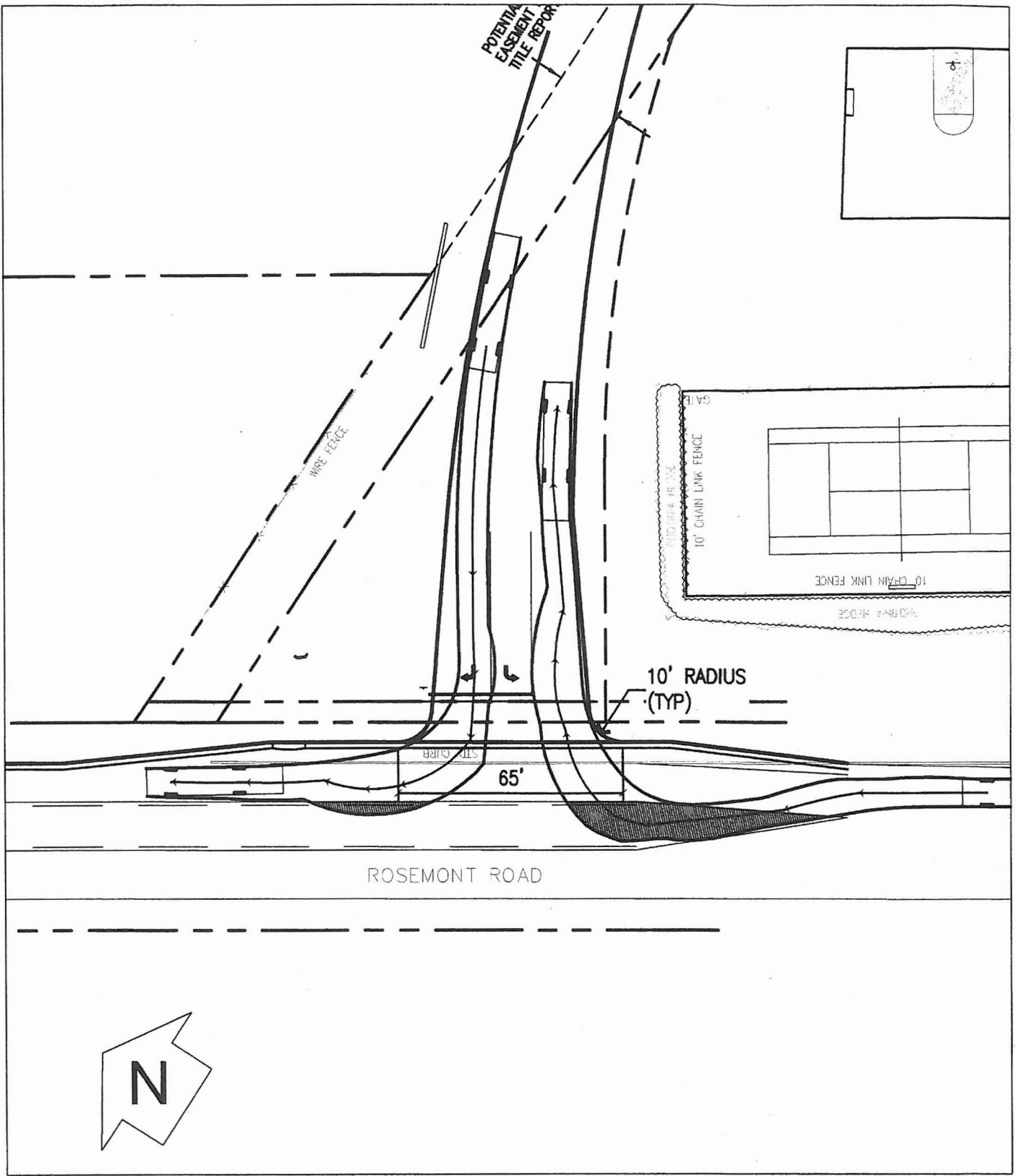
phase	LAND USE APPLICATION
date	05/03/2010
revisions	


project # | 09014  
EXTERIOR ELEVATIONS

**LU3.08**

Staff note: The following drawings from Winzler and Kelly were requested by staff to demonstrate the anticipated impact of a 10, 15, 20 and 25 foot curb radii on the turn movement of school buses. The dark shaded areas represent the intrusion of the bus into the center turn lane.

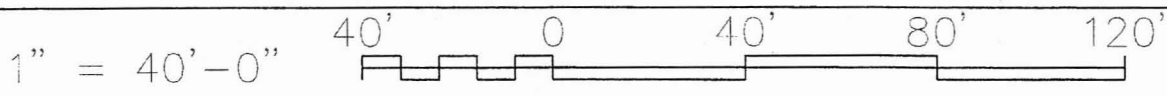
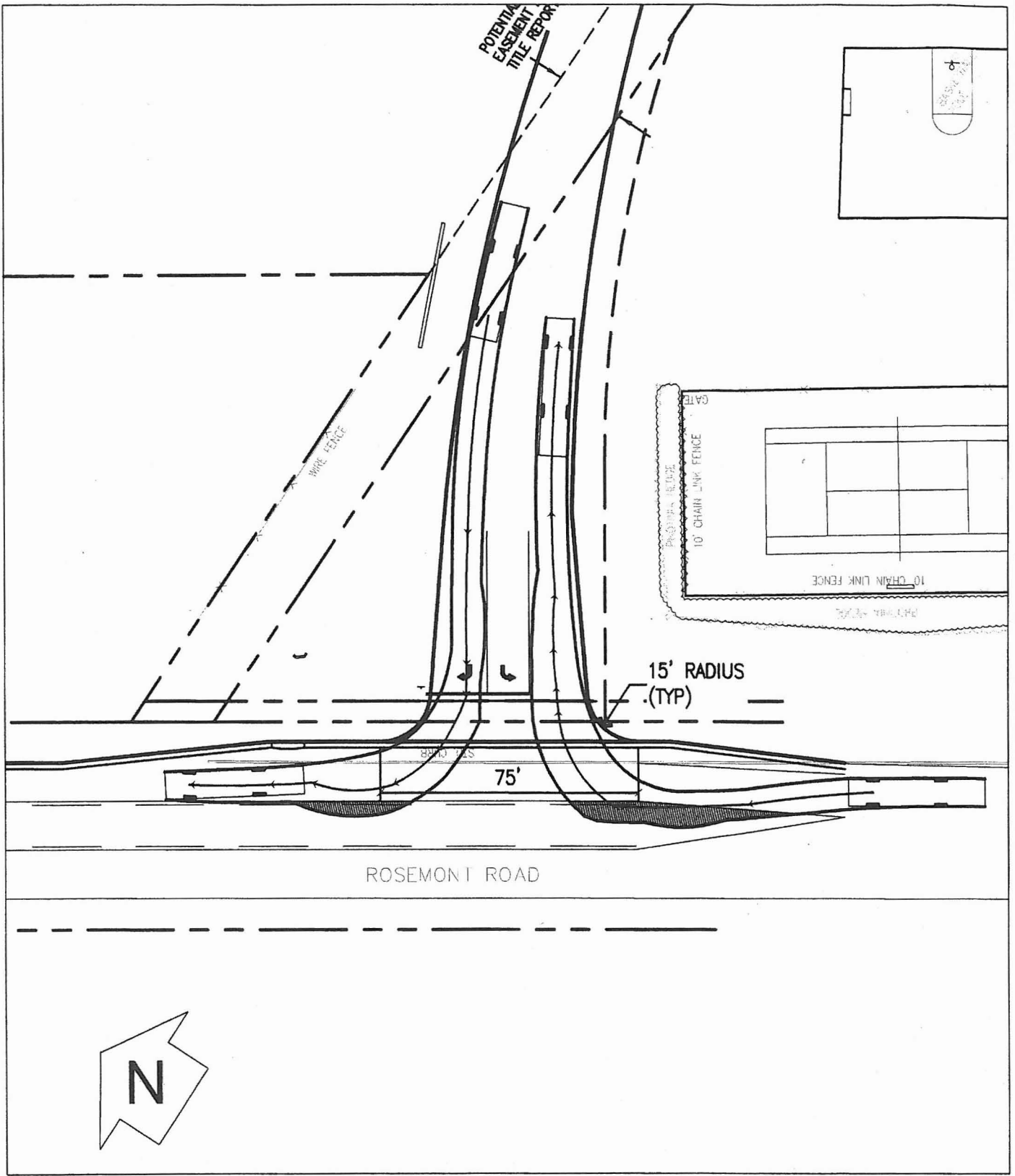
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 <p><b>WINZLER &amp; KELLY</b>          15575 SW SEQUOIA PKWY, SUITE 140          PORTLAND, OR 97224          PH: 503-226-3921 FAX: 503-226-3926</p>	PROJECT		NEW WEST LINN PRIMARY SCHOOL			
	TITLE		DRIVEWAY LAYOUT EXHIBIT - 10' RADIUS			
DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.	
STS	STS		9/29/10	10884-09009	-	



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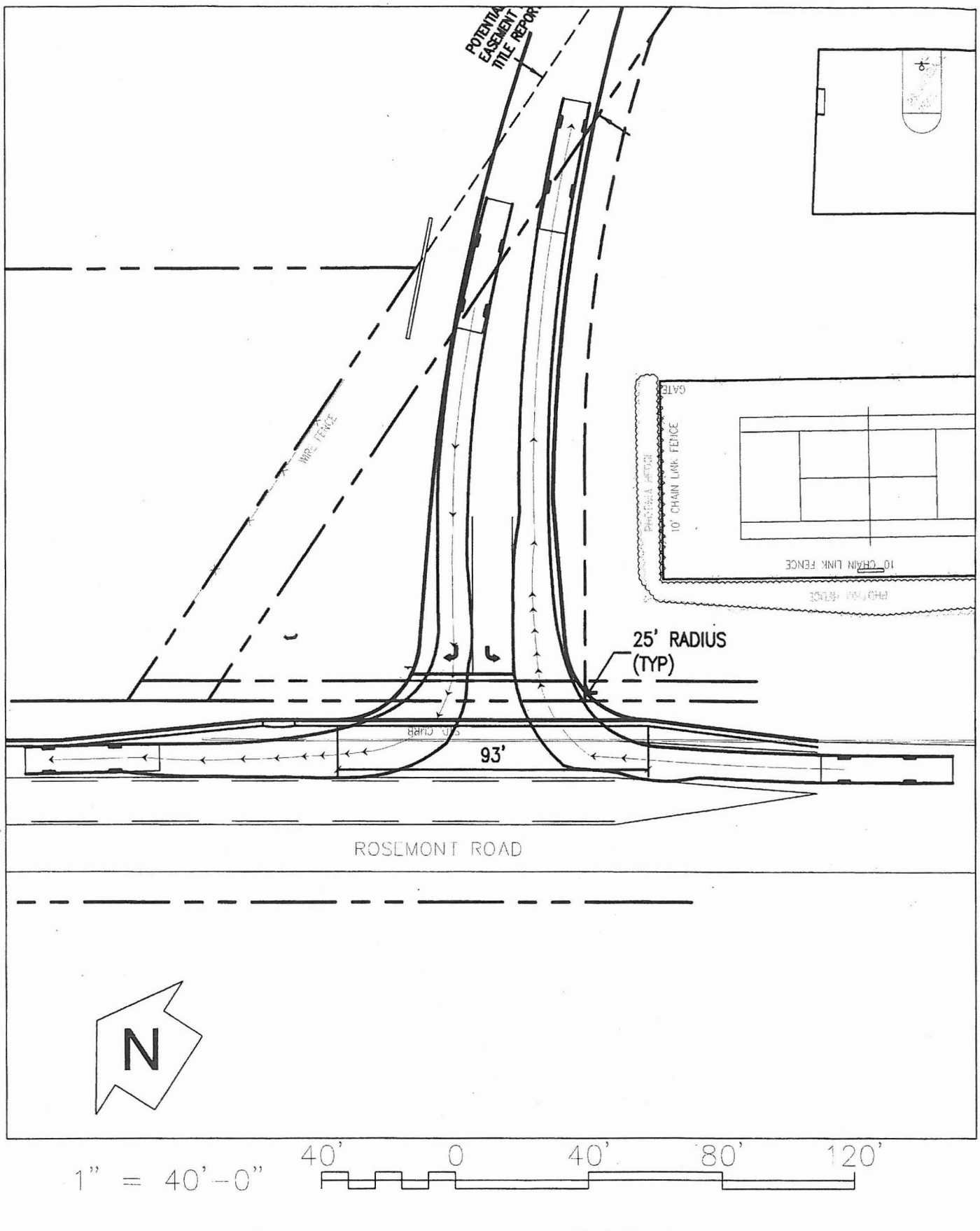


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PROJECT		NEW WEST LINN PRIMARY SCHOOL			
TITLE		DRIVEWAY LAYOUT EXHIBIT - 15' RADIUS			
DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
STS	STS		9/29/10	10884-09009	-



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PROJECT		NEW WEST LINN PRIMARY SCHOOL			
TITLE		DRIVEWAY LAYOUT EXHIBIT - 25' RADIUS			
DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
STS	STS		9/29/10	10884-09009	-

# NEW WEST LINN PRIMARY SCHOOL

West Linn Wilsonville School District  
22210 SW STAFFORD ROAD - WEST LINN, OR 97068

## CONTENTS

### land use

LU1.00	EXISTING CONDITIONS PLAN
LU1.01	SITE PLAN
LU1.02	GRADING PLAN
LU1.03	EROSION CONTROL PLAN
LU1.04	UTILITY PLAN
LU2.01	SITE ANALYSIS
LU2.02	LANDSCAPE PLAN - WEST
LU2.03	LANDSCAPE PLAN - EAST
LU2.04	PLANTING / IRRIGATION PLAN - WEST
LU2.05	PLANTING / IRRIGATION PLAN - EAST
LU3.01	MAIN FLOOR PLAN
LU3.02	SECOND FLOOR PLAN
LU3.03	ROOF PLAN
LU3.04	EXTERIOR ELEVATIONS
LU3.05	COVERED PLAY AND SIGNAGE
LU3.06	SITE SECTIONS
LU3.07	SITE SECTIONS
LU4.01	SITE PLAN - LIGHTING CALCULATIONS
LU4.02	SITE PLAN - LIGHTING CALCULATIONS
LU4.03	STREET LIGHTING CALCULATIONS

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**landscape architect**  
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Camas, Washington 98607  
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**structural engineer**  
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**mechanical engineer**  
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**electrical engineer**  
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Portland, Oregon 97204  
t: (503) 226 2921 f: (503) 226 2930

**technology engineer**  
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VICINITY MAP



Project # 08014

NEW WEST LINN PRIMARY SCHOOL  
LAND USE APPLICATION | 06/25/2010



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**LEGEND**

- FIRE HYDRANT
- WATER METER
- SANITARY/STORM SEWER MANHOLE
- STORM DRAIN CATCH BASIN (CB)
- UTILITY POLE
- UTILITY POLE ANCHOR
- CLEARCUT
- GAS METER
- WATER VALVE
- ST — STORM SEWER LINE
- W — WATER LINE
- G — GAS LINE
- SS — SANITARY SEWER LINE
- T — TELEPHONE LINE
- DP — OVERHEAD POWER LINE
- F — FENCE LINE
- U — UNDERGROUND FENCE
- ASPHALT
- CONCRETE

197

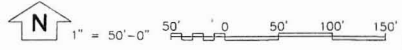


**COMPASS ENGINEERING**  
ENGINEERING SURVEYING PLANNING  
1100 SW INTERNATIONAL WAY, SUITE 101  
PORTLAND, OREGON 97201  
www.compass-engineering.com  
503.255.8888 ext. 100  
503.255.8888 fax

**TOPOGRAPHIC SITE MAP**

ERICKSON PROPERTY  
TAX LOTS 12300, 12301, 12500, 12600, 12700 & 12800  
SE 1/4 OF THE SW 1/4 SECTION 23, T.2S., R.1E., W.M.  
CLACKAMAS COUNTY, OREGON

1 EXISTING CONDITIONS  
LU1.00(LU1.00 SCALE: 1"=50'-0")



ARCHITECTURE • INTERIORS • PLANNING

DULL OLSON WEENER  
architects inc.

100 SW FRANK STREET, PORTLAND, OREGON 97205  
t: 503.228.1818 / f: 503.228.8113 www.dowa.com

**NEW WEST LINN PRIMARY SCHOOL**  
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PH (503) 258-1851 • FAX (503) 258-3028  
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phase	DD
date	07/16/2010
revisions	
project #	09014

EXISTING CONDITIONS  
**LU1.00**



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6. CONTOURS ARE ONE FOOT.

**LEGEND**

- ⊕ FIRE HYDRANT
- ⊗ WATER METER
- SANITARY/STORM SEWER MANHOLE
- STORM DRAIN CATCH BASIN (CB)
- ⊙ UTILITY POLE
- ⊙ UTILITY POLE ANCHOR
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- UGP — UNDERGROUND POWER
- ▭ ASPHALT
- ▭ CONCRETE

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1 EXISTING CONDIT  
 LUT.00/LUT.00 SCALE: 1"=50'-0"





**COMPASS ENGINEERING**  
 ENGINEERING SUPPORTING PLANNING  
1000 N. CENTRAL AVENUE, SUITE 100  
 PORTLAND, OREGON 97228

**ERICKSON PROPERTY**  
 TAX LOTS 12300, 12301, 12500, 12501, 12700 & 12800  
 SE 1/4 OF THE SW 1/4 SECTION 23, T.2S, R.1E, W.M.  
 CLATSOP COUNTY, OREGON

**TOPOGRAPHIC SITE MAP**

1 EXISTING CONDITIONS



1" = 50'-0"  
 50' 0 50' 100' 150'

199 PRELIMINARY - NOT FOR CONSTRUCTION

© 1999 DOWNE WOODS ARCHITECTS/VIA-40000 DOWN WARD DRICKSON SITE P/S/CD/WD/CD/1/081-0909-CD-0357 DWG. SHEET 7/22/2010 9:30 AM



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**DULL OLSON WEEKES**  
 architects inc.

907 SW STARK STREET • PORTLAND, OREGON 97205  
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**NEW WEST LINN PRIMARY SCHOOL**  
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**WINZLER SKELLY**  
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 WWW.WINZLER-SKELLY.COM

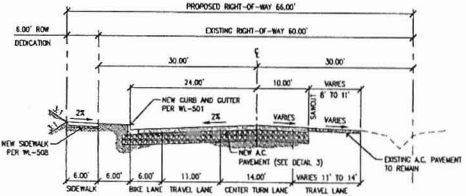
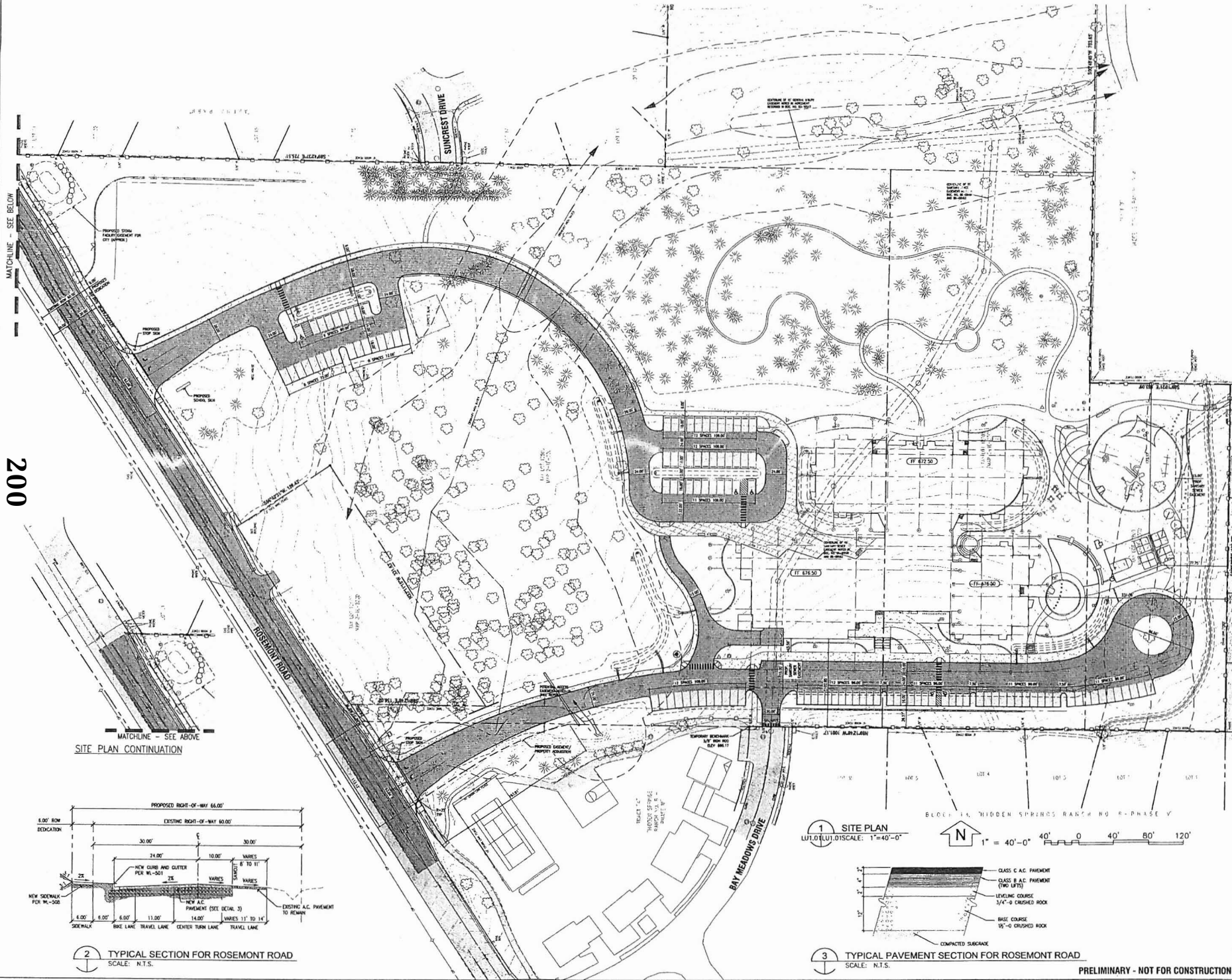


KEY PLAN	
Phase	DD
date	07/16/2010
revisions	

project # 09014  
 EXISTING CONDITIONS  
**LU1.00**

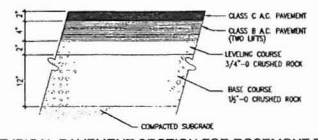


200



**2** TYPICAL SECTION FOR ROSEMONT ROAD  
SCALE: N.T.S.

**1** SITE PLAN  
LU1.0 (LU1.DISCAL: 1"=40'-0")



**3** TYPICAL PAVEMENT SECTION FOR ROSEMONT ROAD  
SCALE: N.T.S.

PRELIMINARY - NOT FOR CONSTRUCTION

**NEW WEST LINN PRIMARY SCHOOL**  
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22210 SW Stafford Road  
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t: (503) 673 7975  
f: (503) 673 7044

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phase	LAND USE
	APPLICATION
date	06/25/2010
revisions	

project # 09014  
**SITE PLAN**  
**LU1.01**





key plan

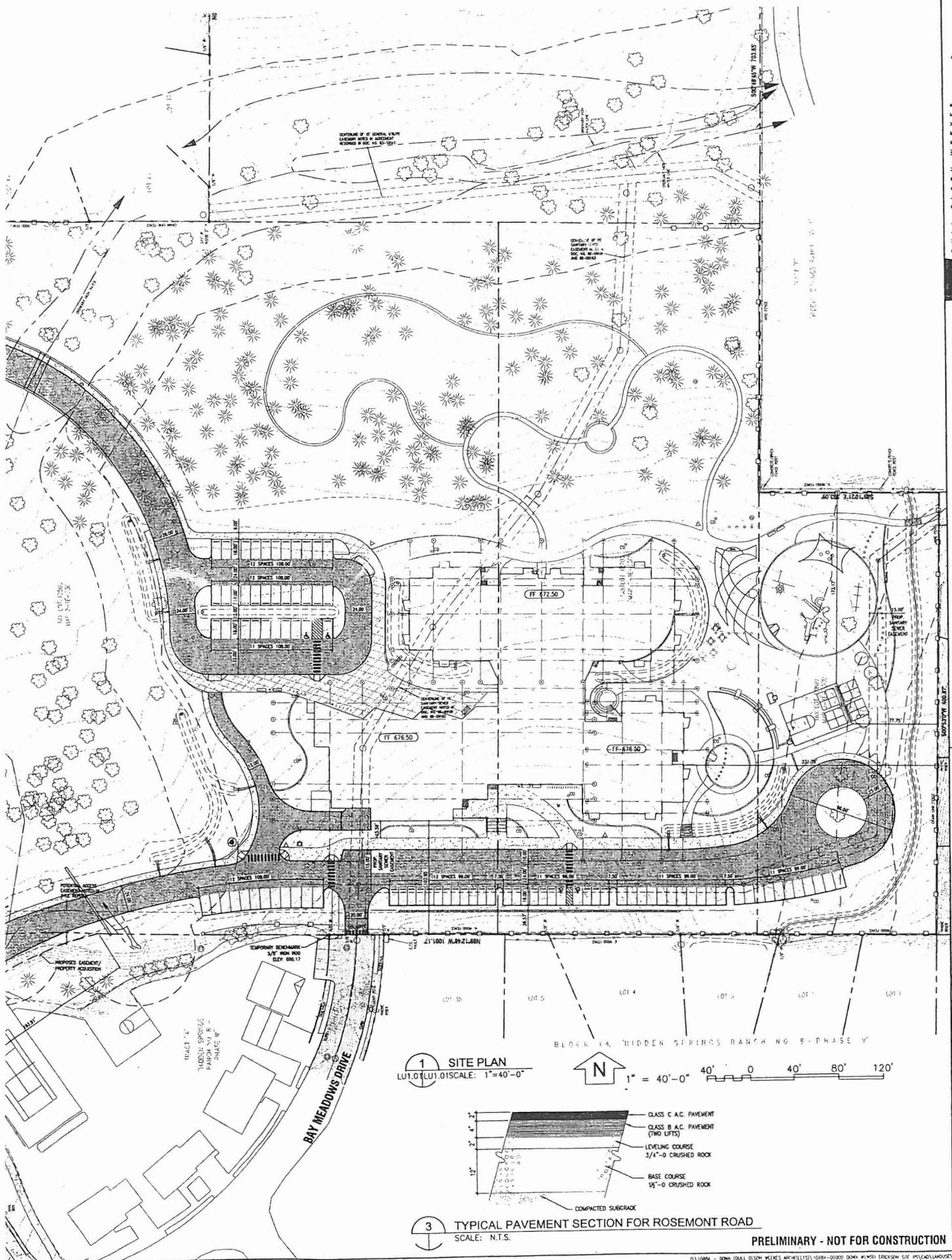
phase	LAND USE
	APPLICA
date	06/25/20
revisions	

project # | 09014

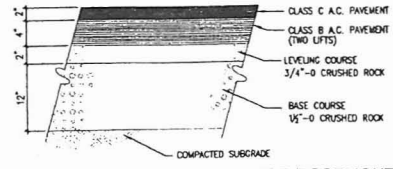
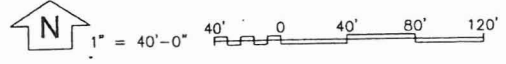
SITE PLAN

**LU1.0**

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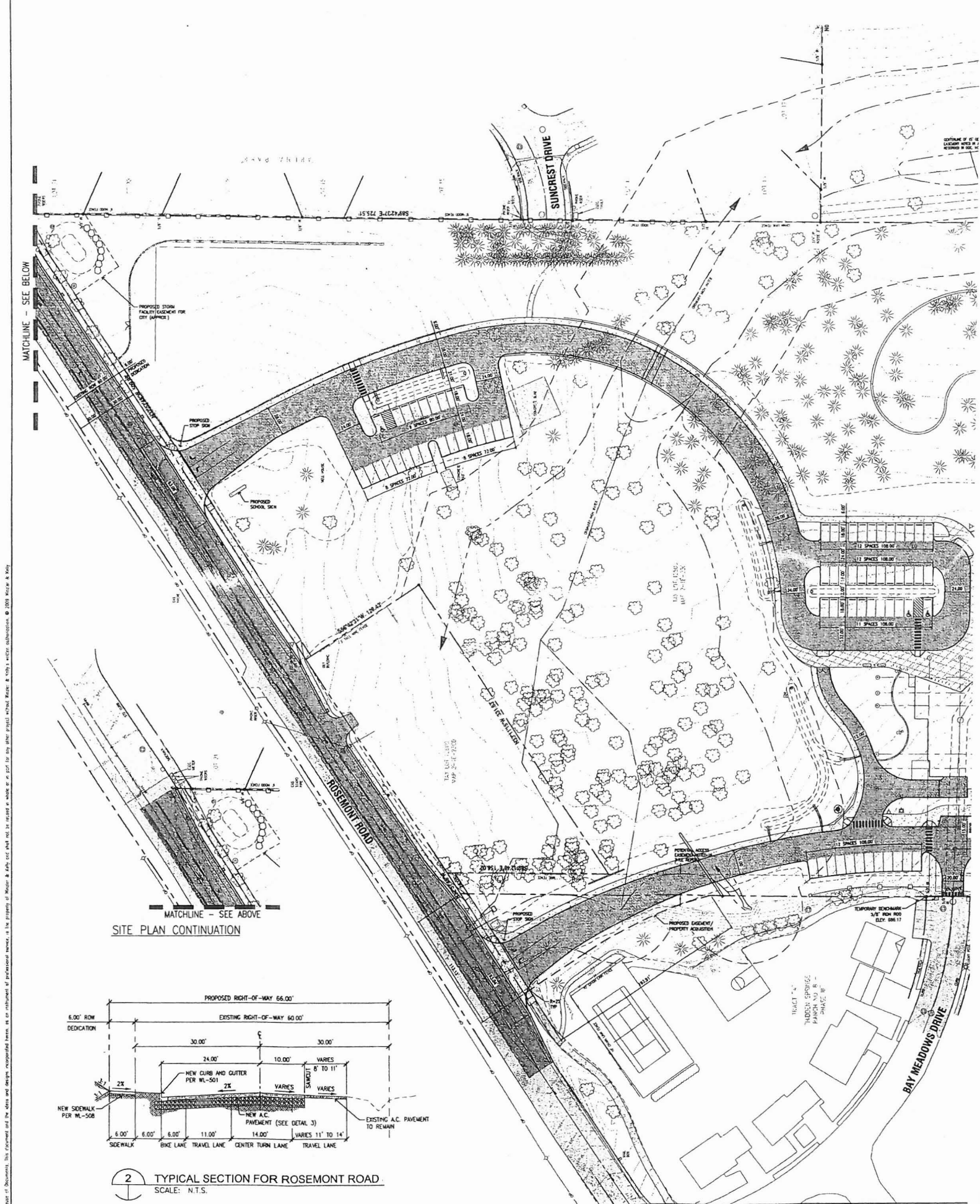


**1 SITE PLAN**  
LU1.0 (LU1.0) SCALE: 1" = 40'-0"

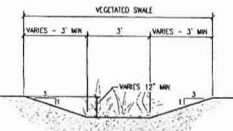
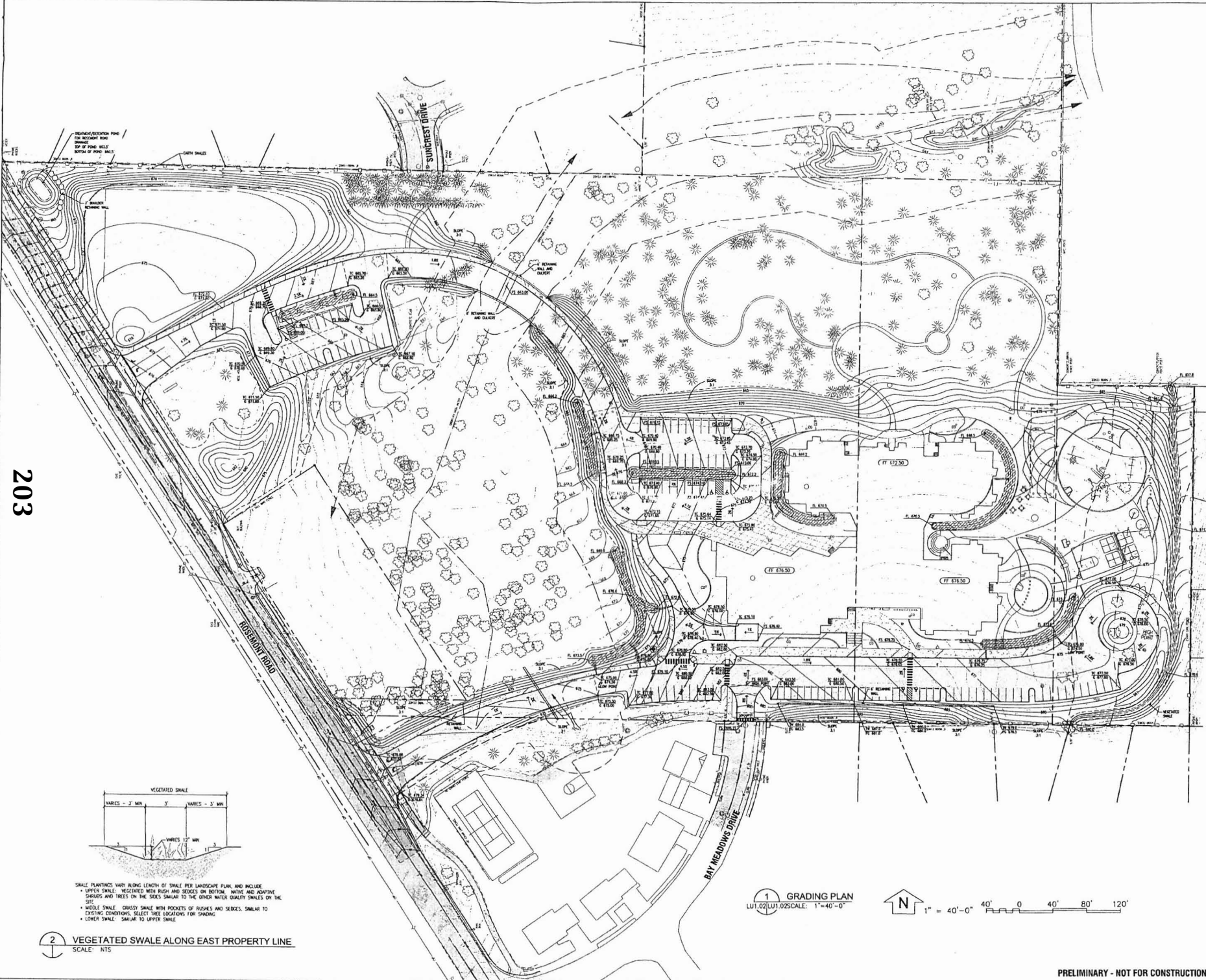


**3 TYPICAL PAVEMENT SECTION FOR ROSEMONT ROAD**  
SCALE: N.T.S.

011084 - 0004 - DULL OLSON WEEKES ARCHITECTS | 10184 - 0003 DORA PL | 501 E. GILSON ST. | PORTLAND, OR 97202 | TEL: 503-228-3821 | FAX: 503-228-3822 | WWW.DOWNSIDEARCHITECTS.COM



2 TYPICAL SECTION FOR ROSEMONT ROAD.  
SCALE: N.T.S.

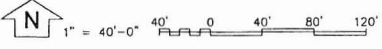


SWALE PLANTINGS VARY ALONG LENGTH OF SWALE PER LANDSCAPE PLAN AND INCLUDE:

- UPPER SWALE: VEGETATED WITH BUSH AND SEDGES ON BOTTOM, MAIZE AND ASPEN SHRUBS AND TREES ON THE SIDES SIMILAR TO THE OTHER WATER QUALITY SWALES ON THE SITE.
- MIDDLE SWALE: CRAZY SWALE WITH POCKETS OF FISHES AND SEDGES, SIMILAR TO EXISTING CONDITIONS, SELECT TREE LOCATIONS FOR SHADING.
- LOWER SWALE: SIMILAR TO UPPER SWALE.

2 VEGETATED SWALE ALONG EAST PROPERTY LINE  
SCALE: NTS

1 GRADING PLAN  
LU1.02/LU1.02 SCALE: 1"=40'-0"



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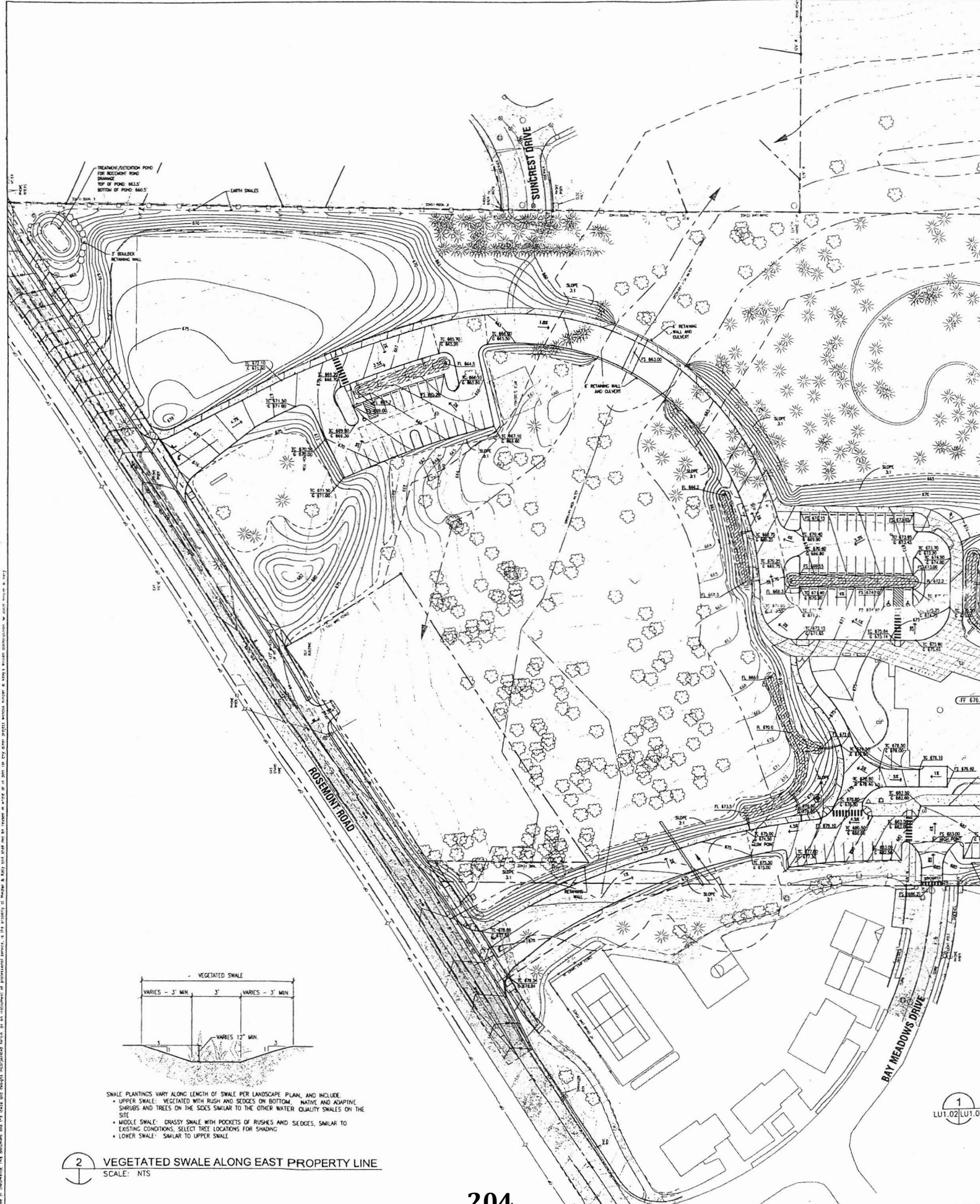
key plan

phase	LAND USE
	APPLICATION
date	06/25/2010
revisions	

project # | 09014

GRADING PLAN  
**LU1.02**





- SWALE PLANTINGS VARY ALONG LENGTH OF SWALE PER LANDSCAPE PLAN, AND INCLUDE:
- UPPER SWALE: VEGETATED WITH RUSH AND SEDGES ON BOTTOM, NATIVE AND ADAPTIVE SHRUBS AND TREES ON THE SLOES SIMILAR TO THE OTHER WATER QUALITY SWALES ON THE SITE
  - MIDDLE SWALE: GRASSY SWALE WITH POCKETS OF RUSHES AND SEDGES, SIMILAR TO EXISTING CONDITIONS, SELECT TREE LOCATIONS FOR SHADING
  - LOWER SWALE: SIMILAR TO UPPER SWALE

**2** VEGETATED SWALE ALONG EAST PROPERTY LINE  
SCALE: NTS

1  
LUT.02/LUT.0

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KEY

phase | L

date | A

revisions | 0

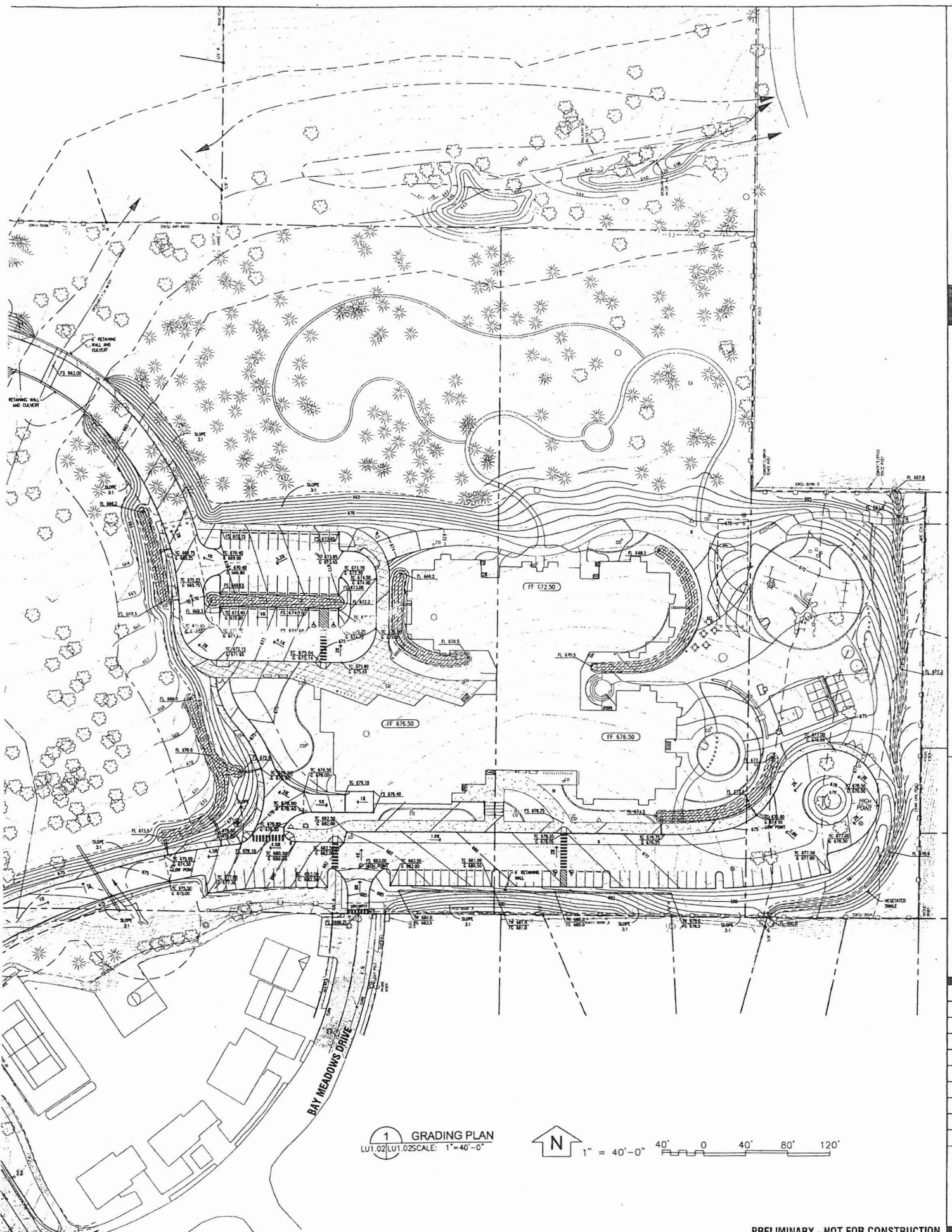
project # | C

GRADING



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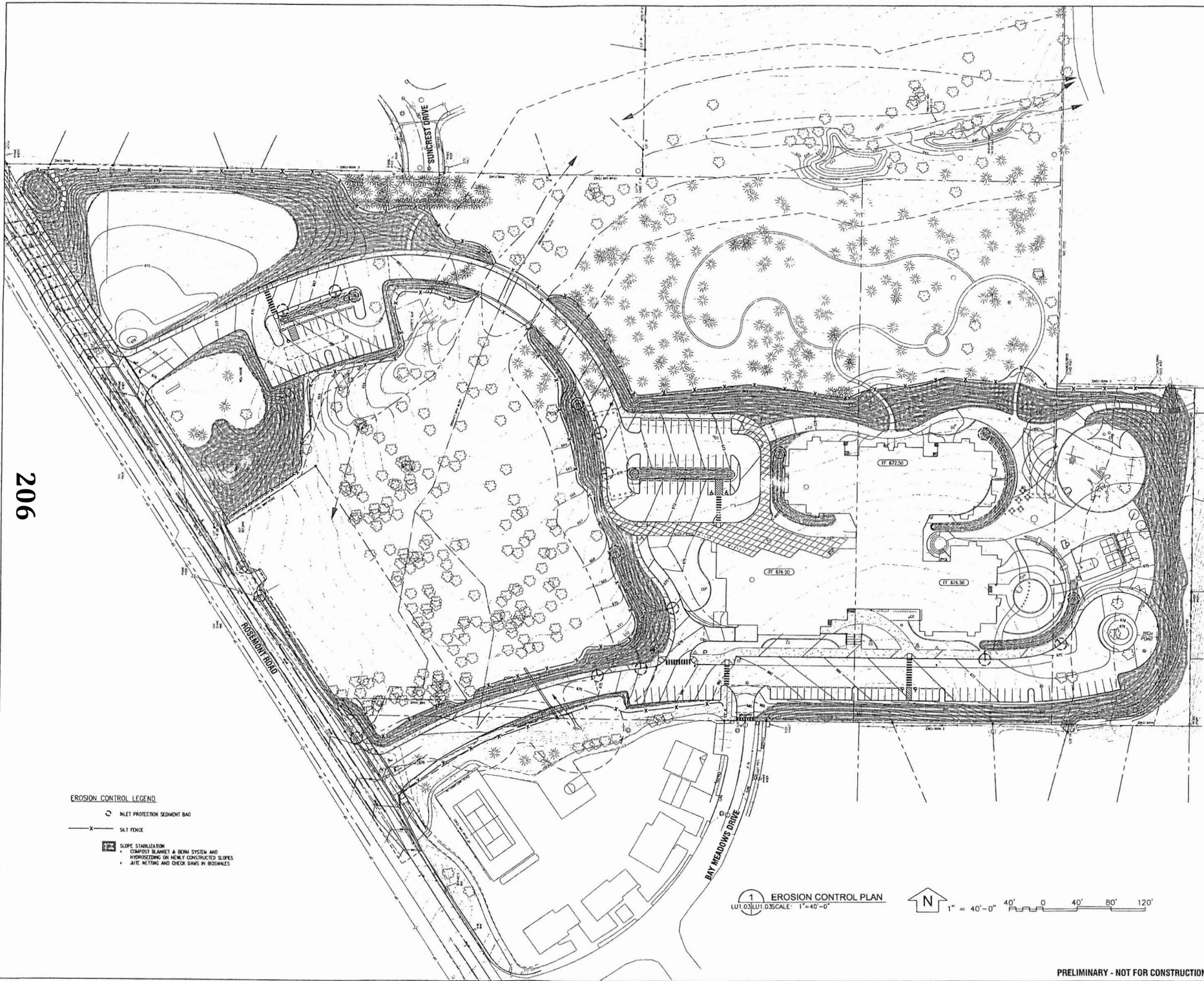
1 GRADING PLAN  
LU1.02 | LU1.02 SCALE: 1" = 40'-0"





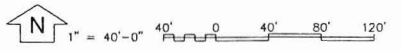
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- EROSION CONTROL LEGEND**
- INLET PROTECTION SEDIMENT BASIN
  - X — SILT FENCE
  - SLOPE STABILIZATION COMPOST BLANKET & BEEM SYSTEM AND HYDROSEEDING ON NEWLY CONSTRUCTED SLOPES
  - JUTE MATING AND CHECK DAMS IN BISHNALES

1 EROSION CONTROL PLAN  
 LU1.03.LU1.03 SCALE: 1"=40'-0"



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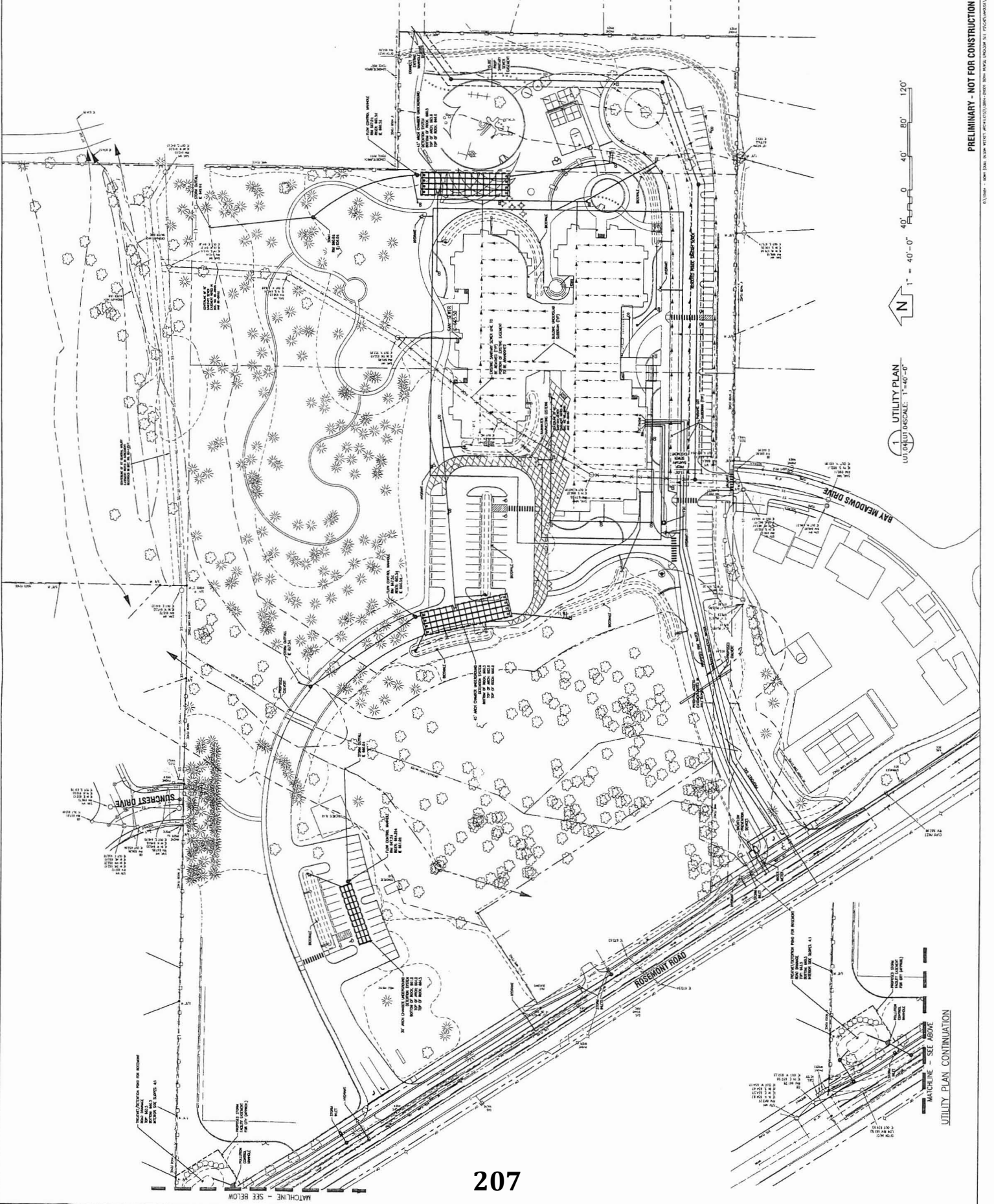
key plan

phase	LAND USE
	APPLICATION
date	06/25/2010
revisions	
project #	09014

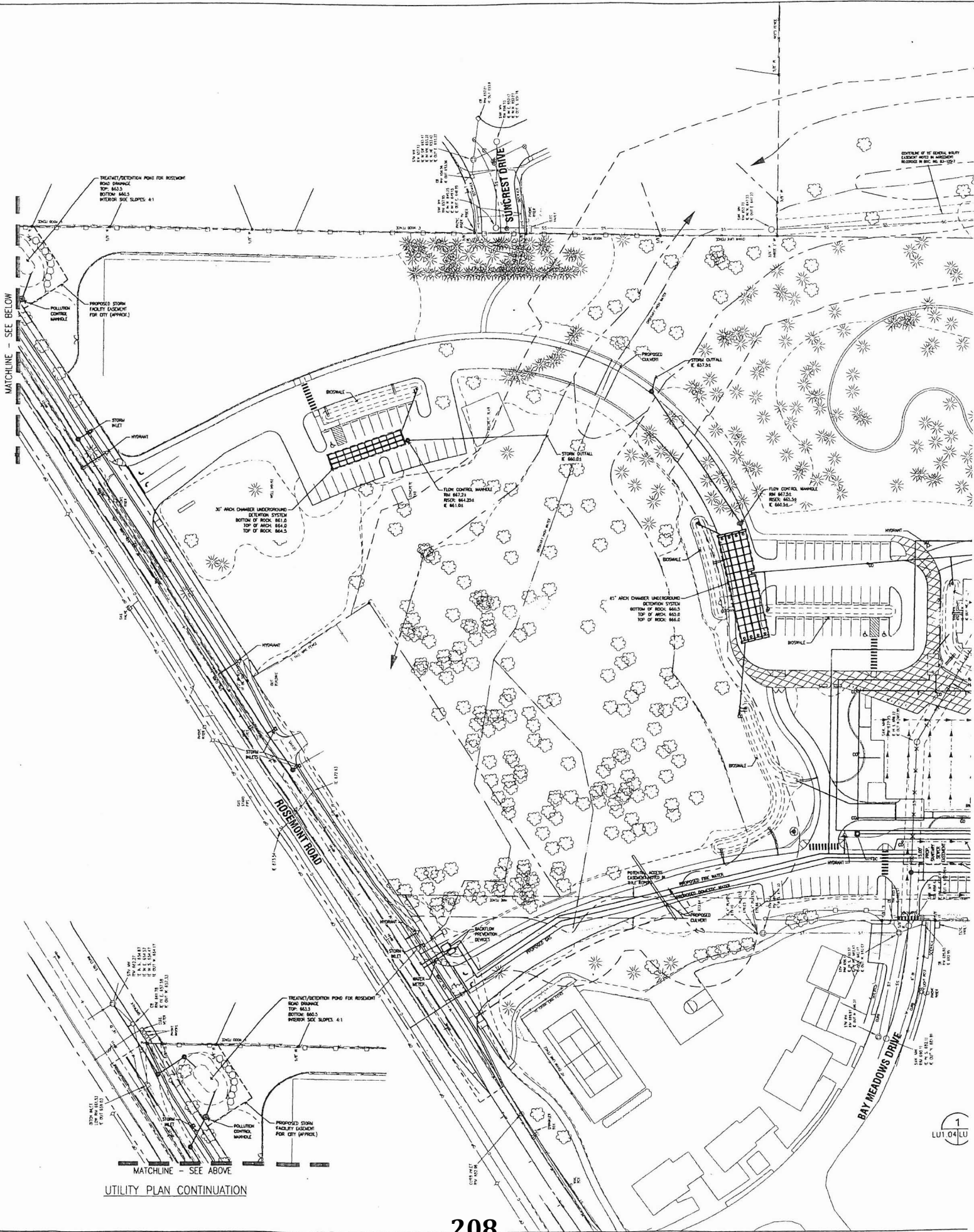
EROSION CONTROL PLAN  
**LU1.03**

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UTILITY PLAN CONTINUATION





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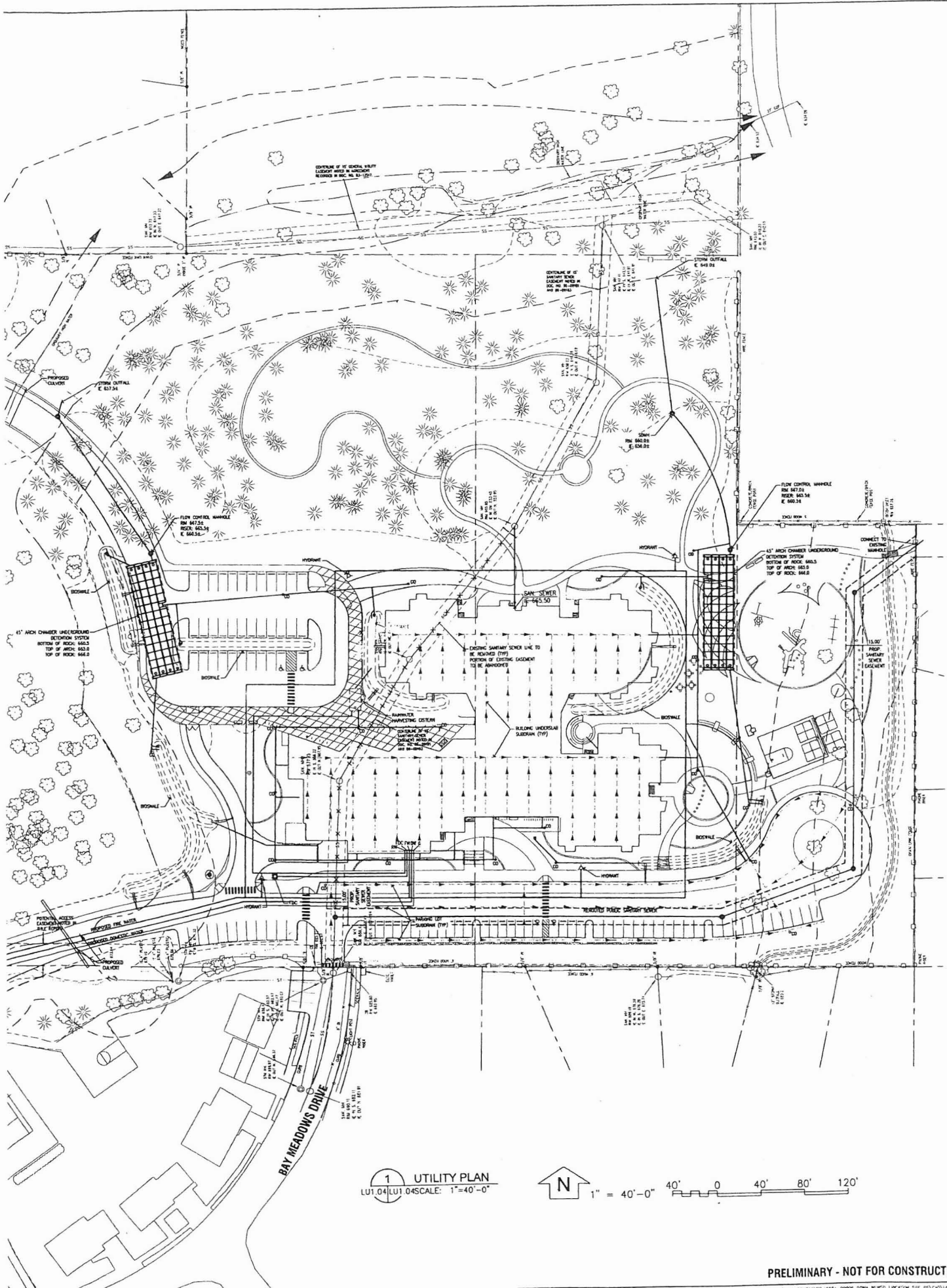
phase	LANC
	APPL
date	06/25
revisions	

project # | 0901

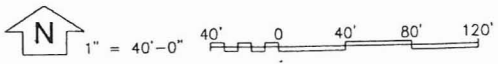
UTILITY F

# LU1

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1 UTILITY PLAN  
LU1.04 | LU1.04 SCALE: 1"=40'-0"



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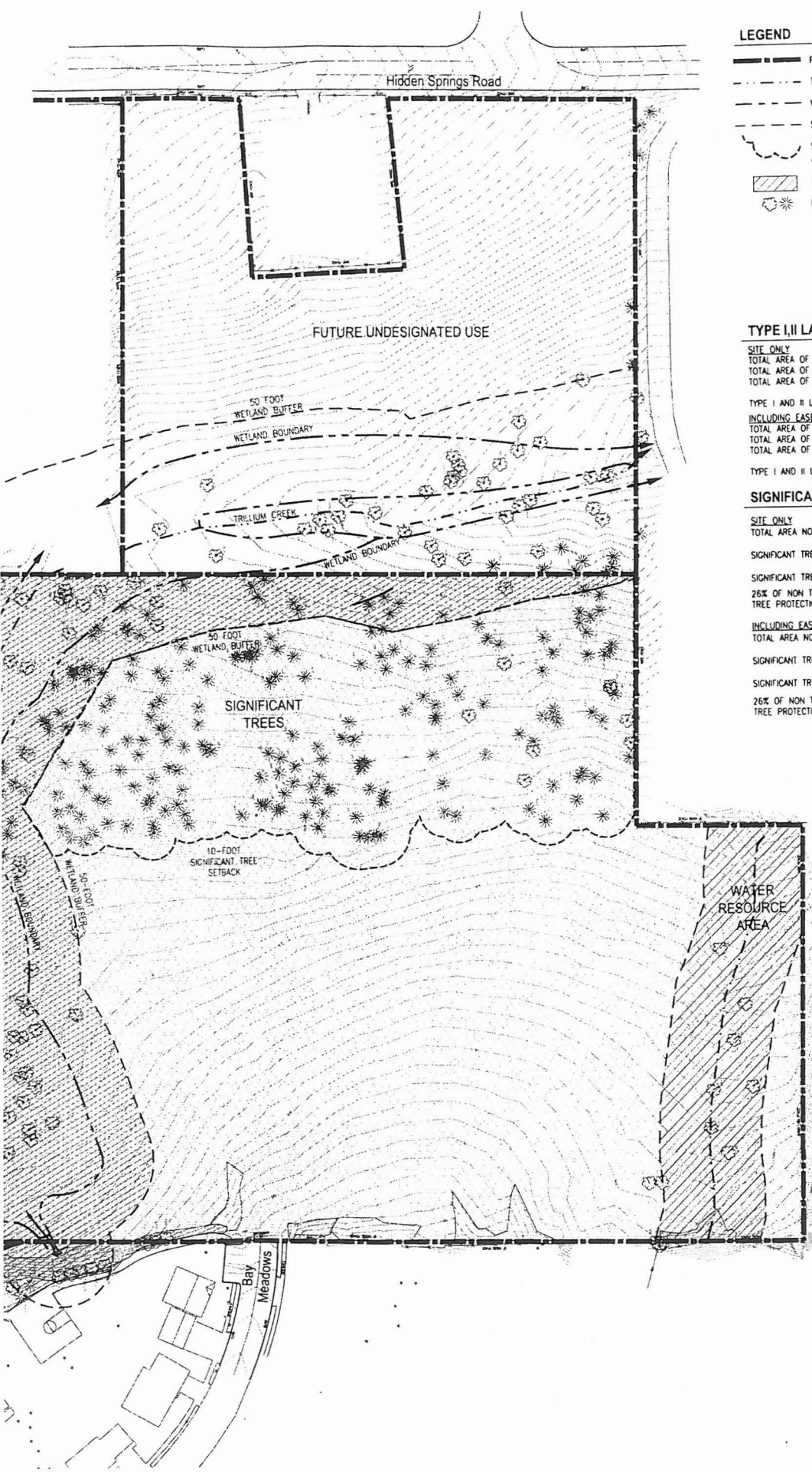




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**LEGEND**

- PROPERTY LINE
- - - - - TRILLIUM CREEK
- - - - - WETLAND BOUNDARY
- - - - - 50-FOOT WETLAND BUFFER
- - - - - SIGNIFICANT TREE PROTECTION AREA (NON TYPE I OR II LANDS)
- ▨ TYPE II LANDS - 189,987 SF
- ☼ EXISTING TREES

**TYPE I, II LANDS**

<b>SITE ONLY</b>	
TOTAL AREA OF SITE	709,115 SF
TOTAL AREA OF TYPE I LANDS	0 SF
TOTAL AREA OF TYPE II LANDS	228,660 SF
TYPE I AND II LANDS AS % OF TOTAL: 32%	
<b>INCLUDING EASEMENT</b>	
TOTAL AREA OF SITE PLUS EASEMENT	718,950 SF
TOTAL AREA OF TYPE I LANDS	0 SF
TOTAL AREA OF TYPE II LANDS	236,970 SF
TYPE I AND II LANDS AS % OF TOTAL: 33%	

**SIGNIFICANT TREES**

<b>SITE ONLY</b>	
TOTAL AREA NON TYPE I OR II	480,455 SF
SIGNIFICANT TREES (non type I/II):	128,790 SF
SIGNIFICANT TREES AS % OF NON TYPE I/II LANDS:	27%
26% OF NON TYPE I/II LANDS WILL BE SET ASIDE FOR TREE PROTECTION. SEE SHEET LU2.04 AND LU2.05.	
<b>INCLUDING EASEMENT</b>	
TOTAL AREA NON TYPE I OR II	481,980 SF
SIGNIFICANT TREES (non type I/II):	128,790 SF
SIGNIFICANT TREES AS % OF NON TYPE I/II LANDS:	27%
26% OF NON TYPE I/II LANDS WILL BE SET ASIDE FOR TREE PROTECTION. SEE SHEET LU2.04 AND LU2.05.	

**SLOPE ANALYSIS**

	0-15%
	16-25%
	26-35%
	36-50%
	>50%

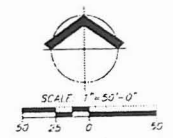
**NEW WEST LINN PRIMARY SCHOOL**  
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22210 SW STAFFORD ROAD - WEST LINN, OR 97068  
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f: (503) 673 7044

**WALKER • MACY**

phase	LAND USE APPLICATION
date	06/25/2010
revisions	

project # 09014  
SITE ANALYSIS

**LU2.01**





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 147 9th Street, Astoria, OR 97103  
 Phone: (503) 325-2222 Fax: (503) 325-2223 Email: luna@lunaarch.com

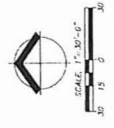
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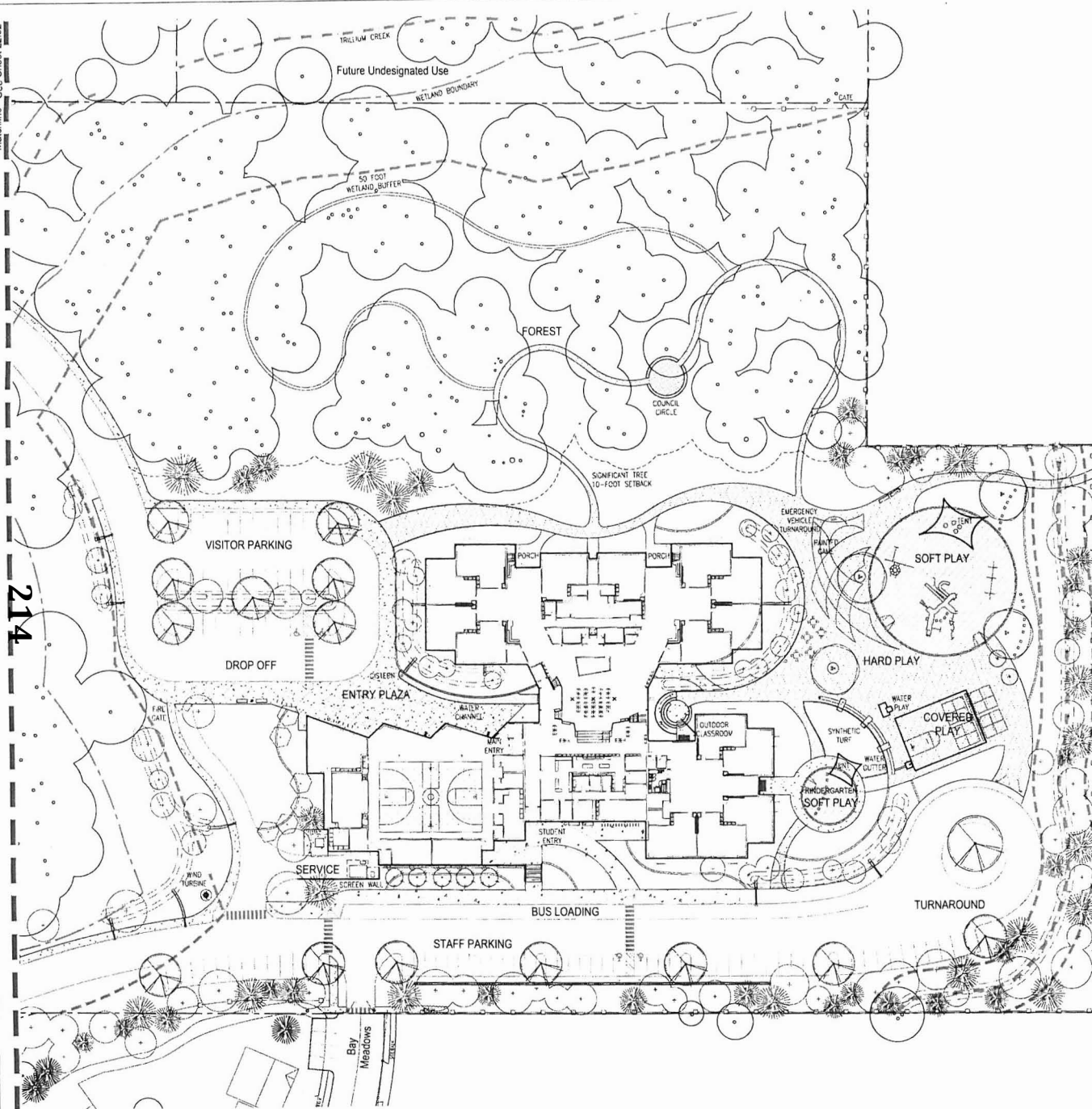
**WALKER-MACY**

phase	LAND USE APPLICATION
date	06/25/2010
revisions	
project #	105014

**LU2.02**  
 LANDSCAPE PLAN - WEST

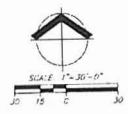
- SITE LEGEND**
- VEHICULAR ASPHALT PAVING WITH FINISHED CURBS
  - CONCRETE PAVING AT ENTRY PLAZA
  - W/ SPECIAL FINISH
  - CONCRETE SIDEWALK
  - CONCRETE SIDEWALK OVER SMALL SPECIAL SCHEDING AT 4" O.C.
  - ENGRAVED WOOD PLAY SURFACING
  - CONCRETE BANKS AT FOREST CONC. CURVE
  - WOOD ON P PAV. 14 FOREST
  - FLASH CURB AT SOFT PLAY 12" HIGH
  - CONCRETE SEAWALL
  - CONCRETE CURB AT RAMP
  - CONCRETE RAMP WITH HANDRAILS
  - CONCRETE AMPHIPHILIC SEALS
  - STEPS AT AMPHIPHILIC SEALS WITH HANDRAILS
  - CONCRETE RAMP AT PLAY AREA
  - CONCRETE BRIDGE OVER GUTTER
  - CONCRETE GUTTER 24" HIGH
  - CONCRETE STEPS WITH HANDRAILS AT BUS ENTRY 36" HIGH TREADS
  - STONE ENTRY SIGN FROM RECLAIMED BUSHES NAT. ON SITE
  - BASKET CONC. RING FROM RECLAIMED BUSHES ON SITE
  - PRECAST CONCRETE INLET
  - WATER PLAY FEATURE WITH PUMP AND CONTROL
  - RECLAIMING CONCRETE WRECK CHANNEL 6" BELOW BELOW FINISH SURFACE 6500# REINFORCED CONCRETE DECORATIVE MARBLE
  - BIKE RACKS
  - 24" TOTAL (48 BIKES), 36 INCHES COVERED
  - 6-FOOT METAL BENCH
  - METAL PICNIC TABLE
  - 6-FOOT HEIGHT WOOD COATED CHAIN LINK FENCE AT PERIMETER OF SITE WITH SITE OBSCURING SLATS
  - 48" HEIGHT WOOD COATED CHAIN LINK FENCE WITH GATES AS REQUIRED
  - GATE TO MATCH CHAIN LINK FENCE
  - SPRINGING FIRE GATE
  - TENT STRUCTURE
  - FLAGPOLE





**SITE LEGEND**

- VEHICULAR ASPHALT PAVING WITH PAINTED CURBS
- CONCRETE PAVING AT ENTRY PLAZA WITH SPECIAL FINISH
- CONCRETE SIDEWALK
- CONCRETE SIDEWALK OVER SWALE SPECIAL SCORING AT 4" O.C.
- ENGINEERED WOOD PLAY SKIN-ACING
- CONCRETE PAVERS AT FOREST COUNCIL CIRCLE
- WOOD CHIP PATH IN FOREST
- FLUSH CURB AT SOFT PLAY 12" WIDTH
- CONCRETE SEATWALL
- CONCRETE CURB AT RAMP
- CONCRETE RAMP WITH HANDRAILS
- CONCRETE AMPHITHEATER SEATS
- STEPS AT AMPHITHEATER SEATS WITH HANDRAIL
- CONCRETE RAMP AT PLAY AREA
- CONCRETE BRIDGE OVER GUTTER
- CONCRETE GUTTER 24" WIDTH
- CONCRETE STEPS WITH HANDRAILS AT BUS ENTRY, 30-INCH READS
- STONE ENTRY SCREEN FROM RECLAIMED BASALT WALL ON SITE
- BASALT COUNCIL RING FROM RECLAIMED BASALT ON SITE
- PRECAST CONCRETE RUNNEL
- WATER PLAY FEATURE WITH PUMP AND C'STERN
- DECORATIVE CONCRETE WATER CHANNEL, 6" SETDOWN BELOW FINISH SURFACE, CUSTOM TEXTURED SURFACE, DECORATIVE MAN-HOLE
- BIKE RACKS 24 TOTAL (48 BIKES), 38 BIKES COVERED
- 8-FOOT METAL BENCH
- METAL PICNIC TABLE
- 6-FOOT HEIGHT VINYL COATED CHAIN LINK FENCE AT PERIMETER OF SITE WITH SITE OBSCURING SLATS
- 42" HEIGHT VINYL COATED CHAIN LINK FENCE WITH GATES AS REQUIRED
- GATE TO MATCH CHAIN LINK FENCE
- SWINGING FIRE GATE
- TENT STRUCTURE
- FLAGPOLE



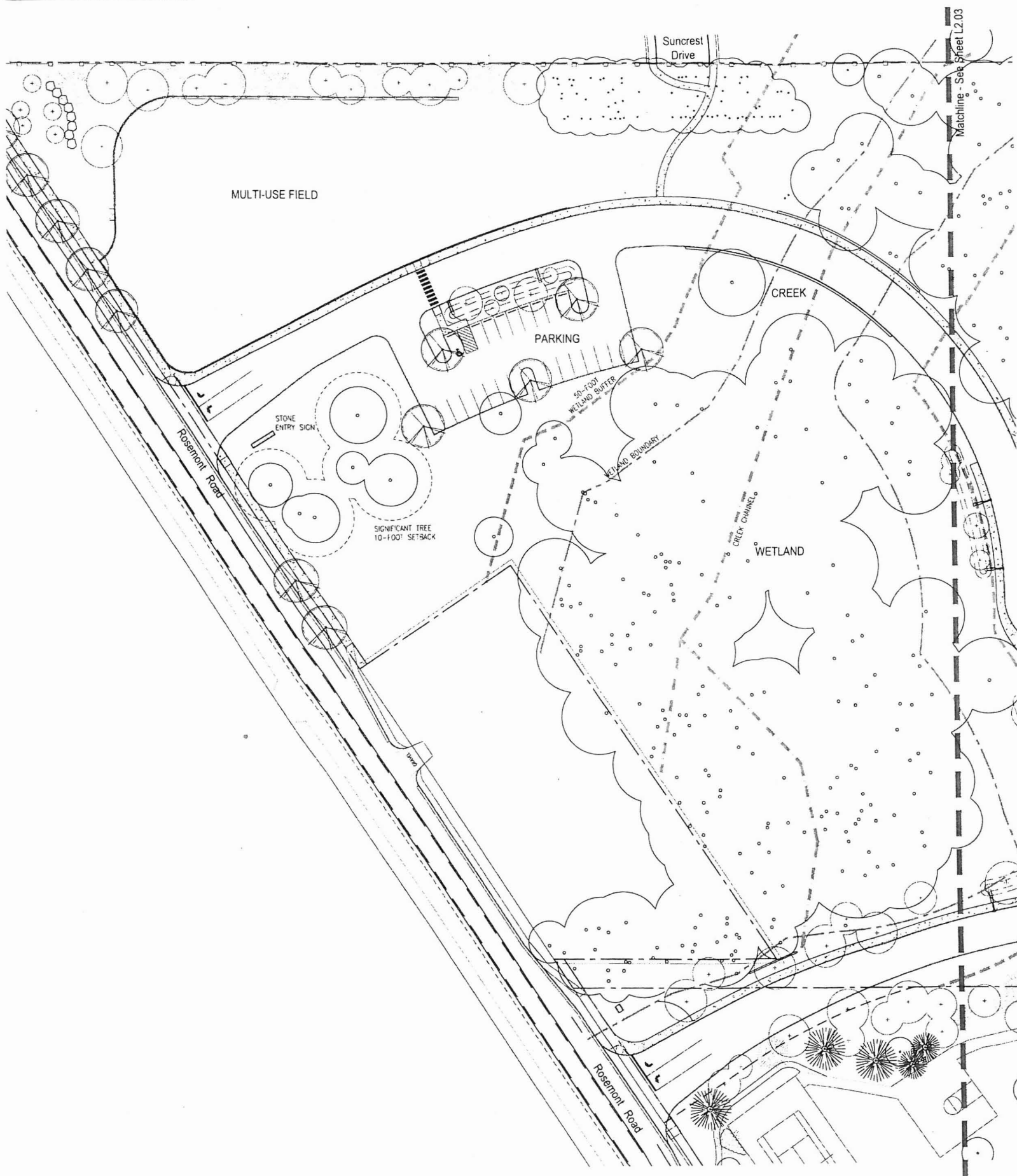
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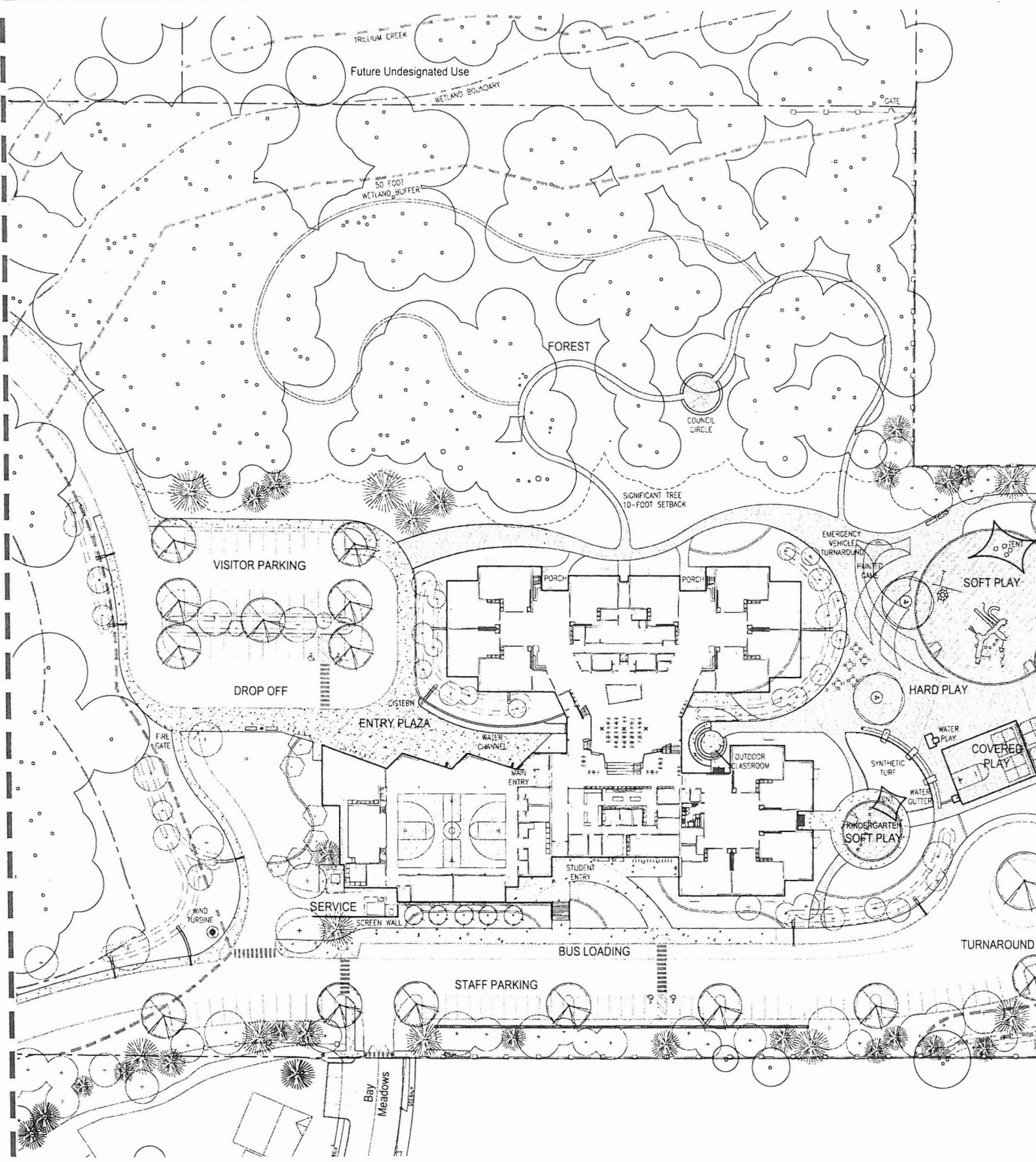
**WALKER-MACV**

phase	LAND USE APPLICATION
date	06/25/2010
revisions	

project # | 09014  
LANDSCAPE PLAN - EAST  
**LU2.03**







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**WALKER · MACY**

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date	06/25/2010
revisions	

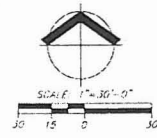
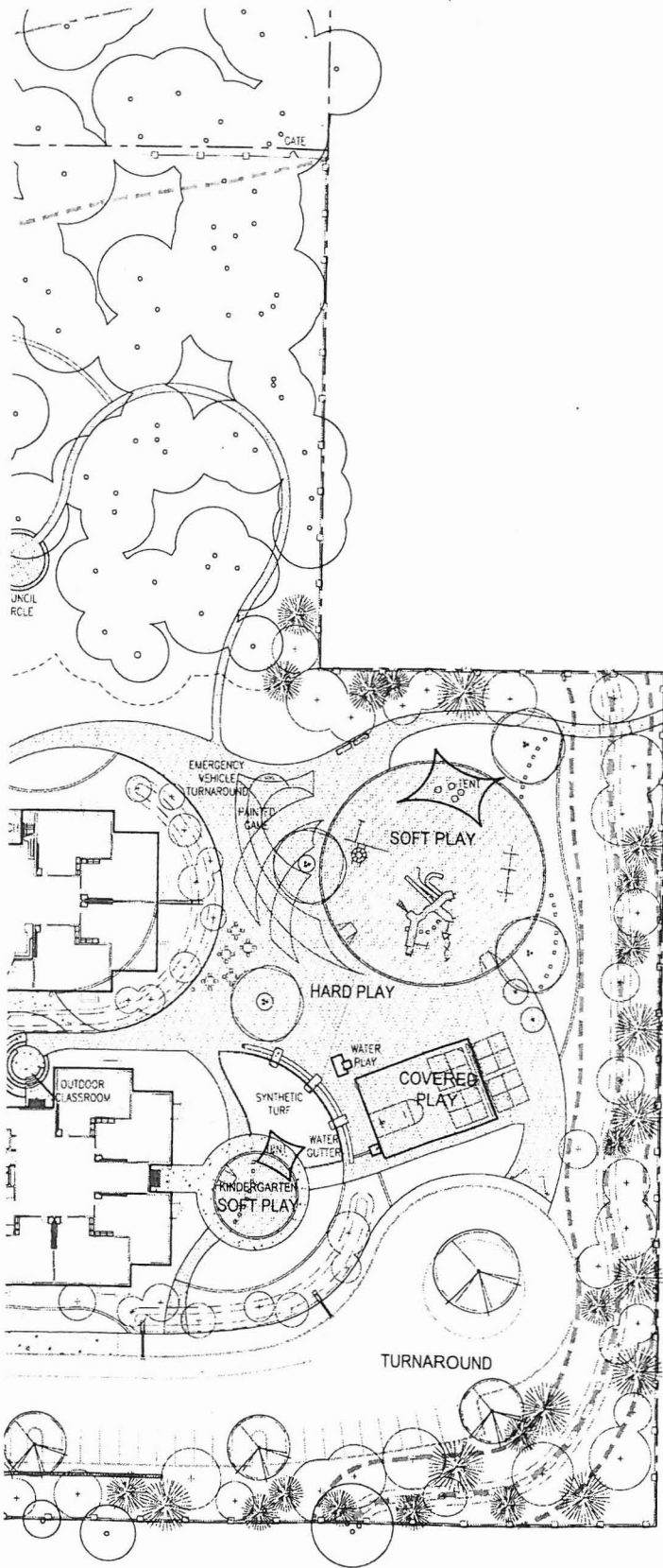
project # | 09014

LANDSCAPE PLAN - EAST

**LU2.03**

**SITE LEGEND**

- VEHICULAR ASPHALT PAVING WITH PAINTED CAMES
- CONCRETE PAVING AT ENTRY PLAZA WITH SPECIAL FINISH
- CONCRETE SIDEWALK
- 
- ENGINEERED WOOD PLAY SURFACING
- CONCRETE PAVERS AT FOREST COUNCIL CIRCLE
- WOOD CHIP PATH IN FOREST
- 
- CONCRETE SEATWALL
- CONCRETE CURB AT RAMP
- CONCRETE RAMP WITH HANDRAILS
- CONCRETE AMPHITHEATER SEATS
- STEPS AT AMPHITHEATER SEATS WITH HANDRAIL
- CONCRETE RAMP AT PLAY AREA
- CONCRETE BRIDGE OVER GUTTER
- 
- CONCRETE STEPS WITH HANDRAILS AT BUS ENTRY, 30-INCH TREADS
- STONE ENTRY SIGN FROM RECLAIMED BASALT WALL ON SITE
- BASALT COUNCIL RING FROM RECLAIMED BASALT ON SITE
- PRECAST CONCRETE RUNNEL
- WATER PLAY FEATURE WITH PUMP AND CISTERN
- 
- BIKE RACKS  
24 TOTAL (48 BIKES), 38 BIKES COVERED
- 8-FOOT METAL BENCH
- METAL PICNIC TABLE
- 6-FOOT HEIGHT VINYL COATED CHAIN LINK FENCE AT PERIMETER OF SITE WITH SITE OBSCURING SLATS
- 
- GATE TO MATCH CHAIN LINK FENCE
- SWINGING FIRE GATE
- TENT STRUCTURE
- FLAGPOLE

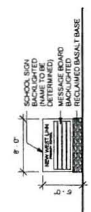
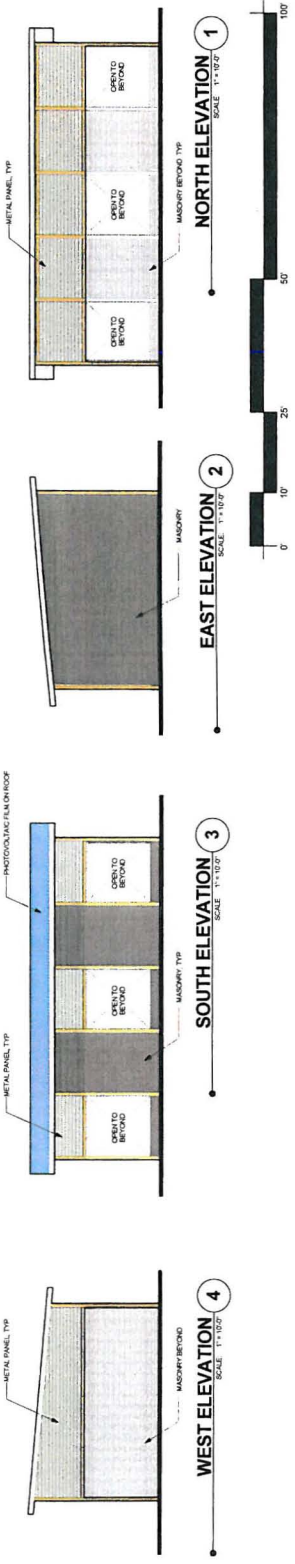








**COVERED PLAY STRUCTURE**



219



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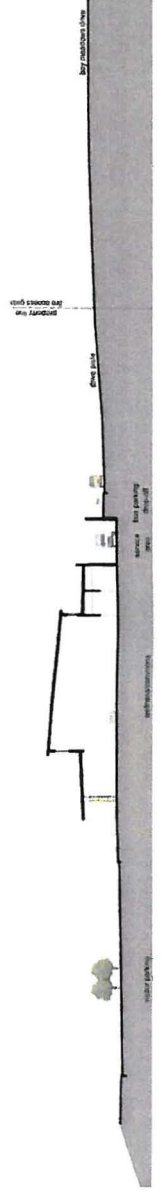
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phase LAND USE APPLICATION  
 project # 08014  
 date 06/03/2010  
 revision:

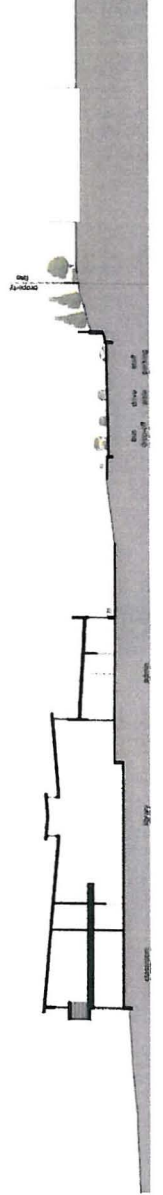
project # 08014  
 SITE SECTIONS

LU3.06

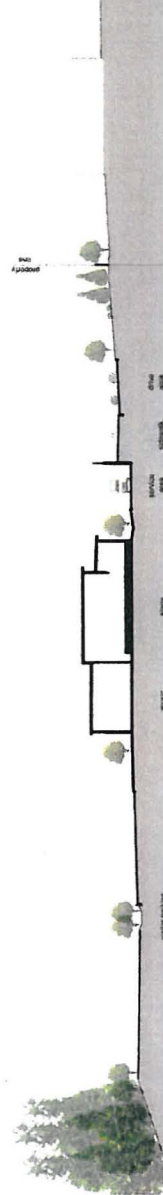
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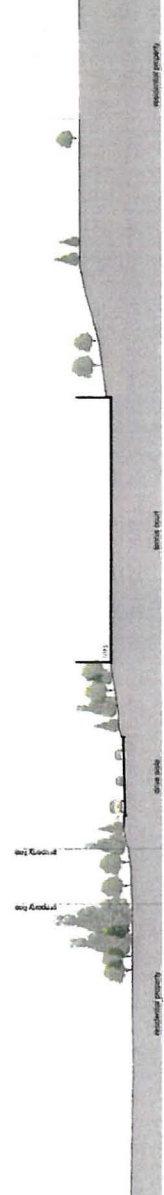
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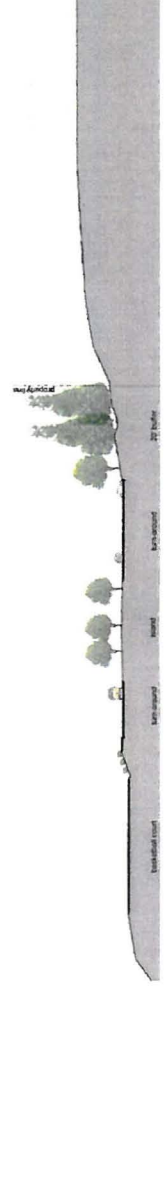
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SITE SECTION D  
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SITE SECTION E  
 NOT TO SCALE



SITE SECTION F  
 NOT TO SCALE



SITE SECTION H  
 NOT TO SCALE





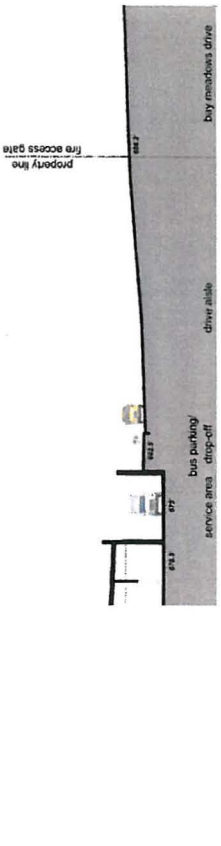


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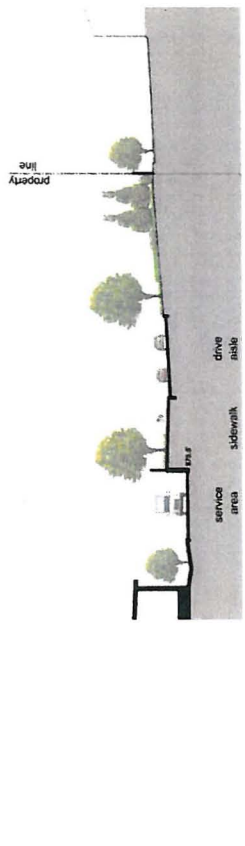
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phase	LAND USE APPLICATION
date	05/02/2010
revision	
project #	08014
SITE SECTIONS	

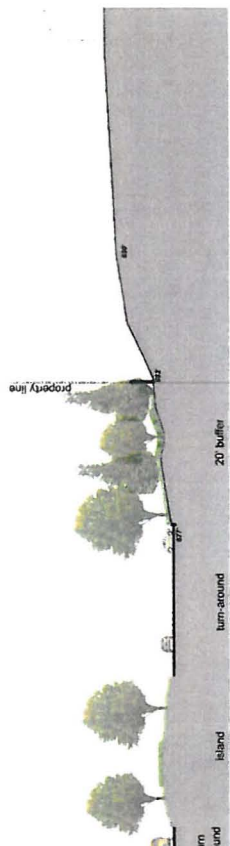
# LU3.07



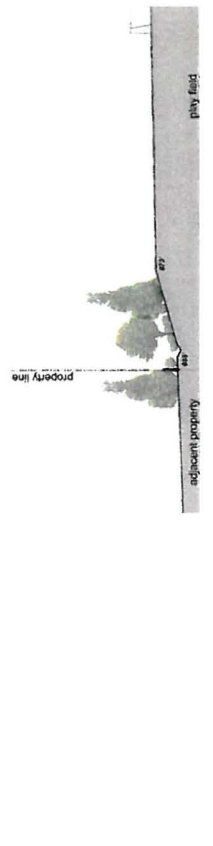
**A** SITE SECTION - ENLARGED  
NOT TO SCALE



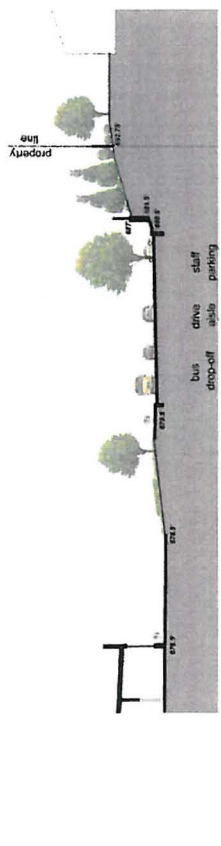
**C** SITE SECTION - ENLARGED  
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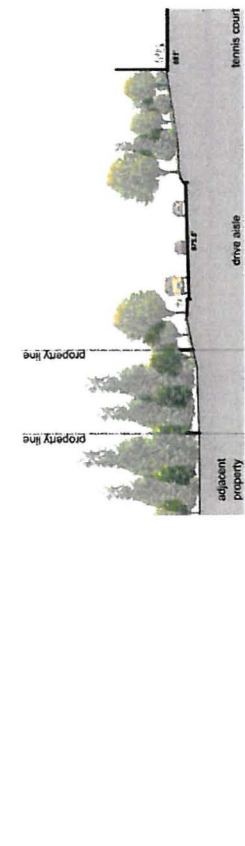
**E** SITE SECTION - ENLARGED  
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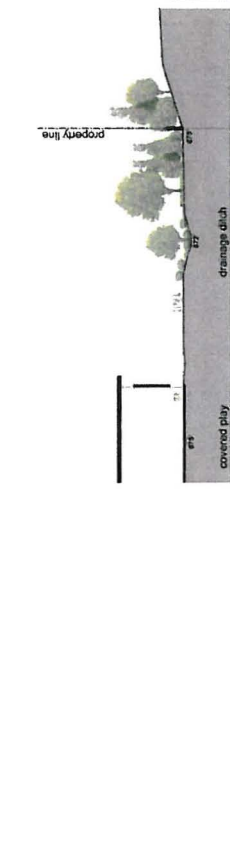
**G** SITE SECTION - ENLARGED  
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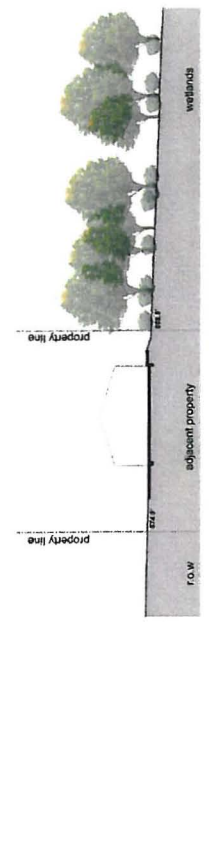
**B** SITE SECTION - ENLARGED  
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**F** SITE SECTION - ENLARGED  
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**H** SITE SECTION - ENLARGED  
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1 SITE PLAN — LIGHTING CALCULATIONS  
 SCALE: 1" = 20'-0"

project # | 08014  
 SITE PLAN - LIGHTING  
 CALCULATIONS

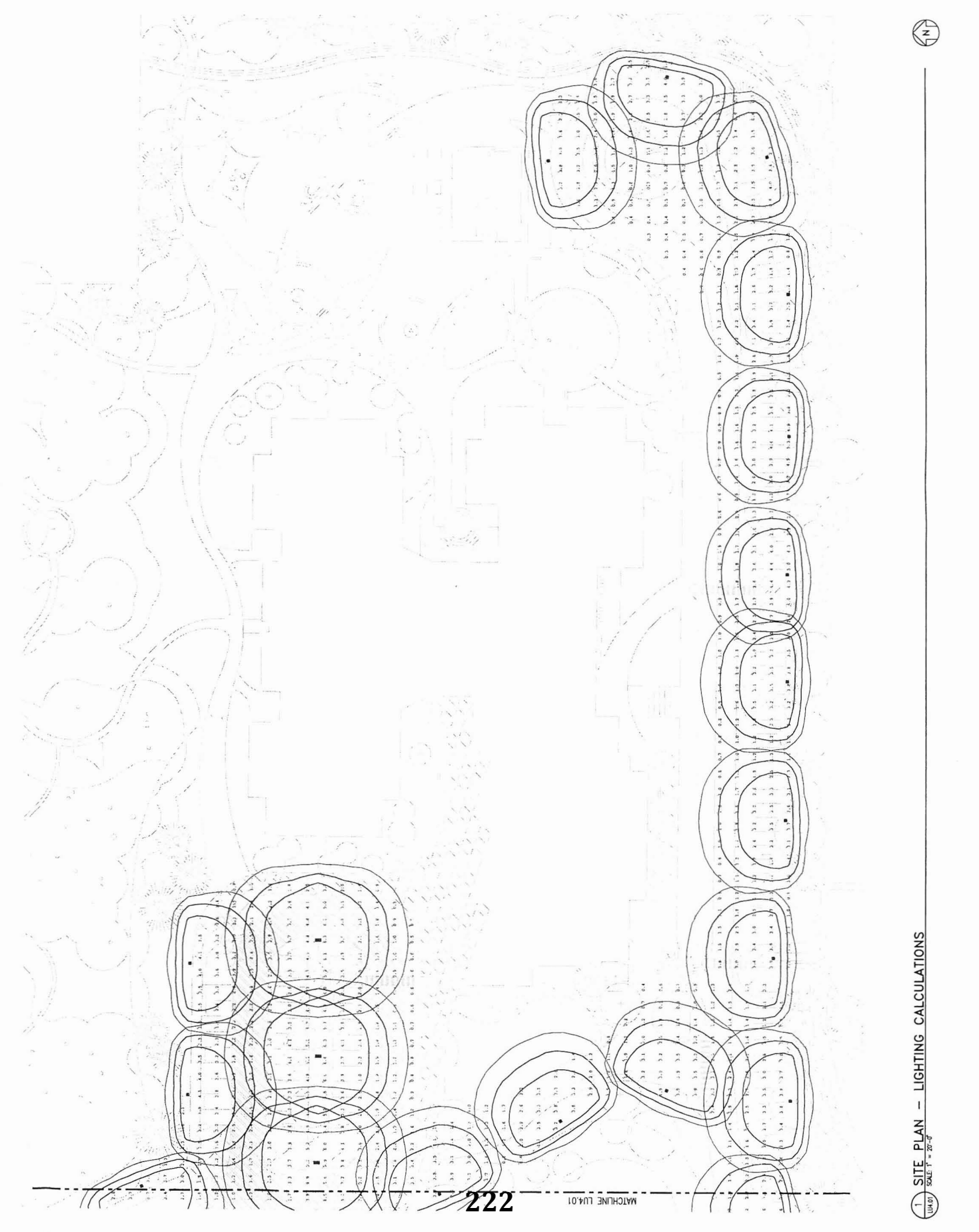
**LU4.01**

phase | LAND USE APPLICATION  
 date | 06/25/2010  
 revisions |

**PAE**  
 PROFESSIONAL ARCHITECTS  
 22210 SW STAFFORD ROAD - WEST LINN, OR 97068  
 T: (503) 673 7976  
 F: (503) 673 7044

**NEW WEST LINN PRIMARY SCHOOL**  
 West Linn Wilsonville School District

**louva**  
 ARCHITECTURE • INTERIORS • PLANNING  
 927 SW 3RD STREET, PORTLAND, OR 97204  
 TEL: 503.228.8878 / FAX: 503.227.8182  
 WWW.LOUVA.COM



222

MATCHLINE LU4.01

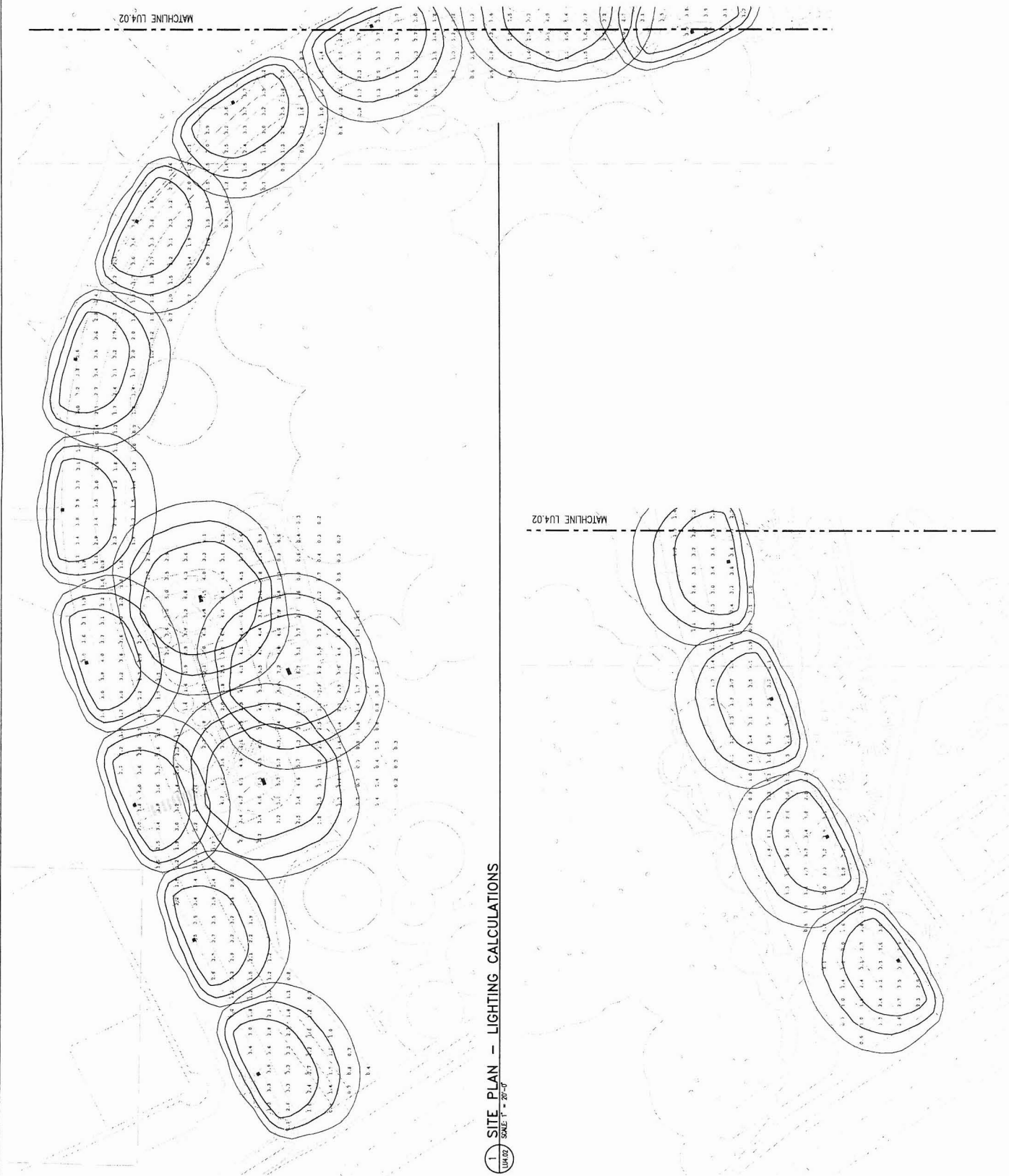


ARCHITECTURE • INTERIORS • PLANNING  
 1-800-228-8855 / 503-273-8183  
 827 SW STARK STREET, MONMOUTH, OR 97128  
 OFFICES

**NEW WEST LINN PRIMARY SCHOOL**  
 22210 SW STAFFORD ROAD - WEST LINN, OR 97068  
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 F: (503) 673 7044

**PAE** ARCHITECTS  
 1500 NW 10TH AVENUE, SUITE 200  
 PORTLAND, OR 97228  
 PHONE: 503.255.1100

phase	LAND USE APPLICATION
date	06/25/2010
revisions	
project #	09014
SITE PLAN - LIGHTING CALCULATIONS	
<b>LU4.02</b>	

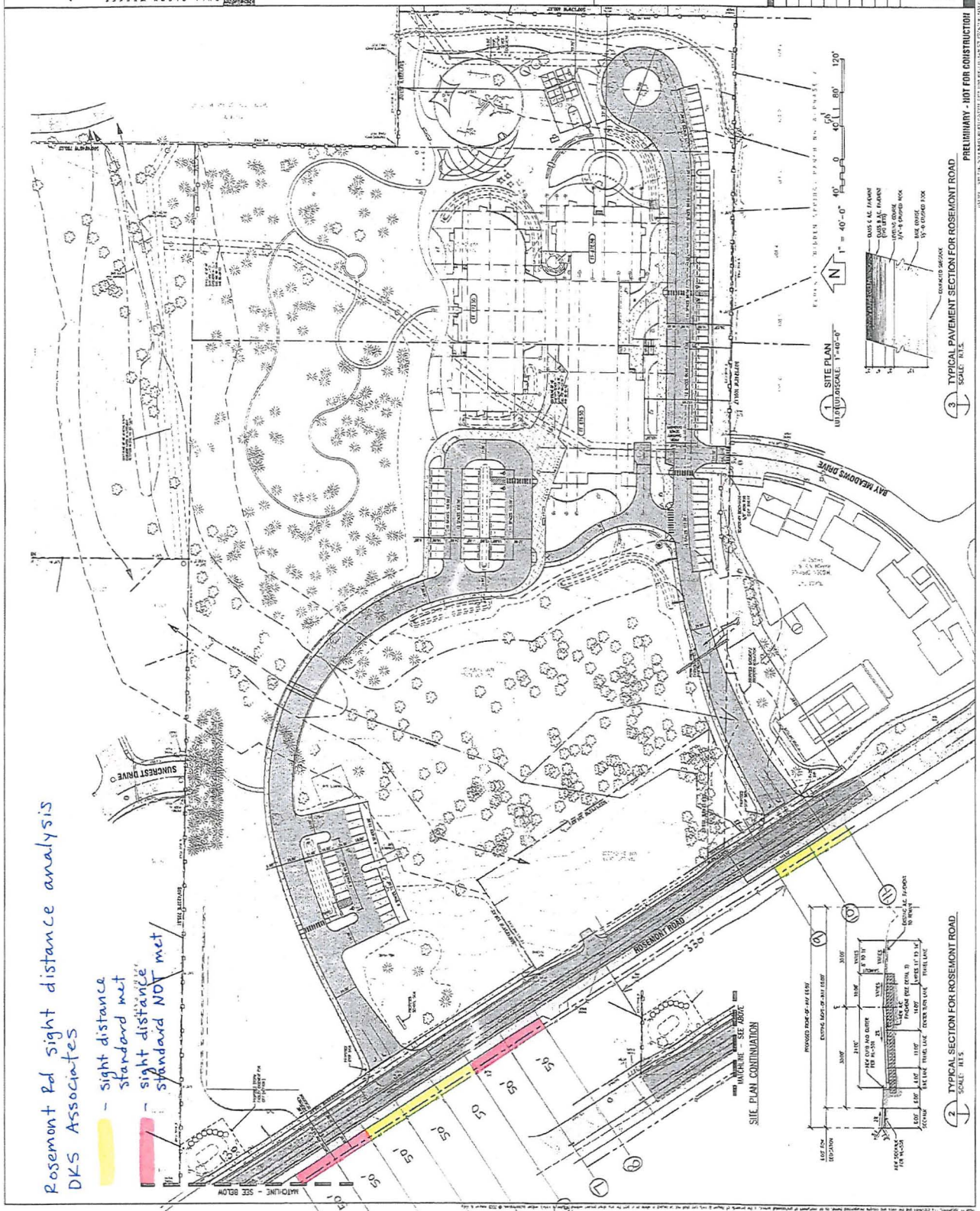


1 SITE PLAN — LIGHTING CALCULATIONS  
 UNITS: SCALE: 1" = 20'-0"

2 SITE PLAN — LIGHTING CALCULATIONS  
 UNITS: SCALE: 1" = 20'-0"



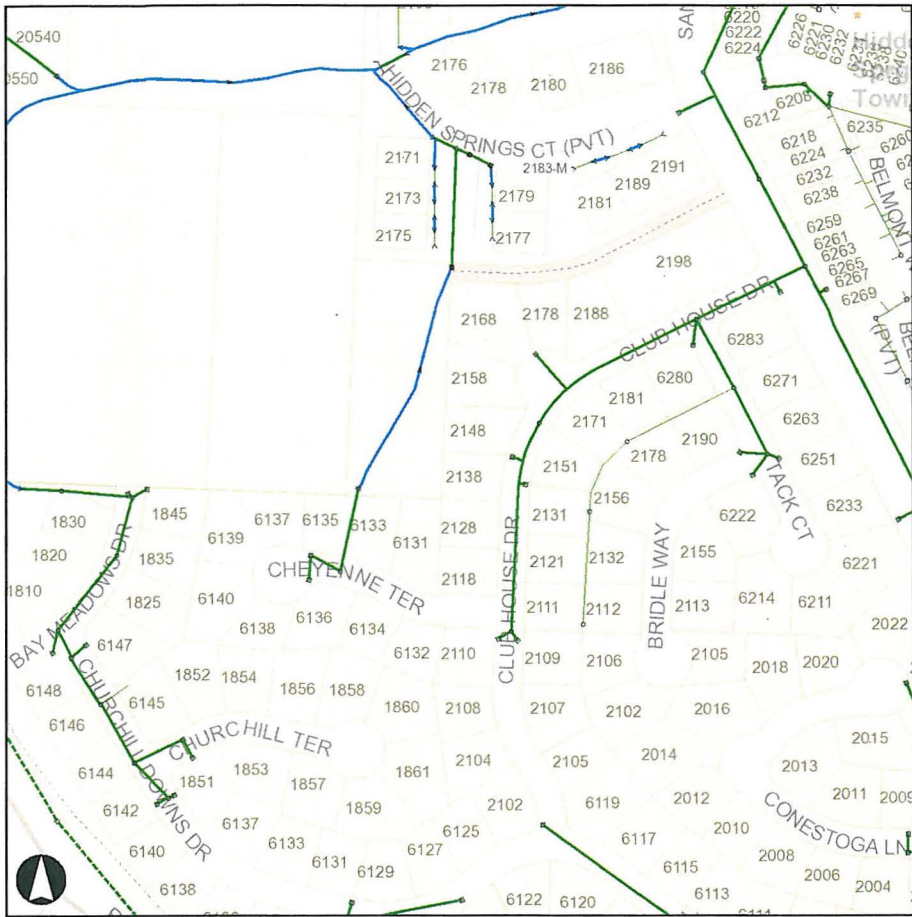




Rosemont Rd sight distance analysis  
 DKS Associates

- Sight distance standard met
- sight distance standard NOT met

# West Linn Storm Drain



- Storm Lines**
- Storm Pipes
  - Storm Pipes County
  - Storm Pipes ODOT
  - Ditches and Creeks
  - Private Pipes

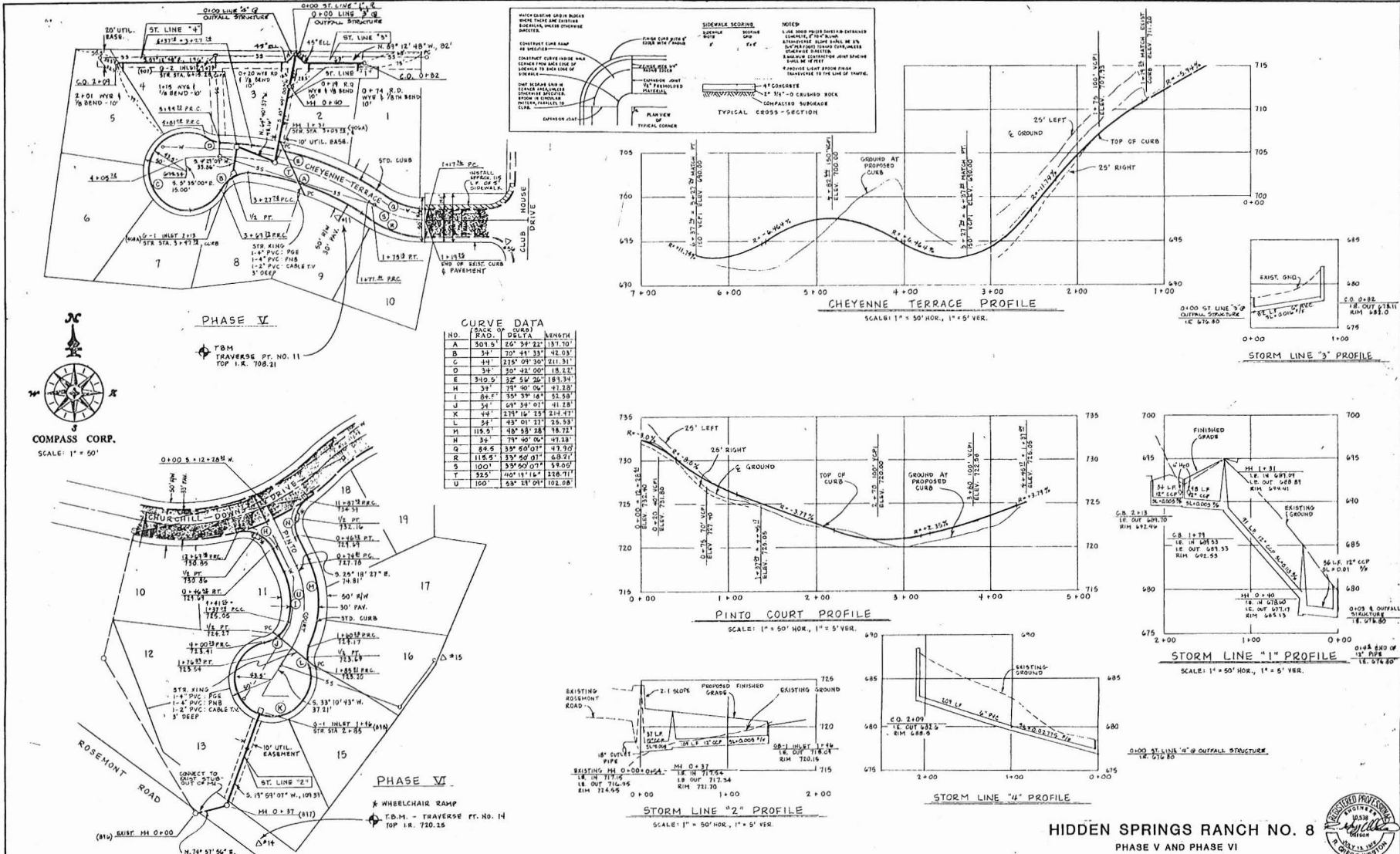
**Parcel Lines**

**2010 West Linn GIS Map Disclaimer, [click here](#)**

**West\_Linn\_Base\_Map\_EX1006V1**

West Linn GIS Map Disclaimer: 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.





**HIDDEN SPRINGS RANCH NO. 8**  
PHASE V AND PHASE VI

ASBUILT

ROAD & STORM SEWER IMPROVEMENTS,  
PLAN & PROFILES

**COMPASS CORPORATION**  
ENGINEERING SURVEYING PLANNING  
804 S. LAKE ROAD  
MELBOURNE, CALIFORNIA 92722

**K & F DEVELOPMENT, INC.**  
P. O. Box 408  
West Linn, Oregon 97088. 838-9289

DATE: 8-20-88  
REVISION: 1

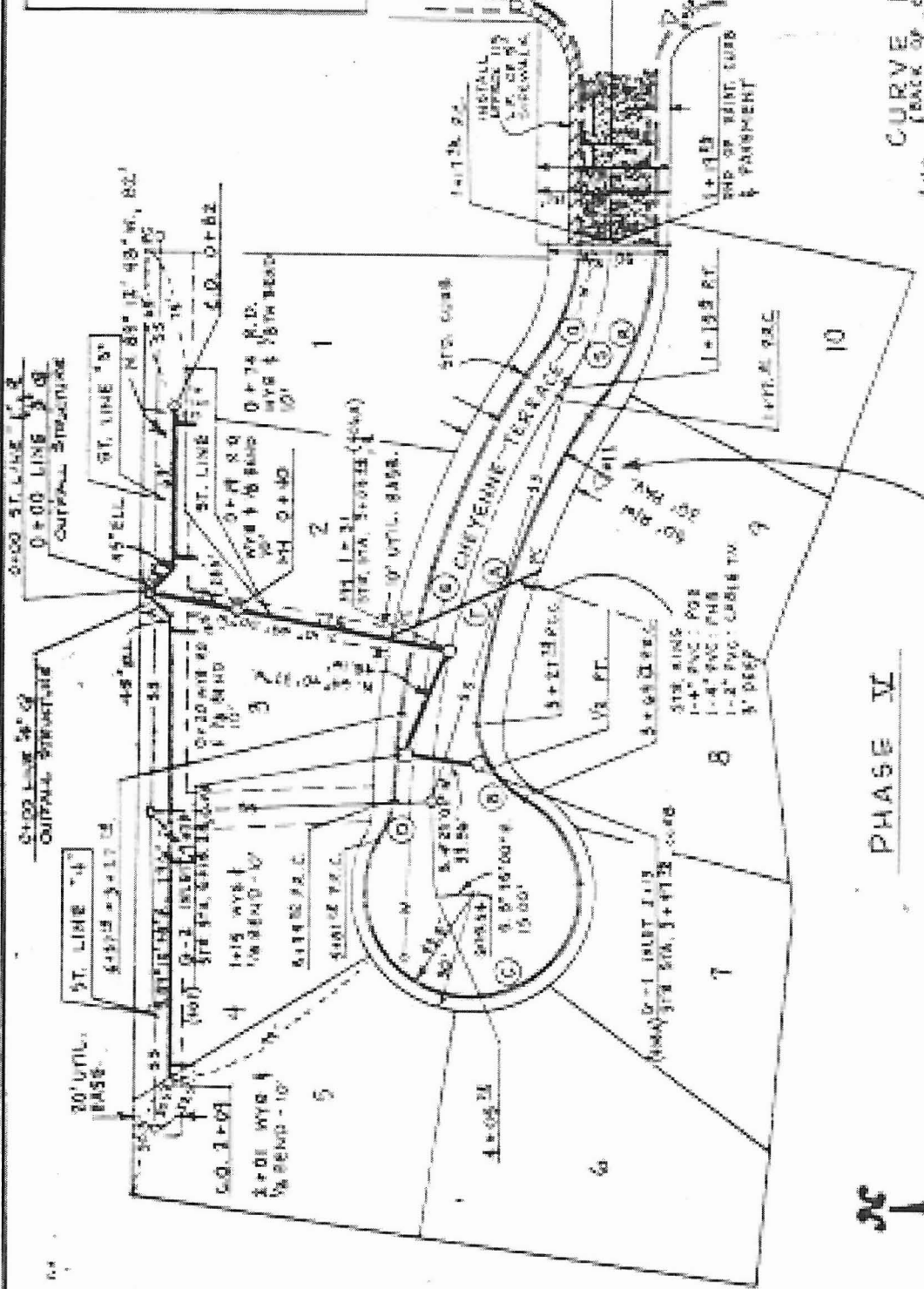
SCALE: AS SHOWN  
DATE: MAY, 1988

TEL: 84-2081-1288

PROJECT NO. 84-2081-1288



1. CHECK THE  
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 CONSTRUCTION



PHASE VI

CURVE DATA		
(BACK OF CURB)		
NO.	RAD.	DELTA



# KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 F 503.228.5230 F 503.273.8169

August 24, 2010

Project #: 11217

City of West Linn  
Khoi Q. Le, P.E.  
22500 Salamo Road  
West Linn, Oregon 97068

*RE: Peer Review of Transportation Submittal Materials for the New West Linn Primary School*

Dear Khoi,

At the request of the City of West Linn, Kittelson & Associates, Inc. (KAI) peer reviewed four documents submitted in support of the proposed New West Linn Primary School land use application. The documents, each prepared by DKS Associates, include the following:

- June 2010 *New West Linn Primary School Transportation Impact Study*
- June 28, 2010 *Rosemont Road-Salamo Road Intersection Traffic Operations*
- July 2, 2010 *West Linn Primary School Roadway Signing Analysis and Plans*
- August 18, 2010 *New West Linn Primary School Transportation Impact Study Supplemental Analysis Memorandum*

This letter includes a summary of the background information we used to conduct the review and our findings and recommendations.

## **TRANSPORTATION IMPACT ANALYSIS REVIEW**

The items listed below highlight our review comments and findings.

- The selection of study intersections (page 1) is appropriate based on the size of the proposed development and the surrounding transportation system.
- The analysis scenarios are appropriate (page 3) for the size of the proposed development.
- The crash analyses, which were conducted for three years at the study intersections, are considered appropriate (page 11 and 12).
  - It is recommended that the City request the Applicant address whether they expect the proposed development to have a detrimental impact on safety at the Rosemont Road/Hidden Springs Road intersection given the crash information presented on page 12 of the traffic study.
    - For example, will the widening along Rosemont Road provided in conjunction with the school frontage improvements impact the intersection



striping (it appears that adding a center left-turn lane on Rosemont Road may result in a new turn lane at the intersection or a wider approach)? Also, given the close proximity to the school, are crosswalk improvements needed at the intersection and, if they are, will they impact stop bar placement and sight distance?

- The site trip generation estimates (page 15) were based on the Institute of Transportation Engineers' land use Elementary School (Land Use Code 520) and local area data provided by DKS Associates and are appropriate.
- The trip distribution pattern (Figure 3) appears reasonable.
- The City's traffic impact analysis requirements require that the traffic study be prepared by a professional engineer. While we are confident that this is the case, the City and the Applicant should consider placing a stamped copy of the report and all appendix in the record so that no questions are raised by others regarding the validity of the study/compliance with City requirements.

Beyond the findings listed above, we offer the following comments and recommendations for the City to consider in response to staff's specific questions and concerns.

### **Connectivity**

Based on our review, we believe that the traffic study and August 18, 2010 supplemental memorandum adequately address connectivity in the study area. The City's Transportation System Plan (TSP) calls for a future local street connection between Bay Meadows Drive and Suncrest Drive, presumably in the context of anticipated future residential development on the property. While it would be appropriate to connect the two roadways if the subject property were developed as a residential community, a local street connection is not needed or appropriate in the context of the proposed primary school.

The proposed pedestrian and bicycle pathway connection between the north side of the school site and Suncrest Drive to the north is appropriate (page 23). The additional connections to Hidden Springs Court and Bay Meadows Drive are also appropriate.

The traffic study notes a proposed gated emergency vehicle connection between the south access roadway to the school and Bay Meadows Drive (page 23). This is an appropriate connection.

Finally, the traffic study proposes a gated on-site vehicle connection between the south access roadway and the north access roadway within the school campus (page 23). This is also an appropriate recommendation.

With provision of the pedestrian and vehicle connections proposed by the Applicant, the connectivity needs identified in the TSP are satisfied.

### **Rosemont Road/Salamo Road/Santa Anita Drive Intersection Operations**

The traffic study found that the Rosemont Road/Salamo Road/Santa Anita Drive intersection operates acceptably and that traffic signal warrants at the intersection are not met under total traffic conditions with the school project (pages 20 and 21). The City and Applicant have subsequently corresponded regarding operating conditions shown at the Rosemont Road/Salamo Road intersection. The June 28, 2010 memorandum from DKS Associates cited a decrease in traffic volumes at the intersection as the reason for improved intersection operations as compared to the 2006 City TSP findings and recommendations. The August 10, 2010 memorandum from DKS Associates further discusses the intersection operations and concludes no mitigation is necessary.

The traffic counts supporting the school traffic study were conducted during the first week of January 2010. In contrast, the traffic count for the TSP was conducted on Tuesday, November 14, 2006. Some of the decrease exhibited in the traffic volumes could be a result of seasonal variations and the current economic conditions.

A few different courses of action could be taken to address the differences in the traffic counts:

- New typical mid-week day traffic counts could be collected at the Rosemont Road/Salamo Road/Santa Anita Drive intersection in September 2010 once the new school year has begun to assess the traffic count sensitivity and validity of the January 2010 counts;
- Recognizing that the primary school generated p.m. peak hour trips have a relatively small impact at the intersection (Figure 3 of the traffic study indicates the school represents 39 trips of the 1,255 p.m. peak hour trips at the intersection or roughly 3%), the City could develop a proportional share cost assessment mechanism to fund future improvements at the intersection and assess the school a fee in lieu of turn lane or signalization improvements.
- Assess whether payment of the system development charge that will be assessed to the primary school project represents adequate mitigation for the school's traffic impact to the intersection.
- Other actions as deemed appropriate by City staff.

### **Proposed Driveway Spacing and Widths**

The City of West Linn's access spacing standards require a minimum of 300 feet of spacing between private driveways and 600 feet between public intersections on an arterial as noted on page 21 of the traffic study. The proposed spacing of the two new school driveways meets the City requirements with respect to each other but not with respect to existing private driveways. Based on our review of the proposed site plan, the access spacing discussion in the traffic study (page 22), the discussion in the August 18 supplemental memorandum, and review of aerial photography for the area, we believe the proposed site plan reasonably balances access spacing, safety, and circulation needs. Further, we fully support provision of two driveways to separate the on-site parent/visitor traffic from the school bus/employee traffic. As such, no changes to the proposed access locations are recommended.

The traffic study recommends that three-lane driveways be provided onto Rosemont Road. The driveways would have one inbound lane, one outbound left-turn lane and one outbound right-turn lane. We support this recommendation.

### **Sight Distance**

The traffic study notes that intersection sight distance at the south project access is restricted by vegetation that is located on private property and recommends the School District and City work with the property owner to remove the vegetation in question (page 22). This is a reasonable recommendation; however, we want to highlight the improvement need and encourage the School and City to actively formulate a plan to meet the property owner and assess the feasibility of securing permission to limit the vegetation.

### **Rosemont Road Left-turn Lane**

The traffic study notes that a center left-turn lane is planned on Rosemont Road along the project frontage (page 21). We believe provision of a center left-turn lane is appropriate to facilitate safe and efficient operations at both school driveways. Given there is a private property located between the two school driveways, it is not clear whether the planned center left-turn lane referred to along the project frontage will extend between the two driveways. It is recommended the City confirm the extents of the planned left-turn lane and ensure that a southbound left-turn lane on Rosemont Road is provided at the south access.

### **Rosemont Road School Driveway Right-Turn Lane**

The traffic study notes that a right-turn lane is not warranted at the site driveways on Rosemont Road but would have benefits (page 21). The Applicant should clarify whether or not they are proposing to provide a right-turn lane at either site driveway.

## **SIGNING ANALYSIS AND PLANS REVIEW**

The analysis, recommendations, and preliminary signing plans shown in the July 2, 2010 memorandum appear reasonable and appropriate.

A timeline for the future evaluation of flashers recommended by the Applicant should be identified to ensure the evaluation occurs. This can be addressed through coordination with the Applicant and a condition of approval.

Further, the City should consider replacing the existing yellow school zone signs at the Rosemont Middle School site with new fluorescent yellow-green background signs. Replacing the existing signs will: 1) provide consistency with the new fluorescent yellow-green background signs that will be provided at the primary school site, and 2) ensure compliance of the school zone signs with the new *Manual on Uniform Traffic Control* devices requirements (while not mandated at this time, ultimately, the existing yellow school signs will have to be replaced with new fluorescent



yellow-green background signs when they become faded and the sign retroreflectivity no longer meets standards).

## CONCLUSION

The findings and recommendations of the transportation impact analysis are generally considered acceptable. The City may request supplemental materials for the items listed below, which are described in this letter.

- Provide a final copy of all engineering report documentation stamped by a professional engineer for the project record.
- Further review traffic volumes and operations at the Rosemont Road/Salamo Road/Santa Anita Drive intersection, particularly addressing whether the applicant believes that traffic volumes collected on Wednesday, January 6, 2010 are representative of typical mid-week conditions in light of the TSP findings and recommendations for the intersection.
- Confirm the extent of left-turn lane and right-turn lane improvements that will be provided on Rosemont Road at the site driveways.
- Confirm whether it is the Applicant's intent to provide the Rosemont Road/Hidden Springs Road intersection safety analysis they suggest on Page 12 of the *New West Linn Primary School Transportation Impact Study*. Address the school site-generated traffic's anticipated safety impact at the Rosemont Road/Hidden Springs Road intersection given the comparatively high collision rate at the intersection and the close proximity to the school as well as the frontage improvements being proposed by the school.

Finally, the School and City should engage in an active dialogue to resolve how the vegetation removal needs identified for the south school access will be addressed given the impacted private property.

We trust that this letter satisfies your informational needs regarding the adequacy of the transportation impact study of the proposed West Linn Primary School. Should you have any questions or comments regarding this letter, please contact us.

Sincerely,  
KITTELSON & ASSOCIATES, INC.

Chris Brehmer, P.E.  
Principal Engineer

## MEMORANDUM

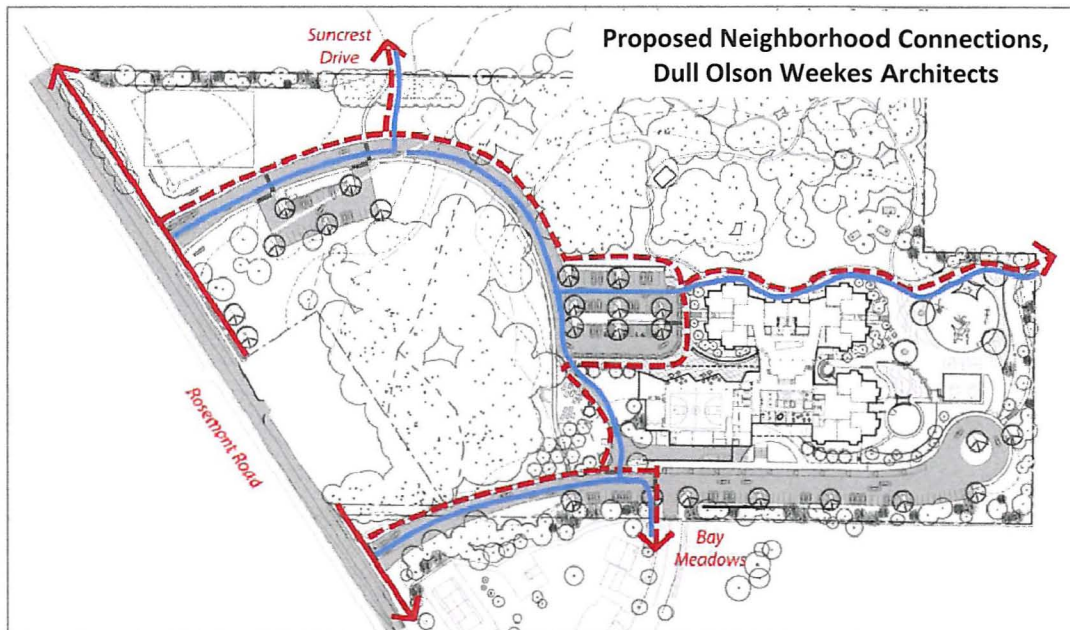
TO: Tim Woodley, West Linn Wilsonville School District  
FROM: Reah Flisakowski PE, DKS Associates  
DATE: August 18, 2010  
SUBJECT: New West Linn Primary School Transportation Impact Study Supplemental Analysis P09031-003

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This memorandum provides supplemental analysis for the proposed New West Linn Primary School Transportation Impact Study<sup>1</sup> as requested by the City of West Linn. The analysis provides additional information regarding neighborhood connectivity, site driveway width, site frontage driveway spacing and Rosemont Road/Salamo Road intersection operations. The supplemental analysis is presented in the following sections.

### Neighborhood Connectivity

The Future Local Street Connectivity Improvements in the West Linn Transportation System Plan (TSP)<sup>2</sup> recommended a local street connection between Bay Meadows Drive and Suncrest Drive. A complete local street connection would provide a roadway to be shared by motor vehicles and bicycles and a sidewalk for pedestrians. The proposed West Linn Primary School



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<sup>1</sup> New West Linn Primary School Transportation Impact Study, DKS Associates, June 2010.

<sup>2</sup> City of West Linn Transportation System Plan, Figure 8-6, DKS Associates, October 2008.

would provide pedestrian, bicycle and emergency vehicle connections through the site, but would not provide a complete motor vehicle connection. As shown on the Proposed Neighborhood Connections figure, the proposed school would include pedestrian and bicycle connections between Bay Meadows Drive, Suncrest Drive and Hidden Springs Court to the east of school property.

The key issues regarding the local street connection between Bay Meadows Drive and Suncrest Drive are described below.

- The recommended local street connection would be appropriate through a residential neighborhood development. The proposed primary school development would be bisected by the local street connection, which would have a negative impact to the overall function and operation of the school campus.
- The TSP clearly identifies the local street connection as a recommendation only and not a mandatory action for future development. The TSP also states “the specific alignments and design may be modified dependent upon future development review.”
- The benefits of the recommended local street connection to motor vehicles would be limited. The street would be approximately 800 feet in length and serve less than 50 houses. The street would provide a slight reduction in out of direction motor vehicle travel within the neighborhood. Overall, traffic operations would be similar locally and the same city wide without the recommended local street connection.

Based on the issues presented above, the local street connection recommended in the TSP should not be required for the development of the New West Linn Primary School.

### **Site Driveway Width**

The proposed school would operate with two new driveways on Rosemont Road. The north access would serve general school trips. The south access would be restricted to school bus and school staff only. To accommodate school bus turning requirements, the driveways would be constructed with a 25 foot curb radius. The resulting pedestrian crossing at the driveways would be approximately 60 feet across.

The key issues regarding the site driveway widths are described below.

- It is important that bus turning needs are properly met at the driveways. Buses that operate in constrained roadway environments can cause a significant safety issue for pedestrians, bicyclists and motor vehicles. A tight turning radius can cause buses to hit the curb, drive up on the sidewalk and swing out into adjacent travel lanes to complete the turn movement.
- The larger curb radius at the site driveways would not be expected to result in higher turning speeds for vehicles. The proposed pedestrian crossing distance at the driveways would not create a safety issue. The driveways would be constructed to clearly define the pedestrian area and alert the driver that pedestrians may be present.
- The West Linn Wilsonville School District currently operates schools with driveways



that have larger curb radius and width dimensions than the proposed school. The school district has not experienced safety or operational issues with these larger driveways. The larger driveways have allowed buses to turn within their designated travel lane and avoid conflicts with vehicles and pedestrians.

- Pedestrian volumes along Rosemont Road are not expected to be high due to off road pedestrian connections to the school site. Walking trips to the school would primarily use the trail connections to Suncrest Drive, Bay Meadows Drive and Hidden Springs Court.
- Pedestrian trips to the site on Rosemont Road from the north would not have to cross the site north driveway. A continuous pedestrian path would be provided along the north side of the north access road between Rosemont Road and the school entrance. Pedestrian trips to the site on Rosemont Road from the south would use sidewalks on Bay Meadows Drive and a continuous pedestrian path to the school entrance.
- As residential development occurs to the west of Rosemont Road and potential pedestrian volumes increase, a designated pedestrian crossing on Rosemont Road should be evaluated. Any future pedestrian crossing on Rosemont Road should be designed to integrate with the school's onsite pedestrian network.

### **Site Frontage Driveway Spacing**

There are two proposed site access points onto Rosemont Road. The City access spacing standards<sup>3</sup> for Rosemont Road require a minimum of 300 feet of spacing between private driveways and 600 feet between public intersections. The proposed school access points would serve as private driveways, and require 300 feet of spacing. The site plan shows the proposed north access and south access would be located approximately 570 feet apart (measured centerline to centerline). The proposed spacing between the site access points would meet the City's spacing standard.

There are few driveways currently located on Rosemont Road near the project site, as the area to the west is outside the urban growth boundary and vehicle access to the east is generally provided by public streets. There are currently three single family driveways on Rosemont Road between Bay Meadows Drive and Hidden Springs Road (approximate distance of 1,300 feet). Two driveways are located on the east side of Rosemont Road. A single family driveway is located on the west side of Rosemont Road approximately 600 feet north of Bay Meadows Drive and would be located between the two proposed site access points (approximately 275 feet spacing from each site access).

The north access and south access would not meet the City Transportation System Plan's access spacing standards for the adjacent residential driveways on Rosemont Road. However, due to the single family nature of the nearby driveways on Rosemont Road and their expected low traffic volumes, no vehicle conflicts or safety issues are anticipated with the substandard driveway

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<sup>3</sup> City of West Linn Transportation System Plan, DKS Associates, October 2008.

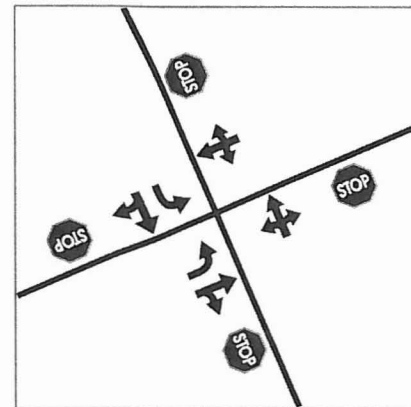
spacing.

The available sight distance is maximized at the proposed site access locations. If either site access point were to shift to the north or south, the sight distance may not be adequate. Also, it is preferred that the project site operate with two access points separating bus trips and parent/visitor trips to maximize safety and efficiency.

**Rosemont Road/Salamo Road/Santa Anita Drive Operations**

The Rosemont Road/Salamo Road/Santa Anita Drive intersection currently operates as an all-way stop controlled intersection with separate left turn lanes on the southbound and eastbound approaches. The current intersection configuration and control are shown in the figure to the right.

The traffic operations analysis conducted for the New West Linn Primary School Transportation Impact Study<sup>4</sup> found the Rosemont Road/Salamo Road/Santa Anita Drive intersection would meet applicable City mobility standards in the year 2012 with the addition of vehicle trips generated by the proposed school. The City requires level of service E or better for principal arterials. Rosemont Road, Salamo Road and Santa Anita Drive are all classified by the City<sup>5</sup> as a principal arterial. The operational analysis findings are summarized in Table 1.



**Rosemont Rd/Salamo Rd/  
 Santa Anita Dr**

**Table 1: 2012 Total Traffic Intersection Operations**

Intersection	AM Peak		Midday Peak		PM Peak	
	LOS	V/C	LOS	V/C	LOS	V/C
Rosemont Rd/Salamo Rd/Santa Anita Dr	C	0.58	C	0.55	D	0.92

All-Way Stop Controlled intersections:

LOS = Level of Service of crossroads

V/C = Volume-to-Capacity Ratio of Intersection

The Rosemont Road/Salamo Road/Santa Anita Drive intersection currently experiences vehicle queues during peak traffic volumes. Typically, the southbound approach on Rosemont Road has the longest vehicle queues. Based on the turn movement counts conducted for the traffic impact analysis, the peak volumes at the intersection occur from 4:50 to 5:50 p.m. on a weekday. During the PM peak hour, the intersection currently experiences vehicle queues extending up to 125 feet (five cars) in the southbound through lane. The proposed school would have minimal impact on the intersection vehicle queues, adding approximately 14 vehicles to the southbound approach over the entire PM peak hour. On average, this would represent the arrival of one southbound

<sup>4</sup> New West Linn Primary School Transportation Impact Study, DKS Associates, June 2010.

<sup>5</sup> City of West Linn Transportation System Plan, DKS Associates, October 2008.

vehicle every four to five minutes. The addition of vehicle trips generated by the proposed school would not extend the southbound vehicle queue length<sup>6</sup> beyond current conditions.

Traffic signal warrants were evaluated for the traffic impact study. The analysis found the Rosemont Road/Salamo Road/Santa Anita Drive intersection would not warrant the installation of a traffic signal with the addition of vehicle trips generated by the proposed school. During the PM peak hour, the major street (eastbound and westbound approaches combined) would have 665 vehicles and the minor street (southbound approach) would have 424 vehicles. Based on the major street volume, the threshold to meet the peak hour warrant would be 550 vehicles on the minor street.

The operational analysis of the Rosemont Road/Salamo Road/Santa Anita Drive intersection found no mitigation measures would be required with the addition of vehicle trips generated by the proposed school. The intersection would meet the City's mobility standards, have minimal impact on the intersection vehicle queues and not meet the minimum threshold to warrant traffic signal control.

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<sup>6</sup> Vehicle queue estimates based on the 95<sup>th</sup> percentile queue for the PM peak hour.





# Oregon

Theodore R. Kulongoski, Governor

## Department of State Lands

775 Summer Street NE, Suite 100  
Salem, OR 97301-1279  
(503) 986-5200  
FAX (503) 378-4844  
www.oregonstatelands.us.

July 14, 2010

State Land Board

Tim Woodley  
West Linn-Wilsonville School District 3TJ  
P.O. Box 35  
West Linn, OR 97068

Theodore R. Kulongoski  
Governor

Kate Brown  
Secretary of State

Re: Wetland Delineation Report for a Portion of the Erickson School Site,  
Clackamas County, T2S R1E Sec. 23CD, Tax Lots 12800 and Portion  
of 12500, and Sec. 26AC, Portion of Tax Lots 3100 and 5500; WD #10-0025,  
City of West Linn Local Wetlands Inventory, Wetland TR-01

Ted Wheeler  
State Treasurer

Dear Mr. Woodley:

The Department of State Lands has reviewed the wetland delineation report prepared by Winzler & Kelly for the site referenced above that revised wetlands and expanded the study area previously delineated in WD #09-0240. Based upon the information presented in the report, 3 site visits during June, 2010, and additional information submitted upon request, we concur with the wetland boundaries as mapped in revised Figure 6 of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map. Within the expanded study area, 2 wetlands were identified, totaling approximately 0.23 acres. These wetlands are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands.

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter, unless new information necessitates a revision. Circumstances under which the Department may change a



determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

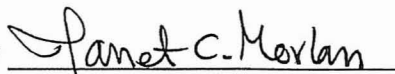
Thank you for having the site evaluated. Please phone me at (503) 986-5232 if you have any questions.

Sincerely,



Peter Ryan, PWS  
Wetland Specialist

Approved by



Janet C. Morlan, PWS  
Wetlands Program Manager

Enclosures

ec: Nancy Olmsted, Winzler & Kelly  
City of West Linn Planning Department (Map enclosed for updating LWI)  
Charlie Hanner, Corps of Engineers  
Anita Huffman, DSL

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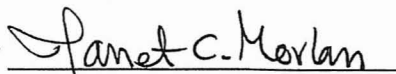
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Approved by



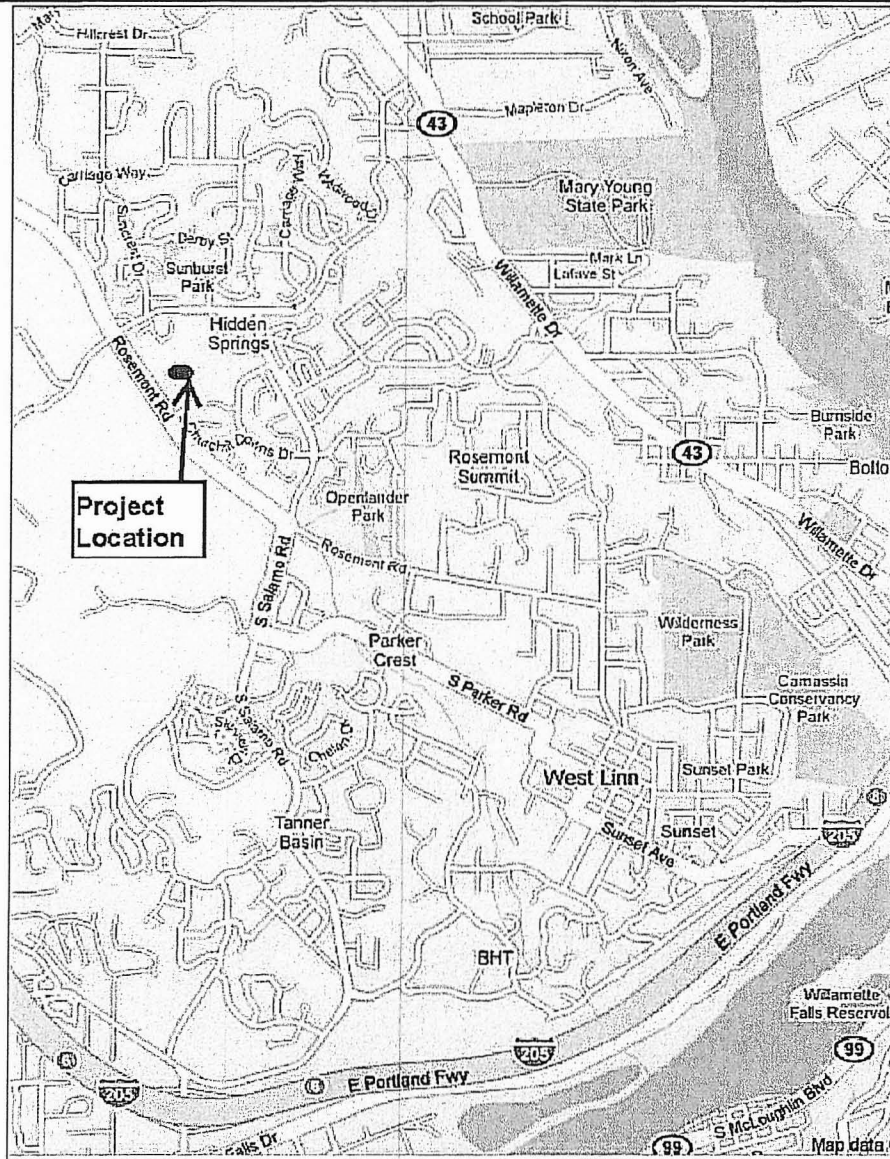
Janet C. Morlan, PWS  
Wetlands Program Manager

Enclosures

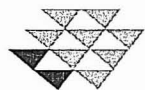
ec: Nancy Olmsted, Winzler & Kelly  
City of West Linn Planning Department (Map enclosed for updating LWI)  
Charlie Hanner, Corps of Engineers  
Anita Huffman, DSL



242



WP#10-0025



**WINZLER & KELLY**

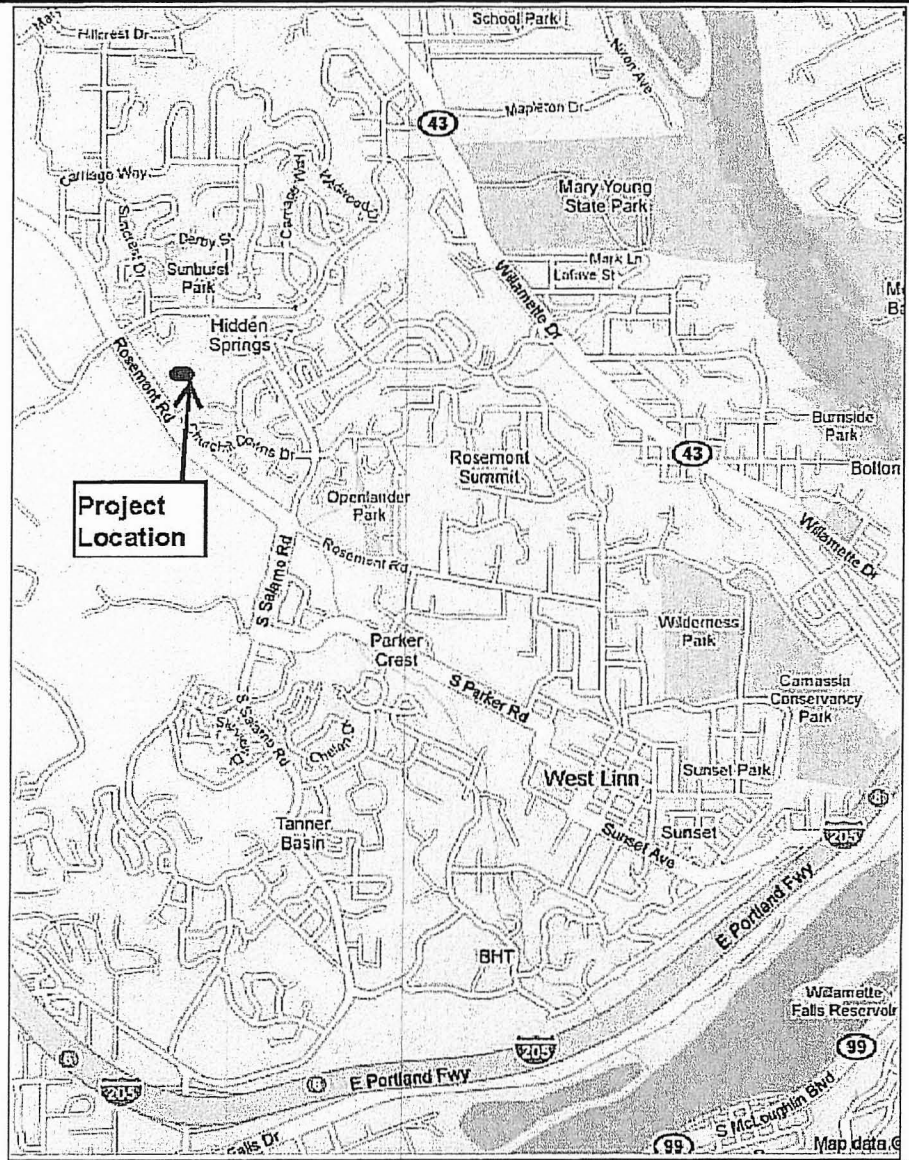
15575 SW SEQUOIA PKWY, SUITE 140  
 PORTLAND, OR 97224  
 PH: 503-226-3921 FAX: 503-226-3926

PROJECT  
**WEST LINN-WILSONVILLE SCHOOL DISTRICT 3JT  
 ERICKSON SCHOOL SITE**

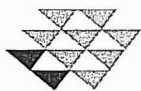
TITLE  
**FIGURE 1  
 LOCATION MAP**

DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
	KPT	NO	04/09/09	1145609001	

243



WP#10-0025

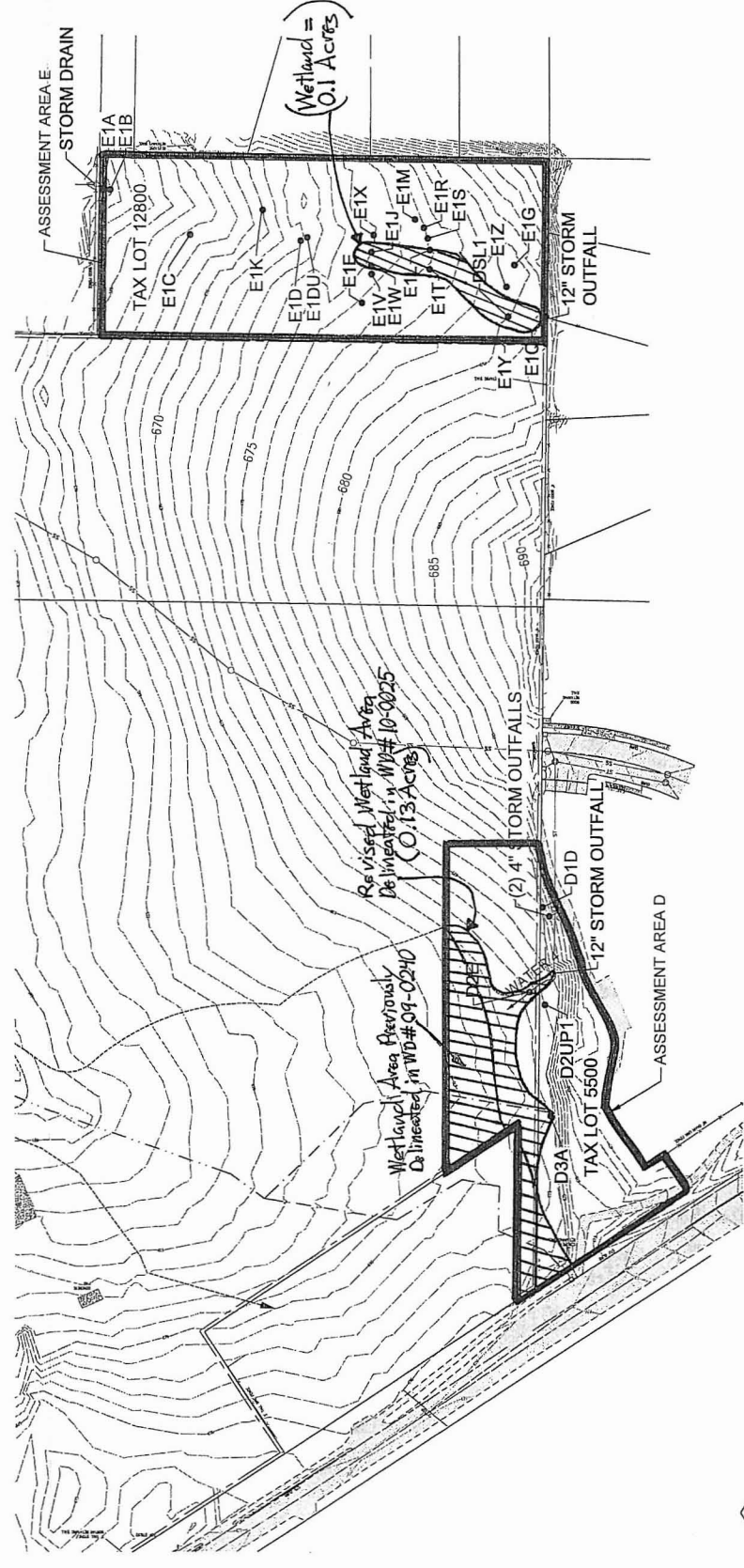


**WINZLER & KELLY**  
 15575 SW SEQUOIA PKWY, SUITE 140  
 PORTLAND, OR 97224  
 PH: 503-226-3921 FAX: 503-226-3926

PROJECT					
WEST LINN-WILSONVILLE SCHOOL DISTRICT 3JT					
ERICKSON SCHOOL SITE					
DESIGNED	DRAWN	APPROVED	DATE	PROJECT NO.	DWG NO.
	KPT	NO	04/09/09	1145609001	

TITLE  
 FIGURE 1  
 LOCATION MAP

LEGEND  
 STUDY AREA BOUNDARY  
 WETLAND BOUNDARY  
 WATERS  
 SAMPLE POINT



DSL WD # 10-0025  
 Approval Issued 7/14/2010  
 Approval Expires 7/14/2015

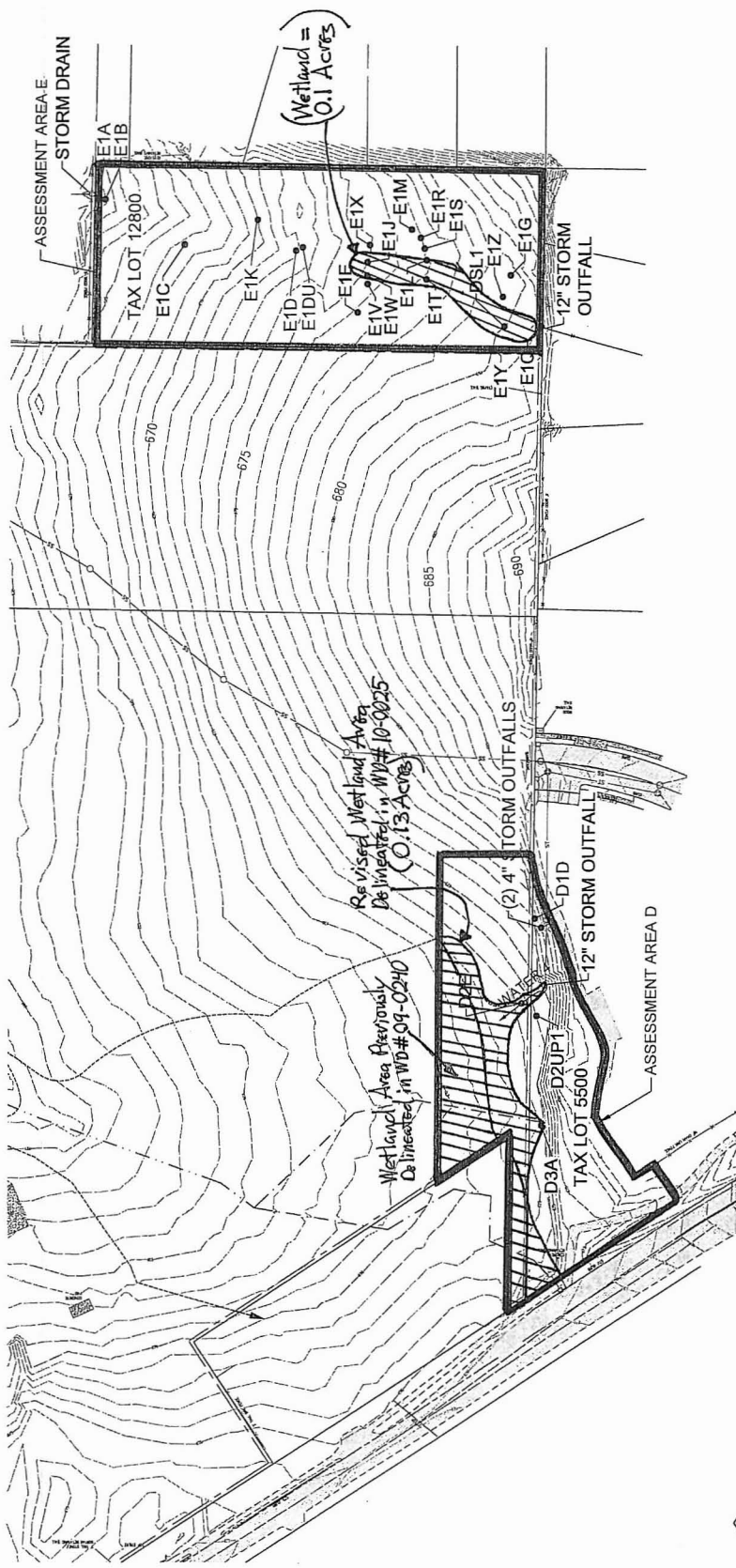


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PROJECT: WEST LINN-WILSONVILLE SCHOOL DISTRICT 3 JT ERICKSON SCHOOL SITE		TITLE: FIG. 6 ADDITIONAL SAMPLING FOR WETLAND DELINEATION STUDY	
DESIGNED	DRAWN	APPROVED	DATE
KPT	KPT	NO	12/14/09
PROJECT NO. 145609000		DWG NO.	
0:\11456 - WLWSR (WEST LINN-WILSONVILLE SCHOOL DISTRICT)\11456-06001 WLWSR ERICKSON WETLANDS.DWG (Rev. 7/13/2010 8:44 PM)			

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

**LEGEND**  
 --- STUDY AREA BOUNDARY  
 --- WETLAND BOUNDARY  
 --- WATERS  
 • SAMPLE POINT



DSL WD # 10-0025  
 Approval Issued 7/14/2010  
 Approval Expires 7/14/2015

<b>WINZLER &amp; KELLY</b> 15575 SW SEQUOIA PKWY, SUITE 140 PORTLAND, OR 97224 PH: 503-226-3921 FAX: 503-226-3926		PROJECT: WEST LINN-WILSONVILLE SCHOOL DISTRICT 3.JIT ERICKSON SCHOOL SITE	
DESIGNED	DRAWN	APPROVED	DATE
KPT	KPT	NO	12/14/09
		PROJECT NO.	DWG NO.
		1145609000	
TITLE: FIG. 6 ADDITIONAL SAMPLING FOR WETLAND DELINEATION STUDY			

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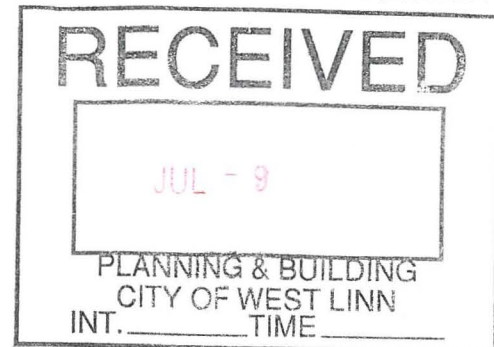
Parsons  
Brinckerhoff

400 SW Sixth Avenue  
Suite 802  
Portland, OR 97204-1628  
503-274-8772  
Fax: 503-274-1412

July 7, 2010

Peter Spir, Associate Planner  
West Linn Planning Department  
22500 Salamo Road  
West Linn, OR 97068

RE: CUP-10-03 New West Linn Primary School



Dear Peter,

In response to your June 10<sup>th</sup> letter indicating the above Conditional Use application was incomplete, we made the requested changes. With the exception of the public meeting notices, minutes, and recordings, a fully revised application is provided. I have attached:

- An application form with the necessary signatures;
- Four sets of the revised narrative, revised plan sheets and reduced 11X17-inch versions of the revised plan sheets;
- Four copies of the revised supporting materials and reports; and
- A CD of the entire application including the neighborhood meeting notices and minutes.

The information related to the Community Development Code sections and engineering comments in your letter have been addressed in the following manner:

### Planning Issues

32.040(E)(F) Relocated east drainageway must be designed by an engineer.

Response: It has been designed by a civil engineer, and supplemental information is provided in Appendix E of the *Preliminary Stormwater Management Report for New West Linn Primary School*, by Winzler & Kelly.

32.040(H) Provide mitigation plan for relocated east drainageway per 32.070 and 32.080.

Response: The mitigation plan is summarized in a memo from Walker Macy - "New West Linn Primary School-Mitigation Plan." This memo, plus the materials contained in this submittal address all of the relevant CDC criteria.

32.050(A) Wetland consultant shall provide field test data for assessment area E below 12" storm outfall originating at Cheyenne Terrace.

Response: This is provided in a memo from Winzler & Kelly - "assessment Area E Water Resource Area."

32.060(B)(2) Provide slope map showing areas with slopes over 25%.

Response: This is provided on Sheet LU2.01.

60.060(A)(7) Discuss how project relates to the Comprehensive Plan's goals, policies and action measures in the Public Facilities and Services section 7: Schools.

Response: This is included in the application narrative.

32.070(A)(1-3) Provide specific discussion or reference pages in Winzler and Kelly report where information can be found to address this criterion.

Response: This is provided in the memo from Walker Macy - "New West Linn Primary School-Mitigation Plan."

32.070(B)(C) Provide specific details regarding on or off site mitigation for wetland crossings and relocation of east drainageway.

Response: This is provided in the memo from Walker Macy - "New West Linn Primary School-Mitigation Plan" and the plan sheets/supplemental information referenced in the memo.

60.080(B)(5)(a) Show outline of homes and structures on adjacent properties.

Response: This is shown on Sheet LU1.00.

75.060(1)(4) Explain why a 95 foot wide curb cut is the minimum needed in the context of access driveways to other schools in West Linn. Staff is concerned that wider curb cuts encourage higher speed turn movements which in turn create hazard conditions for student and non-student pedestrians and bicyclists.

Response: This is provided in the application narrative.

75.060(6) Shifting east drainageway further east will reduce buffer for homes on east side of school site.

Response: The intent of the variance request to allow a 15-foot buffer in lieu of a 65-foot buffer is that it would apply to both sides of this drainageway/water resource area. The 15-foot buffer on either side of the relocated drainageway is located within the school district property. This 30-foot wide area will be heavily planted as shown on Sheet LU2.05, creating an appropriate environmental buffer for the water resource as well as a visual buffer for the residences to the east. The distance between the proposed school building and the existing homes to the east will be over 250 feet.

- 55.100(B)(2)(b) What percentage of site is set aside for tree protection?
- Response: This information is provided on Sheets LU2.01, LU2.04, and LU2.05.
- 55.100(B)(2)(i) Architectural standards do apply to public facilities. Staff recognizes schools special functional requirements but that does not waive need to accommodate safe pedestrian and bicycle access and circulation.
- Response: This criterion is addressed in the application narrative, and all sidewalks will meet or exceed 4 feet in width.
- 55.110(B)(3) Provide slope breakdown per code.
- Response: This is provided on Sheet LU2.01.
- 55.110(B)(13) Provide Type I and II lands map and table.
- Response: This is provided on Sheet LU2.01.
- 55.130C)( ) Provide engineer's report regarding run off, detention and treatment.
- Response: This is provided in the *Preliminary Stormwater Management Report for New West Linn Primary School*, by Winzler & Kelly.
- Other Chapter 55 table requires bicycle parking at 2 per classroom. There are 25 classrooms so 50 spaces are required.
- Response: The district has confirmed with city staff that there will be 23 classrooms and 1 special education room for a total of 24 classrooms. 48 bicycle parking spaces are shown on Sheet LU2.03.
- Provide evidence of easement allowing south access driveway encroachment onto property to south (tax lot 5500 of assessor's map 21E26AC).
- Response: A copy of the recorded easement is now available and included with the application.
- Owner or authorized representative of property tax lot 5500 of assessor's map 21E26AC must sign application form.
- Response: A new application form is included with the necessary signatures.
- Arborist shall tour site with Michael Perkins City Arborist to identify, delineate and map significant trees.
- Response: This has been completed, and a report from Teragan & Associates, Inc. provides this information.

## Engineering Department

Provide and show access and utility easements for the existing public water line and sanitary sewer line.

Response: The existing sanitary sewer line and easement, which are to be abandoned, and the proposed sanitary sewer line and easement are shown. As discussed with city staff, the play area will be hard surfaced and available for sanitary sewer line access.

### ***DKS Traffic Report***

Page 4 - Correct this statement: "The City of West Linn requires level of service D or better for all facilities except principal arterial".

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Page 4 - Table 2 - Correct or justify why PM Peak for All-Way Stop at Rosemont/Salamo Intersection LOS is at C instead of D as indicated in TSP.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 and Rosemont Road-Salamo Road Intersection Traffic Operations memorandum by DKS.

Page 5 - Table 3 - Address same issue as the above comment.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 and Rosemont Road-Salamo Road Intersection Traffic Operations memorandum by DKS.

Page 6 - Add the phrase indicating "road rock base section improvement" under Frontage Improvements Section.

Response: This is shown on Sheet LU1.01

Page 6 - Since both of the proposed driveway width is larger than what the City allows. Provide justification and mitigation as needed.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Page 6 - Add section for Signage Improvement address the reduction of speed around the school site and advance warning signs.

Response: This is provided in a memo from DKS - "New West Linn Primary School Roadway Signing Analysis and Plans."

Page 11 - Correct this statement: "The City of West Linn requires level of service D or better for all facilities except principal arterial".



Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Page 11 - Table 5 - Correct or justify why PM Peak for All-Way Stop at Rosemont/Salamo Intersection LOS is at C instead of D as indicated in TSP.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 and Rosemont Road-Salamo Road Intersection Traffic Operations memorandum by DKS.

Page 11 - Discuss why there are more collisions at the intersection of Rosemont and Hidden Springs. Are there any recommendations for improvement at this intersection to reduce the number of collision?

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Page 14 - Although the trip generation for school calculation is based on the number of students, add a statement addressing the trips generated by the 50 faculty staff.

Response: The estimated traffic includes all vehicle trips, including deliveries, staff, buses, and parents in the original and revised *New West Linn Primary School Transportation Impact Study*.

Page 14 - Since both Erickson School and Rosemont Ridge Middle School will have the same hours of operation; add a table showing School Bus Trips generated by Rosemont Ridge Middle School. Address the queuing issue at the intersection of Rosemont and Salamo.

Response: The schools do not operate on the same schedule as explained in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Figure 4 and Figure 5 - Add Bus Trips generated from Rosemont Ridge Middle School into the analysis for AM and Mid Day at intersections that are affected.

Response: This is included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 by DKS.

Page 19 - Table 10 - Correct or justify why PM Peak for All-Way Stop at Rosemont/Salamo Intersection LOS is at C instead of D as indicated in TSP.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 and Rosemont Road-Salamo Road Intersection Traffic Operations memorandum by DKS.

Page 20 - Explain whether new trips generated from the School will trigger the warrant of the signal at the intersection of Rosemont and Salamo.

Response: Included in the revised *New West Linn Primary School Transportation Impact Study*, June 2010 and Rosemont Road-Salamo Road Intersection Traffic Operations memorandum by DKS.

Page 21 - Add Signage Analysis and Recommendations.

Response: This is provided in a memo from DKS - "New West Linn Primary School Roadway Signing Analysis and Plans."

Address speed zone between Erickson School and Rosemont Ridge Middle School. Address congestion issue may occur when speed is being reduced and provide recommendations.

Response: This is provided in a memo from DKS - "New West Linn Primary School Roadway Signing Analysis and Plans."

### ***Street Improvements***

Provide off-site improvement plan. Highlight the improvement area. Correct the roadway section indicating rock base improvement in accordance with arterial sub-grade and leveling course street section.

Response: This is shown on Sheet LU1.01

Sidewalk shall be 8' wide unless Planning Department asks for otherwise.

Response: District and city staff agreed that a 6-foot wide sidewalk was appropriate, with the exception of the temporary improvement along the Tax Lot 12600 frontage, where a 4-foot width will be provided. This is shown on Sheet LU1.01.

Civil Engineer shall work with Traffic Engineer providing off-site traffic signage improvement. Provide traffic signage plan.

Response: This is provided in a memo from DKS - "New West Linn Primary School Roadway Signing Analysis and Plans."

Provide connection for sidewalk on Suncrest Drive and Bay Meadows to sidewalk onsite.

Response: This is shown on all of the plan sheets, including Sheets LU1.01 and LU2.02.

### ***Street Lighting***

Provide street light study. Provide street lighting plan showing new street lights as needed. Work with PGE to see whether or not this project can become a pilot LED Lighting Project since the main characteristic of this project is sustainability.

Response: A lighting plan for the Rosemont Road frontage is presented on Sheet LU4.03. The potential of a pilot LED project will be investigated in the future.

### ***Storm Drainage Improvements***

Provide Storm Drainage Report addressing treatment and detention for both on site and off site facilities. Storm Drainage Report shall address treatment and detention improvement for run-off coming from the existing Hidden Springs Ranch Phase 5 on Cheyenne Terrace.

Response: This information is provided in the *Preliminary Stormwater Management Report for New West Linn Primary School*, by Winzler & Kelly.

Storm Drainage Report shall address all storm water out falls into the water resource areas. Out falls detail shall explain what the construction impact will be inside the water resource areas.

Response: This information is provided in the *Preliminary Stormwater Management Report for New West Linn Primary School*, by Winzler & Kelly.

Dedicate or give easement to the City for the area utilized as treatment and detention facility for storm water run-off from the public road and sidewalk along the project frontage on Rosemont Road.

Response: This is shown on Sheet LU1.04.

### ***Sanitary Sewer Improvements***

Provide access to the new sanitary sewer realignment line so that Public Works Crew can be able to access with utility truck for cleaning purposes.

Response: District and city staff agreed that the hard surface on the play area will allow access, and an easement will be provided as a conditional of approval, but not completeness.

No permanent structure shall be placed on top of the sanitary sewer easement.

Response: No permanent structures are proposed.

Existing sanitary sewer line starting where the school makes service connection to the next second manhole shall be private and maintained by the school. Remove the existing recorded easement language for this line at the time of project completion.

Response: This will be done, but is not necessary for completeness.

### ***Water Improvements***

Please provide off site water improvement to mitigate the impact that the development imposes on the current deficient water system.

Response: The district and city staff agreed that water SDC money coming from the school building permit can be used with other SDC funds to

construct the improvements. City Council authorization is required.  
This is not necessary for completeness.

Additional fire hydrant may required if spacing between existing fire hydrants does not meet spacing requirement along the project frontage on Rosemont.

Response: Hydrants are shown on Sheet LU1.04.

I trust this revised information will be sufficient to find the application complete.  
Please contact me if you need anything further.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith S. Liden". The signature is fluid and cursive, with the first name "Keith" being the most prominent.

Keith S. Liden, AICP

cc: Tim Woodley, WLWV School District  
Karina Ruiz, DOWA  
Seth Stevens, Winzler & Kelly  
Ben Vaughn, Walker Macy



**NEW WEST LINN PRIMARY SCHOOL  
Conditional Use, Class II Design Review,  
Water Resource Area and Variance**

July 7, 2010

**APPLICATION SUMMARY**

For Conditional Use, Class II Design Review, Water Resource Area, and Variance approval to construct a 67,000 square foot primary school located on a 15.98-acre site. Variances are requested to: 1) allow two, 95' wide driveways (from curb return to curb return); 2) allow parking spaces that are more than 200 feet from the building entrance; 3) reduce the transition setback for an intermittent drainage from 65 to 15 feet; and 4) allow two wall signs of approximately 38 and 84 square feet and a 32 square foot monument sign at the driveway entrance.

**GENERAL INFORMATION**

**Location**

1025 Rosemont Road (2S 1E Section 23 CD, Supplemental 2, Tax Lots 12500, 12700 and 12800, and 2S 1E Section 26 AC, Tax Lot 5500). Its location is shown in Figure 1.

**Comprehensive Plan and Zoning Designations**

The Comprehensive Plan designation is Low Density.

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  
P. O. Box 35  
West Linn, OR 97068  
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)

Karina Ruiz, AIA  
Dull Olson Weekes Architects  
907 S. W. Stark Street  
Portland, OR 97205  
Phone: 226-6950  
Fax: 273-9192  
E-mail: [KarinaR@dowa.com](mailto:KarinaR@dowa.com)

## Plan Sheets

### Cover Sheet

LU1.00	Existing Conditions Plan
LU1.01	Site Plan
LU1.02	Grading Plan
LU1.03	Erosion Control Plan
LU1.04	Utility Plan
LU2.01	Site Analysis
LU2.02	Landscape Plan – West
LU2.03	Landscape Plan – East
LU2.04	Planting/Irrigation Plan - West
LU2.05	Planting/Irrigation Plan - East
LU3.01	Main Floor Plan
LU3.02	Second Floor Plan
LU3.03	Roof Plan
LU3.04	Exterior Elevations
LU3.05	Covered Play & Signage
LU3.06	Site Sections
LU3.07	Site Sections
LU4.01	Site Plan – Lighting Calculations
LU4.02	Site Plan – Lighting Calculations
LU4.03	Street Lighting Calculations

## Supporting Information

- Neighborhood meeting notices and minutes (submitted previously)
- Access Easement – Hidden Springs Ranch Recreation Association/West Linn-Wilsonville School District
- Transportation Impact Study, DKS
- Rosemont Road-Salamo Road Intersection Traffic Operations Memo, DKS
- West Linn Primary School Roadway Signing Analysis and Plans, DKS
- Water Resource Area and Wetland Documents
  - New West Linn Primary School – Mitigation Plan, Walker Macy, 7.1.10
  - Wetland Delineation/Determination Report – WD#09-0240
  - Wetlands Delineation Technical Memo – WD#10-061, Winzler & Kelly, 1.18.10
  - DSL Removal/Fill Permit Application #APP0044165
  - Applicant's response to comments on the Joint Permit Application (JPA) DSL Permit #44165-RF
  - Preliminary Stormwater Management Report for New West Linn Primary School, Winzler & Kelly, revised 6.17.10
  - Assessment Area E Water Resource Area Memo, Winzler & Kelly, 6.25.10
- Arborist site meeting notes, Walker Macy, April 30, 2010
- Tree Protection Plan and Inventory, Teragan & Associates, 7.7.10
- Site Noise Review, Altermatt Associates, Inc.
- Wind turbine brochure

Figure 1: Aerial Photo



Source: Google

## BACKGROUND INFORMATION

### Site Description

The site is an undeveloped, 15.98-acre property as shown in Figure 1 and Sheet LU1.00. Trillium Creek runs through the property generally from the southwest to the northeast corner of the site. Wetland and wooded areas are located on both sides of the creek. Open areas are located on either side of this wetland/wooded area near Rosemont Road and the southeastern portion of the site. The property slopes down toward the creek and to the northeast. An intermittent drainage originating from a storm water outfall runs from south to north near the eastern edge of the property. An analysis of the site concluded that 228,660 square feet of the property consists of Type II lands, which lie on both sides of Trillium Creek. The remainder of the site is classified as Type I land (see Sheet LU2.01).



**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 23 CD, TL 12500, 12700 & 12800 (owned by school district) and 2S 1E 26 AC, TL 5500 (access easement).	R10	Vacant
<u>Surrounding Properties</u>		
North	R7/R10	Single family residences & undeveloped
South	R7	Single family residences
East	R10	Single family residences
West	FU10 RRFF-5	Single family residences Acreage homesites & limited agriculture

**SCHOOL BUILDING AND RELATED IMPROVEMENTS**

**New Primary School**

The new primary school is proposed to accommodate 500 students and 50 staff in the southeastern portion of the property. It will take advantage of the largest existing open area on the site. The main entrance for students will be on the south side of the building, and the main visitor entrance will be located on the west side. The school will generally operate between the weekday hours of 7:30am to 2:30pm. In addition, school activities and community use will occur during other times of the day and week, but the school will be closed after 10 pm.

The 67,000 square foot school, with 23 classrooms plus 1 special education room, will feature a two-story design in the northern classroom wing with the library, gym, administrative offices, and kindergarten classes on one level on the southern portion of the building. The building footprint will be slightly less than 42,000 square feet. The maximum height of the building is slightly less than the 35-foot maximum of the R-10 Zone. The district currently needs capacity for approximately 350 students with an anticipated future need to accommodate about 500 students. The plans show the complete school, which could accommodate an enrollment of 500. The district will request contractors to bid the construction of a 350- and a 500-student school. Depending upon the bids received, the district will decide whether to fully build the school now, or plan on constructing additional classrooms on the east side of the building at a later date (Sheets LU 3.01 and 3.02). The relationship of the school improvements with surrounding properties is shown on Sheets LU3.05-3.07.



## **Access**

### ***Driveways***

Access will be provided by two driveways along Rosemont Road, which will be over 400 feet apart. The northern driveway will serve as the entrance for visitors and parents to drop off and pick up students. In addition, food service deliveries will be made via this driveway. The driveway will cross Trillium Creek and the associated wetland. It is proposed to be 28 feet wide with a 6-foot wide sidewalk on the north side. The 28-foot driveway width is proposed to allow for overflow parking for special events on one side of the driveway and retain minimum 20-foot clearance for emergency vehicles.

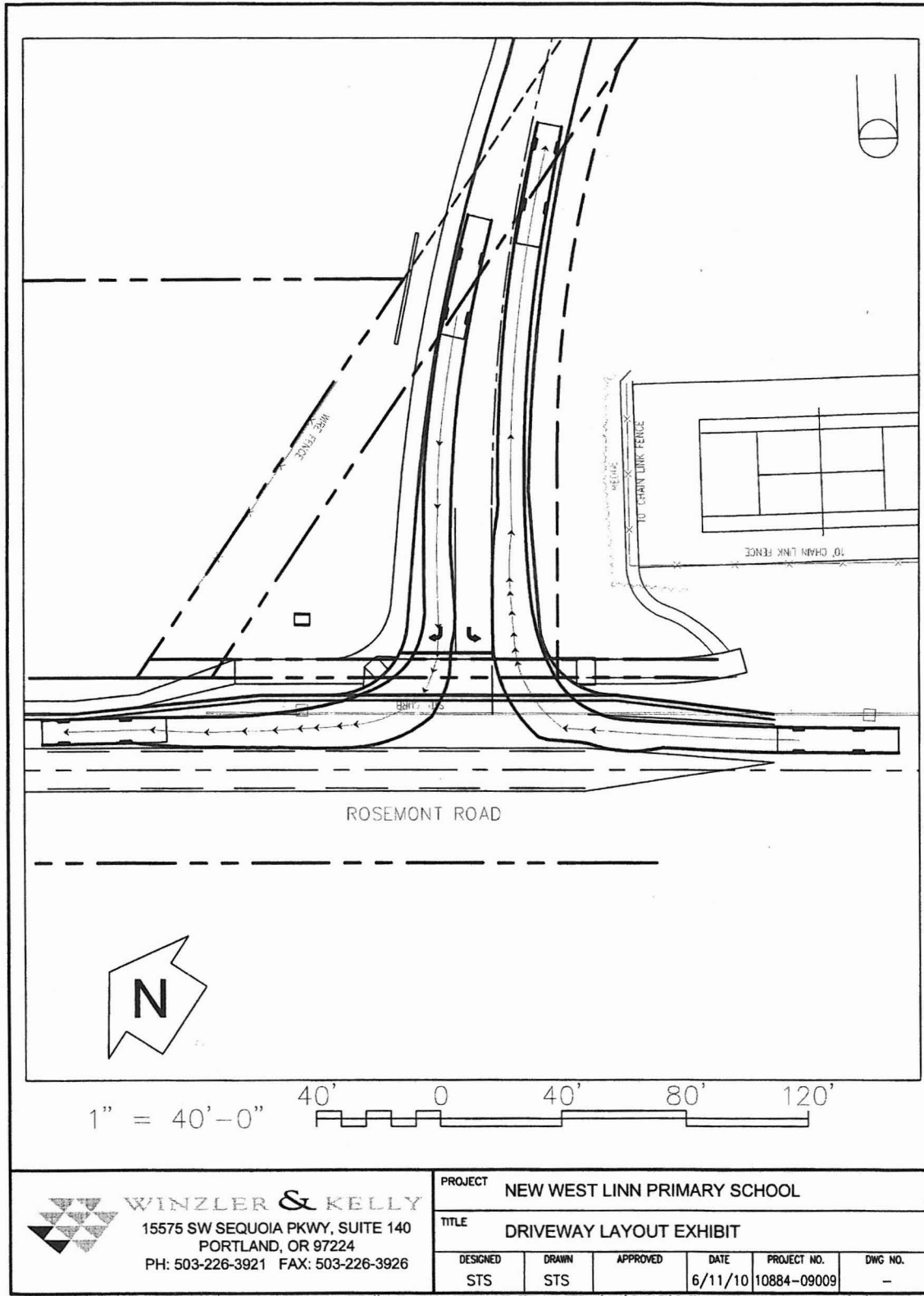
A southern driveway will provide access for school buses, staff vehicles, and service vehicles. It is made possible with an easement acquired from the adjoining property owner of Tax Lot 5500 (copy of recorded easement is attached). Buses will be allowed to enter the site, turn around, and drop off or pick up students along the south side of the school. This driveway will be 24 feet wide with a 10-foot wide sidewalk on the north side. The two-driveway system is designed to separate visitor and parent traffic from buses and service vehicles to allow safe and convenient access for everyone.

There will be a connection between the north and south parking lots to provide internal access for overflow parent parking in the south lot for community and school events (after hours). It will be gated the remainder of the time allowing access as described above.

To facilitate safe and efficient access and egress, both driveways are proposed to include right and left turn exit lanes. Two exit lanes are warranted because schools experience high traffic volumes over very short periods at the beginning and end of the school day and following special events. To accommodate the turning radii of buses and delivery trucks, the driveway widths, measured at Rosemont Road are 95 feet. This width is required for these driveways in order to provide bus access into and out of the site without encroaching into the left turn lane on the site, or the center turn lane in Rosemont Road. The illustration on the following page demonstrates the need for the proposed driveway width based on a bus turning simulation in CAD. Although the normal daily route for bus traffic through the site is anticipated to occur at the southern driveway, both driveways are designed to allow for bus and truck access to provide for operational flexibility for special events or unforeseen conditions.

During the preliminary design phase, alternate driveway configurations (including narrower throat openings) were examined. None of these worked for standard bus turning radii without turning buses encroaching into other lanes or up onto the sidewalk. Safety is an important consideration for maneuvering large buses around corners and experience on other school design projects has resulted in similar driveway widths. For example, the Rosemont Ridge Middle School driveway on Salamo Road was designed to operate in a similar manner, and it has a width of 118 feet. This driveway at Rosemont Ridge Middle School was also designed with a left and right turn lane out of the site in addition to the inbound traffic lane. While there have been improvements done at Rosemont Ridge Middle School to separate the parents and buses, the original driveway width provided there was due to the turning radii of the buses and not to the comingling of parent and bus traffic. As noted above, the 95-foot driveway width proposed for this project requires variance approval.

Figure 2: Bus Turning Radii



July 7, 2010

New West Linn Primary School – CU/DR  
Page - 6

### **Street Frontage Improvements**

Half-street improvements are proposed along the Rosemont Road frontage, including curb, planter strip, street lighting, and 6-foot wide sidewalk. Based on the proposed street widening layout and location of the existing right-of-way for Rosemont Road, a 6-footwide public sidewalk cannot be constructed along the frontage of Tax Lot 12600 without encroaching onto that private property with either the sidewalk or associated slope grading. Therefore, a 4-foot wide, curb-tight sidewalk is proposed along the frontage of this property (Sheet LU1.01). Street lights are designed to meet applicable city standards for arterial streets (Sheet LU4.03).

### **Pedestrians and Bicyclists**

Pedestrian and bicycle access to the site will provide several safe and convenient connections with the surrounding neighborhoods. The circulation design also minimizes the need for pedestrians and cyclists to cross driveways. In addition to the sidewalk entrances along the two driveways, three connections will be provided as shown on Sheets LU2.02 and LU2.03 and illustrated below:

- A pathway between the northern driveway sidewalk and Suncrest Drive;
- A pathway in the eastern play area to the existing to a connection with the existing pathway to Santa Anita; and
- A sidewalk link with Bay Meadows Drive.



### **Emergency Access**

Emergency access will be provided via the two driveways plus a third emergency-only access from Bay Meadows Drive. The emergency access along Bay Meadows will be gated with a fire department lock. Once onsite, emergency vehicles can use the existing south roadway and hardscape play area to reach the northeast corner of the building. The northwest corner of the building will be accessible for emergency vehicles through the north lot. As described herein, a connection between the north and south parking lots will further enhance emergency access on the site.

### **Consistency with the West Linn Transportation System Plan**

The *West Linn Transportation System Plan* (TSP) includes a “Local Connectivity Plan” that recommends several local street connections in the city, including one between Bay Meadows Drive and Suncrest Drive. These two streets are shown on the Existing/Future Functional Class map (Figure 8-1) as “Neighborhood Routes”, and Figure 8-6 shows the recommended connection between them. Figure 8-4 of the TSP provides example cross sections for Neighborhood Routes.

A street connection is not proposed for the following reasons:

- It would encourage vehicular access to the school via Suncrest Drive and Bay Meadows Drive. These streets were designed for low traffic volumes from additional low density residential development on this site, not a primary school.
- Vehicular traffic to and from the school will be much more effectively handled by Rosemont Road, an arterial street.
- A north-south street connection would complicate and interfere with the driveway connections between the school and the preferred connection to Rosemont Road.
- To ensure the safety of the students, the district must be able to maintain adequate security for the school. Having a public street running through the property would greatly compromise the district’s ability to do this.
- Trillium Creek and the associated wetland and wooded areas are sensitive lands which should be avoided to the extent possible. The district must construct one driveway across this sensitive area, but with a minimal amount of disturbance. A public street would potentially create additional environmental impacts.

Although a street connection is not proposed, the district will satisfy the goal of the TSP to provide good pedestrian and bicycle circulation in the neighborhood as discussed above and shown on the site plan. While these access routes will be open to the public, the district will monitor public access during school hours to ensure the safety of all students.

### **Traffic Impacts**

DKS prepared the *New West Linn Primary School Transportation Impact Study* and a supplemental memorandum titled *Rosemont Road-Salamo Road Intersection Traffic Operations*, which are included as part of this application. They analyze the potential traffic impacts associated with the proposed primary school. They evaluate the impacts in the vicinity of the school, including 9 intersections. DKS concludes the following:

- The existing traffic conditions as well as the forecast 2012 conditions without the school will meet the city’s LOS (level of service) standards.
- The Rosemont Road-Salamo Road intersection will continue to perform at acceptable levels.
- The addition of the primary school, with 2 driveway access points on Rosemont Road will have only a minor traffic impact, and city LOS standards will be satisfied.
- No off-site traffic capacity improvements are necessary.
- One-half street improvements should be required along the Rosemont Road frontage.
- The location and operation of the proposed driveways are appropriate, including individual right and left turn exit lanes on both driveways.



- The northern site distance for vehicles exiting the southern driveway should be improved by the city and district working with the neighboring property owner to trim or remove some vegetation.
- Appropriate vehicular and pedestrian access and circulation is provided on the school site and to/from the surrounding neighborhoods.

Looking ahead to the creation of school zone speed limits for the new school, DKS provided an analysis and plan for roadway signing in the vicinity of the new school. A copy of this memorandum is attached.

## **Parking**

Three vehicle parking areas are proposed. A 35-space visitor lot will be located immediately west of the main entry plaza, and a second, 25-space visitor lot will be provided near the entrance of the northern driveway. The third 57-space staff parking lot, served by the southern driveway, is located on the south side of the school. Vehicular access will never be available via Bay Meadows Drive. Of the total 117 spaces, 5 are handicapped accessible. With a total floor area of 67,000 square feet and 50 staff, 117 spaces are required. To qualify for LEED certification, the CDC minimum of 117 should not be exceeded.

To accommodate special events, parking will be allowed in all three parking lots. In addition, some of the parent and bus pick-up/drop-off spaces along the curb will be made available during these times. This will yield approximately 35 additional spaces to support these events.

Twenty-four bicycle racks will be provided to hold 48 bikes. Of these, 38 spaces will be covered. This will satisfy the required bicycle parking of 2 spaces per classroom (23 plus 1 special education classroom). The bike parking also meets the CDC requirement of being within 50 feet of a building entrance. The bike parking is shown and noted on Sheet LU2.03.

The CDC requires on-site parking to be within 200 feet of building entrances. This standard is met with the exception of the 25-space lot in the northwest portion of the property. A variance is requested to exceed this maximum distance.

## **Play Areas and Sports Fields**

Play areas are concentrated on the east side of the building. They include a variety of hard and soft surface areas to accommodate the different age groups at the school. The location and arrangement of these areas is shown on Sheet LU2.03. In addition, a multi-use sports field (without lighting) is proposed in the northwest corner of the site (Sheet LU2.02). An asphalt path from the play area leads to a stone council circle in the forest. The council circle is envisioned as an informal gathering area with a circular stone seat wall at the edge of the forest. This asphalt path will be handicapped accessible along its eastern leg. A mulch path will also be provided in the forest as part of the proposed development. Future use of the forest as a part of the school's environmental curriculum is envisioned, and additional structures are not anticipated at this time.

## **Grading and Erosion Control**

Because of the sensitive lands on much of the site, the district has carefully designed the school and the site improvements to minimize any potential impacts to these areas. Consistent with this approach, the proposed grading is limited to the building site, play areas, driveways, parking, and water detention and treatment. The necessary grading for the building and southern parking lot will create an elevation drop of approximately 10 feet from the adjoining lots to the south. An intermittent and undefined drainage is located along the eastern property boundary. It was created by the installation of a storm drainage outfall from the Cheyenne Terrace properties to the south. This drainage is proposed to be relocated farther east in an open channel that will allow proper storm water treatment as it makes its way to Trillium Creek. The proposed grading and erosion control plans are shown on Sheets LU1.02 and LU1.03.

The CDC requires a setback of 65 feet from such a drainage, and the applicant proposes a 15-foot setback. A variance approval is necessary. It is justified because of the location of other, more valuable natural habitat areas on the site. The proposed re-routing of this water will provide improved storm water treatment and habitat value compared to the existing situation.

On the remainder of the site, a retaining wall varying in height from 1 to 6 feet is proposed along the south property line, east of Bay Meadows Drive to accommodate the grade difference between existing ground and the proposed parking lot elevation. In addition, two, 6-foot retaining walls are proposed at either side of the driveway at the Trillium Creek crossing in order to minimize the amount of grading in the wetland. There will be a substantial amount of cut material generated from the excavation for the building and south parking lot. To reduce the amount of export from the site, a portion of the excess cut material will be used to raise the grade at the northwest corner of the site.

## **Utilities**

Because the site is currently undeveloped, an entire complement of utilities will be extended into the property to serve the school and accessory facilities. Water and gas lines will come from Rosemont Road to the building. An existing sanitary sewer line runs through the property from Bay Meadows Drive to Trillium Creek. This line will be re-routed to go around the eastern side of the school to connect to a manhole for another sanitary sewer line located on the eastern side of the property. The sanitary line from the school will connect with the remaining section of the existing sanitary sewer line on the north side of the building.

A fire water line will be extended from the public main in Rosemont Road onto the site and will loop around the building. Fire hydrants will be located along the fire line, and along Rosemont Road, at a spacing that provides adequate coverage in accordance with local fire code.

A flow test was performed using nearby fire hydrants in order to determine the amount of flow available from the existing 16-inch water main in Rosemont Road. The test showed that over 2,000 gpm of flow is available with a residual pressure of over 75 psi in the water line. This is appropriate to serve the school and surrounding area. However, the city has identified an overall water system capacity limitation in this area of the city. The city is pursuing a plan install the necessary system improvements. As part

of the development and building approval process, the district will make a significant water system development charge (SDC) payment to the city, which will represent the school's fair share of the cost for completing these water system improvements.

On-site stormwater detention will be provided by underground chambers, and stormwater treatment will be provided by water quality bioswales. In addition, infrastructure is proposed for harvesting of roof runoff to be reused to flush toilets in the building. Stormwater management is also proposed for the public runoff from Rosemont Road, and includes a pollution control manhole and treatment/detention pond (see attached Preliminary Stormwater Management Report). The bioswales and pond will be vegetated with plants from the Metro's native plant list. On-site topsoil will be stockpiled and used as a growing medium in these facilities. In addition, temporary erosion control measures are also proposed for these facilities until permanent vegetation is established, including jute matting or mulch (Sheets LU1.03 and LU1.04).

Three stormwater outfalls are planned to Trillium Creek. The outfalls will be located downstream of localized treatment and detention systems. The detention systems will be designed in accordance with city criteria to have flow control structures that restrict the discharge from the detention systems to not exceed the peak runoff rates from the tributary areas in an existing condition. The proposed outfall structures at Trillium Creek will consist of a subsurface infiltration trench with multiple overflow risers that will be set at ground level. The outfall structures are designed to distribute the flow and dissipate the energy of the discharge in order to minimize the potential for erosive concentrated flow.

One small wind turbine is proposed on the west side of the school (Sheet LU2.03). It will generate electricity for use on-site. It has a slender cylindrical shape with a height of approximately 40 feet. The noise created by the unit is negligible as noted in the site noise review. A 2-page brochure is included in the application packet. In addition, solar panels are proposed over the south bus entry shelter and the covered play structure. An estimated 7 percent of the building's energy needs will be provided by these panels. A building "dashboard" will be prominently displayed as a tool to inform the students about how sun and wind can provide energy.

### **Lighting**

On-site lighting will be provided for the driveways, parking lots, and building. Play areas and fields will not be illuminated. The lighting is designed to only cast light onto the property and not adjoining properties. The lighting plans (Sheets LU4.01 and LU4.02) indicate the expected light levels and how light will not escape beyond the property boundary. In addition, the parking lots will be lower than the adjoining properties (Sheets LU3.05-3.07), and vehicle headlights will be blocked by the retaining wall, fencing, and landscaping. Street lighting is proposed along the Rosemont Road frontage (Sheet LU4.03).

### **Water Resource Area and Wetland Protection**

Winzler & Kelly and Walker Macy evaluated the water resource areas located on the site and have developed the plans for appropriate mitigation and enhancement related to site development. The relevant materials associated with the water resource areas (WRA) and wetlands are attached as the Water Resource Area and Wetland

Documents listed on page 2. The following narrative contains an information summary, and the attached documents should be referenced for additional details.

The site for the proposed New West Linn Primary School contains two water resource areas. The larger of the two runs roughly through the middle of the site, including Trillium Creek and associated wetlands. It will be referred to as the Trillium Creek WRA. The smaller water resource area lies in the southeast corner of the site, consisting of an undefined drainage created by the Cheyenne Terrace storm drain outfall at the south edge of the site. This area is referred to as the East Drainageway WRA.

Jurisdictional wetlands occur within each WRA. The details of this investigation are presented in a memorandum dated January 18, 2010, a Wetlands/Waters Delineation Report for West Linn-Wilsonville School District Erickson School Site, May 20, 2009, and Assessment Area E Water Resource Area memorandum, June 25, 2010. These documents are provided as supplemental information to this application.

For the Trillium Creek WRA, permanent impacts have been permitted through an Army Corps of Engineers/Department of State Lands Joint Permit Application (JPA) and resulting permit (DSL Permit #44165-RF). The application and permit are attached. Filling the 0.1 acre wetland in the East Drainageway WRA will require a general authorization from the DSL, as indicated in the Winzler & Kelly Memo dated June 25, 2010. This approval from DSL is forthcoming. The remainder of East Drainageway WRA is subject to city requirements. The location of the jurisdictional wetlands is shown on Sheets LU2.02/2.03 and Assessment Area E Water Resource Area memorandum.

The Trillium Creek WRA is generally avoided and development is beyond the buffer and setback areas prescribed in CDC 32. It is necessary to have one driveway crossing over the creek and wetland to provide proper access. A southern driveway serving the southern employee parking lot also needed to be partially within the buffer area. All other development will be a significant distance from the creek and its wetlands, including the school building which will be over 150 feet away (Sheets LU1.01, LU1.03, LU2.04, and LU2.05).

The district proposes to relocate East Drainageway WRA to the east by providing a defined channel lined with appropriate native plants and bordered by trees. This will create a significant improvement over the current overland water flow. The relocation is necessary because of the more significant Trillium Creek corridor and wetlands on the west side of the site. Because of the relatively low environmental and habitat value of the eastern water resource area and 0.1-acre wetland, it was determined that relocating and improving this water drainage was preferred over encroaching into the Trillium Creek wetland on the west side. This analysis is presented in Section (5) Project Impacts and Alternatives in the JPA. The relocation of the East Drainageway WRA is justified because:

- The Trillium Creek WRA represents a high-quality natural resource;
- By comparison, the East Drainageway WRA, which was artificially created by a storm drain outfall, is a low-quality resource;
- The school, featuring a two-story design to minimize its footprint, and parking that does not exceed city standards, will not have sufficient space without utilizing the eastern portion of the site; and



- Retaining the East Drainageway WRA in its current location would necessitate further encroachment into the Trillium Creek WRA and the removal of additional trees.

Because the school facilities are proposed within 15 feet of this water resource area where a 65-foot buffer (50-foot setback plus 15-foot structural setback) is required, a variance is requested to allow a 15-foot buffer along both sides of the relocated drainageway as shown on Sheet LU2.03. The buffer area will be properly landscaped with native plants as shown on Sheet LU2.05.

## **Trees**

A large area of significant trees is located to the south of Trillium Creek along with a smaller grouping located at the top of the hill along Rosemont Road (Sheet LU2.02). On February 9<sup>th</sup>, 2010 and June 11, 2010 the applicant met with Mike Perkins, the City of West Linn Arborist, and reviewed the proposed removal of trees on site. Based on walking the site, Mr. Perkins was comfortable with the proposed tree removal plan. A summary of the meeting notes from the February 9<sup>th</sup> meeting is provided as supplemental information in this application.

Some trees will need to be removed to accommodate the proposed improvements on the site. However, every effort has been made to minimize tree removal (Sheets LU2.01, LU2.04, and LU2.05). In addition, a tree protection plan (Teragan & Assoc.) has been developed to further ensure the health of the trees retained on the site.

## **Potential Noise**

Potential noise issues have been studied and evaluated by the district. A Site Noise Review memorandum by Altermatt Associates, Inc. was prepared and presented as part of this application. The study evaluated four primary noise sources: 1) off-site traffic, 2) on-site traffic, 3) playground noise, and 4) site-associated equipment. The memorandum concludes that the city's noise standards will be met if propane buses are used and the mechanical systems have noise screens. The district will be using propane buses which are significantly quieter (and lower emitting), and the units will be surrounded by acoustical screens. Other on-site vehicular traffic, including delivery trucks will not exceed applicable noise standards.

## **Signs**

The district proposes one monument sign and two raised letter building (wall) signs. The monument sign is proposed to be located at the northern driveway entrance. It would have a total height of 6 feet, width of 8 feet, and a backlit reader board section (Sheet LU3.05). The sign area is proposed to be approximately 32 square feet. The CDC allows two freestanding signs for school with a maximum sign area of 24 square feet.

The building elevations show the two proposed building signs (Sheet LU3.04). One sign on the south side would be approximately 38 feet by 1 foot, and the second sign on the north side would be approximately 56 feet by 1.5 feet. The specific sign size will partially depend upon the selected name for the school. A variance is requested for the monument and wall signs. The monument sign will be somewhat larger than the 24

square foot standard, and the wall signs will exceed the total wall sign area of 18 square feet allowed in the CDC.

### **Refuse and Recycling**

This area will be located on the southwestern corner of the building. There will be an enclosed area for a compactor, refuse, and recycling storage. It will be screened as shown in the site and landscape plans (Sheets LU1.01, LU 2.03, and 2.05). The separation and storage of these materials will be consistent with the solid waste hauler and DEQ.

### **CONDITIONAL USE REVIEW CRITERIA**

The relevant review criteria in the City of West Linn Community Development Code (CDC) include the Single Family Residential Detached, R-10 requirements (Chapter 11), Water Resource Area Protection (Chapter 32), Conditional Use evaluation criteria (Chapter 60), Variance Criteria (Chapter 75), Comprehensive Plan goals and policies, and Design Review (Chapter 55). These criteria are addressed below.

#### ***Chapter 11 Single Family Residential Detached, R-10***

##### **Section 11.060 Conditional Uses**

This section lists schools as a conditional use in the R-10 zone. The school building, play area, and parking are located within this zone. Schools are allowed as a conditional use in the R-10 zone.

##### **Section 11.080 Dimensional Requirements, Conditional Uses**

This section gives the Planning Commission the authority to determine the appropriate dimensional requirements to satisfy Conditional Use criteria in Chapter 60. The primary school is proposed to cover approximately 6% of the site, which satisfies the maximum building coverage standard of 35%.

The maximum floor area ratio (FAR) allowed in the R-10 zone is 0.45. Based on the site size of 16 acres, a maximum floor area of over 313,000 square feet is allowed. The proposed building floor area of 67,000 square feet is well below this maximum limit.

#### ***Chapter 32 Water Resource Area Protection***

##### **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 Trillium Creek WRA and provide

appropriate mitigation for these minor encroachments. The district also plans to convert the East Drainageway WRA from an “artificial” drainage, caused by improper disposal of storm drainage onto this property, into an open and defined water channel, which is appropriately constructed and landscaped, to greatly enhance its current condition. The requirements of this section are satisfied because the site plan, grading, and landscaping plans are all intended to minimize any potential detrimental impacts on Trillium Creek and the associated wetlands.

- C.** The proposed improvement to the southeastern drainage course will enhance the quality of Trillium Creek and wetlands by establishing a defined channel that is bordered by appropriate native vegetation and lined by trees to create a superior natural environment compared to what exists today.
- 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.
- E.** This section describes how the protected water resource area setback and transition areas are determined. In this case, it is 50 feet plus a structural setback of 15 feet. This is proposed along Trillium Creek. A variance is requested to allow a 15-foot setback from both sides of the relocated East Drainageway WRA.
- F.** The site plan was developed to minimize the overall potential impact upon water resources on the site. However, as shown in the application materials, some encroachment is necessary to provide access to the school. The primary (northern) driveway design features a minimal width, a sidewalk on just one side, and retaining walls at the creek crossing to minimize grading. The route was chosen to follow an existing crossing and to further minimize tree removal, and this approach has satisfied the city arborist.

The location of the valuable resources along Trillium Creek essentially forced the school building, related parking, and playgrounds into the southeastern portion of the property. Part of the school access, parking, and play areas need to be in the area occupied by the East Drainageway WRA. This water resource area was artificially created, has no defined channel, includes a very small wetland, and no trees. Therefore, its relocation and improvement as described in this application is appropriate.

- G.** The water resource areas shall be protected, as prescribed by the city, during construction.
- H.** All paved surfaces shall be located a minimum of 15 feet from the edge of the water resource areas, with the exception of the crossings shown on the plan sheets. They will be constructed as required by the city and the applicable federal and state permits.
- I.** All plans have been developed by experienced civil engineers and environmental scientists with the goal of maintaining and enhancing the water resources on the site. While the East Drainageway WRA will be shifted to the east, it will continue to flow to Trillium Creek as it does today.
- J.** All erosion control measures prescribed by the city shall be followed at all times.

- K.** Vegetative improvements are proposed and will be provided following construction. In particular, the East Drainageway WRA will be enhanced to function in a more environmentally appropriate manner than it does presently.
- L.** The school building will be far beyond the minimum setback distance of 15 feet.
- M.** Stormwater treatment facilities are not proposed to be located within the water resource areas.
- N.** This criterion does not apply because there are no existing piped stormwater facilities on the site.
- O.** This criterion does not apply because the front yard setback can be met, and a reduction is not requested.
- P.** This criterion is not applicable because all relevant storm drainage channels have been identified.

**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 required information and alternative evaluation are provided as part of this application. The encroachments have been held to the absolute minimum, all potential adverse impacts will be mitigated, and the East Drainageway WRA will be greatly enhanced compared to its current condition.
- B.** The mitigation plan for the site is explained in the plan sheets and the supplemental materials. The work will be accomplished in accordance with city, state, and federal requirements, and appropriate assurances will be made. A copy of the Joint Permit Application is provided as part of the supporting materials.
- C.** Mitigation for the relocation and enhancement of the East Drainageway WRA is provided, and a revegetation plan, consistent with CDC 32.080, is proposed.
- D.** All plans for the primary school improvement have been developed by experienced professionals. The analysis of alternatives is presented in the Joint Permit Application and the Winzler & Kelly response to CDC Chapter 32 that are included with the supporting materials.
- E.** The district will work with the city to provide the appropriate assurances that the water resource areas will be permanently protected.

**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. The standards are addressed in the Water Resource Area and Wetland Documents that are attached to this application.



## **Chapter 60 Conditional Uses**

### **Section 60.070 Approval Standards and Conditions**

This code section states the applicant must provide evidence substantiating that the proposed use satisfies seven criteria, which are addressed below:

#### **A. The following criteria shall be satisfied.**

##### **1. The site size and dimensions provide:**

###### **a. Adequate area for the needs of the proposed use.**

The property has been identified as a future school site for many years, and this was recently annexed in anticipation of this application. The site is appropriate because the school is able to meet the applicable criteria for such a use. The district has found that a site size of 10 to 20 acres accommodates the facilities desired by the community for primary school programs. This has proven to be adequate for a primary school with a capacity of 500 students. As shown on the site plan information, the site can be used efficiently and there is sufficient land area to support a primary school, while protecting valuable natural resources.

###### **b. Adequate area for aesthetic design treatment to mitigate any possible adverse effect from the use on surrounding properties and uses.**

As shown on the site plan information, the setback distances for buildings, parking, fields, and related facilities from all property lines will provide ample distance and screening from adjoining residential uses. As noted above, transportation facilities, noise control, landscaping, buffering, environmental protection, controlled on-site lighting, and daytime and early evening hours of operation will avoid any adverse impacts on surrounding property owners and residents.

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

The district has found that a site size of 10 to 20 acres in a basically rectangular shape accommodates the facilities desired by the community for school programs. Because of the requirements for a school building and athletic fields, a perfectly flat site would be ideal. However, in West Linn, virtually all potential sites for schools have grades over 5%. As shown in the development plans, the most sensitive areas, steepest slopes, and best stands of trees have been avoided and the portion of the site proposed for development can be appropriately graded to meet the needs of the primary school.

Care will be taken to mitigate any adverse impacts to the natural resources described in this application.

As shown on the site plan information, the site can be used efficiently and there is sufficient land area to support a primary school.

A rationale and evaluation criteria for locating schools was developed jointly by the school district, Clackamas County, and the cities of West Linn and Wilsonville. This is documented in the *West Linn-Wilsonville School District Long Range School Facilities Plan*, which was first adopted by the district in 1996 and most recently updated in 2005. This site is identified as a potential primary school site in the plan.

**3. *The granting of the proposal will provide for a facility that is consistent with the overall needs of the community.***

The needs of the community are best expressed by the community's approval of the bond measure to finance these improvements. The relevant city policies are addressed under criterion 7 below.

**4. *All required public facilities have adequate capacity to serve the proposal.***

Transportation

The report and memorandum submitted by DKS Associates shows that sufficient street capacity is available, and the school will have only a minor impact on the level of service for nearby streets and intersections. All intersections studied will continue to exceed the city's LOS standards. All necessary transportation improvements for vehicular, pedestrian, and bicycle circulation will be made as part of the school construction as described herein.

Water

As described above, water service is adequate to serve the school. To address overall system capacity for this area of the city, the water SDC paid to construct the school may be used by the city to provide the proposed water system improvements.

Sanitary and Storm Sewer

Sanitary and storm sewer service is available as described above. An on-site storm water system will be provided to meet water quality and volume standards as described herein.

**5. *The applicable requirements of the zone are met except as modified by the Conditional Use chapter.***

The applicable requirements of the R-10 zone will be met. The building will cover much less than 35 percent of the site, and it will be well under the 0.45 FAR maximum. The lot is over the 10,000 square feet minimum. No part of the school building will be over the 35 foot allowable height. Setbacks from the building will exceed the 20-foot minimum by a significant margin.

**6. *The supplementary requirements set forth in Chapters 52 to 55, if applicable, are met.***

Chapter 52 - Signs

One monument sign and two building mounted wall signs with raised-letters are proposed. As noted above, a variance is requested regarding the size of the signs.

### Chapter 53 - Sidewalk Use

This CDC chapter applies to commercial activities and merchandise display on public sidewalks. It is not applicable to this proposal.

### Chapter 54 - Installation and Maintenance of Landscaping

This is addressed in the following section relating to Design Review.

### Chapter 55 - Design Review

The Design Review criteria are addressed in the following section.

#### **7. *The use will comply with the applicable policies of the Comprehensive Plan.***

The relevant city of West Linn goals and policies for schools are found in the city's Comprehensive Plan. The relevant goals and policies are addressed below.

*Goal 5, Section 2: Natural Resources, the "Natural Environment" section contains three goals and associated policies that are relevant to the request. The goals are:*

- 1. Encourage and assist in the preservation of permanent natural areas for fish and wildlife habitat in suitable, scientific/ecological areas.*
- 2. Protect sensitive environmental features such as steep slopes, wetlands, and riparian lands, including their contributory watersheds.*
- 3. Preserve trees in park lands, natural areas, and open space wherever possible.*

The proposed primary school is consistent with the above goals and the supporting policies because:

- The site plan was developed to hold the disturbance of the Trillium Creek wetland and forested areas to an absolute minimum.
- A storm drainage outfall from Cheyenne Terrace created an undefined water course through the property, which will be moved and improved to function as an environmental amenity.
- The location of the school, parking lots, play areas, and driveways were all selected to avoid removal of mature trees.
- Impacts to wetlands and water resource areas shall be mitigated according to federal, state, and city requirements.

*Goal 6, Section 1: Air Quality, contains one goal and associated policies that are relevant to the request. The goal is:*

*Maintain or improve West Linn's air quality.*

The proposed primary school is consistent with the above goal and the supporting policies because:

- The district plans to use propane powered buses to reduce air pollution and minimize vehicular noise.
- The pedestrian and bicycle connections through the site and with surrounding neighborhoods will enable the community to travel to the school by non-

motorized means.

*Goal 6, Section 2: Water Quality, contains one goal and associated policies that are relevant to the request. The goal is:*

*Maintain or improve West Linn's water resources.*

The proposed primary school will satisfy the above goal and the supporting policies because:

- The Trillium Creek corridor and associated wetland will be maintained.
- A storm drainage outfall created an undefined water course through the property that will be moved and designed to improve the current quality of the water coming from this storm drain outfall.
- Appropriate erosion control methods will be employed during construction.

*Goal 6, Section 3: Land Resources (Solid Waste Management), contains two goals and associated policies that are relevant to the request. The goals are:*

1. *Decrease the amount of solid waste that is discarded and put in a landfill.*
2. *Provide cost-effective solid waste and recycling services to the City's residents, businesses, and public facilities.*

The proposed primary school is consistent with the above goals and the supporting policies because:

- The appropriate recycling facilities will be provided as required by the CDC.
- The waste and recycling facilities will be screened as required by the CDC.

*Goal 6, Section 4: Noise Control, contains one goal and associated policies that are relevant to the request. The goal is:*

*Maintain and promote a quiet and healthful environment for the citizens of West Linn.*

The proposed primary school is consistent with the above goal and the supporting policies because:

- The district plans to use propane powered buses to reduce air pollution and minimize vehicular noise.
- Noise coming from school activities will be controlled, and they will also occur primarily during the daytime hours.
- The potential noise from the site will be managed and designed to meet the CDC noise standards.

*Goal 7, Areas Subject to Natural Disasters and Hazards, contains one goal and associated policies that are relevant to the request. The goal is:*

*Protect life and property from flood, earthquake, and other geological hazards, and terrorist threats or attacks.*



The proposed primary school is consistent with the above goal and the supporting policies because:

- There are no identified natural hazards on the site.
- The school building will meet the current safety requirements as part of the building permit process.

*Goal 8, Parks and Recreation, contains one goal and associated policies that are relevant to the request. The goal is:*

- 6. Encourage the use of non-city owned community resources (e.g., churches, schools, etc.) for recreation uses through cooperative arrangements and joint use agreements.*

The proposed primary school is consistent with the above goal and the supporting policies because:

- Like other schools, it will be available for community use and functions.
- The school will have a playground and multi-use field that will contribute to the overall inventory of park and recreation opportunities in the city.

*Goal 9, Economic Development, contains one goal and associated policies that are relevant to the request. The goal is:*

- 2. Encourage the retention and economic viability of existing business and industry.*

The proposed primary school is consistent with the above goal and the supporting policies because:

- The district is committed to providing a quality education for all students and becoming contributing members of the workforce.
- The excellence of the West Linn-Wilsonville School District is well-known, giving the city an advantage in attracting and retaining businesses and employment opportunities.

*Goal 11, Public Facilities and Services, contains one goal and associated policies that are relevant to the request. The goal is:*

*Require that essential public facilities and services (transportation, storm drainage, sewer, and water service) be in place before new development occurs and encourage the provision of other public facilities and services.*

The proposed primary school is consistent with the above goal and the supporting policies because:

- Adequate public facilities will be provided as part of the school construction.
- The associated public improvements shall be provided consistent with CDC and city engineering standards.

*Goal 11, Public Facilities and Services, Section 7: Schools, contains one goal and associated policies that are relevant to the request. The goal is:*

*Coordinate with the West Linn-Wilsonville School District and Clackamas County to provide school services and related recreational facilities for West Linn residents.*

The proposed primary school is consistent with the above goal and the four supporting policies because:

1. *Encourage the School District to build schools on collectors or arterial streets and, where possible, along transit lines.*

This is satisfied because the school will have direct access to an arterial street.

2. *Encourage the use of energy-responsive materials and processes in the design of schools where economically feasible.*

This will be satisfied, because the district is designing the school to incorporate energy efficient design and materials. The new school will offer the latest in energy efficiency related to both increased insulation values and modern heating and cooling equipment.

3. *The City shall participate in the siting of future school facilities, per the currently approved Intergovernmental Agreement with the School District.*

This school site has been discussed and evaluated by the district and city for many years. It is identified as a potential school site in the *West Linn-Wilsonville School District Long Range School Facilities Plan*.

4. *School design, use, and parking will be responsive to and compatible with surrounding neighborhoods and existing land uses.*

The district has worked diligently with the surrounding neighborhoods and individual property owners to create a design, which is responsive to their needs. Noise mitigation, visual buffering, and access treatments have all been developed in coordination with the neighbors.

*Goal 12, Transportation, contains three goals and associated policies that are relevant to the request. The goals are addressed below:*

1. *Provide a transportation system for the city of West Linn that:*
  - a. *Provides for maximum mobility while encouraging modes of transportation other than the automobile.*
  - b. *Provides for connectivity within and between neighborhood, developments and community centers, using new and existing transportation services that are consistent with Metro's street and walkway spacing standards.*
  - c. *Is convenient, safe, and efficient.*
  - d. *Maintains the cohesiveness of the city's neighborhoods.*

- e. *I built with consideration of community priorities and affordability.*
- f. *Respects and preserves the natural environment on both a neighborhood and city-wide basis.*

This goal and supporting policies are satisfied because access to the school site is integrated with the existing and planned street and pathway system in the area. The Transportation System Plan identified a local street connection between Bay Meadows Drive and Suncrest Drive however, this connection would be disruptive to the neighborhoods because of the volume of traffic related to the school. Such an improvement would also result in greater impacts to the Trillium Creek corridor and wetland. Although a vehicular connection will not be made between the two streets, pedestrian and bicycle access will be provided as envisioned in the TSP. Safe and convenient walking and bicycling routes will be provided to all surrounding neighborhoods. In addition full street improvements will be provided along the Rosemont Road frontage.

- 2. *Provide a cost-effective balanced transportation system incorporating all modes of transportation (including motor vehicle, bicycle, pedestrian, transit, and other modes).*

As noted herein, the proposed pedestrian and bicycle network and connections with surrounding neighborhoods will support this policy.

- 3. *Develop transportation facilities that are accessible to all members of the community and minimize out-of-direction travel.*

Transportation improvements, along the Rosemont Road frontage and within the site, will be accessible to the public, and direct routes will be provided for pedestrians and cyclists. Although transit is not available in the area, Rosemont Road would be a logical transit route in the future. The on-site sidewalks and frontage improvements will enable future transit stops serving the school.

In addition there are two provisions under transportation that apply directly to schools, and they are addressed below:

*Action Measure 5: Designate preferred routes to each school in the city and require that safe paths to school for children be identified for any new residential project.*

As shown in the application materials, safe pathways and sidewalks will be provided along the Rosemont Road frontage (including an interim improvement along Tax Lot 12600), sidewalk connections with Bay Meadows Drive and Suncrest Drive, and a pathway connection to the east.

*Policy 1 b: Promote a comprehensive cohesive network of pedestrian paths, lanes, and routes that accomplishes the following objectives: b. Provides connections to schools, recreation facilities, community centers, and transit facilities.*

As noted above, this system will be provided for the school enabling pedestrians

and cyclists to travel to and through the site from all directions.

*Goal 13, Energy Conservation, contains two relevant goals and several associated policies that are relevant to the request. The goals are:*

- 1. Promote energy efficient provision of public facilities and services.*
- 3. Promote the use of renewable energy sources.*

The proposed primary school is consistent with the above goals and the supporting policies because:

- The pedestrian and bicycle connections through the site and with surrounding neighborhoods will enable the community to travel to the school by non-motorized means.
- The district is designing the school to incorporate energy efficient design and materials. The new school will offer the latest in energy efficiency related to both increased insulation values and modern heating and cooling equipment.

**B. Development review provisions in Chapter 55 shall be satisfied.**

These criteria are addressed below.

**C. The Planning Commission may impose conditions.**

The District understands that the Planning Commission has the authority to impose conditions.

**D. Aggregate extraction uses.**

This subsection is not relevant because aggregate extraction is not proposed.

***Chapter 75 Variances***

Variances are being sought for the following:

- A driveway width of approximately 95 feet, where the standard in CDC 48.060 B is a maximum of 36 feet;
- Allowing parking spaces that are farther than 200 feet from the building entrance (CDC 46.070);
- Providing a 15-foot drainageway setback where the CDC requires 65 feet (CDC 32.050); and
- To allow wall signs of approximately 38 and 84 square feet where the CDC requires a maximum total of 18 square feet and a monument sign of approximately 32 square feet where the maximum allowed is 24 square feet (CDC52.210).

These variance requests must be found to comply with the criteria in CDC Chapter 75. The variance criteria are noted below followed by the findings for each of the variance requests noted in the order above.



Chapter 75 requires that a variance will only be approved if it meets six criteria:

1. *Exceptional or extraordinary circumstances apply to the property which do not apply generally to other properties in the same zone or vicinity, and result from lot size or shape, legally existing prior to the date of this ordinance, topography, or other circumstances over which the applicant has no control.*

#### Driveway Width

A school is unique in that it has relatively significant amounts of traffic for brief periods in the morning and early afternoon. In addition, school buses and delivery trucks are part of the traffic mix. As a result, the driveways have been designed to allow efficient egress from the site with right and left turn lanes, and more gradual curb radii are included to allow for bus and delivery truck turning movements. The 36-foot maximum width standard would mean existing traffic would need to use only one lane and that buses and trucks will have difficulty making the turns to and from the school.

#### Parking Spaces

As demonstrated by the site analysis, the challenge for this project is how to provide the school and related facilities while protecting the natural features to the maximum extent possible. This led to the need to provide 25 spaces that are beyond the 200-foot maximum distance standard. This parking could be provided within the 200-foot limit, but only with additional cutting/filling and tree removal. In addition, parking near the sports field in the northwest corner of the site will be beneficial, especially for the public use when the school is closed.

#### Drainageway Setback

Similar to the parking issue above, the placement of the school was challenged by the location of the valuable natural features on the site. The drainageway, which is the subject of the setback reduction, was artificially created after a storm water outfall was constructed on the south property boundary. Compared to the natural habitat and wetland value of the Trillium Creek area on the west and northern portions of the site, this area is obviously of lesser value. If the 65-foot setback is met, it would mean shifting the school into the Trillium Creek corridor, causing unnecessary environmental harm to this more valuable resource.

#### Signs

The wall sign size requirements appear to contemplate only displaying the address. The school is a somewhat unique use in residential zones that requires additional sign area to display the school name. This need does not generally apply to other properties and uses in residential zones.

Although the school would be entitled to two freestanding signs, it only needs one to identify the access driveway for the general public. Because of its location along Rosemont Road, a slightly larger size is requested to allow sufficient visibility.

2. *The variance is necessary for the preservation of a property right of the applicant, which is substantially the same as a right possessed by owners of other property in the same zone or vicinity.*

#### Driveway Width

Commercial and public driveways with two exit lanes are relatively common and appropriate to prevent internal traffic circulation issues on site. Rosemont Ridge Middle School, with similar short peak periods of exiting vehicles, has a similar driveway design featuring a width of 118 feet.

#### Parking Spaces

Under most circumstances, the 200-foot distance standard is achievable. However, for uses that have significant parking requirements, it can become difficult to satisfy. Requesting this variance is consistent with what other property owners could do when faced with the need to provide extensive parking and protect environmentally valuable resources. In addition, CDC 46.070 B allows commercial and industrial uses with more than 40 required spaces to locate the first 40 spaces within 200 feet and the remainder within 300 feet. The school is analogous to this situation, and it would meet the 300-foot requirement.

#### Drainageway Setback

If properly designed as the outset, the storm water outfall would have included a method for conveying the storm water to Trillium Creek. The district will essentially do this now. Creating a defined channel with native plantings will actually correct an existing storm and water quality problem.

#### Signs

Like many public and non-residential uses, schools have a need to properly identify their location. The proposed wall signs will be very tastefully designed and will have a very understated appearance that is consistent with signs allowed for other similar uses.

The district currently has the ability to have two freestanding signs with a total area of 48 square feet. The district only requests one sign, which will have less total sign area compared to what the CDC allows.

- 3. The authorization of the variance will not be materially detrimental to the purposes and standards of this Code, will not be inconsistent with all other regulatory requirements, and will not conflict with the goals and policies of the West Linn Comprehensive Plan.*

#### Driveway Width

The enlarged driveway width is consistent with all other aspects of the CDC and the Comprehensive Plan. The driveways are appropriately located, and the design will minimize congestion of exiting vehicles as well as accommodate the buses.

#### Parking Spaces

The school proposal is compliant with all other parking requirements in the CDC. Although people will potentially have to walk a little farther to reach the school, the 25 spaces in question are ideally placed for use of the multi-use play field.

#### Drainageway Setback

As mentioned above, all other requirements in the CDC will be met. More important, the variance will allow a higher degree of protection of the more important resource on the property – Trillium Creek.

### Signs

The purpose of the sign regulations is to ensure that signs are sufficient to identify different land uses in a tasteful way that is not visually obtrusive. While the wall signs are proposed to be larger than allowed, they will be complimentary to the school's design and the surrounding neighborhood.

As noted above the proposed monument sign will feature less sign area than what would be allowed in the CDC.

4. *The variance request is the minimum variance, which would alleviate the exceptional and extraordinary circumstance.*

### Driveway Width

To successfully accommodate exiting traffic and bus turning, the proposed width is necessary. It is important to note that the driveway widths on the remainder of the site are consistent with CDC dimensional standards.

### Parking Spaces

This is the minimum deviation possible. The design does maximize the amount of parking adjacent to the building. Given the site constraints, it simply isn't practical or desirable to place the remaining 25 spaces near the building.

### Drainageway Setback

As mentioned above, this setback variance is largely the result of a trade-off between two resource areas. Something had to give. The setback reduction allows the maximum protection of the more valuable Trillium Creek WRA, but with the proposed new channel and plantings, the East Drainageway WRA will function better than it does today as a water quality amenity. In addition, mitigation will be provided elsewhere on the site to compensate for the reduced setback from the East Drainageway WRA.

### Signs

Because of the setback of the school and distance from site entrances, larger wall signs are needed to properly identify the school. The name of the school has not been determined, and the district will try to reduce the sign size from what is requested.

Having one sign, rather than two, with less total area than what is allowed by the CDC meets this criterion.

5. *The exceptional and extraordinary circumstance does not arise from the violation of this ordinance.*

None of the four variance requests are the result of a violation of the CDC.

6. *The variance will not impose physical limitations on other properties or uses in the area, and will not impose physical limitations on future use of neighboring vacant or underdeveloped properties as authorized by the underlying zoning classification.*

#### Driveway Width

The additional width at the driveway entrances will not adversely affect other properties along Rosemont Road. Sufficient spacing is available and appropriate traffic circulation, both on-site and off-site, will be maintained.

#### Parking Spaces

The distance between the parking spaces and building entrance does not affect other properties. They will still be more conveniently located compared to on-street parking in adjoining neighborhoods, so people will not be inclined to park off-site to the detriment of the neighbors.

#### Drainageway Setback

If anything, the creation of a drainage channel and appropriately dealing with upstream storm water mitigates a physical limitation that was imposed on this property. This variance to reduce the setback does not affect other properties or limit the future use of their properties.

#### Signs

The wall signs will simply provide proper identification, and they will not adversely affect adjoining properties due to lighting or other visual impacts.

Having one sign with less total area than allowed by the CDC will have less potential impact on surrounding properties.

### ***Chapter 99 Procedures for Decision-Making: Quasi-Judicial***

This chapter requires the applicant to contact the affected neighborhood to present the proposed development application. In addition to the required neighborhood meeting, the district held several neighborhood meetings to inform the community about the new school and to solicit input. A packet of all the public involvement and information events is included with this application.

### **DESIGN REVIEW CRITERIA**

The Conditional Use requirements include compliance with Chapter 55 Design Review. Section 55.100 contains the applicable approval standards for a Class II Design Review, which are addressed below.

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

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

*Section 33.040* requires storm water quality and detention facilities to be designed in accordance with City of West Linn Public Works Design Standards. These facilities will be provided as shown on the utility plans and described above.

*Section 33.060* requires access for maintenance to facilities. All of the proposed facilities will be located within close proximity to driveways or all-weather surface areas that will allow vehicle access.



## **7. Chapter 46, Off-Street Parking and Loading**

*Section 46.090 B. 6.* requires "one space for every employee, plus 1 space for each 1,000 square feet of floor area." With a floor area of 67,000 square feet and 50 staff members, a minimum of 117 vehicle spaces are required. This standard is satisfied as shown on the site plan.

*Section 46.120* requires a 15-foot wide drive for loading and unloading passengers. This standard is satisfied as shown on the site plan.

*Section 46.130* requires one loading space for the school (10,000 - 100,000 sq. ft.). Sufficient loading space is proposed on the south side of the building.

*Section 46.140* contains the design standards for parking areas. The proposed parking facilities are designed in a manner that satisfies the design and dimensional standards of this section.

*Section 46.150 A.* contains a variety of standards pertaining to parking lot design, pavement, pedestrian access, handicapped parking, and grades. The proposed parking facilities are designed in a manner that satisfies the design and dimensional standards of this section.

*Section 46.150 B.* contains standards for handicapped parking, including 5 handicapped parking spaces for the 117 required parking spaces. This standard is satisfied because 5 handicapped parking spaces are proposed.

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

*Section 54.020 A.* is satisfied because all trees on the site were inventoried along with the wetland areas on the site.

*Section 54.020 B.* is not relevant because although the district will avoid removal of significant trees, it does not want to reduce the proposed parking.

*Section 54.020 C.* is satisfied because the district will comply with all city tree protection requirements.

*Section 54.020 D.* is not relevant because there are no heritage trees on the site.

*Section 54.020 E.* is satisfied because well over 20% of the site will either be landscaped or left in its natural condition; sufficient landscaping is provided around the three parking lots; landscaping around parking areas meets the prescribed dimensional and buffering requirements; street trees are proposed; outdoor storage areas are proposed to be screened; safety will be provided by the open nature of the site and landscaping plan; and irrigation will be provided.

*Section 54.020 F.* is not relevant because this is not a subdivision.

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

*Section 55.100 B. 1. and 2.* are not relevant because there are no heritage trees on the site. The city arborist visited the site and determined that no significant or

heritage trees would be affected by the proposal. .

*Section 55.100 B. 3.* is satisfied because the school and related improvements are proposed on the southern and western portions of the site to avoid the sensitive lands, steeper slopes, and trees associated with Trillium Creek.

*Section 55.100 B. 4.* is satisfied because the property is geologically stable.

*Section 55.100 B. 5.* is satisfied because the school building will provide significant setbacks from surrounding properties. The school building is well separated and buffered from surrounding properties. It is the closest to residential properties to the south. Here, the building setback is approximately 100 feet. A landscaped buffer and fencing is provided along the southern property boundary. In addition, the parking lot and school will be significantly lower than the residences to the south, further reducing potential visual, noise, and lighting impacts.

*Section 55.100 B. 6.* is met based on the findings below:

- a.* The school is designed be a student centered place, where students connect with and learn about their built and natural environment. The building is oriented so that most of the classrooms face the woods. Primary colored student sized learning places project into the landscape from each classroom. Rainwater is celebrated in vertical runnels that lead to a cistern or storm water planters. The library is the center of research and inquiry of the school, with tall clerestory windows for daylight, view of the wetlands, and passive ventilation.
- b/c.* The proposed design is compatible with the natural environment because only a minimum amount of area will be used for the school and related improvements. The proposed two-story school will be complementary to the one- and two-story residences on the adjoining by incorporating a pleasing blend of contemporary architecture and exterior finish materials. Where the setback is the smallest on the south side (100± feet), the elevation of the school varies to create visual interest. The ground floor of the school is approximately 10 to 15 feet lower than adjacent properties to the south. This, along with the proposed fencing and landscape screening, will ensure a compatible outcome.
- d.* The site size and the school location are sufficient to displace any contrasting architectural styles in the surrounding area.
- e.* The human scale of the proposed building is represented in the design approach, which features welcoming and distinctive entry and activity areas.
- f.* The criterion related to windows applies only to commercial and office buildings, not school structures.
- g.* The windows are in different planes from lower to upper windows to provide visual interest.
- h.* Climatic concerns are considered in the proposed building designs due to the public use associated with school buildings. The new school will meet all current energy efficiency standards. The district is striving to achieve a LEED certification for the building.

- i. The proposed site plan is consistent with the city of West Linn's vision statement to provide safe and attractive pedestrian-friendly site and building environments. The design of the school and its accessible location will improve the current pedestrian-friendly character of the neighborhood by providing new walking and bicycling routes through the site.
- j. This CDC criterion applies primarily to sidewalks along commercial street frontages, but it does include a standard that sidewalks must have a minimum of 4 feet clear width. The sidewalks on the site will be a minimum of 6 feet wide, meeting this standard.

*Section 55.100 B. 7.* relates to Transportation Planning Rule compliance. The provisions of this section are either satisfied or not relevant as described below:

- a-c. These subsections are not relevant to this application because it is not a commercial, office, or multi-family residential project.
- d/e. Subsections d and e call for safe and convenient pedestrian circulation within parking lots and throughout the site. This circulation system is proposed as shown on the site plan. It is designed to provide excellent connections to the surrounding neighborhoods and to minimize the need to drive to and from the school.
- f. This encourages placing buildings as close to the main access street as possible. Because of the location of sensitive lands on the site and an intervening property along Rosemont Road, the school could not be located closer to Rosemont Road.
- g. This subsection is not relevant because transit service is not provided in the vicinity, and none is planned.
- h. This subsection is not relevant because it is intended to apply adjacent to a main street, such as in the Willamette neighborhood, not along Rosemont Road.
- i/j. These subsections are not relevant because the school is not a fire station, etc. and trailhead parking is not proposed.

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

The provisions of this section are satisfied as described below:

1. The school is located very significant distances from all surrounding properties. Where it is the closest on the south side, excellent buffering is proposed with the lower elevation of the school and parking lot, retaining wall and fence, and landscape buffering along the property boundary.
2. The service area on the southwest side of the building will have screening immediately surrounding it. Plus it will benefit from the perimeter screening mentioned above.
3. The rooftop HVAC systems have been evaluated for potential noise. The visual/noise screens proposed on the roof, these units will not be visible and will generate minimal noise for surrounding residents.

#### **D. Privacy and Noise**

The provisions of this section are either satisfied or not relevant as described below:

- 1/2. These subsections are not relevant because they apply to residential buildings.
3. The potential impacts of noise and on-site lighting were evaluated as described in the application materials. With the noise mitigation and lighting design measures described herein, the school will not create any privacy or noise impacts for the neighbors.

#### **E. Private Outdoor Area**

The provisions of this section are not relevant because they apply only to multi-family projects.

#### **F. Shared Outdoor Recreation Area**

The provisions of this section are not relevant because they apply only to multi-family projects.

#### **G. Demarcation of Public, Semi-Public and Private Spaces**

The controlled access points to the school, the design and location of the outdoor public/play areas are all designed to ensure the safety and security of the students. As shown on the site and landscaping plans, this includes clear demarcation of the outdoor areas intended for school functions.

#### **H. Public Transit**

This section is not relevant because no public transit is provided or planned in the vicinity.

#### **I. Public Facilities**

The provisions of this section are satisfied as described below:

1. Street and pedestrian/bicycle circulation system improvements, consistent with the City Engineer and DKS *New West Linn Primary School Transportation Impact Study* recommendations will be made as noted in this application.
2. Service areas and parking will be screened according to CDC standards as described in the application.
3. As noted above, the rooftop HVAC system will be screened to minimize visual and noise impacts to surrounding neighbors.

#### **J. Crime Prevention and Safety/Defensible Space**

The site and building have been designed to create visible, well lit, and open public areas. The building plan also includes windows and/or entrances to every direction, increasing natural surveillance of the entire site.



**K. Provisions for Persons with Disabilities**

City code criteria and ADA requirements will be satisfied during the final building and facility design for the addition and remodeling work.

**L. Signs**

The two proposed monument signs at each driveway entrance and the wall signs will clearly identify the school. Other traffic control and wayfinding signs will be used on the site as appropriate.

**M. Utilities**

As described above, utility services are available for the school and will be provided.

**N. Wireless Communication Facilities**

This section is not relevant because no facilities are planned.

**O. Refuse and Recycling Standards**

As illustrated in the application plans the recycling and refuse area will be located, designed, and screened as required by the CDC. Necessary approval from the waste hauler and other agencies will be obtained as necessary.

**CONCLUSION**

The proposed school satisfies all of the relevant criteria as demonstrated above.

# Teragan & Associates, Inc.

Terrence P. Flanagan

Arboricultural Consultants

July 7, 2010

Tim Woodley  
West Linn-Wilsonville School District  
2755 Borland Rd.  
West Linn, OR 97068

## **Project Title: Erickson Primary School located on Hidden Springs Road, West Linn, OR**

Enclosed is the certified arborist report and tree protection plan regarding the development of the land designated for the Erickson Primary School to be located on Hidden Springs Road in the West Linn-Wilsonville School District that complies with the West Linn Municipal Code.

### **Summary**

The majority of the large, significant trees on the site will be retained on the property that will be developed for an elementary school. The school building is to be placed in an area on the property that currently has smaller hawthorn trees. The main drive, parking lot, fields and frontage road improvements will cause approximately 75 trees of the larger trees on the property to have to be removed.

The grove of even aged Douglas firs just south of Suncrest Drive may have a large number of trees removed from it but the suggestion of reducing the planned walkway from two to one and the reconfiguration of playing field to the west may reduce the number of tree removals significantly.

It will be import to evaluate the hazardous condition of both the grove of trees south of Suncrest Drive and the larger grove of Douglas fir trees that is to be utilized as an outdoor classroom. Opportunities to convert some of the hazardous, suppressed and dead trees in these areas to wildlife snags should be seriously considered if they can be retained safely.

As long as the trees in the wetland area west of main drive is not disturbed, the trees should continue to do well. Management of the water flow through the site will have to be managed to ensure that surface and belowground flows are not severely reduced or increased from the current levels.

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## Assignment

The assignment that you requested I complete is to:

1. Create a tree protection plan for the Erickson School site that meets the requirements of the City of West Linn.
2. Provide a tree risk assessment of the trees that are to be retained on site.
3. Provide a written tree protection plan that references the site plan developed by Walker Macy.

## Report Purpose

This report is to certify the trees that are on site, their condition and outline the tree protection steps to protect the trees to be retained on site. This report is written to meet the requirements of the City of West Linn for tree protection on properties that are being developed.

## Observations

On June 29, 2010, the tree inventory was completed. A spreadsheet of the trees inventoried can be found in appendix # 3. The inventory lists the tree number, species (common and botanical name), tree DBH, tree condition, tree structural condition, pertinent comments and tree recommendation.

## Discussion

The subject property is to be developed for the construction of Erickson Primary School. The numbers in the Tree Inventory Chart correspond to the numbers tagged to the trees and indicated on the survey of the property. The tree location and tree numbering was completed by another vendor. Some of the trees did not have the number tags on them for reasons that are unknown. We re-tagged the trees that had the original tags missing from them.

The tree inventory spreadsheet lists the number of trees larger than 12-inches on the property, plus any Oregon white oak, (*Quercus garryana*), Pacific dogwood (*Cornus nuttallii*), and Pacific madrone (*Arbutus menziesii*) that are greater than 6-inches in diameter.

## Areas of Concern

### Grove of Douglas Firs

A grove of young aged Douglas firs (*Pseudotsuga menziesii*) located along the northern boundary of the property at the south end of Suncrest Drive shows that at least six Douglas firs are to be removed from the edge of the grove. It would be best to retain these edge trees as they provide a buffer from the force of winds that may impact that corner of the grove. Without these edge trees, the interior trees will be more susceptible to wind throw.

The plans show that two walkways are to extend from the end of the sidewalks on either side of Suncrest through the grove and merging into one walkway south of the grove. It would be highly recommended that only one walkway be constructed through the grove to limit the number of trees that would have to be removed. It will also be important the final route of

the walkway through the grove be situated to limit the number of trees that would have to be removed.

There are a number of dead, partially failed and suppressed Douglas firs within the interior of this grove. The removal of these trees will be necessary prior to allowing the public to enter the grove to insure that their safety is not compromised. On site direction by the project arborist may be necessary to indentify suppressed or failed trees.

#### **Trees # 2221 and 2194**

The main entrance drive is located between two Oregon white oaks, 28 and 27-inch diameter respectively. Both trees are rated as being in good condition with good structure. Ideally, no construction activity should occur within 28 feet of these trees. The plans show that the drive edge will come within 20 feet of tree # 2221 and 35 feet within tree # 2194. It would be best that the drive be moved to the north but that may end up impacting other trees to the southeast that are planned for retention.

If construction activity is limited to come no closer than 15 feet to tree # 2221, it should be possible to protect the tree from long-term damage as long as a strong tree protection fence is installed and maintained for the duration of the project.

#### **Trees # 2139, 2137, 2135, 2134, 2133, 2132, 2131, 2127, 2129, 2156**

The above trees are located on the northeast side of the main entrance drive to the school toward the closest planned front parking lot for the planned building. The grading necessary to install the drive will come too close to these trees and negatively impact them to the point that the trees should be removed or a wall should be installed to remove the need for grading in the vicinity of these trees. The minimum distance that construction activity should be allowed to encroach on these trees is as follows:

<b>Tree Number</b>	<b>Tree Diameter in Inches</b>	<b>Tree Species</b>	<b>Tree Condition</b>	<b>Minimum Tree Protection Radius in Feet</b>
2139	21	Douglas fir	Good with dogleg at 20 feet	11
2137	20	Douglas fir	Poor with broken top	10
2135	24	Douglas fir	Fair with old broken top	12
2134	20	Douglas fir	Poor with broken top	10
2133	27	Douglas fir	Good	14
2132	13	Douglas fir	Poor with a high crown, tree is suppressed	7
2131	29	Douglas fir	Fair, lost top in past	15
2127	37	Douglas fir	Good	19
2129	34	Douglas fir	Good	17
2156	30	Douglas fir	Fair	15

#### **Outdoor Classroom Tree Stand**

There is a large stand of Douglas firs located north of where the new school building is to be situated. The plan is to develop an outdoor classroom with paths running through the area. The tree inventory included a basic survey of risk assessment of the trees. When the paths and other aspects of the outdoor classroom are finalized, the tree inventory should be utilized to indentify trees that have too high a risk to leave in an area of high use. In addition, the trees that were too small to be surveyed and inventoried, any tree less than 8 inches in diameter, will also have to be evaluated for their level of risk that they may pose to the users

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of the area. The project arborist should work with crews to identify those trees regardless of diameter size that may have too high a risk level to allow them to be retained.

There may be the opportunity to create some wildlife snags from the trees that are too risky to leave at full size or that are suppressed. The project arborist can assist in identifying those trees and provide the management options that will be required for those trees to ensure that they can be safely retained given the level of use the area will have.

### **Cottonwood on Southeast End of South Property Line**

There are a couple of cottonwoods that are located on the south property line toward the property's southeast corner that are being considered for removal. It appears that the trees are on the school property although that should be confirmed. Given the close proximity of the planned parking lot and the necessary grading, the trees should be removed.

Cottonwoods do not tolerate construction impacts well; they are weak branched species prone to breakage. These trees would not be good candidates to retain so close to parking areas.

### **Stand of Native Ashes**

There is a stand that consists of mostly native ash trees located in the central area of the west half of the property. This stand will be west of the main entrance drive and the new school. These trees are mostly located within the wetland boundary. Tree protection fencing around the edges of the stand and the wetland area should properly protect this trees well.

The site plans show that there are two areas that are to be utilized for mitigation within this tree stand. The types and level of impacts that the mitigation may have on the trees within the stand will have to be analyze to insure that there will be no impacts to the trees that exist within the stand.

The plan calls for these mitigation areas to have the grade lowered to allow surface soil moisture to be retained for a longer period of the year. The trees within these mitigation areas that are to be retained will have to be protected with tree protection fencing during the construction of the improvements for the mitigation areas. The site plan currently shows tree protection fencing on the plans.

### **Tree Protection**

The tree protection distance from each of the retained tree's center will be set at a distance equal to at least 6-inches for every inch of tree diameter. This will be an adequate distance to protect the trees, as only one side of any of the trees will possibly be impacted by construction activity. As the improvements are constructed on site, there may be some need for review and adjustment of the tree protection measures. Placing improvements within the 6-inch for every inch of tree protection can be accomplished if additional techniques to protect the trees are utilized. Project arborist shall be contacted if such adjustment of the tree protection has to occur.

No storage of any material, parking of extra vehicles for construction, parking of utility or office trailers and even the pedestrian traffic of construction workers should be allowed within the tree protection areas. Please refer to appendix # 1 for additional steps in tree protection.

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A consulting arborist should be involved with any adjustment to the tree protection measures outlined above and stated in appendix # 1, Tree Protection Steps.

### **Certification of Performance**

I, Terrence P. Flanagan, Certify:

- That a representative of Teragan and Associates, Inc, has inspected the tree(s) and/or the property referred to in this report, and have the findings have been accurately stated. The extent of the evaluation and appraisal is stated in the attached report;
- That Teragan and Associates, Inc. has no current or prospective interest in the vegetation or the property that is the subject of this report, and Teragan and Associates, Inc. has no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are our own and are based on current industry procedures and facts;
- That Teragan and Associates, Inc. compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events;
- That the analysis, opinions, and conclusions that were developed as part of this report have been prepared according to commonly accepted arboricultural practices;
- That a certified arborist has been utilized to oversee the gathering of data
- I further certify that I am a member of the International Society of Arboriculture, and am a Board Certified Master Arborist

### **Conclusion**

The trees that are to be retained should be far enough away from the planned construction envelope that they should be able to be protected from any damage during the construction of the improvement on the site. The tree protection areas will have to be established prior to any construction on the site. Any changes to the tree protection plan should be reviewed by the project arborist to insure that the retained trees on the site are properly protected.

### **Recommendations**

1. Do not remove the Douglas firs on the southwest corner of the grove of Douglas firs south of Suncrest Drive.
2. Remove trees within the above grove that have failed, are dead or suppressed to remove the high-risk trees from the stand and improve the growing conditions for the remaining trees.
3. Consider removing one of the planned walkways from the grove of Douglas firs south of Suncrest Drive.
4. Carefully plan the path of the walkway through the grove of Douglas firs to minimize the removal of any healthy trees from the grove
5. Review and adjust the plan for the construction of the main entrance drive near trees # 2139, 2137, 2135, 2134, 2133, 2132, 2131, 2127, 2129, and 2156 to ensure that these trees are not impacted by the construction of the drive. Suggested that a retaining wall be considered to avoid the need to grade closer to the trees.

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6. Contractor to complete a walk through with the project arborist utilizing the tree inventory to indentify any tree with a high-risk potential. The project arborist would also indentify high-risk trees that were below the threshold to be included in the tree inventory in the tree stand where the outdoor classroom is to be developed.
7. Remove the cottonwoods on the south property line toward the southeast property corner.
8. Insure that the mitigation within the natural stand in the wetland area will not impact the health of the existing trees.

Please call if you have any questions or concerns regarding this report.

Sincerely,



Terrence P. Flanagan  
ISA Board Certified Master Arborist, #PN-0120 BMT  
PNW-ISA Certified Tree Risk Assessor, #PN-0152  
Member, American Society of Consulting Arborists

Enclosures: Appendix # 1 – Tree Protection Steps  
Appendix # 2 – Assumptions and Limiting Conditions  
Appendix # 3 – Inventory of Trees

## Appendix # 1

### Tree Protection Steps

It is critical that the following steps be taken to ensure that the trees that are to be retained are protected.

#### Before Construction Begins

1. Notify all contractors of the trees protection procedures. For successful tree protection on a construction site, all contractors must know and understand the goals of tree protection. It can only take one mistake with a misplaced trench or other action to destroy the future of a tree.
  - a. Hold a Tree Protection meeting with all contractors to fully explain goals of tree protection.
  - b. Have all sub contractors sign memoranda's of understanding regarding the goals of tree protection. Memoranda to include penalty for violating tree protection plan. Penalty to equal appraised value of tree(s) within the violated tree protection zone per the current Trunk Formula Method as outline by the Council of Tree & Landscape Appraisers current edition of the *Guide for Plant Appraisal*.  
Penalty is to be paid to owner of the property.
2. Fencing
  - a. Establish fencing around each tree or grove of trees to be retained.
  - b. The fencing is to be put in place before the ground is cleared in order to protect the trees and the soil around the trees from any disturbance at all.
  - c. Fencing is to be placed at the edge of the root protection zone. Root protection zones are to be established by the project arborist based on the needs of the site and the tree to be protected.
  - d. Fencing is to consist of 6-foot high steel fencing on concrete blocks or 6-foot metal fencing secured to the ground with 8-foot metal posts to prevent it from being moved by contractors, sagging or falling down.
  - e. Fencing is to remain in the position that is established by the project arborist and not to be moved without written permission from the project arborist until the end of the project.
3. Signage
  - a. All tree protection fencing should have signage as follows so that all contractors understand the purpose of the fencing:

#### TREE PROTECTION ZONE

#### **DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION FENCING.**

Please contact the project arborist or owner if alterations to the approved location of the tree protection fencing are necessary.

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- b. Signage should be placed as to be visible from all sides of a tree protection area and spaced every 75 feet.

#### **During Construction**

1. Protection Guidelines Within the Root Protection Zone
  - a. No traffic shall be allowed within the root protection zone. No vehicle, heavy equipment, or even repeated foot traffic.
  - b. No storage of materials including but not limiting to soil, construction material, or waste from the site.
    - i. Waste includes but is not limited to concrete wash out, gasoline, diesel, paint, cleaner, thinners, etc.
  - c. Construction trailers are not to be parked / placed within the root protection zone without written clearance from project arborist.
  - d. No vehicles shall be allowed to park within the root protection areas.
  - e. No activity shall be allowed that will cause soil compaction within the root protection zone.
2. The trees shall be protected from any cutting, skinning or breaking of branches, trunks or roots.
3. Any roots that are to be cut from existing trees that are to be retained, the project consulting arborist shall be notified to evaluate and oversee the proper cutting of roots with sharp cutting tools. Cut roots are to be immediately covered with soil or mulch to prevent them from drying out.
4. No grade change should be allowed within the root protection zone.
5. Any necessary deviation of the root protection zone shall be cleared by the project consulting arborist or project owner.
6. Provide water to trees during the summer months for tree(s) that will have had root system(s) cut back. Such trees will need supplemental water to overcome the loss of ability to absorb necessary moisture during the summer months.
7. Any necessary passage of utilities through the root protection zone shall be by means of tunneling under roots by hand digging or boring under the observation of the project arborist.

#### **After Construction**

1. Carefully landscape in the area of the tree. Do not allow trenching within the root protection zone. Carefully plant new plants within the root protection zone. Avoid cutting the roots of the existing trees.
2. Do not plan for irrigation within the root protection zone of existing trees unless it is drip irrigation for a specific planting or cleared in writing by the project arborist.
3. Provide for adequate drainage of the location around the retained trees.
4. Pruning of the trees should be completed as one of the last steps of the landscaping process before the final placement of trees, shrubs, ground covers, mulch or turf.
5. Provide for inspection and treatment of insect and disease populations that are capable of damaging the retained trees and plants.
6. Trees that are retained may need to be fertilized as called for by project arborist after final inspection.

## **Appendix #2**

### **Assumptions and Limiting Conditions**

1. Any legal description provided to the consultant is assumed to be correct. The survey provided prepared by Walker Macy Architects was the basis of the information provided in this report. Teragan and Associates, Inc. checked the species identification and tree diameters in the field.
2. It is assumed that this property is not in violation of any codes, statutes, ordinances, or other governmental regulations.
3. The consultant is not responsible for information gathered from others involved in various activities pertaining to this project. Care has been taken to obtain information from reliable sources.
4. Loss or alteration of any part of this delivered report invalidates the entire report.
5. Drawings and information contained in this report may not be to scale and are intended to be used as display points of reference only.
6. The consultants' role is only to make recommendations; inaction on the part of those receiving the report is not the responsibility of the consultant.
7. This report is to certify the trees that are on site, their condition, outlining the tree protection steps to protect the trees to be retained on site. This report is written to meet the requirements of the City of West Linn for tree protection on properties that are to be developed for residential or commercial use.

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

Name:	West Linn/Wilsonville Sch. Dist.						
Location:	Rosemont Rd. & Hidden Springs						
Date:	6/29/2010						
Color key located at end of this document							
NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2005	Oregon Ash	<i>Fraxinus latifolia</i>	22	Dead			1
2092	Oregon Ash	<i>Fraxinus latifolia</i>	18	Fair	Fair	Mature.	
2093	Oregon Ash	<i>Fraxinus latifolia</i>	22	Fair	Fair	Mature.	
2105	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Good	Good		
2106	Oregon White Oak	<i>Quercus garryana</i>	8	Poor	Fair	Thin crown.	
2107	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Fair	Fair	Broken top at 70' above ground.	
2108	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Fair	Fair	Terrestrial fungal body growing on soil 7' E. #2108. Detailed inspection to determine conclusive identity needed. Broken top at 70' above ground.	
2109	Douglas Fir	<i>Pseudotsuga menziesii</i>	22	Fair	Fair		
2110	Douglas Fir	<i>Pseudotsuga menziesii</i>	18	Fair	Fair	Burls on trunk at 5' above ground on E. side & at 11' above ground on S. side.	
2111	Douglas Fir	<i>Pseudotsuga menziesii</i>	32	Fair	Fair	Broken top at 70' above ground.	
2112	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		
2113	Douglas Fir	<i>Pseudotsuga menziesii</i>	28	Fair	Fair		
2114	Douglas Fir	<i>Pseudotsuga menziesii</i>	32	Fair	Fair		
2115	Douglas Fir	<i>Pseudotsuga menziesii</i>	28	Fair	Fair	Damaged limbs at 40' ab ground require pruning.	

296

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7/7/2010  
Page 1 or 34

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2116	Oregon White Oak	<i>Quercus garryana</i>	21	Fair	Fair	Thinning crown.	
2117	Douglas Fir	<i>Pseudotsuga menziesii</i>	22	Poor	poor	Broken top at 40' above ground.	
2118	Douglas Fir	<i>Pseudotsuga menziesii</i>	19	Poor	Fair	Broken top.	
2119	Douglas Fir	<i>Pseudotsuga menziesii</i>	36	Good	Good		
2120	Douglas Fir	<i>Pseudotsuga menziesii</i>	25	Good	Good		
2121	Douglas Fir	<i>Pseudotsuga menziesii</i>	31	Good	Good		
2122	Douglas Fir	<i>Pseudotsuga menziesii</i>	22	Fair	Fair	Broken top.	
2123	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Dead		Remove.	1
2124	Douglas Fir	<i>Pseudotsuga menziesii</i>	41	Good	Good		
2125	Douglas Fir	<i>Pseudotsuga menziesii</i>	28	Fair	Good	Broken top at 60' above ground.	
2126	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Fair	Fair		
2127	Douglas Fir	<i>Pseudotsuga menziesii</i>	37	Good	Good		
2128	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		
2129	Douglas Fir	<i>Pseudotsuga menziesii</i>	34	Good	Good		
2130	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		
2131	Douglas Fir	<i>Pseudotsuga menziesii</i>	29	Fair	Fair	Lost top.	
2132	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Poor	Fair	High crown. Suppressed.	

297

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Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2133	Douglas Fir	<i>Pseudotsuga menziesii</i>	27	Good	Good		
2134	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Poor	Fair	Broken top.	
2135	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Fair	Fair	Old broken top.	
2136	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		
2137	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Poor	Fair	Broken top.	
2138	Douglas Fir	<i>Pseudotsuga menziesii</i>	11	Poor	Fair	Broken top.	
2139	Douglas Fir	<i>Pseudotsuga menziesii</i>	21	Good	Fair	Dogleg at 20' above ground.	
2140	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Good	Good		
2141	Douglas Fir	<i>Pseudotsuga menziesii</i>	21	Fair	Fair		
2142	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Fair	Fair	Some butt swell.	
2143	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Good	Good		
2144	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Poor	Fair	Broken top.	
2145	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Good	Good		
2146	Douglas Fir	<i>Pseudotsuga menziesii</i>	27	Fair	Fair		
2147	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Fair	Fair	Broken top.	
2148	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Good	Good		
2149	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		

298

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2150	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		
2151	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Good	Good		
2152	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Good	Good		
2153	Douglas Fir	<i>Pseudotsuga menziesii</i>	23	Fair	Fair	Terrestrial fungal body growing on soil fungi on ground at 2' and 6' from trunk face on E. side. More detailed inspection is required to determine conclusive identity.	
2154	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Fair	Fair		
2155	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Fair	Fair		
2156	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Fair	Fair		
2157	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Fair	Fair	Broken top.	
2158	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Dead		Remove.	1
2159	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Fair			
2160	Douglas Fir	<i>Pseudotsuga menziesii</i>	19	Fair	Fair		
2161	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Fair	Fair	Broken top.	
2162	Douglas Fir	<i>Pseudotsuga menziesii</i>	24	Dead		Tree has fallen.	1
2163	Douglas Fir	<i>Pseudotsuga menziesii</i>	18	Fair	Fair		
2164	Douglas Fir	<i>Pseudotsuga menziesii</i>	16	Fair	Fair		
2165	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Good	Good		

299

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2166	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Fair	Fair	Broken top. Dogleg at 60' above ground. Leans N.	
2167	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Fair	Fair	Old broken top with new leader. Leans W. 10°. Hanging at 20' above ground.	
2168	Douglas Fir	<i>Pseudotsuga menziesii</i>	21	Very Poor	Poor	Broken top with cavity. Hazardous. Remove.	1
2169	Douglas Fir	<i>Pseudotsuga menziesii</i>	34	Good	Good		
2170	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Very Poor	Poor	Broken top at 35' above ground.	1
2171	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Fair	Fair	Lost top.	
2172	Douglas Fir	<i>Pseudotsuga menziesii</i>	32	Good	Good		
2173	Douglas Fir	<i>Pseudotsuga menziesii</i>	42	Good	Good		
2174	Douglas Fir	<i>Pseudotsuga menziesii</i>	14	Fair	Fair		
2175	Douglas Fir	<i>Pseudotsuga menziesii</i>	34	Good	Good		
2176	Douglas Fir	<i>Pseudotsuga menziesii</i>	22	Good	Good		
2177	Douglas Fir	<i>Pseudotsuga menziesii</i>	29	Good	Good		
2178	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Good	Good		
2179	Douglas Fir	<i>Pseudotsuga menziesii</i>	38	Good	Good		
2180	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Poor	Fair	Broken top.	
2181	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Fair	Fair	Suspect broken top. Slow growth.	
2182	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Dead		Remove	1

300

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Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2183	Douglas Fir	<i>Pseudotsuga menziesii</i>	34	Good	Good		
2184	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Poor	Poor	Broken top.	
2185	Douglas Fir	<i>Pseudotsuga menziesii</i>	33	Good	Good		
2186	Douglas Hawthorn	<i>Crataegus douglasii</i>	8	Very Poor	Poor	Remove.	1
2187	Common Hawthorn	<i>Crataegus monogyna</i>	10	Very Poor	Poor	Severely decayed. Remove.	1
2188	Common Hawthorn	<i>Crataegus monogyna</i>	8	Dead		Remove.	1
2189	Oregon Ash	<i>Fraxinus latifolia</i>	24	Good	Good		
2190	Oregon White Oak	<i>Quercus garryana</i>	22	Good	Good		
2191	Douglas Fir	<i>Pseudotsuga menziesii</i>	19	Good	Good		
2192	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Broken top. Suppressed.	
2193	Douglas Fir	<i>Pseudotsuga menziesii</i>	18	Good	Good		
2194	Oregon White Oak	<i>Quercus garryana</i>	27	Good	Good		
2195	Oregon White Oak	<i>Quercus garryana</i>	27	Good	Good		
2196	Oregon White Oak	<i>Quercus garryana</i>	35	Good	Good		
2197	Ponderosa Pine	<i>Pinus ponderosa</i>	18	Good	Good		
2198	Oregon White Oak	<i>Quercus garryana</i>	16	Good	Good		
2199	Willow	<i>Salix sp.</i>	20	Poor	Fair	Cavities. History of large limb failure.	1
2200	Oregon Ash	<i>Fraxinus latifolia</i>	13	Good	Good		

301

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Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2201	Willow	<i>Salix sp.</i>	13	Very Poor	Poor	Cavities. Severe decay. Broken leader at 8' above ground.	1
2202	Oregon Ash	<i>Fraxinus latifolia</i>	8	Good	Good		
2203	Oregon Ash	<i>Fraxinus latifolia</i>	8	Good	Good		
2204	Oregon White Oak	<i>Quercus garryana</i>	29	Poor	Poor	2 stems 17, 23. Thin crown. Suspect root disease. Remove.	
2205	Oregon White Oak	<i>Quercus garryana</i>	24	Poor	Fair	Thin crown. Suspect root disease. Remove.	
2206	Oregon Ash	<i>Fraxinus latifolia</i>	28	Good	Good	Mature.	
2207	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Poor	Poor	Broken top. Sweep in trunk. Leans NE at 25° from vertical. Seam in bark suggests trunk may be cracked. Remove.	
2208	Douglas Fir	<i>Pseudotsuga menziesii</i>	33	Fair	Fair		
2209	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	Good	Good		
2210	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Poor	Poor	Suppressed. Leans W.	
2211	Douglas Fir	<i>Pseudotsuga menziesii</i>	29	Fair	Fair		
2212	Douglas Fir	<i>Pseudotsuga menziesii</i>	34	Poor	Fair	Phellinus pini like conks from ground to 40' above ground on W. side.	1
2213	Pacific Madrone	<i>Arbutus menziesii</i>	11	Fair	Good	Some blight.	
2214	Douglas Fir	<i>Pseudotsuga menziesii</i>	40	Fair	Fair	2 stems at 5' above ground. Old broken tops.	
2215	Oregon White Oak	<i>Quercus garryana</i>	22	Poor	Fair	Die back in crown.	
2216	Common Hawthorn	<i>Crataegus monogyna</i>	17	Good	Good	Measured at 3' above ground.	
2217	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Fair	Fair	Haiging limb at 40' above ground on N. side.	
2218	Douglas Fir	<i>Pseudotsuga menziesii</i>	30	Fair	Fair	Old broken top at 70' above ground.	

302

Teragan Associates, Inc.  
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Lake Oswego, OR 97034  
503-697-1975

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

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2219	Douglas Fir	<i>Pseudotsuga menziesii</i>	21	Fair	Fair		
2220	Oregon Ash	<i>Fraxinus latifolia</i>	30	Poor	Poor	Over mature. 4"x24" cavity at 6' to 8' up trunk on S. side. Widely scattered 3" diameter limb cavities in crown.	
2221	Oregon White Oak	<i>Quercus garryana</i>	28	Good	Good		
2223	Douglas Fir	<i>Pseudotsuga menziesii</i>	19	Good	Good		
2224	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Dead			1
2225	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Poor	Poor	Broken top. Suppressed.	
2226	Douglas Fir	<i>Pseudotsuga menziesii</i>	19	Fair	Fair	2 stems 13,10. Formed at 4' above ground. Leans E. 20° from vertical.	
2226.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	Broken top. Suppressed.	
2227	Douglas Fir	<i>Pseudotsuga menziesii</i>	14	Good	Fair	Sweep in trunk.	
2228	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Broken top. Suppressed.	
2229	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Good	Good		
2230	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Good	Good	Higher crown.	
2231	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Very Poor	Fair	Broken top. Conk.	1
2232	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Broken top. Sweep in trunk. Suppressed.	
2233	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Dead		Leans N. Remove.	1
2233.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Fair	Suppressed. 6' W. #2233, 11' N. #2234.	

303

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2233.2	Douglas Fir	<i>Pseudotsuga menziesii</i>	6	Poor	Fair	Suppressed. 12' W. #2233, 15' N. #2240.	
2234	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Fair	Fair	Dogleg in trunk at 25' above ground.	
2235	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Fair	Fair		
2236	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Fair	Suppressed.	
2236.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	6	Poor	Fair	Suppressed. 10' N. #2233, 7' W. #2234.	
2237	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Fair	Fair		
2238	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Poor	Poor	Dogleg in trunk at 10' above ground. Conk on S. of dogleg. Leans W. 20° from vertical.	1
2239	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Fair	Fair	High crown.	
2240	Douglas Fir	<i>Pseudotsuga menziesii</i>	13	Poor	Poor	Broken top. Leans 20° W. from vertical.	
2241	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Poor	Dogleg in trunk at 5' above ground. Leans W. 30°.	
2242	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Fair	Fair		
2243	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Fair	Fair	Somewhat suppressed.	
2244	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Fair	Poor	Hogh crown. Dogleg at 40' above ground.	
2245	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Very Poor	Poor	Loaded with Phellinus pini like conks.	1
2246	Douglas Fir	<i>Pseudotsuga menziesii</i>	21	Good	Good	Broken limbs at 25' above ground.	
2247	Douglas Fir	<i>Pseudotsuga menziesii</i>	11	Poor	Poor	Broken top. Suppressed.	
2248	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Fair	Fair	High crown. Slower growth rate.	

304



Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2249	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Fair	High crown. Slower growth rate.	
2250	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Fair	Broken top. Suppressed.	
2251	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Dead		Remove.	1
2252	Douglas Fir	<i>Pseudotsuga menziesii</i>	18	Good	Good	Broken limb hanging in top on N. side.	
2253	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Dead		Remove.	1
2254	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Poor	Fair	Somewhat suppressed.	
2255	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	Broken top. Suppressed.	
2256	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Fair	Broken top. Suppressed.	
2257	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Fair	Broken top. Suppressed.	
2258	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Fair	Fair	Old broken top with new leader.	
2258.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	6	Poor	Fair	Suppressed. Remove. 4' S. #2258, 7' W. #2248.	
2259	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Broken top. Suppressed. Leans N.	
2260	Douglas Fir	<i>menziesii</i>	18	Good	Good	Slight dogleg at 25' above ground.	
2260.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	6	Dead		Broken off at ground leaning on #2258.1. 9' S. #2260, 9' W. #2257. Hazardous. Remove	1
2261	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Fair	Fair		
2262	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Fair	Fair	High crown. Slower growth rate. Broken top. Dogleg in top.	
2263	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Fair	Poor	Slower growing Leans S.	

305



Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2264	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Good	Good	Crook in trunk 35' above ground.	
2265	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Fair	Poor	Broken top. Leans S.	
2267	Douglas Fir	<i>Pseudotsuga menziesii</i>	11	Fair	Fair	Sweep in lower trunk. Old broken top with new leader.	
2268	Douglas Fir	<i>Pseudotsuga menziesii</i>	14	Fair	Fair	with new leader.	
2269	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Good	Good	Secondary leader at 35' above ground.	
2270	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Fair	Suppressed.	
2271	Douglas Fir	<i>Pseudotsuga menziesii</i>	11	Fair	Fair	Dogleg in trunk at 30' above ground. Old broken top with new leader.	
2272	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	High thin crown. Broken top. Suppressed.	
2273	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Very Poor	Poor	Phellinus pini like conks. Dogleg at 10' above ground. Leans S.	1
2274	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Fair	Poor	Old broken top at 15' above ground.	
2275	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Poor	Broken top. Suppressed. Leans N.	
2276	Douglas Fir	<i>Pseudotsuga menziesii</i>	14	Poor	Poor	Broken top.	
2277	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Suppressed.	
2278	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Poor	Poor	Slower growing.	
2279	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Fair	Fair		
2280	Douglas Fir	<i>Pseudotsuga menziesii</i>	11	Fair	Poor	Dogleg at 20' above ground. Leans S.	
2281	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	Suppressed. High crown.	

306

Appendix # 3  
Tree Inventory  
Erickson Elementary School Site

NO.	COMMON NAME	BOTANICAL NAME	DBH	COND.	STRUC.	COMMENTS	HAZARD TREE
2282	Douglas Fir	<i>Pseudotsuga menziesii</i>	14	Good	Good		
2283	Douglas Fir	<i>Pseudotsuga menziesii</i>	16	Very Poor	Fair	Loaded with Phellinus like pini conks. Remove.	1
2284	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Fair	Suppressed.	
2285	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Broken top. Suppressed. Leans N.	
2286	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Poor	Broken top. Suppressed. Leans N.	
2287	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Fair	Fair	Sweep in lower trunk. Probably the result of partial uproot. Trunk has corrected.	
2288	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Poor	Fair	High crown. Broken top.	
2289	Douglas Fir	<i>Pseudotsuga menziesii</i>	10	Fair	Fair	High crown. Slower growing.	
2290	Douglas Fir	<i>Pseudotsuga menziesii</i>	12	Fair	Fair	Small broken top.	
2291	Douglas Fir	<i>Pseudotsuga menziesii</i>	17	Good	Fair	Dogleg at 40' above ground.	
2292	Douglas Fir	<i>Pseudotsuga menziesii</i>	8.5	Poor	Fair	Suppressed.	
2292.1	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	Suppressed. 8' N. #2292, 8' SW #2294.	
2293	Douglas Fir	<i>Pseudotsuga menziesii</i>	20	Good	Fair	Dogleg at 40' above ground.	
2294	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	Good	Good	New leader set at 40' above ground.	
2295	Douglas Fir	<i>Pseudotsuga menziesii</i>	7	Poor	Poor	Suppressed.	
2296	Douglas Fir	<i>Pseudotsuga menziesii</i>	9	Poor	Fair	Suppressed. Dogleg at 35' above ground.	
2297	Douglas Fir	<i>Pseudotsuga menziesii</i>	8	Poor	Poor	Suppressed.	

307

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