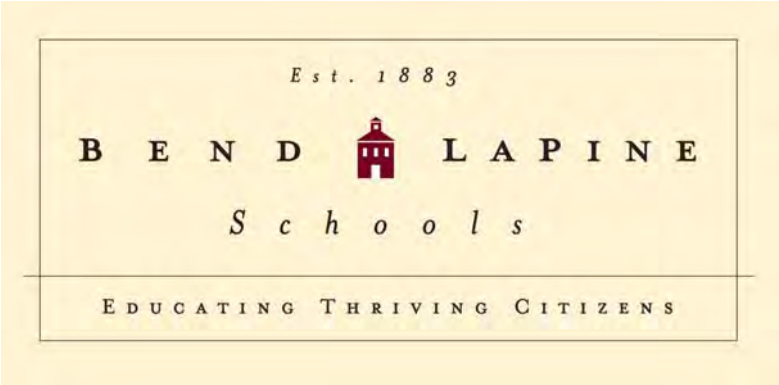
Bend-La Pine Schools



Sites and Facilities Plan

December, 2016

Brad Henry, Chief Operations and Financial Officer
Mike Tiller, Executive Director of Facilities
Greg Blackmore, Blackmore Planning / Consultant

Table of Contents

Thank You

The 2015-2016 Sites and Facilities Committee appreciates the opportunity to have participated in an extremely valuable community service. Over the course of six months Committee members met regularly to create and agree upon the recommendations discussed in this report. Committee discussions were open and respectful, filled with intelligent dialogue, and concern for the Bend-La Pine Schools students, parents, teachers, and service areas. The communities comprising the Bend-La Pine Schools are fortunate that the District engages the community in its planning efforts. The committee members would like to thank the Board for the opportunity to have participated in this planning process.

Existing Facilities Team

Name
Skip Butler
Heidi Slaybaugh
Steve Hannas
Steve Jorgenson
Shawn Zumwalt
Jackie Wilson
Matt Hillman
Jesse Rassmussen
Kevin Gehrig
Matt Montgomery
Teri Friesen
Ned Myers

Future Needs Team

Name
Dean Wise
Jen Souza
David Ford
Mel Oberst
Damian Syrnyk
Tim O'Connell
Josh Boehme
Karen Stiner

The Committee would also like to thank Bend-La Pine Schools' Staff, including Shawn Hasse for his diligent efforts presenting GIS data and maps and Lora Nordquist for her research and summary regarding the impacts of school size.

Summary

This document is the final Bend-La Pine Schools' Sites and Facilities Plan. This report summarizes a year long community based process and provides the following items:

- List of new schools, improvements and expansions to existing facilities needed within the next seven years
- Capacity and sites of new schools needed
- Ideal school sites for future schools to satisfy the needs of the district to 2035
- Highest and best use of existing land holdings
- Current usage and future needs of the Education Center

List of new schools, improvements and expansions needed within the next seven years

The complete list is included as Exhibit A of this document. The original list reviewed by the committee categorized over 830 projects into safety/security, operational/instructional delivery, equity/parity, asset protection/building preservation, and energy/labor conservation, it determined if projects are to be completed within 5 years or 10 years, and it prioritized the projects on a scale of 1-5 for each site. The majority of the high ranking projects fall into the asset preservation and safety categories. The list of 159 projects included at Exhibit A come from the original list of 830 projects and include those projects needed within the next seven years. The list includes two new schools as well as the estimated cost for each of the 159 projects.

Capacity and sites of new schools needed

Future capacity needs are determined by enrollment forecast. Relying on a Portland State University (PSU) Population Research Center (PRC) model, the Committee determined that the District does not have adequate capacity to accommodate the enrollment growth that is forecasted over the 20 year planning horizon.

Although it is estimated that the District, in its entirety, will not be able to meet the forecasted enrollment over the 20 year planning horizon, schools in the southern area of the District were found to have adequate capacity, including La Pine Elementary, Rosland Elementary, Three Rivers, La Pine Middle School, and La Pine High School. Throughout the remainder of the District (primarily Bend), enrollment is forecast to exceed available capacity and additional schools will be needed. The District should anticipate opening the following schools over the 20-year planning horizon:

- Four 600-student elementary schools, capacity is forecast to be exceeded in the following school years: 2020-2021, 2024-2025, 2028-2029, 2032-2033.

- One 800-student middle school, capacity is forecast to be exceeded in school year 2026-2027.

- Two 1,500-student high schools, capacity is forecast to be exceeded in school years 2018-2019 and 2032-2033.

Enrollment projections and forecasting methodology are included as Exhibit B.

Ideal school sites for future schools to satisfy the needs of the district out to 2035

Utilizing City of Bend Urban Growth Boundary (UGB) Expansion forecasts, Deschutes County records, building permit data, and development data, the location of enrollment growth was projected, availability of land was considered, and areas (Zones) of school need were identified. In an increasingly tight real estate market, recommendations were formulated to provide clear guidance and direction to the District, and also to provide flexibility, so decision makers would not be limited in their ability to make strategic public investments. For all grade levels, the committee recommends the District monitor enrollment growth by zone and adjust timing if necessary based on actual growth. School needs are listed below:

- Elementary schools:
    - *2020-2021 need* – 12-15-acre site, highest need in Zone 3 (West Bend), closely followed by Zone 1 (Northeast Bend), locate in areas to serve both zones if possible.
    - *2024-2025 need* – 12-15-acre site, equal needs throughout the City, locate in areas to serve all zones to the greatest extent possible.
    - *2028-2029 need* – 12-15-acre site, beyond growth projection forecast, reassess location needs in subsequent Sites and Facilities efforts.
    - *2032-2033 need* – 12-15-acre site, beyond growth projection forecast, reassess location needs in subsequent Sites and Facilities efforts.
    - General Notes –
        - Strategically place schools, use school boundary adjustments as needed.
        - There is an adequate amount of suitable and desirable lands in Zone 1 (Northeast Bend) and Zone 2 (Southeast Bend), however there appears to be a limited amount of land that is suitable and desirable in Zone 3 (West Bend). Within all zones, assess the feasibility of the available lands. If the available lands are not feasible for school development, considering taking "necessary actions" as prescribed by ORS 195.110 such as zone changes, aggregation of lots, or adding sites to the UGB.

- Middle School
    - *2026-2027 need* – 25-acre site – Site currently owned by District adjacent to R.E. Jewell Elementary School could meet need. Reassess location in subsequent Sites and Facilities efforts.
    - General Note –

        - Strategically place school, utilize boundary adjustments as needed.
        - Suitable and desirable lands available to accommodate need.

- High School
    - *2018-2019 need* – 50 acres – in Zone 2 (Southeast Bend)
    - *2032-2033 need* – 50 acres - beyond growth projection forecast, reassess location needs in subsequent Sites and Facilities Planning Efforts.
    - General Note –
        - Strategically place schools, utilize boundary adjustments as needed.
        - Suitable and desirable lands available to accommodate need.

In addition to the locational recommendations identified above, the Committee established site selection criteria, which are intended to be used by the District when considering properties. The combination of the broad locational recommendations and the site selection criteria provide the needed level of guidance and direction, with sufficient flexibility to allow decision makers to make strategic public investments.

Maps summarizing a build-out analysis and available lands, along with the site selection criteria are included as Exhibit E.

Current usage and future needs of the Education Center / possible alternative sites

The Education Center is used for Bend-La Pine Schools' administration offices, the Strive and Bend-La Pine Online Programs, and it is partially leased by the High Desert Education Service District (ESD). After assessing the Education Center, including a summary of the property from staff, the 5-10 year operating plan, an aerial photograph, an interactive map, and an assessment of the strengths and weaknesses, the Committee determined that the building is well sized, well located, and it provides a great one stop shop for the district. Furthermore, redevelopment potential and marketability is limited by its zoning, general plan designation and historic listings. Given the strengths and weaknesses, the Committee recommends that the building be maintained for its current use. As needed, the District could expand into space being used for ESD, and potentially move Strive off-site. Reassessment in 5 years (with the next Sites and Facilities Planning effort) is also recommended.

Highest and best use of existing land holdings

The District owns a number of properties that are not currently being used to provide student instruction or assist in the facilitation of student instruction. Not being utilized, they are considered "land held for future use". These properties include a mix large vacant parcels that could accommodate school sites, large lands immediately adjacent to developed District sites that could accommodate another school, and/or smaller remainder parcels immediately adjacent to school sites. The

existing land holdings came into the District's ownership a number of ways, some were acquired to accommodate planned enrollment, some were donated, some are extra areas abutting sites that were acquired and developed to District specifications. The Committee reviewed each of the "existing land holding" sites, including a summary of the property from staff, aerial photographs, and an interactive map.

The general consensus of the Committees is, because the District is growing and land is increasing more challenging to obtain (particularly with central urban areas), the District should retain larger properties that could accommodate future schools. Existing large acreage areas should be held to provide school sites, or they could be held for a potential future sale or trade, to assist with future school siting needs.

Two exceptions to the general consensus position were recommended, 1) a 1 acre parcel immediate adjacent to Silver Rail Elementary should be sold at market rate and 2) the 5+ acre site at Pacific Crest Middle School immediately adjacent to Skyliners Road should be developed (possibly in partnership with others, like the Bend Parks and Recreation District) as additional playing fields.

This report outlines the information relied upon, the decision making process, and it formalizes each recommendation of the Committee.

Chapter 1
Project Overview and Background

BEND-LA PINE SCHOOLS - MISSION

Bend-La Pine Schools, in partnership with our community, will prepare each student with the knowledge and skill, confidence and personal integrity to contribute as a thriving citizen in our ever-changing global society.

In an effort to carry out its mission, Bend-La Pine Schools (District) regularly engages in long-range planning efforts to ensure exceptional educational facilities are provided and maintained throughout the District. The most recent effort was completed in 2012 and resulted in a $96 million bond measure and an associated capital improvement program. In November 2015, the District began a new school planning process, to update the 2012 Sites and Facilities Plan and plan for growth through 2035. Long range, community-focused, planning efforts provide a consensus based, data driven platform, upon which strategic decisions and investments can be made; ensuring capacity for students, accommodation of changing instructional needs, school safety, and maintenance of community investments. Like any public investment, school development and maintenance requires time, money, and a commitment from the community. Long-range, consensus based, planning efforts have proven to result in decisions that are guided by the best available information, that are consistent with the District's purpose, mission, and core values, and that are supported by the community.

The road map to complete the Sites and Facilities Plan involves the following items:

Initial Phase

- Assess existing facilities / identify needed capital improvements
- Forecast enrollment
- Assess school capacity / identify needed capacity
- Assess current usage and future needs of the Education Center
- Assess the highest and best use of existing land holdings

Final Phase

- Establish a financial plan, including cost estimating, for the near-term projects

With the current planning effort, the Board has determined that the initial phase will be completed by a Sites and Facilities Committee. The final phase will be completed by the District, considering the recommendations of the Committee. Upon completion of all phases, staff will formalize the components into the Bend-La Pine Schools Sites and Facilities Plan.

Initial Phase

The initial phase of the Sites and Facilities Plan was accomplished with a Sites and Facilities Committee (Committee) and a Board "charge". The Committee was established to consist of a mix of District employees, a consultant, and community volunteers. The Committee members were drawn from a broad cross section of the community; teachers, administrators, developers, architects, engineers, public and private sector employees, parents and engaged community members. The charge provided to the Committee is listed below:

BLPS Board Sites and Facilities Charge

November 10, 2015

Executive Limitations (EL#7) - Facilities: *"The Superintendent shall not fail to refresh the 20 year long-range facilities plan every 5 years or more often to address student capacity, site-specific instructional needs, operational and maintenance needs. The planning shall not fail to include the following: a) Formation of a Sites & Facilities Committee to carry out the board-developed charge."*

Board-Developed Charge:

The Sites and Facilities Committee (SFC) shall:

1. *Assess existing facilities for needed capital improvements*
    a. *Repairs and deferred maintenance*
    b. *Upgrades and expansion*
        i. *Due to changing programming needs*
        ii. *Due to equity considerations*
        iii. *Address other needs such as building security, efficiency and seismic safety*
2. *Identify future capacity needs due to changing enrollment*
    a. *Review enrollment projections and demographic trends*
    b. *Assess expansion of existing facilities*
    c. *Identify sites and capacity of new buildings*
    d. *Identify land needs and possible sites*
3. *Assess current usage and future needs of the Education Center*
    a. *Identify current strengths and shortcomings of existing building*
    b. *Identify options for possible relocation of central administration, Strive and the online program*
4. *Assess highest and best use of existing land holdings*
    a. *Explore public-private partnerships to generate recurring revenue from current assets*
5. *Seek and receive public input*
6. *Form subcommittees as needed*
7. *Report to the BLPS Board*
    a. *Prioritized list of improvements and expansions to existing facilities*
    b. *Capacity and sites of new schools needed*
    c. *Ideal school sites for future schools to satisfy the needs of the district out to 2035*

d. *Highest and best use of existing land holdings*
e. *Current usage and future needs of Education Center and possible alternate sites*

To accomplish the elements of the "charge", the Committee developed a process, a timeline, and the steps of an efficient work plan. The work plan that was established was similar to prior sites and facilities planning efforts and included the Committee dividing itself into two sub-committees. One sub-committee focused on existing facilities (Existing Facilities Sub-Committee) and the other sub-committee focused on future needs (Future Needs Sub-Committee). The Committee and associated sub-committees met regularly (at least monthly) over a 6 month time period (November – May). Throughout the process it was typical for the district facilitators and/or the consultant to provide the committee with background data and information, and request that recommendations be made by the Committee. Committee members considered all information, discussed, clarified, and ultimately made necessary recommendations. Discussions often resulted in additional questions and/or additional topics for consideration; discussions continued until the Committee felt comfortable making formal recommendations.

The Existing Facilities Sub-Committee addressed the following "charge" item:

1 – Assess existing facilities for needed capital improvements.

The Future Needs Sub-Committee addressed the following "charge" items:

2 – Identify future capacity needs due to changing enrollment

3 – Assess current usage and future needs of the Education Center

4 – Assess highest and best use of existing land holdings

Charge Items 5, "Seek and receive public input" and 6, "Form subcommittees as needed" were incorporated into the Sites and Facilities process and this report is Charge Item 7, "Report to the BLPS Board". This document summarizes the processes, products, outcomes, and recommendations of the Committee's work.

Final Phase

After the Committee's work was complete, staff spent the next six months reducing the list of projects to those needed in the next seven years and estimating the cost of each of these projects. This final list is included at Exhibit A.

Chapter 2
Prioritized List of Improvements
Existing Facilities Sub-Committee

The Existing Facilities Sub-Committee was tasked with Board charge item #1, assessing all existing facilities operated by the District, to identify needed capital improvements. The sub-committee was asked to consider repairs and deferred maintenance, along with potential upgrades and expansions due to programming needs, equity considerations, and other needs such as building security, efficiency and safety.

To accomplish its tasks, the Existing Facilities Sub-Committee established the following criteria to guide rankings:

- safety/security
- operational/instructional delivery
- equity/parity
- asset protection/building preservation
- energy/labor conservation
- The Existing Facilities Sub-Committee assessed all facilities operated by the District. In their assessment, committee members reviewed aerial photos, held site visits as needed, and assessed three separate surveys; from building administrators, from maintenance personnel, and from the district safety officer. Utilizing the best available information and having a clear understanding of each site's unique needs, the sub-committee combined, prioritized, and ranked over 830 facility improvement requests. In an effort to recommend efficient long term investments, the committee often considered combining similar projects to benefit from economies of scale. Although the committee did not pre-establish criteria to have a higher priority, upon aggregation and summary of the data, safety/security and asset protection/building preservation were consistently ranked the top two criteria of importance. Because the "equity/parity" category included only a few projects and they could also be included in other categories, the final Plan does not use this category. Illustration 2-1 below aggregates and summarizes projects; Exhibit A provides a list of new schools, improvements and expansions to existing facilities needed within the next seven years.

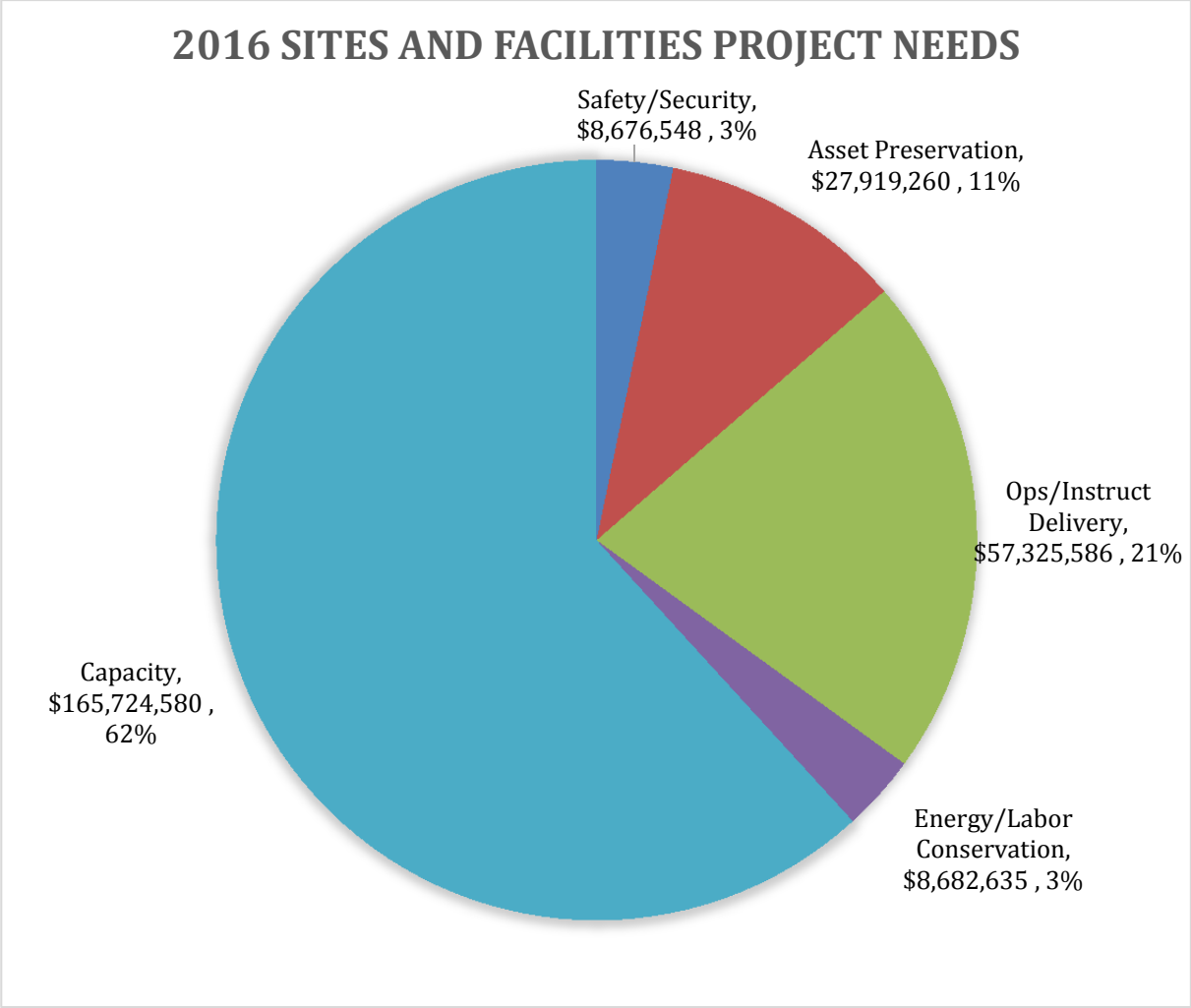


Illustration 2-1

In addition to the above noted assessment and ranking, the Committee considered "seismic safety". The Oregon Department of Geology and Mineral Industries (DOGAMI) is responsible for to assessing all K-12 school buildings for seismic safety. In 2006 DOGAMI officials completed Rapid Visual Screenings (RVS) of all Bend-La Pine School District buildings. The RVS indicates that there are buildings in the District that have a higher risk than other buildings. The RVS, being an initial assessment is incomplete; the committee recommends further assessment/study of each of these buildings to determine whether seismic safety upgrades are necessary.

Lastly, throughout the sub-committee's assessment, it was assumed that all 2013 bond program improvements have been, or will be, completed. As of the writing of this report, it has been determined that while the majority of 2013 Bond funds have been expended, there could be up to 25 projects that may not be completed. Although some of these projects will likely be completed with the 2013 Bond funds, it is unlikely that all of the remaining projects will be able to be completed. Having

previously been identified as priority projects, the Committee recommends completion of any outstanding 2013 Bond projects.

Chapter 3
Capacity and Sites of New Schools Needed
Future Needs Sub-Committee

Future Capacity Needs due to changing enrollment

To facilitate the process of identifying future capacity needs, the Future Needs Sub-Committee began with enrollment forecasts, then used development data to predict where and when growth would occur, they considered available school capacity, and ultimately identified preferable areas for new schools. The overall assessment involved the review of statistical data from Portland State University's Population Research Center (PRC), GIS data from the City of Bend and the District, local development data, architectural studies, operational assessments, and alternatives to new school construction, along with the consideration of measures to increase efficiencies at existing facilities.

3.1 - Enrollment / Forecasting Student Growth / Available Capacity

As in previous sites and facilities studies, the Portland State University Population Research Center (PRC) was used for enrollment forecasting. The PRC is an interdisciplinary public service, research and training unit for population-related data for the State of Oregon. The mission of PRC is to provide population data, information, and research analysis for Oregon and its communities. The School District has historically selected the PRC for enrollment forecasts, finding them to be the best available and most reliable source of data. Some background on the PRC:

- PRC began providing service to the State of Oregon in 1956 under the Oregon Population Estimate Program
- They are the lead Agency working with the US Census Bureau
- Under Oregon Law, they provide coordinated population forecast for Land Use Planning efforts throughout the State
- They provide demographic consulting services
- The District has am established history with the PRC; since 2005 the PRC has provided the District with population trends and forecasts

The most recent PRC Forecast was completed for the District in November 2014. The 2014 Forecast utilized a Cohort/Component Model along with a Grade Progression Enrollment Model. The Cohort-Component Model establishes enrollment as a function of births, capture rates and migration, while the Grade Progression Enrollment Model tracks students through school years, adding the net migration to the forecast. The 2014 PRC data studied the District as a whole and provided low, middle and high growth scenario estimates. The sub-committee reviewed the data, the trends, and the conclusions, and determined that the methodology used by the PRC was appropriate to use for the current sites and facilities process. A complete copy of the PSU forecast is included in Exhibit B.

3.2 - Enrollment Forecast Refinements

While the sub-committee agreed that the PRC provides the best available information, they also recognized opportunities for refinements. After reviewing actual enrollment numbers, building permit data, development data, and the 2015-2016 PSU Deschutes County Coordinated Population Forecast, the sub-committee recommended the following refinements:

- Using 2015-2016 actual enrollment numbers as the base year
- Applying the PRC model to specific areas in the District, including areas within the District that are geographically separated and/or have different growth projections (Bend and South County).
- Applying different growth projections over the planning horizon, specifically high growth for 5 years, followed by middle/average growth for the remaining 15 years.

3.2.1 2015-2016 Actual Enrollment

The Bend-La Pine Schools' actual enrollment for 2015-2016 was 17,534. That number falls between the Middle and High Series estimates in the 2014 PRC forecast. Although a minor difference, the largest difference was in kindergarten. Rather than using only a 2015-2016 forecast, sub-committee determined that it would be best to incorporate the 2015-2016 actual enrollment numbers into the model.

3.2.2 Assessing Areas Separately

After reviewing actual enrollment numbers, building permit data, development data, and recognizing that Bend and the southern District schools have differing growth patterns, the sub-committee determined that it would be appropriate to study the areas individually.

South County

La Pine Elementary, Middle and High, Rosland Elementary and Three Rivers

The PRC methodology was applied to the southern District schools using the low, middle and high growth scenarios. When overlaying existing capacity to all scenarios, it was found that capacity would be available over the entire 20 planning horizon under all of the scenarios; the high growth scenarios are provided in Tables 3-1 and 3-2 below for reference. Because capacity will be available, the sub-committee determined that additional school capacity/alternatives and siting analyses for the schools in the southern area of the District are not needed at this time.

Table 3-1
La Pine Schools with a High Series Growth Rate

La Pine - High Growth Forecast

	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG		66	66	66	71	74	76	77	78	79	80	82	84	86	88	89	91	93	95	97
1st		70	70	70	69	75	78	80	81	82	83	85	87	89	91	93	94	96	98	100
2nd		92	73	73	73	72	78	81	83	84	86	87	89	91	93	95	97	98	100	102
3rd		106	96	76	76	75	74	80	84	86	87	89	90	92	94	96	98	100	101	103
4th		106	110	99	79	78	77	76	82	87	89	90	92	93	95	97	99	101	103	104
5th		107	109	113	101	81	80	78	77	84	89	91	92	94	95	96	98	101	103	105
	900	547	524	497	469	455	463	472	485	502	514	524	534	545	556	566	577	589	600	611
6th		99	112	114	118	105	84	83	81	80	87	92	94	95	98	98	99	101	105	107
7th		105	102	115	117	121	108	86	85	83	82	89	94	96	97	100	100	101	103	108
8th		92	107	104	117	119	123	110	87	86	84	83	90	95	97	98	101	101	102	104
	550	296	321	333	352	345	315	279	253	249	253	264	278	286	292	296	300	303	310	319
9th		106	100	116	112	126	128	132	118	94	93	90	89	97	102	104	105	109	109	110
10th		104	109	102	118	114	128	130	134	120	95	94	91	90	98	103	105	106	110	110
11th		110	107	111	104	120	116	130	131	135	121	96	95	92	91	99	104	106	107	111
12th		114	112	109	113	106	122	118	133	134	138	123	98	97	94	93	101	106	108	109
	550	434	428	438	447	466	494	510	516	483	447	403	373	376	385	399	415	427	434	440
		1277	1273	1268	1268	1266	1272	1261	1254	1234	1214	1191	1185	1207	1233	1261	1292	1319	1344	1370

Table 3-2
Three Rivers School with a High Series Growth Rate

Three Rivers - High Growth Forecast

	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG		39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
1st		39	40	41	42	43	44	46	47	48	49	50	51	52	53	54	55	56	57	58
2nd		53	40	41	42	43	44	45	47	48	49	50	51	52	53	54	55	56	57	58
3rd		35	54	41	41	43	44	45	46	48	49	50	51	52	53	54	55	56	57	58
4th		50	38	58	44	44	46	47	48	49	51	52	54	55	56	57	58	59	60	61
5th		41	51	38	59	44	44	46	47	48	50	52	53	55	56	56	57	58	59	60
		257	263	260	270	260	266	274	281	288	296	303	310	317	323	328	334	340	346	352
6th		49	42	52	39	60	45	44	46	47	49	51	53	54	56	57	57	57	58	59
7th		54	50	42	53	39	61	46	45	47	48	50	52	54	55	57	58	58	58	59
8th		45	55	51	43	54	39	62	46	45	47	48	51	53	55	56	58	59	59	59
		148	147	145	135	153	145	152	137	139	144	149	156	161	166	170	173	174	175	177
	575	405	410	405	405	413	411	426	418	427	440	452	466	478	489	498	507	514	521	529

<u>Bend Schools</u>

The forecasting of Bend schools enrollment explored a number of alternatives, including:

1. Applying PRC formula to Bend Schools using High, Middle, and Low Series growth rates over the planning horizon.
2. Applying High and Middle Series rates to entire District, then applying High, Middle and Low Series rates to the southern District schools, assuming the difference would attend Bend schools (this allowed the sub-committee to consider scenarios such as High Series rates of growth in Bend and Low Series rates of growth in the southern District, to understand how significant impacts were to the overall growth projections).
3. Methodologies described in 1 and 2 above, but applying High and Middle Series growth rate to 5 years, and then a Middle Series growth rate thereafter.

Through an assessment that considered actual enrollment data, building permit data, PSU Coordinated Population forecasts, and anecdotal evidence, the sub-committee decided it best to apply a High Series growth rate to the Bend schools for the initial 5-year period and then forecast a Middle Series growth rate thereafter. Also, because the methodologies detailed in 1 and 2 resulted in very similar results (in the 10 year

time horizon, resulting in moving the timeline of the high school and the second elementary school by only one year), the sub-committee recommended applying the PRC methodology directly to Bend schools (rather than picking a rate for the District, a different rate for south District schools, and then calculating Bend rates). The resultant forecast is as follows, additional details are included in Exhibit B

Table 3-3

Bend Schools - High Series for 5 years then Middle Series for remaining years

	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG		1133	1130	1124	1207	1251	1270	1289	1308	1326	1345	1369	1397	1424	1452	1475	1498	1522	1546	1570
1st		1207	1205	1198	1179	1276	1316	1337	1357	1377	1395	1416	1441	1470	1499	1523	1547	1571	1597	1622
2nd		1179	1267	1262	1254	1229	1326	1368	1389	1410	1431	1450	1471	1497	1528	1552	1577	1602	1627	1654
3rd		1286	1226	1313	1308	1295	1264	1364	1408	1429	1451	1473	1492	1514	1540	1567	1590	1617	1641	1667
4th		1326	1335	1269	1359	1349	1331	1299	1401	1447	1469	1492	1514	1534	1556	1576	1605	1628	1656	1680
5th		1254	1360	1366	1298	1385	1370	1352	1320	1423	1470	1492	1515	1538	1558	1575	1595	1625	1648	1676
	7722	7385	7523	7532	7605	7785	7877	8009	8183	8412	8561	8692	8830	8977	9133	9268	9412	9565	9715	9869
6th		1246	1309	1417	1422	1347	1433	1418	1399	1365	1472	1521	1544	1568	1591	1608	1626	1647	1678	1701
7th		1247	1285	1347	1458	1458	1377	1466	1450	1431	1396	1505	1556	1579	1604	1624	1641	1660	1681	1713
8th		1228	1272	1308	1371	1479	1475	1393	1483	1467	1447	1412	1522	1574	1597	1620	1640	1658	1677	1698
	4423	3721	3866	4072	4251	4284	4285	4277	4332	4263	4315	4438	4622	4721	4792	4852	4907	4965	5036	5112
9th		1274	1329	1374	1413	1476	1584	1580	1492	1588	1571	1550	1513	1630	1686	1709	1733	1754	1774	1794
10th		1282	1304	1356	1401	1436	1490	1598	1594	1506	1604	1587	1566	1529	1645	1699	1722	1746	1767	1787
11th		1313	1314	1331	1382	1423	1455	1506	1612	1608	1523	1623	1607	1586	1550	1661	1714	1736	1760	1780
12th		1282	1337	1335	1355	1405	1441	1473	1528	1638	1634	1545	1644	1627	1606	1567	1683	1738	1761	1786
	5360	5151	5284	5396	5551	5740	5970	6157	6226	6340	6332	6305	6330	6372	6487	6636	6852	6974	7062	7147
		16257	16673	17000	17407	17809	18132	18443	18741	19015	19208	19435	19782	20070	20412	20756	21171	21504	21813	22128
		1261	1238	1218	1207	1197	1194	1177	1164	1140	1118	1093	1084	1097	1112	1130	1151	1166	1180	1194
		402	402	395	391	397	392	400	387	390	391	391	391	393	395	394	393	392	392	391
		17920	18313	18613	19005	19403	19718	20020	20292	20545	20717	20919	21257	21560	21919	22280	22715	23062	23385	23713

As shown in Table 3-3, overlaying Bend school capacity numbers with enrollment forecast, it was determined that Bend school capacity would be exceeded as follows:

- Elementary Schools - capacity is forecast to be exceeded in:
  - 2020-2021
  - 2024-2025
  - 2028-2029
  - 2032-2033

- Middle School - capacity is forecast to be exceeded 2026-2027

- High School - capacity is forecast to be exceeded in:
  - 2018-2019
  - 2032-2033

3.3 - Addressing Capacity Issues

After initially studying enrollment forecasts and capacity issues for a 20 year planning horizon, the sub-committee considered ways to address the capacity issues. The sub-committee considered the following options for addressing capacity issues:

- Alternatives to new school construction
- Measures to increase efficient use of school sites
- Building new schools

3.3.1 Alternatives Analysis

Prior to recommending new school construction, the committee completed an analysis of alternatives to new school construction. Considering alternatives to new school construction ensures the district assesses viable options, before engaging in larger capital improvement projects. To review alternatives, the sub-committee used the 2010 prior study as the basis and ultimately considered the following.

- Year 'Round Schools – Multi-track and single track
- Double Shift Schools
- Night School

Based on the research and analysis presented, the sub-committee determined that while the alternatives may provide temporary relief and/or capacity, in a growing district like Bend-La Pine, the potential alternatives are inferior to well-planned capital construction. The committee did support the potential of offering a "second" shift of classes ("night school") as a form of alternative learning schedule for high school students, however they noted that strategy only marginally delays the need for future high school capacity. The sub-committee further noted that changes resulting in year 'round school options would likely have a significant amount of public interest; potential issues extend beyond the scope of the Committee's purpose. If the Board is interested in year 'round schools, the sub-committee recommends that the District undertake a community-based process to fully consider and weigh the impacts. Lastly, the sub-committee noted that the studied alternatives could be considered in the event community support for schools diminishes, and/or if growth slows to the point where the referenced options could provide viable long term alternatives to new school construction. However, in the current high growth environment, where schools are generally supported, well-planned capital construction is the preferred solution.

3.3.2 Measures to increase the efficient use of school sites

Prior to recommending new school construction, the sub-committee also completed an assessment of potential measures to increase the efficient use of existing school sites. Like the Alternatives Analysis, this assessment used a 2010 study as the basis for potential measures to increase the efficient use of school sites. In addition to the 2010 study, the sub-committee consulted Lora Nordquist, Bend-La Pine's Assistant Superintendent, regarding school size and the educational process. In addition, the Committee reviewed an assessment from Steele Associates Architects, LLC regarding school site needs based upon the most recently constructed 2 story buildings, Silver Rail Elementary, Pacific Crest Middle School, and Summit High School. Collectively this data was used to discuss:

- School (Student Enrollment) Size
- School Site and Design Size / Multi-Story
- Multiple Story Design – Redevelopment of Existing School
- Reuse and Multiple Use of School Sites

School (Student Enrollment) Size:

To accommodate a desired level of instruction/education, while simultaneously ensuring efficient administration and operation of schools, the District has historically built schools that accommodate up to 600 students in elementary, 800 students in middle, and 1,500 students in high school. To understand and assess school size, the sub-committee was provided with research from Lora Nordquist, Assistant Superintendent. Ms. Nordquist researched and presented data on school size, design capacity, and the relation to the educational environment. The data looked at six reports/studies/articles pertaining to school size, dating from 2005 to 2015. The results of the studies suggest that there are not definitive findings that would support a "one best size" for students at any level. The literature does suggest that school size can have an impact on "school climate", which could lead to impacts to academic success and graduation rates. However, the work found that District design capacities (600 at elementary, 800 at middle school and 1,500 at high school) fall in an "average range", likely on the high end of the range. Based upon the assessment that was reviewed, the sub-committee agreed that there is nothing to suggest that the District should consider changing the school design capacities at this time. The report is included as Exhibit C.

School Site and Design Size / Multi-Story

To understand school site needs, the sub-committee reviewed the 2010 Analysis, in addition to a Steele Associates assessment (Exhibit D) of the most recently constructed 2 story buildings, including Silver Rail Elementary School, Pacific Crest Middle School, and Summit High School. The analyses, the discussion, and conclusions of the sub-committee established that the majority of school site requirements are needed for specific purposes, such as District guidelines, code requirements, access, circulation, parking, drainage, play fields, and sidewalks; thus the majority of school site requirements are fixed. It is possible to reduce the size of the building envelope portion of the site for multiple story buildings, and the District has done that for schools at all levels. However, the District has found that decreasing only the building envelope results in minor changes to the overall site needs. Based upon current District, City, County, State and Federal requirements, school site should be sizes as follows:

- Elementary (600 students / 1 story) – 15 acres
- Elementary (600 students / 2 story) – 12 acres
- Middle (800 students / 2 story) – 25 acres
- High (1,500 students / 2 Story) – 50 acres

The Committee also discussed urban school and suburban school design, recognizing that within urban areas other design models exist, including schools within multiple story buildings and limited open space. The sub-committee considered and discussed urban models, and ultimately recognized that the City of Bend development code (with its parking, setback, open space and other requirements) is more of a suburban style code, which limits the ability to establish schools without parking, setbacks, drainage, and/or open space. Also, the District school model, with guidelines for playing field size, safety, and busing, is also a

suburban style of design and one that has been embraced by our community. The sub-committee felt that modifying the design and size requirements would be a considerable change for the community. Changing to an urban design would likely involve modifying the District guidelines, in addition to development code requirements; there would likely be substantial public interest in the topic, which would extend beyond the scope of the Sites and Facilities Committee. In the event the District is interested in amending its size, programing, site needs, the sub-committee recommends that the District engage in a community-based process to discuss and weigh those options.

Redevelopment of Existing School – Multi-story

Discussion related to the redevelopment of existing schools as multi-story schools was also based upon prior assessments. The sub-committee determined that there are a number of factors that limit redevelopment of existing schools as multi-story:

- The majority of the schools in the District were designed for capacity at District design standards, 600, 800 and 1,500. Adding second stories would exceed desired student size.
- Existing smaller schools are generally located on in-fill lots and have limited ability to expand instructional, program and site requirements elements (gym, parking, access/circulation, lunch area, play field, etc.)
- Most of the District's older school facilities are not designed to be expanded vertically. Many building codes, seismic codes and fire codes become a challenge for vertical expansions of existing facilities. As a result, expanding existing school facilities vertically becomes a costly endeavor and is most often determined not feasible within available funds.
- Due to scheduling, it generally is extremely difficult to completely demolish an older school and build a newer school without a severely impacting the educational process.
- Adding capacity to an existing school facility (vertical or horizontal expansion) will cause existing infrastructure to breakdown at some point. Critical infrastructure can be items such as food preparation areas, restrooms, water capacity, sewer capacity, electrical services, gymnasiums, library and cafeteria. Many times, the expansion of the critical infrastructure areas can be very costly and can ultimately cost more than buying land and building new.
- Adding capacity to an existing school facility many times compromises safety on the site and within the building. At some point, student circulation, automobile circulation and bus circulation come into conflict. Similarly, supervision becomes compromised as student capacity increases and demands on the common areas increases.

Ultimately, the sub-committee concluded that adding capacity (either vertically or horizontally) begins to compromise the District's policies on school size, site safety, or ability to offer other necessary programs. Most existing schools and sites are optimized to provide the necessary programs and meet the District's school size guidelines on their current sites. Demolishing relatively new structures to expand vertically in the case of single-story buildings is inefficient and will also result in

schools that exceed the District's school size guidelines. □

Reuse and Multiple Use of School Sites

Historically, the District has chosen to plan and locate a variety of programs on the same or adjacent sites. In particular, coordinated planning efforts have been undertaken with Bend Metro Parks and Recreation District, La Pine Park District and with the City of Bend. In the Bend area, ten schools are co-developed or jointly located with local or community parks. Four District campuses include multiple schools, including La Pine Elementary/Middle/High Campus, Pilot Butte/Juniper, Lava Ridge/Sky View, and Summit/W.E. Miller/Pacific Crest. Also future shared school locations are anticipated for both the High Desert and R.E. Jewell properties. A high percentage of Bend-area elementary schools and middle schools are either co-developed with parks or other schools. The site selection criteria that was established by the sub-committee, continues to encourage the concept of multiple uses for new sites.

Regarding sites that are not fully utilized, the sub-committee reviewed an interactive map of existing underutilized and undeveloped sites and facilities owned by the District, to determine potential opportunities for reuse and multiple uses of existing built and vacant sites. The interactive map used by the sub-committee is included in Exhibit F and the recommendations are included in the Highest and Best Use Chapter below (Chapter 5). That section represents ideas the District may want to consider for future re-use.

3.3.3 Building New Schools

After assessing alternatives and determining ideal school sizes, the sub-committee undertook a process to identify optimal locations for new schools. While the enrollment forecasts determine when school capacity will be met and exceeded, the enrollment forecasts do not estimate where growth will occur. To predict the location of growth, the sub-committee looked to the work in the recent City of Bend Urban Growth Boundary (UGB) Expansion project. With the UGB Expansion project, over a multi-year time period, the City of Bend has invested a significant amount of staff time, hired an expert consultant, and utilized the knowledge of multiple technical advisory committees to:

- Forecast growth throughout the existing UGB
- Determine how much additional land will be need to accommodate forecast population increase
- Identify the best locations for a UGB expansion

The sub-committee felt the UGB Expansion work is critical to understanding where forecasted enrollment will manifest itself throughout the District. While the sub-committee determined that this significant source of data was the best available information, they did note a couple shortfalls as it relates to the 20-year Sites and Facilities study. Shortfalls include the following:

- The UGB work only forecasts growth to 2028; it does not provide Board

required 20 year guidance, through 2035.
- The UGB data does not predict when (between the present and 2028) growth will occur; it does not provide short term guidance.

The sub-committee found that the shortfalls could be addressed and/or mitigated with other development data, thus they determined that the UGB Expansion data should be used for sites and facilities analysis.

UGB Expansion Shortfalls

Long Term Guidance

Although it is forecast that additional schools will be needed through 2035, without any guidance on where a UGB will be located beyond 2028, the sub-committee determined that it is not practical to predict where future growth will occur (beyond the UGB planning horizon). The schools that will be needed beyond 2028 are anticipated to be located in future UGB expansion areas. Furthermore, it is expected that for the period beyond 2028, the District will complete another sites and facilities planning effort, and additional information regarding a future Urban Growth Boundary and/or Urban Area Reserve will be completed at that time, allowing for ideal locations to more accurately be forecast.

Short Term Guidance

The UGB Expansion work forecasts growth through 2028, however it does not project incremental growth. Based upon the PRC population forecast, it is projected that 2 elementary schools and a high school will be needed by the end of the UGB planning horizon. In the case of elementary schools, given the size of the schools, the service area, and the forecast time of need, it is important to understand incremental growth. Based upon available data, the Sub-committee determined that they could review vacant buildable lots, tentatively approved subdivisions, and apartments that have received planning approval, to establish short-term growth forecasts.

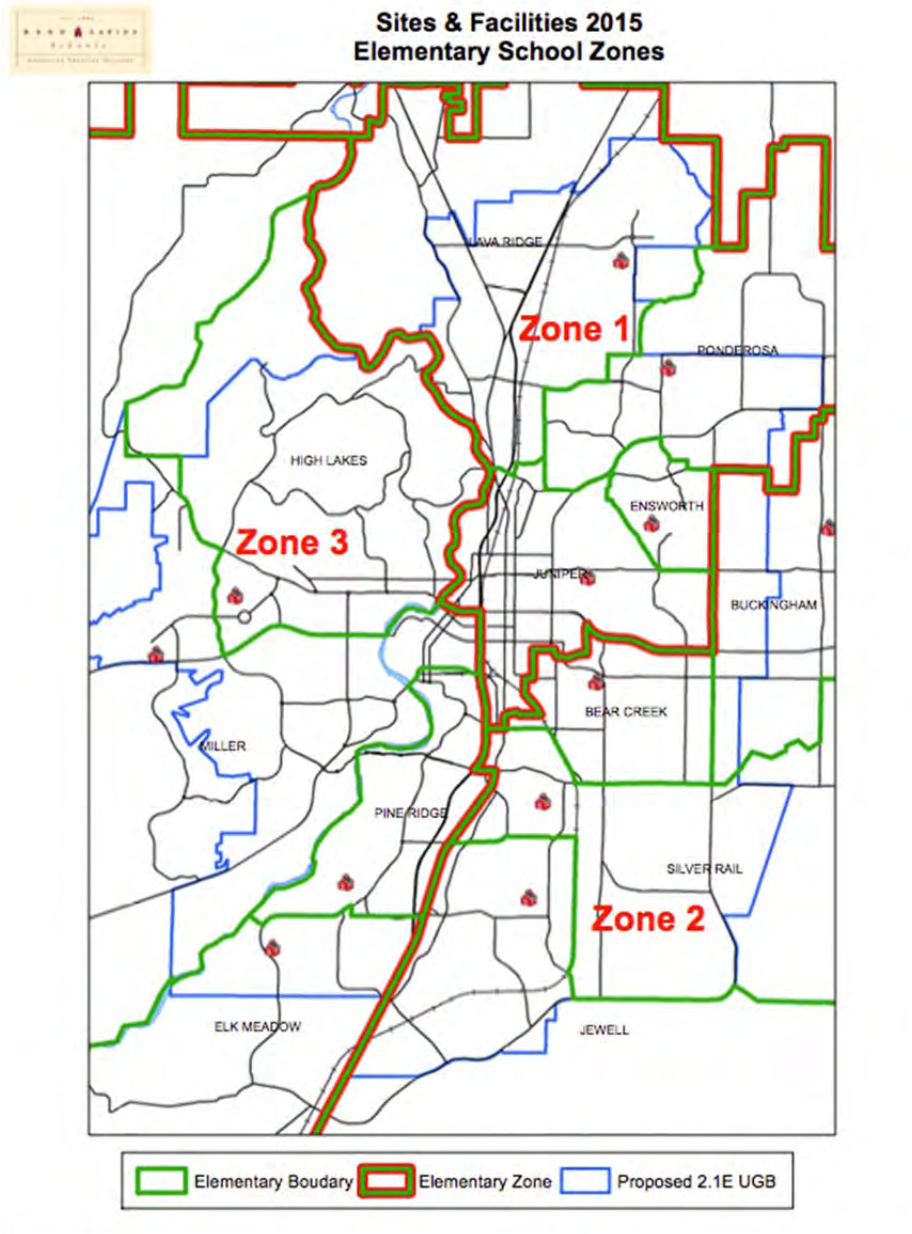
Build-out Analysis

District staff and the Consultant reached out to the City, who was extremely helpful, cooperative, and willing to provide the Committee with GIS data related to the UGB growth scenarios. The project team worked closely with the City Growth Management Division and the District GIS Expert, Shawn Hasse, to incorporate the UGB Expansion Envision Model, into District's GIS programming. At the time of the Sites and Facilities Committee review of anticipated growth locations, the City Boundary TAC and Steering Committee had established growth scenario 2.1.E[1] as the preferred alternative. It should be noted that the formal UGB adoption process could result in additional changes. However, the Sub-committee determined that the information used in the assessment is the best available data, the recommendations

[1] At the April and May meetings, the Committee was informed that a few minor changes had been made, but it has been determined that the size and location of the changes did not significantly change the outcomes, thus the committee did not recommend revisiting growth projections.

are flexible enough to adapt to change, and restudying growth projections is not necessary.

To incorporate growth projections into meaningful and workable summary areas the sub-committee established zones to aggregate data. The sub-committee utilized the 3 high school boundaries (Mountain View, Bend High, and Summit) as aggregation areas for high school needs, and 3 “zones” for elementary school aggregation. The elementary school zones are based upon existing school boundaries, along with geographical and topographical considerations.



As depicted on the elementary school zone Image, there are 4 similarly sized schools in each of the 3 zones. The zones were determined to be appropriate after considering school sizes and topographic constraints.

Elementary School Projections

To forecast enrollment growth, the Sub-committee utilized projections established in the City of Bend UGB Envision Models and applied enrollment rates established in the Bend-La Pine School District Population and Enrollment Forecast 2010-2030. The location of forecasted growth is depicted on the maps contained in Exhibit E and summarized below:

Table 3-4
Summary of Elementary Enrollment Growth Through 2028

	Available Seats	Forecast Growth	Difference
Zone 1 - NE Bend	141	479	-338
Zone 2 - SE Bend	324	656	-332
Zone 3- West Bend	75	481	-406

As depicted in the enrollment forecast addressed above, it is estimated that 2 elementary schools will be needed by 2028. The 2028 summary shows that by that time the need will be relatively evenly distributed across the UGB. A significant portion of the growth forecast in Table 3-4 will be situated outside of the current UGB, in the planned UGB Expansion areas. Properties situated outside of the current UGB are expected to have a longer entitlement process, thus it is anticipated that those areas will not impact the enrollment need that is forecast to present itself by 2020-2021. To understand the earlier need, forecast in 2020-2021, the sub-committee was interested in short-term projections. To forecast short term projections, the sub-committee was presented with maps that depicted lands that were determined to be vacant and/or buildable, and could reasonable be expected to develop within the next 5 years. The following types of properties were determined to be “short-term” development properties:

- Vacant lands less than 1 acre
- Properties that have received land division approval, but are not yet platted
- Properties that have received site plan review approval (apartments).

The location of forecasted short-term growth is depicted on the maps contained in Exhibit E and summarized below:

Table 3-5
Summary of Short Term Elementary Enrollment Growth

	Available Seats	Forecast Growth	Difference
Zone 1 - NE Bend	141	188	-47
Zone 2 - SE Bend	324	153	171
Zone 3- West Bend	75	158	-83

Based on this information, the sub-committee found that the most pressing short term need is expected to be in zone 3 (West), closely followed by zone 2 (Northeast) but clearly all zones will need capacity relief by 2028. Since enrollment projections show the need for two elementary schools by the 2024-25 school year, an ideal scenario would locate schools such that they could provide capacity to multiple areas, initially focusing on zone 3 and zone 2.

Middle School Projections

Pacific Crest, a new middle school was opened in 2015-2016. The recent opening of this 800 student school relieves middle school capacity demand until beyond the middle term planning horizon, thus an assessment of middle school capacity was determined to not be needed by the Committee. It is recommended that middle school locational needs be reviewed in future sites and facilities planning efforts.

High School

Given the size, time to build, and larger capacity/service area of high schools, the sub-committee determined that it is only necessary to review the 2028 time horizon to determine ideal locational needs for a high school. Locational enrollment growth is depicted on a map contained in Exhibit E and summarized below:

Table 3-6
Summary of High School Enrollment Growth Through 2028

	Available Seats	Forecast Growth	Difference
Zone 1 - NE Bend	145	272	-127
Zone 2 - SE Bend	40	351	-311
Zone 3- West Bend	10	248	-238

Given the expected enrollment growth, the ability to use boundary adjustments, and the location of existing high schools, the committee determined that the high school capacity issues were greatest in zone 2 (Southeast).

Identifying preferred school site locations -

Through past sites and facilities planning efforts, the District has evolved from using specific site identification, to the use of planning circles. Identifying specific sites has been determined to not be desirable, as it alerts property owners of demand for their property and limits the ability for fair and favorable negotiations on behalf of the District. In lieu of specific sites, the 2010 school siting effort used circles that identified preferred locations. While the circles provided more flexibility than specific sites, the circles still involved limitations, as ideal locations just outside of the planning circles could not be chosen. Given that the UGB has not expanded since the last Sites and Facilities effort, land has become increasingly scarce within the Bend Urban Growth Boundary. The sub-committee recognizes that there is a benefit to providing the maximum amount of flexibility in site selection. Given that there are a number of well placed schools within each zone (4 in each zone) and the fact that there is the ability to use school boundary adjustments to efficiently direct enrollment when new schools are sited, the sub-committee recommends locating schools within

the identified and recommended zones. When combined with the site selection criteria and the potential for school boundary adjustments, the identified zones allow the greatest number of sites to be analyzed and assessed while ensuring all areas of the District are adequately served.

Suitable and Desirable Sites

When considering whether lands are available to accommodate the forecasted district needs, properties were assessed to determine if they are "suitable" and "desirable". Lands are considered to be "suitable" if they are in a zone where they are permitted outright, or with a conditional use permit. Regarding "desirable" lands, after studying past planning efforts and reviewing available lands, "desirable" characteristics, that were considered included:

- Where enrollment growth is happening or expected to happen
- Equitable arrangement and distribution of school facilities
- Development Status (vacant or redevelopable)
- Size needs - Single / Multiple Parcel / Common Ownership
- Limited Citywide Issues (capacity – water, sewer, transportation, etc.)
- Available Public Facilities (water, sewer, roads, sidewalks, etc.)
- Access – on existing or planned facility
- Usable topography (not in ASI, on steep slopes)
- Shape of Site – Rectangular / Triangular
- Limited physical barriers (canals, RR, Rivers, etc.)
- Buffer from existing schools
- Costs (Site Acquisition & Site Development)
- Partnership Opportunities (City / Park District)

The Committee reviewed interactive maps containing the information listed below:

Map 1 - Suitable Lands - Elementary School

1. Elementary zones
2. Areas not zoned industrial (schools are permitted in all other zones)
3. All properties that are 10+ acres, including contiguous 5 acre properties
4. Current school properties
5. Aerial imagery

Layers -

1. Vacant Properties -
    - Improvement value less than 10,000; or
2. Re-developable -
    - Improvement value 10,001 - 125,000
    - Improvement value 125,001 - 250,000
    - Improvement value 250,001 - 500,000
    - Improvement value 500,000+

Map 2 - Suitable Lands - High School

1. High school boundary lines
2. Areas not zoned industrial (schools are permitted in all other zones)
3. All properties that are 50+ acres, including contiguous 25 acre properties
4. Current school properties
5. Aerial imagery

Layers -

1. Vacant Properties -
    - Improvement value less than 10,000; or
2. Re-developable -
    - Improvement value 10,001 - 125,000
    - Improvement value 125,001 - 250,000
    - Improvement value 250,001 - 500,000
    - Improvement value 500,000+

Copies of the referenced maps are included in Exhibit E. From the referenced maps, the sub-committee established the following recommendations.

- Elementary schools:
    - *2020-2021 need* – 12-15-acre site, highest need in zone 3 (west Bend), closely followed by zone 1 (northeast Bend), locate in areas to serve both zones if possible.
    - *2024-2025 need* – 12-15-acre site, equal needs throughout the city, locate in areas to serve all zones to the greatest extent possible.
    - *2028-2029 need* – 12-15-acre site, beyond growth projection forecast, reassess location needs in subsequent sites and facilities efforts.
    - *2032-2033 need* – 12-15-acre site, beyond growth projection forecast, reassess location needs in subsequent sites and facilities efforts.
    - General Notes –
        - Strategically place schools, use school boundary adjustments as needed
        - There is an adequate amount of suitable and desirable lands in zone 1 (northeast Bend) and zone 2 (southeast Bend), however there appears to be a limited amount of land that is suitable and desirable in zone 3. Within zone 3 (west Bend), assess the feasibility of the available lands. If the available lands are not feasible for school development, considering taking "necessary actions" as prescribed by ORS 195.110 such as zone changes, aggregation of lots, or adding sites to the UGB.

- Middle School
    - *2026-2027 need* – 25-acre site – Site currently owned by District adjacent to R.E. Jewell Elementary School could meet need. Reassess location in subsequent sites and facilities efforts.
    - General Note –

        - Strategically place school, utilize boundary adjustments as needed
        - Suitable and desirable lands available to accommodate need

- High School
    - *2018-2019 need* – 50 acres – in zone 2 (southeast Bend)
    - *2032-2033 need* – 50 acres - beyond growth projection forecast, reassess location needs in subsequent sites and facilities planning efforts
    - General Note –
        - Strategically place schools, utilize boundary adjustments as needed
        - Suitable and desirable lands available to accommodate need

Site Selection Criteria

The focus of the Committees efforts regarding site selection criteria was to provide the District with guidance and direction when considering sites. Criteria are site specific and generally require site assessment, through a property search and/or due diligence. Rather than establishing criteria to be inserted into maps, and a search at this time, criteria are presented to the District as a guide for identifying and selecting properties, when considering individual sites. Site selection criteria that are recommended include the following:

All School Sites:

-High student densities
-Good walking access
-Relatively flat topography
-Appropriate size
    - 12-15 for elementary
    - 25 for middle school
    - 50 acres for a high school
-Low cost for extending utilities to the property and for offsite improvements like roads and sidewalks
-At least two vehicular access points
-Low site acquisition costs
-Partnership potential with Bend Parks and Rec District
-Zoning allows schools
- Limited access to marijuana establishments
-Shape of site promotes efficient use of the space

Elementary Schools Only:

- Few busy roads around school
- Few physical barriers such as canals, railroads, or arterial street
- Located in residential zones
- Adjacent to park or future park where possible

Middle School Only:

- Ready access to bicycle trails or bicycle lanes
- Near sports fields

High School Only:

- Good access to main transportation system
- Feasibility for community events
- Near commercial, convenience commercial, or industrial park zones
- Co-development potential for sports facility
- Site minimizes the negative impacts of field lights on neighboring properties

Chapter 4
Assessment of usage and future needs of the Education Center

Future Needs Sub-committee

The Education Center is located on the south end of downtown Bend and it houses Bend-La Pine Schools' administration offices including the Superintendent's Office, Teaching and Learning, Special Education, Human Resources, Business Office, Nutrition Services, Communication Services, Information Technology, Instructional Technology and Facilities Services. The Education Center also houses the Strive Program, the Bend-La Pine Online Program, and approximately 1/3 of the second floor of the building is leased to the High Desert Education Service District (ESD) through June 30, 2020.

As Bend-La Pine Schools continues to grow, the District anticipates the need for additional space for administration and support services. The current operating plan for the Education Center is to not renew the lease with the ESD in 2020, gaining that space for expansion of Strive and/or administrative space. Also, if and when appropriate, the District would like to move the Strive program to an alternative site, so that the Education Center could provide administrative offices and the Strive Program is able to be provided with safety protocols similar to those at other school sites.

Additional information about the Education Center building:

- The site is located downtown next to the Library and City Hall and Thompson Elementary, which currently houses Amity Creek Magnet School.
- The District owns the land from Louisiana Street to Idaho Street, between Wall and Bond Streets.
- District also currently owns the adjacent "Troy Field"; this property is under contract to be purchased by a developer.
- District owns the Ed Center building and the back half of the Boys and Girls Club building. The Bend Park and Recreation District Foundation owns the front half of the Boys and Girls Club building, but the District owns the land underneath the entire building.
- The District has been slowly working to improve the Ed Center building by abating asbestos, replacing windows and flooring, adding cameras and security and generally reconfiguring much of the building for office space.
- The entire property is in the historic district.
- The entire property has the Public Facilities Designation with an underlying RH zoning.
- The District is currently replacing the old maintenance shop behind the Ed Center with a "Utility Shop" to house technology equipment, backup generator(s) and boiler used to heat the Ed Center. This area is the "hub" of the network for the entire District.

- The building is highly used by the District for meeting space for large and small groups as well as occasionally for community events. The Boys and Girls Club does use the building grounds (front and back yards) each weekday in the summer for lunch and outdoor activities.
- The District currently does not monitor or charge for the use of our parking lot between the Ed Center and City Hall. The lot is used by Ed Center staff and visitors, as well as library patrons and City staff working at City Hall and other nearby offices.

After considering the information presented, the sub-committee determined that building is well sized, well located, and it provides a one-stop shop for District employees. The sub-committee expressed concern over the amount and/or enforcement of parking. They further noted that housing Strive in the building is not ideal; a better location would be off-site. The sub-committee recognized that the zoning, general plan designation and the historic protections limit the ability for private developers to maximize the use of the property; these conditions could limit the marketability of the property. One other topic of discussion was the Heritage Square concept. Heritage Square is a concept of an interagency center located amongst and between City Hall and the Education Center. The sub-committee gave a nod of support to the Heritage Square concept, so long as parking could sufficiently be provided, suggesting that maintaining the Education Center in its current use would contribute to the Heritage Square concept.

Given all of the topics discussed, the sub-committee ultimately recommended maintaining the current usage and operating plan for 5-10 years; continuing to monitor and assess the needs of the facility, and the ability to place Strive at another location.

Chapter 5
Assessment of highest and best use of existing land holdings
Future Needs Sub-Committee

The District owns a number of properties that are not currently being utilized to provide student instruction or assist in the facilitation of student instruction. These properties include a mix of large vacant parcels that could accommodate school sites, large lands immediately adjacent to developed District sites that could accommodate another school, and/or smaller remainder parcels immediately adjacent to school sites. The existing land holdings came into the District's ownership a number of different ways, some were acquired to accommodate planned enrollment, some were donated, some are extra areas abutting sites that were acquired and developed to District specifications. The sub-committee reviewed each of the "existing land holding sites" including a summary of the property from staff, aerial photographs, and an interactive map.

Current holdings and determinations are listed below:

- Troy Field – Currently listed for sale
    - assumed to not be available

- Shevlin Property – Approximately 32 acres in the northwest part of Bend; In the urban area reserve but not slated to come into the urban growth boundary in the current UGB expansion process; Approximately 20 acres of the property is relatively flat with the rest sloping to Shevlin Road; Zoned UAR10.
    - Located in an area of elementary school need, recommended to retain, identify it for next UGB Expansion, consider building school on property, or selling or trading to accommodate an elementary school need.

- Pacific Crest Middle School Skyliners parcel – Approximately 5+ acres inside the UGB; Zoned UAR10 and URA on the comp plan;
    - Consider developing as playing fields in partnership with the Bend Park and Recreation District.

- Pacific Crest Middle School NE Triangle – Just under 2 acres inside the UGB; Zoned UAR10 and URA on the comp plan; Located between Summit High and Pacific Crest;
    - Retain, desirable location, could be used for bus satellite garage, future program space.

- Silver Rail Elementary NW corner of property – Just over 1 acre inside the UGB; Zoned RM and RM on the comp plan;
    - Not usable by district, consider sale at market rate.

- High Desert Middle School north triangle – 12+ acres outside the UGB; Zoned UAR10 and URA on the comp plan; Slated to come in to the UGB in current process with a public facilities designation and zone; Hold for potential future school site;

- High Desert Middle School north square – 5.5+ acres outside the UGB; Zoned UAR10 and URA on the comp plan; Slated to come in to the UGB in current process with a public facilities designation and zone; Combined with the north triangle, hold for potential future school site;

- High Desert Middle School south – Almost 28 acres outside the UGB; Zoned UAR10 and URA on the comp plan; Slated to come in to the UGB in current process with a mixed use designation and zone; Has a large natural gas line buried with a 100 foot easement diagonally across property.
    - The High Desert Middle School area provides a good location for a future elementary school, however the preferred location on the site will depend on the final UGB plan, recommend holding until UGB expansion is complete, then reassess.

- Country Club property – 50 acres inside the UGB; zoned RS and RS on the comp plan; This is slated as next high school site;
    - Within the area of a 2018-2019 high school site need. Use for high school site or for future trade to accommodate a future high school site in the southeast.

- Murphy Road property – 25+ acres inside the UGB; zoned RS and RS on the comp plan; This is slated as next middle school site;
    - Within area of future need. Use for future middle or elementary school or for a trade to accommodate a future middle or elementary school in the southeast.

- La Pine north property – 10 acres inside the UGB; Zoned F1 with PF on the comp plan;
    - Sufficient capacity in the area, thus use of site unlikely, however given current general plan and zone, sale of the property would not provide much financial benefit. Hold property unless property valuation makes sale logical.

The general consensus of the sub-committee was that given that the District population is growing and land is increasingly difficult to obtain (particularly within central urban areas), the District should retain larger properties that could accommodate future schools. Existing large acreages should be held to provide school sites, or they should be held for potential future sale or trade. If possible, the sites not large enough to accommodate a full school could be developed to house District programs where the District is currently leasing facilities. The District currently leases the property for REALMS, along with the facilities that house both

the Tamarack Program and the Transition Program. Locating these programs in District owned properties could provide better environments, created specifically for the programs. In addition to improved design, providing programs on District owned properties would eliminate the cost of the leases, which are District general fund expenses.

Chapter 6
Summary and Conclusion

As noted above, this document is the final Sites and Facilities Plan. This report summarizes a year long community based process and provides the following items:

- List of new schools, improvements and expansions to existing facilities needed within the next seven years
- Capacity and sites of new schools needed
- Ideal school sites for future schools to satisfy the needs of the district to 2035
- Current usage and future needs of the Education Center
- Highest and best use of existing land holdings

The Bend-La Pine Schools Sites and Facilities Planis created consistent with ORS 195.115.

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

Site and Description	Estimated Cost
New Elementary	33,155,940
Construct new elementary school	33,155,940
New High School	129,028,000
Construct new high school	129,028,000
Bear Creek Elementary	4,028,138
Add instructional multi-use space	2,416,288
Replace single pane windows	455,928
Replace roof	418,879
Classroom climate	238,405
Modernize HVAC controls	232,824
Grounds and drainage improvements	149,521
Secure entry	116,292
Bend Senior High	15,209,399
Modernize instructional space	9,537,650
Production kitchen expansion/modernization	2,914,050
Replace roofs	2,480,351
Secure entry	277,348
Buckingham Elementary	1,841,903
Replace roof	1,185,122
Modernize HVAC controls	245,904
Classroom climate	241,886
Backup generator	101,370
Building exterior preservation	67,622
Cascade Middle	2,948,007
Replace roof	1,437,749
Modernize instructional space	570,916
Replace lockers	523,970
Modernize HVAC controls	201,432
Replace bleachers in gym	152,524
Secure entry	61,417

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

Site and Description	Estimated Cost
Elk Meadow Elementary	2,064,182
Fire alarm panel replacement	579,880
LED lighting conversion	534,372
Classroom climate	251,736
Grounds and drainage improvements	214,524
Space for instructional materials	131,781
Modernize instructional space	111,507
Secure entry	109,606
Improve site traffic and/or parking	57,882
Boiler efficiency upgrades	47,551
Fire doors in main corridors	25,343
Ensworth Elementary	1,020,659
Replace boilers	565,983
Modernize HVAC controls	212,550
Classroom climate	117,420
Secure entry	90,071
Safety improvements	34,635
High Desert Middle	6,278,764
Add instructional multi-use space	4,822,058
LED lighting conversion	896,287
Bleacher replacement	151,238
Renovate main access	143,744
Upgrade ductwork	132,643
Secure entry	105,594
Exterior window renovation	27,201
High Lakes Elementary	366,847
Modernize HVAC controls	221,052
Secure entry	109,606
Fire doors in main corridors	25,343
Safety improvements	10,847
Juniper Elementary	6,092,191
Add instructional multi-use space	4,211,586
Replace roofs	796,892
Window replacement	506,394
Classroom climate	242,756
Grounds and drainage improvements	140,482
Modernize HVAC controls	128,184
Upgrade ductwork	65,897

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

Site and Description	Estimated Cost
Kenwood Elementary	**602,901**
Replace roofs	540,603
Interior preservation	62,299
Kingston Elementary	**380,544**
Modernize HVAC controls	207,972
Secure entry	172,572
La Pine Elementary	**928,534**
LED lighting conversion	517,161
Interior preservation	276,424
Secure entry	109,606
Fire doors in main corridors	25,343
La Pine High	**3,484,123**
Replace roof	2,490,092
HVAC upgrades	708,500
Secure entry	270,796
Safety improvements	14,735
La Pine Middle	**897,343**
Modernize instructional space	557,357
Interior preservation	136,198
Improve site traffic and/or parking	125,677
Secure entry	78,112
Lava Ridge Elementary	**1,957,624**
Interior renovation	773,614
LED lighting conversion	536,489
Classroom climate	251,736
Modernize HVAC controls	203,394
Secure entry	109,606
Safety improvements	57,443
Fire doors in main corridors	25,343
Marshall High	**6,923,167**
Add instructional multi-use space	6,523,650
Secure entry	154,167
Window and door replacement	136,643
Safety improvements	70,121
Modernize HVAC controls	38,586

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

Site and Description	Estimated Cost
Mountain View High	3,566,154
Replace roofs	2,386,810
Accessibility improvements	506,850
Modernize HVAC controls	418,560
Secure entry	150,397
Safety improvements	84,843
HVAC upgrades	18,694
Pilot Butte Middle	14,993,078
Modernize instructional space	13,679,281
Replace roofs	777,372
Access improvements	297,014
Safety improvements	121,399
Exterior renovation	118,013
Pine Ridge Elementary	637,976
Classroom climate	251,736
Modernize HVAC controls	193,800
Secure entry	109,606
Boiler efficiency upgrades	57,492
Fire doors in main corridors	25,343
Ponderosa Elementary	674,690
Classroom climate	255,959
Modernize HVAC controls	255,060
Secure entry	109,606
Grounds and drainage improvements	54,064
RE Jewell Elementary	4,105,215
Add instructional multi-use space	2,436,405
Replace roof	1,185,122
Modernize HVAC controls	275,770
HVAC upgrades	140,338
Replace gym floor	67,580
Rosland Elementary	134,949
Secure entry	109,606
Fire doors in main corridors	25,343

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

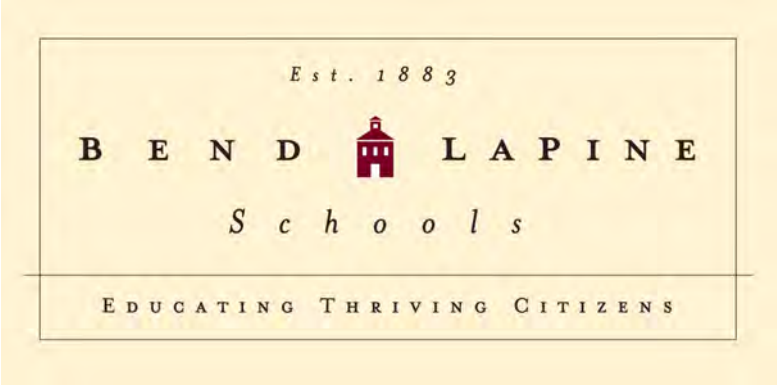
Site and Description	Estimated Cost
Sky View Middle	1,012,496
Modernize HVAC controls	566,419
Accessibility improvements	243,288
Improve site traffic and/or parking	173,765
Secure entry	16,895
Replace roof	12,130
Summit High	5,437,733
Replace roofs	4,455,289
Modernize HVAC controls	629,802
Access improvements	98,100
Improve site traffic and/or parking	96,302
Secure entry	81,941
Building exterior preservation	76,300
Thompson Elementary	3,909,695
Modernize instructional space	2,707,143
Window replacement	885,328
Replace roof	317,224
Three Rivers Elementary	493,017
Modernize playground	255,452
Grounds and drainage improvements	149,605
Secure entry	87,960
WE Miller Elementary	438,797
Modernize HVAC controls	332,232
Secure entry	106,565
Education Center	707,481
Access improvements	235,578
Secure entry	224,906
Exterior lighting renovation	130,166
Interior renovation	116,831
Maintenance Facility	562,440
Building addition for growth	540,640
Access improvements	21,800

Bend-La Pine Schools
2016 Sites and Facilities Project Needs List

Site and Description	Estimated Cost
Transportation - Bend	966,118
Utility renovation	313,233
Interior preservation	216,256
Replace roof	137,511
HVAC upgrades	118,265
Emergency back-up power system	81,750
Transportation improvements	54,500
LED lighting conversion	44,603
Transportation - La Pine	194,020
Transporation improvements	142,245
HVAC upgrades	42,238
Safety improvements	9,538
Distribution Center	266,419
HVAC upgrades	168,950
Exterior renovation	68,125
Access improvements	21,169
Safety improvements	8,175
District-Wide Projects	13,020,065
Safety improvements	3,555,100
Land for future school sites	3,000,000
Accessibility improvements	2,500,000
Modernize instructional space	2,281,965
Technology modernization	1,005,000
Stormwater management system	500,000
Building structural analysis	100,000
HVAC upgrades	78,000
Grand Total	**268,328,609**

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit B
Enrollment Forecast Data



- PSU Population and Enrollment Forecast Report / November 2014
- South County Enrollment Forecast Spreadsheet
- Bend Schools Enrollment Forecast Spreadsheet

BEND – LA PINE SCHOOL DISTRICT

POPULATION AND ENROLLMENT FORECASTS

2015-16 TO 2034-35

Portland State UNIVERSITY

Population Research Center

NOVEMBER 2014

BEND-LA PINE SCHOOL DISTRICT

POPULATION AND ENROLLMENT FORECASTS

2015-16 TO 2034-35

Prepared By

Population Research Center

Portland State University

November 2014

Project Staff:

Charles Rynerson, Research Associate

Scott Stewart, Research Associate

CONTENTS

TABLES AND CHARTS

EXECUTIVE SUMMARY

This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC) for the Bend – La Pine School District (BLPSD). The study includes analyses of population, housing and enrollment trends affecting the District in recent years, and forecasts of district-wide school enrollments for the 2015-16 to 2034-35 school years.

Enrollment Trends

- Total enrollment in the Bend – La Pine School District has increased every year since 2004-05, with the exception of a decrease in year 2009-10. The strongest period of growth was 2004-05 through 2007-08, before the recession and its lengthy aftermath.

- The only decrease in the 10 year enrollment history was the 2009-10 school year, when enrollment fell by 117 students (-0.7 percent). Growth returned in 2010-11, but has not been as strong in recent years when compared to pre-recession levels.

- Elementary, middle and high school enrollments all increased during the period. K-5 has had the steadiest growth. High school grew rapidly during the pre-recession period, had two years of decline (2008-09 and 2009-10) and began growing again in 2010-11.

District-wide Population Trends and Forecast

- During the 2000 to 2010 period the District added 17,317 housing units (45 percent growth). The number of new households during the period did not keep pace, growing by 12,559 (40 percent).[1]

[1] The difference is related to a decrease in occupancy rate from 83 percent in 2000 to 80 percent in 2010. Growth in seasonal units, as well as increases in the number of vacant homes for sale or rent or in foreclosure contributed to the decline in occupancy, as the housing market was struggling when the census was conducted, in April 2010. Detailed information is included on page B-5 of the appendix.

- The share of households with children declined from 34 to 30 percent during this period while the average number of persons per household went down from 2.47 to 2.41.

- Between 2000 and 2007 the number of births to residents of the BLPSD grew steadily, peaking at 1,424. After 2007 the annual birth total declined, reaching a low point of 1,086 in 2012. In 2013 births began to increase; the year's total of 1,153 was 67 higher than in 2012.

- Recent building permit data show a steep decline beginning in 2006, following a period of accelerated residential development. This decline in permits bottomed out in 2009. The housing recovery was sluggish for a few years but began to show signs of life in 2012. However, permit activity remains much lower than pre-recession levels.

- Our middle series forecast for 2030 population district-wide in the BLPSD is 154,996, an increase of 47,607 persons from the 2010 Census (1.9 percent average annual growth). School-age population (5 to 17) is forecast to increase at an average annual growth rate of 1.2 percent, a slower growth rate than overall population.

District-wide Enrollment Forecasts

- Table 1 compares the historic growth for the District with the middle series forecast by five year increment. Although housing development and in-migration are expected to accelerate from their recent low levels, growth in total K-12 enrollment is expected to be slower in the first several years of the forecast, due to the impact of the steep drop in births on the size of incoming kindergarten cohorts.

- In the first increment, 2014-15 to 2019-20, elementary (K-5th) enrollment declines slightly, while secondary enrollment experiences significant growth. After 2019-20, elementary growth resumes, at levels only slightly lower than in the most recent 10 years, from 2004-05 to 2014-15.

- Over the entire 20 year forecast period, the District adds 4,679 students (27 percent), including 1,916 (24 percent) in elementary grades, 1,177 (30 percent) in middle school grades, and 1,586 (29 percent) in high school grades.

- Chart 1 depicts the District's 10 year K-12 enrollment history and high, middle and low series forecasts. More detailed middle series forecasts for the District may be found in Table 11 on page 27-28 of this report. High and low alternative forecasts are presented in Appendix A. In the high and low series, capture rate and fertility assumptions are unchanged from the middle series; differences are due to adjustments in future migration assumptions.

Table 1

Historic and Middle Series Forecast Enrollment
by School Level (K-5, 6-8, 9-12)
Bend - La Pine School District

	Actual			Forecast			
	2004-05	**2009-10**	**2014-15**	**2019-20**	**2024-25**	**2029-30**	**2034-35**
Grades K-5	6,238	6,988	7,834	7,653	8,298	9,011	9,750
5 year change		*750*	*846*	*-181*	*645*	*713*	*739*
		12.0%	*12.1%*	*-2.3%*	*8.4%*	*8.6%*	*8.2%*
Grades 6-8	3,411	3,647	3,869	4,659	4,205	4,721	5,046
5 year change		*236*	*222*	*790*	*-454*	*516*	*325*
		6.9%	*6.1%*	*20.4%*	*-9.7%*	*12.3%*	*6.9%*
Grades 9-12	4,654	5,199	5,460	6,039	6,727	6,411	7,046
5 year change		*545*	*261*	*579*	*688*	*-316*	*635*
		11.7%	*5.0%*	*10.6%*	*11.4%*	*-4.7%*	*9.9%*
Total	**14,303**	**15,834**	**17,163**	**18,351**	**19,230**	**20,143**	**21,842**
5 year change		***1,531***	***1,329***	***1,188***	***879***	***913***	***1,699***
		10.7%	***8.4%***	***6.9%***	***4.8%***	***4.7%***	***8.4%***

Actual: Bend - La Pine School District.
Forecast: Population Research Center, PSU, November 2014.

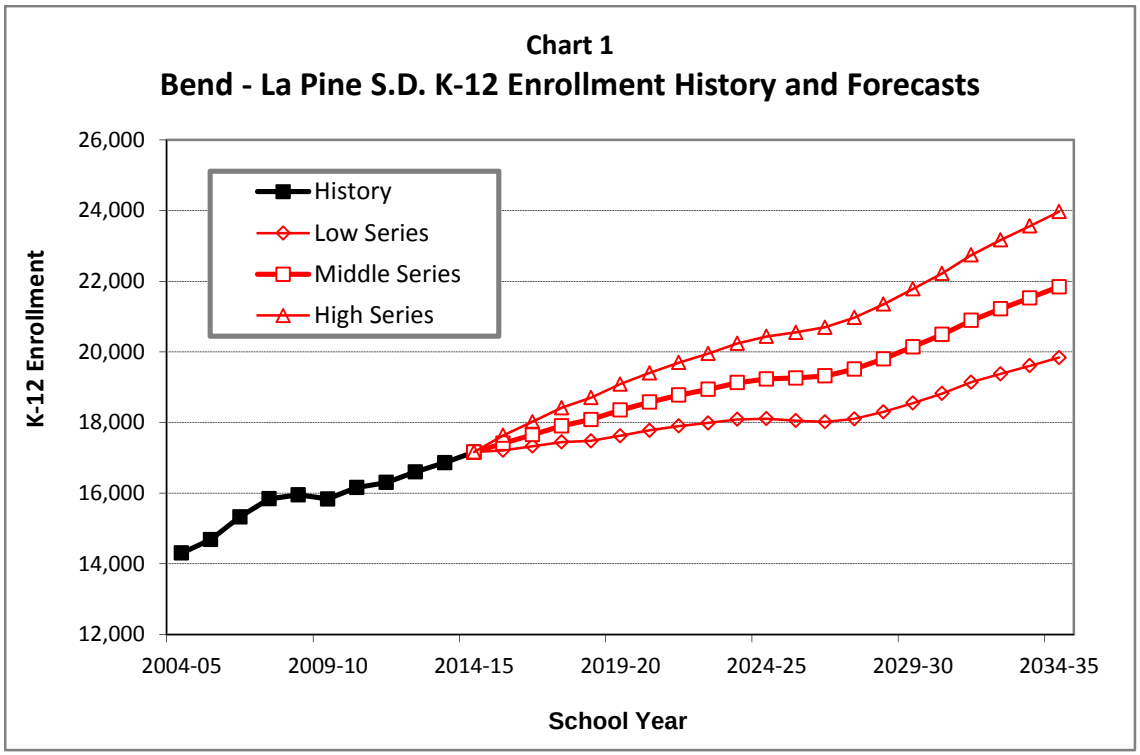


Chart 1
Bend - La Pine S.D. K-12 Enrollment History and Forecasts
K-12 Enrollment
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
History
Low Series
Middle Series
High Series
2004-05
2009-10
2014-15
2019-20
2024-25
2029-30
2034-35
School Year

INTRODUCTION

In 2009 the Portland State University Population Research Center (PRC) prepared enrollment forecasts for the Bend – La Pine School District (BLPSD). This report updates BLPSD enrollment history and local area population, housing, and economic trends, and presents new forecasts for a 20 year horizon from 2015-16 to 2034-35. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, and population estimates produced by PRC. It also uses housing development data from the City of Bend, City of La Pine, and Deschutes County.

The District's boundaries include the Cities of Bend and La Pine, along with a large portion of unincorporated Deschutes County. The District is entirely within Deschutes County.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District. Next are the results of the district-wide middle series enrollment forecasts and a description of the methodology used to produce them. The final section contains a brief discussion of the nature and accuracy of forecasts. Appendix A includes tables and charts representing low and high series enrollment forecasts and the migration assumptions that correspond to each series. Appendix B is a profile of 2000 and 2010 Census data for the District's population, households, and housing stock.

POPULATION, HOUSING, AND EMPLOYMENT TRENDS, 2000 to 2014

Between 2000 and 2010, total population within the BLPSD grew by 35 percent, an increase of 27,925 persons. This growth rate was about the same as Deschutes County overall but less than the City of Bend's 47 percent rate. The City of La Pine was not yet incorporated in 2000; in 2010 its 1,653 persons represented 1.6% of the District's population. The City of Bend accounted for 71 percent of BLPSD population in 2010, while 27 percent of BLPSD residents lived in the unincorporated portion of the BLPSD.

Table 2 also includes PRC's 2014 estimates for the Cities of Bend and La Pine, and Deschutes County. Growth rates slowed in the latter half of the 2000s, and Deschutes County and Bend continued to grow at a significantly lower rate in the 2010-2014 period compared with the 2000-2010 period.

Table 2

District, City, and County Population

				Avg. Annual Growth Rate	
	2000	**2010**	**2014**	**2000-2010**	**2010-2014**
Bend - La Pine SD Total*	79,464	107,389	N/A	*3.1%*	--
City of Bend	52,029	76,639	79,985	*3.9%*	*1.0%*
City of La Pine	*N/A*	1,653	1,670	*N/A*	*0.2%*
Remainder of District	27,435	29,097	N/A	*0.6%*	--
Deschutes County	115,367	157,733	166,400	*3.2%*	*1.3%*

**Note: District population determined by PSU-PRC based on aggregation of census blocks within the BLPSD boundary shapefiles. The 2010 BLPSD population published by the Census Bureau was 107,386.*

Sources: U.S. Census Bureau, 2000 and 2010 censuses aggregated to BLPSD boundary by PSU Population Research Center; preliminary July 1, 2014 estimates, PSU Population Research Center.

The BLPSD is part of the Bend-Redmond Metropolitan Area. Most District residents work within Deschutes County, particularly in Bend, so population growth in the area is related to the strength of the region's economy. Recent data show that 48 percent of workers within the BLPSD have primary jobs within the City of Bend itself. An additional 15 percent work within the

BLPSD outside of Bend. Most others work elsewhere in Deschutes County and adjacent counties. Table 3 reports the number and share of workers by place of work.[2]

Table 3
Where BLPSD Residents Are Employed

Job Located Within*	Workers	Share
Deschutes County	32,088	*77%*
Bend - La Pine School District	26,512	*63%*
City of Bend	20,298	*48%*
City of La Pine	232	*1%*
City of Redmond	2,723	*6%*
Crook County, OR	1,070	*3%*
Multnomah County, OR	907	*2%*
Klamath County, OR	878	*2%*
Lane County, OR	832	*2%*
Jefferson County, OR	781	*2%*
Washington County, OR	578	*1%*
Clackamas County, OR	532	*1%*
Marion County, OR	475	*1%*
Jackson County, OR	375	*1%*
All Other Locations	3,407	*8%*
Total Primary Jobs	41,923	*100%*

**Note: Indentation indicates that the area is also included wihin the area above it. For example, residents in the City of Bend who worked in BLPSD are also counted in the Bend - La Pine School District.*

Source: US Census Bureau, LED Origin-Destination Data Base (2011). Jobs covered by unemployment insurance, generally excluding agricultural, self-employed and domestic workers. Includes at most one (primary) job per resident. Jobs that appear to be located beyond a realistic commuting distance may reflect persons whose employers are located elsewhere, such as telecommuters or home based workers.

More than three quarters of employed BLPSD residents work in Deschutes County. Between 2004 and 2007, Deschutes County added 10,899 jobs—19 percent growth over the three-year period. The County lost jobs in 2008, 2009, and 2010. In 2011 it began adding jobs again, and in 2013 it had returned to 91 percent of its 2007 level[3].

[2] U.S. Census Bureau. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. 2nd Quarter 2011 data. Includes at most one (primary) job per resident. http://onthemap.ces.census.gov/

[3] "Current Employment by Industry," Oregon Employment Department, OLMIS.

The Bend-Redmond Metropolitan Area's unemployment rate rose from 4.6 percent in 2006 to 14.7 percent in 2009, 5.4 points higher than the U.S. rate of 9.3 percent. By 2013 it had declined to 9.8 percent, 2.4 points higher than the U.S. at 7.4 percent[4].

The Oregon Employment Department offered this assessment of Deschutes County employment growth in September 2014:

> The bursting of the housing bubble and the Great Recession crippled Deschutes County's economy for years. The county lost nearly 11,400 jobs in a span of around four years. Approximately 16 percent of all nonfarm jobs disappeared, returning the county to employment levels last seen around 2004. In addition, home prices plummeted, shedding 47 percent of their value by the time the market bottomed out. Despite hopes for a quick recovery, it was the summer of 2012 before there was any sustained progress. However, recent economic indicators point towards an acceleration of the recovery in Deschutes County, now one of the fastest-growing economies in the West.[5]

Births

Between 2000 and 2007 the number of births to residents of the BLPSD grew steadily, peaking at 1,424. After 2007 the annual birth total declined, reaching a low point of 1,086 in 2012, which was the lowest number of births since 2002, and 24 percent below the 2007 peak. The number of births also peaked in 2007 and fell each year through 2012 statewide and nationally. In the U.S. and in Oregon, the post-2007 birth decline was over eight percent.[6] In 2013 births in the BLPSD began to increase; the year's total of 1,153 was 67 higher than in 2012 (Chart 2). The Pew Research Center's analysis of multiple economic and demographic data sources confirms the close correlation between the economic downturn and the nation's fertility downturn.[7] In

---

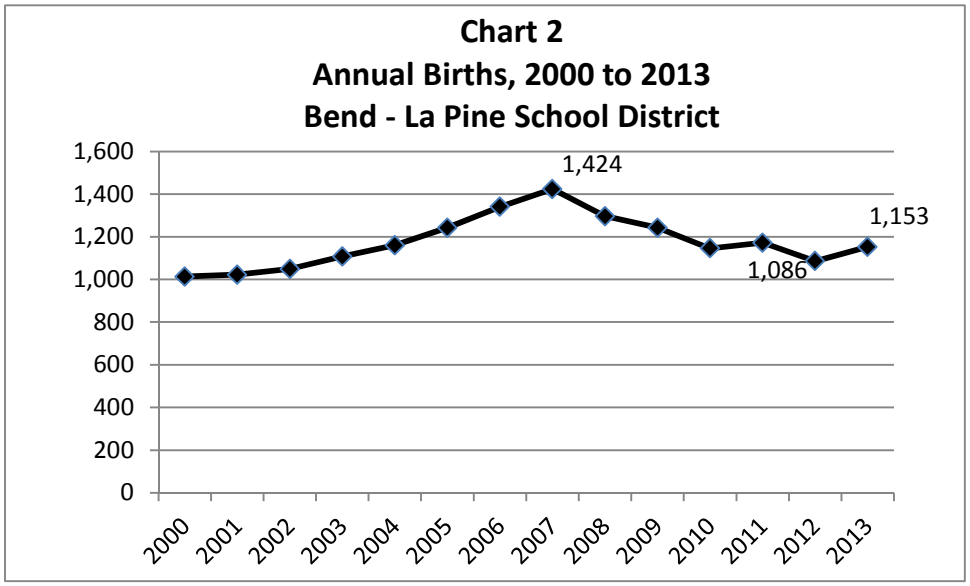
[4] "Labor Force Data," Oregon Employment Department, OLMIS. Average annual unemployment rate.

[5] "Long Awaited Recovery Kicking Into Overdrive in Deschutes County" Damon Runberg, Employment Department, OLMIS, September 22, 2014.

[6] "Births: Final Data for 2012." National Vital Statistics Report, Volume 62, Number 9, National Center for Health Statistics; *Oregon Vital Statistics Annual Report 2012 Volume 1*, Oregon Health Authority, Center for Health Statistics.

[7] "In a Down Economy, Fewer Births." Pew Research Center, Pew Social & Demographic Trends, October 2011. Also, "U.S. Birth Rate Falls to a Record Low; Decline Is Greatest Among Immigrants." Pew Research Center, Pew Social & Demographic Trends, November 2012.

the "Enrollment Forecasts" section of this report, we examine the relationship between births, migration, and subsequent school enrollments.



Housing Growth and Characteristics

During the 2000 to 2010 period the District added 17,317 housing units (45 percent growth), as shown in Table 4. The number of new households did not keep pace during the period, growing by 12,559 (40 percent).[8] There was a shift of four percentage points between the share of households with children and households without children: those with children declined from 34 to 30 percent while those without increased from to 66 to 70 percent.

The average number of persons per household in BLPSD decreased from 2.47 to 2.41 between 2000 and 2010.

[8] The difference is related to a decrease in occupancy rate from 83 percent in 2000 to 80 percent in 2010. Growth in seasonal units, as well as increases in the number of vacant homes for sale or rent or in foreclosure contributed to the decline in occupancy, as the housing market was struggling when the census was conducted, in April 2010. Detailed information is included on page B-5 of the appendix.

Table 4
Bend - La Pine School District
Housing and Household Characteristics, 2000 and 2010

	2000	2010	2000 to 2010 Change	
			Number	Percent
Housing Units	38,261	55,578	17,317	*45%*
Households	31,680	44,239	12,559	*40%*
Households with children under 18	10,702	13,351	2,649	*25%*
share of total	*34%*	*30%*		
Households with no children under 18	20,978	30,888	9,910	*47%*
share of total	*66%*	*70%*		
Household Population	78,383	106,515	28,132	*36%*
Persons per Household	2.47	2.41	-0.07	*-3%*

Source: U.S. Census Bureau, 2000 and 2010 Censuses; data aggregated to RSD boundary by Population Research Center, PSU.

New construction of homes in BLPSD varied considerably during the years 1999 through 2013. Ninety percent of construction took place during the 10 years from 1999 to 2008, with just ten percent occurring during the five years from 2009 to 2013. Overall, about three-quarters of home construction took place in Bend, with the remaining quarter in La Pine and unincorporated Deschutes County.

Table 5
Homes Built Within Bend - La Pine S.D.*
1999 to 2013 by Jurisdiction

	Year Built (5 year periods)			
Jurisdiction	**1999 to 2003**	**2004 to 2008**	**2009 to 2013**	**15 Year Total**
City of Bend	*5,848*	*6,945*	*1,457*	***14,250***
City of La Pine	*54*	*316*	*11*	***381***
Unincorporated Area	*2,345*	*1,767*	*391*	***4,503***
District Total	***8,247***	***9,028***	***1,859***	***19,134***

**Note: Includes single family homes, manufactured homes, and units in 2, 3, and 4-plexes. Does not include units in apartment buildings with 5 or more units per structure.*

Source: Data compiled by PRC, using geographic shape files and attribute data from Deschutes County GIS, April 2014. Housing unit counts determined by PSU-PRC using the "stat class" field in the taxlot database.

Recent building permit data, shown in Table 6, reveal a steep decline beginning in 2006, following a period of accelerated residential development. This decline in permits bottomed out in 2009. The housing recovery was sluggish for a few years but began to show signs of life in 2012. However, permit activity remains much lower than pre-recession levels. For example, permits for single family units in the City of Bend reached 782 in 2013, but this was only 38 percent of what they had been in 2005 (Chart 3). If permit activity continues at its current pace in 2014 it will show a modest increase over the 2013 level.

Table 6

Housing Units Authorized by Building Permits

City of Bend, City of Redmond, and Deschutes County

	City of Bend		City of La Pine		Unincorporated Deschutes County**	
Year Permit Issued	Single Family	Multiple Family	Single Family	Multiple Family	Single Family	Multiple Family
2005	2048	526			935	12
2006	1518	162			942	8
2007	759	149			476	
2008	274	511			228	
2009	128	0	1	26	123	
2010	204	6	4		94	
2011	287	2	1		117	
2012	503	6	1	26	155	
2013	782	116	1		294	
2014 (Jan-Sep*)	623	10			200	

Source: U.S. Census Bureau, Residential Construction Branch, City of Bend, City of La Pine, Deschutes County
**Unincorporated Deschutes County (Jan-Aug)*

***Includes all of unincorporated Deschutes County. in 2012-13 56% of these permits were within BLPSD*

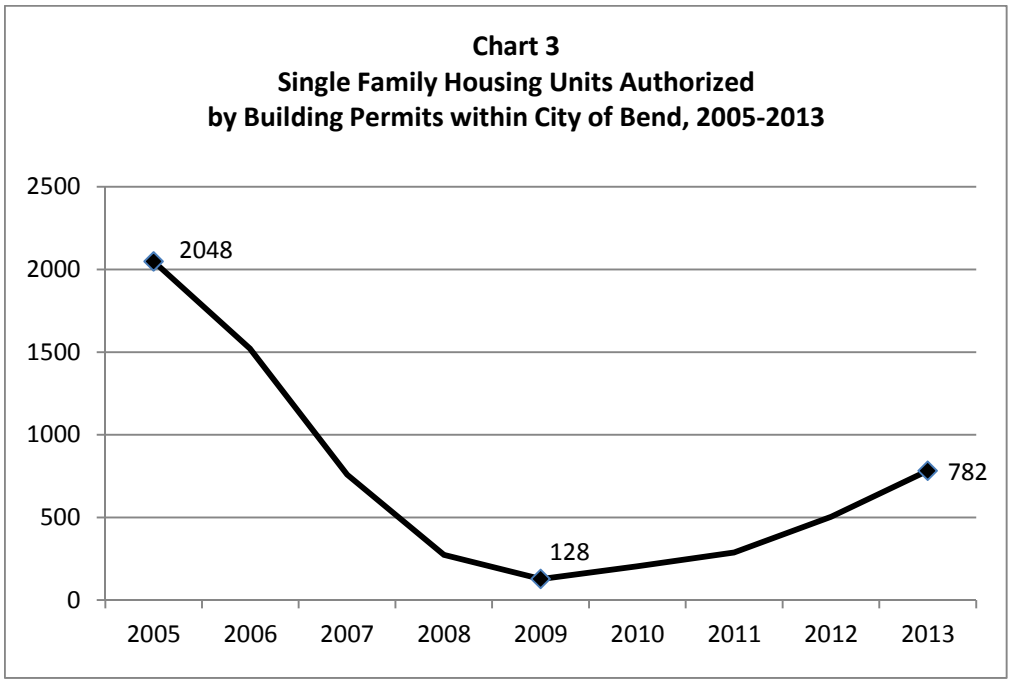


Chart 3
Single Family Housing Units Authorized
by Building Permits within City of Bend, 2005-2013
2500
2000
1500
1000
500
0
2048
128
782
2005
2006
2007
2008
2009
2010
2011
2012
2013

ENROLLMENT TRENDS

Table 7 summarizes the enrollment history for the District by grade level annually for the past 10 years, from 2004-05 to 2014-15.

Total enrollment in the Bend – La Pine School District increased in nine of the 10 years since 2004-05, with the exception being 2009-10 (Table 7). However, growth each year since 2007-08 has been consistently lower than in each of the three years between 2004-05 and 2007-08, reflecting lower migration levels during the recession and slow recovery. While overall K-12 enrollment grew by 300 students (1.8 percent) between Fall 2013 and Fall 2014, kindergarten enrollment fell by 83 students, consistent with the downturn in births five years earlier.

The figures at the bottom of Table 7 summarize growth by elementary, middle and high school grade level groups for five and 10 year periods. The "5 Year Change" for 2004-05 to 2009-10 shows that both elementary (K-5th) and high school (9th-12th) grade level groups grew by 12 percent, adding 750 and 545 students, respectively. Middle school (6th-8th) grades added 236 students during this first five year period, a seven percent change. The overall K-12 growth was 1,531 students (11 percent).

The second "5 Year Change" section is for 2009-10 to 2014-15. Growth in elementary (846 students, 12 percent) and middle school (222 students, six percent) grades was similar to the previous five year period, while high school enrollment growth (261 students, five percent) slowed to less than half of the growth observed in the previous period. The overall K-12 growth between 2009-10 and 2014-15 was 1,329 students (eight percent).

The "10 Year Change" section at the bottom of Table 7 summarizes grade level groups for the entire period. Total growth was 20 percent, with the largest increase (1,596 students, 26 percent) for elementary grades. Middle School grades gained 458 students (13 percent), while high school grades gained 806 students (17 percent).

Table 7

Bend - La Pine School District, Enrollment History, 2004-05 to 2014-15

Grade	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
K	985	1,036	1,060	1,115	1,133	1,133	1,150	1,209	1,260	1,253	1,170
1	1,032	1,076	1,130	1,171	1,181	1,196	1,231	1,206	1,269	1,314	1,331
2	1,062	1,051	1,094	1,156	1,152	1,171	1,218	1,250	1,243	1,319	1,385
3	1,052	1,125	1,118	1,160	1,175	1,142	1,213	1,246	1,268	1,258	1,341
4	1,057	1,085	1,162	1,166	1,167	1,182	1,196	1,215	1,278	1,290	1,288
5	1,050	1,118	1,133	1,203	1,198	1,164	1,214	1,180	1,223	1,300	1,319
6	1,090	1,049	1,174	1,178	1,218	1,214	1,215	1,238	1,219	1,263	1,319
7	1,112	1,102	1,098	1,205	1,193	1,220	1,231	1,214	1,286	1,244	1,300
8	1,209	1,094	1,171	1,158	1,229	1,213	1,237	1,218	1,242	1,284	1,250
9	1,241	1,399	1,310	1,324	1,358	1,369	1,345	1,390	1,313	1,350	1,374
10	1,201	1,256	1,377	1,387	1,314	1,327	1,369	1,315	1,328	1,389	1,339
11	1,180	1,195	1,341	1,394	1,349	1,259	1,296	1,335	1,263	1,329	1,377
12	1,032	1,099	1,162	1,220	1,284	1,244	1,246	1,284	1,408	1,270	1,370
Total	**14,303**	**14,685**	**15,330**	**15,837**	**15,951**	**15,834**	**16,161**	**16,300**	**16,600**	**16,863**	**17,163**
Annual		*382*	*645*	*507*	*114*	*-117*	*327*	*139*	*300*	*263*	*300*
change		*2.7%*	*4.4%*	*3.3%*	*0.7%*	*-0.7%*	*2.1%*	*0.9%*	*1.8%*	*1.6%*	*1.8%*
K-5	6,238	6,491	6,697	6,971	7,006	6,988	7,222	7,306	7,541	7,734	7,834
6-8	3,411	3,245	3,443	3,541	3,640	3,647	3,683	3,670	3,747	3,791	3,869
9-12	4,654	4,949	5,190	5,325	5,305	5,199	5,256	5,324	5,312	5,338	5,460

	5 Year Change: 2004-05 to 2009-10		5 Year Change: 2009-10 to 2014-15		10 Year Change: 2004-05 to 2014-15	
	Change	**Pct.**	**Change**	**Pct.**	**Change**	**Pct.**
K-5	750	*12%*	846	*12%*	1,596	*26%*
6-8	236	*7%*	222	*6%*	458	*13%*
9-12	545	*12%*	261	*5%*	806	*17%*
Total	**1,531**	***11%***	**1,329**	***8%***	**2,860**	***20%***

Source: Bend-La Pine School District

Private and Home School Enrollment and District "Capture Rate"

Generally, the best source for private school enrollment by residence is census data. The 2000 Census and the more recent American Community Survey (ACS) included questions about school enrollment by level and by type (public or private). In 2000, 8.8 percent of 1st-12th grade students living in BLPSD were enrolled in private schools. The ACS estimate from surveys conducted from 2011 to 2013 shows that 6.4 percent of BLPSD 1st-12th grade students are enrolled in private schools. However, the ACS has a smaller sample size than the census long form, with larger margins of error[9].

Another difference between BLPSD enrollment and child population can be attributed to home schooling. Home schooled students living in the District are required to register with the High Desert Education Service District (HDESD), though the statistics kept by the HDESD are not precise because students who move out of the area are not required to drop their registration. Students who enroll in public schools after being registered as home schooled are dropped from the home school registry. In 2014 there were 599 BLPSD residents registered as home schooled.[10] This figure is close to the 611 home schooled students reported in 2009. The home schooled population accounts for less than four percent of total BLPSD school age residents.

For purposes of forecasting enrollment, the ratios of kindergarten and first grade public school enrollment to overall population in the corresponding ages are very important. These ratios are called "capture rates." Once a student is enrolled in the public schools in first grade it is very likely that they will continue to be enrolled in subsequent grades, unless their family moves out of the District. Comparing BLPSD kindergarten and 1st grade enrollment in 2009-10 and 2010-11 to the 2010 Census reveals BLPSD enrollment accounting for 83 percent of the kindergarten-age population and 88 percent of the 1st grade age population. That means that about 17 percent of kindergarten-age children and 12 percent of first grade age children were not enrolled in BLPSD schools. These children include students who were enrolled in private schools or charter schools, net transfers to and from other public school districts, home schooled students, or children not yet attending school, since school is not compulsory until age seven.

---

[9] U.S. Census Bureau 2000 Census, Summary File 1, Table P36, and 2011-2013 American Community Survey, Table C14002. The margin of error of the ACS estimate at the 90 percent confidence level is plus or minus 2.3 percent.

[10] Correspondence from Sally West, Home School Coordinator, High Desert Education Service District.

ENROLLMENT FORECASTS

Potential Residential Development

The district-wide enrollment forecasts are not explicitly linked to housing forecasts. In a large area such as BLPSD, population growth drives housing demand; new housing has limited potential to create population growth on its own. Therefore, future enrollments in the *cohort-component model* are primarily a function of births, migration, and capture rates, and not a function of future housing stock.

A different type of model, called a *housing model*, may be more useful for a smaller area in which the number and characteristics of new housing units are known. A 2010 study prepared by PRC found that there was about one BLPSD student residing in every three single family houses built within the previous decade, 34 students per 100 new houses. Half of the students were in elementary grades; for every 100 new houses there were 17 elementary students. Older houses were home to fewer students, on average, due to families aging in place.[11] The student generation rates include seasonal homes and communities composed of many childless retired persons. Family-oriented communities may have much higher rates. Therefore, it is best to measure the number of students in similar developments if the characteristics and target market of a new development are known.

Cities are expected to have a 20 year supply of residential land within their Urban Growth Boundary (UGB). Therefore, the enrollment forecasts are not constrained by the supply of residential land. Our expectation is that if the population forecast exceeds the capacity of current developable land, most of which lies within the Bend UGB, the UGB will be expanded. Very little growth has occurred since 2000, or is likely to occur in the future, outside of the Bend or La Pine UGBs. A Bend UGB buildable lands inventory is currently being developed as part of the Urban Growth Boundary Remand, and UGB expansion scenarios and a proposal will be developed in 2015. The City's 2028

[11] See tables 9 and 10 in "Bend-La Pine School District: Population and Enrollment Forecasts 2010-11 to 2030-31." Portland State University, Population Research Center, March 2010. Retrieved at http://pdxscholar.library.pdx.edu/enrollmentforecasts/7/.

population forecast of "over 115,000 residents" is compatible with our BLPSD district-wide population forecast for 2030, described later in this section.[12]

District-wide Long-range Forecast Methodology

To ensure that enrollment forecasts are consistent with the dynamics of likely population growth within the District, we combine the grade progression enrollment model with a demographic cohort-component model used to forecast population for the District by age and sex. The components of population change are births, deaths, and migration. Using age-specific fertility rates, age-sex specific mortality rates, age-sex specific migration rates, estimates of recent net migration levels, and forecasts of future migration levels, each component is applied to the base year population in a manner that simulates the actual dynamics of population change.

The 2000 and 2010 Census results were used as a baseline for the population forecasts. By "surviving" the 2000 population and 2000s births (estimating the population in each age group that would survive to the year 2010) and comparing the "survived" population to the actual 2010 population by age group, we were able to estimate the overall level of net migration between 2000 and 2010 as well as net migration by gender and age cohort. The net migration data was used to develop initial net migration rates, which were used as a baseline for rates used to forecast net migration for the 2010 to 2040 period.

We estimated the number of births to women residing within the District each year from 2000 to 2013, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers is used to calculate fertility rates by age group for both 2000 and 2010.

State and national long term trends indicate declining fertility rates for women under 30 and increasing rates for women 30 and over, but fertility rates in 2010 were unusually low due to the

[12] City of Bend, Urban Growth Boundary Remand, Project Summary. Retrieved at http://bendoregon.gov/Modules/ShowDocument.aspx?documentid=17594.

poor economy. Birth totals fell more than eight percent in the U.S. and Oregon between 2007 and 2011, and remained near their 2011 level in both 2012 and 2013.[13]

Table 8 shows historic births estimated from 2000 to 2013 as well as the middle scenario of forecasted births from 2014 through 2029, the period that will have an impact on the enrollment forecasts presented in this study.

Table 8
Estimated and Forecast Births
Bend - La Pine School District

Year	Births	Year	Births
2000	1,013	2015 (forecast)	1,284
2001	1,022	2016 (forecast)	1,314
2002	1,049	2017 (forecast)	1,344
2003	1,108	2018 (forecast)	1,373
2004	1,160	2019 (forecast)	1,403
2005	1,243	2020 (forecast)	1,433
2006	1,341	2021 (forecast)	1,453
2007	1,424	2022 (forecast)	1,474
2008	1,297	2023 (forecast)	1,494
2009	1,243	2024 (forecast)	1,514
2010	1,146	2025 (forecast)	1,535
2011	1,172	2026 (forecast)	1,555
2012	1,086	2027 (forecast)	1,575
2013	1,153	2028 (forecast)	1,596
2014 (forecast)	1,254	2029 (forecast)	1,616

Source: 2000-2013 birth data from Oregon Center for Health Statistics allocated to BLPSD boundary by PSU-PRC. 2014-2029 forecasts, PSU-PRC.

The total fertility rate (TFR) is an estimate of the number of children that would be born to the average woman during her child-bearing years based on age-specific fertility rates observed at a given time. The estimated TFR for the District fell from 1.95 in 2000 to 1.67 in 2010.

[13] *Births: Preliminary Data for* 2013. National Center for Health Statistics, National Vital Statistics Reports, Volume 63, Number 2. *Oregon Birth Data,* Oregon Health Authority, Center for Health Statistics.

In these forecasts we assume that TFR will remain at 1.67 in 2020, based upon these factors:

- Fertility rates for women under age 25 are adjusted down by 15% by 2020, reflecting long-term trends as well as the growing college population due to expansion of OSU Cascades.

- Fertility rates for women age 25 to 34 are adjusted up by 5% by 2020, because 2010 still represented unusually low rates due to the poor economy.

- Fertility rates for women age 35 and older are adjusted up by 10% by 2020, reflecting long-term trends.

The net result of the changes is that the TFR remains at 1.67.

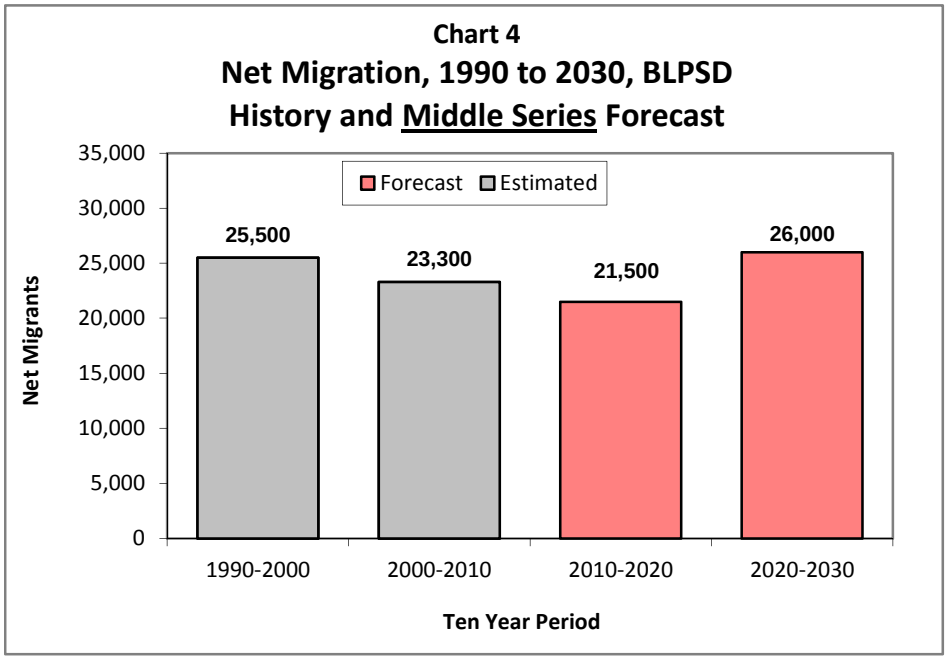
Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in BLPSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District's enrollment. If there is evidence that capture rates have changed since the time of the census, they may be adjusted in the forecast. Due to the upcoming transition to universal full day kindergarten, we assume that the kindergarten capture rate will increase slightly, to 86 percent. The first grade capture rate remains at 88 percent throughout the forecast horizon.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District's population. Once the students are in first grade, a set of baseline grade progression rates (GPRs) are used to move students from one grade to the next. Grade progression rates are the ratio of enrollment in an individual grade to enrollment in the previous grade the previous year. Baseline rates, usually 1.00 for elementary grades, represent a scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration levels of the overall population by single years of age.

Population Forecast – Middle Scenario

Chart 4 shows the 1990 to 2010 estimates and 2010 to 2030 Middle Series forecasts of BLPSD population growth attributable to net migration.

The District added 27,925 residents in the 2000s. Most of the increase was due to positive net migration (more people moving in than moving out) of around 23,300 persons, slightly lower than the 1990-2000 net inflow. Natural increase (births minus deaths) accounted for the remainder of residents added. Growth due to net migration is forecast to be lower in 2010 to 2020 than in the 2000 to 2010 period, and then move higher in the 2020 to 2030 period.



The district-wide population forecast by age group is presented in Table 9. Our middle series forecast for 2030 population in the BLPSD is 154,996, an increase of 47,607 persons from the 2010 Census (1.9 percent average annual growth). School-age population (5 to 17) is forecast to increase at a slower growth rate than overall population. The 4,895 person growth in school-age population in the period between 2010 and 2030 amounts to 1.2 percent annual average growth rate.

By 2030, the fastest growing age groups are the "baby boom" generation that will be in its 70s and 80s. Population age 65 and older is forecast to account for about 36 percent of the District's growth between 2010 and 2030.

Table 9

Population by Age Group, History and Middle Series Forecast

Bend-LaPine School District, 2000 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change	
					Number	Percent
Under Age 5	4,961	6,595	6,784	8,119	1,524	*23%*
Age 5 to 9	5,287	6,778	7,033	8,439	1,661	*25%*
Age 10 to 14	5,749	6,796	8,447	8,837	2,041	*30%*
Age 15 to 17	3,392	4,028	5,051	5,221	1,193	*30%*
Age 18 to 19	2,013	2,390	2,763	3,013	623	*26%*
Age 20 to 24	4,655	5,970	7,176	9,237	3,267	*55%*
Age 25 to 29	5,320	7,104	7,693	9,418	2,314	*33%*
Age 30 to 34	5,312	7,238	8,128	9,942	2,704	*37%*
Age 35 to 39	5,969	7,497	9,012	9,959	2,462	*33%*
Age 40 to 44	6,612	7,370	9,021	10,299	2,929	*40%*
Age 45 to 49	6,671	7,551	8,828	10,658	3,107	*41%*
Age 50 to 54	5,746	7,910	8,321	10,200	2,290	*29%*
Age 55 to 59	4,146	7,777	8,345	9,752	1,975	*25%*
Age 60 to 64	3,379	7,117	8,954	9,590	2,473	*35%*
Age 65 to 69	2,932	5,227	8,482	9,177	3,950	*76%*
Age 70 to 74	2,643	3,570	6,858	8,505	4,935	*138%*
Age 75 to 79	2,116	2,515	4,254	6,797	4,282	*170%*
Age 80 to 84	1,397	1,954	2,493	4,664	2,710	*139%*
Age 85 and over	1,164	2,002	2,229	3,169	1,167	*58%*
Total Population	**79,464**	**107,389**	**129,872**	**154,996**	**47,607**	***44%***
Total age 5 to 17	14,428	17,602	20,531	22,497	4,895	*28%*
share age 5 to 17	*18.2%*	*16.4%*	*15.8%*	*14.5%*		

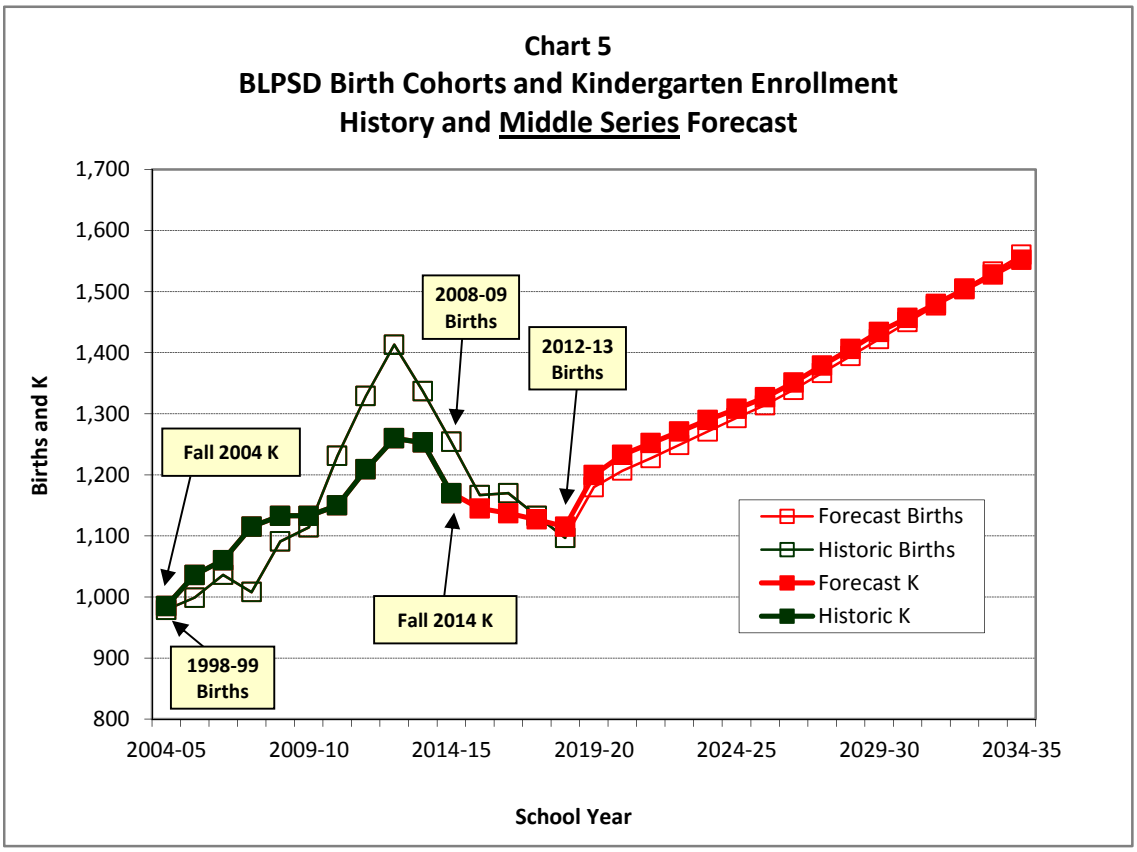
		2000-2010	2010-2020	2020-2030
Population Change		**27,925**	**22,483**	**25,124**
Percent		*35%*	*21%*	*19%*
Average Annual		*3.1%*	*1.9%*	*1.8%*

Source: U.S. Census Bureau, 2000 and 2010 Censuses; data aggregated to BLPSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

District-wide Enrollment Forecast

Chart 5 compares the historic and forecast number of births in the District with the historic and forecast number of BLPSD kindergarten students. Births correspond to kindergarten cohorts (September to August). Although many children move into and out of the District between birth and age five, and not all District residents attend BLPSD kindergartens, the trend in kindergarten enrollment has generally followed the trend in the birth cohort.

Because of the recent downturn in births incoming kindergarten classes for the next four years are expected to be smaller than the size of the Fall 2014 class. In 2013-14 births increased, and this increase is forecast to continue throughout the forecast horizon, as the population of young adults increases. The birth increase as well as positive net migration of young families into the District will result in increasing kindergarten enrollments beginning in 2019-20.



The three columns in Table 10 present: 1) the average GPRs calculated from district-wide enrollments over the most recent 10 years, 2) our "baseline" assumption of what future GPRs would be if there were no enrollment change due to migration, and 3) the average GPRs calculated from the forecast enrollments. Because baseline rates for elementary and middle grades are close to 1.00, the historic GPRs of 1.02 or 1.03 for grade transitions 1-2 through 7-8 indicate a two or three percent growth rate in these grade transitions attributable to migration. Forecast rates are similar to historic rates, with the exceptions of 8-9 and 11-12, which reflect the most recent trends of smaller net gains at the middle school to high school transition, and more retention at 12th grade.

Table 10

Grade Progression Rates[1]

BLPSD History and Forecast

Grade Transition	10 Year Average: 2004-05 to 2014-15	Baseline (without the influence of migration)	Forecast Average: 2014-15 to 2034-35
K-1	1.07	--[2]	1.05
1-2	1.02	1.01	1.04
2-3	1.03	1.00	1.03
3-4	1.02	1.00	1.03
4-5	1.02	0.99	1.02
5-6	1.03	1.01	1.03
6-7	1.02	1.00	1.02
7-8	1.02	0.99	1.01
8-9	1.11	1.05	1.07
9-10	0.99	0.98	0.99
10-11	0.99	0.96	0.97
11-12	0.98	1.03	1.04

1. Ratio of enrollment in an individual grade to enrollment in the previous grade the previous year.

2. The enrollment forecast model uses capture rates for first grade; K-1 baseline GPRs are not used.

Table 11 (pages 27-28) contains annual detail of the Middle Series enrollment forecast by grade level, and five, ten, fifteen, and twenty year summaries by school grade level groups. In the first increment, 2014-15 to 2019-20, elementary (K-5th) enrollment declines slightly, while secondary enrollment experiences significant growth. After 2019-20, elementary growth resumes, at levels only slightly lower than in the most recent 10 years, from 2004-05 to 2014-15.

Over the entire 20 year forecast period, the District adds 4,679 students (27 percent), including 1,916 (24 percent) in elementary grades, 1,177 (30 percent) in middle school grades, and 1,586 (29 percent) in high school grades.

High and low alternative forecasts are presented in Appendix A. In the high and low series, capture rate and fertility assumptions are unchanged from the middle series; differences are due to adjustments in future migration assumptions.

Table 11 (continued on next page)

Bend - La Pine School District, Middle Series Enrollment Forecasts, 2015-16 to 2034-35

	Actual	Forecast									
Grade	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
K	1,170	1,145	1,137	1,127	1,115	1,200	1,233	1,252	1,271	1,290	1,308
1	1,331	1,250	1,211	1,201	1,190	1,175	1,263	1,297	1,318	1,338	1,358
2	1,385	1,384	1,303	1,263	1,252	1,238	1,221	1,312	1,348	1,369	1,390
3	1,341	1,426	1,429	1,345	1,304	1,289	1,274	1,256	1,350	1,387	1,408
4	1,288	1,379	1,471	1,474	1,387	1,341	1,325	1,309	1,291	1,387	1,425
5	1,319	1,310	1,405	1,499	1,502	1,410	1,362	1,346	1,330	1,312	1,409
6	1,319	1,366	1,359	1,458	1,555	1,555	1,459	1,409	1,393	1,376	1,357
7	1,300	1,350	1,401	1,393	1,495	1,591	1,590	1,492	1,441	1,424	1,407
8	1,250	1,316	1,369	1,421	1,413	1,513	1,610	1,609	1,509	1,458	1,441
9	1,374	1,340	1,413	1,470	1,525	1,514	1,620	1,724	1,723	1,616	1,561
10	1,339	1,391	1,359	1,432	1,489	1,541	1,530	1,635	1,739	1,738	1,631
11	1,377	1,365	1,417	1,386	1,457	1,511	1,561	1,550	1,653	1,754	1,753
12	1,370	1,389	1,378	1,433	1,400	1,473	1,528	1,581	1,569	1,677	1,782
Total	**17,163**	**17,411**	**17,652**	**17,902**	**18,084**	**18,351**	**18,576**	**18,772**	**18,935**	**19,126**	**19,230**
Annual		*248*	*241*	*250*	*182*	*267*	*225*	*196*	*163*	*191*	*104*
change		*1.4%*	*1.4%*	*1.4%*	*1.0%*	*1.5%*	*1.2%*	*1.1%*	*0.9%*	*1.0%*	*0.5%*
K-5	7,834	7,894	7,956	7,909	7,750	7,653	7,678	7,772	7,908	8,083	8,298
6-8	3,869	4,032	4,129	4,272	4,463	4,659	4,659	4,510	4,343	4,258	4,205
9-12	5,460	5,485	5,567	5,721	5,871	6,039	6,239	6,490	6,684	6,785	6,727

	5 Year Change: 2014-15 to 2019-20		**10 Year Change: 2014-15 to 2024-25**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	-181	*-2%*	464	*6%*
6-8	790	*20%*	336	*9%*
9-12	579	*11%*	1,267	*23%*
Total	**1,188**	***7%***	**2,067**	***11%***

Population Research Center, Portland State University, November 2014

Table 11 (continued from previous page)

Bend - La Pine School District, Middle Series Enrollment Forecasts, 2015-16 to 2034-35

	Forecast									
Grade	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
K	1,327	1,351	1,379	1,406	1,434	1,457	1,480	1,504	1,528	1,552
1	1,376	1,397	1,422	1,451	1,480	1,504	1,528	1,552	1,578	1,603
2	1,411	1,430	1,451	1,477	1,508	1,532	1,557	1,582	1,607	1,634
3	1,430	1,452	1,471	1,493	1,519	1,546	1,570	1,596	1,621	1,647
4	1,447	1,470	1,492	1,512	1,534	1,555	1,583	1,608	1,634	1,660
5	1,448	1,470	1,493	1,516	1,536	1,553	1,574	1,603	1,628	1,654
6	1,458	1,498	1,521	1,545	1,568	1,585	1,603	1,625	1,655	1,680
7	1,388	1,491	1,532	1,555	1,580	1,601	1,618	1,637	1,659	1,690
8	1,423	1,404	1,508	1,550	1,573	1,596	1,617	1,635	1,654	1,676
9	1,543	1,524	1,504	1,615	1,660	1,683	1,707	1,729	1,749	1,769
10	1,577	1,559	1,540	1,520	1,630	1,673	1,696	1,720	1,742	1,762
11	1,649	1,596	1,579	1,560	1,541	1,646	1,688	1,710	1,734	1,755
12	1,781	1,673	1,617	1,599	1,580	1,558	1,668	1,712	1,735	1,760
Total	**19,258**	**19,315**	**19,509**	**19,799**	**20,143**	**20,489**	**20,889**	**21,213**	**21,524**	**21,842**
Annual	*28*	*57*	*194*	*290*	*344*	*346*	*400*	*324*	*311*	*318*
change	*0.1%*	*0.3%*	*1.0%*	*1.5%*	*1.7%*	*1.7%*	*2.0%*	*1.6%*	*1.5%*	*1.5%*
K-5	8,439	8,570	8,708	8,855	9,011	9,147	9,292	9,445	9,596	9,750
6-8	4,269	4,393	4,561	4,650	4,721	4,782	4,838	4,897	4,968	5,046
9-12	6,550	6,352	6,240	6,294	6,411	6,560	6,759	6,871	6,960	7,046

	15 Year Change: 2014-15 to 2029-30		**20 Year Change: 2014-15 to 2034-35**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	1,177	*15%*	1,916	*24%*
6-8	852	*22%*	1,177	*30%*
9-12	951	*17%*	1,586	*29%*
Total	**2,980**	***17%***	**4,679**	***27%***

Population Research Center, Portland State University, November 2014

FORECAST ERROR AND UNCERTAINTY

The best way to measure potential forecast error is to compare actual enrollments with previous forecasts that were conducted using similar data and methodologies. In Table 12, actual BLPSD enrollment by grade level in Fall 2014 is compared with the 2014-15 forecasts that were prepared three years earlier, in February 2012, as well as those prepared five years earlier, in December 2009. High and low alternative forecasts were not prepared in these previous studies.

The K-12 district-wide forecast prepared in February 2012 was 235 students (1.4 percent) higher than actual enrollment in Fall 2014. Most of the difference was due to incoming 9th grade classes being smaller than forecast for two consecutive years, resulting in large errors for 9th and 10th grade. Elementary and middle school forecasts were within three percent of actual enrollments at each grade. The forecast prepared in December 2009 was 449 students (2.6 percent) lower than actual K-12 enrollment in Fall 2014. As a measure of average error for grade levels, the mean absolute percentage error (MAPE) is included in the tables.

Table 12

Fall 2014 Enrollment Compared to Previous Forecasts

Grade	2014-15 Actual Enroll.	2014-15 Enrollment Forecasts: Base year 2011-12 (3 yr.)[1] Fcst.	Diff.	Error	Base year 2009-10 (5 yr.)[2] Fcst.	Diff.	Error
K	1,170	1,201	31	*2.6%*	1,213	43	*3.7%*
1	1,331	1,323	-8	*-0.6%*	1,255	-76	*-5.7%*
2	1,385	1,340	-45	*-3.2%*	1,248	-137	*-9.9%*
3	1,341	1,346	5	*0.4%*	1,287	-54	*-4.0%*
4	1,288	1,301	13	*1.0%*	1,285	-3	*-0.2%*
5	1,319	1,358	39	*3.0%*	1,288	-31	*-2.4%*
6	1,319	1,343	24	*1.8%*	1,296	-23	*-1.7%*
7	1,300	1,300	0	*0.0%*	1,281	-19	*-1.5%*
8	1,250	1,263	13	*1.0%*	1,242	-8	*-0.6%*
9	1,374	1,492	118	*8.6%*	1,425	51	*3.7%*
10	1,339	1,430	91	*6.8%*	1,359	20	*1.5%*
11	1,377	1,387	10	*0.7%*	1,338	-39	*-2.8%*
12	1,370	1,314	-56	*-4.1%*	1,206	-164	*-12.0%*
Total	**17,163**	**17,398**	**235**	***1.4%***	**16,723**	**-440**	***-2.6%***
Mean Absolute Pct. Error				***2.6%***			***3.8%***

1. Forecast for 2014-15 by PSU-PRC, baseline 2011-12 enrollment, February 2012.

2. Forecast for 2014-15 by PSU-PRC, baseline 2009-10 enrollment, December 2009.

APPENDIX A

LOW AND HIGH SERIES FORECASTS

BLPSD requested a range of three forecasts (low, middle and high) for the District's enrollment. The report itself includes the middle forecast; the low and high forecasts are in this appendix. They are largely based upon different assumptions regarding migration levels: low and high series net migration charts are included here as well.

Table A-1 (continued on next page)

Bend - La Pine School District, Low Series Enrollment Forecasts, 2015-16 to 2034-35

	Actual	Forecast									
Grade	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
K	1,170	1,120	1,103	1,086	1,065	1,148	1,169	1,181	1,195	1,207	1,218
1	1,331	1,238	1,177	1,158	1,137	1,116	1,204	1,225	1,239	1,253	1,265
2	1,385	1,366	1,283	1,219	1,197	1,175	1,155	1,246	1,268	1,282	1,297
3	1,341	1,408	1,401	1,316	1,247	1,225	1,204	1,184	1,277	1,299	1,314
4	1,288	1,362	1,443	1,436	1,346	1,275	1,254	1,233	1,212	1,307	1,330
5	1,319	1,294	1,380	1,462	1,452	1,361	1,290	1,269	1,248	1,227	1,323
6	1,319	1,350	1,335	1,424	1,506	1,495	1,406	1,333	1,311	1,289	1,267
7	1,300	1,336	1,377	1,362	1,450	1,533	1,529	1,438	1,363	1,341	1,318
8	1,250	1,303	1,348	1,389	1,372	1,461	1,551	1,547	1,455	1,379	1,357
9	1,374	1,329	1,393	1,441	1,483	1,465	1,565	1,661	1,656	1,559	1,477
10	1,339	1,379	1,340	1,403	1,449	1,491	1,477	1,576	1,671	1,666	1,570
11	1,377	1,352	1,394	1,356	1,416	1,461	1,505	1,492	1,588	1,680	1,675
12	1,370	1,375	1,353	1,396	1,356	1,418	1,469	1,515	1,501	1,601	1,697
Total	**17,163**	**17,212**	**17,327**	**17,448**	**17,476**	**17,624**	**17,778**	**17,900**	**17,984**	**18,090**	**18,108**
Annual		*49*	*115*	*121*	*28*	*148*	*154*	*122*	*84*	*106*	*18*
change		*0.3%*	*0.7%*	*0.7%*	*0.2%*	*0.8%*	*0.9%*	*0.7%*	*0.5%*	*0.6%*	*0.1%*
K-5	7,834	7,788	7,787	7,677	7,444	7,300	7,276	7,338	7,439	7,575	7,747
6-8	3,869	3,989	4,060	4,175	4,328	4,489	4,486	4,318	4,129	4,009	3,942
9-12	5,460	5,435	5,480	5,596	5,704	5,835	6,016	6,244	6,416	6,506	6,419

	5 Year Change: 2014-15 to 2019-20		**10 Year Change: 2014-15 to 2024-25**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	-534	*-7%*	-87	*-1%*
6-8	620	*16%*	73	*2%*
9-12	375	*7%*	959	*18%*
Total	**461**	***3%***	**945**	***5%***

Population Research Center, Portland State University, November 2014

Table A-1 (continued from previous page)

Bend - La Pine School District, Low Series Enrollment Forecasts, 2015-16 to 2034-35

	Forecast									
Grade	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
K	1,231	1,248	1,270	1,291	1,313	1,332	1,350	1,367	1,384	1,401
1	1,277	1,291	1,309	1,331	1,354	1,374	1,394	1,414	1,431	1,449
2	1,309	1,322	1,336	1,355	1,378	1,399	1,420	1,440	1,461	1,478
3	1,329	1,341	1,355	1,369	1,389	1,410	1,431	1,453	1,473	1,495
4	1,345	1,361	1,373	1,387	1,402	1,420	1,441	1,463	1,485	1,505
5	1,346	1,361	1,377	1,389	1,404	1,417	1,435	1,456	1,478	1,500
6	1,367	1,390	1,406	1,422	1,435	1,448	1,461	1,480	1,502	1,524
7	1,296	1,398	1,421	1,438	1,454	1,465	1,479	1,492	1,511	1,534
8	1,333	1,311	1,414	1,438	1,455	1,469	1,480	1,494	1,507	1,526
9	1,454	1,428	1,405	1,515	1,540	1,557	1,572	1,583	1,598	1,612
10	1,489	1,466	1,440	1,418	1,527	1,550	1,567	1,582	1,592	1,607
11	1,582	1,503	1,481	1,456	1,435	1,539	1,561	1,578	1,592	1,602
12	1,692	1,595	1,513	1,490	1,464	1,441	1,549	1,572	1,589	1,604
Total	**18,050**	**18,015**	**18,100**	**18,299**	**18,550**	**18,821**	**19,140**	**19,374**	**19,603**	**19,837**
Annual	*-58*	*-35*	*85*	*199*	*251*	*271*	*319*	*234*	*229*	*234*
change	*-0.3%*	*-0.2%*	*0.5%*	*1.1%*	*1.4%*	*1.5%*	*1.7%*	*1.2%*	*1.2%*	*1.2%*
K-5	7,837	7,924	8,020	8,122	8,240	8,352	8,471	8,593	8,712	8,828
6-8	3,996	4,099	4,241	4,298	4,344	4,382	4,420	4,466	4,520	4,584
9-12	6,217	5,992	5,839	5,879	5,966	6,087	6,249	6,315	6,371	6,425

	15 Year Change: 2014-15 to 2029-30		**20 Year Change: 2014-15 to 2034-35**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	406	*5%*	994	*13%*
6-8	475	*12%*	715	*18%*
9-12	506	*9%*	965	*18%*
Total	**1,387**	***8%***	**2,674**	***16%***

Population Research Center, Portland State University, November 2014

Table A-2 (continued on next page)

Bend - La Pine School District, High Series Enrollment Forecasts, 2015-16 to 2034-35

	Actual	Forecast									
Grade	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
K	1,170	1,172	1,171	1,168	1,162	1,248	1,294	1,321	1,345	1,369	1,393
1	1,331	1,277	1,247	1,245	1,238	1,219	1,319	1,367	1,395	1,421	1,446
2	1,385	1,402	1,341	1,309	1,304	1,296	1,271	1,375	1,425	1,454	1,482
3	1,341	1,444	1,458	1,394	1,357	1,352	1,338	1,312	1,419	1,471	1,501
4	1,288	1,396	1,499	1,514	1,443	1,405	1,394	1,380	1,353	1,463	1,517
5	1,319	1,325	1,432	1,538	1,549	1,476	1,432	1,421	1,406	1,379	1,491
6	1,319	1,381	1,383	1,495	1,602	1,613	1,532	1,486	1,475	1,459	1,431
7	1,300	1,364	1,424	1,426	1,538	1,648	1,654	1,571	1,524	1,513	1,496
8	1,250	1,329	1,392	1,453	1,451	1,565	1,672	1,678	1,594	1,546	1,535
9	1,374	1,356	1,439	1,507	1,569	1,567	1,685	1,800	1,806	1,716	1,664
10	1,339	1,410	1,389	1,473	1,538	1,600	1,593	1,711	1,826	1,832	1,742
11	1,377	1,377	1,445	1,424	1,504	1,568	1,625	1,618	1,733	1,846	1,851
12	1,370	1,402	1,400	1,471	1,447	1,531	1,594	1,654	1,647	1,767	1,885
Total	**17,163**	**17,635**	**18,020**	**18,417**	**18,702**	**19,088**	**19,403**	**19,694**	**19,948**	**20,236**	**20,434**
Annual		*472*	*385*	*397*	*285*	*386*	*315*	*291*	*254*	*288*	*198*
change		*2.8%*	*2.2%*	*2.2%*	*1.5%*	*2.1%*	*1.7%*	*1.5%*	*1.3%*	*1.4%*	*1.0%*
K-5	7,834	8,016	8,148	8,168	8,053	7,996	8,048	8,176	8,343	8,557	8,830
6-8	3,869	4,074	4,199	4,374	4,591	4,826	4,858	4,735	4,593	4,518	4,462
9-12	5,460	5,545	5,673	5,875	6,058	6,266	6,497	6,783	7,012	7,161	7,142

	5 Year Change: 2014-15 to 2019-20		**10 Year Change: 2014-15 to 2024-25**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	162	*2%*	996	*13%*
6-8	957	*25%*	593	*15%*
9-12	806	*15%*	1,682	*31%*
Total	**1,925**	***11%***	**3,271**	***17%***

Population Research Center, Portland State University, November 2014

Table A-2 (continued from previous page)

Bend - La Pine School District, High Series Enrollment Forecasts, 2015-16 to 2034-35

	Forecast									
Grade	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
K	1,418	1,447	1,479	1,512	1,545	1,571	1,600	1,630	1,660	1,690
1	1,472	1,498	1,528	1,563	1,597	1,626	1,654	1,683	1,715	1,747
2	1,508	1,535	1,562	1,593	1,630	1,659	1,689	1,718	1,748	1,782
3	1,530	1,557	1,585	1,612	1,644	1,676	1,706	1,737	1,767	1,798
4	1,548	1,578	1,606	1,634	1,662	1,689	1,722	1,753	1,785	1,816
5	1,546	1,578	1,608	1,637	1,665	1,688	1,715	1,749	1,780	1,813
6	1,547	1,604	1,638	1,669	1,699	1,724	1,748	1,776	1,811	1,843
7	1,468	1,587	1,645	1,680	1,712	1,740	1,766	1,790	1,819	1,855
8	1,518	1,489	1,610	1,669	1,705	1,735	1,763	1,789	1,814	1,843
9	1,652	1,634	1,603	1,733	1,796	1,833	1,865	1,895	1,923	1,950
10	1,690	1,678	1,660	1,629	1,759	1,821	1,858	1,890	1,920	1,948
11	1,763	1,712	1,701	1,683	1,653	1,778	1,839	1,875	1,906	1,936
12	1,891	1,798	1,745	1,733	1,715	1,682	1,813	1,877	1,914	1,947
Total	**20,551**	**20,695**	**20,970**	**21,347**	**21,782**	**22,222**	**22,738**	**23,162**	**23,562**	**23,968**
Annual	*117*	*144*	*275*	*377*	*435*	*440*	*516*	*424*	*400*	*406*
change	*0.6%*	*0.7%*	*1.3%*	*1.8%*	*2.0%*	*2.0%*	*2.3%*	*1.9%*	*1.7%*	*1.7%*
K-5	9,022	9,193	9,368	9,551	9,743	9,909	10,086	10,270	10,455	10,646
6-8	4,533	4,680	4,893	5,018	5,116	5,199	5,277	5,355	5,444	5,541
9-12	6,996	6,822	6,709	6,778	6,923	7,114	7,375	7,537	7,663	7,781

	15 Year Change: 2014-15 to 2029-30		**20 Year Change: 2014-15 to 2034-35**	
	Growth	**Pct.**	**Growth**	**Pct.**
K-5	1,909	*24%*	2,812	*36%*
6-8	1,247	*32%*	1,672	*43%*
9-12	1,463	*27%*	2,321	*43%*
Total	**4,619**	***27%***	**6,805**	***40%***

Population Research Center, Portland State University, November 2014

Table A-3
Historic and Forecast K-12 Enrollment
Low, Middle, and High Scenarios
Bend - La Pine School District

School Year	LOW		MIDDLE		HIGH	
	Enroll-ment	5 year growth	Enroll-ment	5 year growth	Enroll-ment	5 year growth
2004-05	14,303		14,303		14,303	
2009-10	15,834	1,531	15,834	1,531	15,834	1,531
2014-15	17,163	1,329	17,163	1,329	17,163	1,329
2019-20 (fcst.)	17,624	461	18,351	1,188	19,088	1,925
2024-25 (fcst.)	18,108	484	19,230	879	20,434	1,346
2029-30 (fcst.)	18,550	442	20,143	913	21,782	1,348
2034-35 (fcst.)	19,837	1,287	21,842	1,699	23,968	2,186
AAEG, 2014-15 to 2034-35*	*0.7%*		*1.2%*		*1.7%*	

**Note: Average Annual Enrollment Growth.*

Source: Historic enrollment, Bend - La Pine School District;
Enrollment forecasts, Population Research Center, PSU. November 2014.

Chart A-1
Net Migration, 1990 to 2030, BLPSD
History and Low Series Forecast

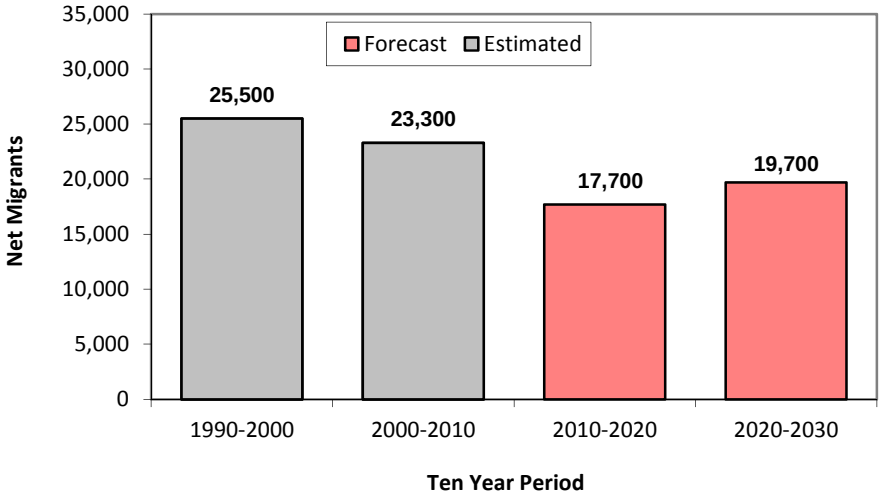
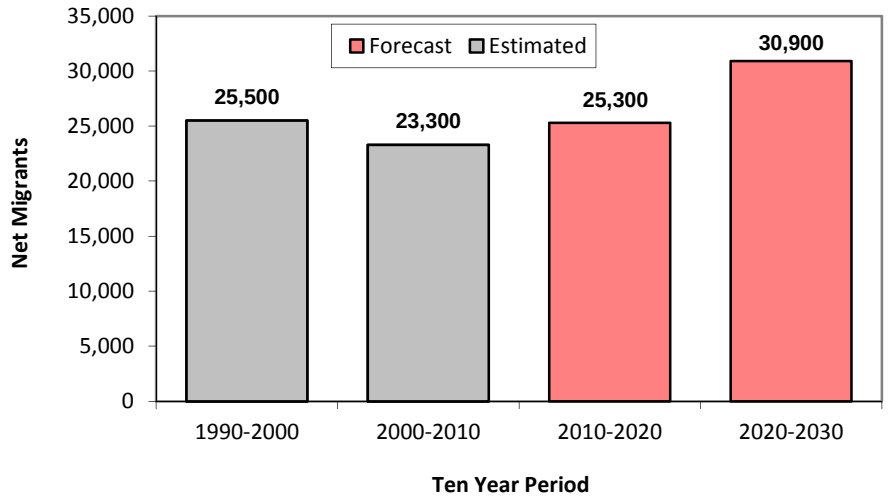


Chart A-2

Net Migration, 1990 to 2030, BLPSD
History and High Series Forecast



APPENDIX B

2000 AND 2010 CENSUS PROFILES

2000 and 2010 Census Profile

Bend-Lapine SD

Approximation based on census blocks

POPULATION	2000		2010		Change	
SEX AND AGE						
Total population	79,464	*100.0%*	107,389	*100.0%*	27,925	*35.1%*
Under 5 years	4,961	*6.2%*	6,595	*6.1%*	1,634	*32.9%*
5 to 9 years	5,287	*6.7%*	6,778	*6.3%*	1,491	*28.2%*
10 to 14 years	5,749	*7.2%*	6,796	*6.3%*	1,047	*18.2%*
15 to 19 years	5,405	*6.8%*	6,418	*6.0%*	1,013	*18.7%*
20 to 24 years	4,655	*5.9%*	5,970	*5.6%*	1,315	*28.2%*
25 to 29 years	5,320	*6.7%*	7,104	*6.6%*	1,784	*33.5%*
30 to 34 years	5,312	*6.7%*	7,238	*6.7%*	1,926	*36.3%*
35 to 39 years	5,969	*7.5%*	7,497	*7.0%*	1,528	*25.6%*
40 to 44 years	6,612	*8.3%*	7,370	*6.9%*	758	*11.5%*
45 to 49 years	6,671	*8.4%*	7,551	*7.0%*	880	*13.2%*
50 to 54 years	5,746	*7.2%*	7,910	*7.4%*	2,164	*37.7%*
55 to 59 years	4,146	*5.2%*	7,777	*7.2%*	3,631	*87.6%*
60 to 64 years	3,379	*4.3%*	7,117	*6.6%*	3,738	*110.6%*
65 to 69 years	2,932	*3.7%*	5,227	*4.9%*	2,295	*78.3%*
70 to 74 years	2,643	*3.3%*	3,570	*3.3%*	927	*35.1%*
75 to 79 years	2,116	*2.7%*	2,515	*2.3%*	399	*18.9%*
80 to 84 years	1,397	*1.8%*	1,954	*1.8%*	557	*39.9%*
85 years and over	1,164	*1.5%*	2,002	*1.9%*	838	*72.0%*
Median age (years)	37.5		39.5		2.0	
Under 18 years	19,389	*24.4%*	24,197	*22.5%*	4,808	*24.8%*
18 to 64 years	49,823	*62.7%*	67,924	*63.3%*	18,101	*36.3%*
65 years and over	10,252	*12.9%*	15,268	*14.2%*	5,016	*48.9%*
Male population	39,498	*100.0%*	53,166	*100.0%*	13,668	*34.6%*
Under 5 years	2,462	*6.2%*	3,385	*6.4%*	923	*37.5%*
5 to 9 years	2,664	*6.7%*	3,447	*6.5%*	783	*29.4%*
10 to 14 years	2,966	*7.5%*	3,465	*6.5%*	499	*16.8%*
15 to 19 years	2,775	*7.0%*	3,303	*6.2%*	528	*19.0%*
20 to 24 years	2,437	*6.2%*	3,065	*5.8%*	628	*25.8%*
25 to 29 years	2,807	*7.1%*	3,590	*6.8%*	783	*27.9%*
30 to 34 years	2,697	*6.8%*	3,658	*6.9%*	961	*35.6%*
35 to 39 years	2,958	*7.5%*	3,805	*7.2%*	847	*28.6%*
40 to 44 years	3,205	*8.1%*	3,693	*6.9%*	488	*15.2%*
45 to 49 years	3,272	*8.3%*	3,619	*6.8%*	347	*10.6%*
50 to 54 years	2,915	*7.4%*	3,820	*7.2%*	905	*31.0%*
55 to 59 years	2,031	*5.1%*	3,675	*6.9%*	1,644	*80.9%*
60 to 64 years	1,665	*4.2%*	3,523	*6.6%*	1,858	*111.6%*
65 to 69 years	1,426	*3.6%*	2,560	*4.8%*	1,134	*79.5%*
70 to 74 years	1,302	*3.3%*	1,829	*3.4%*	527	*40.5%*
75 to 79 years	944	*2.4%*	1,143	*2.1%*	199	*21.1%*
80 to 84 years	591	*1.5%*	883	*1.7%*	292	*49.4%*
85 years and over	381	*1.0%*	703	*1.3%*	322	*84.5%*

2000 and 2010 Census Profile

Bend-Lapine SD

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
Male population (continued)						
Median age (years)	36.6		38.5		1.9	
Under 18 years	9,841	*24.9%*	12,376	*23.3%*	2,535	*25.8%*
18 to 64 years	25,013	*63.3%*	33,672	*63.3%*	8,659	*34.6%*
65 years and over	4,644	*11.8%*	7,118	*13.4%*	2,474	*53.3%*
Female population	39,966	*100.0%*	54,223	*100.0%*	14,257	*35.7%*
Under 5 years	2,499	*6.3%*	3,210	*5.9%*	711	*28.5%*
5 to 9 years	2,623	*6.6%*	3,331	*6.1%*	708	*27.0%*
10 to 14 years	2,783	*7.0%*	3,331	*6.1%*	548	*19.7%*
15 to 19 years	2,630	*6.6%*	3,115	*5.7%*	485	*18.4%*
20 to 24 years	2,218	*5.5%*	2,905	*5.4%*	687	*31.0%*
25 to 29 years	2,513	*6.3%*	3,514	*6.5%*	1,001	*39.8%*
30 to 34 years	2,615	*6.5%*	3,580	*6.6%*	965	*36.9%*
35 to 39 years	3,011	*7.5%*	3,692	*6.8%*	681	*22.6%*
40 to 44 years	3,407	*8.5%*	3,677	*6.8%*	270	*7.9%*
45 to 49 years	3,399	*8.5%*	3,932	*7.3%*	533	*15.7%*
50 to 54 years	2,831	*7.1%*	4,090	*7.5%*	1,259	*44.5%*
55 to 59 years	2,115	*5.3%*	4,102	*7.6%*	1,987	*93.9%*
60 to 64 years	1,714	*4.3%*	3,594	*6.6%*	1,880	*109.7%*
65 to 69 years	1,506	*3.8%*	2,667	*4.9%*	1,161	*77.1%*
70 to 74 years	1,341	*3.4%*	1,741	*3.2%*	400	*29.8%*
75 to 79 years	1,172	*2.9%*	1,372	*2.5%*	200	*17.1%*
80 to 84 years	806	*2.0%*	1,071	*2.0%*	265	*32.9%*
85 years and over	783	*2.0%*	1,299	*2.4%*	516	*65.9%*
Median age (years)	38.5		40.6		2.1	
Under 18 years	9,548	*23.9%*	11,821	*21.8%*	2,273	*23.8%*
18 to 64 years	24,810	*62.1%*	34,252	*63.2%*	9,442	*38.1%*
65 years and over	5,608	*14.0%*	8,150	*15.0%*	2,542	*45.3%*
AREA AND DENSITY						
2010 Land Area - Acres[1]	997,317		997,317			
Persons per acre	0.1		0.1		0.0	*35.1%*
Persons per square mile	51		69		18	*35.1%*
RACE						
Total population	79,464	*100.0%*	107,389	*100.0%*	27,925	*35.1%*
White alone	75,210	*94.6%*	99,098	*92.3%*	23,888	*31.8%*
Black or African American alone	182	*0.2%*	419	*0.4%*	237	*130.2%*
American Indian and Alaska Native alone	643	*0.8%*	956	*0.9%*	313	*48.7%*
Asian alone	671	*0.8%*	1,133	*1.1%*	462	*68.9%*
Native Hawaiian and Other Pacific Islander alor	59	*0.1%*	135	*0.1%*	76	*128.8%*
Some Other Race alone	1,112	*1.4%*	2,883	*2.7%*	1,771	*159.3%*
Two or More Races	1,587	*2.0%*	2,765	*2.6%*	1,178	*74.2%*

2000 and 2010 Census Profile

Bend-Lapine SD

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
RACE (continued)						
Race alone or in combination with one or more other races[2]						
White	76,738	*96.6%*	101,726	*94.7%*	24,988	*32.6%*
Black or African American	352	*0.4%*	859	*0.8%*	507	*144.0%*
American Indian and Alaska Native	1,410	*1.8%*	2,092	*1.9%*	682	*48.4%*
Asian	1,058	*1.3%*	1,996	*1.9%*	938	*88.7%*
Native Hawaiian and Other Pacific Islander	193	*0.2%*	390	*0.4%*	197	*102.1%*
Some Other Race	1,445	*1.8%*	3,323	*3.1%*	1,878	*130.0%*
HISPANIC OR LATINO AND RACE						
Total population	79,464	*100.0%*	107,389	*100.0%*	27,925	*35.1%*
Hispanic or Latino	3,035	*3.8%*	7,417	*6.9%*	4,382	*144.4%*
Not Hispanic or Latino	76,429	*96.2%*	99,972	*93.1%*	23,543	*30.8%*
White alone	73,619	*92.6%*	95,328	*88.8%*	21,709	*29.5%*
Black or African American alone	173	*0.2%*	391	*0.4%*	218	*126.0%*
American Indian and Alaska Native alone	584	*0.7%*	766	*0.7%*	182	*31.2%*
Asian alone	661	*0.8%*	1,085	*1.0%*	424	*64.1%*
Native Hawaiian and Other Pacific Islander alc	55	*0.1%*	111	*0.1%*	56	*101.8%*
Some Other Race alone	55	*0.1%*	105	*0.1%*	50	*90.9%*
Two or More Races	1,282	*1.6%*	2,186	*2.0%*	904	*70.5%*
RELATIONSHIP						
Total population	79,464	*100.0%*	107,389	*100.0%*	27,925	*35.1%*
In households	78,383	*98.6%*	106,515	*99.2%*	28,132	*35.9%*
In family households	64,540	*81.2%*	85,670	*79.8%*	21,130	*32.7%*
Householder	21,586	*27.2%*	28,890	*26.9%*	7,304	*33.8%*
Spouse[3]	17,756	*22.3%*	22,976	*21.4%*	5,220	*29.4%*
Child	21,090	*26.5%*	27,246	*25.4%*	6,156	*29.2%*
Own child under 18 years	17,967	*22.6%*	22,367	*20.8%*	4,400	*24.5%*
Other relatives	2,194	*2.8%*	3,778	*3.5%*	1,584	*72.2%*
Nonrelatives	1,914	*2.4%*	2,780	*2.6%*	866	*45.2%*
In nonfamily households	13,843	*17.4%*	20,845	*19.4%*	7,002	*50.6%*
Householder	10,094	*12.7%*	15,349	*14.3%*	5,255	*52.1%*
Nonrelatives	3,749	*4.7%*	5,496	*5.1%*	1,747	*46.6%*
Population under 18 in households	19,312	*99.6%*	24,143	*99.8%*	4,831	*25.0%*
Population 18 to 64 in households	49,317	*99.0%*	67,392	*99.2%*	18,075	*36.7%*
Population 65 and over in households	9,754	*95.1%*	14,980	*98.1%*	5,226	*53.6%*
In group quarters	1,081	*1.4%*	874	*0.8%*	-207	*-19.1%*

2000 and 2010 Census Profile

Bend-Lapine SD

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
GROUP QUARTERS						
Total group quarters population	1,081	*100.0%*	874	*100.0%*	-207	*-19.1%*
Institutionalized population	521	*48.2%*	420	*48.1%*	-101	*-19.4%*
Male	320	*29.6%*	257	*29.4%*	-63	*-19.7%*
Female	201	*18.6%*	163	*18.6%*	-38	*-18.9%*
Noninstitutionalized population	560	*51.8%*	454	*51.9%*	-106	*-18.9%*
Male	243	*22.5%*	221	*25.3%*	-22	*-9.1%*
Female	317	*29.3%*	233	*26.7%*	-84	*-26.5%*
Population under 18 in group quarters	77	*0.4%*	54	*0.2%*	-23	*-29.9%*
Population 18 to 64 in group quarters	506	*1.0%*	532	*0.8%*	26	*5.1%*
Population 65 and over in group quarters	498	*4.9%*	288	*1.9%*	-210	*-42.2%*

HOUSEHOLDS	2000		2010		Change	
Total households	31,680	*100.0%*	44,239	*100.0%*	12,559	*39.6%*
Family households (families)[4]	21,586	*68.1%*	28,890	*65.3%*	7,304	*33.8%*
With own children under 18 years	10,028	*31.7%*	12,448	*28.1%*	2,420	*24.1%*
Husband-wife family	17,756	*56.0%*	22,976	*51.9%*	5,220	*29.4%*
With own children under 18 years	7,380	*23.3%*	8,706	*19.7%*	1,326	*18.0%*
Male householder, no wife present	1,127	*3.6%*	1,929	*4.4%*	802	*71.2%*
With own children under 18 years	732	*2.3%*	1,150	*2.6%*	418	*57.1%*
Female householder, no husband present	2,703	*8.5%*	3,985	*9.0%*	1,282	*47.4%*
With own children under 18 years	1,916	*6.0%*	2,592	*5.9%*	676	*35.3%*
Nonfamily households[4]	10,094	*31.9%*	15,349	*34.7%*	5,255	*52.1%*
Householder living alone	7,286	*23.0%*	11,092	*25.1%*	3,806	*52.2%*
Male	3,345	*10.6%*	4,935	*11.2%*	1,590	*47.5%*
65 years and over	640	*2.0%*	1,083	*2.4%*	443	*69.2%*
Female	3,941	*12.4%*	6,157	*13.9%*	2,216	*56.2%*
65 years and over	1,821	*5.7%*	2,735	*6.2%*	914	*50.2%*
Households with individuals under 18 years	10,702	*33.8%*	13,351	*30.2%*	2,649	*24.8%*
Households with individuals 65 years and over	6,934	*21.9%*	10,812	*24.4%*	3,878	*55.9%*
Average household size	2.47		2.41		-0.07	*-2.7%*
Average family size[4]	2.90		2.87		-0.03	*-1.1%*

2000 and 2010 Census Profile

Bend-Lapine SD

Approximation based on census blocks

HOUSING UNITS	2000		2010		Change	
Total housing units	38,261	*100.0%*	55,578	*100.0%*	17,317	*45.3%*
Occupied housing units	31,680	*82.8%*	44,239	*79.6%*	12,559	*39.6%*
Owner occupied[5]	22,365	*70.6%*	28,542	*64.5%*	6,177	*27.6%*
Owned with a mortgage or a loan	N/A		21,609	*75.7%*		
Owned free and clear	N/A		6,933	*24.3%*		
Renter occupied	9,315	*29.4%*	15,697	*35.5%*	6,382	*68.5%*
Vacant housing units[6]	6,581	*17.2%*	11,339	*20.4%*	4,758	*72.3%*
For rent	1,154	*17.5%*	2,079	*18.3%*	925	*80.2%*
For sale only	545	*8.3%*	1,240	*10.9%*	695	*127.5%*
Rented or sold, not occupied	274	*4.2%*	263	*2.3%*	-11	*-4.0%*
For seasonal, recreational, or occasional use	4,243	*64.5%*	6,708	*59.2%*	2,465	*58.1%*
For migrant workers	3	*0.0%*	0	*0.0%*	-3	*-100.0%*
All other vacants	362	*5.5%*	1,049	*9.3%*	687	*189.8%*
Owner-occupied housing units	22,365	*70.6%*	28,542	*64.5%*	6,177	*27.6%*
Population in owner-occupied housing units	56,252		69,132		12,880	*22.9%*
Average household size of owner-occupied unit	2.52		2.42		-0.10	*-4.0%*
Renter-occupied housing units	9,315	*29.4%*	15,697	*35.5%*	6,382	*68.5%*
Population in renter-occupied housing units	22,131		37,383		15,252	*68.9%*
Average household size of renter-occupied unit	2.38		2.38		0.00	*0.0%*

1. Land area of the 2010 census blocks that approximate the area.

2. In combination with one or more of the other races listed. The six numbers may add to more than the total population, and the six percentages may add to more than 100 percent because individuals may report more than one race.

3. "Spouse" represents spouse of the householder. It does not reflect all spouses in a household. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

4. "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples unless there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

5. Percentage distribution of ownership categories ("owned with a mortgage or a loan" and "owned free and clear") adds to 100 percent.

6. Percentage distribution of vacancy categories ("for rent," etc.) adds to 100 percent.

Three Rivers "High Series" capacity projection

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG	36	38	50	37	36	34	42	36	37	38		39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
1st	46	39	42	49	35	36	41	37	35	52		40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
2nd	39	43	40	40	43	39	30	39	36	35		54	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
3rd	44	44	48	34	51	44	40	37	45	47		36	55	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
4th	67	45	46	45	38	47	46	47	41	40		51	39	59	45	46	47	48	50	51	52	53	54	55	56	57	58	59	60	61
5th	51	61	52	43	39	38	43	45	46	48		41	52	40	60	46	47	48	49	51	52	53	54	55	56	57	58	59	60	61
	283	270	278	248	242	238	242	241	240	260		261	268	266	276	267	273	279	286	293	299	305	311	317	323	329	335	341	347	353
6th	65	51	65	47	49	37	33	42	44	53		49	42	53	41	61	47	48	49	50	52	53	54	55	56	57	58	59	59	61
7th	41	60	48	60	44	43	35	36	46	44		54	50	43	54	42	62	48	49	50	51	53	54	55	56	57	58	59	60	60
8th	44	47	59	41	58	35	46	38	37	42		45	55	51	44	55	43	63	49	49	50	51	54	55	56	57	58	59	60	61
	150	158	172	148	151	115	114	116	127	139		148	147	147	139	158	152	159	147	149	153	157	162	165	168	171	174	177	179	182
	433	428	450	396	393	353	356	357	367	399	575	409	415	413	415	425	425	438	433	442	452	462	473	482	491	500	509	518	526	535

La Pine "High Series" capacity projection

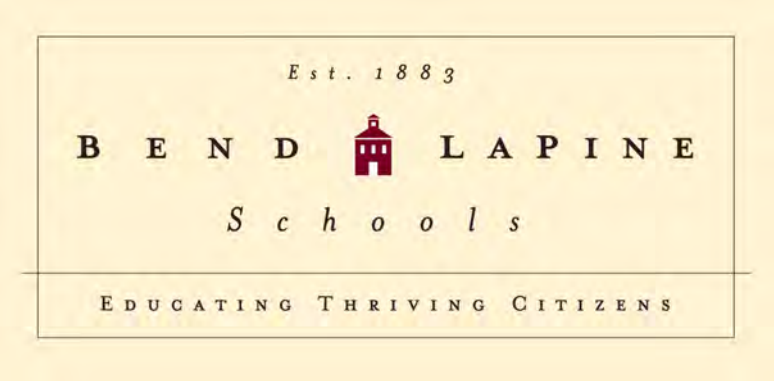
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG	92	103	79	97	88	101	85	88	86	66		66	66	66	71	74	76	77	78	79	80	82	84	86	88	89	91	93	95	97
1st	97	97	116	83	102	81	102	87	91	88		70	70	70	69	75	78	80	81	82	83	85	87	89	91	93	94	96	98	100
2nd	96	106	96	106	82	106	93	103	99	102		92	73	73	73	72	78	81	83	84	86	87	89	91	93	95	97	98	100	102
3rd	100	107	101	83	99	79	106	84	103	102		106	96	76	76	75	74	80	84	86	87	89	90	92	94	96	98	100	101	103
4th	93	115	104	94	83	95	91	105	92	104		106	110	99	79	78	77	76	82	87	89	90	92	93	95	97	99	101	103	104
5th	129	105	118	90	92	81	94	97	109	95		107	109	113	101	81	80	78	77	84	89	91	92	94	95	96	98	101	103	105
	607	633	614	553	546	543	571	564	580	557	900	547	524	497	469	455	463	472	485	502	514	524	534	545	556	566	577	589	600	611
6th	123	136	99	111	91	96	92	92	94	102		99	112	114	118	105	84	83	81	80	87	92	94	95	98	98	99	101	105	107
7th	135	130	145	93	97	99	101	95	100	90		105	102	115	117	121	108	86	85	83	82	89	94	96	97	100	100	101	103	108
8th	133	139	133	130	92	97	104	99	93	98		92	107	104	117	119	123	110	87	86	84	83	90	95	97	98	101	101	102	104
	391	405	377	334	280	292	297	286	287	290	550	296	321	333	352	345	315	279	253	249	253	264	278	286	292	296	300	303	310	319
9th	145	138	153	129	141	110	106	116	105	102		106	100	116	112	126	128	132	118	94	93	90	89	97	102	104	105	109	109	110
10th	154	143	141	144	130	132	114	98	115	107		104	109	102	118	114	128	130	134	120	95	94	91	90	98	103	105	106	110	110
11th	128	144	138	110	138	124	118	103	100	112		110	107	111	104	120	116	130	131	135	121	96	95	92	91	99	104	106	107	111
12th	115	131	136	103	111	154	147	123	106	104		114	112	109	113	106	122	118	133	134	138	123	98	97	94	93	101	106	108	109
	542	556	568	486	520	520	485	440	426	425	550	434	428	438	447	466	494	510	516	483	447	403	373	376	385	399	415	427	434	440
	1540	1594	1559	1373	1346	1355	1353	1290	1293	1272		1277	1273	1268	1268	1266	1272	1261	1254	1234	1214	1191	1185	1207	1233	1261	1292	1319	1344	1370

BEND - HIGH SERIES FOR FIRST 5 YEARS THEN MIDDLE SERIES FOR REMAINING YEARS

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Capacity	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
KG	1,026	1,074	1,133	1,129	1,047	1,134		1,133	1,130	1,124	1,207	1,251	1,270	1,289	1,308	1,326	1,345	1,369	1,397	1,424	1,452	1,475	1,498	1,522	1,546	1,570
1st	1,094	1,089	1,126	1,190	1,205	1,123		1,207	1,205	1,198	1,179	1,276	1,316	1,337	1,357	1,377	1,395	1,416	1,441	1,470	1,499	1,523	1,547	1,571	1,597	1,622
2nd	1,093	1,105	1,120	1,177	1,250	1,237		1,179	1,267	1,262	1,254	1,229	1,326	1,368	1,389	1,410	1,431	1,450	1,471	1,497	1,528	1,552	1,577	1,602	1,627	1,654
3rd	1,063	1,123	1,122	1,137	1,193	1,277		1,286	1,226	1,313	1,308	1,295	1,264	1,364	1,408	1,429	1,451	1,473	1,492	1,514	1,540	1,567	1,590	1,617	1,641	1,667
4th	1,075	1,073	1,141	1,138	1,155	1,222		1,326	1,335	1,269	1,359	1,349	1,331	1,299	1,401	1,447	1,469	1,492	1,514	1,534	1,556	1,576	1,605	1,628	1,656	1,680
5th	1,083	1,061	1,086	1,158	1,164	1,194		1,254	1,360	1,366	1,298	1,385	1,370	1,352	1,320	1,423	1,470	1,492	1,515	1,538	1,558	1,575	1,595	1,625	1,648	1,676
	6,434	6,525	6,728	6,929	7,014	7,187	7,722	7,385	7,523	7,532	7,605	7,785	7,877	8,009	8,183	8,412	8,561	8,692	8,830	8,977	9,133	9,268	9,412	9,565	9,715	9,869
6th	1,075	1,105	1,094	1,129	1,181	1,209		1,246	1,309	1,417	1,422	1,347	1,433	1,418	1,399	1,365	1,472	1,521	1,544	1,568	1,591	1,608	1,626	1,647	1,678	1,701
7th	1,090	1,072	1,150	1,113	1,154	1,203		1,247	1,285	1,347	1,458	1,458	1,377	1,466	1,450	1,431	1,396	1,505	1,556	1,579	1,604	1,624	1,641	1,660	1,681	1,713
8th	1,087	1,086	1,092	1,147	1,120	1,177		1,228	1,272	1,308	1,371	1,479	1,475	1,393	1,483	1,467	1,447	1,412	1,522	1,574	1,597	1,620	1,640	1,658	1,677	1,698
	3,252	3,263	3,336	3,389	3,455	3,589	4,423	3,721	3,866	4,072	4,251	4,284	4,285	4,277	4,332	4,263	4,315	4,438	4,622	4,721	4,792	4,852	4,907	4,965	5,036	5,112
9th	1,204	1,280	1,207	1,234	1,269	1,252		1,274	1,329	1,374	1,413	1,476	1,584	1,580	1,492	1,588	1,571	1,550	1,513	1,630	1,686	1,709	1,733	1,754	1,774	1,794
10th	1,239	1,183	1,214	1,291	1,224	1,281		1,282	1,304	1,356	1,401	1,436	1,490	1,598	1,594	1,506	1,604	1,587	1,566	1,529	1,645	1,699	1,722	1,746	1,767	1,787
11th	1,158	1,211	1,145	1,226	1,277	1,261		1,313	1,314	1,331	1,382	1,423	1,455	1,506	1,612	1,608	1,523	1,623	1,607	1,586	1,550	1,661	1,714	1,736	1,760	1,780
12th	1,135	1,130	1,261	1,147	1,264	1,293		1,282	1,337	1,335	1,355	1,405	1,441	1,473	1,528	1,638	1,634	1,545	1,644	1,627	1,606	1,567	1,683	1,738	1,761	1,786
	4,736	4,804	4,827	4,898	5,034	5,087	5,360	5,151	5,284	5,396	5,551	5,740	5,970	6,157	6,226	6,340	6,332	6,305	6,330	6,372	6,487	6,636	6,852	6,974	7,062	7,147
Total Bend	14,422	14,592	14,891	15,216	15,503	15,863		16,257	16,673	17,000	17,407	17,809	18,132	18,443	18,741	19,015	19,208	19,435	19,782	20,070	20,412	20,756	21,171	21,504	21,813	22,128
Total La Pine	1,346	1,355	1,353	1,290	1,293	1,272		1,261	1,238	1,218	1,207	1,197	1,194	1,177	1,164	1,140	1,118	1,093	1,084	1,097	1,112	1,130	1,151	1,166	1,180	1,194
Total Three Rivers	393	353	356	357	367	399		402	402	395	391	397	392	400	387	390	391	391	391	393	395	394	393	392	392	391
	16,161	16,300	16,600	16,863	17,163	17,534		17,920	18,313	18,613	19,005	19,403	19,718	20,020	20,292	20,545	20,717	20,919	21,257	21,560	21,919	22,280	22,715	23,062	23,385	23,713

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit C
Enrollment Study Materials



- Research Review: School Size, Prepared by Lora Nordquist, EdD, Assistant Superintendent

Research Review: School Size
Prepared for the Sites and Facilities Committee
By Lora Nordquist, EdD, Assistant Superintendent

What follows below are summaries from six reports/studies/articles pertaining to school size, dating from 2005 to 2015. For the convenience of the committee, the reports/studies/articles are organized by year, beginning with the most recent. At the end, I have included some overarching conclusions.

Gershenson, S., & Langbein, L. (2015). The effect of primary school size on academic Achievement. *Educational Evaluation and Policy Analysis, 37(1S),* 135S-155S.

The researchers in this study used student-level academic records of approximately 700,000 students in grades 3-5 in North Carolina between 2003-2010. Students included the study remained at the same school during all three grades. Researchers were also able to access information on school demographics, attendance, discipline, etc.-other factors that predict student achievement, measured in this study by student-level Value Added Measures (VAM's).

In the study they found no evidence of a causal relationship between school size and student achievement, at least within the range of school sizes included (most of the schools were in the 400-600 range, with a very few schools smaller than 200 or larger than 800). However, the researchers did note that the math and reading achievement of students with disabilities, and the reading achievement of high-poverty students, are "disproportionately harmed" by increases in school size. The researchers speculate that "weaker social bonds likely inherent in larger schools" to be the reason. They believe their study highlights the importance of school climate in the educational process, which raises deeper questions of "how and why school climate is a function of school size and why certain subsets of the student populations are particularly influenced by school climate."

Manpower Demonstration Research Corporation (MDRC). (2014, October). *Headed to college: The effects of New York City's small high schools of choice on post-secondary enrollment* (Policy Brief). New York, New York: Author.

This policy brief summarizes findings from its research reports on the New York City Department of Education's "multiyear initiative to create small public high schools that are open to any student who wants to attend" (SSCs). Starting in 2002, over 100 new SSC's have been created. These schools serve students who are approximately 95% black or Hispanic. 84% qualify for free or reduced-price

lunches, and 75% percent enter high school performing below grade level in reading or mathematics. These schools typically serve about 400 students, 100 per grade. Because interest in the SSCs exceeds space, enrollment is determined by lottery. This procedure has allowed researchers from MDRC to identify a sample of over 100 SSCs and over 21,000 students, with the existence of lotteries providing a "random assignment-like experimental condition," allowing researchers to estimate the effects of attending an SSC instead of another NYC public high school.

A series of studies have found the SSCs to have a multitude of statistically significant positive effects on student achievement: higher graduation rates among all subgroups, including black males and students eligible for special education services, and higher scores on Regents exams. Additionally, the SSCs achieve these ends at a lower total cost per graduate, primarily because of higher "on time" (four-year) graduation rates. The most recent study, taking advantage of the existence of a cohort of students out of high school, examined admission to and persistence in postsecondary institutions. Researchers found that students attending SSCs increased the probability of graduating on time and attending a postsecondary school the following year by 8.4%. As the brief states, "It is rare to find such large positive effects for a rigorously evaluated large-scale education reform and rarer still to see such effects continue into college."

(2010, March 11). Does the size of the school matter? *Room for Debate: A New York Times Blog.* Retrieved November 17, 2015, from http://roomfordebate.blogs.nytimes.com

This blog is a series of short editorials, written by "national education experts." Herbert Walker, a University Scholar at the University of Illinois, states definitively that according to a large body of research, "other things being equal, smaller schools produce higher academic achievement than larger schools." Don Soifer, an education analyst at the Lexington Institute, also makes reference to "substantial research" that shows that many children respond especially well to smaller learning environments. According to Soifer, this is part of the attraction of many charter schools. Leonie Haimson, the executive director of Class Size Matters, a citywide advocacy group, argues that class size, not school size, is the more important issue affecting student achievement. Valerie Lee, a professor at the University of Michigan whose research focuses on learning, school organization and size, cites her finding that students learned more in high schools enrolling between 600-900 students than in either smaller or larger schools. Thus, she says, the relationship between school size and student learning is "not linear." She adds that the effects of school size on learning are even more important for less advantage students.

Stevenson, K. (2006, April). *School size and its relationship to student outcomes and school climate: A review and analysis of eight South Carolina state-wide studies.* Washington, D.C.: National Clearinghouse for Educational Facilities.

In this report, the author summarizes findings from eight studies of school size, involving South Carolina schools at all three levels. The studies' publication dates range from 1996-2005.

At the elementary level, the first study discussed (Stevenson, 1996) "revealed a small but significant positive relationship between school student enrollment and the number of times elementary schools have won the Incentive Award" (given to schools meeting or exceeding expected student gains in achievement). In this study, larger schools (approximately 800 students) performed better. In another study, five years later, the same researcher found no effects related to school size, when poverty levels were included as a control variable. A third study, published in 2004 (McCathern), found among all the variables included, "school size was the least predicative of student academic outcomes." In 2005 White examined the effects of school size on school climate. She found no relationship between size and school climate, when controlling for SES, operating cost per pupil, and the percentage of students receiving special education services.

At middle school, in Stevenson's 2001 study, school size was not a factor at all in student performance, when controls were included. Student attendance was the only factor beyond SES that was consistently related to academic performance. Roberts' study (2002) did show a statistically significant relationship between school size and student academic achievement, with smaller middle schools associated with better academic productivity. Finally, Gettys (2003) studied the relationship between school size and school climate. When control variables were applied, she found no correlations between school size and school climate.

The first high school study discussed was Durbin's (2001). Her analysis showed a statistically significant and positive relationship between school size and student achievement, with students in larger high schools outperforming those is smaller schools. Stevenson's 2001 study, when controls were applied, revealed no relationship between achievement and school size. Crenshaw (2003) studied school size and its relationship to both climate and achievement. While she concluded that schools with higher achievement ratings tended to be larger, she also noted that more affluent schools also tended to be larger. She also stated: "The factors promoting success in lower socio-economic schools are not necessarily the same as those that promote success in higher socio-economic schools. "

Ready, D. & Lee, V. (2006, May). *Optimal elementary school size for effectiveness and equity: Disentangling the effects of class size and school size.* Paper prepared for the conference *What do We Know about the Effects of School Size and Class Size?* Brookings Institution, Washington, D.C.

The research questions for this study involved 1) the relationship between class size, school size and student learning in reading and mathematics in kindergarten and first grade; 2) the extent to which the effects of these various size elements differed between kindergarten and first grade, as well as between literacy and mathematics; and 3) the relationship between the social distribution of learning (the effects of race and social class on learning) and organizational size. The researchers used multiple measures of learning, as well as survey and interview data, to follow a cohort of students through several years of elementary schools. The studied included 24-student cohorts from 1000 public and private schools. They labeled schools with fewer than 275 students "small," 401-600 students "medium," and over 800 "large." (The researchers also included categories such as "medium-small," etc.)

In discussing their findings, the researchers made distinctions between two types of small schools: "small by design" and "small by default." In other words, schools that deliberately organize around a theme or ideology and enroll only students to whom this theme appeals "inherently possess many advantages" over schools that are small because of a lack of students in the community. The findings related to class size were much more powerful than those related to school size. Interestingly, the researchers concluded: "With kindergarten literacy and mathematics as well as first grade mathematics, small (fewer than 18 students) and medium (18-24) classes did not differentially influence student learning. Rather, large (more than 24) classes were detrimental to student learning." But their study found little evidence of school-size effects on student learning, regardless of students' race or social class. They concluded their report with this statement: "Our findings in this paper lead us away from an unquestioning allegiance to small size. Rather than the constant mantra of 'small is good,' our results lead us to a different proclamation: 'large is bad.'"

Slate, J. & Jones, C. (2005). *Effects of school size: A review of the literature with recommendations.*

This literature review includes almost 90 citations to studies and theoretical perspectives, dating from 1959 to 1998. In their review, the writers express several methodological concerns about the study. First, as is typical in school research, studies are not experimental because students cannot be randomly assigned to schools. Second, a number of the studies cited were what the authors term "advocacy research," done either in support of or in opposition to school consolidation practices, which could lead to intentional or unintentional bias.

Finally, the studies share no common definition for the terms "large school" or "small school."

One of the major conclusions the authors reached was that both very large and very small schools are negatively related to school quality. They also made some recommendations for policy makers, including the following: 1) Educational decision-makers should avoid "simplistic notions of economic efficiency based upon perceived economies of scale"; and 2) They should also keep the characteristics of their community and school in mind when considering school size.

Conclusions

One thing is abundantly clear: advocates for smaller schools or larger schools who claim the research is definitively in their favor are misinformed or duplicitous. While more research has been done on school size at the high school level (v. class size at the elementary level), there are not definitive findings about the "one best size" for students at any level. However, I will close with some impressions, based on my review of the research:

- A school's poverty level trumps all other individual factors in predicting both student achievement and student growth. There is some evidence to indicate that students in poverty, along with students with disabilities, are better served in smaller environments.
- The relationships between school size and "school climate" indicators such as attendance and behavior appear to be stronger than those between school size and academic indicators. Attendance is a predictor of academic success and ultimately graduation, so this may be another consideration.
- While ideal school sizes are not clear, numerous studies conclude that very large environments do not serve all student groups well.
- "Small for its own sake" is not recommended in any of the studies referenced in this report. Rather, researchers who note positive findings in small schools state that a further area for study would involve the examination of *why* these gains occur.

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit D
Efficient Use of Schools Study

- Steele Associates Architects, LLC Memo / March 8, 2016

STEELE ASSOCIATES ARCHITECTS LLC
ARCHITECTURE INTERIOR DESIGN MASTER PLANNING SUSTAINABLE DESIGN
686 NW YORK DRIVE SUITE 150 BEND OR 97703 PH:541-382-9867 FAX:541-385-8816 www.steele-arch.com

Memo

To: Mike Tiller

From: Scott Steele

Subject: Efficient Use of School Sites

Date: March 8, 2016

We have performed a site analysis of the newest examples of Elementary, Middle and High School development in the Bend La Pine School District in an effort to assist the District in determining the efficiency of uses on the subject sites, per Oregon Revised Statute ORS 195.110(5). No effort was made to analyze all District assets in these categories. This analysis expands upon the previous elementary school example in the Site Development Analysis dated April 19, 2010, and provided to our office by the School District.

From our analysis it is clear that a two story building design provides distinct benefits to the District in procuring smaller properties for future development.

- The building site for a single-story 600 student elementary school can be reduced from 15 Acres to 12.5 Acres by utilizing a two-story configuration.
- Site Design at Silver Rail also provided for an undisturbed "natural area" that acts as a buffer between the school and the adjacent industrial development. Additionally, it can be used as a teaching area.
- While the single-story and two-story designs have similar parking areas, the design constraints imposed by a smaller site results in less paving for access drives and bus lanes.

Site utilization is dependent on the type and configuration of land on which the facilities were built. Based on review of the Summit High School, Pacific Crest Middle School and Silver Rail Elementary School sites it is clear that the shape of the site is a critical factor in determining the utilization of the site.

686 NW York Drive Suite 150 Bend, Oregon 97703 541.382.9867 FAX 541.385.8816 info@steele-arch.com

For example:

> Summit is a fairly compact, regular property that is fully utilized.
>
> The Pacific Crest Middle School site is a roughly triangular shape that is transected by two roads, which results in two irregular parcels and one nearly rectangular parcel. This leaves about 9% of the site unused and separated from the main parcel by a road. This unused area was set aside for future development of athletic fields.
>
> Silver Rail Elementary is sited on a small, compact, regular shaped property. The regular shape of the site is advantageous to the extent that, while it has a similar percentage of the site unused, the unused area is a regular shape and is almost entirely usable. This provides value to the District in either utilizing the area for District functions or as an asset for future sale.

To summarize, two-story schools with maximum student populations could be sited on slightly smaller parcels if the sites and structures are regular in shape. Our evaluation has determined that in order to allow for reasonable site variations (shape, topography, infrastructure, etc.) the minimum acreage for each school should be as follows:

Elementary School: 12.5 Acres

Middle School: 27.5 Acres

High School: 50 Acres

Attachments: (A) Site Development Example Elementary School, (B) Site Development Example Middle School and (C) Site Development Example High School,

686 NW York Drive Suite 150 Bend, Oregon 97703 541.382.9867 FAX 541.385.8816 info@steele-arch.com

Site Development Example

ELEMENTARY SCHOOL

Based on Silver Rail Elementary School

Site Component	Percent of Total	Approx. Area* (Square Feet)	Notes
Zoning Setbacks/ R.O.W.	3.94%	21,456	As required by A.H.J.
Building Footprint	8.03%	43,713	As Required by Programs
Access Drives / Fire Lanes / Bus	11.86%	64,571	Separated Bus and Auto Access
Parking Areas	9.83%	53,541	142 Auto parking spaces
Landscape Areas	9.04%	49,238	Around Building and Parking Areas
Non-Landscape Areas	7.58%	41,291	Natural Areas / Buffers
Hardscape Play Areas	5.80%	31,582	Includes "soft-fall" zone play areas
Sidewalk / Outdoor Areas	6.47%	35,216	Includes Outdoor Teaching Areas
Drainage Swales	1.56%	8,477	Varies with Type of Soil
Play Fields / Softball / Soccer	27.13%	147,692	As Required by Programs
Unused Area	8.76%	47,705	
Totals:	100.00%	**544,482**	**12.50 Acres**

* Based on take-offs from Record Set Sheet C2.0, dated September 29, 2015

Attachment A

686 NW York Drive Suite 150 Bend, Oregon 97703 541.382.9867 FAX 541.385.8816 info@steele-arch.com

Site Development Example

MIDDLE SCHOOL

Based on Pacific Crest Middle School

Site Component	Percent of Total	Approx. Area* (Square Feet)	Notes
Zoning Setbacks/ R.O.W.	4.50%	53,925	As required by A.H.J.
Building Footprint	7.92%	94,885	As Required by Programs, includes storage building
Access Drives / Fire Lanes / Bus	5.49%	65,788	Separated Bus and Auto Access
Parking Areas	1.42%	16,993	120 Auto parking spaces
Landscape Areas	13.14%	157,391	Around Building and Parking Areas
Non-Landscape Areas	0.00%	0	Natural Areas / Buffers
Hardscape Play Areas	0.62%	7,418	Tennis Court
Sidewalk / Outdoor Areas	4.29%	51,358	Includes Outdoor Teaching Areas
Drainage Swales	5.96%	71,388	Varies with Type of Soil
Play Fields / Softball / Soccer	47.70%	571,414	As Required by Programs
Unused Area	8.96%	107,340	
Totals:	100.00%	**1,197,900**	**27.50 Acres**

* Based on take-offs from City Approved Set, Sheet C2.0, dated May 15, 2014

686 NW York Drive Suite 150 Bend, Oregon 97703 541.382.9867 FAX 541.385.8816 info@steele-arch.com

HIGH SCHOOL

Based on Summit High School

Site Component	Percent of Total	Approx. Area* (Square Feet)	Notes
Zoning Setbacks/ R.O.W.	0.00%	0	As required by Development Code
Building Footprint	8.15%	160,929	As Required by Programs
Access Drives / Fire Lanes / Bus	9.02%	178,095	Separated Bus and Auto Access
Parking Areas	5.33%	105,285	539 Auto parking spaces
Landscape Areas	22.76%	449,454	Around Building and Parking Areas
Non-Landscape Areas	9.34%	184,398	Natural Areas / Buffers
Hardscape Play Areas	3.88%	76,699	Tennis Courts and Track
Sidewalk / Outdoor Areas	6.92%	136,601	Includes Outdoor Teaching Areas
Drainage Swales	0.00%	0	Drywells
Play Fields / Softball / Soccer	34.60%	683,113	As Required by Programs
Unused Area	0.00%	0	
Totals:	100.00%	**1,974,575**	**45.33 Acres (50 Acres recommended to allow for less efficient shaped and sloped sites.)**

* Based on take-offs from Record Set Sheet C2.1, dated May 1, 2002.

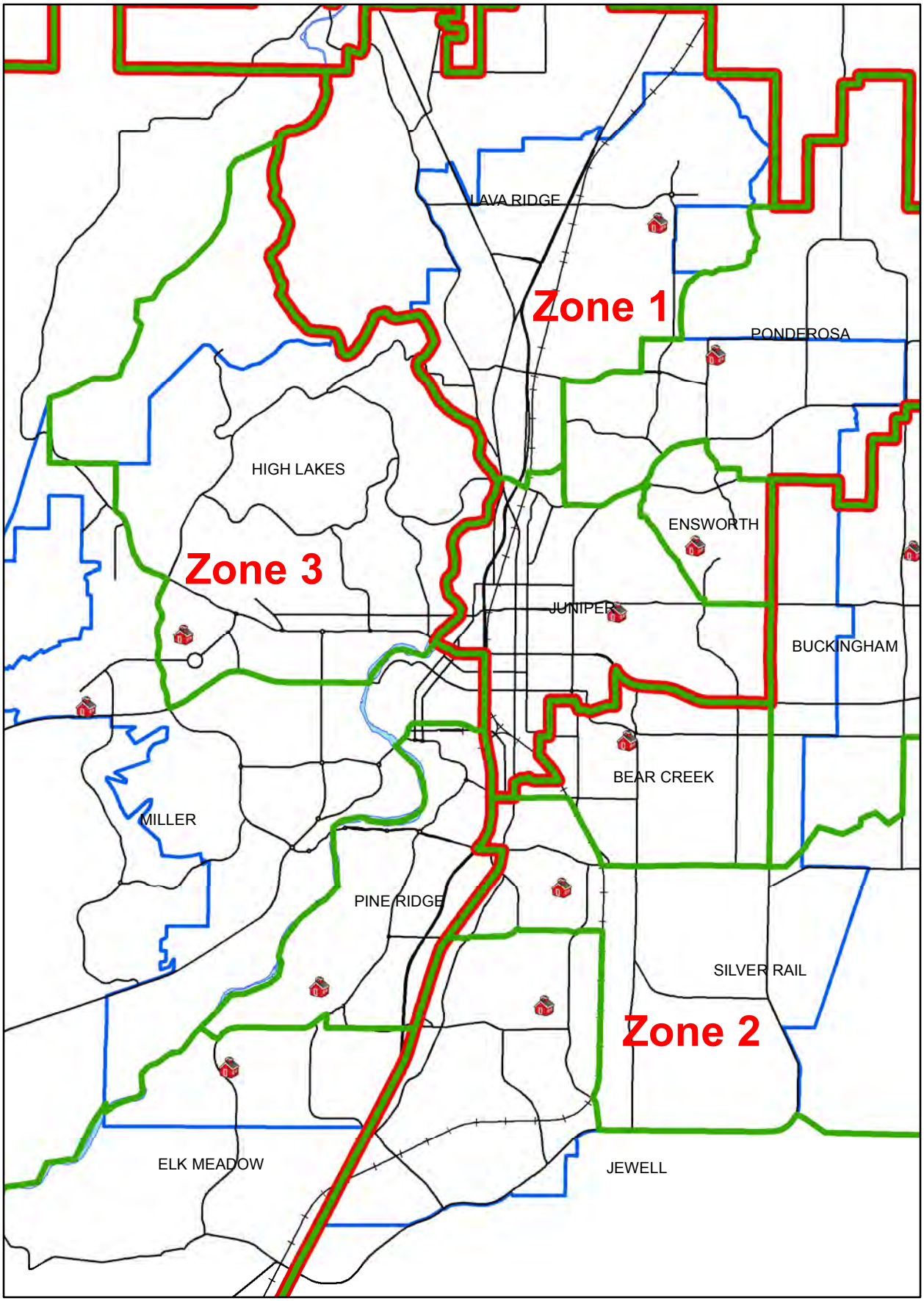
686 NW York Drive Suite 150 Bend, Oregon 97703 541.382.9867 FAX 541.385.8816 info@steele-arch.com

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit E
School Needs Maps

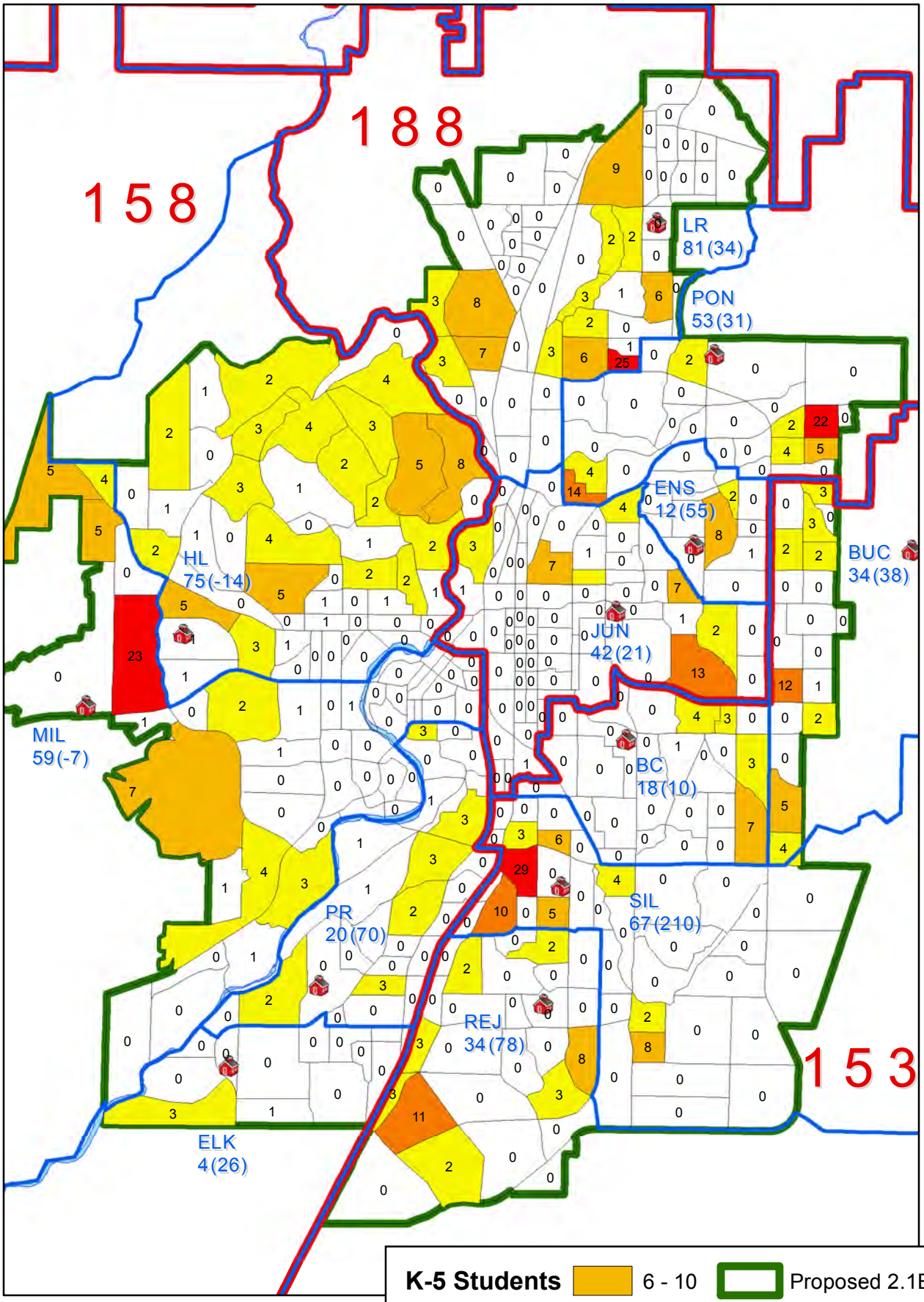
- Elementary School Zones
- Elementary School – Short Term Needs
- Elementary School – Long Term Needs
- High School Needs
- Suitable and Desirable Location Interactive Assessment - Summary Map

Sites & Facilities 2015
Elementary School Zones



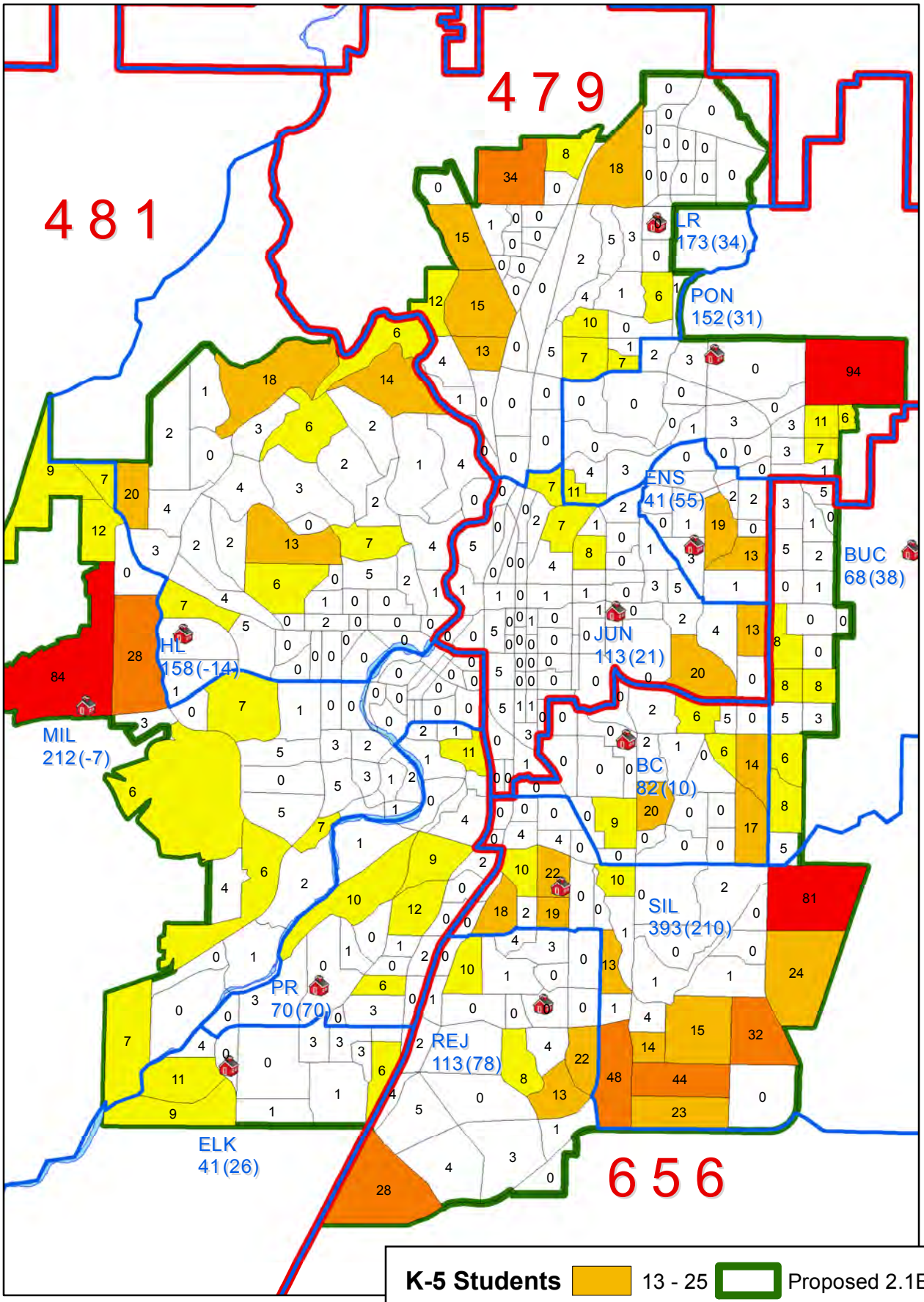
Elementary Boudary | Elementary Zone | Proposed 2.1E UGB

K-5 Student Yield Based On Bend BLI Short Term Development Projection
Summarized By Elementary Boundary
(Available Capacity)



2016-03-11

K-5 Student Yield Based On UGB 2.1E Envision 2028 Long Term Development Projection
Summarized By Elementary Boundary
(Available Capacity)

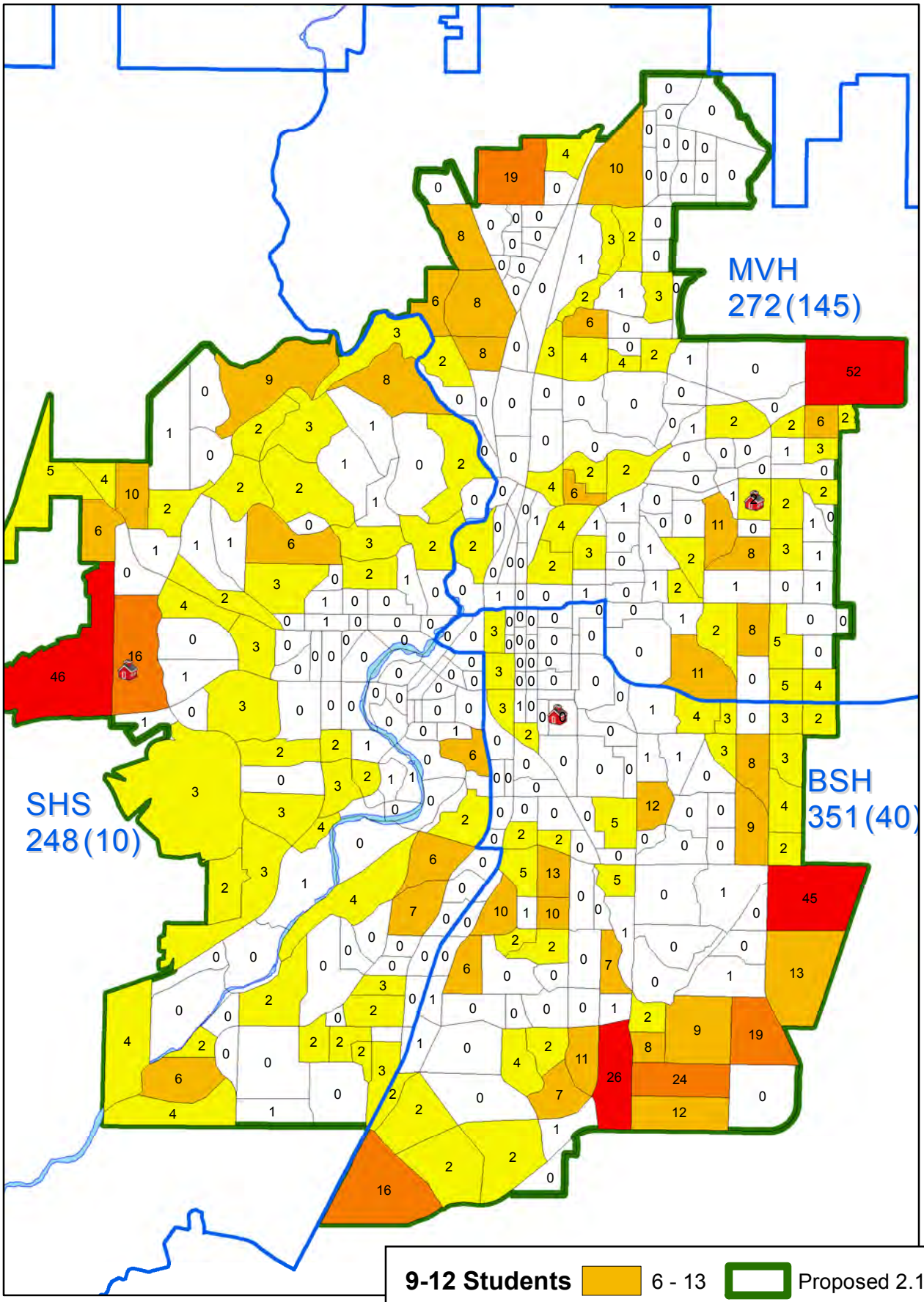


K-5 Students

- 0 - 5
- 6 - 12
- 13 - 25
- 26 - 50
- 51 - 94
- Proposed 2.1E UGB
- Elementary Boundary

2016-03-11

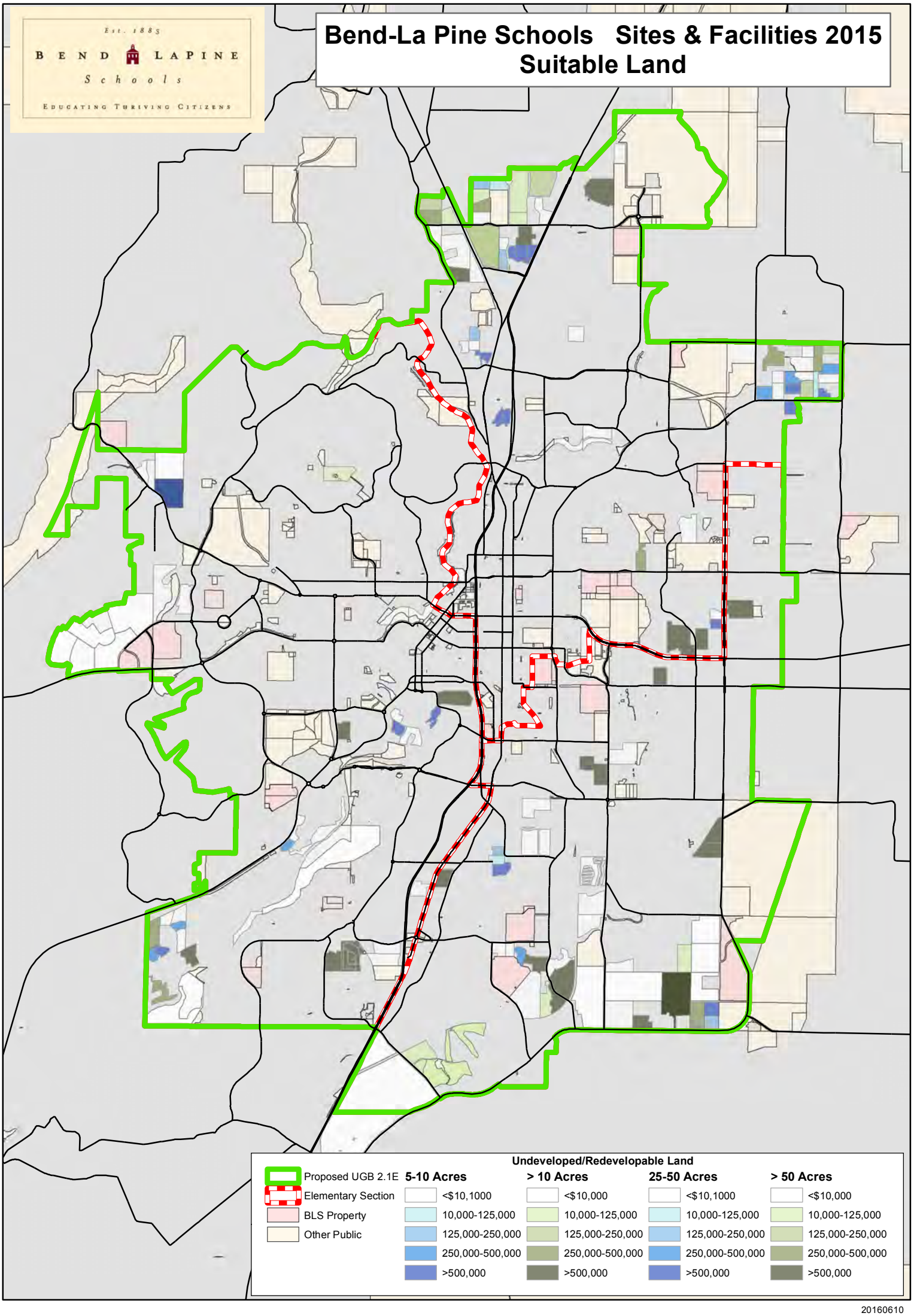
9-12 Student Yield Based On UGB 2.1E Envision 2028 Long Term Development Projection
Summarized By High School Boundary
(Available Capacity)



2016-03-11

Est. 1883
BEND LAPINE
Schools
EDUCATING THRIVING CITIZENS

Bend-La Pine Schools Sites & Facilities 2015
Suitable Land



20160610

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit F
Maps of Existing Land Holdings

- Summary of Existing Land Holdings Interactive Map

Bend-La Pine Schools
Sites and Facilities Committee
Board Report

Exhibit F
Maps of Existing Land Holdings

- Summary of Existing Land Holdings Interactive Map

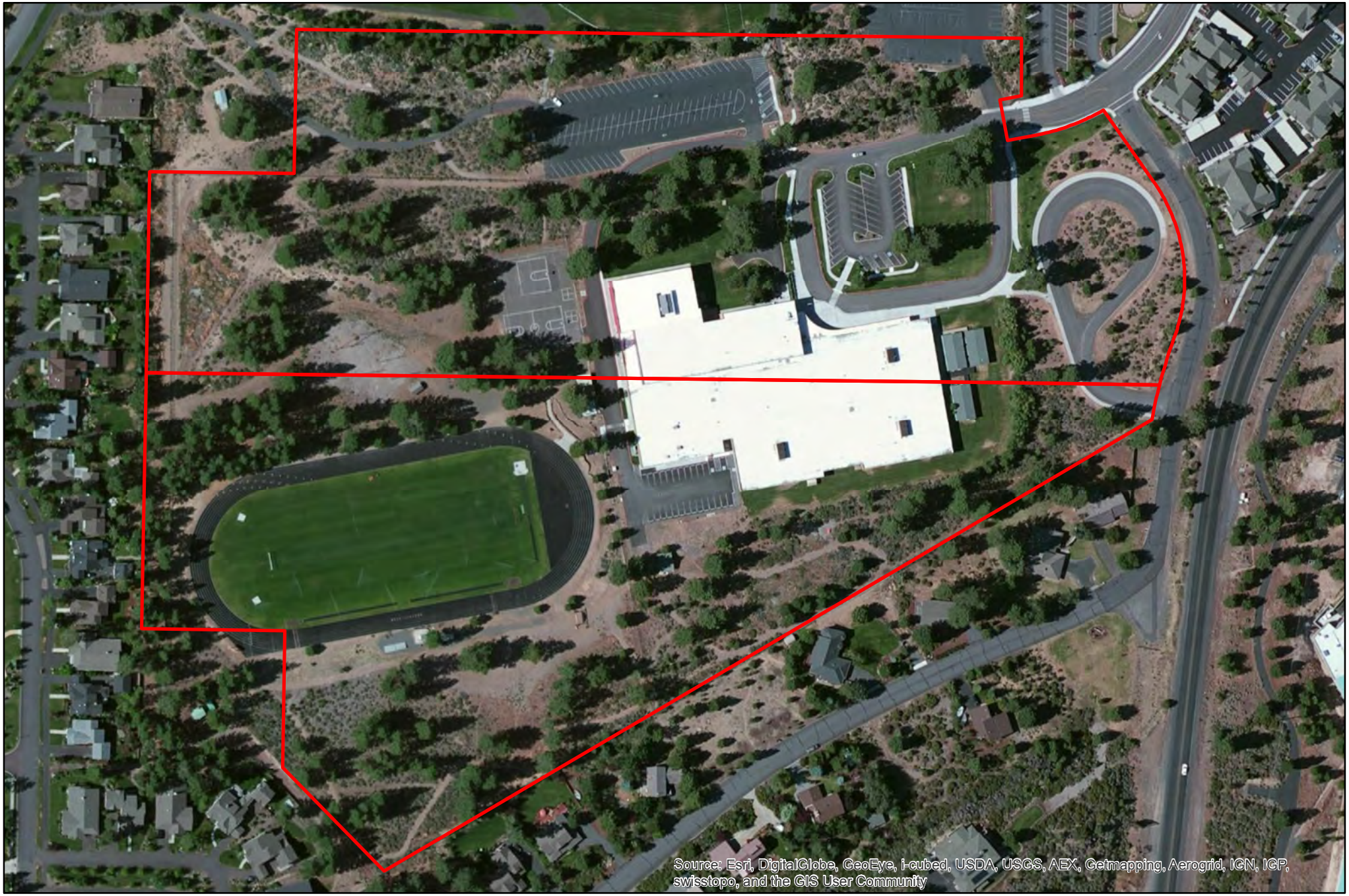
Amity Creek at Thompson
437 NW Wall Street, Bend
Built 1948
Capacity 150 Enrollment 176

Bear Creek / Maintenance
51 SE 13th Street, Bend
Built 1963 Remodeled 1967, 1973, 2009
Capacity 600 Enrollment 590

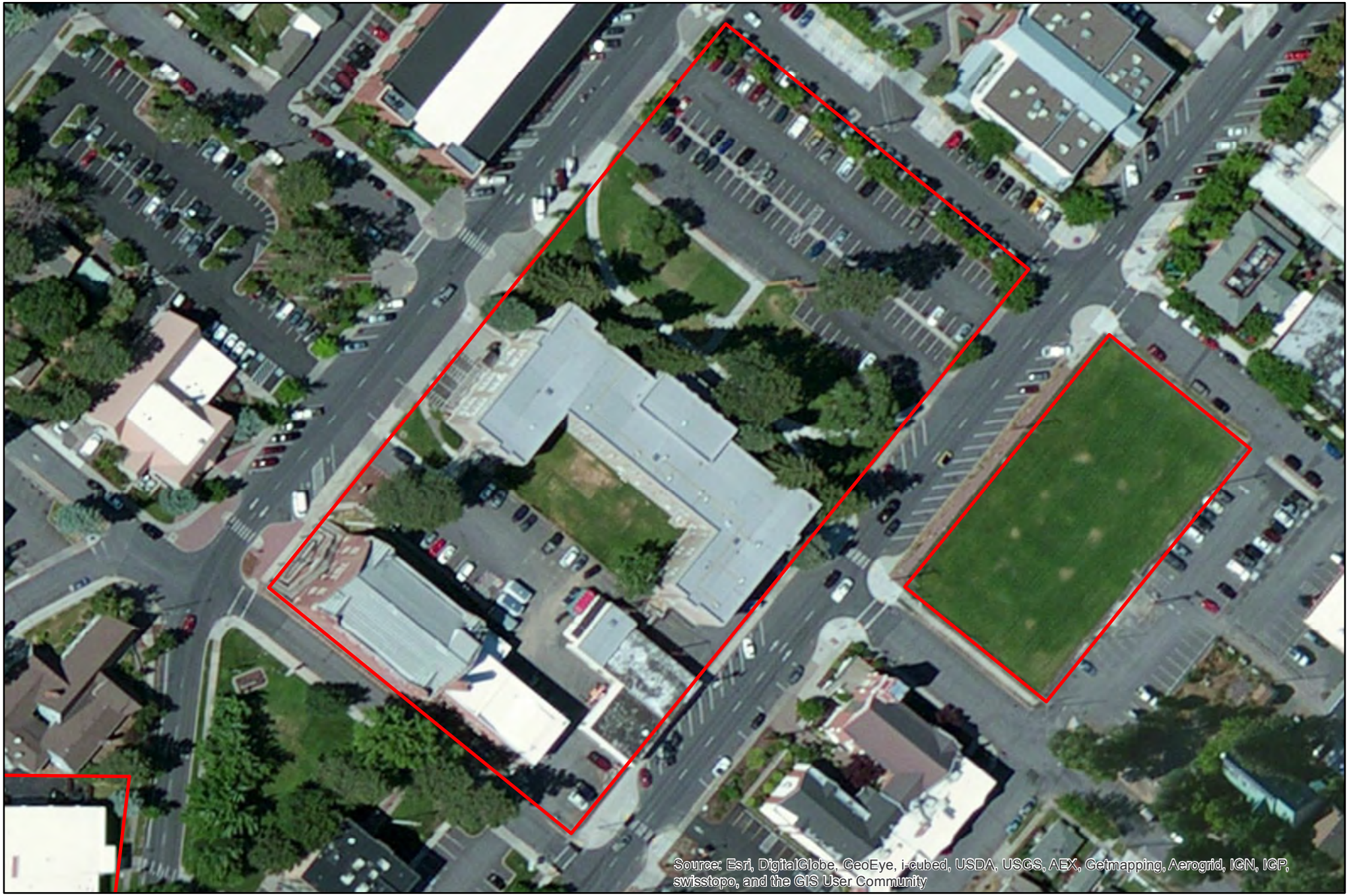
Buckingham Elementary
62560 Hamby Road, Bend
Built 1980 Remodeled 2015
Capacity 600 Enrollment 562

Bend Senior High
230 NE 6th Street, Bend
Built 1956 Remodeled 1967, 1972, 1982, 1994, 2004, 2010
Capacity 1750 Enrollment 1710

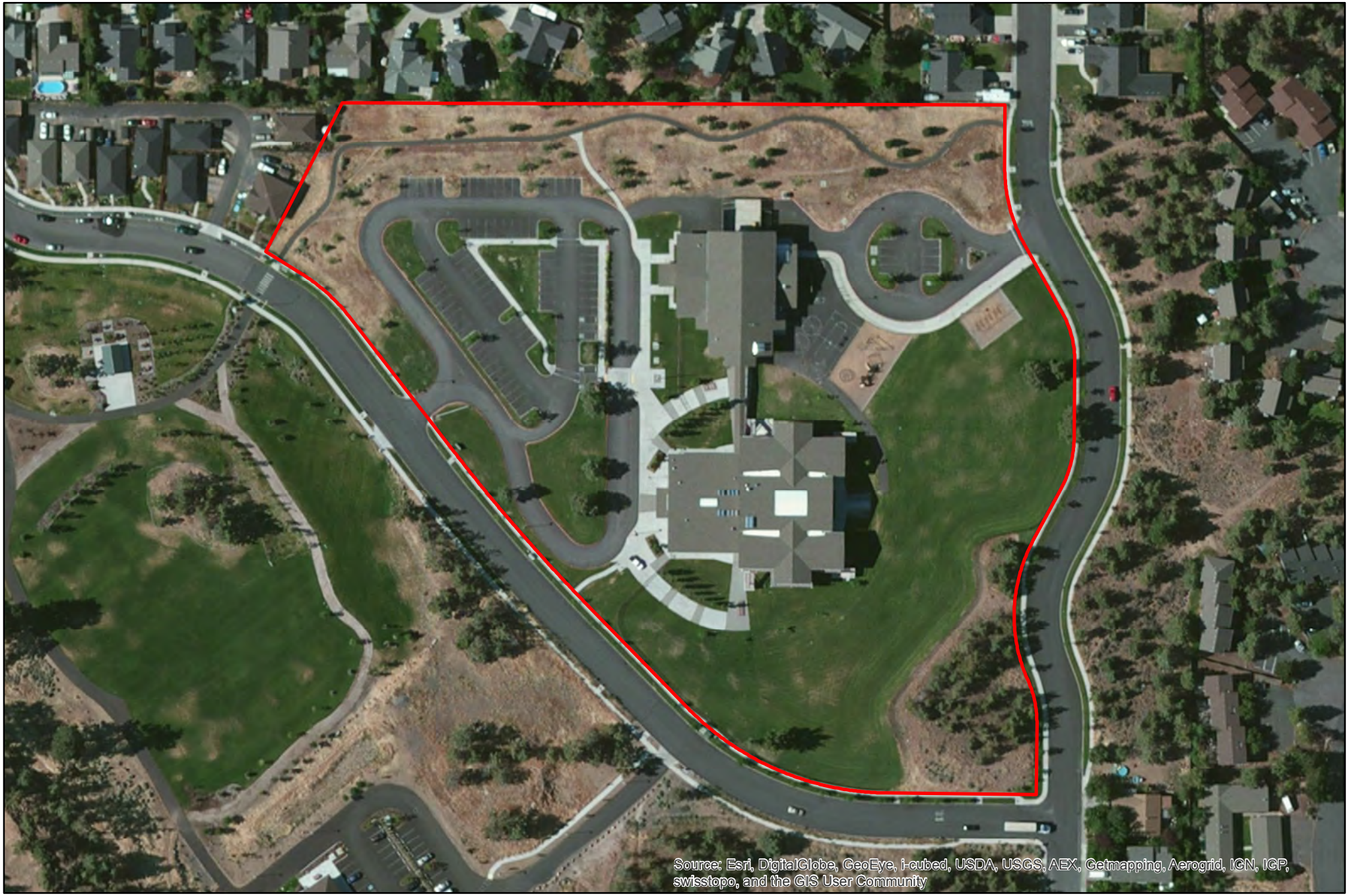
Cascade Middle
19619 Mountaineer Way, Bend
Built 1978
Capacity 800 Enrollment 570



Education Center and Troy Field
520 NW Wall Street, Bend

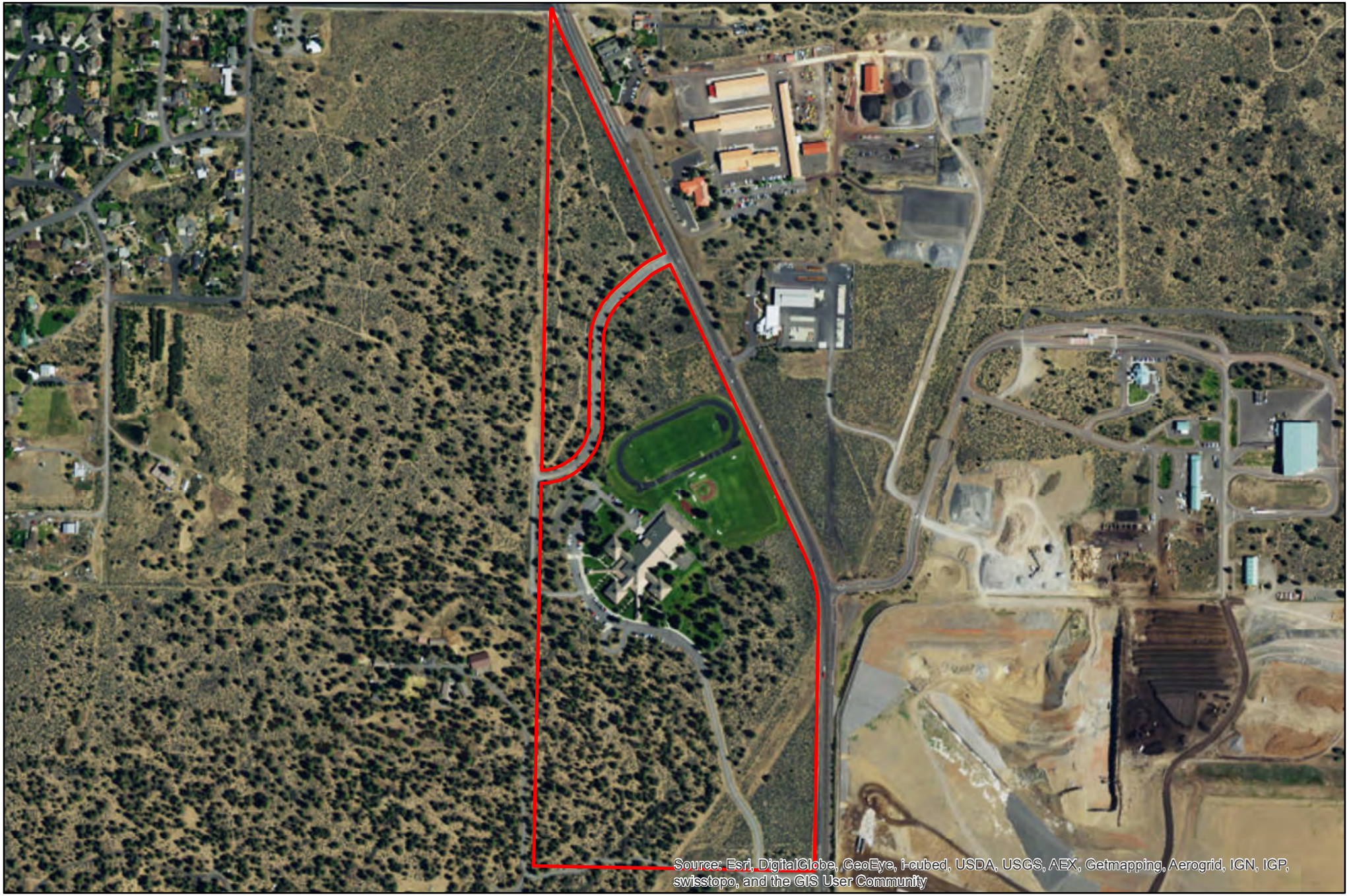


Ensworth Elementary
2150 NE Daggett Lane, Bend
Built 2004
Capacity 300 Enrollment 245



Elk Meadow Elementary
60880 Brookswood Blvd, Bend
Built 1993
Capacity 600 Enrollment 574

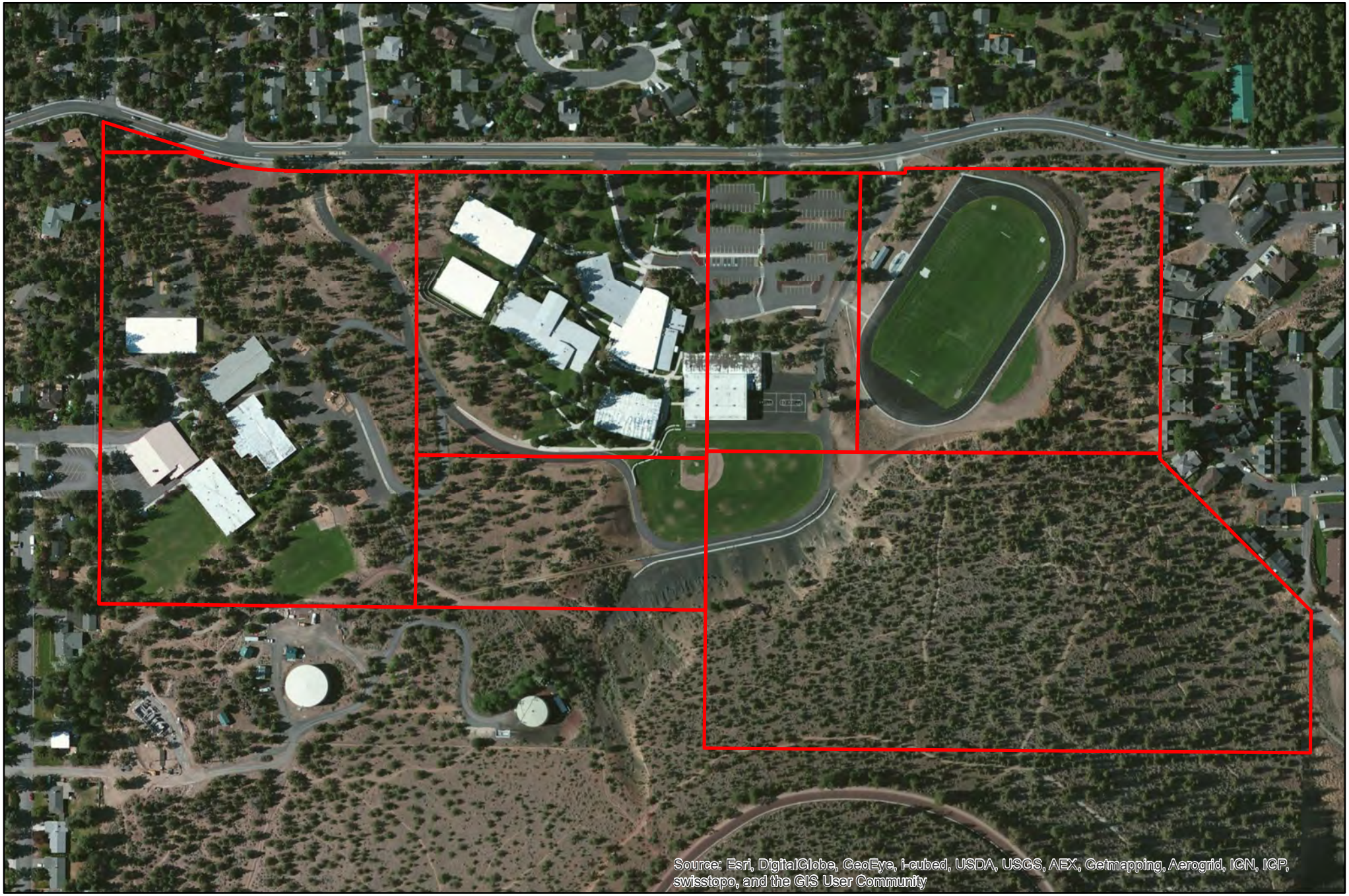
High Desert Middle
61000 Diamondback Lane, Bend
Built 1993
Capacity 800 Enrollment 720



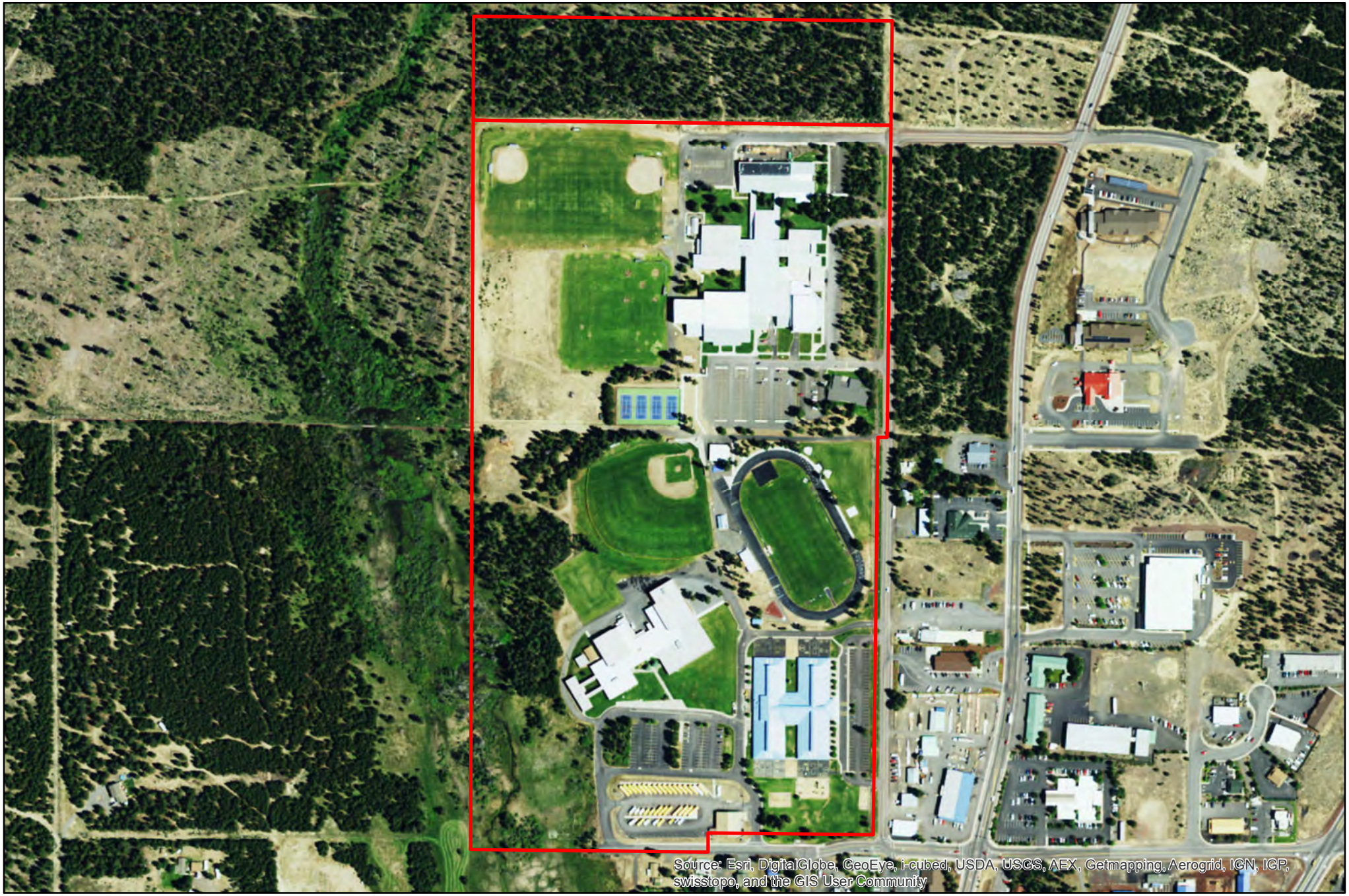
Highland at Kenwood Elementary
701 NW Newport Avenue, Bend
Built 1918 Remodeled 1935, 1980
Capacity 375 Enrollment 386

High Lakes Elementary
2500 NW High Lakes Loop, Bend
Built 2000
Capacity 600 Enrollment 614

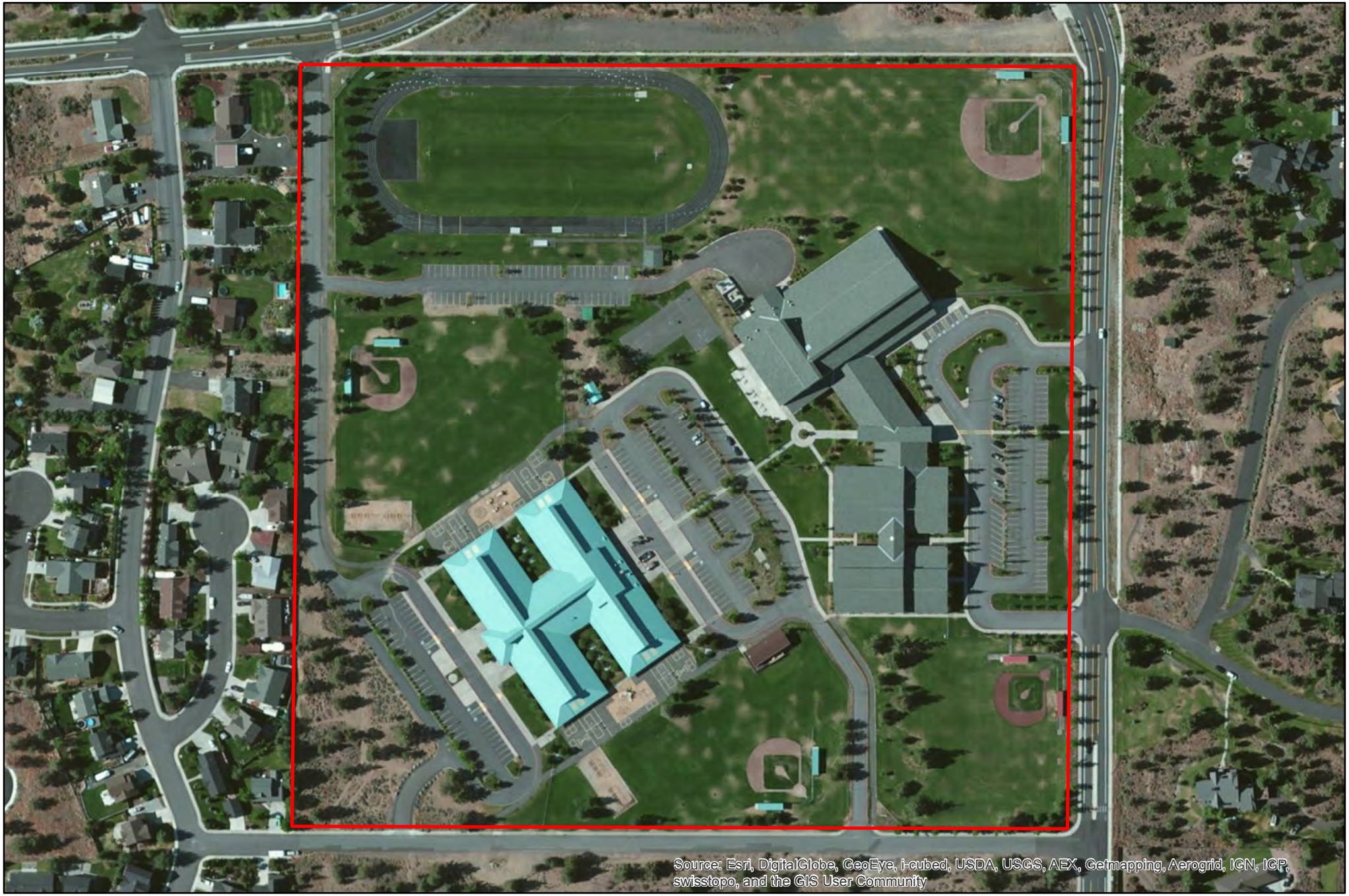
Juniper Elementary / Pilot Butte Middle
1300 NE Norton Street, 1501 NE Neff Street
Built 1965 / 1967 Remodeled 1968, 1980
Capacity 575 / 900 Enrollment 554 / 671



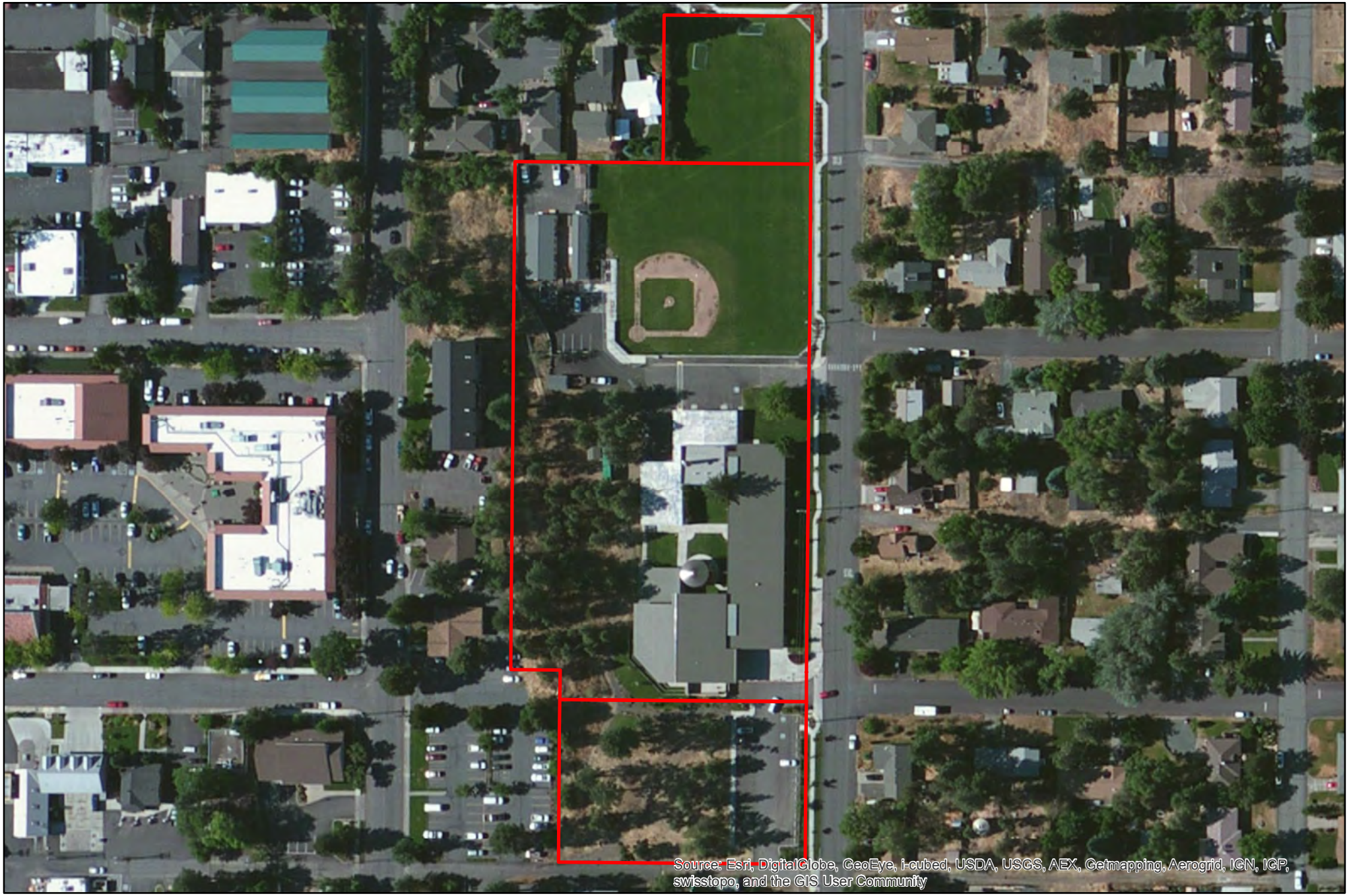
La Pine Elementary, Middle and High School
51615 Coach Road, La Pine
Built 1993 / 1978 / 1981 Remodeled Elementary 1995
Capacity 600 / 550 / 650 Enrollment 382 / 290 / 425



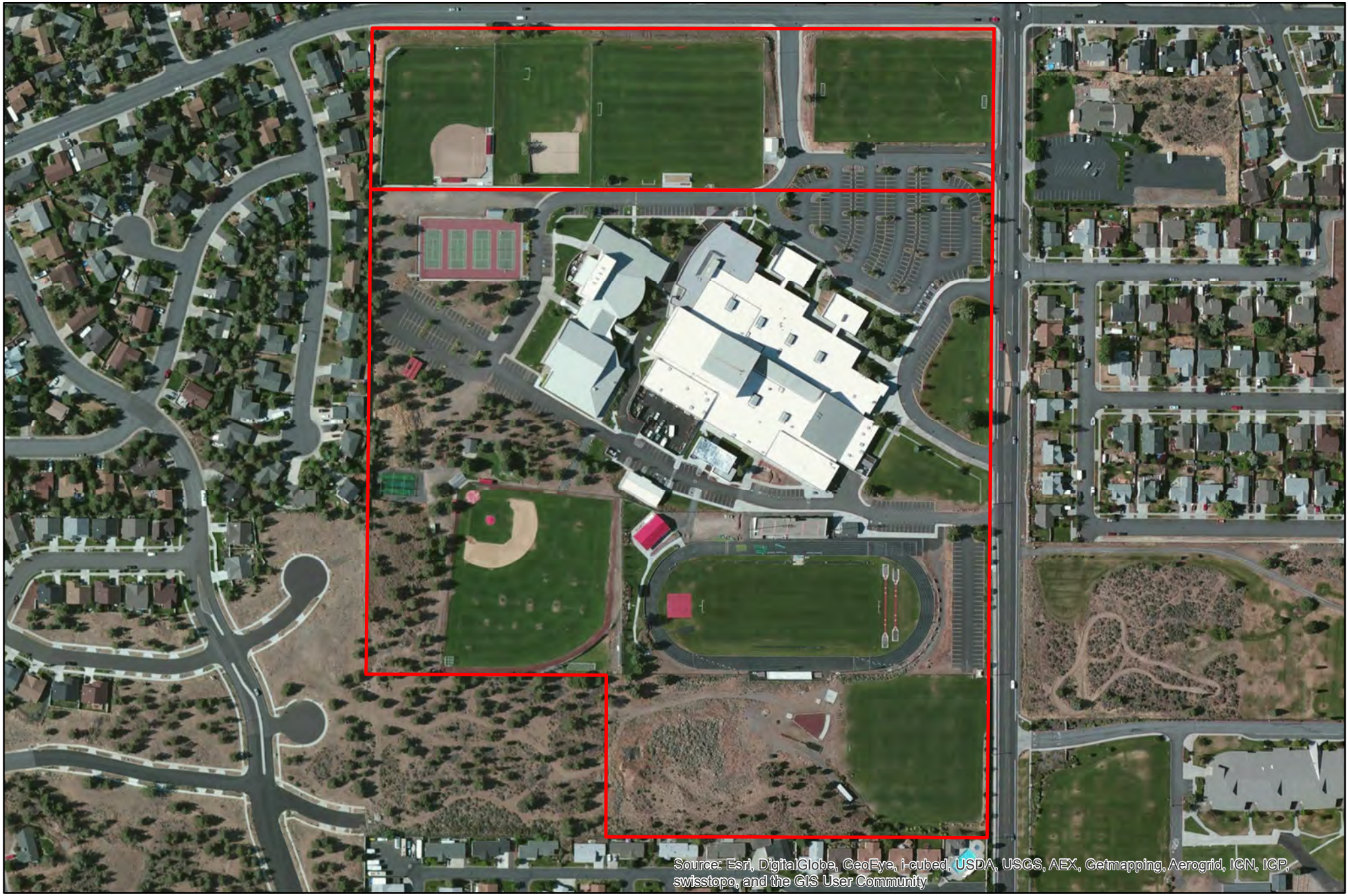
Lava Ridge Elementary / Sky View Middle
20805 Cooley Road, 63555 18th Street, Bend
Built 1994 / 2000
Capacity 600 / 800 Enrollment 566 / 712



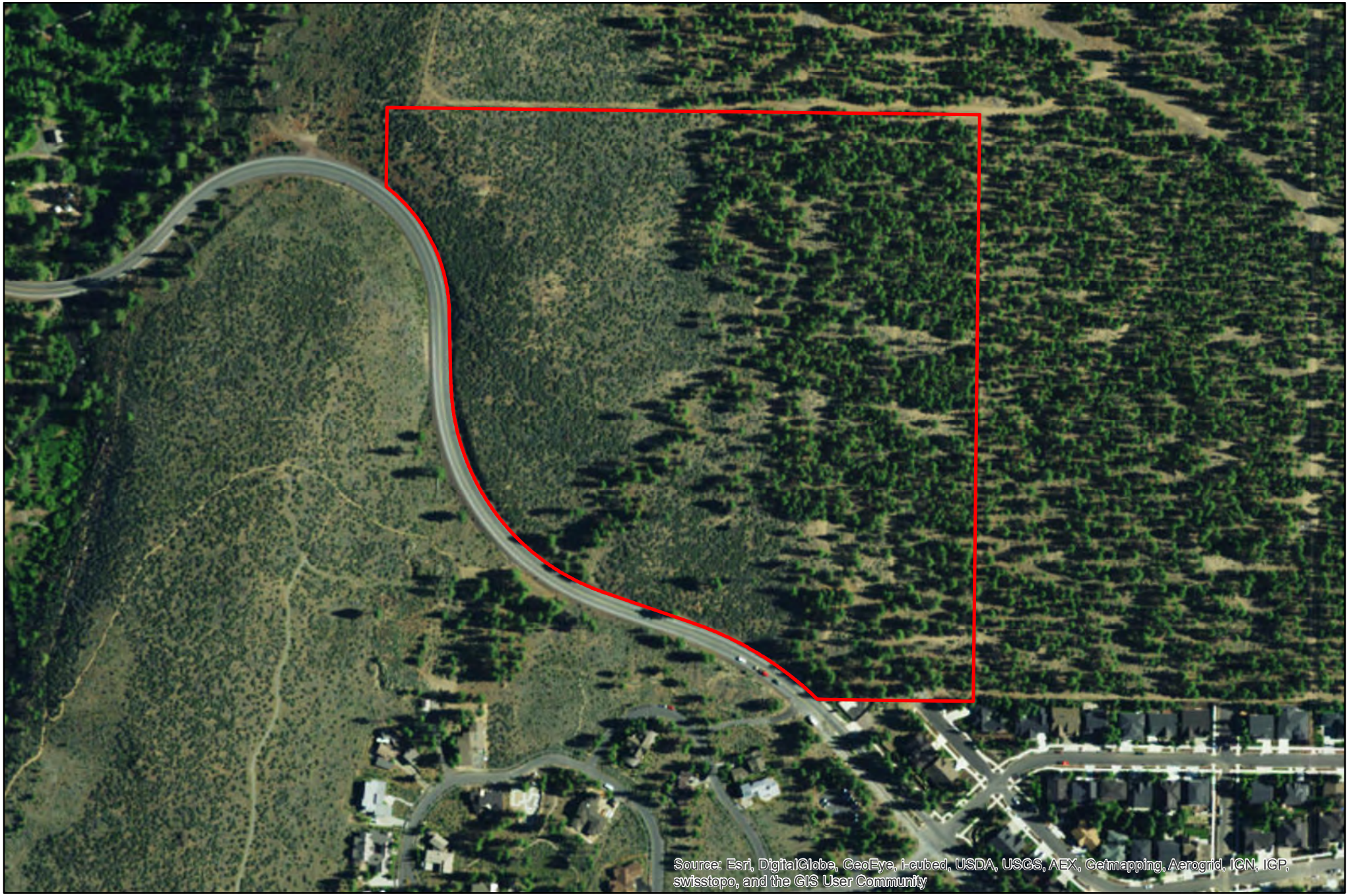
Marshall High
1291 NE 5th Street, Bend
Built 1948 Remodeled 1972. 2004
Capacity 200 Enrollment 172



Mountain View High
2755 NE 27th Street, Bend
Built 1978 Remodeled 1980, 1993, 1994, 2005, 2009
Capacity 1550 Enrollment 1405

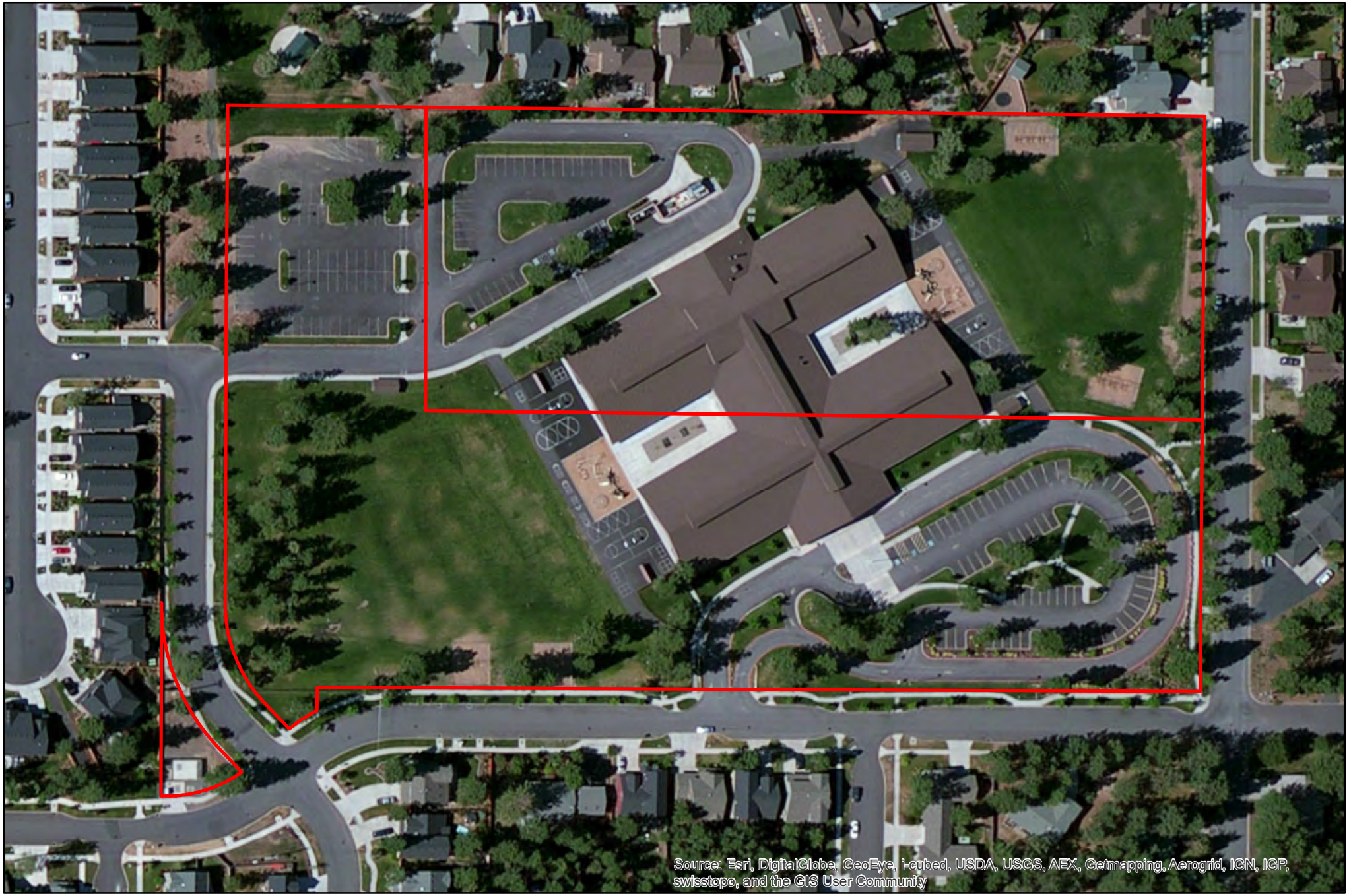


Northwest Vacant Lot
Shevlin Park Road

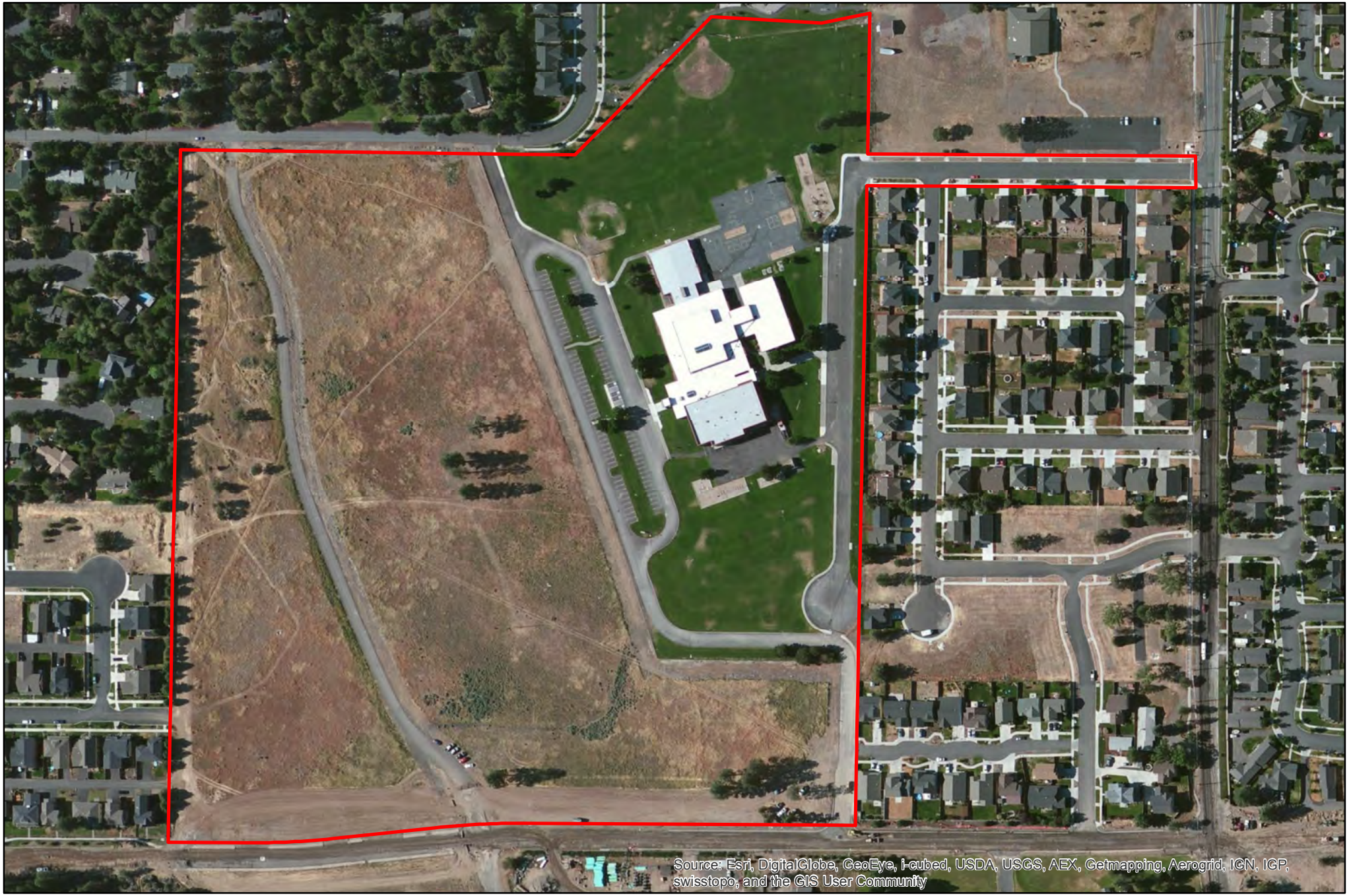


Ponderosa Elementary
63100 NE Purcell, Bend
Built 2007
Capacity 600 Enrollment 569

Pine Ridge Elementary
19840 Hollygrape Street, Bend
Built 2003
Capacity 600 Enrollment 530



RE Jewell Elementary
20550 Murphy Road, Bend
Built 1974 Remodeled 1980, 2010
Capacity 600 Enrollment 522

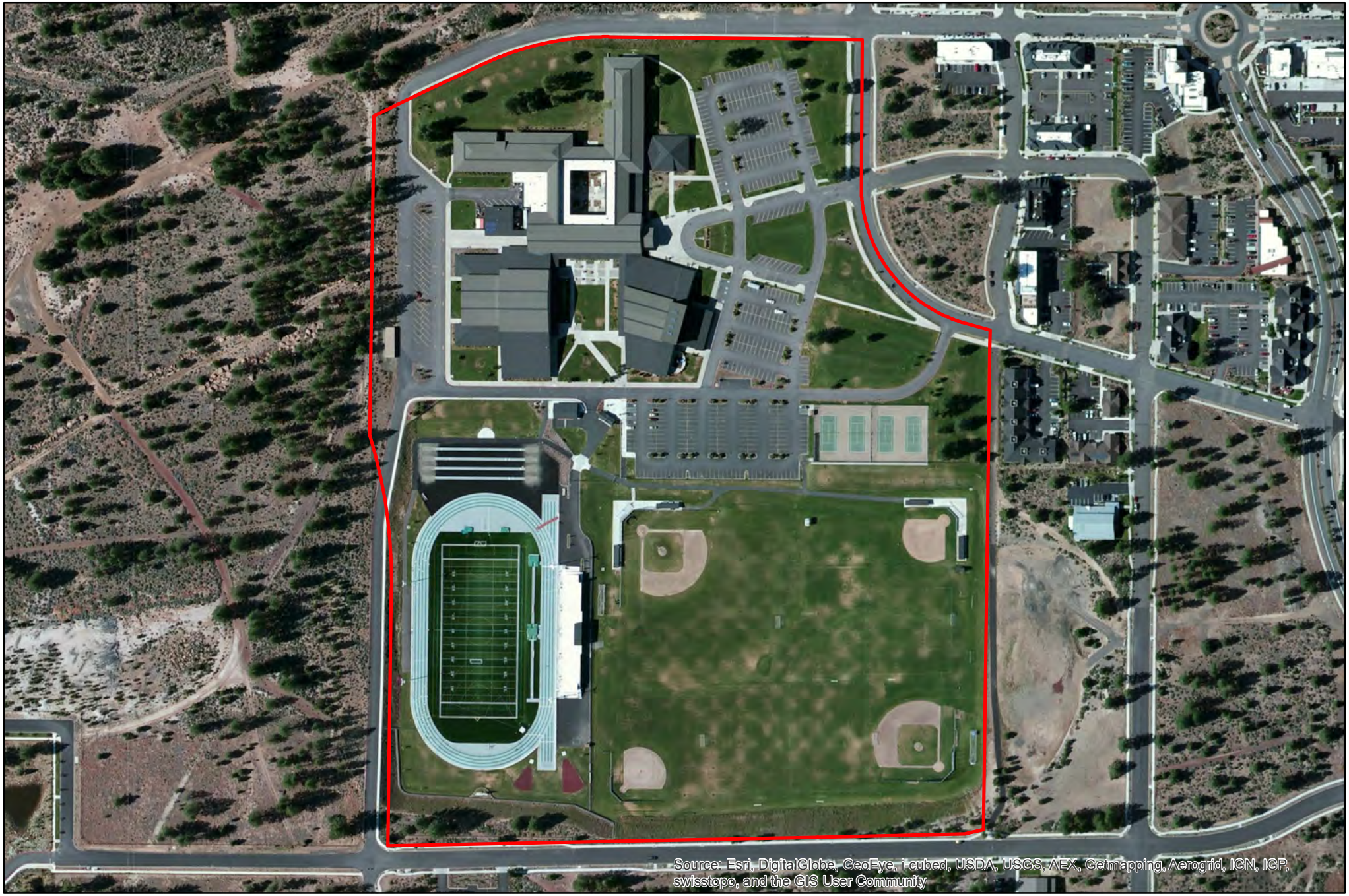


Rosland Elementary
52350 Rease Drive, La Pine
Built 2010
Capacity 300 Enrollment 175

REALMS (Leased)
63175 OB Riley Road, Bend
Enrollment 149

SE Vacant
Country Club Drive, Bend

Summit High
2855 NW Clearwater Drive, Bend
Built 2001
Capacity 1500 Enrollment 1490



Silver Rail Elementary
61530 SE Stone Creek Lane, Bend
Built 2015
Capacity 600 Enrollment 390

Tamarack / Transition Coop (Leased)
2480 / 2500 NE Twin Knolls Drive, Bend
Enrollment

Transportation
501 SE 2nd Street, Bend

Three Rivers School
56900 Enterprise Drive, Sunriver
Built 1989 Remodeled 1993, 1995, 2004, 2011
Capacity 460 Enrollment 399

Miller Elementary and Pacific Crest Middle
300 NW Crosby Drive, 3030 NW Elwood Lane, Bend
Built 2009 / 2015
Capacity 600 / 800 Enrollment 586 / 642

Warehouse
151 SE 9th Street, Bend

Westside Village at Kingston
1101 NW 12th Street, Bend
Built 1949 Remodeled 2009
Capacity 190 Enrollment 279