APPENDIX—BACK UP INFORMATION

November 2006 Bond Measure

- In June the Board conducted a Work Session to review the District's facilities needs.
    - The Work Session identified the most important needs of each facility.
- The Board, numerous committees, and staff reviewed the initial recommendations, added additional needs based on special reports and input from community forums.
    - A synopsis of the issues which were identified as most critical is as follows:
        - There was overcrowding at Stayton Elementary and without portables Mari-Linn, Sublimity, and Stayton High School would be short classrooms;
        - All buildings were short specialty spaces (i.e. special education program space, English as a Second Language space, and space for special reading and math programs through Title I);
        - Many schools did not have computer labs to accommodate multiple student use;
        - Sublimity and Mari-Linn were using classrooms as library space;
        - Deferred maintenance, especially infrastructure items, exceeded $16 million District-wide; and
        - Many buildings were getting very old, exceeded their design life, and were:
            - Not conducive to current educational needs (especially technology related and special education); and
            - Inefficient to operate (utility expenses and overall maintenance) and not designed for the current security needs of schools.

A Bond Measure was placed on the November 2004 ballot with the following scope and budgets for each school:

Stayton High School ($10.6 mil)

- Construct 6 new classrooms and corridor north of the gymnasium
- Construct 4 new classrooms and corridor south of the technology wing
- Construct new restrooms for the 10 new classrooms
- Construct new locker and team rooms east of the existing locker rooms and remodel existing locker and team rooms
- Expand the commons/cafeteria area west of the auditorium
- Construct expanded media center
- Construct support spaces (custodial, mechanical, electrical, etc.) for above
- Remodel east (auditorium) entrance and adjacent spaces
- Undertake Infrastructure Repair projects to address seismic, fire, life and safety problems

New 450 Student K-5 ($11.1 mil)

- Construct new 450-student elementary school on the Stayton Middle School site south of wetlands area
- Separate playground areas from SMS with partial shared playing fields
- Complete associated site work including utilities, landscaping, parking, and driveways

Stayton Middle School ($1.8 mil)

- Expand parking area and create common vehicular entry for both schools
- Replace/refurbish interior finishes, primarily in 1970's building (main and old gym)
- Convert one existing classroom into a new Life Skills Room
- Undertake infrastructure repair projects to address fire, life, safety and accessibility problems (many of the projects are seismic and accessibility (ADA) related)

Stayton Elementary School ($2.7 mil)

- Construct additions and remodel existing spaces south of the main corridor to achieve new "multi-purpose" spaces
- Construct additional restrooms
- Undertake infrastructure repair projects to address fire, life, safety and accessibility problems (the majority of the infrastructure repair budget is allocated to seismic upgrades, bringing the fire sprinkler/alarm systems up to current codes, and resolving accessibility (ADA) deficiencies)

Mari-Linn School ($4.6 mil)

- Renovate the existing gym including seismic problems
- Construct two new classrooms and restrooms
- Undertake infrastructure repair projects to address seismic, fire, life, safety and accessibility problems

Sublimity Elementary School Site ($6.8 mil)

- Construct nine classrooms, multi-purpose room/gymnasium, restrooms and associated support spaces to replace the "old" middle school building and the gym/cafeteria
    - The new instructional spaces should be designed as a "traditional" spaces
- Undertake infrastructure repair projects to address fire, life, safety and accessibility problems

Sublimity Middle School ($6.8 mil)

- Construct a four-classroom Alternative Education space, restrooms and related support spaces to be used in conjunction with the "new" middle school classroom wing

The total projected cost for this plan in October 2004 was $38,273,780. The November 2004 bond measure was not successful.

The 5-Year Facilities Plan developed in 2000 reached the $1,000,000 benchmark for targeted investments from the General Fund in projects to arrest the declining condition of our school facilities. Projects completed included the:

- SHS Technology Roof Replacement;
- SHS Main Gym Bleacher Replacement;
- SES Bus Loading Improvement Project; and
- SMS Exterior Renovation.

The District completed energy retrofit projects totaling an additional $1.3 million under the 5-Year Facilities Plan. For these projects:

- The District received outside funding in the amount of $285,873 through the Business Energy Tax Credit Pass-through Program (BETC);
- The District will receive an estimated additional $340,000 through the S.B. 1149 program over the next 10 years;
- The District received incentives totaling $30,444 from PacifiCorp;
- Energy consumption (natural gas and electricity) during the May 2003 through April 2004 period was reduced 28% (compared to the same months in 2001) for an annual savings in excess of $92,000 at 2003 rates;
- Reduction in other facilities maintenance costs were reduced in excess of $17,000 annually; and
- The District's total capital contribution was the $35,000 originally budgeted in 2001.

The Board authorized the participation in the State of Oregon's "High Performance School Program" (HPS).

- The HPS Program provides technical support, publicity, and funding for construction of schools that are environmentally responsible and conserve natural resources.
- Design and construction costs for high performance schools are eligible for supplemental funding from several governmental and business sources.

2005

- Following the close, but unsuccessful, election in November 2004, several times in early 2005 the Board revisited the issue of placing a new measure before the voters.
- The District established a Building Site Committee to investigate the District's options for acquisition of a site for a new elementary school in the Stayton area, including acquisition, site development, and System Development Charges (SDCs).
    - The District subsequently negotiated a "first right of refusal" agreement with the owner of the top ranked site.
- Superintendent Hollensteiner instructed the Facilities Department staff to develop additional bond alternatives, and their estimate costs for presentation to the Board.
- The Board held a public Work Session on May 7, 2005 to:
    - Review the District's options for alternative school design and construction processes to determine if a bond measure's costs could be reduced;
    - Review the Building Site Committee's recommendations for purchase of property for a site in Stayton for the new school;
    - Review the District's school facilities needs to determine the options and costs of a new bond measure to meet the District's needs over the next 30 years; and
    - Decide if the District would place a new bond measure on the September 2005 ballot, and the scope and estimated costs of the measure.

A decision was made by the board to place a bond measure on the September 2005 ballot.

- District staff reviewed and refined the Board Work Session's bond scope and estimated costs. The following is the measure's final scope and budgets for each school:

Stayton High School ($10.3 mil)

- Construct a new student commons, student store, meeting rooms, and expand the existing media center
- Construct an auditorium backstage restroom, changing rooms with storage, and utility/custodial spaces
- Remodel the auditorium stage area including the creation of "make-up" areas, relocation of utilities, and an expansion of the stage
- Expand the cafeteria to serve 500 students at a time, remodel the serving area, and add utility/custodial spaces
- Construct 6 new classrooms, gym storage, 2 new restrooms and utility/custodial spaces in the gym
- Construct/remodel gym locker rooms to equalize the size of the boys and girls facilities (as required by Title IX).
- Security related construction and remodel of the main entry, minor remodel of the commons/auditorium entry, and upgrading of a portion of the 1950's mechanical system
- Construct 4 new classrooms, 2 restrooms, and utility/custodial spaces adjacent to the technology wing
- Undertake infrastructure repair projects critical to address fire, life, safety and accessibility problems

New 450-Student Elementary ($10.2 mil)

- Acquire new property
- Construct a 450-student "High Performance" elementary school in the Stayton area
- Complete associated site work including street improvements required by City of Stayton, utilities, landscaping, parking, and driveways
- Design the school based on the State of Oregon's "High Performance School" standards for which District will receive state funding

Stayton Middle School ($1.8 mil)

- Expand parking area
- Replace/refurbish interior finishes, primarily in 1970's building (main and old gym)
- Undertake infrastructure repair projects critical to address fire, life, safety and accessibility problems (the projects are primarily associated with that portion of the facility constructed in the 1970's)

Stayton Elementary School ($2.9 mil)

- Remodel portions of the school including expansion of the existing cafeteria, and the relocation of the music room and adjacent classroom
- Undertake all of the Priority 1, 2 and 3 infrastructure repair projects to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Mari-Linn School ($6.6 mil)

- Construct approximately 16,000 square feet of a new K-8 school to replace the portables and other aged facilities (the new construction to be based upon the "High Performance" school design developed for the District's new school in the Stayton area)

- The new construction includes 3 classrooms, music room, media center, restrooms, bus barn, and multi-purpose room, cafeteria with kitchen
- Remodel the gym to address seismic issues and to upgrade finishes
- Undertake infrastructure repair projects critical to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school (the majority of the infrastructure repair budget is allocated to seismic upgrades, repairing the mechanical system, and resolving accessibility (ADA) deficiencies

Sublimity Elementary School Site ($5.8 mil)

- Construct the core of a new K-8 school to replace the "old" middle school building and the gym/cafeteria. The new construction will be on the site of the current Sublimity Elementary School (the new construction will be based upon the "High Performance" school design developed for the District's new school in the Stayton area)
  - The new construction includes 9 new classrooms, restrooms, a multi-purpose room/cafeteria with kitchen, and gym
- Undertake major infrastructure repair projects critical to address fire, life, safety and accessibility problems (the majority of the infrastructure repair budget is allocated to exterior repairs, bringing the fire sprinkler/alarm systems up to current codes, and resolving accessibility (ADA) deficiencies)

Sublimity Middle School Site ($0.6 mil)

- Demolish the "old" Sublimity Middle School building after asbestos and PCBs are removed.
  - Grade the site
  - Construct a new "Unisex" restroom adjacent to the "new" classroom building with access for the public using the ball fields when school is not in session

The total projected cost for this plan in June 2005 was $38,263,090. The September 2005 bond measure was not successful.

On October 28, 2005 the Board held a public Work Session to review the revised cost estimates and develop a plan for future bonds.

In November the District retained the services of James G. Pierson consulting structural engineers to complete a more in-depth study of the Sublimity Middle School's 1945 classroom building. The resulting report states that, while the building has un-reinforced clay tile masonry walls, the building's original construction was of high quality and its potential for catastrophic failure in a seismic event is much lower than previously thought. This report sets forth recommendations, but not cost estimates, for upgrading of the building's structural members to meet current codes.

2006 Bond Survey

In January 2006 the District retained Moore Information, Inc. to conduct a telephone survey among voters in the North Santiam School District. The survey obtained responses from a representative sample of 250 voters in the District in March 2006. The results of the survey are as follows:

Facilities

1. 63% rated NSSD's school facilities as in "fair" or "poor" condition
2. 61% responded that the school facilities were "very" or "somewhat" crowded
3. 62% responded that they were "much" or "somewhat" more likely to vote for a measure now due to increasing school construction costs

$44 million Bond Measure

1. 62% will "definitely" or "probably" vote for;
2. 32% will "definitely" or "probably" vote against;
3. 49% state the major reason they would vote for the bond is that "it's needed/schools need repairs/maintenance" (this reason was identified more than 3 times more often than the second most selected reason- "education important/have always supported education");
4. The two most often identified reasons respondents would vote against the measure were "Unwise/wasteful spending" (19%) and "High taxes/property taxes" (14%);
5. Only 5% of those who said they would vote against the measure identified "cost/amount" as the reason;
6. Responses favoring specific components of the bond measure, ranked in order, are as follows:
    - Infrastructure repairs at all schools- 82%
    - New classrooms at Sublimity, Stayton High, and Mari-Linn- 71%
    - Cafeteria space at Stayton Elementary, Mari-Linn, and Stayton High- 58%
    - Remodel locker and team rooms at Stayton High- 58%
    - Library space at Stayton elementary, Mari-Linn, and Stayton High- 57%
    - New gym and cafeteria at Sublimity- 52%
    - Land for new Stayton Elementary- 52%
    - Construction and remodel of Stayton High auditorium- 49%
7. Responses opposing specific components of the bond measure, ranked in order, are as follows:
    - Infrastructure repairs at all schools- 14%
    - New classrooms at Sublimity, Stayton High, and Mari-Linn- 18%
    - New gym and cafeteria at Sublimity- 26%
    - Library space at Stayton elementary, Mari-Linn, and Stayton High- 27%
    - Cafeteria space at Stayton Elementary, Mari-Linn, and Stayton High- 29%
    - Remodel locker and team rooms at Stayton High- 29%
    - Land for new Stayton Elementary- 34%
    - Construction and remodel of Stayton High auditorium- 36%
8. Respondents favored a single $44 million bond over a "phased" bond approach totaling $50 million;

9. Statements increasing support for the bond measure ("much more likely", or "somewhat more likely" responses) ranked in order:
    - Bond will protect community's investment...properly maintain...extend life- 72%
    - New classrooms at SUB, SES, and ML will relieve overcrowding there- 68%
    - Bond will relieve overcrowding at SHS- 67%
    - Bond will relieve overcrowding at elementary schools- 64%
    - New elementary will reduce overcrowding at existing- 64%
    - Bonds are the only way to fund improvements, remodeling and expansions- 62%
    - Delaying bond work will cost "millions more later on"- 62%
    - New gym/improvements ensures the District can offer sports to all- 57%
10. Statements decreasing support for the bond measure ("somewhat less likely", or "much less likely" responses) ranked in order:
    - Bond will protect community's investment...properly maintain...extend life- 15%
    - Bond will relieve overcrowding at SHS- 20%
    - Bonds are the only way to fund improvements, remodeling and expansions- 21%
    - New classrooms at SUB, SES, and ML will relieve overcrowding there- 21%
    - Bond will relieve overcrowding at elementary schools- 23%
    - New elementary will reduce overcrowding at existing- 23%
    - New gym/improvements ensures the District can offer sports to all-31%
11. Moore's report dated March 27, 2005 demonstrates that there is a "widespread awareness that the facilities need help", and a "high level of awareness of crowding in district schools". The report further states that respondents believe the two most critical components of a bond measure are:
    - Addressing the District's infrastructure repairs, and
    - Construction of new classroom space to alleviate overcrowding

    Moore recommends that these two components "should be the cornerstone" of the District's efforts to pass a bond measure.

In April of 2006 Superintendent Hollensteiner requested that the Facilities Department develop estimates for three bond scenarios with current costs of:

1. The 2004 ballot measure's scope of work;
2. A scope of work that minimally meets the District's needs as outlined in this document; and
3. A scope of work that is based upon Moore Information's survey of district voters.

These estimates can be found in the Appendix.

In May 2006 the District received the results of the student population forecast developed by the Population Research Center of Portland State University. The "North Santiam School District Population and Enrollment Forecasts 2006-07 to 2025-26" determined that the District's enrollment would grow at a rate and in communities substantially differently than previously predicted.

Superintendent Hollensteiner tasked the Facilities Department with determination of the District's future facilities needs utilizing the student population forecast recently completed by Portland State University's Population Research Center.

To accomplish this the Facilities Department first calculated each school's current student capacity based upon the "functional capacity" methodology.

With the current functional capacity determined, the student enrollment projections by Portland State University's Population Research Center were used to determine what additional classroom and support spaces were required to meet our projected future student population

Estimates for the construction and related costs for the classrooms and support spaces identified in this analysis were developed and added to the District's "Bond Estimating Database". The databases' infrastructure repairs scope and costs were reviewed and updated as a part of this process (estimated total construction costs increased to $27.4 million).

November 2006 Bond Measure

In July 2006 the District's new Superintendent, Dr. Jack Adams, requested the Facilities Department to develop new bond scenarios based upon the District's newly identified needs. The criteria set by Dr. Adams were:

- Make the most efficient use of our existing facilities;
- Include all known infrastructure repairs and new construction that will be required to meet the District's needs through 2015;
- Determine and estimate additional priority facility "enhancements" which will improve the educational experience of our students; and
- Use the Oregon Department of Energy's "High Performance School Program" standards for new construction.

The Facilities Department developed a preliminary scope and estimate for the following scenarios, which met Dr. Adam's criteria:

1. All known infrastructure repairs, no construction;
2. Infrastructure repairs required through 2015, no construction;
3. Infrastructure repairs required through 2015, construction (minimal) required through 2015;
4. Infrastructure repairs required through 2015, construction (minimal plus priority enhancements) required through 2015;
5. All infrastructure repairs, with minimal classroom construction required through 2015 only; and
6. Infrastructure repairs required through 2015, with minimal classroom construction required through 2015 only.

Dr. Adams reviewed the six scenarios in meetings with District staff. It was determined that moving Sublimity Middle School students to Stayton Middle School (where the district has surplus capacity) was not in the best interests of the District. To offset the additional costs associated with construction a new Sublimity Middle School (in lieu of moving the students to

Stayton), Dr. Adams instructed the Facilities Department to develop recommendations on how to reduce the cost of the proposed bond measures without negatively impacting our student's learning environment.

Dr. Adams also requested changes to the **Bond Estimating Database** including assignment of a category to each infrastructure repair and a total projected cost for each of these categories by school and district. Dr. Adams narrowed the six options down to four for presentation to the Board.

The Facilities Department determined that the most feasible methodology to reduce the cost of the bond without negatively impacting our students' learning environment would be to contract for many of the Infrastructure Repair items through the Performance Contracting process. The infrastructure repairs with significant operational energy savings would be funded through a combination of Business Energy Tax Credits (BETC), bond funds, and loans whose repayment was less than the operational savings the District will realize upon their completion.

Each of the Infrastructure Repairs in the database was assigned one of the following categories:

- Building Exterior and Roof
- Electrical
- Interior Finishes
- Fire, Safety, Code Compliance
- General Construction/Remodel
- Grounds, Sidewalks and Paving
- Hazardous Materials Abatement
- Heating, Ventilation, Cooling
- Plumbing
- Specialized Construction

The database was modified to provide a total for each category by location and for the District as a whole. The resulting four bond options were presented to the Board in August 2006.

OPTION #1

Scope: Complete priority fire/safety/code compliance and other repairs necessary to 2015 and to reduce the District's facilities operating expenditures.

Construction: None

Repairs: Approximately 200 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the District's facilities operating expenditures.

Estimated Cost: $25,434,908

OPTION #2

Scope: Complete minimum construction to meet the District's classroom and support space needs to 2015.

Construction:

- Stayton High- 4 classroom wing addition
- Stayton Middle- 6 classroom wing and 3000 square feet Multi-Purpose Room (cafeteria and kitchen) additions to "new" building, construct expanded parking area
- Stayton area 4th and 5th grade student will use Stayton Middle School "new" building w/addition in lieu of building new K-4 school
- Sublimity Middle- 2 classroom wing addition

Infrastructure Repairs:

- Complete approximately 215 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the district's facilities operating expenditures.
- Additional repairs projected to be required to obtain building permits for construction and remodel/renovation work.

Estimated Cost: $33,614,211

OPTION #3

Scope: Construct classroom, support, and other spaces necessary to meet the District's educational needs to 2015 and designed to be expanded to accommodate projected student population through 2025.

Construction:

- Stayton High- construct new 4-classroom wing, and expand cafeteria/kitchen building
- Minor remodel of auditorium foyer
- New K-4 School (300 student capacity) constructed on the back of Stayton Middle School site with shared playing fields
- SUB MS- construct minimum new school facilities required to 2015 on the Sublimity Elementary site
- Stayton Elementary- construct new Multi-Purpose Room/Cafeteria and convert existing into educational spaces

Repairs:

- Approximately 170 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the District's facilities operating expenditures
- Additional repairs projected to be required to obtain building permits for construction and remodel/renovation work.

Estimated Cost: $45,758,773

OPTION #4

Scope: Construct classroom, support, and other spaces required to meet all of the District's needs to 2015 and designed to be readily expanded to accommodate growth through 2025. Complete additional educational program enhancements.

Construction:

- Stayton High- construct new 4-classroom wing, expand cafeteria/kitchen building, auditorium back stage area, and offices. Minor remodel of auditorium foyer, east entrance and existing office spaces
- New K-4 (300 student capacity) constructed on back of Stayton Middle School site with shared playing fields
- SUB Middle- construct minimum new school facilities required to 2015 on the Sublimity Elementary site
- Stayton Middle- expand parking lot
- Stayton Elementary- construct 4,100 square foot multi-purpose/cafeteria/kitchen addition on the north side of main building and convert existing cafeteria/kitchen into educational and support spaces
- Mari-Linn- construct 2,200 square foot Media Center

Repairs:

- Approximately 175 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the District's facilities operating expenditures
- Additional repairs projected to be required to obtain building permits for construction and remodel/renovation work.

Estimated Cost**:** $49,510,219

The Board considered each of these options at their August 2006 Bond Work Session. The Board unanimously adopted the following bond measure scope to be placed on the November 7, 2006 General Election ballot.

REQUIREMENTS: Construct classroom, support, and other spaces required to meet all of the District's needs to 2015 and designed to be readily expanded to accommodate growth through 2025. Complete additional Educational Program Enhancements.

Scope of Major Construction

- Stayton High- construct new 6-classroom wing, expand cafeteria/kitchen building, auditorium back stage area, and offices. Minor remodel of auditorium foyer, east entrance and existing office spaces
- New K-4 (300 student capacity) elementary constructed on back of Stayton Middle School site with shared playing fields
- SUB Middle School- construct minimum new school facilities required to 2015 on the Sublimity Elementary site
- Stayton Middle School- expand parking lot
- Stayton Elementary School- construct 4,100 square foot multi-purpose/cafeteria/kitchen addition on north side of main building and convert existing cafeteria/kitchen into educational and support spaces
- Mari-Linn- construct 2,200 square foot Media Center

Construction Estimate Total: $27,954,976

Infrastructure Repairs Scope

- Approximately 175 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the District's facilities operating expenditures
- Additional repairs projected to be required to obtain building permits for construction and remodel/renovation work

Infrastructure Repairs Estimate Total: $21,855,243

FINANCIAL SUMMARY:

Infrastructure Repairs	$21,855,243
Construction	$27,954,976
Total Estimate	$49,810,219

NOTES:

- Includes $950,000 Systems Development Charges (SDCs) for new K-4
- Does not include other Systems Development Charges (SDCs)
- Does not include proceeds from sale of Sublimity Middle site.

Location Totals Detail

FACILITY	CONSTRUCTION ESTIMATE	REPAIRS ESTIMATE	TOTAL ESTIMATE
Stayton High School	$5,300,532	$7,253,800	$12,254,331
Stayton Middle School	$184,782	$3,460,373	$3,645,155
Stayton Elementary School	$2,191,243	$3,886,801	$6,078,043
Mari-Linn	$954,753	$5,171,193	$6,125,946
Sublimity ES Site	$6,207,470	$2,043,061	$8,250,531
SUB MS Site	$0	$0	$0
District Operations	$0	$40,016	$40,016
New K-4 (300 Students) at SMS Site	$13,116,197	$0	$13,116,197
TOTALS	**$27,954,976**	**$21,855,243**	**$49,810,219**

Infrastructure Repairs by Type Detail

Building Exterior and Roof	$2,079,496
Electrical	$306,039
Interior Finishes	$482,008
Fire, Safety, Code Compliance	$6,201,867
General Construction/Remodel	$289,548
Grounds, Sidewalks and Paving	$880,300
Hazardous Materials Abatement	$550,515
Heating, Ventilation, Cooling	$3,106,185
Plumbing	$32,480
Specialized Construction	$217,350
Construction Costs Sub-Total	**$14,145,788**
Contingency @ 10%	$1,414,579
Inflation @ 7% per year X 2.5 years	$2,475,513
Indirect Costs (Engineering, Permits, etc.) @ 27%	$3,819,363
Infrastructure Repair Preliminary Estimate Total	$21,855,243

Student Forecast-NSSD (Pre-2006)

ENROLLMENT CAPACITY FORECAST
Without Bond

Schools	04-05	05-06	06-07	07-08	2011	2015	2019	2023	2027
SHS (700)*	694	**708**	722	736	797	863	934	1011	1094
SMS (550)	468	**585**	597	609	659	714	772	836	905
SUB (375)*	343	350	357	364	**394**	426	462	500	541
M/L (275)*	242	247	252	257	**278**	295	326	353	382
SES (450)*	577	**481**	490	500	541	586	634	686	743
PEAK (70)	70	70	70	70	70	70	70	70	70

Assumptions:
*With Current Portables In Place
2% Growth Rate
25 Students Per Classroom
One SPED Specialty Room Per Building (With Bond)
Two Regular SPED Classrooms Per 500 Students (With Bond)
Not Included: Additional SPED Rooms, Title I Rooms, ELL Rooms, Music Rooms, Gyms

2006 Bond Measure Scope and Cost Estimate Details

REQUIREMENTS: Construct classroom, support, and other spaces required to meet all of the District's needs to 2015 and designed to be readily expanded to accommodate growth through 2025. Complete additional Educational Program Enhancements.

Scope of Major Construction

- Stayton High- construct new 6-classroom wing, expand cafeteria/kitchen building, auditorium back stage area, and offices. Minor remodel of auditorium foyer, east entrance and existing office spaces
- New K-4 (300 student capacity) elementary constructed on back of Stayton Middle School site with shared playing fields
- SUB Middle School- construct minimum new school facilities required to 2015 on the Sublimity Elementary site
- Stayton Middle School- expand parking lot
- Stayton Elementary School- construct 4,100 square foot multi-purpose/cafeteria/kitchen addition on north side of main building and convert existing cafeteria/kitchen into educational and support spaces
- Mari-Linn- construct 2,200 square foot Media Center

Construction Estimate Total: $27,954,976

Infrastructure Repairs Scope

- Approximately 175 prioritized fire/safety/code compliance and other repairs necessary to 2015, and to reduce the District's facilities operating expenditures

- Additional repairs projected to be required to obtain building permits for construction and remodel/renovation work

Infrastructure Repairs Estimate Total: $21,855,243

FINANCIAL SUMMARY:

Infrastructure Repairs	$21,855,243
Construction	$27,954,976
Total Estimate	$49,810,219

NOTES:

- Includes $950,000 Systems Development Charges (SDCs) for new K-4
- Does not include other Systems Development Charges (SDCs)
- Does not include proceeds from sale of Sublimity Middle site.

Location Totals Detail

FACILITY	CONSTRUCTION ESTIMATE	REPAIRS ESTIMATE	TOTAL ESTIMATE
Stayton High School	$5,300,532	$7,253,800	$12,254,331
Stayton Middle School	$184,782	$3,460,373	$3,645,155
Stayton Elementary School	$2,191,243	$3,886,801	$6,078,043
Mari-Linn	$954,753	$5,171,193	$6,125,946
Sublimity ES Site	$6,207,470	$2,043,061	$8,250,531
SUB MS Site	$0	$0	$0
District Operations	$0	$40,016	$40,016
New K-4 (300 Students) at SMS Site	$13,116,197	$0	$13,116,197
TOTALS	**$27,954,976**	**$21,855,243**	**$49,810,219**

Infrastructure Repairs by Type Detail

Building Exterior and Roof	$2,079,496
Electrical	$306,039
Interior Finishes	$482,008
Fire, Safety, Code Compliance	$6,201,867
General Construction/Remodel	$289,548
Grounds, Sidewalks and Paving	$880,300
Hazardous Materials Abatement	$550,515
Heating, Ventilation, Cooling	$3,106,185
Plumbing	$32,480
Specialized Construction	$217,350
Construction Costs Sub-Total	**$14,145,788**
Contingency @ 10%	$1,414,579
Inflation @ 7% per year X 2.5 years	$2,475,513
Indirect Costs (Engineering, Permits, etc.) @ 27%	$3,819,363
Infrastructure Repair Preliminary Estimate Total	$21,855,243

Long Range Facilities Master Plan Scope
Total Budget Estimate: $41,794,943

Stayton High School ($8,472,020)

- Construct six (6) new classrooms and support spaces adjacent to gym
- Construct restrooms for new construction
- Expand the cafeteria to serve 500 students at a time, with utility/custodial spaces
- Upgrade core building's HVAC system
- Complete selected Priority 1, 2 and 3 infrastructure repair projects to address the most critical fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Stayton Middle School ($2,666,568)

- Complete selected Priority 1, 2 and 3 infrastructure repair projects to address the most critical fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Stayton Elementary School ($3,575,532)

- Complete selected Priority 1, 2 and 3 infrastructure repair projects to address the most critical fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Mari-Linn School ($6,596,725)

- Construction of two additional classrooms with restrooms attached to South Hall
- Remodel of gym including seismic retrofit and finish replacement
- Complete selected Priority 1, 2 and 3 infrastructure repair projects to address the most critical fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Sublimity Elementary School Site ($8,249,593)

- Construct nine, 900 square foot, classrooms with support spaces
- Construct 10,000 square foot gym/cafeteria/multi-purpose with support spaces
- Relocate kitchen to new gym/cafeteria/multi-purpose space
- Construct restrooms for new construction
- Complete selected Priority 1, 2 and 3 infrastructure repair projects to address the most critical fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Sublimity Middle School Site ($308,459)

- Construct two new restrooms and custodial space adjacent to the "new" classroom building

New 350 Student K-5 ($11,926,046)

- Construct a 350-student, 38,500 square foot, "High Performance" K-5 school in the Stayton area
- Complete associated site work including utilities, landscaping, parking, and driveways
- The design of the school will be to the State of Oregon's "High Performance School" standards for which District will receive state funding

Voter Survey Preferences Scope

Total Budget Estimate: $48,161,650

Stayton High School ($9,344,013)

- Construct six (6) new, 900 square foot, classrooms and support spaces adjacent to gym
- Construct restrooms for new construction
- Complete Priority 1, 2 and 3 infrastructure repair projects estimated at more than $ 7 million to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Stayton Middle School ($2,666,568)

- Complete all Priority 1, 2 and 3 infrastructure repair projects to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Stayton Elementary School ($4,441,204)

- Complete all Priority 1, 2 and 3 infrastructure repair projects to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Mari-Linn School ($6,919,519)

- Construction of two additional classrooms with restrooms attached to south hall
- Complete Priority 1, 2 and 3 infrastructure repair projects estimated at more than $ 4 million to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Sublimity Elementary School Site ($8,719,567)

- Construct nine, 900 square foot, classrooms with support spaces
- Construct 10,000 square foot gym/cafeteria/multi-purpose with support spaces
- Relocate kitchen to new gym/cafeteria/multi-purpose space
- Construct restrooms for new construction
- Complete Priority 1, 2 and 3 infrastructure repair projects estimated at approximately $ 2 million to address fire, life, safety and accessibility problems, reduce the District's operating expenses, and maintain the public's investment in the school

Sublimity Middle School Site ($308,459)

- Construct two new restrooms and custodial space adjacent to the "new" classroom building

New 350 Student K-5 ($11,926,046)

- Construct a 350-student 38,500 square foot "High Performance" K-5 school in the Stayton area
- Complete associated site work including utilities, landscaping, parking, and driveways
- The design of the school will be to the State of Oregon's "High Performance School" standards for which the District will receive state funding.

Bond Public Contracting Alternatives

Overview

Oregon Public Contracting Rules allow the North Santiam School District (NSSD) three methods to select the firms to design and construct Public Improvement Contracts. These methods are:

- "Design, Bid, Build"
- "Construction Manager/General Contractor"
- "Design-Build"

A Public Improvement Contract is defined under Oregon law as: "*A project for construction, reconstruction, or major renovation on real property by or for a public district. Does not include emergency work, minor alternations, ordinary repair, and maintenance needed to preserve the public improvement.*"

Design-Build contracts and Construction Management/General Contractor (CM/GC) contracts are two increasingly popular alternatives to the traditional Design-Bid-Build process.

Each of the methods has potential advantages and disadvantages for NSSD.

Design, Bid, Build

The traditional approach to delivering public improvement projects is "Design-Bid-Build." Under this process the District first issues a Request For Proposal (RFP) for a design consultant (e.g. Architect or Engineer), who works with the District to develop the construction documents (plans and specifications for the construction scope of work).

The District or architect puts the construction documents out to bid using an Invitation to Bid (ITB). The contract is awarded to the lowest responsive, responsible bidder. The ultimate cost of construction is determined by these low bids.

The architect acts as the District's agent to supervise the execution of the Construction Documents by the contractor.

The recent Stayton Middle School Exterior Renovation is an example of the method.

CM/GC Contracts

Under the Construction Manager/General Contractor (CM/GC) method the District first selects a design consultant (e.g. Architect or Engineer) through an RFP (same as the as the Design, Bid, Build method).

The District would then select a single firm, referred to as a CM/GC, during the design process by a competitive procurement to provide:

- Value engineering;
- Construct ability review; and
- Scheduling, estimating, and other related services.

The contract with the GM/GC normally includes a Guaranteed Maximum Price (GMP). The GMP typically includes:

- Expected cost to construct the project (the CM/GC's fee is normally a criteria during the CM/GC the selection process); and
- Contingency amount to be available to cover changes.

Prior to completion of the Construction Documents by the architect, but as early as during the schematic design phase, the CM/GC provides the owner with the GMP to perform the construction related work as a "General Contractor".

The CM/GC then competitively bids the required work to various trade subcontractors. The District may choose to allow the CM/GC to bid against other subcontractors to perform portions of the trade work.

The advantages to the CM/GC method include:

- The total time required for design and construction can be reduced;
- The flexibility to reduce the scope of construction when budgets are tight (with CM/GC contracts, the ability to revise the scope of work as needed is built into the contract, with the GMP determined once the scope is complete);
- Potential cost savings to the District (the District can select the contractor with the most appropriate type and level of experience for the project, and may build into the proposal process the opportunity for performance guarantees); and
- Proper use of a GMP encourages the Design-Build firm to work efficiently, because in most cases increases in the cost of construction are borne by the contractor, not the owner, unless the owner itself orders the change.

Design-Build Contracts

Under the Design-Build method, NSSD would develop and publicize an RFP or RFQ/RFP for firms with the appropriate qualifications, background, and expertise to do both design and construction as part of the same contract. A Design-Build project can include a fixed price or GMP, similar to the CM/GC process.

The advantages for the Design-Build method include:

- Saving time by allowing construction to start before the design is totally complete (the project can be "fast-tracked," with one phase or section being constructed while the next phase or section is still in the design phase and the design-build contractor controls the schedule, and so has maximum flexibility to avoid delays);
- A Design-Build project can include a fixed price or GMP, similar to the CM/GC process;
- A design-build contract can be useful when budgets are limited, because the designer and builder are on the same team and can often work more efficiently and exercise more control over various aspects of the project than when they are separate entities;
- Potential cost savings to the District (The district can select the contractor with the most appropriate type and level of experience for the project, and may build into the proposal process the opportunity for performance guarantees and proper use of a GMP encourages the Design-Build firm to work efficiently—In most cases increases

in the cost of construction are borne by the contractor, not the owner, unless the owner itself orders the change)

The disadvantages of the Design-Build method for NSSD include:

- A significantly greater amount of participation and technical expertise by the owner through the design and construction process (the firm awarded the contract will expect the district to have already made numerous decisions about the implementation of the project);
- Without an architect or engineers the District lacks the technical expertise of architects and engineers acting solely as the owner's agent; and
- The District must either provide the technical oversight, or rely on the CM/GC for such services.

The successful utilization of the Design-Build method requires that an owner have experienced, knowledgeable staff at its disposal.

Risk-Shifting

Use of the CM/GC or Design-Build methods can also help to shift financial risk away from the owner:

- Under the traditional "design-bid-build" approach, the owner is ultimately responsible to the construction contractor for warranting the adequacy and sufficiency of the drawings and specifications.
    - If there are errors in the drawings that cause the cost of construction to increase, the owner is responsible for paying the extra;
    - In addition, if the contractor builds the project according to the drawings and specifications provided, and the project doesn't work as designed, the owner can't hold the contractor responsible.

In a Design-Build contract, the contractor bears the risk of defects or errors in the design, because it provided the design. If the contractor has agreed in advance to construct the project for a Guaranteed Maximum Price (GMP) the District is financially responsible only up to the amount of the GMP (the contractor must make up the difference) if problems occur in the construction process. In such a case, the contractor may have an action against the design professional for the contractor's economic damages, but the owner has not been "damaged" in the sense of having to pay additional costs.

"Defining Capacity"
Article by Dr. Dejong, July 19, 1999

How many students can a building accommodate? This question often arises, and in the development of a facility plan, it can be one of the most debated issues. The answer to this question can impact the need for constructing new buildings as well as additions and can have a profound impact on revenue especially if projects are funded through state or other agencies.

It is not uncommon to review an evaluation of an existing building only to find that the capacity which had once been assigned to the building is much greater than what can be reasonably accommodated.

During the past thirty years, the programs in a public school system and the manner in which they are delivered have changed significantly. Repeated arguments are heard that "this school was able to accommodate 600 students thirty years ago and now you are saying it can only accommodate 400 students today. How can this be the case?" Persons making these statements often do not realize that class size has been reduced [let's say from 30 to 25], the music program was being held on the stage, there was no art room and the teacher used a cart, computers had not been invented and there were no computer labs, the Kindergarten program went from half day to full day and severely handicapped special education students that were institutionalized are now attending public schools. Add to this the fact that many states are legislating a class size of 20 or under for the early elementary grades, schools are expanding pre-school services, and there are many more at-risk students programs.

Historically school districts throughout North America have determined the capacity of school by counting the number of classrooms in a building and multiplying by an average class size. In facility planning terminology we have used the term, "design capacity", to describe this methodology. Even though at first glance this seems only to be common sense, this methodology does not take into account the programmatic implications of school facilities. In an elementary school there is a need for libraries/media centers, administrative areas, special education classrooms, and specialized spaces for specific program areas such as science, art and music. In a secondary school, in theory it may be possible to use every classroom every period of every day, but from a practical perspective it is not likely. In facility planning terminology, taking program issues into consideration, we use the term, "functional capacity".

Even though functional capacity is a more realistic analysis of what a building can accommodate, it is necessary to apply some common sense. There are examples in which classrooms have been taken over for other purposes such as teacher prep areas, storage, or offices which can result in a lower capacity figure.

Public schools use space in school buildings for special purposes such as community activities or district-wide special education programs when space is available in a building. The location of this type of program impacts the number of students the building can accommodate. For planning purposes, functional capacity assumes these special programs could be moved to another location. Therefore functional capacity is defined as the number of student the building can accommodate assuming a "traditional" educational program.

The formula used for determining capacity should reflect the programs of the public schools yet should be kept simple for planning purposes. The method for determining functional capacity is different for elementary, middle and high schools.

Elementary Schools

There are a wide variety of elementary schools that range from K-1 to K-6, small schools with ten or fewer classrooms to schools with fifty or more classrooms.

The following criteria are suggested for consideration in determining functional building capacity at the elementary level.

Average Class Size

There is currently a wide range of class sizes throughout the country. Many districts have 30 or more students in elementary classrooms whereas other districts are striving for 20 or fewer. The most common average class size that is used for planning purposes is 25 students. In determining capacity, the class size that should be used should either be based on district policy or actual averages in the district.

School district class size policy is usually used to determine the number of teaching positions not capacity. For example, a school district may have a policy that when there are more than 30 students in a classroom another teacher will be added. Even though this policy may be interpreted to mean that the capacity of a classroom is 30 students the reality is the average class size of this district maybe nearer 25 students. In this case, average class size would be a better indicator of determining the number of students that should be used. On the other hand it could be argued that capacity is the maximum number of students that a building can accommodate, not the optimum.

Even though a class size of 25 is the most common number used by school districts throughout the United States many states and local districts are moving toward smaller class sizes for the early elementary [primary] grades.

Special Education:

Special Education instruction occurs at various levels of need, varying class sizes, and in various locations throughout a district. Instructional areas for high incident students [learning disabled, behaviorally and mildly mentally handicapped, etc.] are usually found a most elementary schools.

For planning purposes, functional capacity assumes that low incident students [severely profoundly handicapped] are not located in the building and are being housed at a different district facility.

For discussion purposes let's assume that a building can accommodate 400 students without housing the low incident or severely profoundly handicapped students. On the other hand a building may have four classrooms dedicated to serving this population. In this case the capacity may be reduced to 300 students.

We would suggest for buildings that house low incident or severely profoundly handicapped students that two capacity figures be established: one calculation including this population and one not including this population. [The reason being that if the building is not to be used for this purpose, it has the potential for housing more students.]

Art and Music Spaces:

In nearly every elementary school in North America, art and music instruction is an important part of a well-rounded elementary curriculum. Therefore spaces for each of these programs should be included in an elementary school. In schools with fewer students, these programs may need to be combined into one space.

Computer Labs:

Even though the future solution is to have computers integrated into all instructional spaces, the current practice is to have designated computer labs in elementary schools.

Science Classrooms:

State proficiency testing has placed an increased emphasis on science curriculum at the elementary level. Currently science instruction is limited to what can be done in the regular classroom. Districts will need to decide whether to provide separate classrooms for science or to include it in the regular classroom.

Special Programs:

Most school districts provide special programs for at-risk students such as Title I and other programs for gifted students. If these programs are to be provided, space needs to be allocated for these purposes.

Determining Elementary School Capacity

The elementary program is usually delivered based on students being assigned a home room or regular classroom and attending specials such as art and music in a specialized classroom. The number of special classrooms should be a reflection of the enrollment of the building.

For example: if a school has only one classroom for each grade it would only require a part-time art room. Whereas if there are three classrooms for each grade, a full time art classroom would be needed. Or, for example, a school with 200 students may only require one special education classroom whereas a school for 400 may require two or more classrooms for special education.

School districts often change the use of an individual classroom from year to year. One year the classroom may be a regular classroom. The next year it may be a special education classroom and the year after that a computer room. Since these changes do occur, the simplest procedure would be to count the total number of classrooms and subtract the number for special purposes and then multiply the remainder by 25 [or by desired class size determined by the district]. This may not be perfect, but by using this method the only information needed would be the total number of classrooms in a building.

The table below illustrates this method of calculation, based on 25 students per class. If a lower number of students per class is desired, it will obviously reduce the capacity of the building.

Elementary School Space Allocation					
Total # of Classrooms	17	26	33	41	49
Special Ed. Classrooms	1	2	3	4	5
Art/Music Classrooms	1	2	2	2	2
Special Programs [At-Risk]	1	2	2	2	2
Computer Lab	1	1	1	1	2
Science Classroom Regular Classrooms	1 12	1 18	1 24	2 30	2 36
Students Per Classroom	X25	X25	X25	X25	X25
Capacity	**300 Students**	**450 Students**	**600 Students**	**750 Students**	**900 Students**

The table below might be used as a quick reference table in conducting a facility study. The actual number of specials and the class size may need to be altered based on local district policies.

# of Classrooms in Building	**# Special Classrooms**	**Difference**	**Multiply by 25**	**Capacity**
10	2	8	25	200
11	2	9	25	225
12	3	9	25	225
13	3	10	25	250
14	3	11	25	275
15	4	11	25	275

16	4	12	25	300
17	5	12	25	300
18	5	13	25	325
19	5	14	25	350
20	6	14	25	350
21	6	15	25	375
22	6	16	25	400
23	7	16	25	400
24	7	17	25	425
25	7	18	25	450
26	8	18	25	450
27	8	19	25	475
28	8	20	25	500
29	8	21	25	525
30	8	22	25	550
31	8	23	25	575
32	8	24	25	600
33	9	24	25	600
34	9	25	25	625
35	9	26	25	650
36	9	27	25	675
37	9	28	25	700
38	10	28	25	700
39	10	29	25	725
40	10	30	25	750
41	11	30	25	750
42	11	31	25	775
43	11	32	25	800
44	11	33	25	825
45	12	33	25	825
46	12	34	25	850

Determining High School Capacity

High schools operate on a totally different basis than elementary schools. Students are not in self-contained environments occasionally traveling to another location for a special class. At the high school level, students typically change classes each period.

High schools are undergoing significant change in program delivery. Many schools are adopting block scheduling and/or various teaming approaches. The method for calculating capacity at the high school level needs to be flexible to deliver a traditional departmentalized program or the newer evolving methods of program delivery.

Average Class Size

There is currently a wide range of class sizes in a high school and from school to school. It is not uncommon to find some very small classes in advanced placement courses and upper level foreign languages. At the same time it is not uncommon to find 60 or more students in a band or choir class.

Several states have attempted to determine the capacity of a building by establishing a capacity for each type of room in a building. This may be an appropriate approach but often results in a much larger capacity than what is realistic. For example the band room may be rated as a capacity for 75students. The fact of the matter is that the full band only meets one period per day and the rest of the day the room is being used for smaller sectional or specialized bands such as a jazz band. To say that the capacity of the band room is 75 assumes that the room is used every period of the day for that number of students. In reality, the band room may be used for 75 students one period per day and less than 20 students each of the remaining periods, or the room may only be used as a band room 3-4 periods per day.

Even though this seems like an over simplification, using an average class size of 25 students across the board has worked quiet well in determining capacity at the high school level.

Teaching Stations/Classrooms

Teaching stations are defined as areas in which students receive instruction in core curriculum courses as well as exploratory/elective curriculum areas. These areas should be adequately sized to meet the needs of the programs included in the space. Program areas include English, math, social studies, foreign language, science, art, music, family and consumer science, business, vocational/technology education, and physical education. In a high school the gym should be counted as one or more teaching stations. Even though it is not a regular classroom, it is a location in which students receive instruction on a hourly/daily bases. Likewise, a food lab, science lab, business computer lab, and vocational/technology lab are all counted as teaching stations.
Auditoriums and library/media centers are not counted as teaching stations since these spaces are not assigned for “regular” instruction.

Utilization Factor

It is very difficult to schedule every teaching station every period of the day. There may be a specialized space such as a vocational/technical lab for which there is insufficient enrollment to conduct classes each period. At times it is advisable for the classroom to be available to the teacher during a teachers prep period. At other times it is just not possible to maintain an average enrollment of 25 students and there needs to be some room to adjust.

It is recommended that the utilization factor of 85% be used at the high school level. This would represent approximate utilization of five out six periods in a six period day or six out of seven periods in a seven period day. This may indicate that some spaces are being used more than 85% of the time whereas others may be used less.

Block scheduling provides another dilemma. There are a variety of block schedules but many are based on a four 90-minute period day. Some of the time it is the same four periods every day. At other times it is four periods on alternating days. Arguments have been made to reduce the utilization to 75% which would represent three out of four periods per day. On the surface 75% may seem logical but it is not efficient use of space. This would mean that 25% of classroom space would be idle at any one time.

Using the 85% factor in a school which utilizes a block schedule would mean that a room would be available on period every other day on the alternating block schedule. Or that approximately half of the rooms would be utilized 100% and the other half would be utilized 75% on the schools which have the same four periods every day.

Experience has shown that if the 85% factor is used for planning purposes, the high school has the ability to increase the utilization to 90% or higher in the event of short-term overcrowding issues. Experience will also show that once a building surpasses 90% utilization, scheduling of spaces and students becomes increasingly difficult.

[Authors' note: if space is going to be used less than 50% of the time, consideration should be given to reusing the space for another purpose or determining some type of multi-use of the space to increase its utilization.]

High School Functional Capacity Formula:

In the past, capacity was determined by counting the number of teaching stations in a facility and multiplying by an average class size. In facility planning terminology this is called the "design" capacity of the building. However, this methodology does not take into account programmatic implications. By applying the utilization factor to the design capacity, the functional capacity can be obtained. An example is included below:

# of Teaching Stations	40
Average # of Students	x 25
	1000
(85% = 850 Capacity)	

This would be a very straight forward method of determining capacity, just count the total number of teaching stations, multiply by 25 students and multiply 85%.

Determining Middle School Capacity

The reason this was saved for last is that most middle schools are a hybrid between elementary schools and high schools. Actually middle schools are the evolving school of the future. More and more elementary schools and high schools are adopting the middle school program delivery of team teaching.

In the past middle schools were called junior high schools and were "mini" high schools. They operated on a 6 to 9 period schedule and students rotated between classes. Many schools which are called middle schools still operate in this fashion.

On the other hand the middle school philosophy places students in teams. The size of these team varies from school to school. A team may be two teachers and 50 students or teams may be as large as 6-8 teachers and 150-200 students. Regardless of the size of the team, the program typically consists of a core curriculum [English/language arts, math, science and social studies] and an exploratory curriculum of physical education, art, music, band, computers, technology, and foreign language. Depending on the individual middle school, there maybe other exploratory areas as well.

Students usually attend the core curricular areas every day throughout the school year. There are a wide variety of schedules associated with the exploratory programs. Students may attend an exploratory program every day for 6-18 weeks and then move on to another exploratory program or they may attend exploratory programs on alternating days. There are as many different schedules as there are middle schools and you need to be a middle school student to figure it out.

Since there are two basic methods for delivering education at the middle or junior high school level, there are two different methods for determining capacity.

Middle School Capacity

Schools that operate as middle schools, a modification of the elementary method for determining capacity applies. Find the total number of "regular" classrooms and multiply by the desired average class size, typically 25.

A school may have 30 classrooms for core curricular programs. This school may also have seven exploratory classrooms [art, band, choral, computer, technology, life skills, and physical education] and three special education classrooms. The capacity of the building would be 30 time 25 students per class which equals 750 students.

If you were to study these figures closely you will note there is a lower utilization of this building.

Junior High School Capacity

As stated previously, many middle schools operate as junior high schools. As such the high school method for calculating capacity would be more appropriate to determine the number of students the building can accommodate. Using the example of the school above with 30 regular classrooms and seven exploratory programs the capacity would be as follows:

37 teaching stations X 25 students per class X 85% utilization = 806

Using this example, the capacity using the middle school method would is less than the junior high school method. In other words the utilization of space using the middle school philosophy is less than the junior high school philosophy. This is in fact the case. Many middle schools are aware of this situation and have gone to modified middle school programs in which the teams are arranged in such a fashion that an extra core section is taught in the regular classroom or a core teacher teaches an exploratory program in his/her classroom.

The simplest method for determining middle school capacity would be counting the teaching stations, multiplying by a desired class size and an 85% utilization factor.

Summary

Determining capacity is critical to the formation of a district facility plan. Capacity should be program driven. Even though the resultant capacity may be different than what you have used before, you are likely to find these numbers more accurately reflect the program that is being delivered today.

William S. DeJong, Ph.D., REFP

Dr. DeJong is the President of DeJong & Associates, Inc. He is the former Executive Director of the National Community Education Association [NCEA], Assistant Executive Director of the Council of Educational Facility Planners, Int. [CEFPI], co-founder of Meeks Technology Group. Dr. DeJong is the former President of CEFPI and was awarded the International Planner of the Year in 1991.

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON ELEMENTARY SCHOOL							
Teaching Stations, Total	22	24	24	24	24	25	26
Special Purpose Teaching Stations							
SPECIAL EDUCATION	2	2	2	2	2	2	2
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	2	2	2	2	2	2	2
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	5	6	6	6	6	6	6
Available Gen. Ed. Teaching Stations	17	18	18	18	18	19	20
Functional Student Capacity	**459**	**486**	**486**	**486**	**486**	**513**	**540**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
SUBLIMITY K-8 SCHOOL							
ELEMENTARY							
Teaching Stations, Total	12	12	13	14	15	16	16
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	3	4	4	4	4	4	4
Available Gen. Ed. Teaching Stations	9	8	9	10	11	12	12
Functional Student Capacity	**243**	**216**	**243**	**270**	**297**	**324**	**324**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
MIDDLE SCHOOL							
Teaching Stations, Total	9	9	9	9	9	9	9
Special Purpose Teaching Stations							
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
Special Purpose Total	1	1	1	1	1	1	1
Available Gen. Ed. Teaching Stations	8	8	8	8	8	8	8
Design Capacity	216	216	216	216	216	216	216
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	**184**	**184**	**184**	**184**	**184**	**184**	**184**
SUBLIMITY, TOTAL FUNCTIONAL CAPACITY	**427**	**400**	**427**	**454**	**481**	**508**	**508**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
MARI-LINN K-8 SCHOOL							
ELEMENTARY							
Teaching Stations, Total	9	9	8	8	8	8	8
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	3	4	4	4	4	4	4
Available Gen. Ed. Teaching Stations	6	5	4	4	4	4	4
Functional Student Capacity	**162**	**135**	**108**	**108**	**108**	**108**	**108**
MIDDLE SCHOOL							
Teaching Stations, Total	8	8	7	7	7	7	7
Design Capacity	200	200	175	175	175	175	175
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	170	170	149	149	149	149	149
MARI-LINN, TOTAL FUNCTIONAL CAPACITY	**332**	**305**	**257**	**257**	**257**	**257**	**257**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON MIDDLE SCHOOL (4-8)							
ELEMENTARY							
Teaching Stations, Total	10	12	12	12	12	12	12
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	0	0	0	0	0	0	0
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	0	0	0	0	0	0
Special Purpose Total	2	2	2	2	2	2	2
Available Gen. Ed. Teaching Stations	8	10	10	10	10	10	10
Functional Student Capacity	**216**	**270**	**270**	**270**	**270**	**270**	**270**
MIDDLE SCHOOL							
Teaching Stations, Total	19	19	19	19	19	19	19
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
Special Purpose Total	1	1	1	1	1	1	1
Available Gen. Ed. Teaching Stations	18	18	18	18	18	18	18
Design Capacity	486	486	486	486	486	486	486
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	413	413	413	413	413	413	413
STAYTON 4-8, TOTAL FUNCTIONAL CAPACITY	**629**	**683**	**683**	**683**	**683**	**683**	**683**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON HIGH SCHOOL							
Teaching Stations, Total	34	34	38	38	38	40	41
Special Purpose Teaching Stations							
SPECIAL EDUCATION	2	2	3	2	2	2	2
Special Purpose Total	2	2	3	2	2	2	2
Available Teaching Stations	32	32	35	36	36	38	39
Design Capacity	918	918	1026	1026	1026	1080	1107
Utilization Factor	80%	80%	80%	80%	80%	80%	80%
Functional Student Capacity	**734**	**734**	**821**	**821**	**821**	**864**	**886**
OFF CAMPUS							
SANTIAM CAMPUS	1	1	1	1	1	1	1
CHEMEKETA	1	1	1	1	1	1	1
WINEMA	1	1	1	1	1	1	1
MODULARS AT DISTRICT OFFICES	2	2	2	2	2	2	2
MODULAR ACROSS FROM SHS	1	1	1	1	1	1	1
Teaching Stations, Total	6	6	6	6	6	6	6
Design Capacity	150	150	150	150	150	150	150
Utilization Factor (85%)	90%	90%	90%	90%	90%	90%	90%
Functional Student Capacity	**135**	**135**	**135**	**135**	**135**	**135**	**135**
HIGH SCHOOL, TOTAL FUNCTIONAL CAPACITY	**869**	**869**	**956**	**956**	**956**	**999**	**1021**

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FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
DISTRICT TOTAL FUNCTIONAL CAPACITY	2932	3013	3078	3105	3132	3229	3278

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON ELEMENTARY SCHOOL							
Teaching Stations, Total	22	24	24	24	24	25	26
Special Purpose Teaching Stations							
SPECIAL EDUCATION	2	2	2	2	2	2	2
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	2	2	2	2	2	2	2
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	5	6	6	6	6	6	6
Available Gen. Ed. Teaching Stations	17	18	18	18	18	19	20
Functional Student Capacity	**459**	**486**	**486**	**486**	**486**	**513**	**540**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
SUBLIMITY K-8 SCHOOL							
ELEMENTARY							
Teaching Stations, Total	12	12	13	14	15	16	16
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	3	4	4	4	4	4	4
Available Gen. Ed. Teaching Stations	9	8	9	10	11	12	12
Functional Student Capacity	**243**	**216**	**243**	**270**	**297**	**324**	**324**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
MIDDLE SCHOOL							
Teaching Stations, Total	9	9	9	9	9	9	9
Special Purpose Teaching Stations							
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
Special Purpose Total	1	1	1	1	1	1	1
Available Gen. Ed. Teaching Stations	8	8	8	8	8	8	8
Design Capacity	216	216	216	216	216	216	216
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	**184**	**184**	**184**	**184**	**184**	**184**	**184**
SUBLIMITY, TOTAL FUNCTIONAL CAPACITY	**427**	**400**	**427**	**454**	**481**	**508**	**508**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
MARI-LINN K-8 SCHOOL							
ELEMENTARY							
Teaching Stations, Total	9	9	8	8	8	8	8
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	1	1	1	1	1	1	1
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	1	1	1	1	1	1
Special Purpose Total	3	4	4	4	4	4	4
Available Gen. Ed. Teaching Stations	6	5	4	4	4	4	4
Functional Student Capacity	**162**	**135**	**108**	**108**	**108**	**108**	**108**
MIDDLE SCHOOL							
Teaching Stations, Total	8	8	7	7	7	7	7
Design Capacity	200	200	175	175	175	175	175
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	170	170	149	149	149	149	149
MARI-LINN, TOTAL FUNCTIONAL CAPACITY	**332**	**305**	**257**	**257**	**257**	**257**	**257**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON MIDDLE SCHOOL (4-8)							
ELEMENTARY							
Teaching Stations, Total	10	12	12	12	12	12	12
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
ART/MUSIC	0	0	0	0	0	0	0
SPECIAL PROGRAMS/ AT RISK	1	1	1	1	1	1	1
COMPUTER LAB	0	0	0	0	0	0	0
Special Purpose Total	2	2	2	2	2	2	2
Available Gen. Ed. Teaching Stations	8	10	10	10	10	10	10
Functional Student Capacity	**216**	**270**	**270**	**270**	**270**	**270**	**270**
MIDDLE SCHOOL							
Teaching Stations, Total	19	19	19	19	19	19	19
Special Purpose Teaching Stations							
SPECIAL EDUCATION	1	1	1	1	1	1	1
Special Purpose Total	1	1	1	1	1	1	1
Available Gen. Ed. Teaching Stations	18	18	18	18	18	18	18
Design Capacity	486	486	486	486	486	486	486
Utilization Factor (85%)	85%	85%	85%	85%	85%	85%	85%
Functional Student Capacity	413	413	413	413	413	413	413
STAYTON 4-8, TOTAL FUNCTIONAL CAPACITY	**629**	**683**	**683**	**683**	**683**	**683**	**683**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
STAYTON HIGH SCHOOL							
Teaching Stations, Total	34	34	38	38	38	40	41
Special Purpose Teaching Stations							
SPECIAL EDUCATION	2	2	3	2	2	2	2
Special Purpose Total	2	2	3	2	2	2	2
Available Teaching Stations	32	32	35	36	36	38	39
Design Capacity	918	918	1026	1026	1026	1080	1107
Utilization Factor	80%	80%	80%	80%	80%	80%	80%
Functional Student Capacity	**734**	**734**	**821**	**821**	**821**	**864**	**886**
OFF CAMPUS							
SANTIAM CAMPUS	1	1	1	1	1	1	1
CHEMEKETA	1	1	1	1	1	1	1
WINEMA	1	1	1	1	1	1	1
MODULARS AT DISTRICT OFFICES	2	2	2	2	2	2	2
MODULAR ACROSS FROM SHS	1	1	1	1	1	1	1
Teaching Stations, Total	6	6	6	6	6	6	6
Design Capacity	150	150	150	150	150	150	150
Utilization Factor (85%)	90%	90%	90%	90%	90%	90%	90%
Functional Student Capacity	**135**	**135**	**135**	**135**	**135**	**135**	**135**
HIGH SCHOOL, TOTAL FUNCTIONAL CAPACITY	**869**	**869**	**956**	**956**	**956**	**999**	**1021**

FUNCTIONAL STUDENT CAPACITY, BY LOCATION

School	Actual 05-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
DISTRICT TOTAL FUNCTIONAL CAPACITY	2932	3013	3078	3105	3132	3229	3278