



**Orange County
Public Schools**



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Orange County Public Schools School Impact Fee Update Study

FINAL REPORT

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Prepared for:

Orange County Public Schools

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Introduction

Orange County's school impact fee was last updated in 2016. At the time, given the rising construction prices, the School Board of Orange County requested an update to the Technical Study in two years instead of four years. To comply with this request and given the recent changes in variables affecting the school impact fee, Orange County Public Schools (OCPS) retained Tindale Oliver to prepare an updated study.

The methodology used to calculate the updated school impact fee is a consumption-based approach, which has also been used to calculate the current adopted school impact fee for Orange County as well as several school impact fees throughout Florida, including, but not limited to; fees in Collier, Lake, Osceola, Citrus, Highlands, Palm Beach, and Broward Counties. A consumption-based impact fee charges new development based upon the student generation rate (demand), or the number of students a dwelling unit is expected to generate over the life of the home. A consumption-based impact fee is intended to charge new growth the proportionate share of the cost of providing a new student station available for use by new growth.

A consumption-based methodology has been used for this study.

The impact fee calculations contained in this report are based on the most current and localized data available, consistent with the 2006 Florida Impact Fee Act as amended. Should one or more variables affecting the impact fee change significantly, a recalculation of the impact fee would be necessary prior to the scheduled update of the study. Changes that could potentially trigger a recalculation of the impact fee include, but are not limited to, significant changes in the student generation rate, a considerable change in the cost per student, a change in amount or source of revenue available for capital expansion, or a decision to incur additional debt to fund new capacity.

The study methodology is documented in the following 10 sections of this technical report:

- Legal Requirements
- Inventory
- Service Area and Enrollment
- Facility Service Delivery
- Cost Component
- Credit Component
- Net Impact Cost per Student

- Student Generation Rates
- Calculated School Impact Fee Schedule
- School Impact Fee Schedule Comparison

Information utilized in this analysis was obtained from OCPS, as well as other sources, as indicated.

Legal Requirements

An impact fee is a one-time capital charge levied against new development to fund infrastructure capacity consumed by new growth. Impact fee revenues can only be used for capacity expansion projects and not for expenses related to replacement (except to the extent capacity is added), maintenance or operations. In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. Generally speaking, impact fees must comply with the "dual rational nexus" test, which requires that they:

- Be supported by a study demonstrating that the fees are proportionate in amount to the need created by new development paying the fee; and
- Be spent in a manner that directs a proportionate benefit to new development, typically accomplished through a list of capacity-adding projects included in the School District's Capital Improvement Plan, Five-Year Work Plan or another planning document/Master Plan.

In 2006, the Florida legislature passed the "Florida Impact Fee Act," which recognized impact fees as "an outgrowth of home rule power of a local government to provide certain services within its jurisdiction." § 163.31801(2), Fla. Stat. The statute – concerned with mostly procedural and methodological limitations – did not expressly allow or disallow any particular public facility type from being funded with impact fees. The Act did specify procedural and methodological prerequisites, such as the requirement of the fee being based on most recent and localized data, a 90-day requirement for fee increases, and other similar requirements, most of which were common to the practice already. In 2009, the Act was amended to clarify that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard. Finally, in 2019, the Florida legislature approved HB 207 and HB 7103, which have been signed by the Governor. HB 207 makes the following changes to the Act along with additional clarifying language:

- Impact fees cannot be collected prior to building permit issuance; and
- Impact fee revenues cannot be used to pay debt service for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential and commercial construction.

HB 7103 addressed multiple issues related to affordable housing/linkage fees, impact fees, and building services fees. In terms of impact fees, the bill required the following:

- When local governments increase their impact fees, the outstanding impact fee credits for developer contributions should also be increased. This requirement will operate prospectively.
- Local governments must credit against the impact fee any contributions related to public education facilities. Any contribution must be applied to reduce any education-based impact fees on a dollar-for-dollar basis at fair market value.
- This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.

This technical report has been prepared to support legal compliance with existing case law and statutory requirements. In addition, impact fee calculations are being reviewed by the School Impact Fee Advisory Committee, which was originally formed in 2005 by the Orange County Board of County Commissioners (BOCC) in coordination with OCPS. The purpose of the Advisory Committee is to recommend a methodology for performing updates to the school impact fee. The Advisory Committee is to review the school impact fee study, update methodology where necessary to utilize the most accurate and recent local data, and may review the school impact fee ordinance and recommend revisions to it. There were seven scheduled meetings with the Advisory Committee to complete this review process.

Inventory

OCPS' current inventory includes 191 traditional schools, which are included in the impact fee calculations along with three additional schools that are under construction and slated to open in 2019/2020 school year. The breakdown of school types follows:

- 125 elementary schools;
- 8 multi-level schools;
- 38 middle schools; and
- 20 high schools, which includes 4 ninth-grade centers that operate as part of the high schools.

A list of these schools is provided in Appendix A, Table A-1. In addition, OCPS also operates several alternative learning facilities, including vocational centers, community education centers, and technical schools. These schools are not funded with impact fee revenue and are not included in the impact fee calculations.

Service Area and Enrollment

OCPS provides public education facilities for all school-age residents of Orange County. As such, this analysis includes all traditional public schools located throughout Orange County and operated by OCPS. Attendance boundaries can be redrawn to balance school enrollment with available school capacity and, therefore, can serve different geographic areas over time. As such, the appropriate impact fee district for public schools is countywide.

Table 1 presents historical student enrollment for the past fourteen years, current enrollment for the 2018/19 school year, and projected enrollment for the next ten years, which was prepared by OCPS in January 2018. To be consistent with the inventory used in the impact fee analysis, the enrollment figures presented in this table only include those students attending (or projected to attend) the schools listed in Appendix A, Table A-1. The annual percent change for enrollment is presented in Table 1, as is a three-year average to account for any random fluctuations.

Table 1
Orange County Public Schools Enrollment Summary

School Year	Timeframe ⁽¹⁾	Enrollment ⁽¹⁾	Annual Percent Change ⁽²⁾	Three-Year Average Change ⁽³⁾
2004-05	Historical	166,438	-	-
2005-06	Historical	168,612	1.3%	-
2006-07	Historical	169,107	0.3%	-
2007-08	Historical	169,045	0.0%	0.5%
2008-09	Historical	167,969	-0.6%	-0.1%
2009-10	Historical	166,680	-0.8%	-0.5%
2010-11	Historical	167,987	0.8%	-0.2%
2011-12	Historical	170,650	1.6%	0.5%
2012-13	Historical	172,611	1.1%	1.2%
2013-14	Historical	174,651	1.2%	1.3%
2014-15	Historical	178,106	2.0%	1.4%
2015-16	Historical	182,516	2.5%	1.9%
2016-17	Historical	185,208	1.5%	2.0%
2017-18	Historical	188,886	2.0%	2.0%
2018-19	Current	194,139	2.8%	2.1%
2019-20	Projected	195,957	0.9%	1.9%
2020-21	Projected	198,856	1.5%	1.7%
2021-22	Projected	202,370	1.8%	1.4%
2022-23	Projected	205,837	1.7%	1.7%
2023-24	Projected	209,953	2.0%	1.8%
2024-25	Projected	213,171	1.5%	1.7%
2025-26	Projected	217,125	1.9%	1.8%
2026-27	Projected	220,406	1.5%	1.6%
2027-28	Projected	224,194	1.7%	1.7%
2028-29	Projected	228,934	2.1%	1.8%

- 1) Source: Orange County Public Schools; includes only the students attending traditional schools shown in Appendix A, Table A-1
- 2) Percent change from one year to the next
- 3) Average change over the past three years

Facility Service Delivery

For educational facilities impact fee calculation purposes, service delivery is measured in terms of gross permanent square footage per permanent station. In the case of OCPS, this measure is based on recent construction (more specifically schools constructed or under construction between 2016 and 2019).

Table 2 illustrates the facility service delivery by school level in Orange County. As shown, the facility service delivery for elementary schools is 110.8 gross square feet per permanent student station, 130.0 gross square feet per permanent student station for middle schools, and 129.8 gross square feet per permanent student station for senior high schools.

**Table 2
Facility Service Delivery**

Description	School Type		
	Elementary	Middle	High
Gross Permanent Square Footage ⁽¹⁾	278,251	757,377	376,016
Permanent Student Stations ⁽¹⁾	2,511	5,224	2,898
Gross Square Feet per Student Station ⁽²⁾	110.8	130.0	129.8

- 1) Source: Orange County Public Schools. Figures are based on new schools constructed between 2016 and 2018, excluding OCPS Academic Center for Excellence since this school did not reflect typical OCPS design characteristics
- 2) Gross permanent square footage divided by permanent student stations

Cost Component

The capital costs of providing educational facilities include several components, such as the school facility cost, transportation cost, and ancillary facility costs. This section addresses each of these components.

Facility Cost per Student Station

The first step in determining the cost of providing public schools in Orange County is to calculate the facility cost per student station. Several cost components must be considered when calculating the total cost of constructing a school, including planning and site preparation costs; construction costs; furniture, fixtures, and equipment (FF&E) costs; and the cost of land. The facility cost per student station for each type of school is developed based on these cost components, which are described in more detail in the following subsections.

The cost of a school includes various components, such as facility cost (buildings and land), transportation costs, and ancillary facility costs.

Construction, Non-Construction, and FF&E

To determine the construction, non-construction, and FF&E costs associated with building a new school in Orange County, the following information was evaluated:

- Schools built in Orange County between 2016 and 2017 as well as schools that are currently under construction, which includes school construction started in 2018 and 2019;
- OCPS' cost estimates for future schools;
- Insurance values of the existing schools;
- School cost information from other Florida counties; and
- Discussions with representatives from OCPS.

Detailed information on cost estimates is included in Appendix B.

Table 3 presents the cost per gross square foot figures for the non-construction, construction, and FF&E cost components for each school type. For illustration purposes, Table 3 also presents

the weighted average figure for each cost component, based on schools that are programmed to be constructed over the next ten years.

Land Cost

For each school type, the land cost per gross square foot is based on a value of \$115,000 per acre. This cost per acre is based primarily on a review of the following:

- Land purchases by OCPS between 2015 and 2018, as well as cost estimates associated with properties that are under contract;
- A review of current market value of land from the Property Appraiser database where the existing schools are located;
- An analysis of vacant residential land sales in Orange County over the past three years for parcels of similar size (non-OCPS purchases);
- An analysis of market value of vacant residential land from the Property Appraiser database for parcels of similar size and location to the current inventory; and
- Discussions with OCPS representatives.

Appendix B documents the results of land value analysis in further detail. The land cost per gross square foot by school type was developed based on acres per 1,000 gross square feet for the development of future prototype schools. The resulting land cost figures for each school type are also presented in Table 3.

Finally, Table 3 includes a comparison of OCPS' estimated student station cost to those published by the Florida Department of Education (FDOE). In 2016, the Florida Legislature passed House Bill 7029, requiring that beginning July 1, 2017, schools districts may not use funds from any other sources for new construction of educational plant space that exceeds the statutory maximum cost per student station. The legislation also required the Office of the Economic and Demographic Research (EDR) to conduct a study of the cost per student station. EDR report was completed in January 2017; however, the Legislation has not yet adjusted the cost per station based on the findings of the study. Two primary recommendations of the report included:

- Use of cost per square foot as the unit cost as opposed to cost per student station in setting limits for school construction, as this approach aligns with the conventional method of estimating costs in the construction industry and allows for design differentials; and

- Recognition of cost variations by geographic region.

The Florida Department of Education (FDOE) continue to use the indexed 2006 construction cost figures until January 1, 2020. By January 2020, the FDOE will develop a revised statewide average construction cost per station, which will be indexed going forward. FDOE will collaborate with EDR to select an industrywide accepted construction cost index. The currently used cost figures include construction, architectural/design, and FF&E costs but exclude land, facility support, and other support costs. Table 3 presents a comparison of the student station cost estimates against the maximum cost estimates per student station published by the FDOE, which range from \$23,050 for elementary schools to \$32,332 for high schools. In other words, estimated local cost per student station is approximately 12 percent lower than the FDOE cost for elementary schools, 11 percent lower for middle schools, and 24 percent lower for high schools, indicating OCPS is constructing schools at a lower cost than the FDOE cost allowances per student station.

**Table 3
School Facility Cost per Student Station**

Cost Component	Elementary School	Middle School	High School	Weighted Average
Square Feet per Student Station (LOS) - Recent Construction ⁽¹⁾	110.8	130.0	129.8	-
Additional Planned Permanent Student Stations ⁽²⁾	10,881	8,057	8,637	27,575
School Facility Cost Components:				
Non-Construction Cost per Gross Sq Ft ⁽³⁾	\$40.60	\$37.80	\$42.00	\$40.20
Construction Cost per Gross Sq Ft ⁽⁴⁾	\$145.00	\$135.00	\$150.00	\$143.56
FF&E Cost per Gross Sq Ft ⁽⁵⁾	\$11.60	\$10.80	\$12.00	\$11.48
Other Cost per Gross Sq Ft ⁽⁶⁾	\$14.50	\$13.50	\$15.00	\$14.36
Land Cost per Gross Sq Ft ⁽⁷⁾	<u>\$18.63</u>	<u>\$15.18</u>	<u>\$16.79</u>	<u>\$16.91</u>
Total Facility Cost per Gross Sq Ft ⁽⁸⁾	\$230.33	\$212.28	\$235.79	\$226.51
Total Facility Cost per Student Station⁽⁹⁾	\$25,521	\$27,596	\$30,606	\$27,720
Total Facility Cost per Student Station Excluding Land, Facility Support & Other Costs	\$20,243	\$22,113	\$24,532	\$22,133
DOE Cost per Student Station⁽¹⁰⁾	\$23,050	\$24,892	\$32,332	\$26,495

- 1) Source: Table 2
- 2) Source: Orange County Public Schools. Figures are based upon schools planned to be built over the next ten years.
- 3) Estimated at 28% of construction cost based on estimates obtained from OCPS and recent costs obtained from other Florida School Districts. See Appendix B for further detail.
- 4) Construction cost is estimated to range from \$135 per gross square foot to \$150 per gross square foot, based on information on recently built schools, insurance values of existing schools, and recently constructed schools in other Florida jurisdictions. See Appendix B for further detail.
- 5) Estimated at 8% of construction cost based on recently built schools in Orange County and recently constructed schools in other Florida jurisdictions. See Appendix B for further detail.
- 6) Estimated at 10% of the construction cost based on recently built schools in Orange County. Includes moving costs, classroom technology, curriculum items, HVAC commissioning, building envelope consultant, PM fees, audit costs, environmental/abatement, material testing, etc.
- 7) The land cost per square foot for each school type is based on the acreage per 1,000 gross square feet for future schools at a cost of \$115,000 per acre. See Appendix B for further detail.
- 8) Sum of the school facility cost per gross square foot (Items 3 thru 7)
- 9) The gross square feet per student station (Item 1) multiplied by the total school facility cost per gross square foot (Item 8) for each school level. Weighted average is based on the distribution of planned student stations by school level (Item 2).
- 10) Student Station Cost Factors published by the Florida Department of Education (FDOE) on December 4, 2018 for March 2019

Net Interest Carrying Cost

A cost component for the interest expense or lost opportunity on funds that OCPS uses during construction of a new school facility could be considered to the extent that OCPS uses Certificates of Participation (COPs), or debt service, to fund new schools. Although OCPS has previously used COPs to partially fund capacity addition projects, based on discussions with OCPS and to provide a more conservative estimate, interest carrying cost was not included during the last update study. Given that OCPS is not issuing any new debt associated with capacity projects, this study continues to exclude interest carrying cost.

Weighted Average Total Facility Cost per Student by School Type

The total facility impact cost per student for each school type is based on the facility cost per student station figures derived in Table 3 and is typically calculated by multiplying the cost per student station by the number of total permanent stations and dividing by current student enrollment. This adjustment of dividing the cost per student station by the ratio of current student enrollment to available capacity converts the cost per student station to a cost per student. In addition, this calculation accounts for the current surplus or shortage in permanent capacity and adjusts the costs accordingly. If there is available capacity (e.g., currently more permanent student stations than enrollment), then the total facility cost per student increases to reflect that more than one station is being built for each student to allow for operational capacity. Similarly, if there are currently more students enrolled than available capacity, the cost per student is adjusted downward.

In the case of Orange County, on a districtwide basis, there is currently ten percent surplus of available capacity in elementary schools and six percent for middle schools, and a shortage of three percent for high schools.

The District's current adopted LOS standards call for an enrollment to FISH permanent capacity of 110 percent for elementary schools, 100 percent for middle schools, and 100 percent for high schools. While achieved LOS reflects the community's investment into educational facilities infrastructure, the adopted LOS standards reflect OCPS' intended service level in the future. Given this, impact fee calculations use the higher of these two figures, which results in more conservative impact fee levels. In the case of OCPS, the adopted LOS standards result in more conservative impact fee levels. As shown in Table 4, utilizing the achieved LOS results in a weighted average total facility impact cost of \$29,100 per student versus \$26,800 per student, utilizing the adopted standards.

Table 4
Weighted Facility Impact Cost per Student

Calculation Step	Elementary School	Middle School	High School	Weighted Average / Total
Facility Impact Cost per Student				
Facility Cost per Permanent Student Station ⁽¹⁾	\$25,521	\$27,596	\$30,606	\$27,720
2018/2019 Student Enrollment ⁽²⁾	91,060	44,157	58,922	194,139
Permanent Capacity based on Existing Inventory ⁽³⁾	100,990	47,091	57,314	205,395
Achieved LOS (Ratio of Enrollment to Permanent Capacity) ⁽⁴⁾	90%	94%	103%	95%
Adopted LOS Standard (Enrollment to Permanent Capacity) ⁽⁵⁾	110%	100%	100%	N/A
Additional Planned Permanent Student Stations (2019-2028) ⁽⁶⁾	10,881	8,057	8,637	27,575
Total Facility Impact Cost per Student - Using Achieved LOS ⁽⁷⁾	\$28,357	\$29,357	\$29,715	\$29,075
Total Facility Impact Cost per Student - Using Adopted LOS Standard⁽⁸⁾	\$23,201	\$27,596	\$30,606	\$26,805

1) Source: Table 3

2) Source: Orange County Public Schools

3) Source: Appendix A, Table A-1

4) Projected student enrollment (Item 2) divided by projected permanent capacity (Item 3)

5) Source: Orange County Public Schools

6) Source: Table 3

7) Facility cost per student station (Item 1) divided by the achieved LOS (Item 4)

8) Facility cost per student station (Item 1) divided by the adopted LOS standard (Item 5)

Total Cost per Student

In addition to the facility cost per student calculated in Table 4, the total facility cost per student includes two additional cost components: the capital costs associated with providing transportation services and ancillary facilities. Both of these cost components are calculated on a per-student basis and are not dependent on school type. Each of these additional cost components is discussed in further detail below.

Transportation Costs

The first additional cost component is the cost of providing transportation to students. OCPS currently owns 1,120 buses used for student transportation. Based on information provided by OCPS, the current cost of a bus averages approximately \$123,000, which is within the range of school bus cost observed in other jurisdictions. In addition to buses, OCPS has 507 vehicles that are part of the “white fleet,” which includes other vehicles such as vans, trucks, and trailers. The average cost of the white fleet was estimated by OCPS at approximately \$29,000 per vehicle. The result is a total fleet value of \$151.9 million; \$14.5 million of which is for the white fleet and \$137.4 million is for buses. The total value of the transportation fleet was then divided by the current 2018/19 student enrollment to calculate the transportation cost per student. As shown in **Table 5**, the total transportation services cost amounts to \$783 per student.

Ancillary and Administrative Facilities Costs

The other capital cost component is for the ancillary facilities that are necessary for the District to provide support services for students, schools, transportation services, and administrative personnel. The District currently has approximately 748,000 square feet of ancillary facilities for transportation, maintenance, warehouse, and administrative functions.

Based upon a review of the insurance values and the costs observed in other jurisdictions, an estimated value of \$190 per square foot is used, which resulted in total building value of \$142 million.

The cost of land for ancillary facilities also is included in the ancillary facility values. The land value for ancillary facilities is the same as that used for schools (\$115,000 per acre), which resulted in total land value of \$22.7 million.

As presented in Table 5, the total ancillary facility cost totals \$848 per student, which is calculated by dividing the total ancillary facility by the 2018/2019 enrollment.

Table 5
Transportation and Ancillary Facility Cost per Student

Description	Figure
<i>Transportation Services Cost per Student</i>	
Total Current Value of Transportation Services ⁽¹⁾	\$151,939,164
2018/2019 Enrollment ⁽²⁾	194,139
Total Transportation Services Cost per Student⁽³⁾	\$783
<i>Ancillary Facility Cost per Student</i>	
Building Value for Ancillary Facilities ⁽⁴⁾	\$142,041,720
Land Value for Ancillary Facilities ⁽⁵⁾	<u>\$22,655,000</u>
Total Current Value for Ancillary Facilities ⁽⁶⁾	\$164,696,720
Total Ancillary Facility Cost per Student⁽⁷⁾	\$848

- 1) Source: Orange County Public Schools
- 2) Source: Table 1
- 3) Total current value of transportation services (Item 1) divided by enrollment (Item 2)
- 4) Square footage inventory obtained from Orange County Public Schools multiplied by \$190 per square foot
- 5) Acreage obtained from Orange County Public Schools multiplied by \$115,000 per acre (see Appendix B for further explanation on land value)
- 6) Sum of the building value (Item 4) and land value (Item 5) of the District's current inventory of ancillary facilities
- 7) Total value for ancillary facilities (Item 6) divided by enrollment (Item 2)

Credit Component

To ensure that new residential development is not being overcharged for the capital costs associated with new public schools, and that each new residential development pays the appropriately calculated impact fee, a credit for non-impact fee revenue generated by new development that is used towards capital expansion of school facilities must be considered in the credit component of the school impact fee. A credit for school impact fees is not given for revenue generated by new development that is used for capital renovation of existing education facilities or for maintenance and operational costs, as this is not consistent with the purpose of impact fees.

Based upon a review of the capacity addition expenditures over the past five years and planned expenditures over the next five years, it has been determined that, in addition to impact fees, OCPS uses capital millage, sales tax revenues, and other local revenues to fund the capital expansion of school facilities. Because the District has previously utilized Certificates of Participation (COPs) for capacity expanding projects, a credit for the remaining debt service payments is also given.

Capital Improvement “Cash” Credit

The Orange County School Board has the authority to levy up to 1.5 mills of the countywide ad valorem tax to generate revenue for education. In Orange County, the current millage rate is equal to the 1.5 mill maximum. In addition to the capital improvement tax, the Orange County School Board has been utilizing sales tax revenues and other local revenues to fund the capital expansion of public schools in Orange County.

As shown in **Table 6**, the average annual expenditure over this ten-year period amounts to approximately \$51.1 million. To calculate the revenue credit per student, the average annual expenditure is divided by the average annual enrollment for the same time period. As shown, this figure amounts to \$268 per student per year.

Once the revenue credit per student is calculated, a credit adjustment is needed for the portion of the revenue credit funded with ad valorem tax revenues, which is approximately 10 percent of the cash funding. This adjustment accounts for the fact that new homes tend to pay higher property taxes per dwelling unit than older homes and was estimated based on a comparison of

the average taxable value of newer homes to that of all homes. As presented, the adjusted revenue credit per student amounts to \$279.

Finally, the total credit over a 25-year period, which is considered to be the time frame when major repairs or renovation is needed for structures built, is calculated at \$4,138 per student.

**Table 6
Capital Improvement Credit per Student**

Revenue Sources ⁽¹⁾	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
Orange County Half-Cent Sales Tax											
Capacity Addition to Existing Schools	\$31,507,833	\$24,267,909	\$21,733,763	\$33,970,985	\$18,916,909	\$24,479,596	\$330,370	-	-	-	\$155,207,365
New Schools	-\$91,500	\$641,847	\$5,804,675	\$52,443,525	\$37,736,571	\$37,149,909	-	\$75,250,000	\$1,550,000	\$62,910,000	\$273,395,027
Digital Curriculum (New Growth Portion)	-	-	-	-	-	\$3,529,257	\$4,555,964	\$3,663,849	\$2,000,418	\$1,938,403	\$15,687,891
Total											\$444,290,283
Capital Improvement Tax											
Site Acquisition	-	-	-	-	\$1,511,384	-	-	-	-	-	\$1,511,384
New Schools	-	-	-	-	-	-	-	\$50,000,000	-	-	\$50,000,000
Total											\$51,511,384
Other Local Sources (Mitigation, Property Sales, etc.)											
Capacity Addition to Existing Schools	-	-	\$210,304	\$52,243	\$17,852	-	-	-	-	-	\$280,399
Site Acquisition	-	-	-	-	\$1,129,427	-	-	-	-	-	\$1,129,427
New Schools	-	\$1,102,868	\$4,286,941	\$2,580,397	\$4,452,155	\$1,228,517	-	-	\$574,500	-	\$14,225,378
Total											\$15,635,204
Total Expenditures	\$31,416,333	\$26,012,624	\$32,035,683	\$89,047,150	\$63,764,298	\$66,387,279	\$4,886,334	\$128,913,849	\$4,124,918	\$64,848,403	\$511,436,871
Average Annual Expenditures ⁽²⁾											\$51,143,687
Average Annual Enrollment ⁽³⁾											190,652
Revenue Credit per Student⁽⁴⁾											\$268.26
- Portion Funded with Ad Valorem Tax Revenues ⁽⁵⁾											\$27.02
- Portion Funded with Other Revenues ⁽⁶⁾											\$241.24
Credit Adjustment Factor ⁽⁷⁾											1.40
Adjusted Revenue Credit per Student (Ad Valorem Portion Only) ⁽⁸⁾											\$37.83
Total Adjusted Revenue Credit per Student⁽⁹⁾											\$279.07
Capitalization Rate ⁽¹⁰⁾											4.50%
Capitalization Period, Years ⁽¹¹⁾											25
Present Value of Capital Improvement Revenue Credit per Student⁽¹²⁾											\$4,138

- 1) Source: Orange County Public Schools
- 2) Total expenditures divided by 10 to calculate the average annual expenditure
- 3) Source: Table 1. Average enrollment over the 10-year time span
- 4) Average annual expenditures (Item 2) divided by the average annual enrollment (Item 3)
- 5) Portion of the revenue credit per student funded with ad valorem tax revenues only
- 6) Revenue credit per student (Item 4) less the portion funded with ad valorem tax revenues (Item 5)
- 7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
- 8) Revenue credit per student funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 7)
- 9) Sum of the revenue credit per student funded with other revenues (Item 6) and the adjusted revenue credit per student (Item 8)
- 10) Interest rate the District is likely to pay for future bonds, estimated by Orange County Public Schools
- 11) Time period after which major repairs are needed
- 12) Present value of the total adjusted revenue credit per student (Item 9) at 4.50% interest rate (Item 10) over a 25-year capitalization period (Item 11)

Debt Service Credit per Student

As mentioned previously, OCPS has utilized COPs to pay for a portion of the capacity expansion projects and given that there is still an outstanding debt service, a credit is calculated for the future payments related to capacity expansion projects. The District uses ad valorem and sales tax revenues to pay the debt service.

To calculate the debt service credit per student, the remaining payments were brought back to present value, based on the number of years and annual interest rate of each COP issue. Once the present value of remaining payments is calculated, each debt issue is divided by the average annual enrollment for the time period remaining.

Similar to the capital improvement credit, the portion of the debt service credit per student paid back with ad valorem tax revenues is adjusted to account for the fact that newer homes tend to pay higher property taxes than older homes. As presented in **Table 7**, the adjusted total debt service credit per student amounts to \$692.

**Table 7
Debt Service Credit per Student**

Description	Funding Source ⁽¹⁾	Number of Years of Remaining Payments ⁽¹⁾	Remaining Payments Due for Expansion ⁽¹⁾	Present Value of Total Remaining Payments ⁽²⁾	Average Annual Enrollment ⁽³⁾	Debt Service Credit per Student ⁽⁴⁾
<i>Certificates of Participation</i>						
COPS 2008E Issue	Ad Valorem Tax	4	\$13,255,423	\$11,243,934	200,755	\$56
COPS 2009B - QSCB Issue	Sales Tax	6	\$2,489,042	\$2,149,087	204,357	\$11
COPS 2010A - QSCB Issue	Sales Tax	11	\$10,177,065	\$10,177,065	213,623	\$48
COPS 2016A Issue	Ad Valorem Tax	6	\$51,445,290	\$46,824,766	204,357	\$229
COPS 2017A Issue	Ad Valorem Tax	7	\$37,388,339	\$34,378,697	206,181	\$167
Total Debt Service Credit per Student						\$511
- Portion Funded with Ad Valorem Tax Revenues ⁽⁵⁾						\$452
- Portion Funded with Sales Tax Revenues ⁽⁶⁾						\$59
Credit Adjustment Factor ⁽⁷⁾						1.40
Adjusted Credit per Student (Ad Valorem Portion Only)⁽⁸⁾						\$633
Adjusted Total Debt Service Credit per Student⁽⁹⁾						\$692

- 1) Source: Orange County Public Schools
- 2) Present value of the remaining capacity related payments due, based on the interest rate of each payment and the number of years of remaining payments
- 3) Source: Table 1. Represents the estimated average annual enrollment over the life of remaining payments
- 4) Present value of total remaining payments (Item 2) divided by the average annual enrollment over the life of the remaining payments (Item 3)
- 5) Portion of the total debt service credit per student funded with ad valorem tax revenues
- 6) Portion of the total debt service credit per student funded with sales tax revenues
- 7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
- 8) Portion of the total debt service credit per student funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 7)
- 9) Adjusted credit per student (Item 8) plus the portion of the total debt service funded with sales tax revenues (Item 6)

Net Impact Cost per Student

The net impact fee per student is the difference between the cost component and the credit component. **Table 8** summarizes the three-step process used to calculate the net impact cost per student for public schools in Orange County.

First, the total impact cost per student is determined, which is the sum of the weighted average facility impact cost per student from Table 4 and the transportation and ancillary facility cost components per student from Table 5. As previously mentioned, the transportation and ancillary cost components are calculated on a per-student basis and do not differ by type of school or by type of residential land use. Compared to the 2016 study, the total cost per student increased by 5 percent.

Second, the total revenue credit per student is determined. This is the sum of the capital improvement credit per student and the debt service credit per student found in Tables 6 and 7. The credit per student decreased by 19 percent since the last study, primarily due to OCPS paying off a portion of the outstanding debt.

Third, the net impact cost per student is determined, which is the difference between the total impact cost per student and total revenue credit per student and is calculated at approximately \$23,600 per student. This figure represents an increase of 12 percent compared to the last study.

**Table 8
Net Cost per Student**

Total Impact Cost	Per Student
Facility Impact Cost ⁽¹⁾	\$26,805
Transportation Impact Cost ⁽²⁾	\$783
Ancillary Facility Cost ⁽³⁾	\$848
Total Impact Cost⁽⁴⁾	\$28,436
Revenue Credit	Per Student
Capital Improvement Credit ⁽⁵⁾	\$4,138
Debt Service Credit ⁽⁶⁾	\$692
Total Revenue Credit⁽⁷⁾	\$4,830
Net Impact Cost	Per Student
Net Impact Cost⁽⁸⁾	\$23,606

- 1) Source: Table 4
- 2) Source: Table 5
- 3) Source: Table 5
- 4) Sum of the total facility impact cost per student (Item 1), transportation impact cost per student (Item 2), and ancillary facility cost per student (Item 3)
- 5) Source: Table 6
- 6) Source: Table 7
- 7) Sum of the capital improvement credit per student (Item 5) and the debt service credit per student (Item 6)
- 8) The net impact cost per student is the total impact cost per student (Item 4) less the total revenue credit per student (Item 7)

Student Generation Rates

The number of students living in a household varies, as does the number of students living in a particular type of residential unit. Therefore, school impact fees are typically assessed based on specific student generation rates (SGR), or students per housing unit, for each type of residential land use, including single family, townhouse, multi family, and mobile home.

To determine SGR by land use, Geographic Information Systems (GIS) is used to link each student address to its respective parcel in the Orange County Property Appraiser's database in order to generate the number of students per unit by land use type for the current school year. This analysis was conducted by OCPS and reviewed by Tindale Oliver and included the following:

- OCPS geocoded student addresses for students attending those schools listed in Appendix A, Table A-1 as of October 2018. The students excluded Voluntary Pre-K students.
- Orange County Property Appraiser 2018 tax year parcel database was used to determine residential categories.

The development of the SGR analysis is a two-step process; as mentioned previously, the analysis was completed by OCPS, and the procedures and results were reviewed by Tindale Oliver. First, using the 2018 Tax Year parcel file provided by the Orange County Property Appraiser's Office, parcels were selected in the following categories: Single Family, Townhouse, Multi Family, and Mobile Home. This provided the total number of units in each category.

Second, geocoded student address data were selected by the land use category and summed. Finally, the number of students were divided by the total number of units in each selected land use category.

Table 9 presents the total number of students and total number of units by each residential category that were used to determine the SGR. The resulting SGR by residential category represents the number of students anticipated to occupy a dwelling unit over the life cycle of the home.

**Table 9
Student Generation Rates**

Residential Category	Total Housing Units⁽¹⁾	Total Number of Students⁽²⁾	Students per Unit⁽³⁾
<i>Traditional Schools</i>			
Single Family (detached)	287,332	116,501	0.405
Townhouse	20,382	7,612	0.373
Multi-Family	188,142	52,679	0.280
Mobile Home	13,368	5,886	0.440
Total/Weighted Average	509,224	182,678	0.359

1) Source: Orange County Public Schools

2) Source: Orange County Public Schools

3) Number of students (Item 2) divided by the number of housing units (Item 1)

In addition, a separate category for high-rise multi-family homes was created for consideration. This analysis was completed in response to recent alternative impact fee studies and a request from the City of Orlando to recognize the differential SGR of these types of structures. In this exercise, high-rise multi-family category is defined as developments that have the following physical characteristics:

- Height of 7-stories or more (includes parking);
- Density of 70 dwelling units per acre; and
- A parking structure.

Table 10 presents the student generation rates of residential categories with the creation of a separate category for high-rise buildings.

**Table 10
Student Generation Rates – High Rise Separate**

Residential Category	Total Housing Units⁽¹⁾	Total Number of Students⁽²⁾	Students per Unit⁽³⁾
Single Family	287,332	116,501	0.405
Townhouse	20,382	7,612	0.373
High Rise	4,193	54	0.013
Multi-Family (Other)	183,949	52,625	0.286
Mobile Home	13,368	5,886	0.440
Total/Weighted Average	509,224	182,678	0.359

1) Source: Orange County Public Schools

2) Source: Orange County Public Schools

3) Number of students (Item 2) divided by the number of housing units (Item 1)

Calculated School Impact Fee Schedule

To determine the proposed school impact fee for each residential land use, the net impact cost per student from Table 8 was multiplied by the SGR from Table 9 for each residential category. The resulting net impact fees are presented in the calculated impact fee schedule in **Table 11**. In addition to the calculated fee, the current adopted fee is also shown for comparison purposes. In addition, **Table 12** presents the calculated fee schedule when a separate category for the high-rise multi-family units is created, based on the student generation rates included in Table 10.

As discussed previously, net cost per student increased by 12 percent since the 2016 study. The remaining amount of changes in the calculated fee schedules is due to the fluctuations in the student generation rates.

Table 11
Calculated School Impact Fee Schedule – Current Residential Categories

Residential Category	Unit	Students per Unit ⁽¹⁾	Net Impact Cost per Student ⁽²⁾	2019 Calculated Impact Fee ⁽³⁾	Current Adopted Fee ⁽⁴⁾	Percent Change ⁽⁵⁾
Single Family (detached)	du	0.405	\$23,606	\$9,560	\$8,784	9%
Townhouse	du	0.373	\$23,606	\$8,805	\$6,930	27%
Multi-Family	du	0.280	\$23,606	\$6,610	\$5,919	12%
Mobile Home	du	0.440	\$23,606	\$10,387	\$6,088	71%

1) Source: Table 9

2) Source: Table 8

3) Students per unit (Item 1) multiplied by the net impact cost per student (Item 2)

4) Source: Orange County Development Services

5) Change from current adopted fee to calculated fee

Table 12
Calculated School Impact Fee Schedule – High-Rise Multi-Family Separated

Land Use	Unit	Students per Unit ⁽¹⁾	Net Impact Cost per Student ⁽²⁾	2019 Calculated Impact Fee ⁽³⁾	Current Adopted Fee ⁽⁴⁾	Percent Change ⁽⁵⁾
Single Family (detached)	du	0.405	\$23,606	\$9,560	\$8,784	9%
Townhouse	du	0.373	\$23,606	\$8,805	\$6,930	27%
Multi-Family (High Rise)	du	0.013	\$23,606	\$307	\$5,919	-95%
Multi-Family (Other)	du	0.286	\$23,606	\$6,751	\$5,919	14%
Mobile Home	du	0.440	\$23,606	\$10,387	\$6,088	71%

1) Source: Table 10

2) Source: Table 8

3) Students per unit (Item 1) multiplied by the net impact cost per student (Item 2)

4) Source: Orange County Development Services

5) Change from current adopted fee to calculated fee

School Impact Fee Schedule Comparison

As part of the work effort in updating Orange County’s schools impact fee program, a comparison of the adopted and calculated single family school impact fee for Orange County to the single family school impact fees adopted by other counties throughout Florida has been prepared. **Table 13** presents this comparison. For those where information was available, the impact fee adoption percentage and the full rate are also shown.

*Approximately
40% of Florida
counties
implemented a
school impact
fee.*

Table 13
School Impact Fee Schedule Comparison

County ⁽¹⁾	Date of Last Update ⁽²⁾	Adoption Percent ⁽²⁾	Single Family (per du)	
			Adopted Fee ⁽²⁾	Fee @ 100% ⁽³⁾
Miami-Dade County	1995	100%	\$2,448	\$2,448
Citrus County	2014	50%	\$1,261	\$2,522
Hernando County	2005	50%	\$2,133	\$4,266
Hillsborough County	2004	92%	\$4,000	\$4,348
Volusia County	2013	67%	\$3,000	\$4,483
St. Johns County	2018	100%	\$4,725	\$4,725
Flagler County	2004	76%	\$3,600	\$4,756
Nassau County	2017	100%	\$5,431	\$5,431
St. Lucie County ⁽⁴⁾	2009	100%	\$6,529	\$5,447
Lee County ⁽⁴⁾	2015	45%	\$2,605	\$5,484
Martin County	2006	100%	\$5,567	\$5,567
Indian River County	2014	28%	\$1,702	\$6,077
Manatee County	2017	100%	\$6,127	\$6,127
Palm Beach County	2015	61%	\$4,237	\$6,956
Marion County ^{(4)*}	2006	48%	\$3,967	\$7,375
Sarasota County	2015	26%	\$2,032	\$7,835
Orange County (Current)	2016	100%	\$8,784	\$8,784
Pasco County	2017	79%	\$7,128	\$9,028
Broward County ⁽⁵⁾	2017	n/a	\$6,756	\$9,049
Clay County	2009	77%	\$7,034	\$9,096
Lake County	2015	100%	\$9,324	\$9,324
Orange County (Calculated)	2019	100%	\$9,560	\$9,560
Brevard County	2015	50%	\$5,097	\$10,193
Polk County	2015	50%	\$5,242	\$10,484
Collier County ⁽⁴⁾	2015	67%	\$8,790	\$11,164
Osceola County	2017	100%	\$11,823	\$11,823
Seminole County	2017	73%	\$9,000	\$12,322

- 1) An asterisk (*) indicates that fees are currently suspended
 - 2) Source: Published impact fee schedules and discussions with representatives from each County
 - 3) Represents the full calculated fee from each respective technical study
 - 4) Fees are indexed annually
 - 5) Rate shown under Single Family Impact Fee at 100% (Item 3) reflect most recent on-going technical study
- Note: In the case of tiered fee schedules, fee for a 2,000-sf home is shown.

Appendix A
Orange County Public Schools
Inventory

Appendix A – Inventory

This Appendix includes an inventory of traditional schools that are owned and operated by OCPS and included in the impact fee calculations. The inventory includes all existing traditional schools as well as three new schools that are under construction and scheduled to open for the 2019/2020 school year.

**Table A-1
Orange County Public Schools Inventory**

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
Elementary Schools:						
1	25-E-SW-4 (Horizon West/Lakeside Village Relief)*	PK 05	2005	14	837	837
2	49-E-W-4 *	PK 05	2015	15	837	837
3	Aloma Elementary	PK 05	1968	14	644	644
4	Andover Elementary	PK 05	1999	17	774	774
5	Apopka Elementary	PK 05	1968	16	830	830
6	Avalon Elementary	PK 05	1999	15	754	754
7	Azalea Park Elementary	PK 05	1953	21	696	696
8	Baldwin Park Elementary	PK 05	2006	14	842	842
9	Bay Lake Elementary	PK 05	2015	16	837	837
10	Bay Meadows Elementary	PK 05	1990	18	848	848
11	Bonneville Elementary	PK 05	1960	10	938	938
12	Brookshire Elementary	PK 05	1954	11	680	680
13	Camelot Elementary	PK 05	1999	13	754	754
14	Castle Creek Elementary	PK 05	1999	18	828	828
15	Catalina Elementary (New)	PK 05	1964	10	832	832
16	Cheney Elementary	PK 05	1958	20	754	754
17	Chickasaw Elementary	PK 05	1960	10	870	870
18	Citrus Elementary	PK 05	1999	17	758	758
19	Clarcona Elementary	PK 05	1985	16	558	558
20	Clay Springs Elementary	PK 05	1991	23	832	832
21	Columbia Elementary	PK 05	2005	14	842	842
22	Conway Elementary	PK 05	1918	10	627	627
23	Cypress Springs Elementary	PK 05	1993	15	832	832
24	Deerwood Elementary	PK 05	1984	19	663	663
25	Dillard Street Elementary	PK 05	1951	9	750	750
26	Dommerich Elementary	PK 05	1964	13	585	585
27	Dover Shores Elementary	PK 05	1959	10	660	660
28	Dr Phillips Elementary	PK 05	1979	12	660	660
29	Dream Lake Elementary	PK 05	1954	20	832	832
30	Eagle Creek Elementary	PK 05	2014	14	832	832
31	Eagle's Nest Elementary	PK 05	2001	15	758	758
32	East Lake Elementary	PK 05	2002	14	756	756
33	Eccleston Elementary	PK 05	1956	17	684	684
34	Endeavor Elementary	PK 05	1999	16	758	758
35	Engelwood Elementary	PK 05	1963	9	837	837

Table A-1 (continued)
Orange County Public Schools Inventory

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
Elementary Schools:						
36	Forsyth Woods Elementary	PK 05	2009	25	862	862
37	Hiawassee Elementary	PK 05	1958	10	758	758
38	Hidden Oaks Elementary	PK 05	1991	20	664	664
39	Hillcrest Elementary	PK 05	1924	4	528	528
40	Hungerford Elementary	PK 05	1950	15	709	709
41	Hunters Creek Elementary	PK 05	1993	15	736	736
42	Independence Elementary	PK 05	2005	15	832	832
43	Ivey Lane Elementary	PK 05	1963	14	660	660
44	John Young Elementary	PK 05	1990	15	832	832
45	Keenes Crossing Elementary	PK 05	2000	15	859	859
46	Killarney Elementary	PK 05	1947	10	520	520
47	Lake Gem Elementary	PK 05	1995	20	837	837
48	Lake George Elementary	PK 05	1997	16	679	679
49	Lake Silver Elementary	PK 05	1951	10	723	723
50	Lake Sybelia Elementary	PK 05	1967	13	645	645
51	Lake Weston Elementary	PK 05	1957	10	762	762
52	Lake Whitney Elementary	PK 05	1996	15	646	646
53	Lakemont Elementary	PK 05	1953	11	766	766
54	Lakeville Elementary	PK 05	1997	20	607	607
55	Lancaster Elementary	PK 05	1959	10	819	819
56	Laureate Park Elementary	PK 05	2016	13	837	837
57	Lawton Chiles Elementary	PK 05	1990	24	758	758
58	Little River Elementary	PK 05	1991	23	500	500
59	Lockhart Elementary	PK 05	1885	12	659	659
60	Lovell Elementary	PK 05	1959	10	832	832
61	Maxey Elementary (New)	PK 05	2016	9	661	661
62	Mccoy Elementary	PK 05	1963	13	824	824
63	Meadow Woods Elementary	PK 05	1989	15	837	837
64	Metrowest Elementary	PK 05	1988	13	837	837
65	Millennia Elementary	PK 05	2005	17	832	832
66	Millennia Gardens Elementary	PK 05	2014	12	837	837
67	Mollie Ray Elementary	PK 05	1959	9	674	674
68	Moss Park Elementary	PK 05	2001	15	842	842
69	Northlake Park Elementary	PK 05	1998	22	878	878
70	Oak Hill Elementary	PK 05	1973	14	664	664

Table A-1 (continued)
Orange County Public Schools Inventory

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
Elementary Schools:						
71	Oakshire Elementary	PK 05	1998	20	752	752
72	Ocoee Elementary	PK 05	1977	10	830	830
73	Orange Center Elementary	PK 05	1966	7	465	465
74	Orlo Vista Elementary	PK 05	1930	5	735	735
75	Palm Lake Elementary	PK 05	1986	15	767	767
76	Palmetto Elementary	PK 05	1973	14	1,163	1,163
77	Pinar Elementary	PK 05	1973	15	673	673
78	Pine Hills Elementary	PK 05	1955	15	845	845
79	Pineloch Elementary	PK 05	1950	15	830	830
80	Pinewood Elementary	PK 05	1996	19	655	655
81	Prairie Lake Elementary	PK 05	2007	17	885	885
82	Princeton Elementary	PK 05	1919	6	545	545
83	Ridgewood Park Elementary	PK 05	1969	15	896	896
84	Riverdale Elementary	PK 05	1997	40	607	607
85	Riverside Elementary	PK 05	1967	16	837	837
86	Rock Lake Elementary	PK 05	1955	9	664	664
87	Rock Springs Elementary	PK 05	1988	19	832	832
88	Rolling Hills Elementary	PK 05	1960	10	816	816
89	Rosemont Elementary	PK 05	1991	18	860	860
90	Sadler Elementary	PK 05	1966	15	870	870
91	Sally Ride Elementary	PK 05	1959	10	633	633
92	Sand Lake Elementary	PK 05	2004	17	828	828
93	Shenandoah Elementary	PK 05	1969	14	720	720
94	Shingle Creek Elementary	PK 05	1990	17	832	832
95	Southwood Elementary	PK 05	1996	15	643	643
96	Spring Lake Elementary	PK 05	1960	11	627	627
97	Stone Lakes Elementary	PK 05	1999	18	828	828
98	Sun Blaze Elementary	PK 05	2012	15	832	832
99	Sunridge Elementary	PK 05	2004	12	859	859
100	Sunrise Elementary	PK 05	1996	15	663	663
101	Sunset Park Elementary	PK 05	2005	14	838	838
102	Tangelo Park Elementary	PK 05	1959	17	664	664
103	Thornebrooke Elementary	PK 05	2001	14	744	744
104	Three Points Elementary	PK 05	2000	13	758	758
105	Tildenville Elementary	PK 05	1963	12	792	792

Table A-1 (continued)
Orange County Public Schools Inventory

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
Elementary Schools:						
106	Timber Lakes Elementary	PK 05	1998	13	838	838
107	Union Park Elementary	PK 05	1876	20	673	673
108	Ventura Elementary	PK 05	1986	15	837	837
109	Vista Lakes Elementary	PK 05	2001	12	828	828
110	Washington Shores Elementary	PK 05	1948	13	694	694
111	Waterbridge Elementary	PK 05	1991	18	861	861
112	Waterford Elementary	PK 05	1991	12	800	800
113	West Creek Elementary	PK 05	2003	15	758	758
114	West Oaks Elementary	PK 05	2003	11	754	754
115	Westbrooke Elementary	PK 05	2004	16	842	842
116	Westpointe Elementary	PK 05	1988	12	837	837
117	Wetherbee Elementary	PK 05	2010	15	817	817
118	Wheatley Elementary	PK 05	1935	13	570	570
119	Whispering Oak Elementary	PK 05	2000	14	767	767
120	William Frangus Elementary	PK 05	1992	15	765	765
121	Windermere Elementary	PK 05	1968	15	842	842
122	Winegard Elementary	PK 05	1964	15	778	778
123	Wolf Lake Elementary	PK 05	2003	16	828	828
124	Wyndham Lakes Elementary	PK 05	2003	14	828	828
125	Zellwood Elementary	PK 05	1892	15	623	623
ML-1	Arbor Ridge School K-8	PK 08	1989	18	569	512
ML-2	Audubon Park School K8	PK 08	1953	14	902	812
ML-3	Blankner K-8 School	PK 08	1999	13	663	597
ML-4	Lake Como School K8	PK 08	1950	13	907	816
ML-5	OCPS Academic Center For Excellence	PK 08	2014	13	1,016	915
ML-6	Pershing - Pine Castle K-8	PK 08	1960	10	836	751
ML-7	Wedgfield School K8	PK 08	2008	52	761	685
ML-8	Windy Ridge School K8	PK 08	1990	28	976	879
Subtotal - Elementary Schools				1,821	101,653	100,990
Middle Schools						
1	37-M-SW-4 (Bridgewater Relief)*	06 08	2015	26	1,330	1,197
2	Apoka Middle	06 08	1950	44	1,196	1,076
3	Avalon Middle	06 08	2005	19	1,188	1,069
4	Bridgewater Middle	06 08	2005	35	1,307	1,176
5	Carver Middle	06 08	1962	40	1,363	1,227
6	Chain Of Lakes Middle	06 08	1998	25	1,262	1,136

Table A-1 (continued)
Orange County Public Schools Inventory

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
Middle Schools						90%
7	College Park Middle	06 08	1955	18	871	784
8	Conway Middle	06 08	1968	21	1,069	962
9	Corner Lake Middle	06 08	1996	26	1,330	1,197
10	Discovery Middle	06 08	1993	37	1,146	1,031
11	Freedom Middle	06 08	2004	30	1,238	1,114
12	Glenridge Middle	06 08	2001	12	1,390	1,251
13	Gotha Middle	06 08	1991	28	1,347	1,212
14	Howard Middle	06 08	1925	9	1,348	1,213
15	Hunters Creek Middle	06 08	1993	25	1,122	1,010
16	Innovation Middle	06 08	2016	26	1,355	1,220
17	Jackson Middle	06 08	1963	20	1,559	1,403
18	Lake Nona Middle	06 08	2007	21	1,373	1,236
19	Lakeview Middle	06 08	1926	24	1,298	1,168
20	Legacy Middle	06 08	2003	26	1,264	1,138
21	Liberty Middle	06 08	1974	30	1,665	1,499
22	Lockhart Middle	06 08	1958	37	894	805
23	Maitland Middle	06 08	1958	30	1,135	1,022
24	Meadow Woods Middle	06 08	1996	25	1,300	1,170
25	Meadowbrook Middle	06 08	1968	30	1,383	1,245
26	Memorial Middle	06 08	1964	26	1,324	1,192
27	Ocoee Middle	06 08	1885	20	1,583	1,425
28	Odyssey Middle	06 08	2000	29	1,261	1,135
29	Piedmont Lakes Middle	06 08	1990	40	1,237	1,113
30	Robinswood Middle	06 08	1962	20	1,115	1,004
31	South Creek Middle	06 08	2001	30	1,250	1,125
32	Southwest Middle	06 08	1991	20	1,410	1,269
33	Sunridge Middle	06 08	2004	26	1,375	1,238
34	Timber Springs Middle	06 08	2015	28	1,373	1,236
35	Union Park Middle	06 08	1961	36	1,643	1,479
36	Walker Middle	06 08	1964	20	1,251	1,126
37	Westridge Middle	06 08	1962	38	1,208	1,087
38	Wolf Lake Middle	06 08	2003	34	1,278	1,150
ML-1	Arbor Ridge School K-8	PK 08	1989	18	334	301
ML-2	Audubon Park School K8	PK 08	1953	14	486	437
ML-3	Blankner K-8 School	PK 08	1999	13	424	381
ML-4	Lake Como School K8	PK 08	1950	13	467	421
ML-5	OCPS Academic Center For Excellence	PK 08	2014	13	339	305
ML-6	Pershing - Pine Castle K-8	PK 08	1960	10	511	460
ML-7	Wedgfield School K8	PK 08	2008	52	410	369
ML-8	Windy Ridge School K8	PK 08	1990	28	308	277
Subtotal - Middle Schools				1,191	52,320	47,091

Table A-1 (continued)
Orange County Public Schools Inventory

Count	School Name ⁽¹⁾	Low/ High Grade ⁽¹⁾	Year Acquired ⁽¹⁾	Acres ⁽¹⁾	Permanent Stations ⁽¹⁾	Permanent Capacity ⁽²⁾
High Schools						95%
1	Apoka High	09 12	1974	63	3,638	3,456
2	Boone High	09 12	1949	41	3,144	2,987
3	Colonial High	09 12	1958	87	3,994	3,794
4	Cypress Creek High	09 12	1990	90	2,908	2,763
5	Dr Phillips High	09 12	1985	79	2,907	2,762
6	East River High School	09 12	1969	91	3,161	3,003
7	Edgewater High	09 12	1949	26	2,440	2,318
8	Evans High	09 12	1957	41	2,599	2,469
9	Freedom High	09 12	2001	57	2,812	2,671
10	Jones High	09 12	1925	47	1,693	1,608
11	Lake Nona High	09 12	2008	60	2,955	2,807
12	Oak Ridge High	09 12	1958	36	2,440	2,318
13	Ocoee High	09 12	2003	52	2,924	2,778
14	Olympia High	09 12	1998	53	3,546	3,369
15	Timber Creek High	09 12	1998	90	2,871	2,727
16	University High	09 12	1990/1991	107	3,013	2,862
17	Wekiva High	09 12	2005	34	2,945	2,798
18	West Orange 9Th Grade Center	09 09	1991	21	314	298
19	West Orange High	09 12	1974	45	3,152	2,994
20	Windermere High	09 12	2004	66	2,898	2,753
21	Winter Park 9Th Grade Center	09 09	1903	11	1,093	1,038
22	Winter Park High	09 12	1968	56	2,885	2,741
Subtotal - High Schools				1,148	60,332	57,314
Grand Total - All School				4,161	214,305	205,395

1) Source: Orange County Public Schools

2) Permanent capacity refers to adjusted FISH capacity, which are calculated as 100% of permanent stations for elementary schools, 90% for middle schools, and 95% for high schools.

Notes: * Indicates schools that are scheduled to open in the 2019/20 school year.

Multi-level schools are indicated with an "ML" and the number of stations and capacity are distributed between elementary and middle schools based on the distribution of enrollment. Acreage associated with these schools are included in the total shown for middle schools.

Appendix B
Building and Land Cost Analysis

This Appendix provides additional information on the data and analysis used to estimate building and land values for the Orange County school impact fee.

Building Construction Costs

To determine the architect/site improvement, construction, FF&E, and other costs associated with building a new school in Orange County, the following information was evaluated:

- Recently built schools (2016-17) and schools currently under construction in Orange County;
- OCPS cost estimates used in the Capital Improvement Plan (CIP);
- Insurance values of the existing schools;
- School cost information from other Florida counties; and
- Discussions with representatives from OCPS.

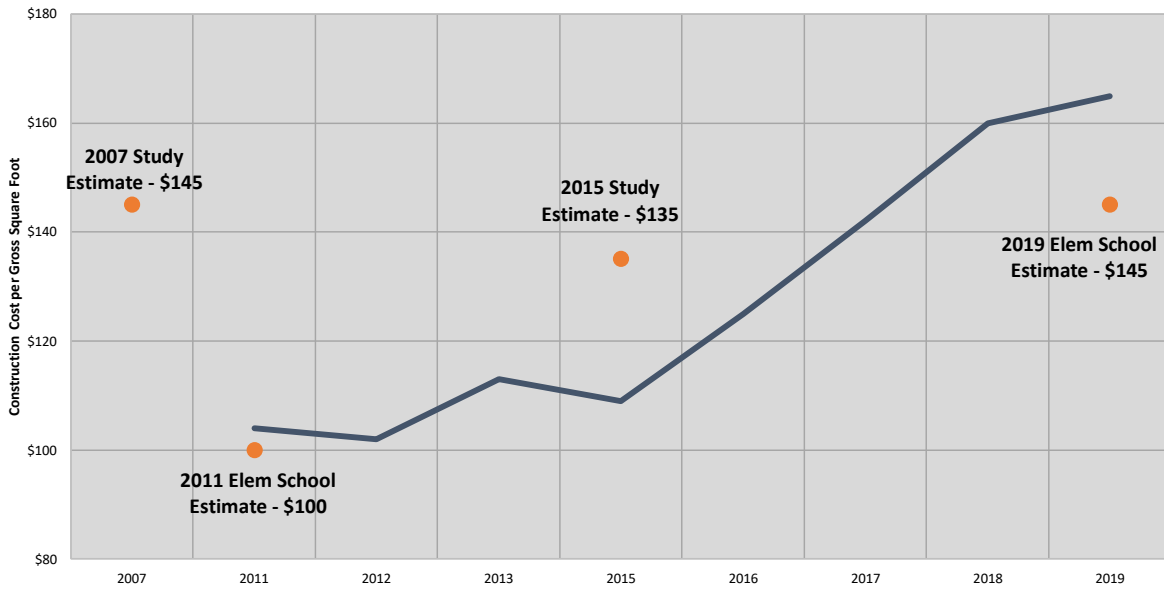
The following paragraphs provide further detail on this research and analysis.

Construction Cost

In 2016 and 2017, OCPS constructed 17 schools. In addition, the District is in the process of constructing another 12 schools. Of these 29 schools, 11 are new schools. The remaining 18 schools are considered replacement schools, yet they represent complete reconstruction of a school and are at times built on vacant lots as swing schools. Construction cost of these schools averaged \$149 per gross square foot for elementary schools, \$136 per gross square foot for middle schools, and \$146 per gross square foot for high schools. During this time period, the cost for new schools ranged from \$134 per gross square foot to \$146 per gross square foot.

Figure B-1 presents the construction cost trends for elementary schools in Orange County. The costs for OCPS' elementary schools decreased between 2007 and 2012, and then started to increase again. Although the budgeted costs for schools that are currently under construction suggest a continuing increase in construction costs, the cost of elementary schools was estimated at \$145 per gross square foot in this study for impact fee calculations purposes.

**Figure B-1
Elementary School Construction Cost Analysis – Orange County
(New Schools)**



As shown in Table B-1, the insurance values of the existing elementary schools average approximately \$173 per gross square foot, \$150 per square foot for middle schools, and \$189 for high schools. It is important to note insurance values typically do not include the full cost of constructing a school since certain components of a building, such as the foundation, are excluded from these values. As such, insurance values are considered to be a conservative estimate.

In addition, the District uses the following construction cost estimates in the CIP: \$168 per gross square foot for elementary schools, \$136 per gross square foot for middle schools, and \$213 per gross square foot for high schools.

Based on data obtained from the Florida Department of Education for schools built in 2015 through 2017, the construction cost for other Florida jurisdictions ranged from \$132 per gross square foot to \$198 per gross square foot.

Given this information, a construction cost of \$145 per gross square foot is used for elementary schools, \$135 per gross square foot for middle schools, and \$150 per gross square foot for high schools. Tables B-1 through B-3 provides the summary and detail of this information.

**Table B-1
Construction Cost Analysis – Orange County**

Year Built ⁽¹⁾	School Level	Construction Cost per Gross Sq Ft ⁽²⁾		
		Average	Range	
<i>New School Construction:</i>				
2016-2019	Elementary	\$142	\$119	\$157
2017	Middle/K-8	\$134	\$122	\$148
2017	High	\$146		
<i>Replacement School Construction:</i>				
2017-2019	Elementary	\$152	\$132	\$177
2017-2019	Middle/K-8	\$140	\$119	\$159
<i>CIP Estimates⁽¹⁾ :</i>				
2019	Elementary	\$168		
2019	Middle	\$136		
2019	High	\$213		
<i>Insurance Values of Existing School Buildings (Buildings Only)⁽¹⁾ :</i>				
	- Elementary Schools			\$173
	- Middle Schools/K-8			\$150
	- High Schools			\$189
<i>School Construction Cost in Other Florida Jurisdictions⁽³⁾ :</i>				
2015 - 2017	Elementary	\$156	\$132	\$172
2015 - 2017	Middle	\$159	\$88	\$198
2015 - 2017	High	\$145	\$145	\$145
<i>Estimates Used in the Study:</i>				
	- Elementary Schools			\$145
	- Middle Schools			\$135
	- High Schools			\$150

1) Source: Orange County Public Schools

2) Source: Table B-2

3) Source: Table B-3

**Table B-2
School Facility Cost Detail – Orange County ⁽¹⁾**

School	Type	Description	Year	Construction Cost	Gross Square Feet	Construction Cost per Gross Square Foot	Architectural/Engineering Cost	Site Improvement Cost	FF&E Cost	Facility Support Cost*	Other (Not included in cost report to State)**	Total Cost Less Land Purchase	Percentage of Construction Cost ⁽²⁾										
													Architectural/Engineering Cost	Site Improvement Cost	FF&E Cost	Facility Support Cost	Other Cost						
Millenia Gardens ES	Elem	New	2016	\$10,659,959	89,384	\$119	\$660,780	\$1,802,063	\$1,129,925	\$355,970	\$634,375	\$15,243,072	6.2%	16.9%	10.6%	3.3%	6%						
Laureate Park ES	Elem	New	2017	\$12,791,307	94,588	\$135	\$636,009	\$1,229,287	\$1,365,945	\$1,310,962	\$613,144	\$17,946,654	5.0%	9.6%	10.7%	10.2%	5%						
Bay Lake ES	Elem	New	2017	\$12,290,816	94,279	\$130	\$715,680	\$2,371,208	\$1,414,425	\$602,354	\$73,818	\$17,468,301	5.8%	19.3%	11.5%	4.9%	1%						
Engelwood ES	Elem	Replacement	2017	\$12,340,163	87,926	\$140	\$659,183	\$1,389,126	\$1,284,730	\$585,097	\$631,047	\$16,889,346	5.3%	11.3%	10.4%	4.7%	5%						
Ivey Lane ES	Elem	Replacement	2017	\$12,088,430	80,768	\$150	\$599,596	\$1,526,111	\$1,204,983	\$445,591	\$866,385	\$16,731,096	5.0%	12.6%	10.0%	3.7%	7%						
Meadow Woods ES	Elem	Replacement	2017	\$13,397,484	95,656	\$140	\$782,369	\$1,358,748	\$1,110,974	\$330,192	\$983,431	\$17,963,198	5.8%	10.1%	8.3%	2.5%	7%						
Mollie Ray ES	Elem	Replacement	2017	\$11,683,841	81,086	\$144	\$693,404	\$1,525,138	\$1,226,272	\$551,305	\$870,340	\$16,550,300	5.9%	13.1%	10.5%	4.7%	7%						
Oak Hill ES	Elem	Replacement	2017	\$12,427,300	84,376	\$147	\$581,863	\$1,629,450	\$972,235	\$581,166	\$987,909	\$17,179,923	4.7%	13.1%	7.8%	4.7%	8%						
Rock Lake ES	Elem	Replacement	2017	\$13,247,608	84,376	\$157	\$672,601	\$2,685,941	\$1,235,894	\$526,345	\$717,366	\$19,085,755	5.1%	20.3%	9.3%	4.0%	5%						
Ventura ES	Elem	Replacement	2017	\$13,342,673	95,892	\$139	\$780,745	\$2,458,354	\$1,262,836	\$826,873	\$2,012,099	\$20,683,580	5.9%	18.4%	9.5%	6.2%	15%						
Tangelo Park ES	Elem	Replacement	2016	\$10,966,573	83,338	\$132	\$766,295	\$1,682,616	\$1,115,037	\$1,160,020	\$513,999	\$16,204,540	7.0%	15.3%	10.2%	10.6%	5%						
Hungerford ES	Elem	Replacement	2018	\$12,468,750	68,263	\$183	\$650,486	\$1,729,516	\$898,313	\$867,738	\$1,092,197	\$17,707,000	5.2%	13.9%	7.2%	7.0%	9%						
Maxey ES	Elem	Replacement	2018	\$12,476,306	82,448	\$151	\$626,928	\$1,251,281	\$1,115,173	\$799,190	\$1,521,122	\$17,790,000	5.0%	10.0%	8.9%	6.4%	12%						
Hidden Oaks ES	Elem	Replacement	2018	\$12,263,072	76,944	\$159	\$640,642	\$1,933,345	\$1,069,297	\$847,360	\$1,422,284	\$18,176,000	5.2%	15.8%	8.7%	6.9%	12%						
Frangus ES	Elem	Replacement	2018	\$15,404,517	96,412	\$160	\$642,656	\$2,762,668	\$1,176,891	\$819,352	\$1,323,916	\$22,130,000	4.2%	17.9%	7.6%	5.3%	9%						
Pine Hills ES	Elem	Replacement	2018	\$15,466,797	101,828	\$152	\$693,105	\$1,304,107	\$1,222,976	\$709,740	\$2,212,066	\$21,608,791	4.5%	8.4%	7.9%	4.6%	14%						
25-E-SW-4	Elem	New	2019	\$16,184,434	104,342	\$155	\$858,860	\$1,631,157	\$1,562,459	\$999,786	\$2,063,304	\$23,300,000	5.3%	10.1%	9.7%	6.2%	13%						
49-E-W-4	Elem	New	2019	\$16,184,434	97,104	\$167	\$728,764	\$1,163,894	\$1,509,628	\$805,974	\$2,867,306	\$23,260,000	4.5%	7.2%	9.3%	5.0%	18%						
Deerwood ES	Elem	Replacement	2019	\$14,755,047	83,499	\$177	\$757,812	\$3,235,439	\$1,346,870	\$845,000	\$1,420,832	\$22,361,000	5.1%	21.9%	9.1%	5.7%	10%						
Wedgfield	K8	New	2017	\$20,111,884	138,560	\$145	\$2,153,131	\$3,151,392	\$1,787,827	\$4,848,575	\$1,432,916	\$33,485,725	10.7%	15.7%	8.9%	24.1%	7%						
OCPS Academic Center for Excellence	K8	New	2017	\$30,678,582	251,812	\$122	\$2,342,381	\$1,503,611	\$2,174,838	\$5,147,322	\$17,298,865	\$59,145,599	7.6%	4.9%	7.1%	16.8%	56%						
Lake Como School	K8	Replacement	2018	\$24,557,069	154,255	\$159	\$2,050,230	\$2,010,534	\$1,389,540	\$2,754,155	\$5,048,472	\$37,810,000	8.3%	8.2%	5.7%	11.2%	21%						
Audubon Park School	K8	Relief	2018	\$26,374,198	178,149	\$148	\$2,972,528	\$2,183,957	\$1,891,815	\$2,717,438	\$2,903,064	\$39,043,000	11.3%	8.3%	7.2%	10.3%	11%						
Pershing School	K8	Replacement	2019	\$24,287,386	164,870	\$147	\$2,178,256	\$3,275,935	\$2,297,325	\$3,193,521	\$3,774,577	\$39,007,000	9.0%	13.5%	9.5%	13.1%	16%						
Innovation	Middle	New	2017	\$22,320,667	174,686	\$128	\$1,954,764	\$1,856,965	\$1,789,440	\$1,812,590	\$1,612,263	\$31,346,689	8.8%	8.3%	8.0%	8.1%	7%						
Timber Springs MS	Middle	New	2017	\$24,333,075	192,319	\$127	\$2,460,335	\$3,047,594	\$1,776,313	\$2,544,695	\$1,528,668	\$35,690,680	10.1%	12.5%	7.3%	10.5%	6%						
Carver MS	Middle	Replacement	2017	\$22,812,870	191,978	\$119	\$1,519,638	\$3,648,736	\$1,743,238	\$3,316,159	\$2,264,435	\$35,305,076	6.7%	16.0%	7.6%	14.5%	10%						
37-M-W-4	Middle	New	2019	\$26,239,520	181,896	\$144	\$1,397,591	\$2,006,531	\$2,167,145	\$2,548,800	\$4,254,413	\$38,614,000	5.3%	7.6%	8.3%	9.7%	16%						
Windermere HS	High	New	2017	\$54,879,598	376,016	\$146	\$4,993,625	\$8,003,699	\$3,600,435	\$6,157,703	\$7,005,989	\$84,641,049	9.1%	14.6%	6.6%	11.2%	13%						
Totals (New Elementary)	Elem	New	-	\$68,110,950	479,697	\$142	\$3,600,093	\$8,197,609	\$6,982,382	\$4,075,046	\$6,251,947	\$97,218,027	5.3%	12.0%	10.3%	6.0%	9.2%						
Totals (New Middle)	Middle	New/Relief	-	\$150,057,926	1,117,422	\$134	\$13,280,730	\$13,750,050	\$11,587,378	\$19,619,420	\$29,030,188	\$237,325,692	8.9%	9.2%	7.7%	13.1%	19.3%						
Totals (New High)	High	New	-	\$54,879,598	376,016	\$146	\$4,993,625	\$8,003,699	\$3,600,435	\$6,157,703	\$7,005,989	\$84,641,049	9.1%	14.6%	6.6%	11.2%	12.8%						
Totals	All	New	-	\$273,048,474	1,973,135	\$138	\$21,874,448	\$29,951,358	\$22,170,195	\$29,852,169	\$42,288,124	\$419,184,768	8.0%	11.0%	8.1%	10.9%	15.5%						
Excluding ACE and Bay Lake																							10.8%
Totals (Elem Replacement)	Elem	Replacement	-	\$182,328,561	1,202,812	\$152	\$9,547,685	\$26,471,840	\$16,242,481	\$9,894,969	\$16,574,994	\$261,060,530	5.2%	14.5%	8.9%	5.4%	9.1%						
Totals (Middle Replacement)	Middle	Replacement	-	\$71,657,325	511,103	\$140	\$5,748,124	\$8,935,205	\$5,430,103	\$9,263,835	\$11,087,484	\$112,122,076	8.0%	12.5%	7.6%	12.9%	15.5%						
Totals (Elem & Middle Replacement)	-	Replacement	-	\$253,985,886	1,713,915	\$148	\$15,295,809	\$37,036,495	\$22,644,819	\$19,739,970	\$28,650,387	\$390,362,529	6.0%	14.6%	8.9%	7.8%	11.3%						
Totals (Elementary School Only)	Elem	All	-	\$250,439,511	1,682,509	\$149	\$13,147,778	\$34,669,449	\$23,224,863	\$13,970,015	\$22,826,941	\$358,278,557	5.2%	13.8%	9.3%	5.6%	9.1%						
Totals (Middle School Only)	Middle	All	-	\$221,715,251	1,628,525	\$136	\$19,028,854	\$22,685,255	\$17,017,481	\$28,883,255	\$40,117,672	\$349,447,768	8.6%	10.2%	7.7%	13.0%	18.1%						
Totals (High School Only)	High	All	-	\$54,879,598	376,016	\$146	\$4,993,625	\$8,003,699	\$3,600,435	\$6,157,703	\$7,005,989	\$84,641,049	9.1%	14.6%	6.6%	11.2%	12.8%						
Grand Totals (All Schools)	All	All	-	\$527,034,360	\$3,687,050	\$143	\$37,170,257	\$65,358,403	\$43,842,779	\$49,010,973	\$69,950,602	\$777,124,302	7.1%	12.4%	8.3%	9.3%	13.3%						
Excluding ACE and Bay Lake																							10.5%

1) Source: Orange County Public Schools

2) Calculated as each component's percentage of total construction costs

* Facility support cost includes cost associated with hurricane shelters, to make public utilities and/or roads available, drainage, site environmental issues

** Other costs include moving costs, classroom technology, curriculum items, HVAC Commissioning, building envelope consultant/PM fees, audit costs, etc.

**Table B-3
Construction Cost Analysis – Orange County and Other Florida Jurisdictions**

Year Opened	District	Type	Facility Name	Construction Cost	Gross Sq Ft	Student Stations	Construction Cost per GSF	Construction Cost per Station
Elementary Schools:								
2011	Charlotte	Elem	Meadow Park Elementary	\$12,696,116	116,251	843	\$109	\$15,061
2011	Duval	Elem	Waterleaf Elementary	\$14,882,021	106,269	873	\$140	\$17,047
2011	Escambia	Elem	Global Learning Academy	\$17,019,155	127,600	856	\$133	\$19,882
2011	Orange	Elem	Wetherbee Elementary	\$11,795,072	113,073	817	\$104	\$14,437
2011	Pasco	Elem	Connerton Elementary "R"	\$11,598,590	92,842	762	\$125	\$15,221
2012	Alachua	Elem	Meadowbrook Elementary	\$12,388,973	104,887	760	\$118	\$16,301
2012	Indian River	Elem	Vero Beach Elementary	\$17,243,103	121,037	796	\$142	\$21,662
2012	Lee	Elem	Tortuga Preserve	\$16,021,554	141,643	1,050	\$113	\$15,259
2012	Orange	Elem	SunRidge Elementary	\$10,031,097	98,176	842	\$102	\$11,913
2012	St. Johns	Elem	Palencia Elementary	\$12,677,682	115,811	738	\$109	\$17,178
2012	Volusia	Elem	Citrus Grove Elementary	\$13,854,183	106,177	764	\$130	\$18,134
2013	Orange	Elem	Sun Blaze Elementary	\$10,269,207	86,619	832	\$119	\$12,343
2013	Orange	Elem	Hackney Prairie Road Area Elementary	\$11,261,094	103,818	856	\$108	\$13,155
2014	Orange	Elem	Shingle Creek ES	\$8,633,484	84,111	832	\$103	\$10,377
2014	Orange	Elem	John Young ES	\$8,810,724	84,111	832	\$105	\$10,590
2014	Orange	Elem	Pineloch ES	\$9,343,280	89,420	830	\$104	\$11,257
2014	Orange	Elem	Dr. Phillips ES	\$8,150,993	72,617	660	\$112	\$12,350
2014	Orange	Elem	Spring Lake ES	\$9,768,510	72,794	627	\$134	\$15,580
2014	Orange	Elem	Washington Shores ES	\$10,068,768	80,949	684	\$124	\$14,720
2014	Orange	Elem	Little River ES	\$8,202,194	61,780	500	\$133	\$16,404
2014	Orange	Elem	Wheatley ES	\$9,153,883	79,521	560	\$115	\$16,346
2014	Pasco	Elem	Schrader Elementary	\$10,620,622	84,983	498	\$125	\$21,327
2015	Orange	Elem	Eagle Creek Elementary	\$9,248,244	84,611	832	\$109	\$11,116
2015	Orange	Elem	Independence Elementary	\$9,394,386	85,747	832	\$110	\$11,291
2015	Orange	Elem	Ocoee ES	\$9,286,970	88,220	830	\$105	\$11,189
2015	Orange	Elem	Clay Springs Elementary	\$11,675,199	83,565	950	\$140	\$12,290
2015	Orange	Elem	Lake Weston Elementary	\$10,026,192	91,158	762	\$110	\$13,158
2015	Orange	Elem	Lovell Elementary	\$10,246,051	83,802	828	\$122	\$12,374
2015	Palm Beach	Elem	Glade View Elementary	\$14,554,646	87,385	403	\$167	\$36,116
2015	Palm Beach	Elem	Rosenwald Elementary	\$11,841,132	66,532	328	\$178	\$36,101
2015	Pasco	Elem	Sanders Memorial Elementary	\$17,016,823	112,619	1,084	\$151	\$15,698
2016	Orange	Elem	Millennia Gardens Elementary	\$10,659,959	89,384	837	\$119	\$12,736
2016	Orange	Elem	Tangelo Park ES	\$10,966,573	83,338	664	\$132	\$16,516
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	\$14,362,434	91,113	882	\$158	\$16,284
2016	Washington	Elem	Kate Smith Elementary School	\$20,670,897	156,833	993	\$132	\$20,817
2017	Orange	Elem	Bay Lake Elementary	\$12,290,816	94,279	837	\$130	\$14,684
2017	Volusia	Elem	Pierson ES	\$16,659,475	96,874	694	\$172	\$24,005
2017	Orange	Elem	Engelwood Elementary	\$12,340,163	87,926	837	\$140	\$14,743
2017	Orange	Elem	Ivey Lane Elementary	\$12,088,430	80,768	660	\$150	\$18,316
2017	Orange	Elem	Laureate Park Elementary	\$12,791,307	94,588	837	\$135	\$15,282
2017	Orange	Elem	Meadow Woods Elementary	\$13,397,484	95,656	837	\$140	\$16,007
2017	Orange	Elem	Mollie Ray ES	\$11,683,841	81,086	663	\$144	\$17,623
2017	Orange	Elem	Oak Hill ES	\$12,427,300	84,376	664	\$147	\$18,716
2017	Orange	Elem	Rock Lake ES	\$13,247,608	84,376	653	\$157	\$20,287
2017	Orange	Elem	Ventura ES	\$13,342,673	95,892	837	\$139	\$15,941
2017	Orange	Elem	Westpointe ES	\$9,667,395	45,719	232	\$211	\$41,670
Total/Weighted Average -- Elementary Schools				\$554,376,303	4,290,336	34,788	\$129	\$15,936
Total/Weighted Average -- Elementary Schools - (Excluding Orange County)				\$234,107,406	1,728,856	12,324	\$135	\$18,996
Total/Weighted Average -- Elementary Schools - (Excluding Orange County) (2015-2017)				\$95,105,407	611,356	4,384	\$156	\$21,694

Table B-3 (Continued)
Construction Cost Analysis – Orange County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Construction Cost	Gross Sq Ft	Student Stations	Construction Cost per GSF	Construction Cost per Station
Middle Schools:								
2011	Hernando	Middle	Winding Waters K-8	\$21,182,866	241,811	1,605	\$88	\$13,198
2011	Polk	Middle	Boone Middle	\$17,900,963	108,633	305	\$165	\$58,692
2011	Walton	Middle	Emerald Coast Middle	\$15,918,884	129,066	820	\$123	\$19,413
2012	Collier	Middle	Bethune Education Center	\$5,538,155	38,924	182	\$142	\$30,429
2012	Dade	Middle	North Dade Middle	\$18,921,534	100,245	993	\$189	\$19,055
2012	Lee	Middle	Hams Marsh Middle	\$23,750,925	171,050	1,345	\$139	\$17,659
2012	Orange	Middle	Lake Nona Middle	\$16,923,455	167,123	1,328	\$101	\$12,744
2012	Orange	Middle	SunRidge Middle	\$23,617,116	184,436	1,352	\$128	\$17,468
2013	Monroe	Middle	Horace O'Bryant	\$30,596,297	240,080	1,217	\$127	\$25,141
2015	St Johns	Middle	Patriot Oaks Academy	\$21,224,724	157,062	1,210	\$135	\$17,541
2015	St Johns	Middle	Valley Ridge Academy	\$21,116,642	157,062	1,210	\$134	\$17,452
2016	Orange	Middle	Wedgfield K-8 School	\$20,111,884	138,560	1,171	\$145	\$17,175
2016	Polk	Middle	Citrus Ridge: A Civics Academy	\$33,560,797	216,483	1,652	\$155	\$20,315
2017	Seminole	Middle	Millennium Middle	\$41,138,637	207,471	1,573	\$198	\$26,153
2017	Orange	Middle	OCPS Academic Center for Excellence	\$30,678,582	251,812	1,335	\$122	\$22,980
2017	Orange	Middle	Innovation	\$22,320,667	174,686	1,355	\$128	\$16,473
2017	Orange	Middle	Timber Springs Middle	\$24,333,075	192,319	1,363	\$127	\$17,853
2017	Orange	Middle	Carver Middle	\$22,812,870	191,978	1,363	\$119	\$16,737
Total/Weighted Average -- Middle Schools				\$411,648,073	3,068,801	21,379	\$134	\$19,255
Total/Weighted Average -- Middle Schools - (Excluding Orange County)				\$250,850,424	1,767,887	12,112	\$142	\$20,711
Total/Weighted Average -- Middle Schools - (Excluding Orange County) (2015-2017)				\$117,040,800	738,078	5,645	\$159	\$20,734
High Schools:								
2011	Broward	High	Lanier James Education Center	\$8,889,147	60,862	262	\$146	\$33,928
2011	Calhoun	High	Blountstown High	\$19,407,910	132,321	825	\$147	\$23,525
2011	Charlotte	High	Charlotte High	\$61,755,842	415,184	1,828	\$149	\$33,783
2011	Lake	High	Lake Minneola High	\$46,988,193	312,344	1,932	\$150	\$24,321
2011	Okeechobee	High	Okeechobee Achievement Academy	\$5,499,975	48,331	347	\$114	\$15,850
2011	Orange	High	Evans High Replacement	\$55,507,691	405,232	2,599	\$137	\$21,357
2011	Polk	High	Winter Haven Senior	\$26,374,234	219,148	2,039	\$120	\$12,935
2011	Polk	High	Auburndale Senior	\$19,522,053	157,921	1,236	\$124	\$15,795
2011	Polk	High	Davenport School of the Arts	\$29,136,512	245,420	1,510	\$119	\$19,296
2011	Polk	High	Kathleen Senior	\$24,323,662	153,829	800	\$158	\$30,405
2012	Dade	High	International Studies SHS	\$7,192,325	37,120	603	\$194	\$11,928
2012	Dade	High	Medical Academy of Science and Technology	\$9,303,705	83,260	800	\$112	\$11,630
2012	St. Lucie	High	Lincoln Park Academy	\$10,928,736	98,737	978	\$111	\$11,175
2013	Martin	High	Martin County High	\$7,623,316	70,038	703	\$109	\$10,844
2016	Charlotte	High	Lemon Bay High School	\$51,569,511	355,858	1,475	\$145	\$34,962
2017	Orange	High	Windermere HS	\$54,879,598	376,016	2,898	\$146	\$18,937
Total/Weighted Average -- High Schools				\$438,902,410	3,171,621	\$20,835	\$138	\$21,066
Total/Weighted Average -- High Schools - (Excluding Orange County)				\$328,515,121	2,390,373	\$15,338	\$137	\$21,418
Total/Weighted Average (All Schools)				\$1,404,926,786	10,530,758	77,002	\$133	\$18,245

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available

Architectural, Design, Site Preparation, Furniture, Fixture and Equipment Costs

The architectural, design, site preparation (including on-site improvement and traffic control costs), and FF&E costs (including technology) are calculated based on the ratio of these costs to the construction costs observed in Orange County and other jurisdictions. These figures were also discussed with the District representatives and are estimated at 28 percent of construction cost for facility planning, which includes 7 percent for architectural/ design, 11 percent for site preparation, and 10 percent for facility support costs. Of these, facility support costs include cost associated with constructing schools as hurricane shelters, making public utilities available, drainage, etc. In addition, furniture, fixture, and equipment (FF&E) cost is estimated at 8 percent of the construction cost. Finally, other support cost is estimated at 10 percent and includes costs associated with classroom technology, curriculum items, HVAC commissioning, building envelop consultant fees, moving and audit costs. Costs included under the “other support” line item were inadvertently omitted in the last technical study, and were captured in this study through a more detailed review of line items. Table B-4 provides a summary of costs in Orange County compared to other Florida jurisdictions. As presented, Orange County’s experience is consistent with other Florida jurisdictions.

**Table B-4
Other Building Costs**

Cost Component	Orange County (2016-19) ⁽¹⁾	Other FL (2011-2017) ⁽²⁾		Used in the Study ⁽³⁾
		Average	Range	
A/E - Design	8%	7%	1% - 17%	7%
Site Preparation	11%	7%	0% - 72%	11%
FF&E	8%	9%	2% - 30%	8%
Facility Support	11%	N/A	N/A	10%
Other Support	11%	N/A	N/A	10%

1) Source: Orange County Public Schools, new schools only

2) Source: Florida Department of Education

3) Final estimate used in the 2019 school impact fee study for Orange County Public Schools

Tables B-5 and B-6 provide further detail on the cost experienced in other Florida jurisdictions.

**Table B-5
Architectural/Civil Design and FF&E Cost Analysis
Orange County and Other Florida Jurisdictions**

Year Opened	District	Type	Facility Name	Architect & Eng. Fees	Ratio of Architect & Eng. Fees to Construction Cost	Furniture & Equip.	Ratio of FF&E to Construction Cost
2011	Broward	High	Lanier James Education Center	\$1,075,459	12%	\$1,304,137	15%
2011	Calhoun	High	Blountstown High	\$1,968,893	10%	\$994,719	5%
2011	Charlotte	Elem	Meadow Park Elementary	\$944,273	7%	\$674,842	5%
2011	Charlotte	High	Charlotte High	\$6,502,129	11%	\$2,676,408	4%
2011	Duval	Elem	Waterleaf Elementary	\$1,621,628	11%	\$1,899,236	13%
2011	Escambia	Elem	Global Learning Academy	\$1,682,415	10%	\$2,861,931	17%
2011	Hernando	Middle	Winding Waters K-8	\$880,709	4%	\$4,279,500	20%
2011	Lake	High	Lake Minneola High	\$3,030,934	6%	\$6,483,383	14%
2011	Okeechobee	High	Okeechobee Achievement Academy	\$453,761	8%	\$427,114	8%
2011	Orange	High	Evans High Replacement	\$3,568,884	6%	\$3,743,130	7%
2011	Orange	Elem	Wetherbee Elementary	\$812,505	7%	\$1,081,762	9%
2011	Pasco	Elem	Connerton Elementary "R"	\$858,671	7%	\$1,298,389	11%
2011	Polk	High	Winter Haven Senior	\$853,483	3%	\$2,360,389	9%
2011	Polk	High	Auburndale Senior	\$1,462,146	7%	\$3,124,050	16%
2011	Polk	High	Davenport School of the Arts	\$1,042,674	4%	\$2,330,971	8%
2011	Polk	High	Kathleen Senior	\$875,094	4%	\$2,267,250	9%
2011	Polk	Middle	Boone Middle	\$1,080,157	6%	\$1,331,348	7%
2011	Walton	Middle	Emerald Coast Middle	\$1,709,689	11%	\$700,000	4%
2012	Alachua	Elem	Meadowbrook Elementary	\$1,010,997	8%	\$1,974,896	16%
2012	Collier	Middle	Bethune Education Center	\$561,233	10%	\$734,057	13%
2012	Dade	High	International Studies SHS	\$684,965	10%	\$757,496	11%
2012	Dade	Middle	North Dade Middle	\$867,900	5%	\$1,122,762	6%
2012	Dade	High	Medical Academy or Science and Technology	\$762,932	8%	\$919,966	10%
2012	Indian River	Elem	Vero Beach Elementary	\$1,476,006	9%	\$1,342,512	8%
2012	Lee	Middle	Hams Marsh Middle	\$721,076	3%	\$1,814,273	8%
2012	Lee	Elem	Tortuga Preserve	\$214,042	1%	\$1,487,461	9%
2012	Orange	Elem	SunRidge Elementary	\$580,395	6%	\$951,358	9%
2012	Orange	Middle	Lake Nona Middle	\$1,277,253	8%	\$1,795,567	11%
2012	Orange	Middle	SunRidge Middle	\$1,137,698	5%	\$1,591,755	7%
2012	St. Johns	Elem	Palencia Elementary	\$956,170	8%	\$1,500,000	12%
2012	St. Lucie	High	Lincoln Park Academy	\$1,623,543	15%	\$3,246,193	30%
2012	Volusia	Elem	Citrus Grove Elementary	\$1,098,766	8%	\$1,555,729	11%
2013	Marion	Elem	Legacy Elementary	\$675,267	7%	\$1,680,825	17%
2013	Martin	High	Martin County High	\$1,274,200	17%	\$419,893	6%
2013	Monroe	Middle	Horace O'Bryant	\$3,221,414	11%	\$1,320,362	4%
2013	Orange	Elem	Sun Blaze Elementary	\$587,445	6%	\$1,035,369	10%
2013	Orange	Elem	Hackney Prairie Road Area Elementary	\$890,931	8%	\$1,057,127	9%
2013	Palm Beach	Elem	Gove Elementary	\$1,871,815	7%	\$917,852	3%
2013	Palm Beach	Elem	Galaxy Elementary	\$1,595,664	7%	\$790,823	4%
2014	Orange	Elem	Shingle Creek ES (Replacement)	\$636,833	7%	\$1,235,140	14%
2014	Orange	Elem	John Young ES (Replacement)	\$644,485	7%	\$1,037,820	12%
2014	Orange	Elem	Pineloch ES	\$632,269	7%	\$1,048,977	11%
2014	Orange	Elem	Dr. Phillips ES	\$837,933	10%	\$835,624	10%
2014	Orange	Elem	Spring Lake ES	\$646,909	7%	\$874,049	9%
2014	Orange	Elem	Washington Shores ES (Replacement)	\$591,793	6%	\$964,395	10%
2014	Orange	Elem	Little River ES	\$1,212,762	15%	\$705,810	9%
2014	Orange	Elem	Wheatley ES (Replacement)	\$740,790	8%	\$803,731	9%
2014	Palm Beach	Elem	The Conservatory School of North Palm Beach	\$1,746,723	8%	\$781,394	4%
2014	Pasco	Elem	Schrader Elementary	\$741,224	7%	\$781,652	7%
2015	Hillsborough	Elem	Thompson Elementary	\$1,117,623	8%	\$1,614,056	12%

Table B-5 (Continued)
Architectural/Civil Design and FF&E Cost Analysis
Orange County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Architect & Eng. Fees	Ratio of Architect & Eng. Fees to Construction Cost	Furniture & Equip.	Ratio of FF&E to Construction Cost
2015	Orange	Elem	Eagle Creek Elementary	\$503,008	5%	\$1,168,200	13%
2015	Orange	Elem	Independence Elementary	\$454,954	5%	\$1,168,200	12%
2015	Orange	Elem	Ocoee ES (Replacement)	\$669,660	7%	\$1,039,087	11%
2015	Orange	Middle	Clay Springs Elementary	\$619,675	5%	\$1,265,087	11%
2015	Orange	Elem	Lake Weston Elementary	\$557,676	6%	\$1,395,286	14%
2015	Orange	Elem	Lovell Elementary	\$532,470	5%	\$1,258,788	12%
2015	Palm Beach	Elem	Glade View Elementary	\$1,142,611	8%	\$661,409	5%
2015	Palm Beach	Elem	Rosenwald Elementary	\$942,748	8%	\$593,229	5%
2015	Pasco	Elem	Sanders Memorial Elementary	\$1,442,401	8%	\$2,095,402	12%
2015	St Johns	Middle	Patriot Oaks Academy	\$1,492,491	7%	\$2,200,000	10%
2015	St Johns	Middle	Valley Ridge Academy	\$856,884	4%	\$2,200,000	10%
2016	Charlotte	High	Lemon Bay High School	\$6,486,215	13%	\$3,010,405	6%
2016	Hillsborough	Elem	Lamb Elementary	\$1,159,221	8%	\$1,494,022	11%
2016	Orange	Elem	Bay Lake Elementary	\$715,680	6%	\$1,414,425	12%
2016	Orange	Elem	Tangelo Park Elementary	\$766,295	7%	\$1,115,037	10%
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	\$993,089	7%	\$1,594,261	11%
2016	Polk	Middle	Citrus Ridge: A Civics Academy	\$1,235,864	4%	\$3,060,826	9%
2016	Washington	Elem	Kate Smith Elementary School	\$1,799,321	9%	\$1,567,022	8%
2017	Hillsborough	Elem	Hope Dawson Elementary	\$781,268	5%	\$0	0%
2017	Seminole	Middle	Millennium Middle - Bid	\$2,513,897	6%	\$3,300,000	8%
2017	Orange	Elem	Millenia Gardens Elementary	\$660,780	6%	\$1,129,925	11%
2017	Orange	K8	Wedgfield	\$2,153,131	11%	\$1,787,827	9%
2017	Orange	Elem	Laureate Park Elementary	\$636,009	5%	\$1,365,945	11%
2017	Orange	Elem	Engelwood ES	\$659,183	5%	\$1,284,730	10%
2017	Orange	Elem	Ivey Lane ES	\$599,596	5%	\$1,204,983	10%
2017	Orange	Elem	Meadow Woods ES	\$782,369	6%	\$1,110,974	8%
2017	Orange	Elem	Mollie Ray ES	\$693,404	6%	\$1,226,272	10%
2017	Orange	Elem	Oak Hill ES	\$581,863	5%	\$972,235	8%
2017	Orange	Elem	Rock Lake ES	\$672,601	5%	\$1,235,894	9%
2017	Orange	Elem	Ventura ES	\$780,745	6%	\$1,262,836	9%
2017	Orange	K8	OCPS Academic Center for Excellence	\$2,342,381	8%	\$2,174,838	7%
2017	Orange	Middle	Innovation Middle	\$1,954,764	9%	\$1,789,440	8%
2017	Orange	Middle	Timber Springs Middle	\$2,460,335	10%	\$1,776,313	7%
2017	Orange	Middle	Carver Middle	\$1,519,638	7%	\$1,743,238	8%
2017	Orange	High	Windermere HS	\$4,993,625	9%	\$3,600,435	7%
2018	Orange	Elem	Westpointe Elementary	\$860,457	9%	\$1,549,090	16%
Total/Weighted Average				\$111,078,869	7%	\$135,353,144	9%
Total/Weighted Average Orange County Schools ONLY				\$41,969,184	7%	\$53,800,699	9%
Total/Weighted Average (Excluding Orange County Schools)				\$69,109,685	7%	\$81,552,445	9%

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available

Table B-6
Site Development Cost Analysis
Orange County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Construction Cost	Site Development	Ratio of Site Development to Construction Cost
2011	Broward	High	Lanier James Education Center	\$8,889,147	\$918,943	10%
2011	Calhoun	High	Blountstown High	\$19,407,910	\$1,362,604	7%
2011	Charlotte	High	Charlotte High	\$61,755,842	\$7,904,370	13%
2011	Charlotte	Elem	Meadow Park Elementary	\$12,696,116	\$1,802,689	14%
2011	Duval	Elem	Waterleaf Elementary	\$14,882,021	\$1,361,500	9%
2011	Escambia	Elem	Global Learning Academy	\$17,019,155	\$200,000	1%
2011	Hernando	Middle	Winding Waters K-8	\$21,182,866	\$0	0%
2011	Lake	High	Lake Minneola High	\$46,988,193	\$454,710	1%
2011	Okeechobee	High	Okeechobee Achievement Academy	\$5,499,975	\$1,300	0%
2011	Orange	High	Evans High Replacement	\$55,507,691	\$2,151,931	4%
2011	Orange	Elem	Wetherbee Elementary	\$11,795,072	\$0	0%
2011	Pasco	Elem	Connerton Elementary "R"	\$11,598,590	\$2,313,586	20%
2011	Polk	High	Auburndale Senior	\$19,522,053	\$0	0%
2011	Polk	Middle	Boone Middle	\$17,900,963	\$0	0%
2011	Polk	High	Davenport School of the Arts	\$29,136,512	\$0	0%
2011	Polk	High	Kathleen Senior	\$24,323,662	\$0	0%
2011	Polk	High	Winter Haven Senior	\$26,374,234	\$0	0%
2011	Walton	Middle	Emerald Coast Middle	\$15,918,884	\$1,717,116	11%
2012	Alachua	Elem	Meadowbrook Elementary	\$12,388,973	\$86,278	1%
2012	Collier	Middle	Bethune Education Center	\$5,538,155	\$479,652	9%
2012	Dade	High	International Studies SHS	\$7,192,325	\$0	0%
2012	Dade	High	Medical Academy or Science and Technology	\$9,303,705	\$0	0%
2012	Dade	Middle	North Dade Middle	\$18,921,534	\$0	0%
2012	Indian River	Elem	Vero Beach Elementary	\$17,243,103	\$1,196,000	7%
2012	Lee	Middle	Hams Marsh Middle	\$23,750,925	\$2,100,258	9%
2012	Lee	Elem	Tortuga Preserve	\$16,021,554	\$1,367,613	9%
2012	Orange	Middle	Lake Nona Middle	\$16,923,455	\$0	0%
2012	Orange	Elem	SunRidge Elementary	\$10,031,097	\$1,296,632	13%
2012	Orange	Middle	SunRidge Middle	\$23,617,116	\$1,051,252	4%
2012	St. Johns	Elem	Palencia Elementary	\$12,677,682	\$0	0%
2012	St. Lucie	High	Lincoln Park Academy	\$10,928,736	\$7,901,452	72%
2012	Volusia	Elem	Citrus Grove Elementary	\$13,854,183	\$415,026	3%
2013	Palm Beach	Elem	Galaxy Elementary	\$22,515,045	\$1,929,530	9%
2013	Palm Beach	Elem	Gove Elementary	\$28,528,459	\$1,284,903	5%
2013	Marion	Elem	Legacy Elementary	\$10,047,310	\$477,607	5%
2013	Martin	High	Martin County High	\$7,623,316	\$536,994	7%
2013	Monroe	Middle	Horace O'Bryant	\$30,596,297	\$2,740,572	9%
2013	Orange	Elem	Hackney Prairie Road Area Elementary	\$11,261,094	\$657,635	6%
2013	Orange	Elem	Sun Blaze Elementary	\$10,269,207	\$658,487	6%
2014	Orange	Elem	Dr. Phillips ES	\$8,150,993	\$1,850,611	23%
2014	Orange	Elem	John Young ES (Replacement)	\$8,810,724	\$1,438,471	16%
2014	Orange	Elem	Little River ES	\$8,202,194	\$1,142,327	14%
2014	Orange	Elem	Pineloch ES	\$9,343,280	\$1,409,183	15%
2014	Orange	Elem	Shingle Creek ES (Replacement)	\$8,633,484	\$1,188,410	14%
2014	Orange	Elem	Spring Lake ES	\$9,768,510	\$1,276,130	13%
2014	Orange	Elem	Washington Shores ES (Replacement)	\$10,068,768	\$1,395,463	14%
2014	Orange	Elem	Wheatley ES (Replacement)	\$9,153,883	\$1,083,517	12%
2014	Palm Beach	Elem	The Conservatory School of North Palm Beach	\$21,499,851	\$1,970,739	9%
2014	Pasco	Elem	Schrader Elementary	\$10,620,622	\$1,217,102	11%
2015	Hillsborough	Elem	Thompson Elementary	\$13,630,632	\$1,766,622	13%

Table B-6 (Continued)
Site Development Cost Analysis
Orange County and Other Florida Jurisdictions

Year Opened	District	Type	Facility Name	Construction Cost	Site Development	Ratio of Site Development to Construction Cost
2015	Orange	Elem	Clay Springs Elementary	\$11,675,199	\$2,096,813	18%
2015	Orange	Elem	Eagle Creek Elementary	\$9,248,244	\$1,934,060	21%
2015	Orange	Elem	Independence Elementary	\$9,394,386	\$1,649,461	18%
2015	Orange	High	Lake Weston Elementary	\$10,026,192	\$1,719,879	17%
2015	Orange	Elem	Lovell Elementary	\$10,246,051	\$851,121	8%
2015	Orange	Elem	Ocoee ES (Replacement)	\$9,286,970	\$1,470,388	16%
2015	Palm Beach	Elem	Glade View Elementary	\$14,554,646	\$1,652,065	11%
2015	Palm Beach	High	Rosenwald Elementary	\$11,841,132	\$1,853,846	16%
2015	Pasco	Elem	Sanders Memorial Elementary	\$17,016,823	\$1,478,220	9%
2015	St Johns	Middle	Patriot Oaks Academy	\$21,224,724	\$0	0%
2015	St Johns	Middle	Valley Ridge Academy	\$21,116,642	\$0	0%
2016	Charlotte	High	Lemon Bay High School	\$51,569,511	\$7,169,846	14%
2016	Hillsborough	Elem	Lamb Elementary	\$13,673,880	\$3,025,879	22%
2016	Orange	Elem	Bay Lake Elementary	\$12,290,816	\$2,371,208	19%
2016	Orange	Elem	Tangelo Park Elementary	\$10,966,573	\$1,682,616	15%
2016	Pasco	Elem	Wiregrass Elementary School (Elem "W")	\$14,362,434	\$1,213,282	8%
2016	Polk	Middle	Citrus Ridge: A Civics Academy	\$33,560,797	\$0	0%
2016	Washington	High	Kate Smith Elementary School	\$20,670,897	\$2,568,867	12%
2017	Hillsborough	Elem	Hope Dawson Elementary	\$14,863,889	\$1,425,699	10%
2017	Orange	Middle	Carver Middle	\$22,812,870	\$3,648,736	16%
2017	Orange	Elem	Engelwood ES	\$12,340,163	\$1,389,126	11%
2017	Orange	Middle	Innovation Middle	\$22,320,667	\$1,856,965	8%
2017	Orange	Elem	Ivey Lane ES	\$12,088,430	\$1,526,111	13%
2017	Orange	Elem	Laureate Park Elementary	\$12,791,307	\$1,229,287	10%
2017	Orange	Elem	Meadow Woods ES	\$13,397,484	\$1,358,748	10%
2017	Orange	Elem	Millenia Gardens Elementary	\$10,659,959	\$1,802,063	17%
2017	Orange	Elem	Mollie Ray ES	\$11,683,841	\$1,525,138	13%
2017	Orange	Elem	Oak Hill ES	\$12,427,300	\$1,629,450	13%
2017	Orange	K8	OCPS Academic Center for Excellence	\$30,678,582	\$1,503,611	5%
2017	Orange	Elem	Rock Lake ES	\$13,247,608	\$2,685,941	20%
2017	Orange	Middle	Timber Springs Middle	\$24,333,075	\$3,047,594	13%
2017	Orange	Elem	Ventura ES	\$13,342,673	\$2,458,354	18%
2017	Orange	K8	Wedgfield School K-8	\$20,111,884	\$3,151,392	16%
2017	Orange	High	Windermere HS	\$54,879,598	\$8,003,699	15%
2017	Seminole	Middle	Millennium Middle - Bid	\$41,138,637	\$2,468,318	6%
2018	Orange	Elem	Westpointe Elementary	\$9,667,395	\$1,422,408	15%
Total/Weighted Average				\$1,513,026,377	\$134,977,406	9%
Total/Weighted Average (Orange County Schools ONLY)				\$591,453,835	\$68,614,218	12%
Total/Weighted Average (Excluding Orange County Schools)				\$921,572,542	\$66,363,188	7%

Source: Florida Department of Education and previous Tindale Oliver school impact fee studies, when available

Land Value Analysis

To estimate the current land value, the following analysis is conducted:

- Recent land purchases (2015-18) by OCPS as well as estimates for future proposed purchases;
- A review of the current market value of land from the Property Appraiser database where the existing schools are located;
- An analysis of vacant residential land sales (non-OCPS purchases) in Orange County over the past three years for parcels of similar size;
- An analysis of market value of vacant residential land from the Property Appraiser database for parcels of similar size and location to the current inventory; and
- Discussions with OCPS representatives.

OCPS purchased seven sites that were over 10 acres between 2015 and 2018. The purchase price of these parcels averaged \$87,100 per acre with a range of \$0 to \$410,500 per acre. OCPS has 11 parcels that are over 10 acres and are currently under contract. The average price per acre for parcels under contract is \$117,100 with a range of \$22,000 per acre to \$485,800 per acre.

The value of parcels where the existing schools are located, as estimated by the Orange County Property Appraiser, indicates an average land value of \$66,500 per acre with a median value of \$46,400 per acre. Property Appraiser estimates tend to be on the conservative side for publicly owned tax exempt properties. Vacant residential land sales of similar size in Orange County between 2012 and 2015 averaged \$215,100 per acre. In addition, based on Property Appraiser's estimates, the average value of all vacant land of similar size in Orange County is \$117,000 per acre. Given this information, a unit cost of \$115,000 per acre is considered to be a reasonable estimate for impact fee calculation purposes. Tables B-7 and B-8 provide a summary of this information as well as the detail for recent and upcoming land purchases by OCPS.

**Table B-7
Land Value Analysis**

Component	Value per Acre	
	Average	Range
Recent Purchases (10 + acres) ⁽¹⁾	\$87,066	\$0 - \$410,500
Land Under Contract (10 + acres) ⁽¹⁾	\$117,129	\$22,000 - \$485,800
	Average	Median
Value of Existing Parcels ⁽²⁾	\$66,500	\$46,400
Vacant Land Sales (10-110 acres) ^{(2)*}	\$215,100	\$150,400
Vacant Land Values (10-110 acres) ⁽²⁾	\$116,700	\$60,400

1) Source: B-8

2) Source: Orange County Property Appraiser Database

*Sales between 2012 and 2015

**Table B-8
Recent Purchases and Parcels Under Contract (Orange County Public Schools)**

Facilities Name/Real Estate ID ⁽¹⁾	Year Acquired ⁽¹⁾	Location ⁽¹⁾	Contract Price ⁽¹⁾	Acreage ⁽¹⁾	Price Per Acre ⁽²⁾
73-T-W-7	2015	Ocoee Apopka Road	\$0	37.49	\$0
131-PS8-SW-5	2015	808 West Amelia Street	\$518,393	0.387	\$1,339,517
131-PS8-SW-5	2015	920 West Amelia Street	\$340,237	0.254	\$1,339,516
131-PS8-SW-5	2015	924 West Amelia Street	\$281,298	0.21	\$1,339,514
131-PS8-SW-5	2015	918 West Amelia Street	\$518,393	0.387	\$1,339,517
131-PS8-SW-5	2015	455 North Westmoreland Drive	\$941,680	0.703	\$1,339,516
117-E-SW-4	2015	Silverlake Park Drive	\$356,490	15.84	\$22,506
21-M-E-2	2015	650 Guy Road	\$325,000	3.643	\$89,212
21-M-E-2	2015	702 Guy Road	\$325,000	3.643	\$89,212
21-M-E-2	2015	638 Guy Road	\$420,000	4.164	\$100,865
37-M-SW-4	2015	Winter Garden Vineland Road	\$321,750	21.45	\$15,000
37-M-SW-4	2015	S. of Main Tract	\$60,000	4	\$15,000
52-M-SE--2	2016	Innovation Way & Connector Road	\$8,700,000	26	\$334,615
44-E-SE-2	2016	Laureate Boulevard	\$1,637,500	13.11	\$124,905
72-E-W-7	2016	Ocoee Crown Point Parkway	\$0	13.54	\$0
204-U-N-7	2016	1410 S Central Avenue	\$412,670	0.22	\$1,875,773
85-E-W-4	2016	Porter Road	\$333,270	14.811	\$22,502
207-E-W-7	2016	602 East Story Road	\$1,800,000	8.576	\$209,888
80-H-SW-4	2016	Daryl Carter Parkway	\$25,000,000	31.51	\$793,399
80-H-SW-4	2016	Daryl Carter Parkway	\$0	10.97	\$0
80-H-SW-4	2016	Daryl Carter Parkway	\$0	1.79	\$0
80-H-SW-4	2016	Palm Parkway Row	\$0	5.49	\$0
207-E-W-7	2017	356 East Lafayette Street	\$123,733	0.58	\$213,333
207-E-W-7	2017	497 W J Peters Lane	\$36,267	0.17	\$213,335
3-E-SE-2	2017	9101 Randal Park Boulevard	\$0	0.025	\$0
212-E-N-6	2017	3827 White Heron Drive	\$78,519	2.118	\$37,072
212-E-N-6	2017	3909 White Heron Drive	\$81,481	2.2	\$37,037
80-H-SW-4	2017	Daryl Carter Parkway	\$0	0.24	\$0
208-K8-SE-3	2017	Pershing-Expansion Site	\$2,200,170	4.84	\$454,581
22-M-W-4	2017	Schoolhouse Pond Road	\$0	0.76	\$0
22-M-W-4	2017	Schoolhouse Pond Road	\$0	1	\$0
20-E-SW-4	2018	ES of I Dr. S 700's of Lake Forest Drive	\$6,129,293	14.93	\$410,535
20-E-SW-4	2018	ES of I Dr S of Lake Forest Drive	\$2,070,707	5.04	\$410,855
131-PS8-SW-5	2018	807 West Livingston Street(1)	\$10,000	0.11	\$90,909
90-E-N-7	2018	4650 Jason Dwelley Parkway	\$290,000	5.06	\$57,312
90-E-N-7	2018	4700 Jason Dwelley Parkway	\$1,214,400	10.12	\$120,000
129-M-SE-2	Contract	13870 Narcoossee Road	\$7,350,000	30	\$245,000
83-E-SE-3	Contract	6249 South Goldenrod Road	\$7,866,000	16.192	\$485,795
49-E-W-4	Contract	Water Springs Boulevard	\$337,500	15	\$22,500
82-H-N-7	Contract	5207 Sadler Road	\$3,542,000	161.32	\$21,956
43-E-SE-2	Contract	Lake Nona Boulevard	\$5,400,000	18.32	\$294,760
114-E-W-4	Contract	Seidel Road	\$303,750	13.5	\$22,500
89-E-W-4	Contract	17511 Lake Ingram Road	\$337,500	15	\$22,500
65-M-W-4	Contract	Avalon Road	\$562,500	25	\$22,500

**Table B-8
Recent Purchases and Parcels Under Contract (Orange County Public Schools)**

Facilities Name/Real Estate ID⁽¹⁾	Year Acquired⁽¹⁾	Location⁽¹⁾	Contract Price⁽¹⁾	Acreage⁽¹⁾	Price Per Acre⁽²⁾
122-A-E-1	Contract	NS of Hamilton Drive	\$512,500	15.69	\$32,664
134-E-N-7	Contract	2995 Peterson Road	\$1,800,000	15	\$120,000
118-E-SW-5	Contract	1130 Holden Avenue	\$2,401,000	4.894	\$490,601
119-H-SE-3	Contract	J Lawson Boulevard	\$16,500,000	55	\$300,000
131-PS8-SW-5	Contract	817 W Livingston	\$210,000	0.34	\$617,647
Parcels Under Contract with 10 acres or more⁽³⁾			\$44,511,750	380.022	\$117,129
Recent Purchases with 10 acres or more⁽³⁾			\$9,992,703	114.77	\$87,066
All Parcels Under Contract			\$47,122,750	385.256	\$122,315
All Recent Purchases			\$54,526,251	265.381	\$205,464

- 1) Source: Orange County Public Schools
- 2) Purchase price divided by acres
- 3) Summary includes recent purchases or parcels under contract of 10 or more acres

Appendix C
Orange County School Impact Fee
Glossary of Acronyms and Terms

Orange County School Impact Fee Glossary of Terms

The following list of acronyms and/or terms frequently used during the discussion of the school impact fee is provided for reference.

Adjusted FISH Capacity - the number of students who can be served in a permanent public school facility as provided in the Florida Inventory of School Houses adjusted to account for the design capacity of Modular or In-Slot Classrooms on the campuses designed as Modular or In-Slot schools, but not to exceed Core Capacity. The adjusted FISH Capacity is calculated in accordance with the *Interlocal Agreement for Public School Facility Planning and Implementation of Concurrency* (ILA) between the Orange County School Board, Orange County and the Municipalities, for purposes of school capacity review and concurrency.

Advisory Committee – Orange County School Impact Fee Advisory Committee.

Capacity Adjustment – Adjustment made to the cost per permanent student station to account for the percentage of students anticipated to receive a permanent student station, based on the ratio of enrollment to available permanent capacity.

Capital Improvement “Cash” Credit – Capital expansion expenditures included in the credit calculation that are paid for out of cash accounts in the capital budget (as opposed to being paid for through a bond/COP issue). Types of expenditures include district-wide capital purchases for new schools, land acquisition for future school sites, security systems upgrades or for new buildings, and network technology for new buildings.

Capital Outlay Tax – Ad valorem revenue collected under the 1.5 mills levied by Orange County to be used by OCPS for school capital outlay expenditures.

Certificate of Participation (COPs) – A form of lease purchase financing. COPs are the primary form of debt service incurred by OCPS.

Class Size Requirements – By the 2010 school year, school districts are mandated under the Florida Constitution to ensure that the maximum number of students per teacher does not exceed the numbers set forth below:

- Prekindergarten thru Grade 3 – maximum of 18 students per classroom

- Grade 4 thru Grade 8 – maximum of 22 students per classroom
- Grade 9 thru Grade 12 – maximum of 25 students per classroom

Exceptional Student Education Program (ESE) – Program to provide students with disabilities and gifted students the opportunities to receive a free appropriate public education in the least restrictive environment.¹

Facility Service Delivery – Gross square feet per permanent student station for each type of school, based on OCPS’s prototype design standards.

Five-Year Work Program – Five-year planning document required by the State of Florida to be developed annually by each School Board; includes a schedule of major repair and renovation projects necessary to maintain the educational facilities and ancillary facilities of the district, and a schedule of capital outlay projects necessary to ensure the availability of satisfactory student stations for the projected student enrollment in K-12 programs. The Work Program is developed based on data included in the approved OCPS five-year capital improvement plan.

Florida Department of Education (FDOE)

Florida Inventory of School Houses (FISH) – An inventory of OCPS’s school, administrative, and ancillary facilities that is maintained for FDOE.

Florida Inventory of School Houses (FISH) Capacity – A formula designed by the State of Florida, which includes the following utilization rate percentages by school type: 100% for elementary schools; 90% for middle schools; 90% for K-8 Schools; 90% for ninth-grade centers; 95% for high schools.

Furniture, Fixtures, and Equipment (FF&E) – Includes all furniture, fixtures, and equipment provided at a school, administrative, or ancillary facility.

Geographic Information Systems (GIS) – Geo-spatial analysis used to link a student address to its respective parcel in the parcel database maintained by the Orange County Property Appraiser.

Level of Service Standards – Standards included in the Interlocal Agreement (ILA) between the School Board, Orange County, and the Municipalities. Section 15.1 of the ILA states “To ensure

¹ Florida Legislature Office of Program Policy Analysis and Government Accountability

that the capacity of schools is sufficient to support student growth and prevent the overcrowding of schools, the School Board, the County, and the Municipalities have established the following uniform Level of Service standards for elementary, middle and high schools within each School Concurrency Service Area.

- (a) Elementary Schools: 110% of Adjusted FISH Capacity for each Elementary School Concurrency Service Area. The Elementary School LOS shall also include Arbor Ridge K-8, Windy Ridge K-8 and grades Kindergarten through 5 of Blankner K-8.
- (b) Middle schools: 100% of Adjusted FISH Capacity for each Middle School Concurrency Service Area. The Middle school LOS shall also include grades 6-8 of Blankner K-8.
- (c) High schools, including ninth grade centers: 100% of Adjusted FISH Capacity for each High School Concurrency Service Area.”

Orange County Public Schools (OCPS)

Permanent Gross Square Feet (GSF) – Total square footage of the building within all exterior walls.

Permanent Program Capacity – Formula developed by OCPS for calculating permanent capacity for each school. As shown in the formula below, the Permanent Program Capacity considers FISH capacity, in-slot capacity, utilization factor, and ESE adjustment for each school.

Permanent Program Capacity Formula:

*[(Permanent FISH Capacity + In-Slot Capacity) * (School Utilization Factor) – ESE Capacity Loss]*

Permanent Student Station – Permanent square footage required per student (as defined in Section 6.1 of the State Requirements for Educational Facilities) for instructional program based on the particular course content to be offered.

Student Generation Rate (SGR) – Average number of public school students per dwelling unit over the life of a home.

Tindale Oliver (TO)

Voluntary Pre-Kindergarten (VPK)