



Capital Improvement Program School Projects

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School Projects

Capital Improvement Program										
School Projects										
Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Elementary Schools	-	-	-	-	7,690	69,170	-	76,860	-	76,860
High Schools	43,924	448,770	-	-	-	-	-	448,770	-	492,694
Other School Facilities	230,405	65,090	48,360	66,170	77,473	106,450	106,370	469,913	539,140	1,239,458
Total – Costs	274,330	513,860	48,360	66,170	85,163	175,620	106,370	995,543	539,140	1,809,013
Funding Sources (\$ in 1000s)										
Local Tax Funding	50,099	4,003	10,000	20,000	7,000	20,000	34,300	95,303	40,000	185,402
General Obligation Bonds	183,500	500,107	28,080	35,320	66,723	129,170	60,000	819,400	475,000	1,477,900
Appropriation-Backed Bonds	40,731	9,750	10,280	10,850	11,440	26,450	12,070	80,840	24,140	145,711
Total – Funding Sources	274,330	513,860	48,360	66,170	85,163	175,620	106,370	995,543	539,140	1,809,013



Capital Improvement Program Elementary Schools

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Elementary Schools



Capital Improvement Program										
Elementary School Projects										
Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
ES-34 Dulles North	-	-	-	-	7,690	69,170	-	76,860	-	76,860
Total – Costs	-	-	-	-	7,690	69,170	-	76,860	-	76,860
Funding Sources (\$ in 1000s)										
General Obligation Bonds	-	-	-	-	7,690	69,170	-	76,860	-	76,860
Total – Funding Sources	-	-	-	-	7,690	69,170	-	76,860	-	76,860



Elementary Schools

Elementary School (ES-34) Dulles North

Details:

Project Number: n/a

Election District: Sterling

Square Feet: 100,000-115,000

LCPS Planning District: Dulles North

Estimated Completion Year: FY 2030

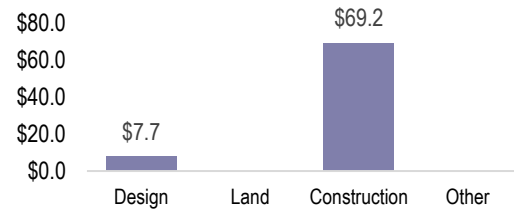
Referendum: November 2024

Background:

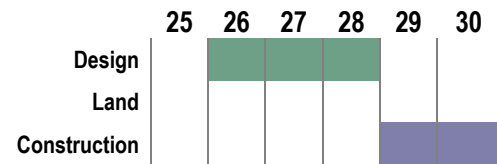
This project provides for the construction of an elementary school that will be built using a multi-story design. The estimated 106,323 square foot building will serve students in kindergarten through grade five. With an anticipated program capacity of 960, the elementary school will include classrooms, a media center, cafeteria, multipurpose room, and unlighted outdoor physical education fields. The project includes funding for a structured parking facility on the site, to serve the school.

ES-34 is planned to be in the Dulles North Planning District, on a proffered site in the Silver District West development.

Phase Costs in Millions

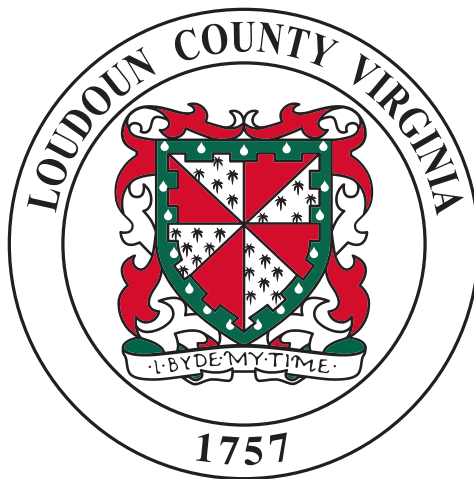


Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Professional Services	-	-	-	-	7,690	-	-	7,690	-	7,690
Construction	-	-	-	-	-	69,170	-	69,170	-	69,170
Total – Costs	-	-	-	-	7,690	69,170	-	76,860	-	76,860
General Obligation Bonds	-	-	-	-	7,690	69,170	-	76,860	-	76,860
Total – Funding Sources	-	-	-	-	7,690	69,170	-	76,860	-	76,860

Operating Impact (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	-	-	-	531	2,436	2,967
Total – Impact	-	-	-	-	531	2,436	2,967





Capital Improvement Program High Schools

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High Schools

Capital Improvement Program										
High School Projects										
Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
High School (HS-14) Dulles North	21,755	249,250	-	-	-	-	-	249,250	-	271,005
Park View High School Replacement	22,169	199,520	-	-	-	-	-	199,520	-	221,689
Total – Costs	43,924	448,770	-	-	-	-	-	448,770	-	492,694
Funding Sources (\$ in 1000s)										
General Obligation Bonds	43,924	448,770	-	-	-	-	-	448,770	-	492,694
Total – Funding Sources	43,924	448,770	-	-	-	-	-	448,770	-	492,694



High Schools

High School (HS- 14) Dulles North

Details:

Project Number: n/a

Election District (2022): Little River

Square Feet: 330,000-345,000

LCPS Planning District: Dulles North

Estimated Opening Year: FY 2029

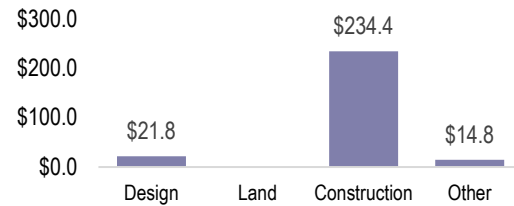
Referendum: November 2023 & November 2024

Background:

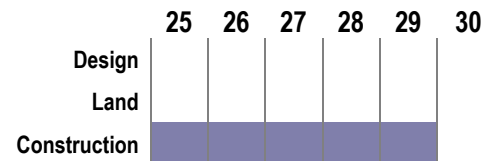
This project provides for the construction of a high school that will be built using a multi-story design. The estimated 330,000-345,000 square foot building will serve students in grades nine through twelve. With an anticipated capacity of 2,100, the high school will include classrooms, cafeteria, auditorium, media center, gymnasium, an auxiliary gymnasium, outdoor physical education fields, and other associated spaces to support the high school program. The football and track stadium at the high school will hold 6,000 spectators to host State Championship meets and events.

HS-14 is planned to be co-located with MS-14, a future elementary school (TBD), and other public uses on the Hartland site.

Phase Costs in Millions



Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Professional Services	21,755	-	-	-	-	-	-	-	-	21,755
Construction	-	234,411	-	-	-	-	-	234,411	-	234,411
Furniture, Fixtures & Equip	-	14,839	-	-	-	-	-	14,839	-	14,839
Total – Costs	21,755	249,250	-	-	-	-	-	249,250	-	271,005
General Obligation Bonds	21,755	249,250	-	-	-	-	-	249,250	-	271,005
Total – Funding Sources	21,755	249,250	-	-	-	-	-	249,250	-	271,005

Operating Impact (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	5,959	13,131	20,830	22,689	23,316	85,925
Total – Impact	-	5,959	13,131	20,830	22,689	23,316	85,925



High Schools

Park View High School Replacement

Details:

Project Number: n/a

Election District: Sterling

Square Feet: 295,000

LCPS Planning District: Eastern Loudoun

Estimated Opening Year: FY 2028

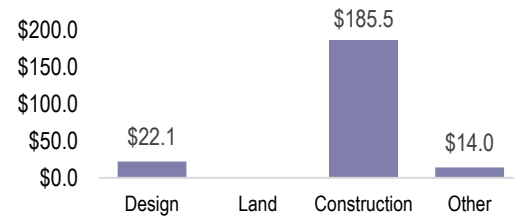
Referenda: November 2022, November 2023, & November 2024

Background:

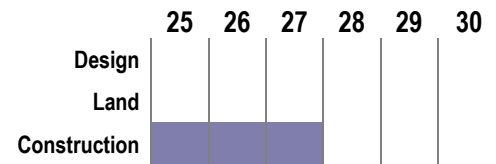
This project provides funding to design and construct the replacement for Park View High School. The project will involve the construction of an estimated 295,000 square foot building which will serve students in grades nine through twelve. With an anticipated capacity of 1,800, the high school will include classrooms, cafeteria, auditorium, media center, gymnasium, an auxiliary gymnasium, outdoor physical education fields, and other associated spaces to support the high school program.

The project will construct the new school on the current stadium and athletic fields; upon completion of new facility, the existing school building will be razed and new outdoor athletic facilities will be constructed where the former school was sited. The new school is anticipated to open in fall 2027 (2027-2028 school year) and the new outdoor athletic facilities complete by the start of the 2028-2029 school year.

Phase Costs in Millions



Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Professional Services	22,169	-	-	-	-	-	-	-	-	22,169
Construction	-	185,520	-	-	-	-	-	185,520	-	185,520
Furniture, Fixtures & Equip	-	14,000	-	-	-	-	-	14,000	-	14,000
Total – Costs	22,169	199,520	-	-	-	-	-	199,520	-	221,689
General Obligation Bonds	22,169	199,520	-	-	-	-	-	199,520	-	221,689
Total – Funding Sources	22,169	199,520	-	-	-	-	-	199,520	-	221,689

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	4,249	11,421	17,745	19,323	19,817	72,556
Total – Impact	-	4,249	11,421	17,745	19,323	19,817	72,556



Capital Improvement Program

Other School

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Other School

Capital Improvement Program										
Other School Projects										
Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Banneker ES Renovation/Addition	3,895	35,060	-	-	-	-	-	35,060	-	38,955
Capital Renewal and Alteration	164,820	18,270	20,000	55,320	66,033	80,000	80,000	319,623	515,000	999,443
Eastern Transportation Facility	-	-	-	-	-	-	3,280	3,280	-	3,280
School Bus Radio Replacements and UHF System Upgrade	10,420	-	-	-	-	14,380	-	14,380	-	24,800
School Bus Replacement and Associated Infrastructure	42,776	9,750	10,280	10,850	11,440	12,070	12,070	66,460	24,140	133,376
School Replacement Program	-	-	-	-	-	-	11,020	11,020	-	11,020
Student Welcome Center at Sterling ES	7,710	-	-	-	-	-	-	-	-	7,710
Valley Service Center Traffic Signal	785	-	-	-	-	-	-	-	-	785
Waterford ES Renovation and Addition	-	2,010	18,080	-	-	-	-	20,090	-	20,090
Total – Costs	230,405	65,090	48,360	66,170	77,473	106,450	106,370	469,913	539,140	1,239,458
Funding Sources (\$ in 1000s)										
Local Tax Funding	50,099	4,003	10,000	20,000	7,000	20,000	34,300	95,303	40,000	185,402
General Obligation Bonds	139,575	51,337	28,080	35,320	59,033	60,000	60,000	293,770	475,000	908,345
Appropriation-Backed Bonds	40,731	9,750	10,280	10,850	11,440	26,450	12,070	80,840	24,140	145,711
Total – Funding Sources	230,405	65,090	48,360	66,170	77,473	106,450	106,370	469,913	539,140	1,239,458



Other School Projects

Banneker Elementary School Renovation & Addition

Details:

Project Number: n/a

Election District: Little River

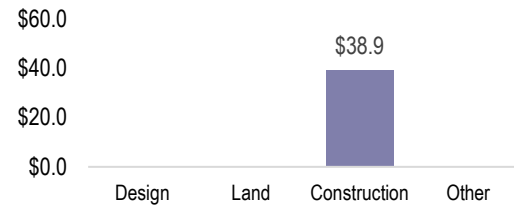
Square Feet: 61,000

LCPS Planning District: Western Loudoun

Estimated Opening Year: FY 2025

Referendum: November 2023

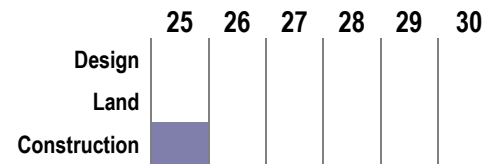
Phase Costs in Millions



Background:

This project provides funding to renovate and construct an estimated 61,000 square foot addition that will include a multipurpose room, five (5) classrooms, cafeteria, kitchen, office areas, and other ancillary spaces. The multipurpose room will provide program space as a gymnasium and auditorium with associated storage and office space. The five-classroom addition will accommodate kindergarten classroom space; the project will also provide additional restrooms in the building and will also remove all modular classrooms from the school site.

Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	3,895	35,060	-	-	-	-	-	35,060	-	38,955
Total – Costs	3,895	35,060	-	-	-	-	-	35,060	-	38,955
General Obligation Bonds	3,895	35,060	-	-	-	-	-	35,060	-	38,955
Total – Funding Sources	3,895	35,060	-	-	-	-	-	35,060	-	38,955

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	3,508	3,420	3,333	3,245	3,157	16,663
Total – Impact	-	3,508	3,420	3,333	3,245	3,157	16,663



Other School Projects

Capital Renewal and Alteration

Details:

Project Number: n/a

Election District: Countywide

Square Feet: n/a

LCPS Planning District: Countywide

Estimated Opening Year: Ongoing

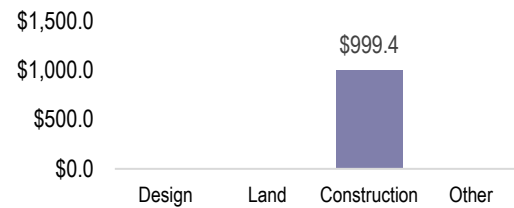
Referendum: Annually

Background:

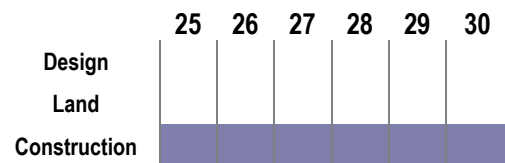
This project provides funding for capital facility renewals, maintenance expenditures, and capital alterations. This funding is crucial to contain overall long-term facility costs for maintenance, system replacements, and facility renewals and alterations.

Replacements, repairs, and updates to critical systems including heat, air conditioning, ventilation, boiler and water systems, pipes, lighting fixtures, switchgears, fire sprinklers, fire alarms, emergency generators, and other related infrastructure), along with renewals and restorations (typically surfaces, roofs, carpet, painting, windows, and similar aspects of a facility), are completed as needed.

Phase Costs in Millions



Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	164,820	18,270	20,000	55,320	66,033	80,000	80,000	319,623	515,000	999,443
Total – Costs	164,820	18,270	20,000	55,320	66,033	80,000	80,000	319,623	515,000	999,443
Local Tax Funding	33,700	4,003	10,000	20,000	7,000	20,000	20,000	81,003	40,000	154,703
General Obligation Bonds	131,210	14,267	10,000	35,320	59,033	60,000	60,000	238,620	475,000	844,740
Total – Funding Sources	164,820	18,270	20,000	55,320	66,033	80,000	80,000	319,623	515,000	999,443

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	1,428	3,022	6,477	12,213	17,901	41,042
Total – Impact	-	1,428	3,022	6,477	12,213	17,901	41,042



Other School Projects

Eastern Transportation Facility

Details:

Project Number: n/a

Election District: n/a

Square Feet: n/a

LCPS Planning District: n/a

Estimated Opening Year: TBD

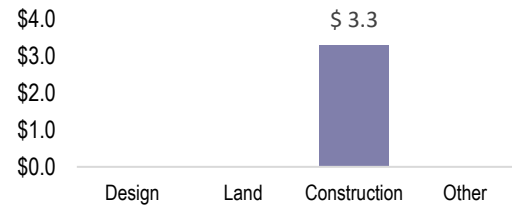
Referendum: n/a

Background:

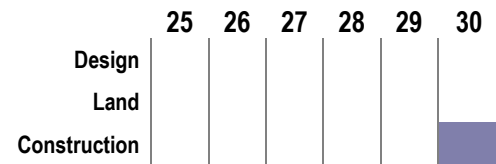
This project provides funding to construct a minor vehicle maintenance and repair facility, an LCPS / County fuel station, electric bus charging stations, and bus parking.

A site will need to be acquired or leased for the Eastern Loudoun Transportation Facility.

Phase Costs in Millions



Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	-	-	-	-	-	-	3,280	3,280	-	3,280
Total – Costs	-	-	-	-	-	-	3,280	3,280	-	3,280
General Obligation Bonds	-	-	-	-	-	-	3,280	3,280	-	3,280
Total – Funding Sources	-	-	-	-	-	-	3,280	3,280	-	3,280



Other School Projects

School Bus Radio Replacements and UHF System Upgrade

Details:

Project Number: n/a

Election District: Countywide

Square Feet: n/a

LCPS Planning District: Countywide

Estimated Opening Year: n/a

Referendum: n/a

Phase Costs in Millions

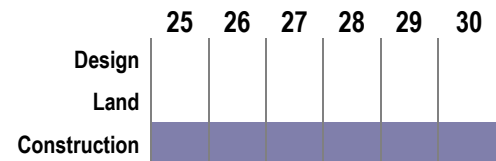


Background:

This project provides funding for scheduled updates to the bus radio system to bring them up to the latest standards, provides for a warranty, and maintaining a system that is serviceable by multiple vendors.

Loudoun County Public Schools' (LCPS) radio infrastructure is comprised of eight separate radio sites that provide countywide radio coverage for over 1,000 users. The radio system handles an average of 60,000 radio transmissions per month for school buses alone, provides communications for support staff, and provides alert radio transmissions for schools.

Project Phase Timeline by FY



Major update cycles are generally estimated or planned for every seven (7) years with the next one being addressed with funding in FY 2029.

Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	10,420	-	-	-	-	14,380	-	14,380	-	24,800
Total – Costs	10,420	-	-	-	-	14,380	-	14,380	-	24,800
Appropriation-Backed Bonds	10,420	-	-	-	-	14,380	-	14,380	-	24,800
Total – Funding Sources	10,420	-	-	-	-	14,380	-	14,380	-	24,800

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	-	-	-	-	2,774	2,774
Total – Impact	-	-	-	-	-	2,774	2,774



Other School Projects

School Bus Replacement and Associated Infrastructure

Details:

Project Number: n/a

Election District: Countywide

Square Feet: n/a

LCPS Planning District: Countywide

Estimated Opening Year: Ongoing

Referendum: November 2017

Phase Costs in Millions



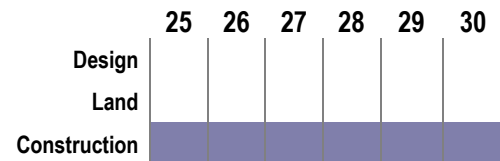
Background:

This project provides funding for the replacement and acquisition of school buses on an annual basis.

In support of the 2020 Loudoun County School Board resolution on Climate Change, the Division of Transportation began an electric bus pilot program to explore ways to reduce our carbon footprint. LCPS school buses travel over 8 million miles each year and produce over 20 tons of carbon monoxide that is released into the atmosphere. With recent action on climate change and new alternative-fuel products on the market from school bus manufacturers, the LCPS pilot program is designed to test the viability of electric buses to serve our students' transportation needs.

Through a partnership with Dominion Energy, five electric buses have been placed into service and are stationed (charged) at Park View High School. As part of a 2nd phase of the pilot program, LCPS was recently awarded six (6) electric buses from the Virginia Department of Environmental Quality, which will be stationed (charged) at Cardinal Ridge Elementary School and will be placed in service in 2022. The pilot program, industry research, and monitoring will be used for a long-term transportation fleet strategy that is in development by the Division of Transportation.

Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Furniture, Fixtures & Equip	37,511	9,750	10,280	10,850	11,440	12,070	12,070	66,460	24,140	128,111
Payments to Other	5,265	-	-	-	-	-	-	-	-	5,265
Total – Costs	42,776	9,750	10,280	10,850	11,440	12,070	12,070	66,460	24,140	133,376
Local Tax Funding	9,549	-	-	-	-	-	-	-	-	9,549
General Obligation Bonds	2,916	-	-	-	-	-	-	-	-	2,916
Appropriation-Backed Bonds	30,311	9,750	10,280	10,850	11,440	12,070	12,070	66,460	24,140	120,911
Total – Funding Sources	42,776	9,750	10,280	10,850	11,440	12,070	12,070	66,460	24,140	133,376

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	1,462	2,958	4,485	6,048	7,639	22,592
Total – Impact	-	1,462	2,958	4,485	6,048	7,639	22,592



Other School Projects

School Replacement Program

Details:

Project Number: n/a

Election District: Countywide

Square Feet: n/a

LCPS Planning District: Countywide

Estimated Opening Year: Ongoing

Referendum: n/a

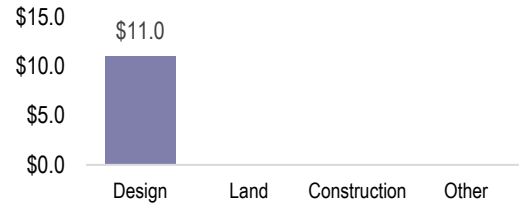
Background:

This program provides initial design funding for projects at Sterling MS and Loudoun County HS.

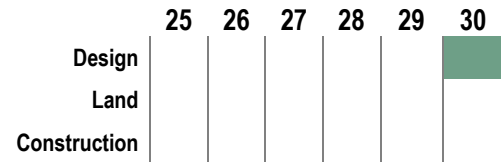
Sterling MS (201 W Holly Ave, Sterling): A proposed +/- 178,000 square foot renovation and addition.

Loudoun County HS (415 Dry Mill Road SW, Leesburg): A proposed pedestal parking/playing field structure, site improvements with +/- 210,000 square foot of building modernization and a +/- 5,000 square foot Fine Arts addition.

Phase Costs in Millions



Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Professional Services	-	-	-	-	-	-	11,020	11,020	-	11,020
Total – Costs	-	-	-	-	-	-	11,020	11,020	-	11,020
Local Tax Funding	-	-	-	-	-	-	11,020	11,020	-	11,020
Total – Funding Sources	-	-	-	-	-	-	11,020	11,020	-	11,020



Other School Projects

Student Welcome Center

Details:

Project Number: n/a

Election District: Sterling

Square Feet: 7,500

LCPS Planning District: Eastern Loudoun

Estimated Opening Year: TBD

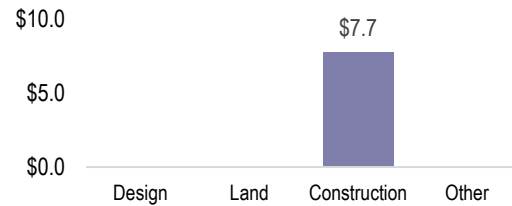
Referendum: November 2020

Background:

This project provides for the design and construction of a 7,500 square feet addition to the Sterling Elementary School, which will be utilized as a Welcome Center. The project will expand on-site parking to accommodate the co-located uses of the addition.

The establishment of a Student Welcome Center in eastern Loudoun will provide more efficient and effective delivery of services to the County's limited English proficient public-school students. The Welcome Center will offer a centralized location in eastern Loudoun for various instructional program registration needs and for instructional and/or pupil services support staff.

Phase Costs in Millions



Project Phase Timeline by FY

	25	26	27	28	29	30
Design						
Land						
Construction						

Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	7,710	-	-	-	-	-	-	-	-	7,710
Total – Costs	7,710	-	-	-	-	-	-	-	-	7,710
Local Tax Funding	6,850	-	-	-	-	-	-	-	-	6,850
General Obligation Bonds	860	-	-	-	-	-	-	-	-	860
Total – Funding Sources	7,710	-	-	-	-	-	-	-	-	7,710



Other School Projects

Valley Service Center Traffic Signal

Details:

Project Number: n/a

Election District: Catocin

Square Feet: n/a

LCPS Planning District: Western Loudoun

Estimated Opening Year: TBD

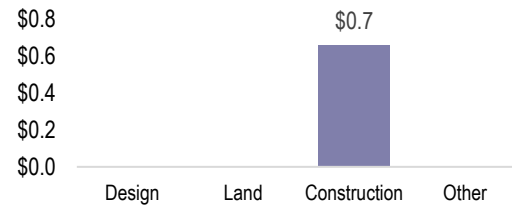
Referendum: November 2022

Background:

This project provides for the installation of a traffic signal at the intersection of the Valley Service Center entrance, West Colonial Highway, and the entrance to Harmony Middle School and Kenneth W. Culbert Elementary School. The funding for the traffic signal is programmed to coincide with the replacement of the Valley Service Center facility.

As part of the approved proffers for the rezoning completed for the purchase of the Valley Service Center property, a traffic signal warrant study was completed in 2017 for the intersection of the Valley Service Center entrance, West Colonial Highway, and the entrance to Harmony Middle School and Kenneth W. Culbert Elementary School. The study determined that a traffic signal is needed at the intersection.

Phase Costs in Millions



Project Phase Timeline by FY

	25	26	27	28	29	30
Design						
Land						
Construction						

Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	785	-	-	-	-	-	-	-	-	785
Total – Costs	785	-	-	-	-	-	-	-	-	785
General Obligation Bonds	785	-	-	-	-	-	-	-	-	785
Total – Funding Sources	785	-	-	-	-	-	-	-	-	785



Other School Projects

Waterford Elementary School Renovation and Addition

Details:

Project Number: n/a

Election District: Catoctin

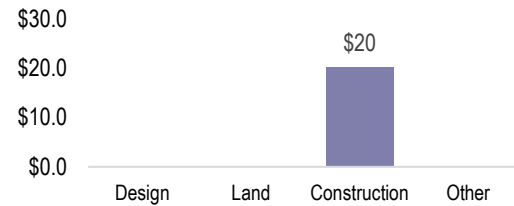
Square Feet: 14,000-20,000

LCPS Planning District: Western Loudoun

Estimated Opening Year: FY 2028

Referendum: November 2023

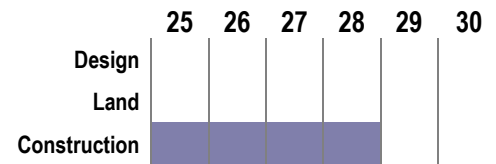
Phase Costs in Millions



Background:

This project provides for the renovation and construction of an estimated 14,000-20,000 square foot addition that will include a multipurpose room, four (4) classrooms, cafeteria, kitchen, office areas, and other ancillary spaces. The multipurpose room will provide program space as a gymnasium and auditorium with associated storage and office space. The four-classroom addition will accommodate kindergarten classroom space. The project will also remove all modular classrooms from the school site.

Project Phase Timeline by FY



Costs (\$ in 1000s)	Prior Years	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	6 Year Total	Future FYs	Project Total
Construction	-	2,010	18,080		-	-	-	20,090	-	20,090
Total – Costs	-	2,010	18,080	-	-	-	-	20,090	-	20,090
General Obligation Bonds	-	2,010	18,080	-	-	-	-	20,090	-	20,090
Total – Funding Sources	-	2,010	18,080	-	-	-	-	20,090	-	20,090

Operating Impacts (\$ in 1000s)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total
Debt Service	-	120	1,550	2,085	2,034	1,973	7,762
Total – Impact	-	120	1,550	2,085	2,034	1,973	7,762





Capital Improvement Program

LCPS Capital Facility Planning Guidelines

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**ADOPTED BY THE LOUDOUN COUNTY SCHOOL BOARD ON DECEMBER 13, 2022****Section 1: Purpose of the Capital Facility Planning Guidelines**

The purpose of the Loudoun County Public Schools (LCPS) Capital Facility Planning Guidelines is to identify the general planning principles and goals that the Loudoun County School Board (LCSB) and the Loudoun County Board of Supervisors have agreed upon in the development of the long-range capital building program to provide public school facilities in Loudoun County. The document serves in tandem with the Capital Improvement Program (CIP) documents outlining new construction, the Capital Asset Preservation Program (CAPP), and the Capital Renewals Program (CRP), which, together, provide public information and opportunity for public input. Planning principles will be used to identify and quantify the requirements for the construction of new schools and to ensure that existing schools are safe, quality places for students to learn and for employees to work. This document replaces the school standards identified in the adopted 2017 Capital Facility Standards and the previously adopted 2010 Capital Facility Planning Guidelines.

The Capital Facility Planning Guidelines support the Loudoun County School Board's stated mission and goals of providing a superior education, safe schools, and a climate for success. Requirements ensure that all students, faculty, and staff have access to quality facilities, resources, technology, and instructional programs. The Guidelines are based upon minimum requirements in the Virginia Department of Education's "Guidelines for School Facilities in Virginia's Public Schools" and LCPS' application thereof.

Section 2: Planning Process

The School Board annually adopts a Capital Improvement Program (CIP) budget. The CIP is a forecast of expenditures for land acquisition; site development; design; construction; and furniture, fixtures, and equipment (FFE) costs associated with the development of new or renovated schools, infrastructure, and other school-related facilities.

As a 30-year capital plan, the School Board's CIP addresses an immediate short term six-year plan, a medium-term plan (years seven through ten), and a long-term outlook (years 11 through 30). Projects included in the CIP are based on education program requirements, School Board-endorsed educational policy standards, and the ability of existing school facilities to accommodate present and future instructional programs and student enrollments.

LCPS monitors student enrollment and assesses the need for capacity in our schools on an ongoing basis. Each fall, six-year student enrollments are developed for the division and each individual school by grade. The enrollment projections are utilized for a variety of planning and decision-making functions, among which operational and budgeting needs are the most essential. Student enrollment projections, school capacities, and county population trends influence the priority order of projects and the funding plans in the School Board's CIP – specifically the construction of new schools, classroom additions and facility renovations.

Section 3: School Design Objectives

With a mission of "empowering all students to make meaningful contributions to the world," LCPS has developed strong facility standards to support the creation and maintenance of state-of-the-art teaching and support spaces.

Most recently updated in 2021, the Virginia Department of Education's (VDOE) "Guidelines for School Facilities in Virginia's Public Schools" have long served as the basis of the LCPS Educational Specifications and Guideline



LCPS Capital Facility Planning Guidelines

Specification standards and “define the minimum standard that all schools in Virginia should meet and are a design starting point for school facility planners, architects, and local school divisions. School facility planners and local school divisions are encouraged to adapt these recommendations as needed to meet the needs of a school’s educational programs.” Additionally, the *Code of Virginia* requires the Board of Education to review their “Standards of Quality” document every two years. Most recently revised in 2021, there are three (3) priorities stated: to promote educational equity for all students; to support the recruitment and retention of educational personnel; and to support the “Profile of a Virginia Graduate.” Each of these priorities directly aligns with the LCPS mission.

From the VDOE guidelines and recommendations, LCPS has developed and maintains Educational Specifications for each school level – elementary, middle, and high schools – as well as comprehensive Guideline Specifications for standard specifications for all facilities. The primary objective of the LCPS Educational Specifications is to establish the LCPS minimum requirements for new construction, however the document also serves as a tool to review parity and equity for improvements of older facilities. Included in the Educational Specifications are LCPS-tailored strategies for site design, building design and requirements for technology, furnishings, fixtures, and equipment. Additional detail is discussed in Sections 4 and 5.

Additionally, LCPS has several targeted planning objectives that are considered for all new school projects as they are developed:

A. Co-Location of Facilities: Co-location of school and public facilities is a strategy supported by Loudoun County School Board and the Loudoun County Board of Supervisors with both infrastructure and operational benefits. LCPS and Loudoun County Government have a long history of successful co-location including school facilities and community, recreation or public safety uses. Staff considers appropriate co-location based on site acreage during the LCPS capital needs assessment and life cycle management process and Capital Improvement Program (CIP) development processes.

B. Community Use: Loudoun County Government, including the Office of Elections and the Department of Parks, Recreation and Community Services (PRCS) have priority to use school buildings and grounds when not required for school use. The original agreement between the Loudoun County School Board and the Loudoun County Board of Supervisors dates to the 1967-1968 timeframe. School Board Policy and Regulation 6310, *Facility Use*, defines the conditions for community use of school facilities.

LCPS and PRCS also work together to determine school facilities available to host other community uses including after school childcare and athletics, as examples.

C. Emergency Use: In coordination with the Loudoun County Office of Emergency Management, LCPS works in an active and continual manner to support school and community needs in emergency and/or shelter circumstances in coordination to provide community programs, services and support public safety.

D. Sustainability, Energy, and Environmental Stewardship: LCPS is committed to and has a strong history in energy and environmental stewardship and is continuously exploring advancements in sustainable design, technology and high-performance building and system practices in design and construction. In 2010, the School Board adopted Policy 6410, *High Performance Building Design, Construction and Operations*, implementing sustainable practices in environmental quality, water and energy consumption, renewable energy generation, products, materials, and waste management in new facilities and school renovation projects. LCPS has a long and established history of being awarded the ENERGY STAR Partner of the Year Sustained



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Excellence Award as a benchmark of energy stewardship achievement. LCPS Environmental Requirements and Goals are part of each major design contract outlining specific strategies, life cycle cost analysis requirements for building systems selection, and energy performance criteria.

LCPS design objectives, Educational Specifications, Guideline Specifications, and standards are provided to all consulting architects. Design parameters are reviewed by LCPS during the design process for new school and renovation projects to ensure the strategic objectives are met, as applicable to the project.

Section 4: Site Design

The overall design process begins years in advance with pre-design studies linked to the findings and proposed facility plans as developed through the LCPS capital needs assessment and life cycle management process as presented in the CIP. Site selection and land acquisition processes are based on the needs identified in the CIP and the School Board's capital budget. The standards provide flexibility in planning for school development to meet community needs. For public schools in Loudoun County, LCPS follows the following general planning guidelines:

A. Elementary School:

- Building Square Footage: 100,000 – 120,000 GSF
- Site Acreage: Up to 20 Usable Acres
- Standard: 900-1,000 pupils

B. Middle School:

- Building Square Footage: 185,000 – 215,000 GSF
- Site Acreage: Up to 35 Usable Acres
- Standard: 1,350 – 1,500 pupils

C. High School:

- Building Square Footage: 290,000 – 345,000 GSF
- Site Acreage: Up to 75 Usable Acres
- Standard: 1,800 – 2,100 pupils

These standards exceed the VDOE recommended minimum site acreage to accommodate for outdoor programmed spaces including, but not limited to playgrounds, Physical Education areas and athletics or recreation areas as well as ancillary support. Site acreage identified is based on usable area excluding acreage that cannot be built upon and considering applicable zoning, infrastructure and stormwater management requirements and necessary site circulation for pedestrians, busses, and cars. Flexibility for varying existing site conditions is important in the site planning process to accommodate all required program elements. All LCPS site design standards are documented in the LCPS Educational Specifications.

Simplicity of entrance access and a completely separated pedestrian, car, and bus circulation paths are primary LCPS goals of school site design. Adequate staff and visitor parking as well as bus parking, where applicable, may consume 4 – 12 acres on a traditional site alone. Configuration of the parcel in relation to roadway infrastructure must be considered in the overall site circulation patterns. Providing a clear, separated circulation path for parent drop off and pick up from the bus loop along with sufficient queuing space for both paths are other large acreage functions. These functions are critical to both the operational success and safety of active school sites.

Physical Education, recreation, and athletics along with supporting functions are also large programmatic drivers for school sites. Playgrounds are governed by School Board Policy and Regulation 6320, *Playgrounds*, and are commonly used by students during the school day and by the public during non-school hours. LCPS playgrounds



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are designed to meet accessibility requirements and an inclusive playground will be installed when space and funding permit, as part of new elementary school construction.

Physical Education, recreation and athletics elements vary by school level and are generally planned by LCPS as follows and as site conditions allow:

Elementary School Elements	Quantity	Minimum Size
Multi-Use (Hard Surface)	1	55' x 170' for US Map
Multi-Use (Hard Surface) Basketball	1	60' x 120'
Fenced Play Area (Kindergarten)	1	Varies
Playground	1	70' x 80'
Multi-Use Playing Field with Walking Track: 4 Options		
1 – Large Soccer Field with Irrigation	1	225' x 360'
2 – Small Soccer Field with Irrigation	1	138' x 228'
3 – U8 Micro Soccer Field	1	90' x 150'
4 – U6/U7 Soccer Field	2	75' x 105' each
Softball Field	1	200' left to right field 20' backstop to home plate
Middle School Elements	Quantity	Minimum Size
Multi-Use (Hard Surface) Basketball	1	96' x 224'
Multi-Use Playing Field with Walking Track: 4 Options		
1 – Large Soccer Field with Irrigation	2	225' x 360'
2 – Small Soccer Field with Irrigation	2	138' x 228'
3 – U8 Micro Soccer Field	2	90' x 150'
4 – U6/U7 Soccer Field	4	75' x 105' each
Softball Field	1	200' left to right field 25' backstop to home plate
High School Elements	Quantity	Minimum Size
Stadium with Lighting, Press Box, Track, etc. with artificial turf	1	195' x 300' Soccer 160' x 300' Football
Softball Field with Lighting and Press Box	1	200' left to right field 30' to home plate
Baseball Field with Lighting and Press Box	1	310' left to right field 60' backstop to home plate
Practice Fields with Lighting with artificial and natural turf	2	55 yds x 120 yds
Tennis Courts with Lighting Pickleball Courts	6	36' x 78' each

In support of high school extracurricular activities, LCPS sites also include a Concession Stand Building with Restrooms, a Storage Building, a Team Room Building with Restrooms, Baseball and Softball Press Box Buildings, a Ticket Booth, Tractor Storage, Marching Band Storage and Observation Towers.

As growth in Loudoun County continues and traditional suburban or rural sites of large acreage are less available, it should be considered that school site design will be challenged by existing condition constraints. The same is true as Loudoun develops more urban areas surrounding Metro – the site requirements are no longer necessarily prototypical; flexibility will be necessary to maximize site utilization while delivering all the programmatic requirements. Loudoun County Zoning Ordinance requirements, both current and future, will



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affect the site design approach for school sites and will require further analysis that is project specific. These considerations may also apply to additions and renovations of existing school facilities.

Section 5: Building Design

The building design process at LCPS begins with a verification of program for the particular school. LCPS has long maintained prototypical building programs that are site-adapted as school facilities are planned through the LCPS capital needs assessment and life cycle management process as presented in the CIP. As referenced in Section 4, the Capital Facilities Standards provides for a range of pupil planned capacity for each school level with planned capacity as follows:

- A. Elementary School: 900 – 1,000 pupils
 - Kindergarten through Grade Five
 - Planned Capacity of 23 students per General Education Classroom and 10 students per Special Education Classroom
 - Art, Music, Gym, Media Center, Cafeteria, Administrative Office, and Support
 - Classroom Restrooms provided in Kindergarten – Grade Three
 - Regional Classrooms
- B. Middle School: 1,350 – 1,500 pupils
 - Grades Six through Eight
 - Planned Capacity of 19 students per General Education Classroom and 10 students per Special Education Classroom
 - Fine Arts, Auditorium, Career & Technical Education, Labs, Main Gym, Auxiliary Gym, Media Center, Cafeteria, Administrative Office, and Support
- C. High School: 1,800 – 2,100 pupils
 - Grades Nine through Twelve
 - Planned Capacity of 21 students per General Education Classroom and 10 students per Special Education Classroom
 - Fine Arts, Auditorium, Career & Technical Education, Labs, Main Gym, Auxiliary Gym, Athletics Facilities as outlined in Section 4, Media Center, Cafeteria, Administrative Office, and Support
- D. Additional Program Elements:
 - Elementary, Middle and High School Level Collaboration Spaces
 - Elementary, Middle and High School Level Privacy Restrooms
 - Middle and High School Privacy Showers/Changing

This planned capacity becomes the basis of the building program and, with VDOE Guidelines on instructional space including recommendations for Classroom sizes, LCPS develops a school-specific building program to meet the instructional philosophy and educational delivery objectives.

To deliver state-of-the-art education to the students of Loudoun County, LCPS follows the VDOE Guidelines on standard classroom sizes for new construction. Major renovations endeavor to also meet the current VDOE Guidelines. School size and design is guided by educational program requirements and standards established by the Loudoun County School Board. Classroom sizes include all features such as storage, countertops, however, exclude classroom toilets. All LCPS building design standards are documented in the LCPS Educational Specifications.



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Similar to site design considerations, as growth in Loudoun County continues, flexibility within the general parameters of the approved Capital Facility Standards and the LCPS historical prototypical program will need consideration. For example, in School Year 2022 – 2023, LCPS opened its first three-story Elementary School and has under construction, its first four-story Middle School. Site adapting the prototypical program will continue to be a challenge on constrained and more urban sites necessitating increased square footage in building programming for duplication of functions on multiple floors, increased vertical and horizontal circulation and building support.

Both new construction and renovation projects must study continued development of building design and new instructional initiatives in realms that include student support areas including mental health, expanded STEM (Science, Technology, Engineering and Math) and CTE (Career and Technical Education) programs, Project Based Learning (PBL), specialized services, and other requirements that will continue to inform space programming in all levels of schools. Safety and security are paramount and are assessed through multiple lenses during the site and building design including application of Crime Prevention Through Environmental Design (CPTED) principles and review of projects. Flexibility in design will require attention to create adaptable spaces supported by furniture and technology that can support all student and staff needs with longevity. Renovation projects aim to achieve the same LCPS requirements as new construction projects, however, the existing site and building constraints will require project-specific analysis. Qualitative aspects of design including access to daylight, acoustics and thermal comfort play important roles in the experience for staff and students.

Section 6: Furniture, Fixtures and Equipment including Technology

LCPS maintains strong standards of Furniture, Fixtures and Equipment (FFE) and Technology to deliver and support school facilities and 21st century learning. FFE is included in all new construction and renovation projects. FFE efforts include, but are not limited to, furniture, fixtures, and equipment, but also technology equipment and software, instructional materials and equipment required to support and maintain the facility to deliver a fully outfitted, turn-key project.

Section 7: Life Cycle Planning

LCPS endeavors to build 75-year buildings to serve the educational mission of Loudoun County and support community uses year-round. Major renovations and/or additions to existing schools are considered when additional permanent/long-term capacity is needed and full condition evaluations are conducted at the mid-life facility age. The trigger for additional capacity or replacement is evaluated and established each year through the School Board Adopted CIP. Renovations and additions increasing capacity must consider the impact to the building's core capacity in areas including but not limited to restrooms, Cafeteria, Media Center, Administrative Office, and Gyms.

Throughout a school's life cycle, maintenance and improvements may also be funded through the Capital Asset Preservation Program (CAPP) or through the Capital Renewals Program (CRP) portion of the CIP budget. In accordance with LCPS Policy 6410, *High Performance Building Design, Construction and Operations*, schools should be managed in terms of life cycle and instructional appropriateness. When a facility has aged to 75 years, evaluation to determine if the structure should continue to support instructional requirements and activities with either minor capital improvements, a major capital renovation, or complete capital replacement of the facility to meet new school facility design standards. Critical systems replacements are commonly considered when a building has aged to 30 years or greater. Analysis of existing facilities and their life cycle considerations relative to renovation or replacement will be identified in the annual School Board Adopted CIP.



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Section 8: Support Facilities

LCPS evaluates the need for additional support facility space based upon a full programming analysis. As a means to apply standardized space allocations, this analysis identifies individual department requirements, role or position responsibilities, key job functional requirements and level of responsibility. Needs will be analyzed from a cost benefit perspective and may include analysis of lease space alternatives. As growth continues, needs for expanded support or Administrative Space will be identified in the annual School Board Adopted CIP.

Section 9: Conclusion and Future Updates

The LCPS Capital Facility Planning Guidelines will continue to serve as the School Board and Loudoun County Board of Supervisors endorsed guide to the development of school facility projects including buildings and sites, renovations, and new construction alike via adoption of the CIP. Changes to the Educational Specifications will continue to be required over time with VDOE updates or other legislative revisions. These updates would be presented during the School Board's subsequent Capital Budget Process. The effect of growth within the County will continue to be managed to ensure resource equity between older and newer facilities such that all students, faculty and staff have access to quality facilities, resources, technology, and instructional programs.

