



Transportation and Capital Infrastructure

The Department of Transportation and Capital Infrastructure (DTCI) manages capital facility planning, assists with the preparation of the capital budget, and the planning, design, and construction of capital projects for the County through the Capital Improvement Program (CIP). DTCI also is responsible for the County's transportation system, which includes transit and commuter services, long range transportation planning, and traffic engineering.

Transportation and Capital Infrastructure's Programs¹

Capital Design and Construction

Manages the design and construction of capital facilities and road projects while ensuring compliance with applicable federal, state, and local codes, standards, and specifications; administers land acquisition for public infrastructure projects and provides quality control and delivery of projects on schedule and within budget.

Transportation Planning and Operations

Responsible for addressing all matters relating to the County's multimodal transportation system. This includes the development and implementation of the Countywide Transportation Plan through the land development referral process, the completion of traffic engineering projects in response to community concerns, and the planning and management of the County's transit and commuter service programs.

Capital Coordination, Funding, and Policy

Represents and advocates Loudoun County transportation-related priorities at numerous regional organizations. Participates in the review of legislative proposals, development and review of proposed projects for the CIP, jointly with the Department of Finance and Budget, oversees the financial management of capital project accounts with multiple funding sources, and prepares and monitors the department's operating budget.

¹ Budget pages were developed to be consistent with the FY 2020 Program Review. DTCI has made subsequent organizational changes that will be reflected in future budgets.



Transportation and Capital Infrastructure

Budget Analysis

Department Financial and FTE Summary¹

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Proposed	FY 2022 Projected
Expenditures					
Personnel	\$6,666,840	\$7,612,508	\$4,046,358	\$4,521,233	\$4,656,870
Operating and Maintenance	19,908,835	20,748,866	24,799,850	28,250,523	28,533,028
Other Uses Of Funds	231,491	220,975	210,458	0	0
Total – Expenditures	\$26,807,165	\$28,582,349	\$29,056,666	\$32,771,756	\$33,189,898
Revenues					
Permits, Fees, and Licenses	\$126,242	\$255,477	\$200,310	\$220,116	\$220,116
Charges For Services	9,131,128	9,516,510	9,243,484	10,475,241	10,475,241
Miscellaneous Revenue	443,501	1,012,507	1,382,077	510,000	510,000
Recovered Costs	453,478	463,703	460,133	685,559	685,559
Intergovernmental – Commonwealth	3,540,719	3,669,582	3,377,395	3,555,783	3,555,783
Intergovernmental – Federal	148,166	118,155	96,680	86,580	86,580
Other Financing Sources	4,889,769	5,640,355	0	0	0
Total – Revenues	\$18,733,003	\$20,676,290	\$14,760,079	\$15,533,278	\$15,533,278
Local Tax Funding	\$8,074,163	\$7,906,059	\$14,296,587	\$17,238,478	\$17,656,620
FTE	63.00	71.00	33.00	35.00	35.00

Department Financial and FTE Summary – Capital Projects Fund²

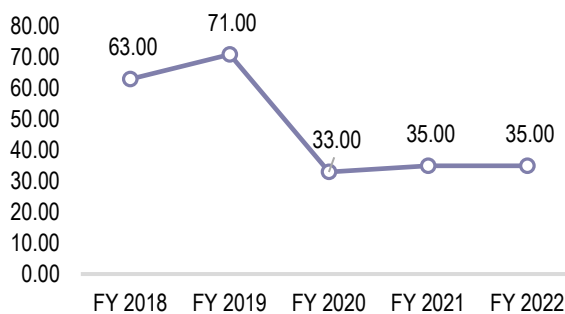
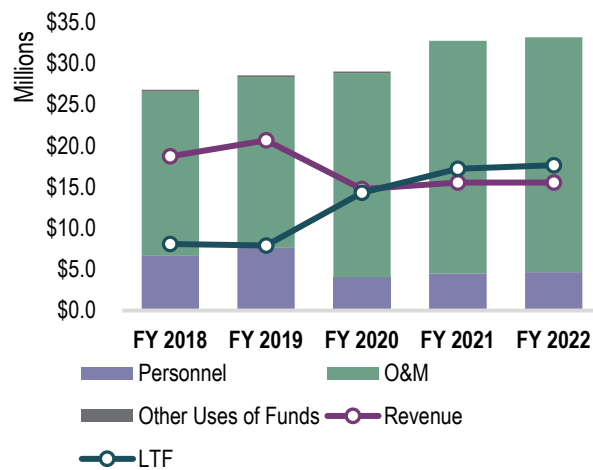
	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Proposed	FY 2022 Projected
Expenditures					
Personnel	\$0	\$0	\$6,328,147	\$6,511,404	\$6,706,746
Total – Expenditures	\$0	\$0	\$6,328,147	\$6,511,404	\$6,706,746
Revenue					
Revenue	\$0	\$0	\$6,328,147	\$6,511,404	\$6,706,746
Total – Revenue	\$0	\$0	\$6,328,147	\$6,511,404	\$6,706,746
Local Tax Funding	\$0	\$0	\$0	\$0	\$0
FTE	0.00	0.00	48.00	48.00	48.00

¹ Sums may not equal due to rounding.



Transportation and Capital Infrastructure

Revenue and Expenditure History



Revenue/Local Tax Funding

As shown, DTCI is primarily funded by local tax funding (over 52 percent). Program-generated revenue consists of state assistance for transit operations, fares from transit operations, and some land development revenue.

Expenditure

The majority of DTCI's expenditure budget is dedicated to operating and maintenance costs. Increases in operating costs have predominantly been driven by the growth of the transit program. The decrease in personnel from FY 2019 to FY 2020 reflects the shift of 43.00 FTE to the Capital Projects Fund.

Staffing/FTE History

FY 2018: 1.00 FTE civil engineer, 1.00 FTE utility engineer, 1.00 FTE management analyst

FY 2019: 3.00 FTE civil engineers, 1.00 FTE traffic engineer, 1.00 FTE land acquisition manager, 2.00 FTE construction managers, 1.00 FTE field technician

FY 2019 Mid-Year: 1.00 FTE senior transportation engineer

FY 2020: 2.00 FTE senior transportation planners, 1.00 FTE administrative assistant, 1.00 FTE e-Builder and Technology Specialist, 1.00 FTE chief of staff (now deputy director), 2.00

FTE civil engineers, 1.00 FTE project architect, 1.00 FTE land acquisition manager, 6.00 FTE capital support staff were transferred to the Capital Projects Fund, 37.00 FTE direct capital staff were transferred to the Capital Projects Fund.

DTCI's expenditures have increased primarily due to operating and maintenance costs, which make up 86 percent of DTCI's expenditures. The increase in operating and maintenance from FY 2020 to FY 2021 includes the resource request funding for the additional transit routes and costs associated with the procurement and accounting specialist and GIS analyst positions. From FY 2019 to FY 2020, personnel expenditures decreased by 47 percent within DTCI's General Fund budget, as 43 positions that support and execute the CIP were moved to the Capital Projects Fund.

Recent changes to revenue in the General Fund for DTCI include a removal of the transfer into the Department from the CIP in FY 2020 due to the movement of positions to the Capital Projects Fund. Previously these positions were funded by a transfer from the Capital Projects Fund to the General Fund. The commuter bus service remains predominantly funded through fares and state operating assistance. DTCI also receives a small portion of land development revenue.

The FY 2021 Proposed Budget includes several base budget adjustments that support the current level of service. Several of those adjustments involve the maintenance of software and licenses. One such increase of \$100,000 has been included for license increases for eBuilder and the fee for App Exchange, which is necessary to integrate eBuilder and Oracle, helping ensure the anticipated completion of the integration project in FY 2021. In the Residential Parking Permit District (RPPD) program, \$1,500 has been added to maintain the software license that is utilized to manage the program. Last, \$7,500 has been added to address the need for additional licenses for Synchro, a traffic engineering software, within the Transportation Planning Activity. In addition, \$300,000 was added for contractual services to support Board Member Initiatives requested of



Transportation and Capital Infrastructure

DTCI, such as pre-construction studies that may evolve into a capital project. Lastly, an increase of \$285,600 has been included for paratransit services. DTCI currently provides these services within a three-quarter mile radius of the existing transit routes, per federal law. This increase will cover the paratransit requirements as Metrorail opens in Loudoun, and the County must provide paratransit options around the Metro Stations within the County.

The FY 2020 Adopted Budget included 9.00 FTE for various positions across the Department. Recruitment efforts are a high priority for the department, have been successful, and will continue. One of those positions, the chief of staff position, was classified to be a deputy director to assist with Department management. For FY 2021, DTCI's resources included in the Proposed Budget focus on capital facility openings, internal support, and evolving development patterns.

Capital Facility Openings

In FY 2021, Metrorail is scheduled to begin service in Loudoun County. In preparation for this, DTCI developed and presented a plan for transit service to the Silver Line Metro Stations at the 2019 Transit Summit. This plan will provide local fixed route service to the Loudoun Gateway and Ashburn Stations from areas around the County. In total, seven new routes will be added from points in Ashburn Village, Ashburn Farm, Brambleton, Broadlands, Leesburg, and South Riding. At the same time, two routes, which currently start from the location of the Ashburn Metro Station, will be eliminated. The local tax funded portion of this service is included in the FY 2021 Proposed Budget, totaling approximately \$2,288,619. Service is scheduled to begin at the same time as the revenue service at the stations.

Internal Support

The FY 2021 Proposed Budget includes 1.00 FTE for a procurement and accounting specialist to help support CIP projects and staff. As the number of CIP projects has expanded over the years, the volume of purchase orders, change orders, invoices, and construction pay applications has also increased. While the Board has added project staff to carry out the work of the CIP, new support staff has been limited to an additional administrative assistant, approved in FY 2020. As a result, project managers handle the bulk of basic financial entry, which results in errors due to the detailed and time-consuming nature of these transactions. When purchase orders, invoices, and other financial items and processes are incorrect, this causes delays in the progress of capital projects and traffic studies. The procurement and accounting specialist will help address these issues.

The procurement and accounting specialist will provide quality control over department financial processes and help department staff navigate the complexities of procurement and accounting processes in a construction environment through training and individual help. This position will handle commitment changes due to bond sales, serve as a buyer, take on the responsibility of complex purchase orders and change orders, and review and close purchase orders in a timely manner, and solve reconciliation issues. Finally, the position will work with vendors to ensure they follow the County's requirements to meet a service goal of entering error free financial processes into Oracle within three days.

Evolving Development Patterns

The FY 2021 Proposed Budget includes 1.00 FTE for a Geographic Information Systems (GIS) analyst to meet the demand for mapping and spatial analysts required by capital projects. As the number of capital projects and general workload of the department has increased, the demand for mapping and spatial analysis has also increased. This is true across all of DTCI's lines of business; expertise in spatial analysis is needed from survey work to traffic engineering to planning transit routes. With the addition of the Silver Line, demand for many of DTCI's services are expected to increase, along with the need for maps to visualize virtually every project managed by the department. Currently, DTCI relies on the Office of Mapping and Geographic Information (MAGI) and, in some cases, contractual services for all mapping and spatial analysis needs. While this has worked in the past, the workload and quick turnaround required for many projects necessitates an internal resource



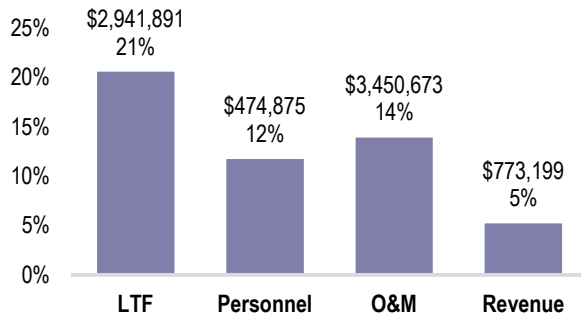
Transportation and Capital Infrastructure

of a GIS analyst position able to coordinate the needs of the Department. This position will provide services in the areas of data organization, data collection, and spatial analysis across the entire DTCI operation. This will create an efficiency within the department, allowing better responsiveness to deadlines and the requests of DTCI customers, while streamlining coordination with MAGI staff.



Transportation and Capital Infrastructure

Percent Change from Adopted FY 2020 to Proposed FY 2021



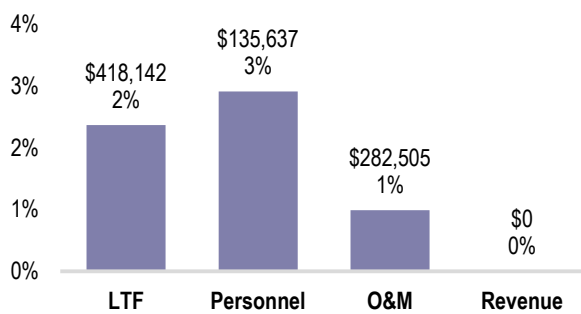
Reasons for Change:

Personnel: ↑ 2.00 FTE, general pay increases ||

O&M: ↑ base adjustments for contractual services, licenses, and paratransit and the new transit routes

Revenue: ↑ increase in commuter bus fares

Percent Change from Proposed FY 2021 to Projected FY 2022



Reasons for Change:

Personnel: ↑ 3 percent || **O&M:** ↑ 1 percent

Revenue: ↔



Transportation and Capital Infrastructure

FY 2021 Proposed Resource Requests¹

Capital Facility Openings: Post-Metrorail Transit Routes

Personnel:	O&M:	Capital:	Reallocation:	Revenue:	LTF:	FTE:
\$0	\$2,288,619	\$0	\$0	\$0	\$2,288,619	0.00

Details

Service Level:	Enhanced Service Level Request
Mandates:	Not mandated
PM Highlight:	None
Program:	Transportation Planning and Operations
Positions:	None
Theme:	Capital Facility Openings
One-time Costs:	\$0
Recurring Costs:	\$2,288,619

Overview

- This includes the local tax funding necessary to operate seven new routes that were discussed at the 2019 Transit Summit.
- These routes will provide neighborhood connectivity via the local fixed route service with the two Loudoun Metrorail stations.
- Service on these routes will begin when Metro revenue service begins, currently estimated at the second quarter of FY 2021.

Priority 1: Procurement and Accounting Support Specialist

Personnel:	O&M:	Capital:	Reallocation:	Revenue:	LTF:	FTE:
\$98,342	\$7,755	\$12,500	\$0	\$0	\$118,597	1.00

Details

Service Level:	Current Service Level Request
Mandates:	Not mandated
PM Highlight:	Number of capital purchasing and accounting items processed through e-Builder
Program:	Capital Construction
Positions:	1 Procurement and Accounting Support Specialist
Theme:	Internal Support
One-time Costs:	\$19,540
Recurring Costs:	\$99,057

Overview

- There has been an increased volume of purchase orders, change orders, invoices, and construction pay applications tied to the execution of the CIP.
- With the growth of this work, the error rate associated with data entry for these processes has also increased due to a static administrative staff. This has caused delays.
- This position will provide quality control over these financial and procurement processes and provide needed guidance on errors as they arise.

¹ The requests presented display total cost, including the acquisition of vehicles, technology, and office furniture (as applicable). Funds for these items are shown in the Non-Departmental section, page 6-2.



Transportation and Capital Infrastructure

Priority 2: GIS Analyst

Personnel:	O&M:	Capital:	Reallocation:	Revenue:	LTF:	FTE:
\$98,342	\$11,290	\$12,500	\$0	\$0	\$122,132	1.00

Details

Service Level: Enhanced Service Level Request
Mandates: Not mandated
PM Highlight: None
Program: Capital Construction
Positions: 1 GIS Analyst
Theme: Evolving Development Patterns

One-time Costs: \$23,075
Recurring Costs: \$99,057

Overview

- This position will provide needed services in the areas of data organization, data collection, and spatial analysis to support all aspects of the DTCL operation.
- With the growing need for mapping data across the department, having an internal resource would create a great efficiency for the department. In particular, there is an anticipated increase in demand for these services with the arrival of Metro.
- While the department would still work with MAGI, it would not have to rely so heavily on MAGI staff.

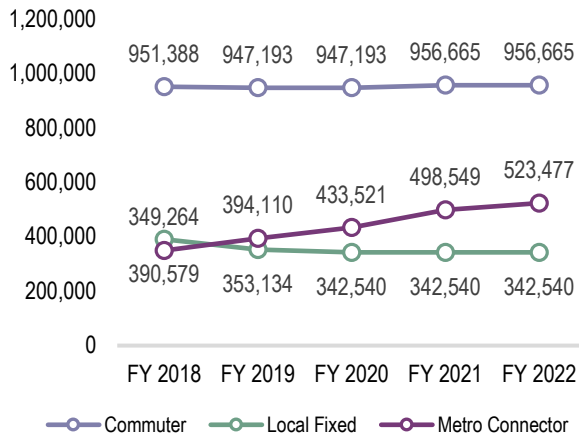
Department Total

Personnel:	O&M:	Capital:	Reallocation:	Revenue:	LTF:	FTE:
\$196,684	\$2,307,664	\$25,000	\$0	\$0	\$2,529,348	2.00



Transportation and Capital Infrastructure

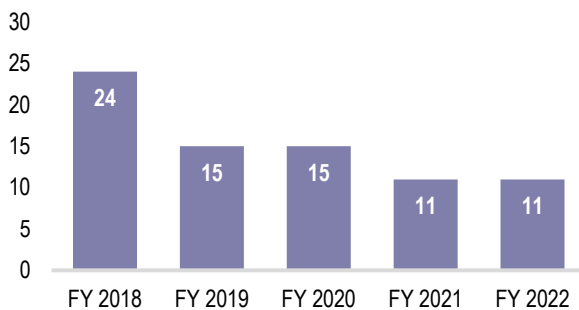
Key Measures



Objective: Provide a safe and reliable transit system to meet the needs of Loudoun residents.

Measure: Transit Ridership.

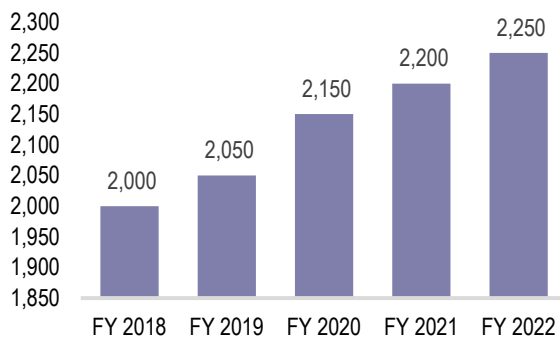
This measure provides transit ridership across all transit services. The Local Fixed Route includes ridership for the Paratransit service.



Objective: Deliver approved capital projects in accordance with established CIP schedule.

Measure: Capital construction projects completed.

This measure provides a summary of the number of capital projects anticipated to be completed in a given year.



Objective: Deliver approved capital projects in accordance with established CIP schedule.

Measure: Number of capital purchasing and accounting items processed through e-Builder.

This measure shows the growth of the financial and accounting workload over time. The procurement and accounting specialist position is needed to manage the workload to limit delays.



Transportation and Capital Infrastructure

Department Programs

Department Financial and FTE Summary by Program¹

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Proposed	FY 2022 Projected
Expenditures					
Capital Coordination, Funding, and Policy	\$624,840	\$875,395	\$534,005	\$659,172	\$672,136
Capital Design and Construction	4,430,652	4,842,566	282,056	558,233	563,816
Transportation Planning and Operations	21,751,673	22,864,388	28,240,605	31,554,351	31,953,947
Total – Expenditures	\$26,807,165	\$28,582,349	\$29,056,666	\$32,771,756	\$33,189,898
Revenues					
Capital Coordination, Funding, and Policy	\$208,439	\$220,651	0	0	0
Capital Design and Construction	4,584,193	5,321,880	0	0	0
Transportation Planning and Operations	13,940,371	15,133,759	14,760,079	15,533,278	15,533,278
Total – Revenues	\$18,733,003	\$20,676,290	\$14,760,079	\$15,533,278	\$15,533,278
Local Tax Funding					
Capital Coordination, Funding, and Policy	\$416,401	\$654,744	\$534,005	\$659,172	\$672,136
Capital Design and Construction	(153,541)	(479,313)	282,056	558,233	563,816
Transportation Planning and Operations	7,811,303	7,730,629	13,480,526	16,021,073	16,420,669
Total – Local Tax Funding	\$8,074,163	\$7,906,059	\$14,296,587	\$17,238,478	\$17,656,620
FTE					
Capital Coordination, Funding, and Policy	5.00	4.00	2.00	2.00	2.00
Capital Design and Construction	34.00	41.00	0.00	0.00	0.00
Transportation Planning and Operations	24.00	26.00	31.00	33.00	33.00
Total – FTE	63.00	71.00	33.00	35.00	35.00

¹ Sums may not equal due to rounding.