

# FIXED TRANSPORTATION EQUIPMENT

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## Fixed Transportation Equipment Proposed FY 2017 – 2026 Capital Improvement Program Summary of Projects

*Note: Projects with \$0 total funding are active capital projects funded in prior CIPs that do not require additional resources.*

	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	TOTAL FY 17-26
<b>Transportation</b>											
<b>Fixed Transportation Equipment</b>											
Citywide Parking - Parking Study	150,000	0	0	0	0	0	0	0	0	0	150,000
Citywide Parking - Parking Technologies	0	110,000	200,000	0	400,000	0	0	0	0	0	710,000
Citywide Trans. Mgmt. Tech. - Broadband TSA Communications Link	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Citywide Trans. Mgmt. Tech. - Intelligent Transportation Systems (ITS) Integration	1,918,000	7,000,000	0	0	0	0	0	0	0	0	8,918,000
Citywide Trans. Mgmt. Tech. - Traffic Control Upgrade	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	900,000
Citywide Trans. Mgmt. Tech. - Transportation Technologies	175,000	250,000	250,000	0	0	0	0	250,000	0	0	925,000
Fixed Transportation Equipment	850,000	1,450,000	850,000	850,000	850,000	850,000	2,350,000	850,000	850,000	850,000	10,600,000
Citywide Transportation Management System (SCOOT/Tdi)	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>4,193,000</b>	<b>8,910,000</b>	<b>1,400,000</b>	<b>950,000</b>	<b>1,350,000</b>	<b>950,000</b>	<b>2,450,000</b>	<b>1,200,000</b>	<b>950,000</b>	<b>850,000</b>	<b>23,203,000</b>

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## Fixed Transportation Equipment

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: 49411771

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 1 – Asset Maintenance  
 Estimated Useful Life: Varies

Fixed Transportation Equipment													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	27,672,833	17,072,833	850,000	1,450,000	850,000	850,000	850,000	850,000	2,350,000	850,000	850,000	850,000	10,600,000
Financing Plan													
Prior City Funding	16,222,833	16,222,833											0
Cash Capital	2,875,000	225,000	225,000	425,000	225,000	225,000	225,000	225,000	425,000	225,000	225,000	225,000	2,650,000
General Obligation Bonds	8,575,000	625,000	625,000	1,025,000	625,000	625,000	625,000	625,000	1,925,000	625,000	625,000	625,000	7,950,000
<b>Total Financing Plan</b>	<b>27,672,833</b>	<b>17,072,833</b>	<b>850,000</b>	<b>1,450,000</b>	<b>850,000</b>	<b>850,000</b>	<b>850,000</b>	<b>850,000</b>	<b>2,350,000</b>	<b>850,000</b>	<b>850,000</b>	<b>850,000</b>	<b>10,600,000</b>
Additional Operating Impact													
Annual Impact				2,500	5,000	7,500	10,000	12,500	15,000	17,500	20,000	22,500	112,500
Cumulative Impact			0	2,500	7,500	15,000	25,000	37,500	52,500	70,000	90,000	112,500	112,500
Changes from Prior Year CIP: Funding added for FY 2026. No other changes from prior year CIP.													

### Project Description & Justification

This project provides annual funding for the upgrade, maintenance and replacement of traffic control and parking equipment, as well as the installation of new traffic signals. Of particular importance is the replacement of traffic signal poles. Traffic signal poles have a design life of 25 to 30 years. With more than 250 signalized intersections in operation, numerous traffic signal poles throughout the City are approaching the end of their design life and will require replacement. Staff plans to replace the poles at five intersections per year.

Funding is also provided for replacement of the multi-space meters in East Eisenhower/Carlyle in FY 2018 and in Old Town in FY 2023. As with all technology driven devices, these meters will have reached the end of their useful life and will need to be replaced.

All funding will be used for the procurement of equipment and construction service.

Annual funding maintains the value of the City's physical assets through the maintenance of critical traffic control infrastructure. Additionally, public safety concerns are addressed by installing new traffic signals to improve the safety at dangerous intersections.

### City's Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Accountable, Effective, & Well-Managed Government**

- Ensure the government is accountable to the community
- Ensure the fiscal strength of the City government

**Focus Area: Livable, Green, and Prospering City**

- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure
- Increase transportation system mobility, connectivity, and accessibility that supports the City's economy

### External or Internal Adopted Plan or Recommendation

- N/A

### Additional Operating Budget Impact

This project is ongoing and provides for the upgrade, maintenance and replacement of traffic control and parking equipment, as well as the installation of new traffic signals and small scale parking meter projects. Staff estimates that one new traffic signal will be constructed per year with an annual operating impact of \$2,500 per signal. No signals are planned in FY 2017, so the additional operating impact begins in FY 2018.

*Fixed Transportation Equipment (Continued)*

## Fixed Transportation Equipment Category 1 Project List

Fiscal Year 2017	
Description	Amount
Reconstruct signal at Bashford & Abingdon	\$ 150,000
Reconstruct signal at Columbus & Prince	\$ 120,000
Reconstruct signal at Wilkes & Columbus	\$ 120,000
Reconstruct signal at Alfred & Cameron	\$ 120,000
Reconstruct signal at Alfred & Prince	\$ 120,000
Reconstruct signal at King, Callahan, & Russell	\$ 135,000
Repair and upgrade of traffic signal vehicle detection	\$ 35,000
Knockdowns from accidents	\$ 50,000
<b>Total Fiscal Year 2017</b>	<b>\$ 850,000</b>
Fiscal Year 2018	
Description	Amount
Reconstruct signal at Van Dorn & Van Dorn Plaza	\$ 150,000
Reconstruct signal at King & Dearing	\$ 150,000
Reconstruct signal at King & Menokin	\$ 150,000
Reconstruct signal at King & 28th	\$ 150,000
Repair and upgrade of traffic signal vehicle detection	\$ 50,000
Knockdowns from accidents	\$ 50,000
Replace Carlyle Multi-space meters	\$ 600,000
New signal (undetermined location)	\$ 150,000
<b>Total Fiscal Year 2018</b>	<b>\$ 1,450,000</b>
Fiscal Year 2019	
Description	Amount
Reconstruct signal at St. Asaph & Montgomery	\$ 120,000
Reconstruct signal at St. Asaph & Madison	\$ 120,000
Reconstruct signal at St. Asaph & Pendleton	\$ 130,000
Reconstruct signal at Columbus & Montgomery	\$ 120,000
Reconstruct signal at Columbus & Madison	\$ 120,000
Reconstruct signal at Columbus and Wythe	\$ 130,000
Repair and upgrade detection	\$ 60,000
Knockdowns from accidents	\$ 50,000
<b>Total Fiscal Year 2019</b>	<b>\$ 850,000</b>

## Traffic Control Upgrade

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: TBD

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 1 – Asset Maintenance  
 Estimated Useful Life: Varies

Traffic Control Upgrade													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	1,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	900,000
Financing Plan													
Cash Capital	1,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	900,000
Total Financing Plan	1,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	900,000
Additional Operating Impact													
Annual Impact			0	0	0	0	0	0	0	0	0	0	0
Cumulative Impact			0	0	0	0	0	0	0	0	0	0	0
Changes from Prior Year CIP: No changes from prior CIP.													

### Project Description & Justification

The Traffic Control Upgrade project will fund the maintenance and upgrading of transportation management technology systems. The recent completion of the ITS Integration Phase I project installed technology driven infrastructure, such as a broad band fiber optic communications network throughout parts of the City, traffic surveillance cameras, and a management center at Business Center Drive.

Future phases of the ITS Integration project will expand the fiber optic network, add more traffic cameras as well as add other devices, such as pavement temperature sensors and flood monitoring stations. The information from all these devices will go to the management center at Business Center Drive. The management center will be activated during snow removal operations and emergency events as well as for transportation management. The technology infrastructure associated with this initiative will be maintained and upgraded with the funding from this program. Technology has a short life and must constantly be upgraded to prevent obsolescence and failure. These devices are expensive and if one fails prematurely, staff needs to have a readily available source of funding to purchase replacements.

### City's Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Accountable, Effective, & Well-Managed Government**

- Ensure the government is accountable to the community
- Ensure the fiscal strength of the City government

**Focus Area: Livable, Green, and Prospering City**

- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure
- Increase transportation system mobility, connectivity, and accessibility that supports the City's economy

**External or Internal Adopted Plan or Recommendation**

- N/A

### Additional Operating Budget Impact

No additional impact to the operating budget is anticipated.

## Citywide Transportation Management Technologies – Intelligent Transportation Systems (ITS) Integration

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: 49411772

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 3 – New Facilities  
 Estimated Useful Life: Varies

Intelligent Transportation Systems (ITS) Integration													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	15,607,525	6,689,525	1,918,000	7,000,000	0	0	0	0	0	0	0	0	8,918,000
Financing Plan													
Prior City Funding	39,356	39,356											0
State/Federal Grants	13,650,169	6,650,169	0	7,000,000	0	0	0	0	0	0	0	0	7,000,000
CMAQ/RSTP	1,918,000	0	1,918,000	0	0	0	0	0	0	0	0	0	1,918,000
Total Financing Plan	15,607,525	6,689,525	1,918,000	7,000,000	0	0	0	0	0	0	0	0	8,918,000
Additional Operating Impact													
Annual Impact			10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	114,639
Cumulative Impact			10,000	20,300	30,909	41,836	53,091	64,684	76,625	88,923	101,591	114,639	114,639
Changes from Prior Year CIP: Planned FY 2017 funding remains unchanged from prior CIP. In FY 2018, \$7,000,000 has been added to reflect grants that T&ES plans to pursue to continue ITS Integration-related initiatives.													

### Project Description & Justification

This project provides funding for the deployment and upgrade of Intelligent Transportation Systems (ITS). Much of this work will focus on designing and constructing a broadband communications network, installing traffic cameras and other field devices, such as weather stations, flood monitoring equipment, pavement temperature sensors, etc. This is a multiphase project that is primarily grant funded.

ITS Integration Phase I has been completed. This phase of the project installed a broadband fiber optic communications network, 11 traffic surveillance cameras, and a management center at Business Center Drive.

ITS Integration Phase II will be advertised for construction in the third/fourth quarter of FY 2015 and take approximately 18 months to complete. Phase II will expand the communications network installed in Phase I and install additional traffic surveillance cameras. Future phases of the project will add new capabilities, such as pavement temperature sensors, flood monitors and future vehicle to infrastructure technology applications currently being developed by the Federal Government.

Completion of this project will replace much of the City's 30 year old traffic signal communications and allow public safety department technology to monitor conditions on the City's roadway network.

Staff has requested additional HB2 grant funding in the amount of \$7 M for adaptive traffic signal control and \$1 M for a CCTV system to monitor traffic in west Eisenhower.

City's Strategic Plan & Budget Guidance
<p><b>Primary Strategic Plan Goal: Goal 3 – Transportation</b></p> <p><b>Focus Area: Livable, Green, and Prospering City</b></p> <ul style="list-style-type: none"> <li>Increase transportation system mobility, connectivity, and accessibility that supports the City's economy</li> <li>Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure</li> </ul>
<p style="text-align: center;"><b>External or Internal Adopted Plan or Recommendation</b></p> <ul style="list-style-type: none"> <li>N/A</li> </ul>

Additional Operating Budget Impact
<p>Additional operating costs estimated based on hardware and software requirements to run CCTV cameras and manage the network.</p>

## Citywide Transportation Management System (SCOOT/TDi)

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: TBD

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 3 – New Facilities  
 Estimated Useful Life: Varies

Citywide Transportation Management System (SCOOT/TDi)													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	500,000	500,000	0	0	0	0	0	0	0	0	0	0	0
Financing Plan													
NVTA 70%	500,000	500,000	0	0	0	0	0	0	0	0	0	0	0
Total Financing Plan	500,000	500,000	0	0	0	0	0	0	0	0	0	0	0
Additional Operating Impact													
Annual Impact			0	0	0	0	0	0	0	0	0	0	0
Cumulative Impact			0	0	0	0	0	0	0	0	0	0	0
Changes from Prior Year CIP: No changes from prior year CIP. This is an active project with no additional funding requested.													

### Project Description & Justification

The Split Cycle Offset Optimization Technique/Transportation Data Information (SCOOT/TDi) system is an advanced, real-time system that tracks movement of all transportation modes through the transportation network. This technology will advance the City's signal system so that staff can utilize this real time travel information for better optimization of signal timings as well as optimal planning for infrastructure projects.

SCOOT analyzes real-time traffic data to optimize the operation of traffic signals in the network. TDi anonymously locates and tracks the movement of cellular devices (3G/4G/CDNA/GSM networks). Filters differentiate between modes of transportation and vehicles. By monitoring cellular device movement over time, the system is able to determine the speed at which a vehicle/pedestrian is traveling and thus the flow of traffic along any section of road. Tracking specific anonymous cellular devices provides current and historical data on origins, destinations, route selection and travel speed, providing powerful and robust planning and operations data.

This project has three components – concept strategy and benefits mapping (CS), preliminary engineering (PE), and implementation. Funding was provided only for the CS phase through NVTA 70% funds in FY 2015.

The concept strategy (CS) phase will involve thorough understanding of the City of Alexandria travel and traffic arrangements, key stakeholders, and the benefits to be realized from a project of this scale. Major wireless service providers will be queried to assess interest and determine the costs and ability of the various providers to provide the required service. The concept phase output will be a full brief for the PE and implementation phases.

The future PE phase will involve developing (1) concept of operations, (2) system requirements, (3) high level design, (4) detailed design, (5) bid package, estimates, and project schedule, and (6) system and subsystem validation, verification and testing plans. The implementation phase will involve installation, integration, validation, verification, testing, and acceptance of the system.

### City's Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Livable, Green, and Prospering City**

- Increase transportation system mobility, connectivity, and accessibility that supports the City's economy
- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure

#### External or Internal Adopted Plan or Recommendation

- N/A

### Additional Operating Budget Impact

None at this time. Funding provided for an initial planning and feasibility study only.

## Citywide Transportation Management Technologies – Transportation Technologies

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: 49412090

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 3 – New Facilities  
 Estimated Useful Life: Varies

Transportation Technologies													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	1,578,400	653,400	175,000	250,000	250,000	0	0	0	0	250,000	0	0	925,000
Financing Plan													
TIP - Cash	1,463,400	538,400	175,000	250,000	250,000	0	0	0	0	250,000	0	0	925,000
Reprogrammed TIP Bonds	115,000	115,000	0	0	0	0	0	0	0	0	0	0	0
Total Financing Plan	1,578,400	653,400	175,000	250,000	250,000	0	0	0	0	250,000	0	0	925,000
Additional Operating Impact													
Annual Impact			0	0	0	TBD							
Cumulative Impact			0	0	0	TBD							
Changes from Prior Year CIP: Funding from FY 2020 and FY 2022 was moved up to FY 2018 and FY 2019. Otherwise, no changes from prior CIP.													

### Project Description & Justification

This project funds the deployment of small, undefined transportation technology projects to improve efficiency of the transportation network through technology.

In the past this funding was used to upgrade the parking meter modems from 2G to 3G to ensure continued operation and reliability as cellular providers phase out 2G service.

Future uses of this money include procuring real time passenger information systems and Voice Annunciator systems for DASH, procuring pavement sensors, traffic monitoring technology and upgrades allowing Ethernet communications to some traffic signals.

### City’s Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Livable, Green, and Prospering City**

- Increase transportation system mobility, connectivity, and accessibility that supports the City’s economy
- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure

### External or Internal Adopted Plan or Recommendation

- N/A

### Additional Operating Budget Impact

Unknown at this time. Operating costs will be determined once the full scope of work for the technologies implemented is identified.

## Parking Technologies

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: TBD

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 3 – New Facilities  
 Estimated Useful Life: 10 years

Parking Technologies													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	710,000	0	0	110,000	200,000	0	400,000	0	0	0	0	0	710,000
Financing Plan													
CMAQ/RSTP	710,000	0	0	110,000	200,000	0	400,000	0	0	0	0	0	710,000
Total Financing Plan	710,000	0	0	110,000	200,000	0	400,000	0	0	0	0	0	710,000
Additional Operating Impact													
Annual Impact			0		TBD								
Cumulative Impact			0	0	TBD								

Changes from Prior Year CIP: Funding remains unchanged for FY 2018 and FY 2019 from prior CIP. FY 2021 funding decreased by \$100,000.

### Project Description & Justification

This project provides funding for the deployment of new parking technologies, such as real time parking occupancy systems for on-street spaces, website based interactive parking map, dynamic signage that would illustrate real-time parking availability in city-owned garages, and other parking technology. These technologies will mostly be off-the-shelf solutions requiring minimal design and engineering.

This project is fully funded with CMAQ/RSTP funds anticipated in FY 2018 – 2021. Specific projects contemplated include:

- FY 2018 (\$110,000): Phase I – Begin installing sensors in all City owned garages; begin to install sensors or similar technology in on-street spaces; and install dynamic directional signage that would indicate real-time parking availability and direct parkers to available parking spaces.
- FY 2019 (\$200,000): Phase II – Continue installing sensors in all City owned garages; continue installing sensors or similar technology in on-street spaces; and continue installing dynamic directional signage that would indicate real-time parking availability and direct parkers to available parking spaces.
- FY 2021 (\$400,000): Phase III – Develop interactive mobile and web-based applications to display both on-street and off-street real-time parking occupancy and availability using data from sensors installed in Phases I and II.

Depending on technology selected to monitor on-street space utilization and availability, additional funding may be needed to complete this project, or the project’s scope narrowed.

Once implemented, these technologies will support economic development by providing more efficient parking strategies and allow the City to manage parking and traffic assets more efficiently.

### City’s Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Livable, Green, and Prospering City**

- Increase transportation system mobility, connectivity, and accessibility that supports the City’s economy
- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure
- Ensure Alexandria supports, retains, and attracts businesses

### External or Internal Adopted Plan or Recommendation

- Old Town Area Parking Study

### Additional Operating Budget Impact

Unknown at this time. Operating costs will be determined once specific technologies are identified.

## Parking Study

Document Subsection: Non-Motorized Transportation  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): Planning & Zoning  
 ORG: TBD

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category: 1- Asset Maintenance  
 Estimated Useful Life: N/A

Parking Study													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Financing Plan													
TIP	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Total Financing Plan	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Additional Operating Impact													
Annual Impact			0	0	0	0	0	0	0	0	0	0	0
Cumulative Impact			0	0	0	0	0	0	0	0	0	0	0
Changes from Prior Year CIP: This is a new project added for FY 2017.													

### Project Description & Justification

This project will conduct the analysis to recalibrate parking standards for new development. The parking standards in Alexandria’s Zoning Ordinance are out of date. Non-auto travel has increased since current standards were set, and there are indications that household car ownership is declining, requiring an update.

The study will involve an inventory of current standards, review previous parking studies, assess recently approved parking ratios by location by development, and assess parking supply and utilization in existing development projects. The study will also look at on-street parking availability in recently approved residential/mixed use developments with a parking reduction and provide recommendations for standards that have been successfully used in other jurisdictions.

This is a new project added in FY 2017, funded through the Transportation Improvement Program (TIP). It will build on a staff led study for residential parking standards for new development currently underway, and will examine parking standards for commercial uses.

Consistent with the Parking Work Program memorandum provided to Council in FY 2015, this project is being performed in FY 2017 to align with other parking work priorities.

City’s Strategic Plan & Budget Guidance
<p><b>Primary Strategic Plan Goal: Goal 1 – Economic Development</b></p> <p><b>Focus Area: Livable, Green, and Prospering City</b></p> <ul style="list-style-type: none"> <li>Ensure Alexandria supports, retains, and attracts businesses</li> <li>Increase transportation system mobility, connectivity, and accessibility that supports the City’s economy</li> <li>Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure</li> </ul>
External or Internal Adopted Plan or Recommendation
<ul style="list-style-type: none"> <li>Transportation Master Plan approved by City Council, April 2008</li> </ul>

Additional Operating Budget Impact
An additional impact to the operating budget is not anticipated. Funding is provided for study/feasibility work only.

## Citywide Transportation Management Technologies. - Broadband TSA Communications Link

Document Subsection: Fixed Transportation Equipment  
 Managing Department: Transportation & Environmental Services  
 Supporting Department(s): N/A  
 ORG: TBD

Project Location: Citywide  
 Reporting Area: Citywide  
 Project Category/Priority: 3 - New or Updated Facilities  
 Estimated Useful Life: Varies

Broadband TSA Communications Link													
	A (B+M)	B	C	D	E	F	G	H	I	J	K	L	M (C:L)
	Total Budget & Financing	Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total FY 2017-2026
Expenditure Budget	1,000,000	0	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Financing Plan													
State/Federal Grants	1,000,000	0	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Total Financing Plan	1,000,000	0	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Additional Operating Impact													
Annual Impact			TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Cumulative Impact			TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Changes from Prior Year CIP: This is a new project added for FY 2017.													

### Project Description & Justification

The Broadband Transportation Security Administration (TSA) Communications Link project will help mitigate the impacts of the proposed development on Eisenhower Avenue. The new TSA site will require the installation of two new traffic signals. There is no communications infrastructure in place to connect these new signals with the traffic signal system or the signals on either side of the development site. The existing signals on Eisenhower Avenue operate independently and are not synchronized.

This project will include communications conduit and fiber optic cable on Eisenhower Avenue between Van Dorn Street and Clermont Avenue, traffic cameras at key locations along Eisenhower Avenue to monitor TSA traffic, and the communications network to connect the new and existing traffic signals to provide synchronization along Eisenhower Avenue to mitigate the impacts of TSA related traffic.

This project will build onto the infrastructure installed with the ITS Integration Phase I project which has already been completed, as well as likely serve as a segment of the potential citywide broadband initiative.

### City's Strategic Plan & Budget Guidance

**Primary Strategic Plan Goal: Goal 3 – Transportation**

**Focus Area: Livable, Green, and Prospering City**

- Increase transportation system mobility, connectivity, and accessibility that supports the City's economy
- Promote an attractive urban environment that reflects our history and provides well-functioning infrastructure

### External or Internal Adopted Plan or Recommendation

- N/A

### Additional Operating Budget Impact

Additional operating costs estimated based on hardware and software requirements to run CCTV cameras and manage the network. Some operating costs will be determined once the full scope of work for the technologies implemented is identified.

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