CIP-in-Brief

Hampton Roads Transit's FY2025-FY2034
Capital Improvement Plan





Hampton Roads Transit (HRT) is Virginia's largest public transportation agency outside of Washington Metro, supporting millions of trips annually on bus, ferry, light rail, paratransit, and Transportation Demand Management services.

These services are vital for a growing, inclusive, and prosperous region. And just like roads need paving and bridges need repair, public transportation requires ongoing investment to maintain a State of Good Repair and to expand quality transportation options across 6 of Virginia's 10 largest cities (Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Virginia Beach).

The Capital Improvement Plan (CIP) is a blueprint for \$565 million in capital investments over the next ten years. It's a "living document", updated annually.

For FY2025-2034, HRT is addressing core needs like ongoing bus replacements, safety and security, technology upgrades, and customer amenities, and is also strategically planning for transformational investments in the Electrification of fleet and facilities infrastructure.

Mission

To connect Hampton Roads with transportation solutions that are reliable, safe, efficient, and sustainable.

Vision

A progressive mobility agency that promotes prosperity across Hampton Roads through collaboration and teamwork.

CIP Highlights

Among 72 projects total, a handful represent a large share of the agency's 10-year CIP:

- Fleet Investments: Bus replacements, repowers, and additions to the fleet make up the largest share (50%) of HRT's capital plan. The plan provides for strategically phasing the expansion of HRT's electric vehicle fleet, starting with 2 additional battery electric buses (BEBs) as part of the RTS program.
- New Bus Stop Amenities: HRT is upgrading over 600 stops with new passenger amenities such as shelters, seating, and solar lighting. This ongoing project represents the single largest investment in bus stop assets in the region's history.
- Facilities Electrification: In addition to funding the replacement of the old Parks Avenue bus storage and maintenance facility with the new Southside Operating Division, the CIP includes future electrification projects on the Peninsula (3400 Victoria Blvd) and in Norfolk (18th Street).
- Light Rail State of Good Repair: Light rail investments are the third largest investment category. Over the next 10 years, HRT expects to address core light rail state of good repair needs.
- Technology State of Good Repair: HRT has a wide range of technology assets, from software and hardware to complex back-end IT infrastructure. These assets are programmed to be replaced on a regular basis to keep pace with changing technological, user, and security requirements.
- Evelyn T. Butts Transfer Center and Robert Hall Transfer Center: These two facilities, in Norfolk and Chesapeake respectively, are slated to be replaced with larger and higher-quality transfer centers as part of the "757 Express" implementation.



CIP Development and Funding

Projects go through a robust screening, scoring, ranking, and prioritization process to be included in the financially constrained CIP. A mix of funding sources make the CIP possible.

Federal

Federal formula funds (5307, 5337, 5339 programs) are a core capital funding source. Other sources include federal Congestion Mitigation and Air Quality (CMAQ) and Regional Surface Transportation Program (RSTP) grants. Finally, HRT strategically pursues competitive discretionary grant funds. The 10-year CIP makes assumptions for federal discretionary awards, especially to support the phased Electrification of fleet and facilities.

State

Virginia's "Making Responsible Investments in Transit" (MERIT) program is administered through the Virginia Department of Rail and Public Transportation. MERIT provides essential funding for different types of projects: State of Good Repair (up to 68% match), Minor Enhancement (up to 68% match), and Major Expansion (up to 50% match). DRPT also administers technical assistance and other grant funds.

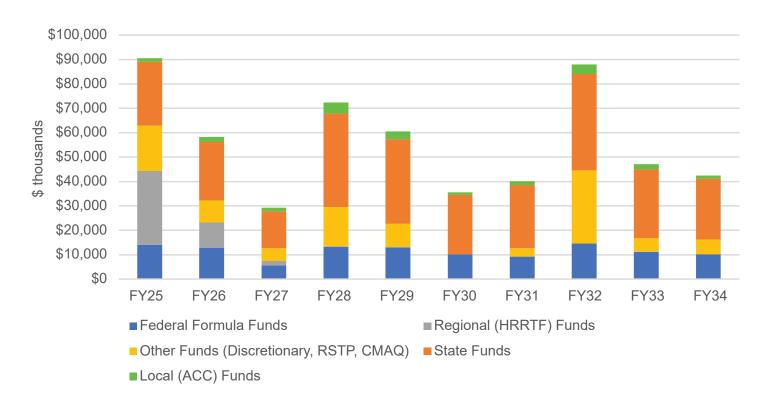
Regional

The Hampton Roads Regional Transit Fund (HRRTF) is administered through the Hampton Roads Transportation Accountability Commission (HRTAC). This funding supports projects for the 757 Express program.

Local Funding

Local funding (Advanced Capital Contributions or "ACC") is modest but important to leverage state and federal grants. HRT receives a total of \$2 million annually in ACC.

Funding by Source and Year



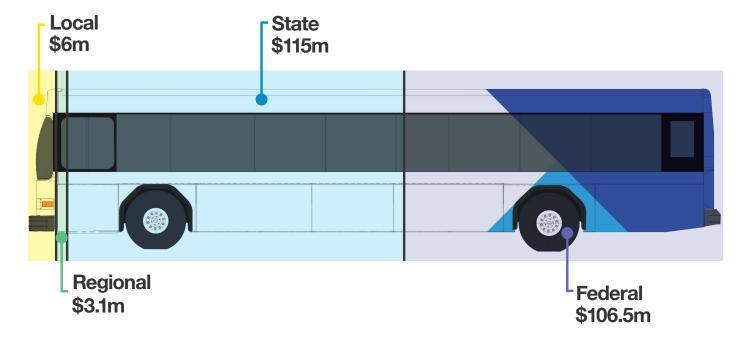




Reliable public transportation requires a reliable fleet of vehicles.

Between buses (currently covering more than 8.7 million miles of service annually), paratransit vehicles, ferries, and non-revenue support vehicles, HRT is responsible for a significant number of fleet assets.

Bus Replacement and Mid-Life Overhauls in the FY2025-2034 CIP illustrate HRT's capital funding mix, and the important role that Local funding (ACC) plays in matching and leveraging other resources.

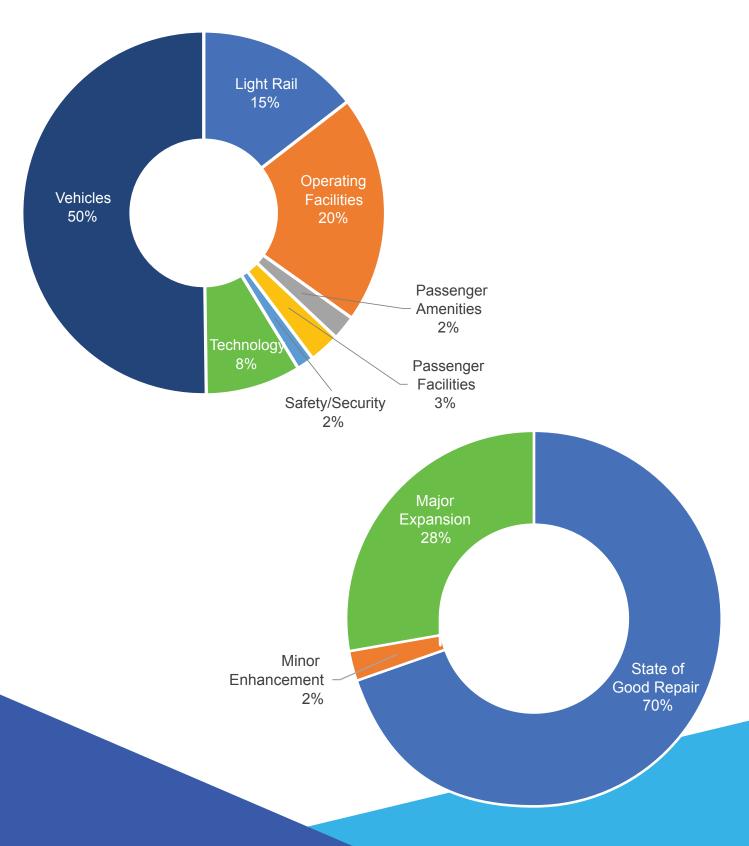


Over the 10-year period, Local Funding (\$6 million) – equal to the cost of about 9 diesel buses – is programmed to match other funding for **176 new replacement buses (including 69 Battery Electric Buses)** and overhaul 148 buses for mid-life upkeep.

Regular vehicle maintenance and replacement help minimize breakdowns, allowing HRT to provide quality service across the region.

Breakdown of Ten-Year Program

by Summary Project Category and Type



Operations (Fleet)

Between its transit buses, paratransit vehicles, support vehicles, and ferries, HRT's non-light rail operations rely on hundreds of vehicles. Transit and paratransit vehicles travel thousands of miles every year, delivering high-quality transit service to HRT's riders. HRT's support fleet allows the agency to perform needed maintenance and to supervise operations on all parts of the system. Regular vehicle maintenance and replacement minimizes breakdowns, allowing HRT to provide high-quality transit service while responding quickly to issues as they arise. CIP funding allows HRT to keep its entire fleet in a state of good repair.

The CIP's ten Operations (fleet) projects account for more than \$280 million in funding, roughly 50 percent of all programmed CIP funds. This year's CIP includes \$120 million for the purchase of 69 battery electric buses (BEBs), in addition to funding an electrification pilot for the support fleet.

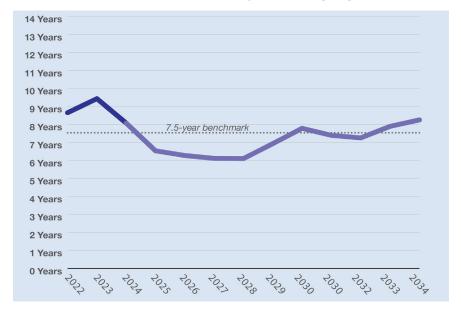
Operations (Fleet) Capital Projects by the Numbers

10 projects

\$283.6 million

in capital needs (year of expenditure dollars) from FY2025 to FY2034









UID	Project Name	Cost (\$ thousands)
OP01	Transit Bus Replacement	\$194,753
OP02	Transit Bus Mid-Life Repower Project	\$21,646
OP03	RTS Transit Bus	\$14,212
OP11	Paratransit Fleet Replacement	\$23,997
OP12	RTS Paratransit	\$1,969
OP30	Ferry Boat State of Good Repair	\$577
OP31	Paratransit Fleet Expansion	\$16,830
NR01	Non-Revenue Fleet Replacement	\$7,371
NR02	RTS Non-Revenue Fleet Expansion and State of Good Repair	\$2,031
NR05	Security Fleet Expansion	\$256
	Total	\$283,641

Projects (Year of Funding in Green)

Transit Bus Replacement (FY25-FY34)

Replace transit buses at the end of the vehicles' useful life and program to purchase Battery Electric Buses (BEBs) to replace diesel buses as part of HRT's transition to a fully electrified fleet.

Transit Bus Mid-Life Repower Project (FY26-FY33)

Conduct a repower of HRT's transit passenger buses at roughly half of their useful life to maintain the vehicles' reliability.

RTS Transit Bus (FY25-FY26, FY28-FY29, FY31-FY33)

Expand and replace buses that are part of HRT's dedicated RTS fleet, and conduct mid-life repower/overhaul on the RTS dedicated fleet.

Paratransit Fleet Replacement (FY25-FY28, FY30-FY33)

Replace HRT-owned paratransit vehicles at the end of their useful life.

RTS Paratransit (FY28, FY33)

Expand and replace paratransit vehicles dedicated to HRT's RTS fleet.

Ferry Boat State of Good Repair (FY25)

Conduct routine state-of-good-repair investments on HRT's ferry fleet.

Paratransit Fleet Expansion (FY26-FY27, FY29, FY31-FY32, FY34)

Expand paratransit fleet to meet growing demand.

Non-Revenue Fleet Replacement (FY25-FY34)

Replace non-revenue support vehicles at the end of their useful life.

RTS Non-Revenue Fleet Expansion and State of Good Repair (FY25, FY32-FY33)

Non-revenue fleet investments associated with the RTS network. Project includes purchasing two additional patrol vehicles and future end-of-life replacement of RTS funded non-revenue fleet.

Security Fleet Expansion (FY25, FY32)

Purchase two patrol vehicles for Extra Duty Officers to utilize while working for HRT.

Facilities and Electrification

Facilities investments play an important role in the public-facing and behind-the-scenes operations at HRT. Our facilities are often the first point of contact customers have with our systems. Bus stop infrastructure, including shelters, benches, and lighting, enhance the passenger experience by providing protection from harsh weather and a safe place to wait for the bus. Transit center relocations and upgrades both enhance passenger experience and improve operating efficiency by supporting service expansion and improving the transfer experience. Investing in HRT facilities allows the agency to maintain a state of good repair while upgrading existing facilities to ensure that riders, operators, and agency employees are comfortable and safe while taking transit or at work.

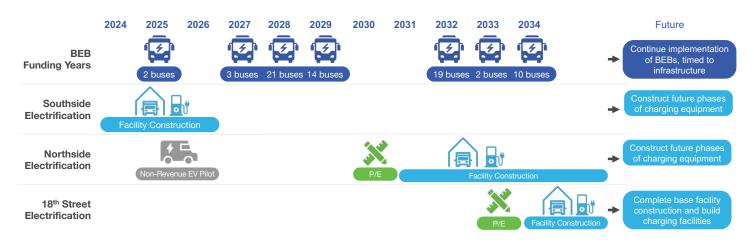
Investing in HRT's facilities is a critical step toward achieving our goal of transitioning fully to a zero-emissions fleet. By investing in the electrification of HRT's operating facilities, we will have the infrastructure and capacity to charge electric buses. In addition to reducing HRT's carbon footprint, zero-emission buses will improve local air quality and can reduce the rate of respiratory illnesses. Electric buses will also provide a quieter and more comfortable ride than diesel buses. By investing in electrification, HRT is delivering environmental benefits for the community and improving the overall experience for riders.

Facilities Capital Projects by the Numbers

26 projects \$366.7 million

in capital needs (year of expenditure dollars) from FY2025 to FY2034

Electrification Timeline







UID	Project Name	Cost (\$ thousands)
EF01	3400 Victoria Boulevard Renovation: Phase 2	\$9,007
EF02	New Southside Operating Division	\$50,393
EF03	RTS Bus Stop Amenity Program	\$8,066
EF05	Newport News Transit Center Interior Renovations	\$1,120
EF06	Hampton Transit Center Interior Renovations	\$888
EF07	Wards Corner Restroom and Paving Renovation	\$149
EF10	Evelyn T. Butts Transfer Center Replacement	\$4,000
EF11	Silverleaf Transfer Center Upgrades	\$1,594
EF13	Robert Hall Transfer Center Replacement	\$7,750
EF20	Hampton Facility Electrification	\$179,414
EF21	18th Street Facility Electrification	\$92,394
EF22	Hampton Facility Non-Revenue Electric Charging Pilot	\$1,000
EF24	DNTC Restrooms and Operator Lounge Spaces	\$103
EF26	Parks Avenue Re-Use	\$170
EF27	HRT Concrete Repair Work	\$340
EF30	Bus Stop Amenity Program	\$3,753
EF31	HRT Facilities Signage	\$504
EF32	HRT Systemwide Signage	\$377
EF36	Orcutt Transfer Center	\$515
EF38	Transit Stop Support Equipment	\$155
EF39	18th Street Facility Parking Structure Repair	\$2,189
EF40	18th Street Facility Plumbing Redesign and Construction	\$392
EF42	Newtown Road Bus Transfer ADA Improvements	\$265
EF44	Ferry Dock Amenities	\$652
EF45	18th Street Bus Wash Rehabilitation	\$927
EF44	Ferry Dock Amenities	\$546
	Total	\$366,663

Projects (Year of Funding in Green)

3400 Victoria Boulevard Renovation: Phase 2 (FY25-FY27)

Complete renovations at 3400 Victoria Boulevard, including renovations to administrative and bus operating buildings.

New Southside Operating Division (FY25-FY26)

Relocate and replace Virginia Beach's Parks Avenue operating base with new state-of-art facility that can serve the Southside. This project is critical to meet both existing operating and Regional Transit System (RTS) needs. The facility would be designed from the onset to accommodate battery electric buses.

RTS Bus Stop Amenity Program (FY25-FY27)

Upgrade over 600 bus stops across the RTS network, including funding for new shelters, benches, trash cans, and lighting.

Newport News Transit Center Interior Renovations (FY25-FY26)

Renovate interior spaces of the transit center. The transit center is a high traffic location. The renovation would remodel the interior, renovate the bathrooms, and replace storefront doors.

Hampton Transit Center Interior Renovations (FY25-FY26)

Renovate interior spaces of the transit center. The transit center is a high traffic location. The renovation would remodel the interior, renovate the bathrooms, and replace storefront doors.

Wards Corner Restroom and Paving Renovation (FY25)

Complete state-of-good-repair maintenance for the Wards Corner Transfer Center, including renovation of the operator restroom and repairing damaged paved surfaces.

Evelyn T. Butts Transfer Center Replacement (FY25)

Replace the existing Evelyn T. Butts transfer center with a new off-street facility that can meet the needs of an expanded RTS network.

Silverleaf Transfer Center Upgrades*

Renovate HRT-owned assets at the Park and Ride to maintain the facility in a state of good repair.

Robert Hall Transfer Center Replacement (FY25-FY26)

Replace the existing Robert Hall transfer center with a new off-street facility in the City of Chesapeake.

Hampton Facility Electrification* (FY30-FY33)

Provide the infrastructure necessary to support the fullyelectrified revenue bus fleets at the Victoria Boulevard Facility in Hampton.

18th Street Facility Electrification* (FY33)

Provide the infrastructure necessary to support a fullyelectrified revenue bus fleet at the 18th Street Facility in Norfolk.

Hampton Facility Non-Revenue Electric Charging Pilot (FY25)

Pilot installation of electric vehicle chargers at HRT's Hampton Operating Facility to support non-revenue EV fleet and possibly public EV charging.

DNTC Restrooms and Operator Lounge Spaces (FY25)

Study and potentially reconfigure interior space in DNTC to create a new operator restroom area.

Parks Avenue Re-Use (FY26)

Plan for the redevelopment of the Parks Avenue Maintenance Area.

HRT Concrete Repair Work (FY25-FY26)

Provide funding for annual state-of-good-repair maintenance activities for HRT concrete pavement and structures.

Bus Stop Amenity Program (FY25-FY26)

Plan, design, and install up to 100 passenger amenities and ADA improvements that are not located along RTS routes.

*Project is unfunded or only partially funded in the constrained CIP

HRT Facilities Signage (FY26)

Replace signs at approximately ten HRT facilities that are outdated and are in poor condition.

HRT Systemwide Signage (FY26)

Replace approximately 100 transit signs at HRT light rail platforms and transfer centers, in addition to enforcement signage required abroad revenue vehicles and brick and mortar sites, stops and stations, docks, and other patronfacing areas.

Orcutt Transfer Center (FY25)

Reconstruct and extend bus pad, improve passenger amenities, and implement ADA upgrades at transfer center.

Transit Stop Support Equipment (FY25)

Purchase an aerial work platform vehicle to enable HRT to better maintain its transit signs.

18th Street Facility Parking Structure Repair (FY25)

Make structural maintenance repairs to the 18th Street parking structure to extend the useful life of the structure by 10 years.

18th Street Facility Plumbing Redesign and Construction (FY25-FY26)

Redesign and reconstruct the plumbing infrastructure in the facility to bring it to a state of good repair and prevent future structural damage.

Newtown Road Bus Transfer ADA Improvements (FY26)

Update ADA amenities including braille elements, curb cuts and ramps, and tactile warning surfaces, and address tripping hazards and pavement at Newtown Road.

Ferry Dock Passenger Amenities (FY26)

Install two shelters at each of the ferry docks in Norfolk, VA and Portsmouth, VA.

18th Street Bus Wash Rehabilitation (FY25)

Rehabilitate the 18th Street Bus Wash facility to bring it to a good state of good repair and extend the useful life of infrastructure.

3400 Victoria Boulevard Parking Lot Safety Improvements (FY26)

Repave the existing parking surface lots at 3400 Victoria Boulevard, install additional ADA amenities, and replace the existing and safety infrastructure.

Technology

Technology drives the modern transit industry. A customer interacts with HRT technology even before they start their trip. Mobile schedule and arrival information is made possible by a bevy of systems, from on-board Automatic Vehicle Locators (AVLs) that pinpoint where our buses are in real-time, to the network hardware and software that ensures that information makes it to the phones of our customers. Once aboard an HRT vehicle, a suite of technology supports operations, such as fare collection equipment that allows riders to pay for their trip, and various hardware and software systems that allow dispatch to monitor operations. Just as important, are the technology systems that support back-end operations. Systems help automate several critical administrative functions, from asset management and maintenance to payroll and HR.

Investing in HRT's technology allows the agency to be more responsive to our customers and more efficient in our operations. Much of our technology capital budget is focused on maintaining the systems we currently rely on; most of our hardware and software systems need to be regularly updated and replaced at least every five to ten years. Outdated systems reduce our overall efficiency as an agency and expose HRT to security and safety vulnerabilities. In addition to state of good repair, HRT is constantly investing in new systems to keep up with our changing needs. Many of the critical systems we rely on today, did not exist 10 or 15 years ago. Trends like the widespread adoption of mobile ticketing and trip planning tools, the transition toward battery-electric buses, and emergence of autonomous vehicles, will only accelerate the pace of technological change at HRT.

Technology Projects by the Numbers

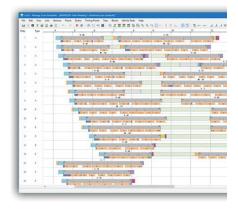
19 projects

\$65.5 million

in capital needs (year of expenditure dollars) from FY2025 to FY2034











UID	Project Name	Cost (\$ thousands)
IT01	HASTUS	\$4,500
IT03	Large Technology Infrastructure	\$13,537
IT05	Client Technology Systems State of Good Repair	\$3,272
IT06	Bus Facility Passenger Information Displays SGR	\$342
IT07	Passenger Information Displays - Light Rail	\$9,549
IT12	Onboard Network Infrastructure State of Good Repair	\$1,719
IT16	Financial Software System (FSS) Implementation	\$521
IT17	HRMS Replacement	\$6,147
IT18	Fixed Side CAD/AVL System	\$3,942
IT22	EAM System State-of-Good-Repair	\$9,366
IT32	Technology Enabled Safety Improvements	\$1,906
IT36	Internal Digital Signage System	\$131
IT37	ICS Cyber Security	\$1,499
IT42	IT Security Systems Upgrade	\$1,907
IT43	Contract and Vendor Management Software Replacement	\$660
IT45	Onboard Passenger Information System	\$1,545
IT46	Yard Management System	\$3,000
IT47	Enterprise Data Integration	\$350
IT48	Farebox Replacement Project	\$1,635
	Total	\$65,528

Projects (Year of Funding in Green)

HASTUS (FY27, FY32)

HASTUS, the planning, scheduling, and daily operations system will be upgraded from version 2011 to the latest available version implemented to conform with the labor agreement in effect at the agency with this project. The upgrade shall replace the application including server and kiosk infrastructure, interfaces to CAD-AVL, Financials, EAM, and other ancillary systems.

Large Technology Infrastructure FY25-FY34)

Achieve state of good repair in line with FTA recommendations for Technology Infrastructure Systems that have reached the end of their useful life, including servers and storage, networking, wireless, firewalls, uninterruptible power supply (UPS) and power delivery systems, and backup solutions through replacement of the individual hardware component groups and entire systems.

Client Technology Systems State of Good Repair (FY25-FY34)

Achieve of good repair in line with FTA five-year lifecycle recommendations for Client Technology Systems that have reached the end of their useful life including laptops, desktops, workstations, printers, scanners, collaboration and conference systems, and telephony through the replacement of the individual hardware component groups and entire systems.

Bus Facility Passenger Information Displays SGR (FY29)

Replace passenger information displays being installed as part of the RTS implementation at the end of their useful life.

Passenger Information Displays - Light Rail*

Purchase and install digital signs that will display light rail arrival information and system alerts. HRT plans for a total of 22 displays to be located at all existing Tide stations.

^{*}Indicates a project is unfunded or only partially funded in the constrained CIP

Onboard Network Infrastructure State of Good Repair*

Maintain state of good repair for HRT revenue fleet onboard network equipment through timely replacement at the end of the equipment's useful life.

Financial Software System (FSS) Implementation (FY25)

Enhance Microsoft Dynamics 365 Finance and Operations, allowing continued automation of manual processes and adding reporting functionality to analyze data to determine where opportunities exist for additional improvements in customer experience and service delivery.

HRMS Replacement* (FY28)

Upgrade the Human Resource Management System at the necessary interval to maintain software functionality. This project is critical for a range of human resource functions at HRT.

Fixed Side CAD/AVL System (FY25, FY30)

Upgrade HRT's fixed-side CAD/AVL systems five years after initial implementation to maintain a state of good repair.

EAM System State-of-Good-Repair* (FY28)

Upgrades the Enterprise Asset Management (EAM) System within five years of the system's initial implementation to ensure the system continues to be supported.

Technology Enabled Safety Improvements*

Research, scope, develop, and pilot new technologies to improve public safety through automated monitoring and threat detection.

Internal Digital Signage System*

Replace and expand existing employee facing Digital Signage System to communicate to HRT employees effectively and consistently.

ICS Cyber Security (FY28)

Fund ongoing investments in HRT's cyber security, including security assessments, implementation of new tools and software, and system testing. The agency's digital assets are critical for business continuity and this project would help address vulnerabilities as they arise.

IT Security Systems Upgrade (FY28-FY29)

Acquire and implement next generation process modification, application, and platform and data protection security upgrades to address new and emerging threats, mitigating risk from future unknown cyber threats.

Contract and Vendor Management Software Replacement*

Upgrade Contract and Vendor Management Software on a regular five-year cycle.

Onboard Passenger Information System (FY25)

Replace the existing onboard audio-visual Passenger Information System and accompanying management software on the Light Rail Vehicles.

Yard Management System*

Implement a yard management system to locate buses in yard for pull-out assignments.

Enterprise Data Integration*

Identify, consolidate, clean, and integrate data from various manual entries and systems of record (HASTUS, Trapeze, APC, etc.) to develop reporting capability to meet FTA and National Transit Database compliance requirements.

Farebox Replacement Project (FY25)

Replace discontinued Genfare Odyssey fareboxes to ensure ongoing fare operations.



^{*}Project is unfunded or only partially funded in the constrained CIP

Safety and Security

The safety of HRT's customers and employees drives everything we do. Safety and security assets ensure vehicles are being properly monitored, secure facilities from trespassers, allow security officers to better respond to threats, and protect the public and employees from harm and injury.

One of the security challenges facing HRT is simply the sheer scale of operations. Our services cover six cities and 1.3 million residents. Safety and security related systems are essential to allow HRT to rapidly respond to issues as they arise. Many of HRT's safety and security needs are technology related, such as cameras, card readers, and software systems. Like any technology asset, these systems need ongoing maintenance and upgrades to remain in working order and protected from cyber-security threats.

Safety & Security Capital Projects by the Numbers

14 projects\$22.0 million

in capital needs (year of expenditure dollars) from FY2025 to FY2034

Project List (Fiscally Unconstrained)

UID	Project Name	Cost (\$ thousands)
SS01	Upgrade the Video Recording Equipment for Buses	\$7,816
SS02	Light Rail Video Recording Equipment	\$141
SS15	Enterprise Video Surveillance System Upgrade	\$1,393
SS16	Enterprise Access Control System Upgrade	\$2,729
SS17	Safety Management System	\$924
SS19	Mobile Telescoping and Surveillance Tower	\$680
SS21	Rail System Surveillance Enhancement	\$3,042
SS22	Emergency Alert Beacons, Sirens, and Strobes	\$532
SS24	Operator Safety Barrier Installation	\$1,530
SS25	Fall Protection System for Southside and Northside Bus Garages	\$546
SS27	Intrusion Detection Systems	\$282
SS31	Blast Resistant Trash Receptacles	\$1,968
SS34	Enterprise Lock and Lever State of Good Repair	\$276
SS35	Hardening Perimeter Security of NTF Generator	\$155
	Total	\$22,014

Projects (Year of Funding in Green)

Upgrade the Video Recording Equipment for Buses (FY28-FY34)

Replace video recording equipment on HRT's buses as they reach the end of their recommended useful life.

Light Rail Video Recording Equipment (FY29)

Replace video recording equipment on HRT's light rail trains as they reach the end of their recommended useful life.

Enterprise Video Surveillance System Upgrade (FY25-FY34)

Maintain state of good repair through timely replacements of the components comprising the fixed camera video surveillance system. Addresses known gaps in video surveillance monitoring through fixed camera replacement and additions at HRT facilities.

Enterprise Access Control System Upgrade* (FY29)

Address state of good repair for enterprise access control platform, components, software, and supporting processes.

Safety Management System*

Upgrade FTA-mandated safety management system to better track a range of safety related data in one centralized system.

Mobile Telescoping and Surveillance Tower*

Procure trailer-mounted mobile telescoping surveillance towers. These can be deployed to address increased security, risk, or safety concerns.

Rail System Surveillance Enhancement (FY25, FY30)

This project includes the procurement, installation, and support of an enhanced video surveillance posture for the Tide Light Rail System and supporting infrastructure.

Emergency Alert Beacons, Sirens, and Strobes*

Design, procure, deploy, and test building emergency alert tools such as alert beacons, sirens, and strobes.

Operator Safety Barrier Installation (FY25-FY27)

Procure and install 155 hardened operator barriers.

Fall Protection System for Southside and Northside Bus Garages (FY25)

Procure and install Fall Protection System at all bus garages.

Intrusion Detection System (FY25, FY30)

Procure a system that will alert security when an individual is trying to invade the premises after work hours.

Blast Resistant Trash Receptacle and Bollard Project*

Procure, install, and maintain 12 blast-resistant trash receptacles and 36 bollards.

Enterprise Lock and Lever State of Good Repair (FY27, FY28)

Replace worn, failed, or failing door lock hardware (lever sets, cores, internal components, etc.) across the HRT enterprise.

Hardening Perimeter Security of NTF Generator (FY25)

Modify fencing to design/build an extra layer of protection to protect the transformer and generator at NTF from access and impact.

^{*}Project is unfunded or only partially funded in the constrained CIP

Light Rail

The Tide Light Rail is HRT's second-most ridden mode, behind only bus. The Tide system is composed of a wide range of capital assets, including many which are invisible to the customer. HRT maintains and manages over 7 miles of rail guideway, including tracks, aerial structures, and catenary, and 11 stations. The agency has a fleet of nine LRT trains that while expected to last over 30-years, need continuous investments to keep them in good condition. Behind the scenes, the agency maintains complex signaling and systems monitoring systems (i.e. SCADA) which ensure regular safe and reliable operations. The Tide system also has its own maintenance facility where trains are stored and repaired.

To ensure HRT is properly investing in its light rail assets, the agency developed a 30-year light rail state of good repair (SGR) plan that outlines the expected investment needs by asset type and year. While actual capital expenses may differ over time based on differing rates of wear-and-tear, the plan provides HRT a guide to future SGR needs. HRT's CIP builds off of the plan by funding all of the capital repair and maintenance needs it identifies over the ten-year timeframe. As the system enters its second decade of operations, trains will need to begin mid-life overhauls, stations will need cosmetic updates, and guideway systems will require additional maintenance and repair.

Light Rail Capital Projects by the Numbers

15 projects \$82.1 million

in capital needs (year of expenditure dollars) from FY2025 to FY2034











UID	Project Name	Cost (\$ thousands)
IT29	Light Rail APC System Fixed Side Hardware Software	\$229
LR01	Light Rail Right-of-Way State of Good Repair	\$27,557
LR02	Light Rail Vehicle State of Good Repair	\$22,458
LR04	Light Rail Station Upgrades	\$5,981
LR05	Light Rail Cab Signaling Study	\$100
LR06	Supervisory Control and Data Acquisition (SCADA) System Upgrade	\$5,019
LR48	Light Rail Facilities State of Good Repair	\$1,737
LR50	Light Rail Aerial Structures	\$9,515
LR52	Passenger Facility and Grade Crossing Lighting Improvements	\$314
LR53	NSU Platform and Stairs Rehabilitation	\$1,008
LR54	Light Rail Crossing Repair/Replacement Design	\$1,630
LR55	Conduit Signal Upgrades	\$127
LR56	Light Rail Fare Collection State of Good Repair	\$4,691
LR58	Tide Light Rail Climate Resiliency Study	\$796
LR59	Military Highway Park and Ride Pedestrian Access Improvements	\$950

Projects (Year of Funding in Green)

Light Rail APC System Fixed Side Hardware Software (FY28, FY33)

Upgrade HRT's fixed-side APC systems for Light Rail every five years, per the equipment's useful life.

Light Rail Right-of-Way State of Good Repair (FY25-FY34)

Complete state-of-good repair investments along HRT's rightof-way such as track structures and overhead power systems. The project scope is based on HRT's 30-year state-of-good repair plan for light rail.

Light Rail Vehicle State of Good Repair (FY25-FY34)

Maintains Light Rail Vehicles by rehabilitating suspension components, conducting body work and repainting of train sets, replacing brakes and power train components, conducting upkeep of train interiors, and other maintenance. This includes LRV mid-life overhauls spread out over nine years. The project scope is based on HRT's 30-year state-ofgood repair plan for light rail.

Light Rail Station Upgrades (FY25-FY34)

Rehabilitate light rail stations, including replacing and plan for light rail.

Light Rail Cab Signaling Study (FY25)

renovating station assets at the end of their useful life. The project scope is based on HRT's 30-year state-of-good repair Tide Supervisory Control and Data Acquisition (SCADA) System Upgrade (FY26, FY28, FY31, FY33)

Regularly upgrade the Tide's Supervisory Control and Data Acquisition (SCADA) System used to monitor and manage light rail operations.

Light Rail Facilities State of Good Repair (FY25-FY28, FY30,

Complete state of good repair investments at the Norfolk Tide Facility, including future foundation remediation.

Light Rail Aerial Structures (FY25, FY27-FY28, FY31, FY33-FY34)

State of good repair maintenance of bridges/aerial structures along the Tide Light Rail. The project scope is based on HRT's 30-year Light Rail state-of-good repair plan.

Passenger Facility and Grade Crossing Lighting Improvements (FY25-FY26)

Implement lighting upgrades to improve staff and customer safety at selected passenger light rail facilities and critical grade crossings. This project will complete photometric surveys, phasing plans, and design. Construction will be completed separately.

NSU Platform and Stairs Rehabilitation (FY26)

Complete concrete repairs to the platform and west side stair tower for the elevated Norfolk State University (NSU) light rail station.



gohrt.com