

## 03- ENGINEERING & PROJECT MANAGEMENT DIVISION

### OVERVIEW

The Engineering and Project Management Division ensures the successful completion of capital improvement projects through professional planning, design, right-of-way, and construction services. The division is responsible for RTA's planning, real estate, and capital project design and construction management activities. The Division plays a key role in obtaining competitive grants to bring in additional grant funding to achieve a State of Good Repair (SOGR).

### CONNECTION TO STRATEGIC PLAN

The Engineering and Project Management Division is committed to ensuring positive customer experience with RTA's capital projects from design to construction. Community value is seen through actual and perceived economic impact of capital projects, emission reduction, and services provided that support quality of life and social needs. Financial sustainability through reducing major project change orders and securing competitive grants towards prioritized capital projects. Employee perception of opportunity for growth and success, understanding the Authority's vision and direction, clarity in connection between personal performance and organization success, and understanding of benefits of capital program.

### 2022 ACCOMPLISHMENTS

- Completed construction of the Triskett Garage CNG Facility Upgrades
- Completed construction of the Cuyahoga Viaduct Rehabilitation Phase 1
- Completed construction of the West 30<sup>th</sup> Substation Transformer/Rectifier Replacements
- Completed construction of the Overhead Catenary System Structural Rehabilitation – Phase 1
- Awarded contract and began construction of the Waterfront Line Bridge Rehabilitation
- Awarded contract and began construction of the East 75<sup>th</sup> Light Rail Interlocking
- Awarded construction contract for the Cuyahoga Viaduct Bulkhead Repair
- Awarded contract for the new CTDS system
- Awarded contract for the Onboard Origin & Destination Surveys
- Completed design of the Tower City East Portal Rehabilitation
- Completed design of the East 120<sup>th</sup> Street Substation Replacement
- Completed design of the Trunk Line Signal System
- Completed design of the 515 Switch and Track
- Continued construction of the Red Line Fiber Optic Line Replacement
- Continued construction of the Warrensville/Van Aken Substation
- Complete the due diligence phase for the Columbus Road Transit Oriented Development
- Continued design of the Warrensville/Van Aken Station Improvements and Comfort Station
- Provided FFY2022 Cleveland Urbanized Area (CUZA) funding allocations for formula funds
- Obtained over \$32 million of competitive grants from FTA, ODOT, Ohio Environmental Protection Agency (OEPA), Northeast Ohio Areawide Coordinating Agency (NOACA) and Community Project Funding
- Increased the funding for the Rail Car Replacement Program by \$23.5 million

- Promoted transit elements in various Transportation for Livable Communities Initiative (TLCI) studies throughout Cuyahoga County
- Continued supporting Asset Management and State of Good Repair (SOGR) initiatives throughout GCRTA
- Facilitated construction coordination with various ODOT and City of Cleveland projects
- Supported the activities of the Cuyahoga County Trails Leadership Network

## 2023 PRIORITIES

- Complete construction of the Waterfront Line Bridge Rehabilitation
- Complete construction of the Warrensville/Van Aken Substation
- Complete construction of the East 75<sup>th</sup> Light Rail Interlocking
- Complete construction of the Red Line Fiber Optic Line Replacement
- Complete construction of the West 117<sup>th</sup> Street Substation
- Complete construction of the Cuyahoga Viaduct Bulkhead Repair
- Complete the construction of the Hayden Garage Roof Replacement
- Complete the due diligence phase for the Columbus Road Transit Oriented Development
- Complete installation of the Trunk Line Signal System
- Complete installation of the Shaker Light Rail Shelter Improvements
- Complete the Onboard Origin & Destination Surveys
- Complete design & begin construction of the Warrensville/Van Aken Station Improvements and Comfort Station
- Complete design & begin construction of the tracks at the Warrensville/Van Aken Station
- Begin construction of the Tower City East Portal Rehabilitation
- Begin construction of the East 120<sup>th</sup> Street Substation Replacement
- Begin construction of the Overhead Catenary System Structural Rehabilitation – Phase 2
- Begin construction of the Red Line Bridge over West 117<sup>th</sup> Street
- Begin installation of the 515 Switch and Track
- Begin installation of the new CTDS system
- Begin design of the West 25<sup>th</sup> Street/MetroHealth Line BRT Corridor
- Begin design of the East 79<sup>th</sup> Street Light Rail Station ADA Reconstruction
- Begin design of the Light Rail Retaining Wall Rehabilitation - Phase 3
- Begin design of the Track Bridge over abandoned spur track
- Manage the MicroTransit Pilot Program
- Continue supporting the Rail Car Replacement Program
- Continue supporting the Baby on Board and Paradox Prize Pilot Programs
- Provide FFY2023 CUZA funding allocations for the Region
- Obtain competitive grants from FTA, ODOT, OEPA and NOACA
- Increase funding for the Rail Car Replacement Program
- Promote transit elements in various TLCI studies throughout Cuyahoga County

- Continue supporting Asset Management and SOGR initiatives throughout GCRTA
- Facilitate construction coordination with various ODOT and City of Cleveland projects
- Support the activities of the Cuyahoga County Trails Leadership Network

#### LIST OF DEPARTMENTS

Department Number	Department Name
55	Project Support
57	Programming & Planning
80	Engineering & Project Development

# ENGINEERING & PROJECT MANAGEMENT DIV.

Success Outcomes	Metric	FY2023 Performance Goals	Objective	Definition
Customer Experience	Annual Goal for Rail Car Replacement Fund	\$25,000,000	–	Appropriated or obligated funding for rail car replacement fund secured in the program year
	Completion of Annual Work Program	\$40,000,000	–	Total value of the design and construction contracts approved by the Board of Trustees.
	Benefit and Value of Capital Program Investments - Impression	84%	↑	% of customers who have a positive impression of capital program investments (recently completed projects)
	Capital Program Project Schedule Adherence	40%	–	% of capital projects (budget ≥ \$1M) that reach substantial completion milestone in 2022 within 60 calendar days of schedule
Community Value	Economic Impact of Capital Program - Impression	49%	↑	% of community that has a positive perception of the economic impact of the capital program
	Economic Impact of Capital Program - Actual	7	↑	The construction value ratio of development within 1/4 mile of active and recently completed (3yr completion) major capital projects (budget ≥ \$1M) (3 to 1)
	Sustainability - Emissions Reduction - Actual	-8%	↑	% Reduction of Type I and II emissions per passenger-mile traveled on RTA
	Capital Investment in Environmental Justice (EJ) community	79%	↑	% of capital projects (budget ≥ \$1M) that are located in EJ communities

Success Outcomes	Metric	FY2023 Performance Goals	Objective	Definition
Financial Sustainability	Competitive Grants Awarded Towards Annual Goal for Prioritized Capital Projects	\$35M	-	Annual goal for competitive grants awarded for prioritized capital projects in the program year
	Change Orders on Major Projects	5%	-	Achievement of under 5% change orders for major capital projects (budget ≥ \$1M) substantially completed in 2022 excluding the Viaduct and WFL
Employee Engagement	Division Employees Agree - Supervisor Invested in Growth and Success	51%	↑	% of Division employees that agree (or strongly agree) that their Supervisor is invested in their growth and success
	Division Employees Agree - Understand Vision and Direction	69%	↑	% of Division employees that agree (or strongly agree) that they understand the vision and direction of GCRTA and the Engineering & Project Management Division
	Division Employees Agree - Understand How Performance Linked to Organization Success	75%	↑	% of Division employees that agree (or strongly agree) that they understand how their performance contributes to organizational success
	Workforce Net Promoter Score	5	↑	% Promoters minus % Detractors that recommend Division as a place to work
	Division Employees Understand Benefits of Capital Program	80%	↑	% of Agency employees that agree or strongly agree that they understand the benefits of the capital program

# 55- PROJECT SUPPORT DEPARTMENT

## OVERVIEW

The mission of the Project Support Department is to provide quality assurance oversight and program review services in support of the Greater Cleveland Regional Transit Authority's capital and development activities and foster the Authority's sustainability practices creating a healthier and livable environment for our customers and the community we serve.

## 2022 ACCOMPLISHMENTS

- Completed 34 Quality Assurance Audits
- Completed 50 Quality Control Plan, Request for Proposal, and Issue for Bid Package Reviews
- Completed 24 Third-Party plan reviews
- Provided engineering design and construction assistance on Engineering and Project Development projects
- Provided document control support on Engineering and Project Development projects
- Completed Construction of the GCRTA Main Office Building Vestibule Modifications
- Created a GCRTA Climate Action Plan for the FTA's Sustainable Transit for a Healthy Planet Challenge
- Created a GCRTA Zero Emission Fleet Transition Plan
- Tracked agency wide emissions for sustainability program and TRACTION
- Participated in NOACA's Regional Climate Action Plan, Inventory Working Group
- Assisted in the creation of a GCRTA Project Management Development Training and participated in the pilot training

## 2023 PRIORITIES

- Conduct quality assurance audits
- Review GCRTA plans and specifications for construction projects
- Review third party plans and specifications for construction crossing or adjoining GCRTA facilities
- Participate in the City of Cleveland's Transportation Infrastructure Advisory Committee
- Provide engineering assistance as needed in Design and Construction
- Review and Update the GCRTA Climate Action Plan
- Participate in the Development of NOACA's Regional Climate Action Plan
- Assist in the rollout of the GCRTA Project Management Development Training
- Coordinate work of support staff

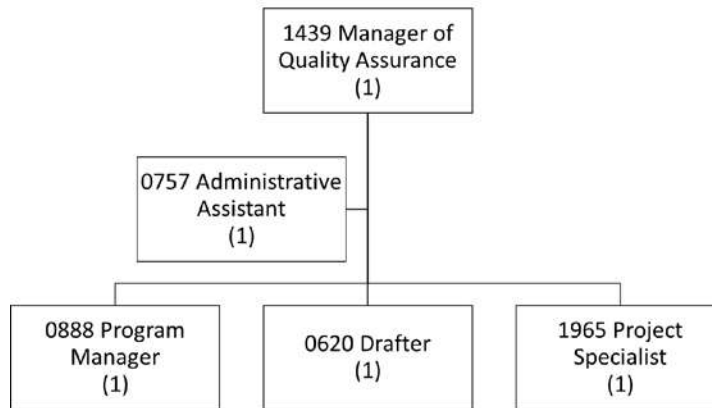
**PROJECT SUPPORT DEPARTMENT BUDGET**

Object Class	Description	2021 Actual	2022 – 3Q Estimate	2023 Budget
501300	Labor – Salaried Employees	\$292,446	\$204,647	\$210,256
501310	Overtime – Salaried Employees	-	-	10,000
502000	Fringe Benefits	122,656	98,356	104,541
503000	Services	13,265	7,493	66,500
504000	Materials & Supplies	4,009	500	5,300
509000	Miscellaneous Expenses	73,580	(199)	29,000
509022	Meals & Concessions	0	0	250
<b>Total</b>		<b>\$505,956</b>	<b>\$310,797</b>	<b>\$425,847</b>

**PROJECT SUPPORT DEPARTMENT STAFFING**

Grade	Job Name	2021	2022	2023
06	0620 Drafter	1.0	1.0	1.0
23	0757 Administrative Assistant	1.0	1.0	1.0
24	1965 Project Specialist	1.0	1.0	1.0
28	0888 Program Manager	1.0	1.0	1.0
29	1439 Mgr. – Quality Assurance	1.0	1.0	1.0
<b>Total</b>		<b>5.0</b>	<b>5.0</b>	<b>5.0</b>

**PROJECT SUPPORT DEPARTMENT ORGANIZATION CHART**



Total FTE's = 5

# 57- PROGRAMMING & PLANNING DEPARTMENT

## OVERVIEW

The Department of Programming and Planning is responsible for initiating studies and long-term projects designed to maintain and improve transit ridership through project viability studies, joint venture identification, station area, and land use planning. The Department is also responsible for the oversight of the Authority's real estate property holdings, transit waiting environment, arts-in-transit programs. The department also leads GCRTA's efforts in Micro-mobility as part of an inter-agency task force.

## 2022 ACCOMPLISHMENTS

- Represented GCRTA interests in City of Cleveland, NOACA, and other agency Planning projects.
- Managed real estate interests of RTA including the sale/closing of Cordova loop, approving a land option for a low- income tax credit housing project at W. Blvd-Cudell Station, and purchase of Brookpark rail maintenance building.
- Continued the Columbus Road Transit-Oriented Development (TOD) Planning process.
- Awarded contract for RTA On-Board Origin-Destination Survey.
- Awarded Federal Transit Administration (FTA) TOD Planning Grant for Broadway Avenue Corridor.
- Assisted with development of RTA's and NOACA's Climate Action Sustainability Plan.
- Obtained Environmental Clearances on six projects.
- Completed UZA allocations for 5307 Urbanized Area Formula Grants and 5339 Grants for Buses and Bus Facilities through NOACA and Transit Council.
- Continued representing RTA on the City of Cleveland's Vision Zero Plan.
- Monitored Implementation of Framework for the Future short-term objectives.
- Continued to represent GCRTA on NOACA committees, Sub-committees, and Transportation for Livable Communities (TLCI) projects.
- Awarded Micro Mobility Pilot Demonstration project contract.
- Completed four Community Investment Improvement Projects.
- Completed four Transit Waiting Environment (TWE) projects.
- Managed the NOACA sponsored Electric Vehicle (EV) charger installation projects.
- Apply for Planning grants from NOACA, FTA, ODOT and other sources for planning related activities.
- Installed 50% of the Baby on Board program improvements.
- Completed Section 106 and NEPA process required for Shaker Shelter Improvement Project.
- Initiated procurement required for Shaker Shelter Improvement Project.
- Participated in NOACA's the "Reimagining Euclid" RFP process for East Cleveland.
- Continued to provide technical assistance required for the E. 105/E. 93<sup>rd</sup> Street Bus Rapid Transit (BRT) Project sponsored by the City of Cleveland.
- Completed two Diversity and Inclusion artistic messaging projects.
- Managed 25Connects/W 25<sup>th</sup> Street MetroHealth Line BRT into the Project Development Phase of the FTA New/Small Starts Process.
- Represented RTA on Cuyahoga County Greenway Partners and other related trail and bike projects.
- Manage the monitoring of Strategic Plan Framework for the Future Planning Objectives.



- Completed Phase I of a multi-phased TOD Planning & Zoning Project sponsored by the Cuyahoga County Planning Commission.
- Developed new process with the City of Cleveland on bus shelter permitting.
- Represented GCRTA on Shaker Heights Lee Road Corridor project.
- Assisted with the development and approval of the Warrensville Station Reconstruction Program.

## 2023 PRIORITIES

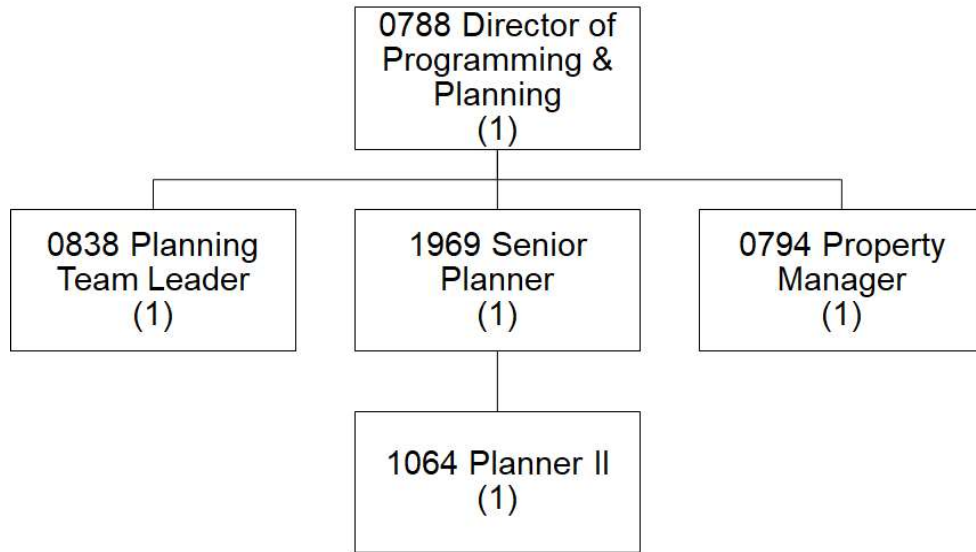
- Represent RTA interests in City of Cleveland, NOACA, and other agency Planning projects as required.
- Manage real estate interests of RTA as required.
- Continue working with Cuyahoga County Planning Commission on next phase of TOD Land Use and Planning Project.
- Work with the City of Cleveland as it progresses its TOD Planning and zoning efforts.
- Establishment of a comprehensive mobility program that includes TOD, Finance and Marketing.
- Continue to evaluate and dispose of excess real estate assets no longer required for RTA operations.
- Continue Columbus Road TOD Development process towards City of Cleveland approval.
- Award contract on the Transit Access Barrier Study, FTA's Persistent Poverty Grant.
- Award contract for Broadway TOD Pilot Planning Grant.
- Manage the RTA On-Board Origin-Destination Survey Project.
- Continue to assist on the Climate Action Sustainability Plan.
- Obtain Environmental Clearances as needed.
- Continue representing RTA on the City of Cleveland's Vision Zero Plan.
- Monitor Implementation of Framework for the Future mid-term objectives.
- Continue to represent GCRTA on NOACA committees, Sub-committees, Task Forces, and TLCI projects.
- Award contracts for the remaining Micro Transit funding.
- Manage the Micro Transit project implementation.
- Complete four Community Investment Improvement Projects.
- Complete four TWE projects.
- Complete reorganization of Adopt a Shelter and the Community Shelter program.
- Assist in marketing the Adopt A Shelter program.
- Manage the installation of the NOACA sponsored EV chargers at RTA facilities.
- Apply for Planning grants from NOACA, FTA, ODOT and other sources for planning related activities.
- Complete Baby on Board program improvements.
- Manage the implementation/usage of the Baby on Board program.
- Award contract for Shaker Shelter Improvement Project.
- Assist NOACA in the Planning work on the "Reimagining Euclid."
- Assist NOACA and Laketrans in the Shoregate TLCI planning grant.
- Complete technical assistance for the E. 105/E. 93<sup>rd</sup> Street BRT Project for the City of Cleveland.
- Continue to develop Diversity Inclusion artistic messaging and murals on RTA Assets.
- Progress on the 25Connects/W. 25<sup>th</sup> MetroHealth Line BRT NEPA/Section 106 process clearances.
- Continue to Represent RTA on Cuyahoga County Greenway Partners and related trail and bike projects.

- Manage the Monitoring of Strategic Plan Mid-Term Planning Objectives.
- Complete UZA allocations required for 5307, 5339 and any other Federal Funding required to be distributed through NOACA Transit Council.

PROGRAMMING AND PLANNING DEPARTMENT BUDGET				
Object Class	Description	2021 Actual	2022 – 3Q Estimate	2023 Budget
501300	Labor Salaried Employees	\$365,402	\$379,453	\$496,859
502000	Fringe Benefits	\$155,155	\$143,831	\$150,150
503000	Services	\$110,000	\$8,644	\$17,300
504000	Materials & Supplies	-	\$316	\$600
505019	Water	-	\$162,692	-
505020	Sewer	-	\$0	\$110,000
507030	Property Taxes	\$222,382	(\$57,542)	\$154,833
509000	Miscellaneous Expenses	\$8,618	\$7,695	\$21,626
509022	Meals & Concessions	\$5	\$0	\$100
512000	Leases & Rentals	\$61,478	\$45,539	\$51,533
<b>Total</b>		<b>\$923,040</b>	<b>\$690,628</b>	<b>\$1,003,001</b>

PROGRAMMING AND PLANNING DEPARTMENT STAFFING				
Grade	Job Name	2021	2022	2023
25	1970 Planner II	0.0	1.0	1.0
27	0838 Planning Team Leader	1.0	1.0	1.0
28	1969 Senior Planner	1.0	1.0	1.0
28	0794 Property Manager	1.0	1.0	1.0
30	0788 Director	1.0	1.0	1.0
<b>Total</b>		<b>5.0</b>	<b>5.0</b>	<b>5.0</b>

PROGRAMMING AND PLANNING DEPARTMENT ORGANIZATION CHART



Total FTE's = 5

# 80- Engineering & Project Development Department

## OVERVIEW

The Engineering & Project Development Department supports Bus, Rail and Paratransit delivery of customer service by the execution and management of the Authority's capital improvement and rehabilitation programs. Attention includes focus on safety, completion to budget and schedule, as well as involvement in quality control and quality assurance on infrastructure projects. Engineering works to assure that capital projects allow GCRTA bus, rail and paratransit service to meet the expectations of the community as a whole, as well as internal and external customers and stakeholders. Special projects include support of the Rail Car Replacement Program including station platform modifications for new fleet.

## 2022 ACCOMPLISHMENTS

- Completed replacement of Triskett Garage HVAC and mechanical infrastructure to support the in-service CNG Fueling Facility
- Completed Central Rail Maintenance Facility West Access Road Bridge Replacement alignment study
- Completed construction of the Cuyahoga Viaduct Rehabilitation – Phase 1
- Completed design and awarded Cuyahoga Viaduct River Bulkhead Rehabilitation
- Completed design and issued Invitation for Bid (IFB) for the Light Rail Trunk Line Signal System Replacement
- Completed design and issued Notice to Proceed (NTP) for Waterfront Line Bridge Rehabilitation
- Completed design for Hayden Garage Roof Replacement
- Completed design for W. 117<sup>th</sup> Red Line Bridge/Station Platform Rehabilitation
- Completed design of new modular E.120<sup>th</sup> Substation
- Completed design of Red Line East Overhead Catenary Structural Rehabilitation Phase 2
- Completed design of Red Line Switch 515 (Brookpark Yard) return to service
- Completed modifications to emergency shoring towers to support Waterfront Line Bridge
- Completed Red Line Rail Grinding Program design
- Completed Red Line West Overhead Catenary Structural Rehabilitation Phase 1
- Completed Red Line West Side Catenary Rehabilitation
- Completed reroofing design for shelter building at Shaker Square
- Completed the W. 30<sup>th</sup> Red Line Substation Rehabilitation and placed in service.
- Continued construction of Red Line Fiber Optic System Replacement
- Continued design for Brookpark Shop and Yard Improvements to support Rail Car Replacement
- Continued design of the Windermere Substation Rehabilitation
- Continued design of Warrensville - Van Aken Comfort Station and Rail Station Improvements, including track, power, communication, and signal components
- Continued reconstruction of Warrensville – Van Aken Substation. Modular substation in place
- Continued Safety Certification process for Rail Car Replacement Program
- Continued Tower City East Portal Reconstruction design
- Awarded Consolidated Train Dispatch System (CTDS) Replacement
- Began construction for E. 75<sup>th</sup> (Trunk Line) Interlocking Rehabilitation
- Began construction of W. 117<sup>th</sup> Substation Rehabilitation
- Began Hayden HVAC unit replacement
- Began RFP for design consultant of Light Rail Trunk Line Retaining Wall Rehab. – Phase 3 Blue Line
- Began construction of Shaker Junction Protran Train Occupancy Communication System

- Continued to support Asset Management and State of Good Repair projects throughout GCRTA

## 2023 PRIORITIES

- Complete and return Waterfront Line Bridge to service
- Complete construction of Cuyahoga Viaduct Bulkhead Repair
- Complete construction of Hayden Garage Roof Replacement
- Complete construction of the Fiber Optic System Replacement
- Complete design and construction of Central Rail Repaving
- Complete design of the Brookpark facility maintenance building, including new west side salt dome
- Complete design for Brookpark Shop and Yard Improvements to support Rail Car Replacement
- Complete design of Blue Line Track Rehabilitation
- Complete design of Light Rail Trunk Line Retaining Wall Rehabilitation – Phase 3 – Blue Line
- Complete Hayden and begin Main Office HVAC replacement projects
- Complete Norfolk Southern Railroad at Central Rail Maintenance Facility connection design
- Complete reconstruction of the E. 75<sup>th</sup> Trunk Line Interlocking
- Complete rehabilitation of the Waterfront Line track and platforms
- Complete replacement of the Warrensville - Van Aken Substation
- Complete RFP for Flyover Bridge near Stokes Reconstruction
- Continue Safety Certification for W. 117<sup>th</sup> Bridge/Station, Warrensville Station and other projects
- Continue Safety Certification process for Rail Car Replacement Program
- Advertise and award Tower City East Portal Reconstruction
- Advertise and begin the E. 120<sup>th</sup> Red Line Substation Replacement
- Advertise the Windermere Red Line Substation Rehabilitation
- Award and begin Light Rail Trunk Line Signal System Replacement
- Award and begin W. 117<sup>th</sup> Red Line Bridge/Station Platform Rehabilitation
- Award Shaker Boulevard Crossings Replacement for 2024 construction
- Began construction of Red Line Switch 515 (Brookpark Yard) return to service
- Begin construction of Overhead Catenary Structural Rehabilitation Phase 2
- Begin construction of Warrensville - Van Aken Comfort Station and Rail Station including track, power, communications, and signal
- Begin design for Central Rail Improvements to support rail car program
- Begin design for Station Platform improvements to support Rail Car Replacement Program
- Begin design of Overhead Catenary Structural Rehabilitation Phase 3 – Light Rail
- Begin design of W.25<sup>th</sup> MetroHealth Bus Rapid Transit System
- Begin Red Line Rail Grinding Program
- Continued to support Asset Management and State of Good Repair projects throughout GCRTA

## ENGINEERING & PROJECT DEVELOPMENT DEPARTMENT BUDGET

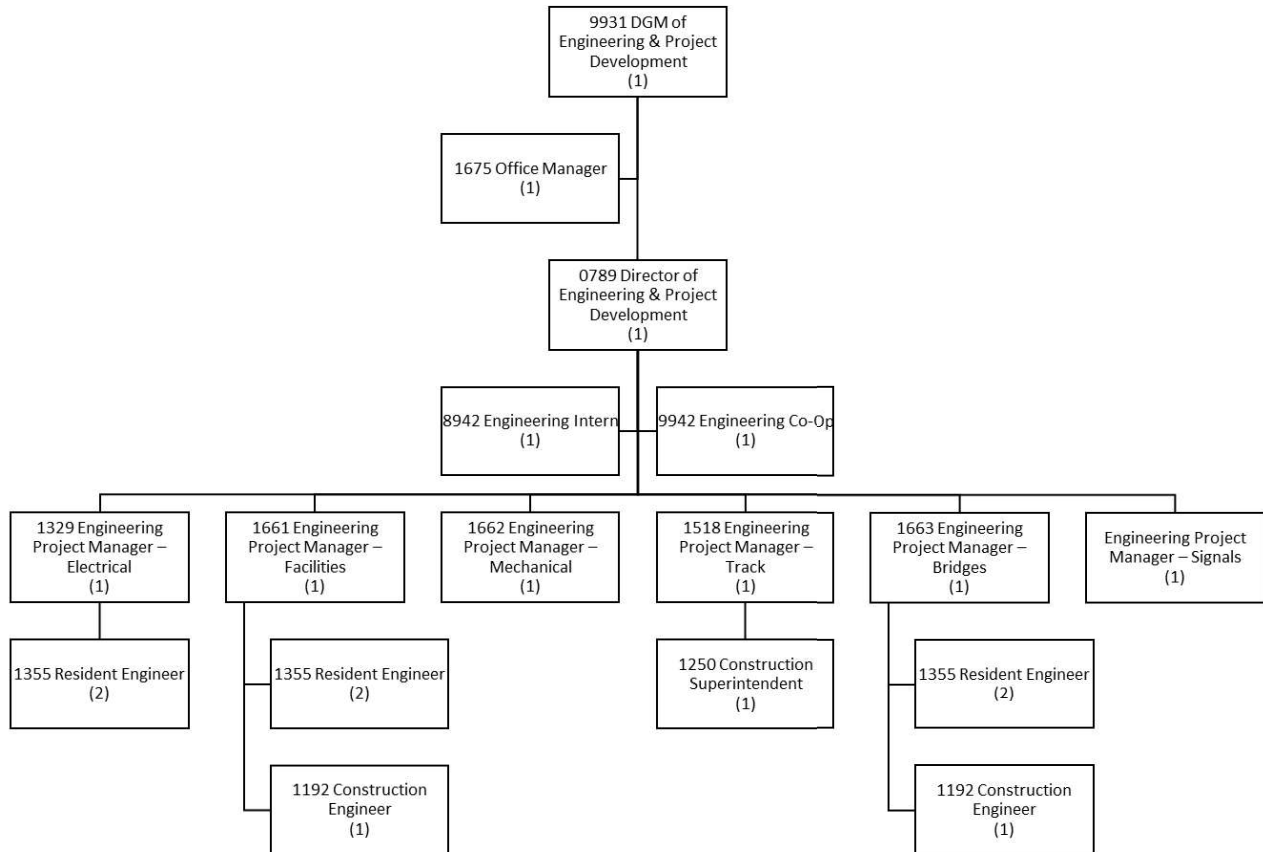
Object Class	Description	2021 Actual	2022 – 3Q Estimate	2023 Budget
501200	Labor - Hourly Employees	\$14,768	\$-	\$-
501300	Labor Salaried Employees	1,489,824	1,573,513	1,723,887
502000	Fringe Benefits	632,417	593,275	530,205
503000	Services	37,245	64,734	135,000
504000	Materials & Supplies	3,708	7,959	2,900
509000	Miscellaneous Expenses	24,815	12,699	38,540
509022	Meals & Concessions	275	413	800
<b>Total</b>		<b>\$2,203,052</b>	<b>\$2,252,593</b>	<b>\$2,431,332</b>

Department Budgets- Engineering Division

## ENGINEERING & PROJECT DEVELOPMENT DEPARTMENT STAFFING

Grade	Job Name	2021	2022	2023
01	8942 Engineering Intern	1.0	1.0	1.0
01	9942 Engineering Co-Op	1.0	1.0	1.0
25	1675 Office Manager	1.0	1.0	1.0
27	1192 Construction Engineer	2.0	2.0	2.0
28	1250 Supt Construction	1.0	1.0	1.0
	1355 Resident Engineer	6.0	6.0	6.0
29	1329 Project Manager – Electrical	1.0	1.0	1.0
	1518 Project Manager – Track	1.0	1.0	1.0
	1661 Project Manager – Facilities	1.0	1.0	1.0
	1662 Project Manager – Mechanical	1.0	1.0	1.0
	1663 Project Manager – Bridges	1.0	1.0	1.0
	1664 Project Manager - Signals	1.0	1.0	1.0
30	0789 Director – Engineering & Project Dev	1.0	1.0	1.0
99	9931 DGM Eng. & Project Mgmt.	1.0	1.0	1.0
Total		20.0	20.0	20.0

## ENGINEERING & PROJECT DEVELOPMENT DEPARTMENT ORGANIZATION CHART



Total FTE's = 20