

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.

2021 ACCOMPLISHMENTS

- Completed construction of Tower City Track 10/Track 13 Rehabilitation with platform, catenary and signal work.
- Completed construction of the Light Rail Track Rehabilitation – Phase 2.
- Completed the evaluation and temporary shoring of the Waterfront Line Bridge.
- Completed construction of the East 79th Street Red Line Station ADA Rehabilitation.
- Awarded SITES Certification for the East 79th Street Station from the Green Building Coalition.
- Completed construction of the Light Rail Retaining Wall Rehabilitation - Phase 2.
- Completed the Transit Oriented Development Planning along the West 25th Street Corridor.
- Executed the Development Agreement for the Columbus Road Transit Oriented Development.
- Completed design and began construction of the Overhead Catenary System Structural Rehabilitation.
- Completed design of the Trunk Line Signal System.
- Continued construction of the Red Line Fiber Optic Line Replacement.
- Continued construction of the West 30th Substation Transformer/Rectifier Replacements.
- Continued construction of the Warrensville/Van Aken Substation.
- Continued design of the Warrensville/Van Aken Station Improvements and Comfort Station.
- Continued design of the Tower City East Portal Rehabilitation.
- Continued design of the East 120th Street Substation Replacement.
- Began construction of the Triskett Garage Compressed Natural Gas (CNG) Facility Upgrades.
- Began construction of the Cuyahoga Viaduct Rehabilitation Phase 1.
- Supported the activities of the Cuyahoga County Trails Leadership Network.
- Provided FFY2022 Cleveland Urbanized Area (CUZA) funding allocations for the Region for formula, Cares II Act (CRRSAA), and American Rescue Plan (ARP) grants.
- Promoted transit elements in various 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.
- Obtained over \$45 million of competitive grants from 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 \$50 million.

2022 PRIORITIES

- Complete construction of the Triskett Garage CNG Facility Upgrades.
- Complete construction of the Warrensville/Van Aken Substation.
- Complete construction of the East 75th Light Rail Interlocking
- Complete construction of the Red Line Fiber Optic Line Replacement.
- Complete construction of the West 30th Substation Transformer/Rectifier Replacements.
- Complete construction of the Cuyahoga Viaduct Rehabilitation Phase 1.
- Complete construction of the West 117th Street Substation.
- Complete construction of the Overhead Catenary System Structural Rehabilitation – Phase 1.
- Complete the due diligence phase for the Columbus Road Transit Oriented Development.
- Complete installation of the Trunk Line Signal System.
- Complete design & begin installation of the 515 Switch and Track.
- 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.
- Complete design and begin construction of the Tower City East Portal Rehabilitation.
- Begin construction of the East 120th Street Substation Replacement.
- Begin construction of the Waterfront Line Bridge Rehabilitation.
- Begin construction of the Red Line Bridge over West 117th Street.
- Begin design & installation of the new CTDS system.
- Begin design of the West 25th Street/MetroHealth Line BRT Corridor.
- Begin installation of the Shaker Light Rail Shelter Improvements.
- Begin the onboard Origin & Destination Surveys.
- Begin design of the Light Rail Retaining Wall Rehabilitation - Phase 3.
- Begin design of the Track Bridge over Conrail.
- Support the Rail Car Replacement Program.
- Support the Baby on Board and Paradox Price Pilot Programs.
- Support the activities of the Cuyahoga County Trails Leadership Network.
- Provide FFY2023 and updated FY2022 CUZA funding allocations for the Region.
- 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.
- Obtain competitive grants from FTA, ODOT, OEPA and NOACA.
- Increase funding for the Rail Car Replacement Program.

LIST OF DEPARTMENTS

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

ENG. & PROJ MNGMT DIVISION



Success Outcomes	Metric	FY2022 Performance Goals	Objective	Definition
Customer Experience	Annual Goal for Rail Car Replacement Fund	\$25M	–	Appropriated or obligated funding for rail car replacement fund secured in the program year
	Completion of Annual Work Program	\$35M	–	Total value of the design and construction contracts approved by the Board of Trustees.
	Benefit and Value of Capital Program Investments - Impression	20%	↑	% of customers who have a positive impression of capital program investments (recently completed projects)
	Capital Program Project Schedule Adherence	60%	–	% of capital projects (budget ≥ \$1M) that reach substantial completion milestone on schedule
Community Value	Economic Impact of Capital Program - Impression	20%	↑	% of community that has a positive perception of the economic impact of the capital program
	Economic Impact of Capital Program - Actual	3 to 1	↑	The actual economic impact of major capital projects (budget ≥ \$1M)
	Sustainability - Emissions Reduction - Actual	>5%	↓	% Reduction of Type I and II emissions per passenger-mile traveled on RTA
	Social Mobility Initiative - Impression	20%	↑	% of community that agrees or strongly agrees that GCRTA provides service that supports quality of life and social needs

Success Outcomes	Metric	FY2022	Objective	Definition
		Performance Goals		
Financial Sustainability	Competitive Grants Awarded Towards Annual Goal for Prioritized Capital Projects	\$30M	–	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)
Employee Engagement	Division Employees Agree - Supervisor Invested in Growth and Success	5%	↑	% 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	10%	↑	% 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	20%	↑	% 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
	Agency 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 to create a healthier and livable environment for our customers and the community we serve.

2021 ACCOMPLISHMENTS

- Completed 96 Quality Assurance Audits
- Completed 39 Quality Control Plan, Request for Proposal and Issue for Bid Package Reviews
- Completed 27 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 E. 79th Street Red Line Station
- Received SITES certification for the E. 79th Street Red Line Station
- Completed Design for modifications to the GCRTA Main Office Building Vestibule
- Execution of Paratransit LED retrofit project
- Execution of modifications of Paint & Primer storage room to reduce Central Bus Maintenance Facility Significant Aspect risk
- Tracked agency wide emissions for sustainability program

2022 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.
- Provide engineering assistance as needed in Design and Construction.
- Conduct Field and Manufacturing site visits.
- Coordinate work of support staff.
- Complete construction of the GCRTA Main Office Building Vestibule Modifications
- Create a GCRTA Climate Action Plan for the FTA's Sustainable Transit for a Healthy Planet Challenge

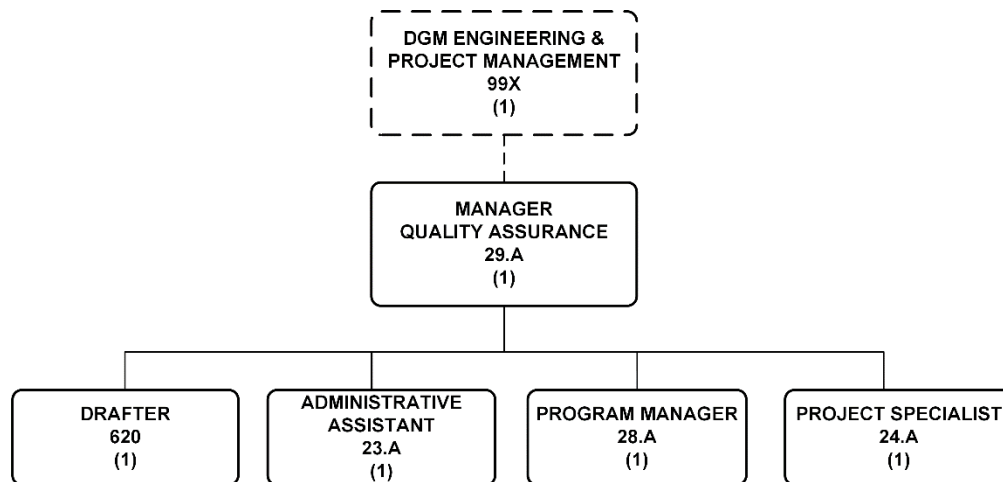
PROJECT SUPPORT DEPARTMENT BUDGET

Object Class	Description	2020 Actual	2021 – 3Q Estimate	2022 Budget
501300	Labor – Salaried Employees	422,519	446,625	235,068
501310	Overtime – Salaried Employees	-	-	10,000
502000	Fringe Benefits	161,195	141,766	114,064
503000	Services	13,600	28,403	61,500
504000	Materials & Supplies	990	4,009	5,300
509000	Miscellaneous Expenses	22,579	48,893	29,000
509022	Meals & Concessions	-	-	250
Total		620,883	669,696	455,182

PROJECT SUPPORT DEPARTMENT STAFFING

Grade	Job Name	2020	2021	2022
06	0620 Drafter	1.0	1.0	1.0
23	0757 Administrative Assistant	2.0	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
Total		6.0	5.0	5.0

PROJECT SUPPORT DEPARTMENT ORGANIZATION CHART



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.

2021 ACCOMPLISHMENTS

- Completed 25connects w. 25th Street FTA Pilot TOD Planning project
- Executed a Development and Use Agreement for the W. 25th Street/Columbus Road TOD Project
- Completed sale of Excess property at Cordova Loop in Lakewood.
- Assisted with the issuance of Thirteen shelter permits from the City of Cleveland
- Completed the Fiscal Year Cleveland Urbanized Area Allocations for FTA 5307 and 5339 funds
- Completed American Rescue Act Plan (ARP) allocation for the amount of \$136,108,510.
- Completed Legislative Update identifying the geographic location of RTA suppliers for goods and services resulting from RTA's capital expenditures
- Served on NOACA Air Quality, Transit Council, and Transportation Committees.
- Participated in NOACA's Downtown Mobility Plan
- Completed improvements to four transit waiting environments in the collaboration with the City of Solon.
- Processed and obtained Environmental Clearances on two projects.
- Continued Work with the City of Cleveland's Vision Zero Task Force.
- Participated on Downtown Cleveland Alliance's Downtown Mobility Taskforce and Ontario Street Planning
- Completed the relocation of two art shelters formerly on Detroit in Gordon square to a nearby community park.
- Completed three Community Investment Improvement Projects and two other Transit Waiting Environment projects.
- Assisted in successful application to ODOT Ohio Transit Partnership Program (OPT2 Program for ConnectWorkS and extension of the "Baby on Board" program
- Continued efforts working on the task force in Shaker Heights on Van Aken District
- Represented RTA on Solon Mobility Task Force
- Created Legislature Update for capital expenditures Represent RTA interests in City of Cleveland, NOACA, and other agency Planning projects as required
- Managed real estate interests of RTA as required
- Created a new, consolidated agreement with N & S that governs all RTA leases/encroachments and uses of their properties for operations.
- Completed the Red Line Greenway project
- Initiated the creation of a Monitoring tool and annual update of Framework for the Future objectives
- Established Micro Mobility Pilot Demonstration project.
- Initiated Planning and Section 106 Review Process for Shaker Shelter Improvement Project
- Managed the creation of three murals on GCRTA property
- Identified the scope and location of capital improvements required to implement the Baby on Board project and began the procurement process for them
- Participated in regional stakeholder planning projects

- Represented RTA on the Cuyahoga Greenway Partners Committee
- Awarded NOACA TLCI fund to study mobility and safety improvements to the HealthLine with the City of East Cleveland
- Represented RTA on a County Board of Health Task Force the Social Determinants of Health
- Awarded NOACA TLCI funds with Laketran to study the construction of a TOD/ Intermodal Center at Shoregate Shopping Center
- Coordinated the location of mobility hubs with the City of Cleveland and Cuyahoga County Office of Sustainability
- Coordinated City of Cleveland's land interests required for construction of the new Safety Center
- Participated on RTA's Diversity and Inclusion Committee

2022 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 to evaluate and dispose of excess real estate assets no longer required for RTA operations
- Participate in Columbus Road TOD Planning process
- Complete land transactions required for the construction of the City of Cleveland's new Safety Center
- Award Contract for design phase of 25Connects
- Award Contract for RTA On-Board Survey
- Assist with Development of a 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 short term objectives
- Complete land acquisitions required for Viaduct Repair, W. 117th Bridge and West Side Red Line projects.
- Complete five Transit Waiting Environment projects and an additional five Community Shelter Investment projects
- Continue to represent GCRTA on NOACA committees, Sub-committees, Task Forces, and TLCI projects
- Implement Micro Mobility Pilot Demonstration project.
- Complete four Community Investment Improvement Projects.
- Complete four TWE projects
- 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 downtown transit signage project in collaboration with Laketran, Neoride and other transit agencies
- Complete Baby on Board program improvements
- Award contract for Shaker Shelter Improvement Project
- Begin Planning work with NOACA on the "Reimagining Euclid" and the Shoregate TLCI planning projects
- Complete technical assistance required for the E. 105/E. 93rd Street BRT Project sponsored by the City of Cleveland
- Continue to develop Diversity Inclusion artistic messaging and murals on RTA Assets
- Manage 25Connects through the FTA Small Starts Process
- Represent 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

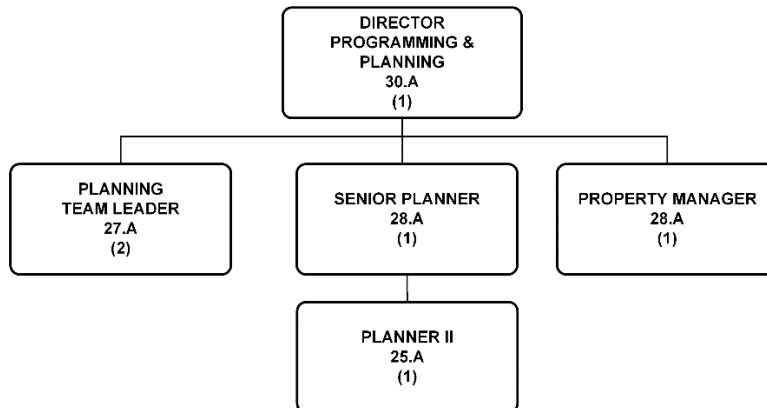
PROGRAMMING AND PLANNING DEPARTMENT BUDGET

Object Class	Description	2020 Actual	2021 – 3Q Estimate	2022 Budget
501300	Labor Salaried Employees	356,707	364,351	401,451
502000	Fringe Benefits	142,477	135,515	139,789
503000	Services	123,721	102,906	17,300
504000	Materials & Supplies	20	-	600
507030	Property Taxes	(34,496)	222,089	264,833
509000	Miscellaneous Expenses	3,943	5,693	21,626
509022	Meals & Concessions	-	-	100
512000	Leases & Rentals	58,327	61,426	51,533
Total		650,699	891,977	897,232

PROGRAMMING AND PLANNING DEPARTMENT STAFFING

Grade	Job Name	2020	2021	2022
25	1970 Planner II	0.0	1.0	1.0
27	0838 Planning Team Leader	2.0	1.0	1.0
28	1969 Senior Planner	-	1.0	1.0
28	0794 Property Manager	1.0	1.0	1.0
30	0788 Director	1.0	1.0	1.0
Total		4.0	5.0	5.0

PROGRAMMING AND PLANNING DEPARTMENT ORGANIZATION CHART



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 services. Engineering works to assure that capital projects meet the expectations of internal and external customers and stakeholders.

2021 ACCOMPLISHMENTS

- Completed reconstruction of Tower City Track 13, 10 West and upgrades to GL-1 processor and Consolidated Train Dispatch System (CTDS).
- Completed reconstruction of Light Rail Track (Trunk Line Phase 2) from Buckeye/Woodhill to Shaker Square.
- Began design of Red Line Switch 515 (Brookpark Yard) return to service.
- Continued reconstruction of Warrensville – Van Aken Substation. Modular substation in place.
- Placed modular Puritas Red Line Substation in service.
- Began construction of W. 117th Substation Rehabilitation.
- Continued construction of Red Line Fiber Optic System Replacement.
- Completed reroofing and A/C replacement of Michael's Diner at Shaker Square.
- Began replacement of Triskett Garage HVAC and mechanical infrastructure to support the CNG Fueling Facility.
- Completed construction of the new E. 79th Red Line Station.
- Continued design of the E. 120th Red Line Substation Replacement.
- Began construction of the W. 30th Red Line Substation Rehabilitation.
- Completed design and issued IFB for the Light Rail Trunk Line Signal System Replacement.
- Completed construction of the Light Rail Trunk Line Retaining Wall Rehabilitation – Phase 2.
- Continued Tower City East Portal Reconstruction design.
- Began construction of the Cuyahoga Viaduct Rehabilitation – Phase 1.
- Completed design of Cuyahoga Viaduct River Bulkhead Rehabilitation.
- Began design of Light Rail Track Rehabilitation Trunk Line E. 75th Interlocking.
- Completed Red Line E. 55th – E. 79th Curve Rail Replacement.
- Continued Safety Certification process for Rail Car Replacement Program.
- Began design for Brookpark Shop and Yard Improvements to support Rail Car Replacement Program.
- Began design for W. 117th Red Line Bridge/Station Platform Rehabilitation.
- Began design for Waterfront Line Bridge Rehabilitation.
- Completed emergency installation of shoring towers to support Waterfront Line Bridge.
- Began construction of Overhead Catenary Structural Rehabilitation Phase 1.
- Continued design of Warrensville - Van Aken Comfort Station and Rail Station Improvements, including track, power and signal components.
- Began Central Rail Maintenance Facility West Access Road Bridge Replacement alignment study.
- Continued to support Asset Management and State of Good Repair projects throughout GCRTA.

2022 PRIORITIES

- Begin design of W. 25th Connects Bus Rapid Transit System.
- Begin reconstruction of the E. 75th Trunk Line Interlocking.
- Begin Red Line Rail Grinding Program.
- Complete construction of the Fiber Optic System Replacement.
- Complete construction of the Triskett CNG Garage HVAC and other Infrastructure Upgrades.
- Complete construction of the Warrensville - Van Aken Substation.
- Begin construction of Warrensville - Van Aken Comfort Station and Rail Station including track, power and signal.
- Complete design and advertise Hayden Garage Roof Replacement.
- Begin design of the Windermere Red Line Substation Rehabilitation.
- Complete design and advertise E. 120th Red Line Substation Replacement.
- Complete construction of W. 30th Red Line Substation Rehabilitation.
- Award and begin Light Rail Trunk Line Signal System Replacement.
- Begin design of Light Rail Trunk Line Retaining Wall Rehabilitation – Phase 3 – Blue Line.
- Complete design of and award Tower City East Portal Reconstruction.
- Complete construction of Cuyahoga Viaduct Rehabilitation - Phase 1
- Award and begin construction of Cuyahoga Viaduct Bulkhead Repair.
- Award Shaker Boulevard Crossings Replacement.
- Began construction of Red Line Switch 515 (Brookpark Yard) return to service.
- Continue Safety Certification process for Rail Car Replacement Program.
- Begin new Safety Certification Program for W. 117th Bridge, Warrensville Station and other projects.
- Complete design for Brookpark Shop and Yard Improvements to support Rail Car Replacement Program.
- Begin design for Station Platform improvements to support Rail Car Replacement Program.
- Complete design and award for W. 117th Red Line Bridge/Station Platform Rehabilitation.
- Complete design and award for Waterfront Line Bridge Rehabilitation.
- Begin design for Flyover Bridge near Stokes Reconstruction.
- Complete construction of Overhead Catenary Structural Rehabilitation Phase 1.
- Complete design and award for Overhead Catenary Structural Rehabilitation Phase 2.
- Continued to support Asset Management and State of Good Repair projects throughout GCRTA.

ENGINEERING & PROJECT DEVELOPMENT DEPARTMENT BUDGET

Object Class	Description	2020 Actual	2021 – 3Q Estimate	2022 Budget
501300	Labor Salaried Employees	1,374,419	1,090,357	1,720,764
502000	Fringe Benefits	520,946	488,956	578,066
503000	Services	-	35,646	135,000
504000	Materials & Supplies	14,014	3,502	2,900
509000	Miscellaneous Expenses	13,681	19,925	38,540
509022	Meals & Concessions	1,165	86	800
Total		1,923,225	1,638,472	2,476,070

ENGINEERING & PROJECT DEVELOPMENT DEPARTMENT STAFFING

Grade	Job Name	2020	2021	2022
00	9942 Engineering Co-Op	-	1.0	1.0
01	8942 Engineering Intern	1.0	1.0	1.0
23	0725 Executive Secretary	1.0	0.0	0.0
25	1675 Office Manager	-	1.0	1.0
27	1192 Construction Engineer	3.0	2.0	2.0
28	1250 Supt Construction	1.0	1.0	1.0
	1355 Resident Engineer	7.0	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	0.0	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

