



Annual Road Report

Richland County, South Carolina

Department of Public Works

Fiscal Year 2021



Resurfacing project on Riverwalk Way



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Introduction and Purpose

This document is provided in order to inform the Citizens of Richland County on activities required to maintain and improve the County Road Maintenance System (CRMS) each year.

It provides a summary of these activities and projects completed during Fiscal Year 2021 (FY-21) which ran from July 1, 2020 through June 30, 2021. Projects in this report were managed and / or constructed by the Richland County Department of Public Works (DPW) and the Transportation Penny Department. All of the projects included in this report have been accepted into the CRMS. This system represents the large network of roads and roadside drainage that DPW maintains, repairs, and improves.

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Maintenance Locations:

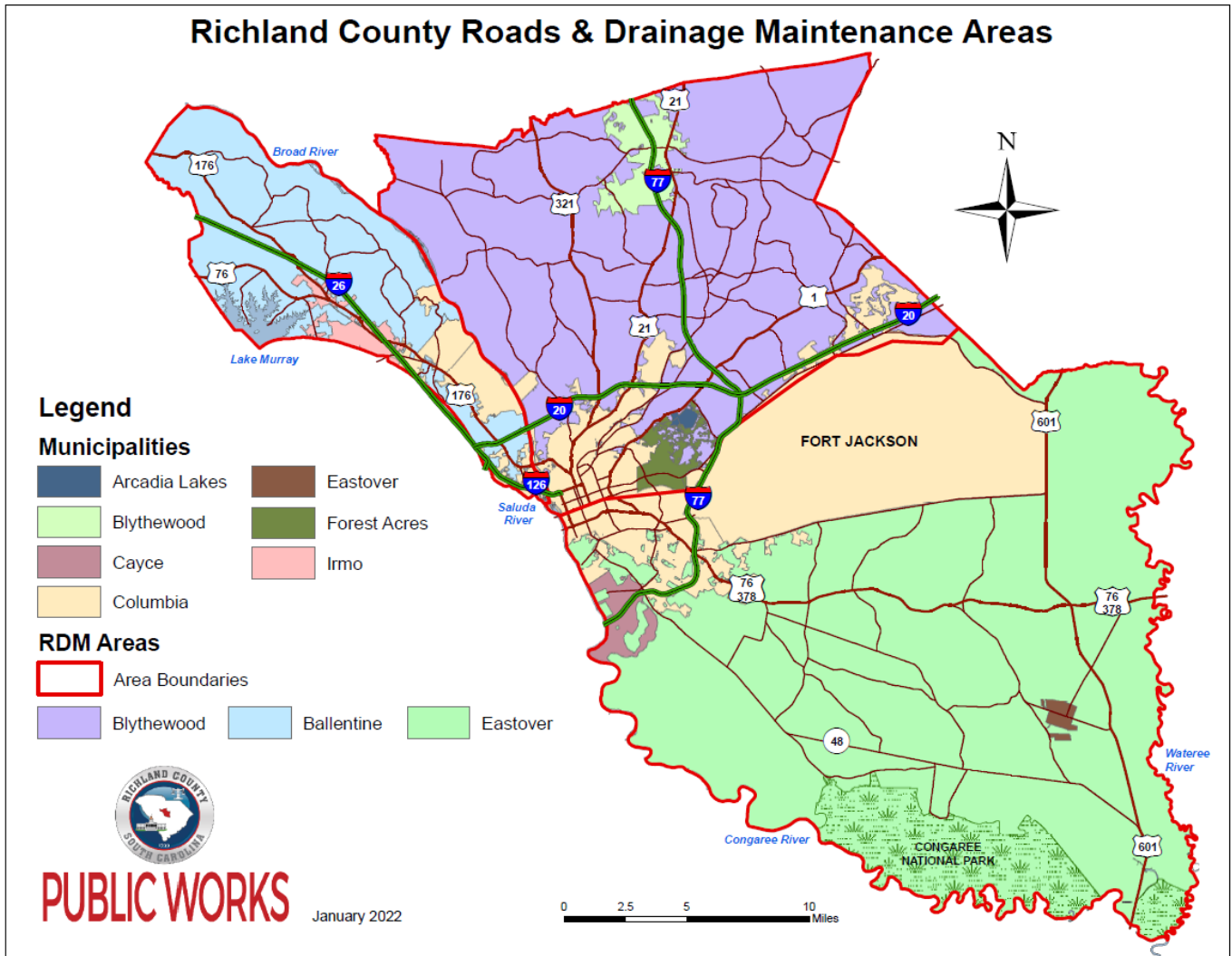
Specialty Sections
400 Powell Rd
Columbia, SC 29203

Blythewood (North) Section
437 Blythewood Rd
Blythewood, SC 29106

Ballentine (West) Section
1009 Bickley Rd
Irmo, SC 29063

Eastover (South) Section
2009 Chain Gang Rd
Eastover, SC 29044

Richland County Roads & Drainage Maintenance Areas Map



Comprehensive Transportation Improvement Plan (CTIP)

The Richland County Department of Public Works (DPW) maintains an extensive network of roads within the County Road Maintenance System (CRMS). The Department Staff currently maintains 831 miles of various types of roads.

Road Type	Mileage
Unpaved Prescriptive Easement	161
Unpaved Right-of-Way	44
Paved	621
Paved- incoming	5
Total	831

Most of the roads accepted into the CRMS are classified as residential. These are low volume, low speed, two-lane roadways. The County also maintains a small group of collector roads and industrial / commercial roads. As subdivision roads are deeded to the County by developers, the drainage system associated with those roads is also conveyed for maintenance. In order to be accepted into the CRMS, roads and drainage systems must be constructed to County standards.

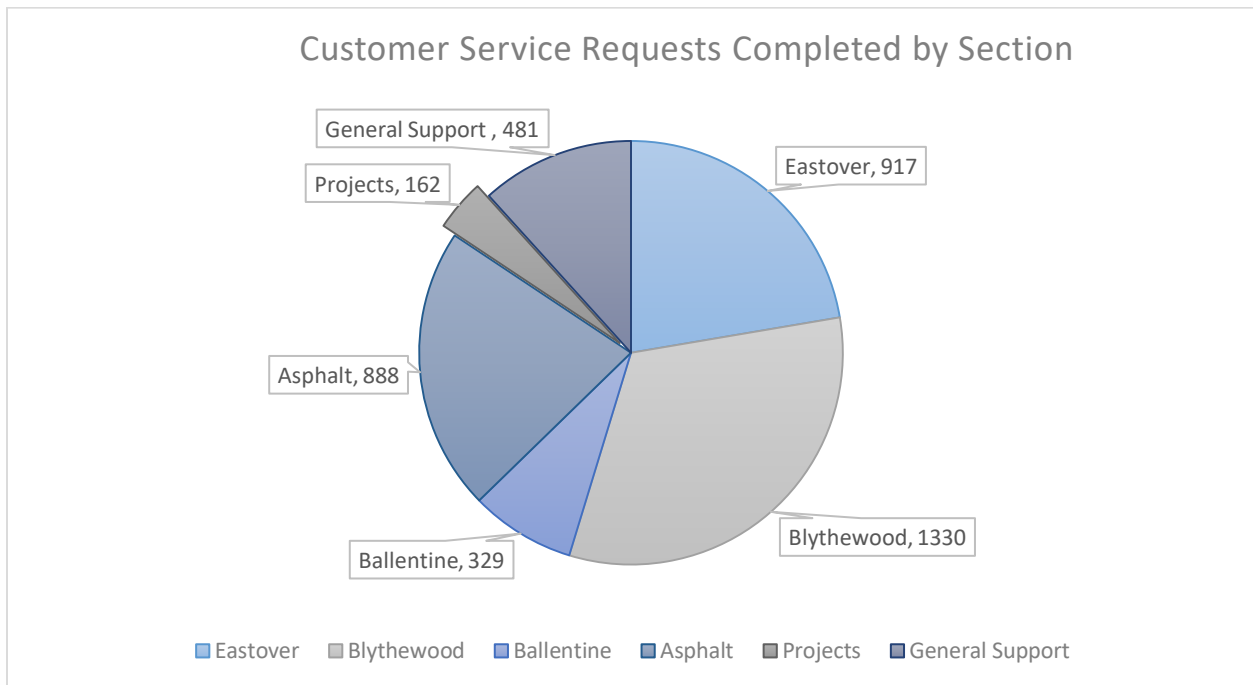
In Fiscal Year 2020 (FY-20), DPW released its first annual Comprehensive Transportation Improvement Plan (CTIP). This plan was created based on an evaluation of assets and a distribution of resources within each Council District. The CTIP addresses the transportation projects which are intended to be started and / or completed in the coming Fiscal Year. Once the budget is determined for the upcoming year, the Roads & Drainage Maintenance Division (RDM) and Engineering Staff (EGR) create the preliminary plan under the guidance of the Director of Public Works. It is then presented to the County Council and the County Transportation Committee (CTC) for approval.

Funding for these projects comes from two main sources: the Road Maintenance Fee and “C” Funds (CTC funding). The Road Maintenance Fee is collected on vehicle personal property tax bills from residents of Richland County. This generates approximately \$6,000,000 per year which is applied to funding capital roadway projects, maintenance and repair of roads, sidewalk construction and repair, and drainage repair and improvements. “C” Funds are allocated on a per project basis by the CTC, at their discretion, to agencies whose projects meet established criteria.

Based on Intergovernmental Agreements (IGA) with small municipalities within Richland County, the DPW Staff requests funding from the CTC on their behalf. The CTIP is updated annually.

Customer Service Focus

Within the Department of Public Works, the Divisions of Roads & Drainage Maintenance (RDM) and Engineering (EGR) are customer service focused groups who respond directly to Citizen Service Requests (CSRs). In FY-21, these Divisions completed a total of 4,742 CSRs (with RDM completing 4,170 of those).



Below is a breakdown of major categories for service request assigned to the RDM and EGR Divisions during FY-21:

CSRs by Category	# Requests	Percentage
<i>Road Maintenance/Repairs</i>	1,694	36%
<i>Drainage Maintenance</i>	1,072	23%
<i>Traffic Control/Safety Issues</i>	572	12%
<i>Vegetation Maintenance</i>	368	8%
<i>Emergency Maintenance/Road Hazards</i>	244	5%
<i>Other</i>	792	16%
Total	4,742	100%



In a partnership with smaller municipalities, Richland County has IGAs for maintenance of roads and their associated drainage systems:

- Town of Blythewood
- Town of Irmo
- Town of Arcadia Lakes
- City of Forest Acres
- Town of Eastover

IGAs enable a basic level of maintenance to be efficiently provided to citizens of these municipalities, while avoiding the high cost of the municipalities developing their own Public Works Departments.

The County also enters into Maintenance Agreements with the South Carolina Department of Transportation (SCDOT). There are currently three such agreements where DPW shares some of the maintenance responsibilities with SCDOT within their rights-of-way:

- Polo Road Shared Use Path (SUP)
- Clemson Road SUP
- Rabbit Run / Lower Richland Blvd SUP

DPW also maintains an agreement with the SCDOT to provide assistance in clearing the SCDOT road system in the case of a winter weather snow or ice event. County resources of labor and equipment are provided on a reimbursable basis.



SUP- Polo Rd

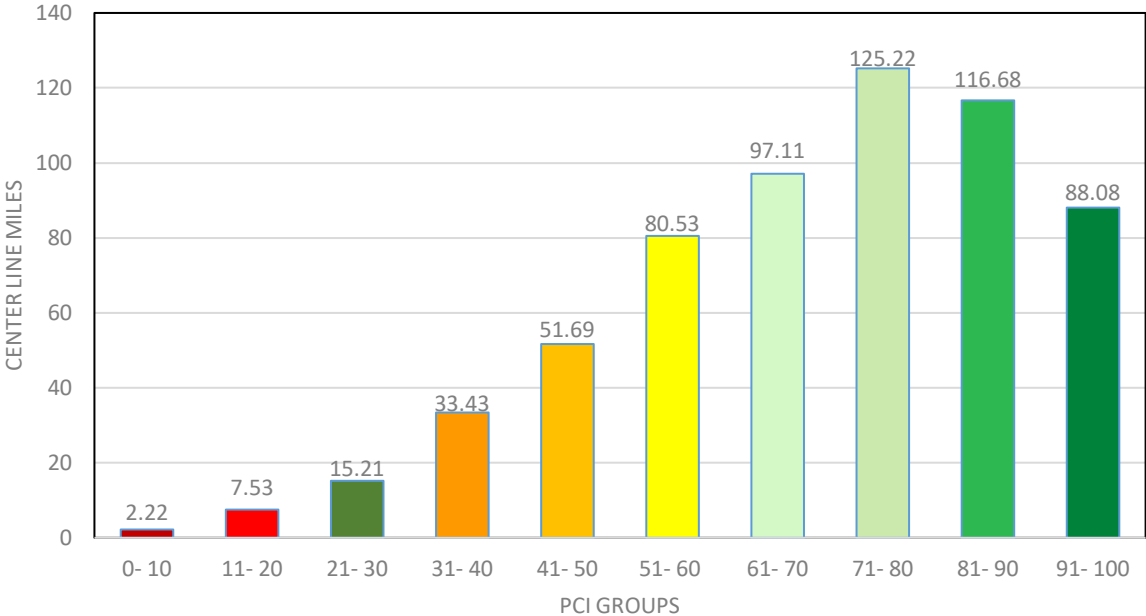


Pavement Management Study (PMS)

The County is concluding its second Pavement Management Study (PMS) to assess the condition of all paved roads within the County Road Maintenance System (CRMS). The PMS generates a Pavement Condition Index (PCI) for each road based on evaluation of common distresses such as alligator, longitudinal, and transverse cracking. The extent and severity of these distresses correlate to a numerical value between 0 - 100. Every two years these values will be updated through inspection by EGR Staff. A new comprehensive study will be performed every six years.

The other function of the PMS is to assist in developing a long-term plan for allocating funding into the CRMS. Various methods of pavement treatment will be employed such as preservation, resurfacing, and rehabilitation. The plan is data-driven, based on PCI values and available funding. The County’s goal is to elevate all County roads to a standard of “good” and maintain them at that level thereafter.

PCI Data Based on 2021 PMS



Operations Performed by Public Works

Road Maintenance and Repair

The majority of Citizen Service Requests (CSRs) received by RDM are for road maintenance and repair. In FY-21, 1,694 CSRs were categorized as “Road Maintenance.” Each workday, crews perform activities such as patching potholes, installing driveway aprons, and scraping / crowning unpaved roads. Smaller paving jobs, curb and gutter repair, and sidewalk repair are also performed.

Larger scale projects are constructed by the RDM Projects Section or outsourced to a contractor as a part of the Capital Improvement Projects (CIP) program. RDM and EGR staffs work together in order to determine how to best manage and prioritize these projects.

Also in FY-21, a dust suppression compound was applied to 61 unpaved roads, equaling 38 miles of roadway.



Unpaved road scrape performed by RDM crew

Drainage Maintenance



Drainage Maintenance includes cleaning of pipes, pipe inlets and outfalls, joint repairs on reinforced concrete pipe, installation and extension of drainage pipes, cleaning and repairing catch basins, cleaning and re-establishing ditches. During FY-21, 1,072 CSRs were classified as drainage related. A well-functioning drainage system is essential to the longevity of roadways and the protection of property. When a drainage systems fail, it can lead to property damage and may be a health and safety concern as well.

Clogged outfall pipe (before)



DPW is working to create a comprehensive inventory of all County drainage system components, as a layer within our Geographic Information System (GIS). DPW maintains approximately 367 miles of various types of pipe, including reinforced concrete, high density plastic, and corrugated metal.

RDM relies heavily on citizens to inform them when drainage systems are not functioning properly and are in need of maintenance.

Outfall pipe after maintenance

Traffic Control and Traffic Safety

This category of requests includes such tasks as sign installations, traffic calming requests, speed hump installations, and pavement marking requests. RDM Crews perform all of these tasks, except large scale pavement marking installation, which is performed by an on-call contractor.

The RDM, General Support Section has a Sign Shop at the Powell Road Compound where all signs for County maintained roads and all street name signs for all roads within Richland County (to include both SCDOT and private roads) are fabricated. The General Support Section is also responsible for installation of all traffic control signs within the CRMS.

The Engineering Division Staff manages requests for traffic calming studies. Following established County policy, studies are conducted to determine if a traffic calming device needs to be installed on a road. The EGR Staff performs all studies for both County and SCDOT maintained paved roadways. If a study meets the established criteria and qualifies for a speed hump, the Asphalt & Concrete Section install these at the designated location. In FY-21, 55 studies were conducted and five (< 10%) qualified and received speed humps.



Speed hump installed by RDM on Whitehurst Way

Vegetation Maintenance

Vegetation Maintenance includes mowing rural road shoulders, tree trimming, and clearing brush that obscures roadway visibility or restricts drainage through ditches.

Joint projects between the Transportation Penny Department and SCDOT have resulted in maintenance agreements where the County has responsibilities for mowing Shared Use Paths (SUPs) on some State roads.



Slope mower cutting County right-of-way

Mowing operations are both seasonal and affected by rainfall amount. The County does not perform this service within subdivisions; the majority of the mowing and trimming activities are performed in rural areas of the County. RDM operates five slope mowers to accomplish all of their mowing responsibilities.

Tree trimming is frequently performed in response to a citizen request where School Buses or trucks cannot maneuver properly due to low hanging limbs close to the roadway. This trimming may be accomplished by RDM employees and equipment or a tree contractor depending upon the circumstances.



Emergency Maintenance and Road Hazards



Sinkhole near 2020 Hampton St

The Roads & Drainage Maintenance Division (RDM) staff responds to calls 24-hours a day with on-call personnel for after-hour emergencies. RDM crews work with other emergency response agencies to dispatch staff as needed.

RDM frequently responds to road hazardous such as trees or other obstacles blocking the roadway which could cause danger to the traveling public.

Emergency Maintenance projects are constructed with the approval of the County Administrator or when a State of Emergency is declared. During a State of Emergency, all essential personnel in the Department work rotating shift to ensure around-the-clock response to keep the roadways safe. Weather events such as snow and ice or hurricanes are the most common reasons for a State of Emergency. When a hazard cannot immediately be corrected, staff has the ability to close a road until a safe route can be established.

DPW Staff also works closely with Richland County Emergency Management Division (EMD). When EMD activates the Emergency Operation Center (EOC), the Engineering Division provides staff members to the Center to coordinate efforts and enhance communication throughout County Departments.

Roads & Drainage – Projects Section

The Department of Public Works has a Projects Section to address infrastructure needs that exceed the scope of routine maintenance. Projects falling into this category are of a more complex nature, require a longer time to complete, and also require some level of basic engineering analysis and design.

The Projects Section performs a broad range of tasks from drainage improvements, to roadway repairs, replacement of curb and gutter, and even occasional work at the Jim Hamilton – LB Owens Airport (CUB). Projects typically start with a CSR which is investigated by Roads & Drainage Maintenance Staff. If determined to be beyond the scope of routine maintenance, then RDM will refer the request to the Engineering Division staff for evaluation. At that point, it is determined if the request qualifies for the internal project list, or should be performed by a contractor as a Capital Improvement Project (CIP).

In FY-21, the Projects Section completed 14 projects, of which, most were related to drainage concerns from Citizens.



Drainage improvement project at CUB

Capital Improvement Projects

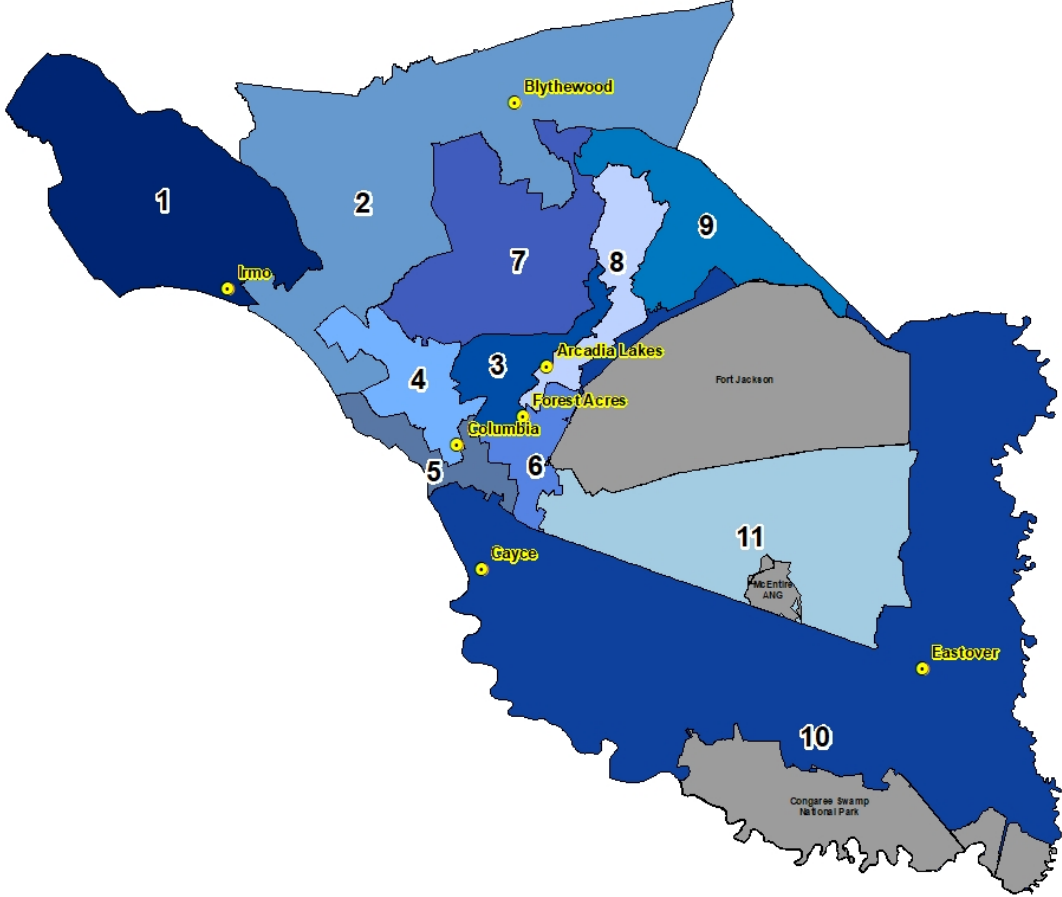
The Department of Public Works budgets each year to complete Capital Improvement Projects through a procurement process used to select consultants and contractors.



CIP resurfacing project on Hollingwood Dr

When the scope of a project is deemed to be too large for Public Works crews, a consultant and then a contractor are engaged to perform the work to County specified standards. The Engineering Division, employs inspection staff to observe and inspect work as it is being performed. The most common Capital Improvement Projects are road resurfacing and sidewalk construction. Comprehensive lists, by County Council District, of these projects (as well as dirt road paving) managed by the Department of Public Works and the Transportation Penny Department follow hereafter.

Council District Map



Projects by Council District

District 1



Project	Total Mileage
Resurfacing	8.29
Paving	0.73

Resurfacing Projects:

Road Name	District	Linear Miles	Department
Sienna Dr	1	0.64	DPW
Hawks Ridge Ct	1	0.07	DPW
Cypress Springs Ct	1	0.09	DPW
Sienna Ct	1	0.13	DPW
Cabot Bay Dr	1	0.05	DPW
Morning Breeze Ct	1	0.09	DPW
Shores Edge Dr	1	0.27	DPW
Harbors Mist Dr	1	0.07	DPW
Stockland Rd	1	0.43	DPW
Riverwalk Way	1	1.70	DPW
Billsdale Ct	1	0.03	Transportation
Billsdale Rd	1	0.22	Transportation
Chadford Rd	1	0.13	Transportation
Crossthorn Rd	1	0.11	Transportation
Lyne Cove	1	0.06	Transportation
Oak Hampton Rd	1	0.07	Transportation
Ramsbury Ct	1	0.06	Transportation
Trinity Three Cir	1	0.04	Transportation
Trinity Three Ct	1	0.04	Transportation
Trinity Three Rd	1	0.26	Transportation
Upton Grey Ct	1	0.04	Transportation
Upton Grey Rd	1	0.19	Transportation
Wells Garden Ct	1	0.17	Transportation
Anna B Ln	1	0.14	Transportation
Ballentine Point Rd	1	0.13	Transportation
Battery Rd	1	0.11	Transportation



District 1 (cont'd)

Resurfacing Projects Continued:

Road Name	District	Linear Miles	Department
Blackburn Rd	1	0.11	Transportation
Blue Bird Trl	1	0.11	Transportation
Boulters Lock Rd	1	0.09	Transportation
Bronlow Dr	1	0.42	Transportation
Carolee Ct	1	0.05	Transportation
Cavendish Ct	1	0.06	Transportation
Clouser Dr	1	0.05	Transportation
Craven Arms Ct	1	0.06	Transportation
Gidding Ct	1	0.15	Transportation
Gowham Ct	1	0.15	Transportation
Grayside Rd	1	0.16	Transportation
Hawks Ridge Ln	1	0.17	Transportation
Kristyben Ct	1	0.05	Transportation
Lely Ct	1	0.08	Transportation
Maid Lynn Ct	1	0.07	Transportation
Penningail Ct	1	0.05	Transportation
Raintree Dr	1	0.25	Transportation
Southhampton Dr	1	0.50	Transportation
Sutton Way	1	0.37	Transportation

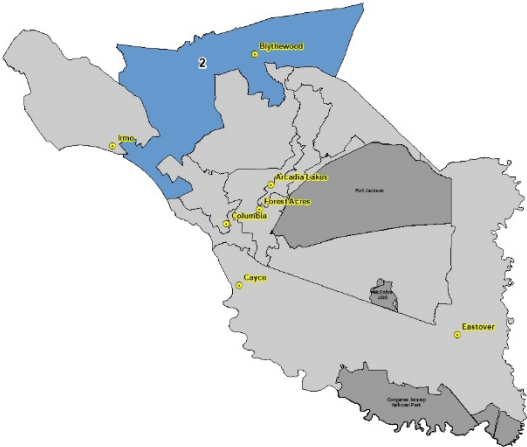
Dirt Road Paving Projects:

Road Name	District	Linear Miles	Department
Haven Cir	1	0.24	Transportation
Mrs Mack Rd	1	0.22	Transportation
Summer Haven Dr, Ph1	1	0.05	Transportation
Howard Cooglar Rd	1	0.22	Transportation



District 2

Project	Total Mileage
Resurfacing	2.05
Paving	0.45



Resurfacing Projects:

Road Name	District	Linear Miles	Department
Arborgate Ct	2	0.10	Transportation
Arborland Ct	2	0.10	Transportation
Azalea Circle	2	0.10	Transportation
Evelyn Ct	2	0.07	Transportation
Grey Oak Ln	2	0.34	Transportation
North Palace Ct	2	0.09	Transportation
Oak Knoll Dr	2	0.42	Transportation
Oakleaf Circle	2	0.27	Transportation
Old Tree Ct	2	0.08	Transportation
Riverwalk Ct	2	0.26	Transportation
Oakmist Way	2	0.22	Transportation

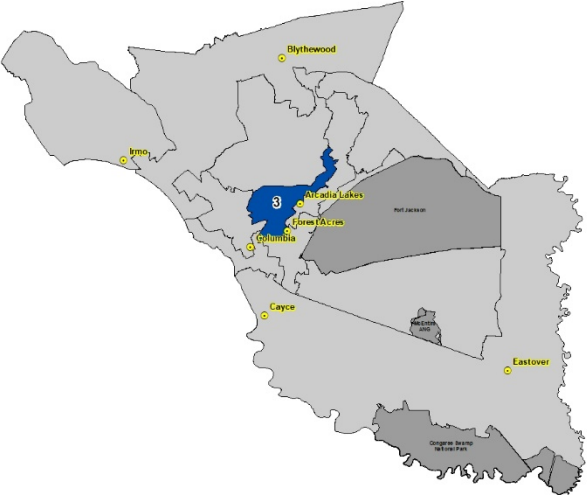
Dirt Road Paving Projects:

Road Name	District	Linear Miles	Department
Net Dean Cir	2	0.40	Transportation
London Ave	2	0.05	Transportation



District 3

Project	Total Mileage
Resurfacing	0.67
Paving	0.03
Sidewalk	1.2



Resurfacing Projects:

Road Name	District	Linear Miles	Department
Cokesbury Dr	3	0.33	Transportation
Sprott St	3	0.30	Transportation
Wales Rd	3	0.04	Transportation

Dirt Road Paving Projects:

Road Name	District	Linear Miles	Department
Hall St	3	0.03	Transportation

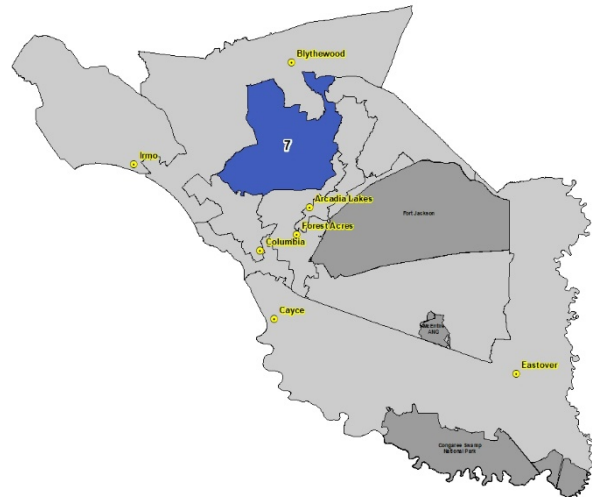
Sidewalk Construction:

Road Name	Start	End	Length(mi)	District	Department
Harrison Rd	Two Notch	Forest Dr	1.2	3	Transportation



District 7

Project	Total Mileage
Resurfacing	3.80

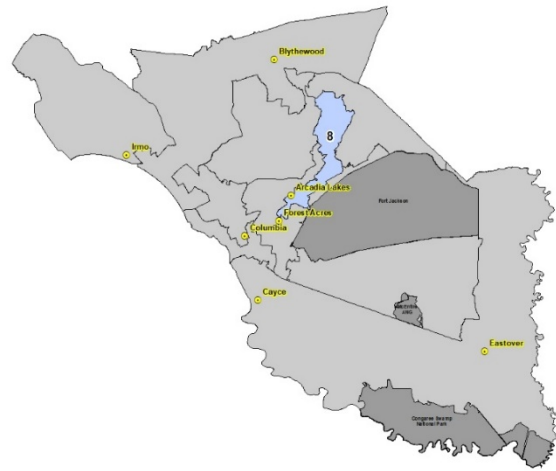


Resurfacing Projects:

Road Name	District	Linear Miles	Department
Bent Oak Ct	7	0.06	Transportation
Bonbon Ln	7	0.03	Transportation
Grantham Cir	7	0.06	Transportation
Warly Ct	7	0.02	Transportation
Ashley Crest Dr	7	0.33	Transportation
Bradbury Dr	7	0.50	Transportation
Clover Bay Dr	7	0.11	Transportation
Glen Green Dr	7	0.19	Transportation
Glenshire Dr	7	0.36	Transportation
Hillvale Ct	7	0.06	Transportation
Hillvale Dr	7	0.20	Transportation
Holly Ridge Ct	7	0.06	Transportation
Holly Ridge Ln	7	0.47	Transportation
Meadowlake Ct	7	0.08	Transportation
Petworth Ct	7	0.08	Transportation
Petworth Dr	7	0.19	Transportation
Savannah Dr	7	0.17	Transportation
Summer Vale Ct	7	0.16	Transportation
Whitehurst Way	7	0.67	Transportation

District 8

Project	Total Mileage
Resurfacing	5.47
Sidewalk	2.73



Resurfacing Projects:

Road Name	District	Linear Miles	Department
Dowgate Hill Ct	8	0.05	Transportation
Falmouth Rise Rd	8	0.21	Transportation
Hampstead Ct	8	0.06	Transportation
Ixworth Green	8	0.09	Transportation
Lambeth Walk	8	0.07	Transportation
Newgate End	8	0.03	Transportation
Rainsborough Way	8	0.28	Transportation
South Brick Rd	8	0.27	Transportation
Birchbark Ct	8	0.16	Transportation
Brook Hollow Dr	8	0.68	Transportation
Wheatstone	8	0.14	Transportation
Almeda Dr	8	0.16	Transportation
Ashley Brook Ct	8	0.13	Transportation
Athena Dr	8	0.20	Transportation
Brickingham Way	8	0.10	Transportation
Carriage House Rd	8	0.08	Transportation
Decker Blvd	8	1.01	Transportation
Deck Park Rd	8	0.18	Transportation
Humble Dr	8	0.20	Transportation
Lost Tree Dr	8	0.37	Transportation
N. Chateau Dr	8	0.44	Transportation
Shallow Pond Rd	8	0.14	Transportation
Sommerset Dr	8	0.20	Transportation
Polo Ridge Cir	8	0.20	Transportation

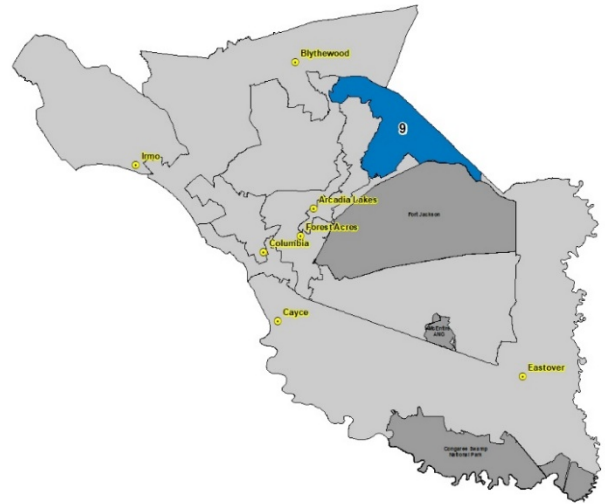
Sidewalk Construction:

Road Name	Start	End	Length(mi)	District	Department
Kneece Rd	Oneal Ct	Brookfield	0.52	8	DPW
Polo Rd	Mallet Hill Rd	Alpine Rd	1.7	8	Transportation
Faraway Dr	E Boundary Rd	Willoughby St	0.51	8,10	Transportation



District 9

Project	Total Mileage
Resurfacing	4.57
Sidewalk	0.41



Resurfacing Projects:

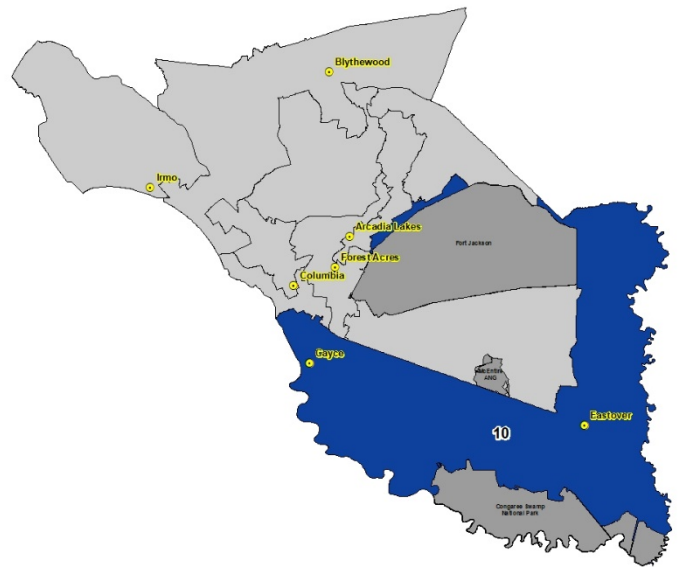
Road Name	District	Linear Miles	Department
Running Fox West	9	0.28	DPW
Meadow Brook Dr	9	0.22	DPW
Lone Oak Ln	9	0.12	DPW
Hollingwood Dr	9	0.23	DPW
Hollingwood Ct	9	0.02	DPW
Bradford Ln	9	0.05	Transportation
Westport Dr	9	0.12	Transportation
Ridgetop Ct	9	0.40	Transportation
Sugar Pine Ct	9	0.09	Transportation
Foxfield Ln	9	0.06	Transportation
Huntcliff Ct	9	0.04	Transportation
Norse Way	9	0.27	Transportation
Shallow Brook Dr	9	0.74	Transportation
Siegfried	9	0.13	Transportation
Springsdan Ln	9	0.26	Transportation
Tea Olive Rd	9	0.25	Transportation
Viking Dr	9	0.46	Transportation
Watson Way	9	0.20	Transportation
Woodlands Village	9	0.43	Transportation
Polo Ridge Cir	9	0.20	Transportation

Sidewalk Construction:

Road Name	Start	End	Length(mi)	District	Department
Clemson Rd	Old Clemson Rd	Chimney Ridge Rd	0.41	9,10	Transportation

District 10

Project	Total Mileage
Resurfacing	1.65
Paving	0.10
Sidewalk	0.92



Resurfacing Projects:

Road Name	District	Linear Miles	Department
Falbrook Ct	10	0.18	Transportation
Fincastle Ave	10	0.03	Transportation
Garland St	10	0.17	Transportation
Key Rd	10	0.37	Transportation
Spring Hope Rd	10	0.20	Transportation
Centeridge Dr	10	0.18	Transportation
Old Iron Rd	10	0.21	Transportation
S. Brighton Rd	10	0.10	Transportation
Stafford Rd	10	0.21	Transportation

Dirt Road Paving Projects:

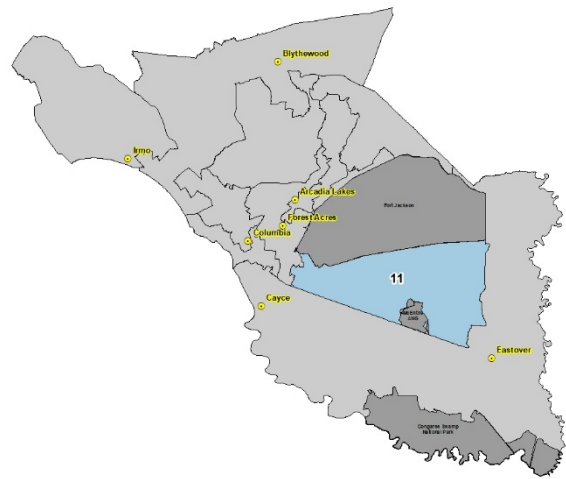
Road Name	District	Linear Miles	Department
Ehrlich St	10	0.10	Transportation

Sidewalk Construction:

Road Name	Start	End	Length(mi)	District	Department
Faraway Dr	E. Boundary Rd	Willoughby St	0.51	8,10	Transportation
Clemson Rd	Old Clemson Rd	Chimney Ridge Rd	0.41	9,10	Transportation

District 11

Project	Total Mileage
Resurfacing	2.17



Resurfacing Projects:

Road Name	District	Linear Miles	Department
Ashleys Pl	11	0.11	Transportation
Bedford Way	11	0.38	Transportation
Berkeley Forest Ct	11	0.04	Transportation
Exton Shore Dr	11	0.46	Transportation
Greys Ct	11	0.06	Transportation
Jadetree Ct	11	0.03	Transportation
Padgett Woods Blvd	11	0.10	Transportation
Ramblewood Dr	11	0.24	Transportation
Regents Ct	11	0.13	Transportation
Rockwood Rd	11	0.62	Transportation



Conclusion

The staff of Department of Public Works is dedicated to its mission of maintenance and improvement of the County Road Maintenance System (CRMS) and its component infrastructure. Our goal is to make steady improvements in the effectiveness and efficiency with which we perform daily tasks that support our mission. We also look forward to reporting on this progress in future annual reports.