

2019

**SARATOGA COUNTY
DEPARTMENT OF PUBLIC WORKS
2019 ANNUAL REPORT**

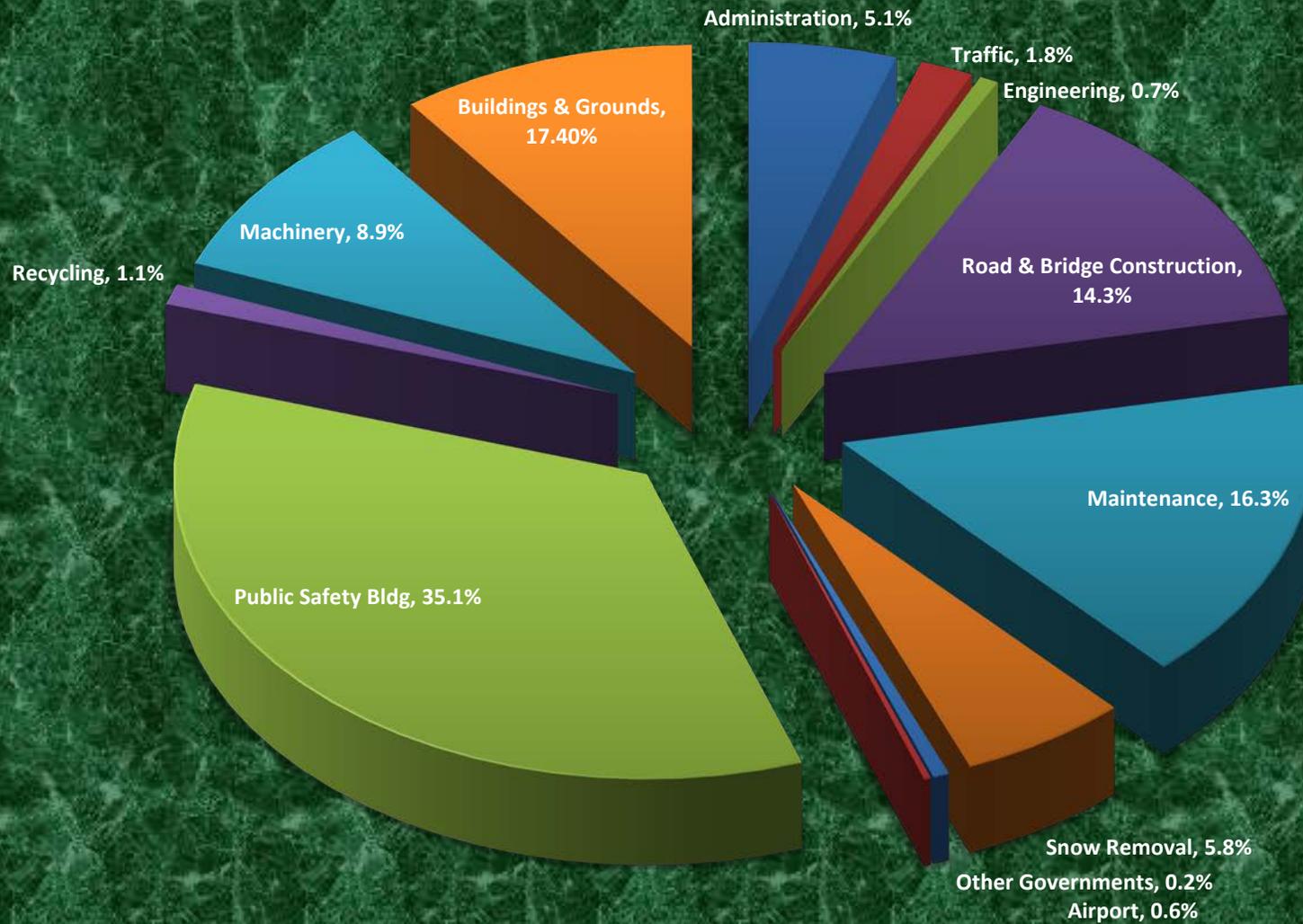


**HIGHWAY – AIRPORT – RECYCLING
BUILDINGS & GROUNDS**

**KEITH R. MANZ, P.E.
COMMISSIONER**



Saratoga County Department Of Public Works 2019 Expenditures



D.P.W. Total: \$32,564,266 as of 1/2/2020

DEPARTMENT OF PUBLIC WORKS 2019 ANNUAL REPORT

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I. HIGHWAY DIVISION

A. HIGHWAYS

The Highway Division of Public Works is charged with the management and construction of the highway infrastructure for Saratoga County consisting of approximately 365 centerline miles of highway. The following capital projects comprised the 2019 highway reconstruction program for the 21.21 miles of county highway along with construction methods used:

- ◆ **County Road 10 (Corinth West Mtn. Road) – 2.80 miles in the Town of Corinth.** The project limits were from the intersection with West Mtn. Road (T) to Hunt Lake Road (T). This was a 2018 project carried over to 2019. From West Mtn. Road a distance of 0.7 miles was cold-milled to a depth of 1-1/2 inches. The entire 2.80 miles received 1-1/2 inch hot mix asphalt top wearing surface.

- ◆ **County Road 16 (Barkersville Road) – 1.68 miles in the Town of Providence.** The project limits were from CR 13 to Bills Road (T). The project consisted of cold-milling 0.45 miles from CR 13 to Glenwild Road a depth of 1-1/2 inches. Tack coat was applied and 1-1/2 inches of hot mix asphalt was placed as a wearing surface. The remaining 1.25 miles had full-depth reclamation (CMI) to a depth of 9 inches with the placement of 3 inches of hot-mix binder. The 1.25 miles then received a Fibermat wearing surface.

- ◆ **County Road 24 (Spier Falls Road) – 1.10 miles in the Town of Moreau.** The project extended from the Power Station to the Sherman Island Boat Launch Site. The entire project was reclaimed to a depth of 9 inches using full depth reclamation (CMI) technique with the placement of 3 inches of binder course. The entire length of the project then received a stress absorbing layer (Fibermat-B) followed by a 1-1/2 inch hot mix asphalt wearing course.

- ◆ **County Road 29 (West River Road) – 2.78 miles in the Town of Moreau.** The project started from Mott Road (T) to the Morrison Farm. The entire project was reclaimed to a depth of 9 inches using full depth reclamation (CMI) technique followed by the placement of 3 inches of binder course. The entire length of the project was fog-sealed and will then receive a Fibermat wearing surface in the spring of 2020.

- ◆ **County Road 52 (Jockey Street) – 3.77 miles in the Town of Galway.** The project started from CR 45 to State Route 29. The project consisted of a total distance of 1.82 miles being trued and leveled as needed. Two sections of road were reclaimed to a depth of 9 inches using full depth reclamation (CMI) technique: Old Mill Road (T) 0.7 miles to near Galway Golf Course; Welch Road (T) south for a distance of 1.0 mile. From Welch Road (T) a distance of 0.25 miles to State Road 29 was cold-milled to a depth of 1-1/2 inches. The reclaimed sections received 3 inches of binder along with the entire length of the project having 1-1/2 inches of hot mix asphalt wearing surface placed.

- ◆ **County Road 63 (Malta Avenue) – 2.85 miles in the Towns of Malta and Milton.** The project limits were from State Road 9 to the Village of Ballston Spa line. The project consisted of cold-milling the entire length to a depth of 1-1/2 inches. Tack coat was applied and 1-1/2 inches of hot mix asphalt was placed as a wearing surface.

- ◆ **County Road 76 (Lake Road) – 3.06 miles in the Town of Stillwater.** The project limits were from CR 75 to the Village of Stillwater line. The entire project length had a hot-in-place asphalt recycling process to a depth of approximately 2 inches. A paver placed surface treatment was then applied as a surface wearing course.

- ◆ **County Road 82 (East Line Road) – 0.90 miles in the Towns of Ballston and Malta.** The project limits were from the Clifton Park Town Line to CR 80. The entire length was trued and leveled then followed with the placement of 1 inch hot mix asphalt as a surface wearing course.

- ◆ **County Road 90 (Vischer Ferry Road) – 1.55 miles in the Town of Clifton Park.** The project limits were from CR 91 to Clifton Park Center Road (T). The project was trued and leveled and topped with a paver placed surface Treatment. An additional 0.79 miles from Clifton Park Center Road (T) to State Road 146 was also trued and leveled with a paver placed surface treatment applied as a surface wearing course.

- ◆ **County Road 94 (Guideboard Road) – 0.72 miles in the Town of Halfmoon.** The project extended from CR 96 northerly to the intersection with CR 96 and Brookwood Road (T). The project consisted of cold milling the entire length to a depth of 1-1/2 inches. The milled pavement was then trued and leveled with 2 inches of hot mix asphalt being placed as a wearing surface.

All 2019 projects listed above were paved with Saratoga County's standard 10 foot wide travel lanes and where possible 4 foot wide paved shoulders. In addition to pavement rehabilitation and reconstruction tasks, the above projects included other work such as; traffic sign installation/replacement, drainage system reconstruction, vegetation removal/control, erosion control, installation and repair of guiderail, and roadway striping. The roadway reconstruction work was completed primarily by D.P.W. forces. Specialty pavement processes were completed by subcontractors, as required.

B. BRIDGES AND CULVERTS

In 2019, one (1) bridge was replaced, and two (2) culverts were rehabilitated or replaced. The completed work is summarized as follows:

Bridges Replaced:

Bridge No. 183.00, B.I.N. 3304180 carrying Sand Lake Road (Town Road) over Sand Creek in the Town of Edinburg. This was a locally funded project. The entire double pipe structure was replaced with a new three sided precast concrete box culvert with precast wingwalls and with an increased span to 33 feet, pursuant to NYSDEC requirements. The roadway was repaved and new bridge and approach guiderail was also installed.

Culverts Rehabilitated/Replaced:

Culvert No. 265.00 carrying CR 91 (Grooms Road) over the Tributary of the Mohawk River in the Town of Clifton Park. This a corrugated metal pipe with section loss to the invert. The invert was repaired with concrete fabric and sealed to extend the life of the culvert. This was completed by DPW forces.

Culvert No. 359.00 carrying CR 54 (Stage Road) over a Tributary of the Alplaus Kill in the Town of Charlton. This a corrugated metal pipe with section loss to the invert. The invert was repaired with concrete fabric and sealed to extend the life of the culvert. This was completed by DPW forces.

Bridge Maintenance:

Bridge No 119.20 B.I.N. 3304350 Carrying CR 45 (Galway Rd) over the Kayaderosseras Creek is in the Town of Milton. Several deep areas of the spalling concrete deck were repaired using DOT approved fast set concrete while traffic was maintained.

Bridge No 144.00 B.I.N. 3364170 Carrying CR 8 (Conklingville-Linwood Rd) over the Sacandaga Reservoir in the Town of Hadley. Several deep areas of the spalling concrete deck were repaired using DOT approved fast set concrete while traffic was maintained.

Bridge Crew

The county bridge crew continued to perform required maintenance on numerous county owned bridges and culverts including, but not limited to; mowing of embankments, cleaning, and installation of scour protection, miscellaneous repairs, removal of channel debris, railing, slip lining older smaller pipes and asphalt repairs. The bridge crew also maintains and rehabilitates stone retaining/guiderail walls on county roads.

C. HIGHWAY GROUNDS MAINTENANCE PROJECTS

Maintenance projects completed in 2019 include the following:

- ◆ Completed crack sealing on the following county roads:

County Road 45 (Galway Road), Milton –Section G & H.
County Road 47 (Greenfield Ave), Milton – Section A.
County Road 52 (Swaggertown Road), Charlton - Section A & B.
County Road 57 (Goode Street), Milton - Section B.
County Road 72 (100 Acre Woods Way), Malta - Section A.
County Road 73 (Rocket Way), Malta - Section A.
County Road 77 (Stonebreak Road), Malta - Section A.
County Road 78 (Luther Forest Blvd), Malta - Section A & B.

More county roads were planned but inclement weather during the fall crack seal season curtailed much of this work.

- ◆ Crack sealed at the Saratoga County Airport, Runways 14 - 32 and all taxiways.
- ◆ County Road 34 (Northern Pines Road) - Repaired a cross pipe with the slip line process.
- ◆ County Road 54 (Stage Road) - Repaired a cross pipe with the concrete fabric
- ◆ County Road 82 (East Line Road) - Repaired a cross pipe with the concrete fabric.
- ◆ County Road 82 (Long Kill Road) - Repaired a drop inlet and cross pipe with new headwalls and the concrete fabric.
- ◆ County Road 99 (Church Hill Road) - Did a concrete repair to a bell and spigot pipe.
- ◆ County Road 75 (Mechanicville-Stillwater Road) - Added a new drain gutter and pipe into a drop inlet.
- ◆ Completed emergency repairs to CR 12 (Lake Desolation Road) in the Town of Greenfield after a severe FEMA storm on 10/31.

- ◆ Completed the removal and emergency temporary replacement of the County Road 4 (North Shore Road) bridge over Paul Creek in the Town of Day, BIN 3304250-191 after it partially collapsed due to a FEMA storm in 10/31. Completed repairs to the County Road 8 (Conklingville-Linwood Road) Bridge (Conklinville Dam) over Sacandaga Lake in the Town of Hadley, BIN 3364170-144.
- ◆ Completed repairs to the County Road 45 (Galway Road) bridge over the Kayderoseros Creek in the Town of Milton, BIN 3304350-119.2.

In addition, continual maintenance of Saratoga County's 365 mile highway system included:

- ◆ Snow and Ice Control.
- ◆ Mowing within the county right-of-way to provide maximum visibility for vehicles entering and the prevention of root encroachment into the sub-base.
- ◆ Road repairs of road deficiencies such as; low shoulders and potholes due to wear and tear.
- ◆ Clearing roadside ditches and culverts for positive drainage.
- ◆ Removal of hazardous trees and overhanging tree limbs.
- ◆ Sweeping of roadways as required.
- ◆ Repair of damaged guiderail throughout the county highway system.

D. TRAFFIC DIVISION

The Traffic Division performs the following tasks on an on-going basis:

- ◆ Roadway striping using the county owned paint striper for all county roads. Due to our paint vendor being unable to supply all the paint we needed, not all of the roads in the county highway system were striped this year. Approximately 1,200 miles of centerline and edge line delineation for county roads in addition to many town roads were stripped in 2019. The following towns and villages contracted with Saratoga County in 2019 for their roadway striping; Ballston, Ballston Spa, Clifton Park, Corinth, Edinburg, Greenfield, Hadley, Halfmoon, Milton, Moreau, Northumberland, Saratoga, South Glens Falls, Stillwater, Waterford and Wilton.
- ◆ Maintain, repair and replace traffic signs, as needed, from the approximately 9,000 county highway sign inventory. This includes updating all traffic signs to ensure they conform to the Manual of Uniform Traffic Control Devices. Routinely, throughout the year, signs are fabricated to maintain a safe inventory.
- ◆ Delineators on county roads are repaired and/or replaced as needed. All guiderail on 2019 reconstruction projects were marked with delineator plates.
- ◆ Install & maintain identification markers on county owned culverts.

- ◆ Install/maintain signs for the Saratoga County Adopt-a-Roadside Program. There are presently 46 organizations participating in this program.
- ◆ Obtain traffic counts annually on 50% of all county roads. In 2019 this included approximately 119 sites. The counts are used for traffic studies, reconstruction planning and are provided to the N.Y.S.D.O.T. In addition, special counts were obtained at specific intersections for traffic safety studies, as needed.
- ◆ Provide striping and decals for all county vehicles as required.
- ◆ Maintenance and operation of sixteen (16) county owned traffic signals. All bulbs are changed annually for safe and uninterrupted service.
- ◆ Erect construction signage and variable message signs in accordance with the Manual of Uniform Traffic Control Devices in order to maintain and protect traffic during highway and bridge reconstruction projects.
- ◆ Install reflective pavement tape at stop bars, median islands, turn arrows, school crossings, and railroad crossings as needed.
- ◆ Continually update the sign inventory in our sign management database and for use in our G.I.S. system to keep traffic control records current.
- ◆ Cut and trim brush around signs and intersections, as necessary, to maximize sight distance.
- ◆ Provide preventative maintenance and winterize the county owned paint striper.
- ◆ Maintain (4) portable variable message signs.
- ◆ Maintain two (2) portable traffic signals.

E. MACHINERY

Winter Maintenance:

Throughout the year, The Department of Public Works continued its winter maintenance activities including; advanced planning for replacements/repairs needed for plow trucks, hoppers and other weather-related equipment. Refer to Section N for the Saratoga County Public Works 2019 Snowfall Report.

Vehicle and Equipment Maintenance:

In 2019, The Department of Public Works maintained 477 county vehicles and equipment (this does not include any trailers, boats or any small engine pieces of equipment). This includes Public Works vehicles, heavy equipment, as well as vehicles for 12 other county departments. In addition, we also maintain 25 portable emergency back-up generators for various departments.

Equipment Refurbished:

- ◆ Rebuilt Truck 9053, which included replacing engine, all the fuel and brake lines, a new pickup box, and installed snow plow assembly along with a tool box and a salt hopper.
- ◆ Rebuilt Plow Truck 9033, which included replacing brakes, hydraulic lines and air lines too, this extended the life of this vehicle.
- ◆ Reworked pickup truck 9047, which included replacing OEM pickup box with a utility work box and repainted vehicle.

Sheriff's Department:

- ◆ Truck 4036 which was an Emergency Services vehicle and was rebuilt and repurposed as a dive team truck which included; new rear suspension, new fuel tank and lines, a complete repaint including removing rear utility box during the process.
- ◆ Trailer 4020T fabricated benches and shelving and storage for the Dive Team.
- ◆ Vehicle 4148 "MRAP" an armored vehicle – DPW designed and fabricated an adjustable battering ram assembly system.

All of the above repairs were completed by DPW personnel to extend the service life and enhance performance of these pieces of equipment.

Capital Equipment Purchases:

Highway Equipment:

- (2) 12 cy Tandem Axle Dump/Plow Trucks
- (1) 8 cy Single Axle Medium Dump truck
- (3) Pick-up Trucks
- (2) Utility Trucks with Crew Cabs
- (1) Bull Dozer
- (1) Gradall
- (1) Equipment Trailer
- (1) Mowing Tractor
- (2) Wood Chippers
- (1) Floor Sweeper

Buildings and Grounds Equipment:

- (1) Skid Steer with attachments
- (1) ¾ Ton Pick-up w/ Plow
- (2) Ford Fiesta fleet cars
- (1) Ford Transit Van (for cleaning crew)

F. OTHER

The Engineering Department performs a variety of tasks related to matters such as design work, training, record keeping, preparing specifications, highway permits, consultant/contractor/vendor management and inspections as described in the following:

- ◆ Perform annual road rating which systematically prioritizes the rehabilitation and maintenance needs of all county highways.
- ◆ Perform comprehensive inspections on county owned culverts (span: 5' to under 20').
- ◆ Inventory county road mileage as required by N.Y.S.D.O.T.
- ◆ Create specifications for all construction and highway materials such as asphalt concrete, rubble, and reflective sheeting for traffic signs. Bid results are forwarded, as requested, to all towns, villages and cities for their use.
- ◆ Prepare specifications for all highway capital equipment purchases.
- ◆ Review site plans, subdivision and commercial development plans to determine their impact on the safety of our county highways and issue permits as required.
- ◆ Prepare maps and documentation for mining permits as required by state and federal agencies.

- ◆ Prepare maps and documentation for the Solid Waste Management Facility (former Saratoga County Gravel Pit / Stump Dump located on NYS RT 29 in the Town of Saratoga) as required by state agencies.
- ◆ Prepare maps and documentation for the airport as required by state and federal agencies.
- ◆ Attend state and federal safety training programs and workshops.
- ◆ Investigate/respond to all correspondence from residents in a timely fashion.
- ◆ Utilize G.I.S. software for storing and analyzing pertinent departmental records.
- ◆ Perform design work for small bridges and culverts as well as miscellaneous projects.
- ◆ Manage and oversee consultants and contractors.
- ◆ Manage and oversee the county petroleum Bulk storage tanks, in accordance with NYSDEC regulations.
- ◆ Coordinate with the Kesselring Site for Super-moves related to their refueling projects.

The following training programs were conducted by DPW Engineering Personnel in 2019:

- ◆ Forklift Safety Training
- ◆ Snowplowing and Driving Safety Training
- ◆ Seasonal Employee Safety Training
- ◆ MSDS, Right to Know, Haz-Com
- ◆ Lock Out Tag Out
- ◆ Storm Water
- ◆ Back Safety
- ◆ PPE
- ◆ Stihl Chainsaw safety

In addition, our foremen and supervisors conduct weekly tailgate safety meetings with their crew members.

G. PERMITS

The Department of Public Works has a permit system for entrance onto all county roads and work performed within the county right-of-way. All permits are hard copy and computer database filed. The following is a summary of permits issued to utilities, commercial, subdivision and residential entities over the past 10 years (from 2009 – 2019):

Entrance Permits (Driveways and Streets):

| Year | Residential | Commercial | Subdivision | Yearly Total |
|-------------|--------------------|-------------------|--------------------|---------------------|
| 2009 | 27 | 1 | 0 | 28 |
| 2010 | 22 | 1 | 4 | 27 |
| 2011 | 23 | 8 | 2 | 33 |
| 2012 | 32 | 5 | 2 | 39 |
| 2013 | 31 | 0 | 0 | 31 |
| 2014 | 33 | 6 | 1 | 40 |
| 2015 | 35 | 4 | 2 | 41 |
| 2016 | 39 | 6 | 5 | 50 |
| 2017 | 35 | 18 | 0 | 53 |
| 2018 | 30 | 13 | 7 | 50 |
| 2019 | 31 | 8 | 0 | 39 |

Utility Permits (National Grid, Telephone):

| Year | Nat. Grid | NYNEX/Verizon | *Misc. | Yearly Total |
|-------------|------------------|----------------------|---------------|---------------------|
| 2009 | 39 | 2 | 19 | 60 |
| 2010 | 50 | 7 | 22 | 79 |
| 2011 | 47 | 1 | 25 | 73 |
| 2012 | 55 | 0 | 22 | 77 |
| 2013 | 56 | 1 | 13 | 70 |
| 2014 | 59 | 0 | 9 | 68 |
| 2015 | 110 | 1 | 16 | 117 |
| 2016 | 45 | 3 | 23 | 71 |
| 2017 | 40 | 4 | 12 | 56 |
| 2018 | 82 | 2 | 39 | 123 |
| 2019 | 104 | 5 | 23 | 132 |

* Miscellaneous permits include the installation of private water and sewer lines within the county right-of-way.

H. 2020 HIGHWAY STRUCTURES RECONSTRUCTION SCHEDULE
(FROM APPROVED 5-YEAR CAPITAL PLAN)

HIGHWAYS:

| <u>COUNTY</u> <u>ROAD</u> | <u>TOWN</u> | <u>SECTION</u> | <u>MILES</u> |
|------------------------------|---------------------------|-----------------------------------|--------------|
| 4 B | Edinburg | CR 5 to Lakeland Road | 2.83 |
| 7 E | Day | Turner Road to Horse Hill Road | 3.02 |
| 16 A | Galway & Providence | NYS Rt. 29 to CR13 | 2.37 |
| 42 A | Saratoga & Northumberland | US Rt. 4 to Dix Bridge | 0.50 |
| 59 A, B | Ballston | NYS Rt. 50 to NYS Rt. 67 | 4.17 |
| 70 B | Saratoga | CR 71 to CR 76 | 1.90 |
| 80 A | Ballston & Clifton Park | NYS Rt. 146A to Lakeside Farms | 2.00 |
| 80 C | Malta | CR-82 to I-87 | 1.13 |
| 82 A | Clifton Park | NYS Rt. 146A to Macelroy Road (T) | 1.58 |
| * 28 (Part of A) | Moreau | CR 27 to SR 197 | 2.60 |

Total Year 2020: 22.10

STRUCTURES:

Culvert No. 252.00, (Construction), CR 24 (Spier Falls Road), over a Trib. to the Hudson River in The Town of Moreau.

Culvert 287.10 (Construction), CR 23 Brook Road over Slade Creek, in The City of Saratoga Springs.

* Culvert No. 319.11(Construction & Inspection), CR 59 (Middle Line Road) over the Gordon Creek in, The Town of Milton.

* Bridge No. L.I.N. 2202750 L.I.N. 10.00 (Engineering & R.O.W. Acquisition), Coons Crossing Road (Town Road) over Anthony Kill, in The Town of Halfmoon.

* Bridge No. B.I.N. 3304130 L.I.N. 50.00 (Construction & Inspection), Clark Road (Town Road) over Snook Kill, in The Town of Moreau.

* Bridge B.I.N. 3304140 L.I.N. 51.00 (Construction & Inspection), CR 29 (West River Road) over Snook Kill, in The Town of Moreau

* Bridge No. 2202570 L.I.N. 269.90 (Construction & Inspection), Ashdown Road (Town Road) over D&H Railroad, in The Town of Clifton Park.

- * Bridge No. 3304740 L.I.N. 373.00 (Construction & Inspection), CR 13 (Barkersville Fayville Road) over Cadman Creek, In the Town of Providence.
- * Bridge No. B.I.N. 3304250 L.I.N. 191.00 (Engineering, Construction & Inspection) CR 4 (North Shore Road) over Paul Creek, in The Town of Day. (The majority of this project should be paid for by FEMA)
- * Federal/State funded project

I. 2020 GOALS FOR SARATOGA COUNTY HIGHWAY DIVISION

HIGHWAYS:

- ◆ Reconstruct 23.18 miles of county roadways in accordance with the 2020 Capital Plan.
- ◆ Design a new Traffic Signal for the intersection of CR 90 and CR 91 in the Town of Clifton Park
- ◆ Continue transferring county highways and facilities mapping into digital format.
- ◆ Continue expansion of G.I.S. database for pertinent departmental records.
- ◆ Continue inventory/inspection program on County owned culverts.

STRUCTURES:

- ◆ Complete the reconstruction of two (2) county owned highway structures under the local program.
- ◆ Complete the reconstruction of five (5) county owned structures under the Federal/State Aid Program
- ◆ Complete the engineering for one (1) county owned highway structure under the under the Federal/State Aid Program.

All goals are in accordance with the 2020 Capital Plan.

J. 2019 SARATOGA COUNTY HIGHWAY SYSTEM
(Mileage by Road) **(as of 5/20/19)**

| ROAD NO. | ROAD NAME | MILEAGE |
|-----------------|---|----------------|
| 1 | Hadley - Stony Creek Road | 6.42 |
| 2 | Peters Road | 0.19 |
| 4 | North Shore Road | 22.74 |
| 5 | Sinclair Road | 3.47 |
| 7 | South Shore Road | 21.07 |
| 8 | Conklingville-Linwood Road | 1.50 |
| 9 | River Street Bridge | 0.06 |
| 10 | Mosher Road / Corinth - West Mountain Road | 8.76 |
| 12 | Lake Desolation Road | 4.76 |
| 13 | Barkersville - Fayville Road | 7.45 |
| 14 | Hagedorn Mills /Fishouse Rd / Crooked Street | 8.59 |
| 16 | Barkersville Road | 4.05 |
| 19 | North Creek / North Greenfield Road | 6.62 |
| 21 | Middle Grove Road | 7.86 |
| 22 | Crescent Avenue | 3.57 |
| 23 | Brook Road | 1.02 |
| 24 | Palmer Avenue / Spier Falls Road | 10.12 |
| 25 | Spier Falls – North Greenfield Road | 5.69 |
| 27 | Bluebird Road | 3.72 |
| 28 | South Glens Falls - Fort Edward Road | 3.08 |
| 29 | West River Road | 9.99 |
| 31 | Fortsville Road | 3.19 |
| 32 | Wilton - Gansevoort Road | 5.08 |
| 33 | Ballard Road | 3.91 |
| 34 | Northern Pines Road | 4.56 |
| 36 | Wilton-Greenfield Road | 5.16 |
| 39 | King Road | 4.84 |
| 40 | Wall Street | 2.14 |
| 41 | Old Ballston Ave. North | 0.10 |
| 42 | Clark's Mill Road | 0.50 |
| 43 | Geyser Road | 5.29 |
| 44 | Cady Hill Road | 0.59 |
| 45 | West Galway Road / Ballston Road / Galway Road / North Line Road | 15.29 |
| 46 | Duplainville Road | 0.91 |
| 47 | Rowland Street | 2.74 |
| 49 | West Milton - Rock City Road | 3.02 |
| 50 | Greenfield Avenue | 2.10 |
| 51 | Charlton Road | 8.41 |
| 52 | Jockey Street / Swaggertown Road | 12.47 |
| 53 | Stage Road / Lake Hill Road | 2.94 |
| 54 | Stage Road | 1.13 |
| 55 | Sweetman Road | 2.88 |

SARATOGA COUNTY HIGHWAY SYSTEM (continued)

| ROAD NO. | ROAD NAME | MILEAGE |
|----------------------------------|--|---------------|
| 56 | Hop City / Scotch Bush Road | 5.85 |
| 57 | Goode Street | 6.06 |
| 58 | Lake Hill Road | 0.29 |
| 59 | Middle Line Road | 9.11 |
| 60 | Brookline Road | 1.51 |
| 61 | Rowley Road | 2.25 |
| 63 | Malta Ave. / Malta Ave. Extension | 4.28 |
| 64 | Nelson Ave. Extension | 3.50 |
| 65 | Meadowbrook Road | 2.37 |
| 66 | Dyer Switch Road | 0.88 |
| 67 | Staffords Bridge- Quaker Springs Road | 6.10 |
| 68 | Staffords Bridge- Cramer Road | 3.85 |
| 69 | Coveville Road | 2.42 |
| 70 | Deans Corners - Wayville Road | 4.80 |
| 71 | Cedar Bluff Road | 4.31 |
| 72 | 100 Acre Woods Way | 0.30 |
| 73 | Rocket Way | 0.54 |
| 75 | Mechanicville - Stillwater Road | 5.73 |
| 76 | Lake Road | 6.10 |
| 77 | Stonebreak Road Ext. | 1.88 |
| 78 | Luther Forest Blvd. | 2.29 |
| 80 | Schauber / Round Lake Road / Maltaville Road | 5.67 |
| 82 | East Line /Longkill Road | 4.98 |
| 86 | Upper Newtown Road | 2.83 |
| 88 | Rexford Road | 0.44 |
| 90 | Vischer Ferry Road | 4.73 |
| 91 | Grooms Road | 8.31 |
| 92 | Crescent Road | 3.57 |
| 94 | Guideboard Road | 2.00 |
| 95 | Harris Road | 1.92 |
| 96 | Middletown Road | 3.24 |
| 97 | Fonda Road | 2.60 |
| 98 | Batchellerville Bridge Road | 1.23 |
| 99 | Church Hill Road | 0.84 |
| 101 | Corinth Mountain Road | 0.52 |
| 104 | Murray Road | 1.87 |
| 108 | Dunning Street - Saratoga Lake Road | 2.26 |
| 109 | Kinns Road/ Farm-to-Market Road | 6.76 |
| 110 | Blue Barns Road | 3.35 |
| 338 | Battle Monument Road | 1.35 |
| 339 | Lake Hill Road | 1.08 |
| 1345 | Pruyn Hill Road | 2.32 |
| Total County Road Mileage | | 365.28 |

K. 2019 SARATOGA COUNTY HIGHWAY SYSTEM
(Mileage by Town) **(as of 5/20/19)**

| Town | Mileage |
|---------------------------|----------------|
| BALLSTON | 27.83 |
| CHARLTON | 18.60 |
| CLIFTON PARK | 23.23 |
| CORINTH | 13.80 |
| DAY | 20.88 |
| EDINBURG | 19.45 |
| GALWAY (includes Village) | 19.60 |
| GREENFIELD | 25.74 |
| HADLEY | 17.94 |
| HALFMOON | 15.83 |
| MALTA | 19.66 |
| MILTON | 24.66 |
| MOREAU | 19.01 |
| NORTHUMBERLAND | 13.97 |
| PROVIDENCE | 15.63 |
| SARATOGA | 19.82 |
| SARATOGA SPRINGS | 14.91 |
| STILLWATER | 14.46 |
| WATERFORD | 5.34 |
| WILTON | 14.92 |
| TOTAL MILEAGE: | 365.28 |

L. 2019 TOWN ROAD MILEAGE
(as of 5/20/19)

| Town | Mileage |
|-------------------------------|-----------------|
| BALLSTON | 54.46 |
| CHARLTON | 46.61 |
| CLIFTON PARK | 218.12 |
| CORINTH | 42.09 |
| DAY | 31.78 |
| EDINBURG | 34.97 |
| GALWAY (includes Village) | 57.76 |
| GREENFIELD | 93.85 |
| HADLEY | 38.38 |
| HALFMOON | 114.01 |
| MALTA | 72.81 |
| MILTON | 75.21 |
| MOREAU | 83.65 |
| NORTHUMBERLAND | 60.15 |
| PROVIDENCE | 44.67 |
| SARATOGA | 60.07 |
| SARATOGA SPRINGS | 141.12 |
| STILLWATER (includes Village) | 67.35 |
| WATERFORD | 24.30 |
| WILTON | 110.77 |
| TOTAL MILEAGE: | 1,472.13 |

M. 2018 INTERSECTIONS

INTERSECTIONS WITH TRAFFIC SIGNALS

1. C.R. 33 (Ballard Rd.) and North Rd.(T), & Traver Rd. (T)
2. C.R. 43 (Geyser Rd.) and C.R. 44 (Cady Hill Rd.)
3. C.R. 45 (Northline Rd.) and C.R. 47 (Rowland St.)
4. C.R. 77 (Stonebreak Ext.) and C.R. 78 (Luther Forest Blvd.)
5. C.R. 82 (East Line Rd.) and C.R. 80 (Round Lake Rd.)
6. C.R. 91 (Grooms Rd.) and Lapp Rd. (T)
7. C.R. 91 (Grooms Rd.) and Moe Rd. (T)
8. C.R. 92 (Crescent Rd.) and Lapp Rd. (T)
9. C.R. 92 (Crescent Rd.) and Moe Rd. (T)
10. C.R. 92 (Crescent Rd.) and Plaza 8 Dr. (T)
11. C.R. 95 (Harris Rd.) and C.R. 96 (Middletown Rd.)
12. C.R. 96 (Middletown Rd.) and Brookwood Rd. (T)
13. C.R. 96 (Middletown Rd.) and C.R. 97 (Fonda Rd.)
14. C.R. 109 (Kinns Rd.) and Plank Rd. (T)
15. C.R. 110 (Kingsley Rd.) and C.R. 339 (Lake Hill Road)
16. C.R. 110 (Blue Barns Rd.), and Ashdown Rd. (T) & Bradt Rd. (T)

(T) = Town Road

INTERSECTIONS WITH 4-WAY STOPS

1. C.R. 91 (Grooms Rd.) and C.R. 90 (Vischer Ferry Rd.)
2. C.R. 50 (Greenfield Ave.) and C.R. 45 (Northline Rd.)
3. C.R. 22 (Crescent Ave.) and C.R. 64 & Nelson Ave. (City)
4. C.R. 75 (Mechanicville/Stillwater Center) and C.R. 76 (Lake Rd.)
5. C.R. 51 (Charlton Rd.) and C.R. 57 (Goode St.)
6. C.R. 51 (Charlton Rd.) and C.R. 59 (Middle Line Rd.)
7. C.R. 27 (Bluebird Rd.) and C.R. 28 (Ft. Edward)
8. C.R. 25 (Spier Falls Rd.) and Main St. (T)
9. C.R. 59 (Middle Line Rd.) and C.R. 43 (Geyser Rd.)
10. C.R. 59 (Middle Line Rd.) and C.R. 45 (Galway Rd.)
11. C.R. 90 (Vischer Ferry Rd.) and Clifton Park Center Rd. (T)
12. C.R. 19 (N. Creek Rd.) Porter Corners Rd. (T) & Allen Rd. (T)
13. C.R. 45 (Northline Rd.) and Old Post Rd (T)
14. C.R. 51 (Charlton Rd.) and C.R. 56 (Scotch Bush-Hop City Rd)
15. C.R. 109 (Farm to Market Rd.) and C.R. 1345 (Pruyn Hill Rd.)

(T) = Town Road

N. SNOWFALL REPORT

Saratoga County D.P.W. Snowfall Report

(FROM SARATOGA SPRINGS WEATHER OBSERVATION STATION)

| SEASON | MONTH | TEMPERATURE | | TOTAL SNOWFALL (INCHES) | DATE OF MAX. SNOWFALL | INCHES OF MAX. SNOWFALL | TOTAL NO. OF OCCURRENCES |
|--------|-------|-------------|-----|----------------------------|--------------------------|----------------------------|-----------------------------|
| | | HIGH | LOW | | | | |

2016-17

| | | | | | | | |
|----|----------|----|-----|-----|------------|-----|----|
| 16 | OCTOBER | 75 | 27 | 2.4 | 10/28/2016 | 1.4 | 2 |
| 16 | NOVEMBER | 61 | 22 | 1.5 | 11/20/2016 | 1.0 | 2 |
| 16 | DECEMBER | 49 | -10 | 26 | 12/12/2016 | 7.2 | 14 |

SUBTOTAL = 29.9 18

| | | | | | | | |
|----|----------|----|----|------|-----------|------|----|
| 17 | JANUARY | 50 | -2 | 7.5 | 1/24/2017 | 1.5 | 12 |
| 17 | FEBRUARY | 67 | -3 | 19 | 2/12/2017 | 6.6 | 11 |
| 17 | MARCH | 65 | 0 | 18.6 | 3/14/2017 | 13.0 | 8 |
| 17 | APRIL | 79 | 8 | - | - | - | - |

SUBTOTAL = 45.1 31

SEASON TOTAL = 75 49

2017-18

| | | | | | | | |
|----|----------|----|-----|-------|------------|-----|----|
| 17 | OCTOBER | 80 | 29 | 3.45 | 10/24/2017 | 0.8 | 12 |
| 17 | NOVEMBER | 54 | 13 | 1.77 | 11/19/2017 | 0.6 | 14 |
| 17 | DECEMBER | 45 | -10 | 18.20 | 12/25/2017 | 7.2 | 18 |

SUBTOTAL = 23.42 44

| | | | | | | | |
|----|----------|----|-----|-------|-----------|-----|----|
| 18 | JANUARY | 61 | -19 | 13.40 | 1/17/2018 | 5.2 | 11 |
| 18 | FEBRUARY | 68 | -2 | 22.10 | 2/7/2018 | 6.6 | 14 |
| 18 | MARCH | 58 | 9 | 21.50 | 3/2/2018 | 8.6 | 7 |
| 18 | APRIL | 71 | 19 | 1.30 | 4/7/2018 | 1.8 | 8 |

SUBTOTAL = 58.30 40

SEASON TOTAL = 81.72 84

2018-19

| | | | | | | | |
|----|----------|----|----|------|------------|-----|---|
| 18 | OCTOBER | 83 | 25 | 0.00 | - | - | - |
| 18 | NOVEMBER | 59 | -1 | 9.50 | 11/16/2018 | 5.8 | 7 |
| 18 | DECEMBER | 47 | 9 | 1.40 | 12/16/2018 | 0.5 | 8 |

SUBTOTAL = 10.90 15

| | | | | | | | |
|----|----------|----|-----|-------|---------|------|----|
| 18 | JANUARY | 49 | -9 | 27.70 | 1/20/19 | 14.9 | 13 |
| 18 | FEBRUARY | 56 | -14 | 16.00 | 2/12/19 | 4.4 | 9 |
| 18 | MARCH | 66 | 3 | 3.20 | 3/4/19 | 2.1 | 5 |
| 18 | APRIL | 75 | 20 | 2.10 | 4/6/19 | 2.1 | 2 |

SUBTOTAL = 49.00 29

SEASON TOTAL = 59.90 44

2019

| | | | | | | | |
|----|----------|----|----|-------|----------|------|----|
| 19 | OCTOBER | 74 | 31 | 0.00 | - | - | - |
| 19 | NOVEMBER | 69 | 8 | 8.00 | 11/19/19 | 5.2 | 4 |
| 19 | DECEMBER | 48 | -1 | 22.50 | 12/2/19 | 11.2 | 14 |

SUBTOTAL = 30.50 18

--- = Rain, melted snow w/ temperatures near freezing

T = Trace Amount Recorded

* = Occurrences resulting from low temperatures w/ rain, melted snow

II. BUILDINGS AND GROUNDS DIVISION

A. BUILDINGS AND GROUNDS ANNUAL SUMMARY

Buildings and Grounds Division's primary mission is to ensure a safe, quality work environment for our employees and the public that utilize county services.

2019 BUILDING CAPITAL PROJECTS COMPLETED

- ◆ Replaced emergency back-up generator at the Jail
- ◆ Replaced the cooling tower at Building # 1
- ◆ Replaced the roof at Building # 1, Board of Supervisors
- ◆ Repaved and striped the DMV Parking Lot at Building # 1

2019 AIRPORT CAPITAL PROJECTS COMPLETED

- ◆ Completed the Master Plan Phase 1 Projects Environmental Assessment.
- ◆ Began the design for new perimeter fencing and offsite KB/L mitigation Projects.
- ◆ Began the design for the new partial parallel taxiway.
- ◆ Began the design for the new Snow Equipment Removal Storage Building.

2019 OTHER MAJOR MAINTENANCE PROJECTS COMPLETED

- ◆ Completed the construction of a pre-engineered storage building for the Sheriff's Department.
- ◆ Completed over 2200 maintenance requests.
- ◆ Replaced the boiler and installed A/C at the North Garage.
- ◆ Upgraded the front parking lot lights to LED's at the Social Services Parking Lot.
- ◆ Created a new Law Library in the foyer at Building. # 3
- ◆ Remodeled the County Attorney's Office.
- ◆ Remodeled the Human Resource's office area.
- ◆ Installed a heated sidewalk in the Court Yard area of the Complex adjacent to Building # 3.
- ◆ Installed a new gazebo at the Mental Health building.
- ◆ Installed a new security light at Spruce Mountain cell tower site.

- ◆ Repainted various offices at the Animal Shelter.
- ◆ Replaced 30 sky lights at County Jail and made miscellaneous roof repairs.
- ◆ Renovated space for security officers in Building # 3.
- ◆ Assisted with remodeling the DMV Offices in Clifton Park.
- ◆ Created five new offices for Public Defenders area in the basement of Building 1.
- ◆ Repaired the Building 5 sidewalk.
- ◆ Replace outside stairs for Building 3 & 4 from court yard to Judges Lot.
- ◆ Repaired DPW Administration parking lot lights.
- ◆ Upgraded all of the DPW Facility exterior lighting to LED's.
- ◆ Replaced the roof at the Milton radio tower site.
- ◆ Assisted with the set-up of the temporary Code Blue shelter at the Fire Training Building.
- ◆ Assisted with the annual Public Health Point of Dispensing Drill
- ◆ Completed numerous concrete repairs at main complex.
- ◆ Serviced 911 tower generators.
- ◆ Serviced all county HVAC equipment as required.
- ◆ Serviced the AWOS equipment at Saratoga County Airport.
- ◆ Serviced Saratoga County Airport runway, taxiway and guidance lighting.
- ◆ Conducted quarterly fire drills.
- ◆ Maintained all building fire extinguishers.
- ◆ Security Camera projects at the D.A.'s Office, and Social Services.
- ◆ Public Defenders office renovations
- ◆ Created a Code Blue Temporary Shelter.
- ◆ Fire Training Classroom renovations.
- ◆ Upgrades to the Jail's A-Pod.
- ◆ Repainted the exterior of the D.P.W Administration Building.
- ◆ Asbestos removals in the Court Building's 2&3.
- ◆ Replaced a generator at the Jail.
- ◆ Rebuilt the Jail Kitchen after the fire.

PREVENTATIVE MAINTENANCE COMPLETED ON A REGULAR BASIS

EQUIPMENT COUNTY WIDE

UNITS

| | |
|-----------------------------|-----|
| ◆ AHU's – Air Handler Units | 51 |
| ◆ Boilers | 17 |
| ◆ Air Conditioners | 13 |
| ◆ Fan Coil Units | 490 |
| ◆ RAF's – Return Air Fans | 6 |
| ◆ RTU's – Roof Top Units | 35 |
| ◆ MAU's – Mixed Air Units | 4 |
| ◆ Infra-Red Heat Systems | 2 |
| ◆ Unit Heaters | 61 |
| ◆ Exhaust Units | 45 |

EQUIPMENT MONTHLY CHECKS

| | |
|-----------------------------|-----|
| ◆ Emergency Lights | 187 |
| ◆ Time Clocks (Punch Style) | 15 |
| ◆ Kronos (Swipe Card Style) | 26 |

EQUIPMENT WEEKLY CHECKS

| | |
|------------------------|----|
| ◆ Emergency Generators | 25 |
|------------------------|----|

SUPPORT SERVICES

- ◆ 25.45 Tons of confidential files were removed from offices and destroyed
- ◆ Over 1,400 Boxes moved from offices to storage areas
- ◆ Assisted Central Stores with deliveries when needed

B. 2020 GOALS FOR BUILDINGS AND GROUNDS

BUILDINGS

- ◆ Remove the solar panel canopy from Building # 5.
- ◆ Replace boilers in the DPW Facility Mezzanine.
- ◆ Repair and Repave the Supervisor's Parking Lot at Building # 1.
- ◆ Rehabilitate the Water Pedosphere at the County Farm Complex.
- ◆ Complete the New Public Safety Facility.
- ◆ Move the Sheriff', Emergency Services, Probation and Public Health into the New Public Safety Building.

AIRPORT

- ◆ Install the new perimeter fencing.
- ◆ Progress the engineering for the new partial parallel taxiway.
- ◆ Begin Phase 1, acquiring off site easements, for future obstruction removal.
- ◆ Begin the development of a Pavement Maintenance- Management Program.

All goals are in accordance with the 2020 Capital Plan.

C. SARATOGA COUNTY FACILITIES SPACE UTILIZATION REPORT

Distribution of Gross Floor Area by Department (Updated 6/26/19)

| <u>FACILITY</u> | <u>AREA (Sq. ft.)</u> |
|--|-------------------------------|
| MUNICIPAL CENTER | |
| Building #1 | 43,429 |
| Building #2 | 31,522 |
| Building #3 | 30,148 |
| Building #4 | 32,919 |
| Emergency Operations Center | 9,820 (Included in bldg. # 2) |
| Total: | 138,018 |
| Building # 5 (FACILITIES BUILDING) | 39,974 |
| SERVICES BUILDING | 46,977 |
| WOODLAWN AVENUE BUILDING | 10,946 |
| COUNTY FARM | |
| Animal Shelter | 24,554 |
| Fire Training | 3,120 |
| Jail | 102,500 |
| Emergency Services / Sheriff Pole Barn | 3,696 |
| D.P.W. Facility | 115,254 |
| Total: | 249,124 |
| AIRPORT | 37,084 |
| RADIO TOWERS | |
| Clifton Park | 360 |
| Fraker Mt. | 360 |
| Halfmoon | 420 |
| Lake Luzerne | 360 |
| McGregor | 420 |
| Milton (Jail) | 420 |
| Providence Tower | 420 |
| Lakeview | 220 |
| Stillwater | 420 |
| Spruce Mt. (Radio Bldg. & Garage) | 855 |
| Total: | 4,255 |
| OLD NORTH GARAGE | 1,776 |
| NEW NORTH GARAGE | 6,000 |
| MILTON RECYCLING CENTER | 1,100 |
| TOTAL GROSS FLOOR AREA | 535,254 (Sq. ft.) |

SARATOGA COUNTY FACILITIES SPACE UTILIZATION REPORT - CONTINUED

Distribution of Gross Floor Area by Lessee

| <u>FACILITY</u> | <u>AREA (Sq. ft.)</u> |
|-----------------|-------------------------|
| Judges | 4,069 |
| Mental Health | 17,225 |
| DMV | 5,855 |
| Veterans | 1,980 |
| Total: | 29,129 (Sq. ft.) |

Distribution of Acreage by Department or Lessee

| <u>FACILITY</u> | <u>ACREAGE</u> |
|---|----------------|
| Airport | 514.18 |
| Other Property Adj. to the Airport owned by S.C. | 43.65 |
| DPW (North Garage, Rt. 29 Solid Waste Mgmt. Facility (Stump Dump) And 15.73 acres of the former landfill property retained by the Sewer District for future development) | 45.95 |
| County Park, Sacandaga | 40.00+ |
| County Farm (DPW Garage, Jail, Animal Shelter, Fire Training Center, New Public Safety Building) | 117.07 |
| Woodlawn | 1.00 |
| Facilities Building | 1.00 |
| Municipal Center - Complex | 6.28 |
| Services Building | 8.16 |
| TOTAL ACREAGE | 786.97+ |

III. SOLID WASTE DIVISION

A. Recycling

Privatization of Recycling Centers and Single Stream Collection

In 2019, Saratoga County completed the second year of a two year agreement with County Waste and Recycling Services, Inc. for the Transportation, Processing and Recovery of Single Stream Recyclables and Scrap Metal from five (5) County Recycling Collection Centers and the Town of Edinburg. County Waste also agreed to renew that agreement for 2020, which was the first of three possible one year renewals. The County also continued intermunicipal agreements with the respective Towns and City where the recycling centers exist including: Clifton Park, Moreau, Corinth, and Saratoga Springs for their management of the collection of recyclables. Saratoga County continues to attend and manage the Milton Recycling Center. Saratoga County will also continue to collect appliances containing refrigerants (includes having the refrigerant removed by a local vendor), automotive batteries and propane tanks at all the County Centers. Saratoga County significantly reduced operational costs through these changes.

Recycling Tonnage - In 2015 all recycling centers began collecting single stream recycling. They continued to collect scrap metal, automotive batteries and propane tanks.

All Centers 2019:

| | | |
|--|-------|------|
| ◆ Single Stream Recycling | 2,533 | Tons |
| ◆ Scrap Metal | 1,204 | Tons |
| ◆ Automotive Batteries | 10.12 | Tons |
| ◆ Propane Tanks (Large 20 lbs. and bigger cylinders) | 794 | ea. |
| (Small 1 lb. cylinders) | 2,723 | ea. |
| ◆ Refrigerators and Freezers | 1,150 | ea. |
| ◆ Air Conditioners, Dehumidifiers and Water Coolers | 2,075 | ea. |

Adopt-A-Roadside – The Saratoga County Adopt-A-Roadside Program continues to play an important role in keeping our roads clean. In 2019, 46 community organizations actively participated in the program. Our D.P.W. provides orange garbage bags and safety vests to all participants in addition to picking up the collected debris. Approximately 70 miles of Saratoga County roadside was cleaned this past year through this volunteer effort.

Draft Local Solid Waste Management Plan – The draft local solid waste management was finalized by N.Y.S.D.E.C. and adopted by Saratoga County.