2013

ANNUAL REPORT
DEKALB COUNTY
HIGHWAY DEPARTMENT

Presented by
Nathan F. Schwartz, P.E.
County Engineer
Introduction

In 1913, legislation was enacted shifting the responsibility of certain roads from townships to counties. The Tice Act of 1913, named for Rep. Homer J. Tice from Menard County, created the first county highway system in Illinois. The Tice Act, known as Illinois’ first good roads legislation, provided for each county to have a superintendent of highways. The first DeKalb County Superintendent of Highways, William C. Mill, was appointed in early 1914. From William C. Mill to Nathan F. Schwartz, there have been 8 Superintendents/County Engineers in the 100 years of the DeKalb County Highway Department.

The Lincoln Highway was the nation’s first hard surface cross-country road. It ran from Times Square in New York City, through DeKalb County, to Lincoln Park in San Francisco, California. The first “Seedling Mile” of the Lincoln Highway was paved with concrete in 1920 near Malta, Illinois. A historical marker located at Kishwaukee College commemorates the occasion. The first road paved by DeKalb County was Genoa Road in 1936. Somonauk Road, Glidden Road, and Suydam Road followed in the next 4 years. Today, the County Highway Department maintains 190 miles of paved roads.

In the 100 years of county highways, significant changes have occurred. Equipment, technology, and demands lead the list.

Placed side by side, the original trucks of the Highway Department are no comparison to today’s trucks. The current fleet of trucks, graders, excavators, backhoes, and loaders have more power and capacity than anyone probably dreamed of decades ago. One could wonder what the winter of 1978-1979 would have been like with today’s equipment.

Another major change is technology. Communications by facsimile or telefax in the 1980’s was a major timesaver compared to the standard mail system. Today, we use emails to share information, sometimes through our cellphones. While the use of cell phones has been a boost to our communications nationwide, it is sometimes abused as in the case of distracted driving.

Record keeping and data research greatly improved with the introduction of the mainframe computer and later, the personal computer. Eventually, the internet was created and worldwide data sharing threatened to replace gossiping with your neighbor over the picket fence. Word processing replaced typewriters, plotters replaced blueprint copies with their strong ammonia odor, and software reduced the time to design roads and bridges.

From 1910 to 2010, DeKalb County’s population grew from 33,457 to 105,160. People travel more often and more frequently by automobile. The demands of the public are greater than ever. Commercial businesses and industry use just-in-time inventory to save on storage costs. Where gravel and snow packed roads were once common all winter, the public now looks for paved roads clear of snow and ice.

The Highway Department recognizes and values these changes over the years. Utilizing future changes combined with short and long range planning, the Highway Department looks forward to providing safe and reliable roads for the next 100 years and after.
Malta Road Paving

Malta Road between Old State Road and Illinois Route 72 was last paved in 1972. For a 40 year old pavement, it has been holding up fairly well. This is a testament to the benefits of regular preventive maintenance including seal coating.

This project was the paving of a 4.1-mile stretch of road. The work included paving safety shoulders throughout the many curves where traffic tends to “cut the corners” and drive off the edge of the pavement. Safety shoulders are paved shoulders typically 2 to 3 feet wide. They eliminate the drop off at the edge of the driving lane caused by traffic kicking the aggregate shoulder away. It provides an area for traffic to more easily recover if it leaves the lane. It also creates an area bicycles use to help stay separated from traffic.

Martin & Co of Oregon, IL performed the paving at a cost of $510,523. Of the total, $335,788 was paid using Motor Fuel Tax funds and $274,735 was paid using local Matching Tax funds.
Perry Road Paving

West of Illinois Route 23, Perry Road has been maintained over the years in several pieces. The remaining 5-mile section due for paving was between Haumesser Road and Waterman Road. Parts of this stretch were paved at different times but all done in the mid-1980s.

Being a well-traveled road with considerable farming traffic, the entire length of the project received paved safety shoulders. Similar to Malta Road, the County Highway Department cored out the shoulder widening for the contractor to place the hot-mix asphalt safety shoulders. The entire road was then paved with a leveling course and then a surface course. The County Highway Department followed up by placing aggregate along the outside of the paved safety shoulder.

Curran Contracting Company of DeKalb, IL performed the work at a cost of $766,023. Of the total, $612,818 was paid using federal funds (STR) and $153,205 was paid using local Matching Tax funds.
Annie Glidden Road Widening

A few years ago, the DeKalb Township Road District worked with the City of DeKalb and a private consultant to widen Annie Glidden Road between the I-88 Tollway entrance and the City of DeKalb. At that time, this ½-mile stretch of road was improved for two lanes of traffic traveling north into DeKalb. The southbound traffic continued to travel on a single lane.

In 2012, the Road District asked the County Highway Department to prepare plans for an additional southbound lane to be constructed in 2013, making Annie Glidden Road a 4-lane highway. The project was surveyed, designed, and overseen by the DeKalb County Highway Department.

The project included full width shoulders and drainage improvements along the road. Curran Contracting Company of DeKalb, IL performed the work at a cost near $335,000. DeKalb Township local funds were used to pay for the entire improvement.
Base Line Road Bridge

This bridge over the South Branch of the Kishwaukee River was built in 1965. Its three spans cover 185 feet. During biennial inspections, advanced deterioration of the deck was found. However, the substructure was still in good condition. It was determined a new deck would be the appropriate and economical solution.

Being on a township road separating 2 townships, the project involved Sycamore Township and Kingston Township in addition to the County. The bridge deck replacement began in the spring and was completed in late summer. Coordination with nearby construction projects was necessary during the bridge closure.

The project was completed by Sjostrom & Sons, Inc of Rockford, IL. The final construction cost was $567,684. Of that cost, federal funds (STR-BR) will cover $454,148, Township Bridge Funds (TBP) will cover $90,830, and the County and Townships will cover the remaining $22,707.
Five Points Road Bridge

This bridge replacement on the north side of Kingston, IL also spans the South Branch of the Kishwaukee River. The old 1956 bridge was 159 feet long. Similar to the Base Line Road bridge, advanced deterioration was found in the deck of this bridge. Unlike the Base Line Road bridge, this bridge had an inadequate capacity for flow during flood events. Therefore, the entire bridge is being replaced with a longer and wider bridge. The shoulders of the roadway are also being widened to accommodate a future sidewalk or recreation path.

The project was started in October, 2013. Because of the frequent flooding and high water levels during the spring and early summer, the contractor is working during the winter months while the water levels are low. Hopefully the piers and abutments, the substructure of the bridge, will be completed so the contractor can “get out of the water” before the spring flooding.

Copenhaver Construction of Gilberts, IL is constructing this bridge. The cost of the project is expected to be $2.5 million with federal funds (STR-BR) paying $2 million and the balance paid with local County funds.
Timber Pile Repairs

From the 1950’s though the 1970’s, a large emphasis nationally was placed on infrastructure improvements. It was not uncommon for multiple bridges to be built each year in a single county. Now, 50 to 60 years later, we are experiencing a large number of bridges which need repairs or replacement.

After our biennial bridge inspections this year, review by the Illinois Department of Transportation (IDOT) indicated some township bridges needed to be posted with lower weight limits. One bridge needed to be closed. Three of these structures were in good condition except for the timber piling. A contract was put together with IDOT’s assistance to repair the deteriorated piles.

The project was started in November and completed in early December. Twenty-two timber piles were repaired on the three bridges.

The project was completed by Sjostrom & Sons, Inc. of Rockford, IL. The final construction cost was $193,600. Of that cost, DeKalb County will pay $96,800 with County Bridge funds, Squaw Grove Township will pay $66,000, and Shabbona Township will pay $30,800.

Various Township Projects
Each year, DeKalb County township road districts request the County to prepare proposals and contracts as well as oversee construction activities. Some of these activities include hot-mix asphalt paving on subdivision streets and rural roads.

Excluding the Annie Glidden Road widening project in DeKalb Township, ten road districts completed hot-mix asphalt paving projects throughout the County. These projects covered 14.71 miles. The ten projects totaled $1,490,819 paid using a combination of Township Motor Fuel Tax funds and Township local funds.

The 19 township road districts also have the County prepare various maintenance contracts on their behalf. These include bituminous patching materials, various aggregates, calcium chloride, centerline and edgeline striping, drainage pipes, sign materials, and seal coats.

In 2013, 11 townships joined the County’s seal coat contract. The County seal coated approximately 7.5 miles at a cost of $132,258 while the townships seal coated approximately 25.6 miles at a cost of $481,019. The County also used a liquid rejuvenator as a way to extend the life of its roads. Approximately 6.1 miles of this material was sprayed at a cost of $67,802.
The County helps fund township bridge projects similar to the ones previously highlighted in this report. Additionally, the County helps townships fund much smaller projects. If a drainage structure, such as a pipe culvert or concrete box culvert, is costly enough compared to the Equalized Assessed Valuation of the Township, the County will help in the cost of the project. For some townships, the cost of the project may be as low as $3,000 and still qualify for county aid. In 2013, DeKalb County supported 4 townships with such projects.

<table>
<thead>
<tr>
<th>Township</th>
<th>Road</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Franklin Township</td>
<td>West County Line Road</td>
<td>$22,576</td>
</tr>
<tr>
<td>Paw Paw Township</td>
<td>Goble Road</td>
<td>$6,562</td>
</tr>
<tr>
<td>South Grove Township</td>
<td>Esmond Road</td>
<td>$11,236</td>
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<td>Victor Township</td>
<td>Leland Road</td>
<td>$16,692</td>
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The Manual of Uniform Traffic Control Devices (MUTCD) is the national rulebook for highway signage and pavement markings. Recent changes to the MUTCD requires a greater retroreflectivity for certain highway signs. Because of the enormous cost for agencies across the country to replace all their signs, federal grant money was made available. In 2013, DeKalb County, the townships, and the municipalities became eligible for this grant. Approximately $67,500 for new signs and $70,800 for new sign posts was provided for DeKalb County, 19 townships, and the municipalities. Because of their size, the City of DeKalb and the City of Sycamore had their own contracts for signs and are not included in these numbers. Many of the signs have already been installed across DeKalb County. Those signs not already installed will be in 2014.

2014 Projects

Peace Road Paving

In recent years, Peace Road between Pleasant Street and Bethany Road has been the location of several potholes each spring. In 2014, construction is scheduled for the overlay of this section of Peace Road to address the potholes and the rough ride for southbound traffic. The paved safety shoulder used on Malta Road and Perry Road will also be used on this section of Peace Road. The project cost is expected to be $990,000 with $792,000 paid using federal funds (STU).

East County Line Road Paving

This project is the upgrade of East County Line Road to an 80,000 lb truck route from IL Route 38 to IL Route 64. The project will include paved safety shoulders. The Illinois Department of Transportation was planning to build left turn lanes on IL Route 64 at East County Line Road. Rather than inconvenience the motoring public with two separate projects, the County and the State have combined these projects into one large project. The County will oversee all the work with the State paying for their respective share. The State’s portion is anticipated to cost $885,000 with $708,000 paid using federal safety funds. The County’s portion is anticipated to cost $1,113,000 with $470,500 paid using Truck Access Route Program funds.
Keslinger Road Bridge

In 2008, the Keslinger Road bridge collapsed unexpectedly. This 3-span, 131 ft long structure has been in and out of the news since the collapse. In 2014, the bridge is expected to be replaced using a combination of funds from the settlement of the civil case with Enbridge Energy, a generous contribution from Enbridge Energy, and federal funds (STR-BR).

Perry Road Bridge

This project is the replacement of the Schule Bridge, a 1958 structure built over a branch of the Battle Creek. The entire bridge will be replaced at an expected cost of $400,000. Local County Bridge funds will be used for this project.

West County Line Box Culvert

This project is the replacement of a concrete box culvert over a drainage ditch south of Lee, IL. This 1940 structure is experiencing cracking and concrete spalling. The project is expected to cost $300,000. The payments will be split between DeKalb County and Lee County, with DeKalb’s portion being paid using local County Bridge funds.

Glidden Road Shoulders

The Highway Department started improving the shoulders on Glidden Road between Dresser Road and IL Route 64 in 2011. Additional right of way was purchased so the shoulder on each side of the road could be widened to 10 feet. When widening the shoulders, the ditches need to be moved away from the road and regraded.

This 3.5 mile stretch of road remains partially completed. The balance of the project was anticipated to be completed by County forces in 2013. However, the unusual number and intensity of storms during the spring and summer occupied much of the Highway Department’s resources at that time. The annual maintenance work was completed in 2013, but the completion of this project was postponed until 2014.
Highway Department Funding Levels

Fiscal Year

Property Tax Levy or State Distribution of MFT

Highway
Aid to Bridges
Motor Fuel Tax
Federal Hwy Match


$0 $500,000 $1,000,000 $1,500,000 $2,000,000 $2,500,000 $3,000,000 $3,500,000 $4,000,000