

2015



**ANNUAL REPORT
DEKALB COUNTY
HIGHWAY DEPARTMENT**

**Presented by
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Introduction

What do you think when someone asks "What is America's number one network?"

Verizon Wireless? T-Mobile? Sprint? AT&T?

ABC? CBS? NBC? Fox?

There is actually a different champion when you look at networks. It's not a cell phone company. It's not a television company.

It is America's network of roads. Roads are all the time; if one is under construction, drivers can just go around the block. They are open during the day, night, and holidays. They are available for public use. There are no limits on how many hours you may spend on roads. They can help you in buying groceries, getting to class, going on vacation, meeting friends, transporting family, moving goods or equipment, and the list goes on and on.

America has literally risen up out of the mud when it comes to vehicles on the roads. There have been many milestones to get where we are today. Upgrading roads went from dirt to planks to gravel to seal coat to paved highways. The Federal-Aid Highway Act of 1956 signed by President Eisenhower created the Interstate Highway System our nation relies upon for inexpensive transportation of our families, food, and commercial goods.

While the cost of road projects are not free, the cost per person is relatively low. Consider the taxes to maintain the highways. The largest contribution to your road network is the Motor Fuel Tax. The Federal Motor Fuel Tax is 18.4¢ per gallon of gasoline. A vehicle traveling 12,000 miles annually at 20 miles per gallon will contribute \$9.20 per month for Federal Motor Fuel Taxes. That same vehicle will contribute \$9.50 per month for Illinois Motor Fuel Taxes at the current rate of 19¢ per gallon of gasoline.

Those rates are considerably less expensive than a typical cell phone or cable television plan. And there are no roaming charges for using roads away from your local area. To top it off, those rates have not increased in over 20 years. The Federal Motor Fuel Tax rate has not increased since 1993. The Illinois Motor Fuel Tax has not increased since 1990. While low rates seem like a wonderful advantage, there is a considerable downside. By not increasing the rate of the motor fuel taxes, the revenues to maintain and upgrade roads have not kept pace with inflation and rising construction costs.

In the last 25 years while the motor fuel tax rates have stayed the same, the cost to spread gravel on the road has increased from \$6.25 per ton to \$12 per ton. In the same time period, the cost for hot-mix asphalt paving has increased from \$33 per ton to \$65 per ton.

While revenues have been relatively stagnant or even decreasing in some areas, the County Highway Department has been performing more preventative maintenance than ever before. Just as a person takes a daily vitamin to reduce the chance of getting an expensive medical bill, the Highway Department tries to prevent road problems before they require an expensive fix.

Unfortunately, the resurfacing of roads cannot be postponed forever and several roads are "showing their age".

Prioritizing major road projects and bridge projects is now more important than ever. Many of these projects effect commerce and local business in the cases of weight limit restrictions and congestion on the roads. Some projects could increase driver safety throughout DeKalb County. Until increased revenues or additional funding sources become a reality, the County Highway Department will continue to balance maintenance of the roads and replacement of the bridges throughout the DeKalb County highway system.

EF-4 Tornado of April 9, 2015

At 6:39 P.M. a tornado started near Ashton, IL in Lee County. It grew as it travelled northeast toward Rochelle, IL in Ogle County. It crossed interstate I-39 and entered DeKalb County just outside Fairdale, IL. The tornado devastated the community of Fairdale in Franklin Township before ending in Boone County at 7:20 P.M. The path of the tornado was 30.2 miles long with peak winds of 200 mph. The maximum width of the tornado was measured at 700 yards.



Emergency crews were quick to respond. Recovery efforts were followed by clean-up. Clean-up was done by volunteers from multiple public agencies including the DeKalb County Sheriff's Office and the DeKalb County Highway Department, private contractors, and private organizations both local and nationwide. Donations were received from many generous donors. The neighboring Village of Kirkland and the DeKalb County Long Term Recovery Corporation were key parts in the Fairdale recovery process.



Once clean-up was completed, the rebuilding of Fairdale began. Various changes to the community including the rezoning of the parcels as well as a community septic field helped residents to rebuild their homes. Franklin Township Road District continues to repair damaged roads in and surrounding Fairdale due to clean-up and repair vehicles after the deadly tornado.

Chicago Road Paving

Chicago Road between Illinois Route 23 and Somonauk Road was completely rebuilt in 1960. Since then, it has been repaved with the most recent time in 1988. The first mile from Illinois Route 23 to Maplewood Road was repaved in 2013. In 2015, the remaining stretch was paved.



This project included the resurfacing of 4.56 miles from Maplewood Road to Somonauk Road. Paved safety shoulders were included throughout the project. Safety shoulders are paved shoulders typically 3 feet wide and 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 driving lane.



Builders Paving, LLC D/B/A Hardin Paving Services of Hillside, IL performed the work at a cost of \$814,988.72. The estimated cost of the project was \$972,054. Of the total, 85% was paid using Motor Fuel Tax funds and 15% using local Matching Tax funds. Kevin Fricke and Jim Seldal of the County Highway Department was the resident inspectors on this project. The DeKalb County Highway Department prepared the plans for the Chicago Road paving project.

Suydam Road Bridge

The Buck Creek Bridge over the Buck Branch of the Somonauk Creek was built in 1958. It had considerable deterioration causing weight limit restrictions for oversize vehicles. It was replaced in 2015 with a poured concrete deck structure.



The bridge was closed to traffic on June 9 and although not completely finished, was opened to traffic for the Sandwich Fair. The contractor returned after the Sandwich Fair to complete the bridge work and ended up repaving the approaches later in the fall.



Martin & Company Excavating of Oregon, IL was the contractor on this \$474,857.38 project. The estimated cost of the project was \$480,372. County Aid to Bridges fund paid for the entire project. Kevin Fricke of the County Highway Department was the resident inspector on the project. Wendler Engineer Services of Dixon, IL performed the preliminary and design engineering for the Suydam Road bridge project.

Coltonville Road Bridge

The Rich Bridge over the Kishwaukee River was built in 1976 at a length of 121 ft and a width of 40 ft. The new structure will be considerably longer at a length of 228 ft to accommodate flood events. The new deck width will also be wider at 53 ft to better accommodate future extra lanes of traffic as well as a future bicycle-pedestrian path. In total, the new bridge will be 2 1/3 times larger than the old bridge.



Bids for this project were opened in April and contracts were executed by IDOT in June. By mid-June, the contractor notified the County there was a major delay in getting the steel I-beams for the bridge due to excessive demands by other projects. The start date of the project was delayed so the contractor would not have delays while waiting for materials when the road was closed. After reviewing a proposed schedule to finish the bridge and get the road open by the end of 2015, the bridge was closed in the third week of August.



Construction included driving 2,259 feet of piling around a 12" diameter high pressure gas main, placing 0.42 miles of steel I-beams, placing 14.8 miles of reinforcement bars on 12,084 sq ft of decking, and welding 8,760 shear stud connectors.

In the 4 months of construction, the project experienced 17 rain events including 2 of 2.5" each. Mother Nature also gave 2 snow events of 10-12" and 2-3". When the Kishwaukee River flooded in late November and water levels did not drop, it was apparent the bridge would not be opened until the spring of 2016. Currently, the concrete bridge deck is poured but the roadway approaches remain unfinished.



Civil Constructors, Inc is the contractor on this \$2,318,272.15 project. The estimated cost of the project was \$2,463,781. 80% of the project will be paid using federal Major Bridge Funds and the remaining 20% paid using local County funds. Jerry Busse of the County Highway Department is the resident inspector on the project. Fehr Graham & Associates, LLC of Springfield, IL performed the preliminary and design engineering for the Coltonville Road bridge project.

South Paw Paw Road Bridges

After regular bridge inspections by DeKalb County in 2013, IDOT bridge personnel reviewed our findings and determined two sister bridges on South Paw Paw Road were not able to handle truck traffic. The two bridges, 0.25 miles apart, were posted at 19 tons and 22 tons instead of 40 tons. The County was able to secure funding to replace both bridges under the same contract.



The Goble Bridge and the Dimond Bridge were originally built in 1965. Both bridges over the Paw Paw Run were closed on August 7. On November 13, South Paw Paw Road was opened to traffic.



Riber Construction Company was the contractor on this \$861,540.21 project. The estimated cost of the project was \$954,302. 80% of the project will be paid using federal bridge funds (STR-Br), 16% paid using Township Bridge Program funds, 2% paid using Paw Paw Township local funds, and 2% paid using County Aid to Bridges funds. Kevin Fricke of the County Highway Department is the resident inspector on the project. Strand Associates, Inc. of Joliet, IL performed the preliminary and design engineering for the South Paw Paw Road bridge project.

Keslinger Road Bridge

The new bridge over the Kishwaukee River was open to traffic in May 2015. The old structure unexpectedly collapsed in 2008. The County negotiated a settlement agreement with Enbridge Energy and construction started in late 2014. The roadwork was completed in the spring of 2015.



Martin & Company Excavating of Oregon, IL was the contractor on this \$797,267.99 project. The estimated cost of the project was \$802,575. Funds from Enbridge Energy paid for the majority of the project and federal funds (STR-Br) paid for the balance. Jerry Busse of the County Highway Department was the resident inspector on the project. Wendler Engineer Services of Dixon, IL performed the preliminary and design engineering for the Keslinger Road bridge project.

Five Points Road Bridge

The bridge replacement on the north side of Kingston, IL over the South Branch of the Kishwaukee River was completed in May 2015. This project included a wider bridge deck and a sidewalk on the bridge for when a future sidewalk is added along the road.



Copenhaver Construction of Gilberts, IL was the contractor on this \$2,647,622.53 project. The estimated cost of the project was \$2,756,000. 80% of the project was paid using federal Major Bridge Funds and the remaining 20% paid using local County funds. Jerry Busse of the County Highway Department was the resident inspector on the project. Hutchison Engineering, Inc. of Shorewood, IL performed the preliminary and design engineering for the Five Points Road bridge project.

Various Other Projects

Jail Expansion Parking Lot

In anticipation of the future jail expansion project, DeKalb County replaced a small parking lot east of the Sycamore Public Library. The project is intended to provide parking while some of the other parking areas are unusable during the jail expansion project. The new parking lot is significantly larger than the old parking lot and includes concrete sidewalks, stormwater detention facilities, and overhead lighting. Although the parking lot is open for public use, the lighting will not be installed until the spring of 2016.



Elliott & Wood, Inc. of DeKalb, IL constructed this project on a very tight timeline. The cost of the original project was estimated at \$395,762.50 and bid at \$473,750. The parking lot grades were modified to reduce some of the earthwork costs. The final cost will be determined after the overhead lighting and landscaping is completed. The parking lot will eventually receive another layer of hot-mix asphalt near the end of the jail expansion project. Brad Hunold of the County Highway Department was the resident engineer on this project. Baxter & Woodman of DeKalb, IL prepared the plans for the jail expansion parking lot project.

Peace Road Path

The DeKalb County Forest Preserve District has jurisdiction over several multi-use paths in DeKalb County. One prominent path is the Peace Road Path between Pleasant Street and Bethany Road. In 2015, the Forest Preserve District resurfaced the path.



Curran Contracting Company of Crystal Lake, IL performed the work on this 2.61 mile path. The cost of the original project was estimated at \$92,428.50 and contracted at \$88,646.15. The project scope was expanded and the final cost was \$112,572.77 paid using Forest Preserve District funds. Brad Hunold of the County Highway Department was the resident engineer on this project. The DeKalb County Highway Department prepared the plans for the hot-mix asphalt paving project.

Hot-Mix Asphalt Patching

In 2015, the County entered into a joint contract with the Township Road Districts for hot-mix asphalt patching on sections of road throughout DeKalb County. Seven patches on County roads and 37 patches on Township roads were completed by the contractor. The 44 total patches were on nine different roads.

Curran Contracting Company of Crystal Lake, IL performed the work at a cost of \$128,158.06. The estimated cost of the project was \$122,580. Of the total, \$15,167 was on County roads and was paid using local Highway funds. Jim Seldal and Brad Hunold of the County Highway Department were the residents on this project. The DeKalb County Highway Department prepared the plans for the hot-mix asphalt patching project.

Township Paving 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.



Eight township road districts completed hot-mix asphalt paving projects throughout the County. Seven of these projects were hot-mix asphalt overlays and covered 13.44 miles at a cost of \$1,128,687.78. They were paid using a combination of Township Motor Fuel Tax funds and Township local funds. The eighth project was a 0.28 mile subdivision project in DeKalb Township which included curb & gutter replacement, sidewalk replacement, and a hot-mix asphalt overlay. The work was coordinated with the City of DeKalb who did water main replacement immediately prior to the Township's work. The project cost was \$420,101.42. The DeKalb County Highway Department prepared the plans for these paving projects.



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, crackfilling, and seal coats.

Seal Coat Projects

In 2015, 11 townships joined the County's seal coat contract. The County seal coated 12.4 miles at a cost of \$197,350.78. The township road districts seal coated 37.7 miles. The cost of the Townships' seal coat work was \$781,595.52.

The County and one township road district also used a liquid rejuvenator as a way to extend the life of its roads. Approximately 8.1 miles of road, multiple parking lots, and a multi-use path were sprayed at a cost of \$225,016.45. Jim Seldal of the County Highway Department was the resident inspector on these projects. The DeKalb County Highway Department prepared the plans for these projects.

2016 Projects

Shabbona Road Paving

Most of Shabbona Road between U.S. Route 30 and the Village of Malta was last paved in the late 1980's. This 12.4 mile project will be resurfaced in 2016 at an expected cost of \$2,259,000. \$1,807,200 will be paid using federal Surface Transportation Program funds and \$451,800 will be paid using Federal Aid Matching funds.

Glidden Road Paving

Glidden Road between Illinois Route 72 and Cherry Valley Road was last paved in 1994. This 2.4 mile project will be resurfaced in 2016 at an expected cost of \$555,000. \$305,000 will be paid using Motor Fuel Tax funds and \$250,000 will be paid using Federal Aid Matching funds.

Plank Road Paving

Plank Road between Illinois Route 23 and Lindgren Road was last paved in 2002. This 0.5 mile project will be resurfaced in 2016 at an expected cost of \$330,000. \$264,000 will be paid using federal Surface Transportation Program funds through the DeKalb-Sycamore Area Transportation Study (DSATS) and \$66,000 will be paid using Federal Aid Matching funds.

Stone Quarry Road Paving

Stone Quarry Road between Cherry Valley Road and Chrysler Drive in Belvidere, IL will be paved as a joint project between DeKalb County and Boone County. The DeKalb County portion is 0.4 miles and was last paved in 2003. The DeKalb County portion is expected to cost \$52,000 and will be paid using Motor Fuel Tax funds.

Waterman Road Reconstruction

Waterman Road between the Village of Waterman and Perry Road is part of the original north-south state highway in DeKalb County. Jurisdiction was transferred to the County when Illinois Route 23 moved one mile east to its current location. Because of the combination concrete/bituminous road composition and the poor drainage of the ditches, a traditional overlay would only have temporary benefits. The County has been planning to rebuild Waterman Road for years and will start on the first section in 2016.

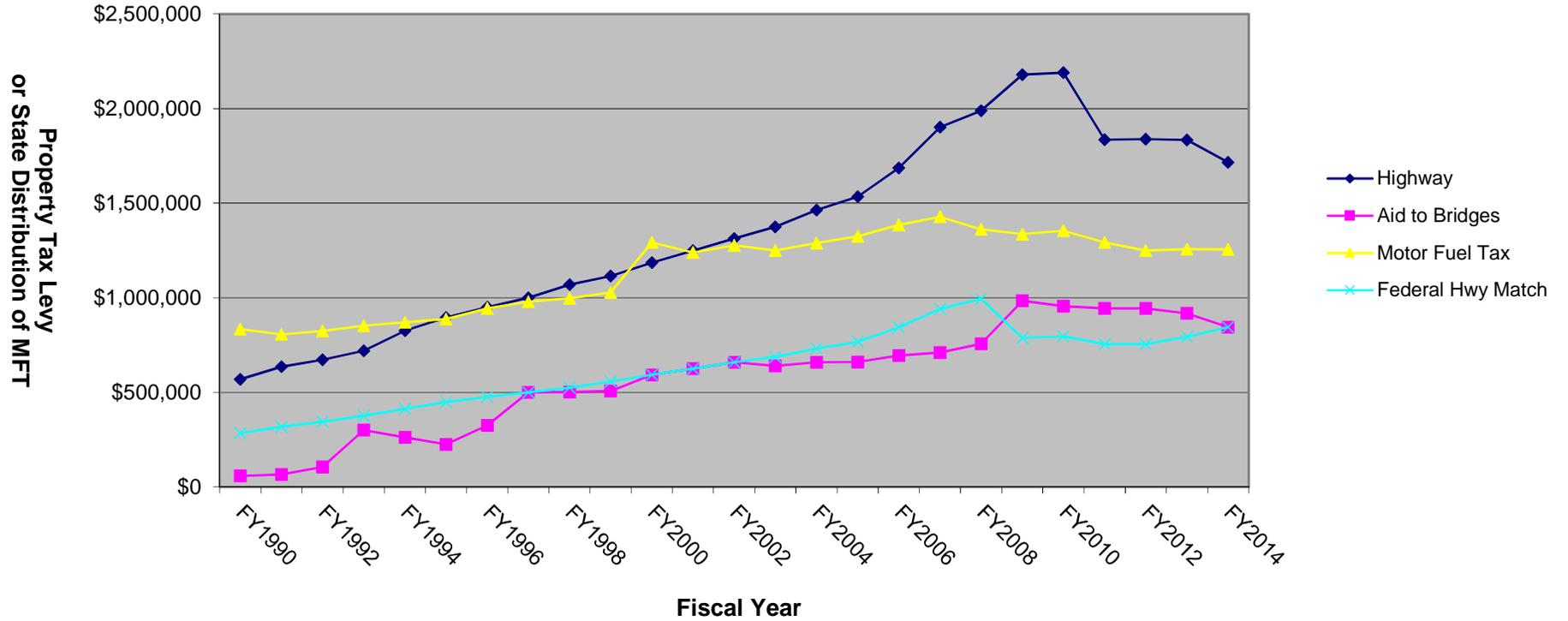
Somonauk Road Bridge

This project is the replacement of a 71 ft long structure originally built in 1991. The superstructure supporting the bridge deck has considerable deterioration due to overweight loads on the structure. The project is estimated to cost \$650,000 and will be paid using the County Aid to Bridges fund.

Melms Road Bridge

This project is the replacement of a 78 ft long structure in Genoa Township originally built in 1960. The bridge deck has deteriorated to a point in which no overweight loads are permitted on the bridge. The project is estimated to cost \$750,000 and will be paid using a combination of federal bridge funds (STR-Br), Township Bridge Program funds, and County and Township funds.

Highway Department Funding Levels



WINNEBAGO COUNTY

BOONE COUNTY

McHENRY COUNTY

DEKALB COUNTY

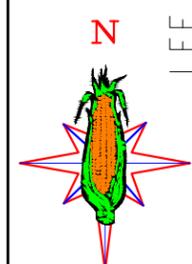
HIGHWAY CONSTRUCTION MAP

OGLE COUNTY

LEE COUNTY

KANE COUNTY

KENDALL COUNTY



Approx. E-W Distance 18 Miles
Approx. N-S Distance 36 Miles
Area 694.5 Square Miles

DeKalb County Government
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LASALLE COUNTY

