2021

ANNUAL REPORT
DEKALB COUNTY
HIGHWAY DEPARTMENT

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

In November 2021, Congress passed the Infrastructure Investment and Jobs Act (IIJA). This was a major investment into infrastructure at the federal level. Historically, the funding for infrastructure relied heavily on the Highway Trust Fund. Because the federal gas tax has not been raised since 1993, the Highway Trust Fund has been strained for years. Even though Congress did not fully determine where the capital for the IIJA should come from, it is clear our federal leaders recognized infrastructure was struggling to stay funded.

The IIJA is a $1.2 trillion capital program over five years. This amount is nearly double the appropriation of the previous capital program (the FAST Act). Approximately 54% of the funding is being applied to traditional surface transportation programs such as highways, bridges, rail, and transit. The rest of the funding is appropriated to categories such as environmental, water, hazardous materials, aviation, energy, broadband, and ports.

While the amount of funding nearly doubled, the amounts provided to DeKalb County for highway and bridges only increased by 27%. Additional funding is being applied to new programs, some of which are expected to be competitive grants. Many state and federal organizations are still analyzing the IIJA even months after it was passed in Washington to determine the full extent of the Act.

In 2019, the State of Illinois increased its Motor Fuel Tax (MFT) rate for the first time since 1990. While the state MFT rate doubled, local agencies saw an increase in funding of only 68%. These much-needed additional funds, along with bond revenues provided by the State, helped pay for deferred maintenance and provided funding to start making overdue upgrades.

Nationwide, the majority of states have adopted a standard maximum weight limit of 80,000 lb for highways. Illinois adopted this standard in 2009. At that time, the State of Illinois did not provide any additional funding to help the local agencies upgrade their roads to 80,000 lb. Instead, the State continued to allow local agencies to post their roads at a lower weight limit.

In DeKalb County, the increased funding over the past two years from the State helped complete the reconstruction of Waterman Road. Also, several county highways have been upgraded to 80,000 lb truck routes. Additional competitive grant funding was a key part to making these upgrades happen. Despite the recent successes by the County Highway Department, it will still cost just over $100 million to finish upgrading the remaining county highways to an 80,000 lb weight limit.

As the additional federal funds arrive, and as the supplemental grant funding opportunities from the IIJA are determined, there is hope that the highway system will see even more improvements. Unfortunately, as the current inflation rate increases so does the cost of construction. The unrest between Russia and Ukraine is further causing economic problems in all areas of the economy, especially oil-dependent products such as gasoline and hot mix asphalt used for highway paving. Only time will tell if the recent increases in infrastructure funding will be available for additional projects or will be used to offset higher construction costs.
Suydam Road Bridge

This project included the replacement of a 65-year-old bridge carrying Suydam Road just east of Rollo, IL next to Stonehouse Park. The 78 ft long bridge had a weight limit restriction for no overweight loads due to advanced deterioration of the concrete bridge deck. The new structure is 32 feet wide compared to the previous width of 24 feet.

The new structure is 104 ft long and was completed with the road opened to traffic in late fall. Temporary construction easements needed for the work were donated by the adjacent property owners. During the road closure, County Highway in-house crews performed extensive tree trimming to dramatically improve sight distance along the highway’s curve.

Martin & Company Excavating of Oregon, IL was the contractor on this $995,393 project. The estimated cost of the project was $1,135,381. The project was paid using a federal grant (Illinois Special Bridge Funding) for $800,000 of the project and local Aid to Bridges Tax fund for the balance of the project.

Ciorba Group, Inc. of Chicago, IL performed the preliminary and design engineering. Jerry Busse of the County Highway Department performed the construction inspection.
Motel Road Bridge

This project included the replacement of a 38-year-old bridge carrying Motel Road on the west side of Sycamore, IL. The 125 ft long bridge had a weight limit of 22 tons due to cracked beams in the deck of the bridge. The new structure is 167 ft long and 32 feet wide compared to the previous width of 28 feet.

Because of delays in processing the bid and due to COVID, IDOT executed the contract months after the letting date. The bridge work started in late fall of 2020. The substructure work was completed prior to the onset of winter getting the contractor out of the water. The deck was poured and the remaining work was completed with the bridge opening in summer 2021.

Civil Constructors, Inc. of Freeport, IL was the contractor on this $1,415,776 project. The estimated cost of the project was $1,359,549. The project was paid using a federal grant (Illinois Special Bridge Funding) for $880,000, State Township Bridge Program funds for $428,620, the local Aid to Bridges Tax fund for $53,578, and the remaining $53,578 by the Mayfield Township Road District.

Wendler Engineering of Dixon, IL performed the preliminary and design engineering. Jerry Busse of the County Highway Department performed the construction inspection.
McGirr Road Bridge

This project included the replacement of a 37-year-old bridge carrying McGirr Road over the Battle Creek north of the Village of Hinckley. The 49 ft long bridge had significant section loss in the precast concrete deck beams.

The new bridge is 69 ft long and 30 ft wide while the old bridge was 28 ft wide. The new bridge uses an improved version of precast concrete beams plus has a concrete wearing surface to protect the beams and extend their life.

Riber Construction of Dwight, IL was the contractor on this $693,852 project. The estimated cost of the project was $740,753. The project was paid using federal Surface Transportation Program (STP-Br) funding for 80% of the project, 16% from State Township Bridge Program (TBP) funds, and the remaining 4% local match to be split between the County’s local Aid to Bridges Tax fund and the Pierce Township Road District.

Engineering Resource Associates of Warrenville, IL performed the preliminary and design engineering. Jerry Busse of the County Highway Department performed the construction inspection.
South First Street & Suydam Road Pipe Culverts

This project included the replacement of existing pipe culverts along South First Street and a concrete structure on Suydam Road just west of Somonauk Road. Both sections of road were paved later in the same year. The structure carrying Suydam Road was originally a bridge with no bottom slab. It was extended on both ends using a concrete box culvert with a floor. In late 2020, it was found to have significant erosion under the center bridge.

Temporary repairs were required until the structure could be replaced. County Highway in-house crews placed concrete-based flowable fill in the eroded area. A hole was drilled through the road and crews manually spread the material below. In spring 2021, the structure was replaced along with 21 metal pipe culverts along South First Street.

Elliott & Wood, Inc of DeKalb, IL was the contractor on the $218,007 pipe culvert project. The estimate of cost was $183,675. County local Aid to Bridges Tax fund paid for 100% of the project.

The County Highway Department performed the preliminary and design engineering for the project. Brad Hunold of the County Highway Department performed the construction inspection.
Suydam Road Pipe Culverts

In the County’s Transportation Improvement Plan, Suydam Road is scheduled to be paved east of Rollo, IL and west of Illinois Route 23 in 2022. Prior to resurfacing a road, the Highway Department inspects the crossroad and driveway culverts to determine what needs to be replaced.

The Highway Department replaced 21 crossroad pipes and 17 driveway pipes in 2020. A concrete box culvert was repaired during this project. All work was performed using in-house labor by the Highway Department.

The DeKalb County Highway Department performed the surveying, design, and construction on this project.
Waterman Road Box Culvert Extension

This project was the extension of an existing concrete box culvert carrying Waterman Road. The work was performed prior to the paving on the road later in the year. The existing box culvert was already wide enough on the west side of the road to provide for a safety clear zone. However, the east side had a drop-off near the edge of the pavement.

The work included some repairs to the existing tile inlet immediately downstream of the structure. A temporary construction easement was donated by the adjacent property owner.

Martin & Company Excavating of Oregon, IL was the contractor on this $44,757 project. The estimate of cost was $61,530. County local Aid to Bridges Tax fund paid for 100% of the project.

Chastain & Associates, LLC of Rockford, IL performed the preliminary and design engineering for the project. Brian Oberg of the County Highway Department performed the construction inspection.
Waterman Road / South First Street / Perry Road Resurfacing

This project included the paving of Waterman Road from the Village of Waterman to Perry Road, South First Street from Perry Road to the City of DeKalb, and Perry Road from South First Street across Waterman Road to Illinois Route 23. A total of 10.5 miles were upgraded to 80,000 lb year-round truck routes.

The County used its share of Rebuild Illinois (RBI) funds for the project. Governor Pritzker selected this project of all projects across Illinois to make his first on-site appearance for a press release since the onset of COVID. This project finished a multi-year, multi-phase complete reconstruction of Waterman Road and the adjacent ditches.

Further coordination with the Illinois Department of Transportation (IDOT) allowed the County to receive $900,000 of Truck Access Route Program (TARP) funding to upgrade the road to the designated truck route. Curran Contracting Company of Crystal Lake, IL was the contractor on this $2,433,379 paving project. The estimate of cost was $2,902,263. RBI funds paid $1,533,380 and TARP funds paid $900,000.

The County Highway Department performed the preliminary and design engineering for the project. Brian Oberg of the County Highway Department performed the construction inspection.
Chicago Road Resurfacing

This project included paving Chicago Road from Shabbona Road to Illinois Route 23. This 7-mile section of road was last paved in 1992 and is the first phase of a collaboration with Lee County to resurface Chicago Road from Interstate I-39 to Illinois Route 23.

Similar to the Waterman Road, South First Street, and Perry Road paving project, Chicago Road received Truck Access Route Program (TARP) funds to help upgrade the road to an 80,000 lb year-round truck route. In addition to the upgrade, paved safety shoulders were placed along the road as is the practice when paving all county roads.

Curran Contracting Company of Crystal Lake, IL was the contractor on this $1,438,059 paving project. The estimate of cost was $1,592,724. Rebuild Illinois Funds (RBI) paid $696,445, TARP funds paid $651,370, and County Motor Fuel Tax (MFT) funds paid the remaining $90,244.

The County Highway Department performed the preliminary and design engineering for the project. Brian Oberg of the County Highway Department performed the construction inspection.
Suydam Road Resurfacing

This project included the paving of Suydam Road from Illinois Route 23 to the City of Sandwich at the Sandwich Fairgrounds. This 6.2-mile section of road was last paved in 1996.

The additional pavement placed provides the structural capacity for year-round 80,000 lb trucks. Although the road is not a designated truck route, it will not be subject to spring postings.

Curran Contracting Company of Crystal Lake, IL was the contractor on this $904,665 paving project. The estimate of cost was $1,247,667. Federal Surface Transportation Program Funds - Rural (STR) paid 80% of the project cost. The remaining 20% was paid using local County Matching Tax funds.

The County Highway Department performed the preliminary and design engineering for the project. Brian Oberg of the County Highway Department performed the construction inspection.
Twombly Road Upgrades

In 2020, DeKalb Township Road District and the City of DeKalb participated in a joint venture for the overdue improvements to Twombly Road west of Annie Glidden Road. The improvements had been discussed for several years but never started.

In addition to repairing the pavement, resurfacing was performed to provide an 80,000 lb weight limit for the updated traffic on the road. New curb & gutter was installed the length of the road. A sidewalk was placed on the north side of Twombly Road and a bike path on the south side.

N-TRAK Group, LLC of Loves Park, IL was the contractor on this $821,789 project. The estimate of cost was $1,107,584. The City of DeKalb paid $464,923 of the project cost and the remaining $356,866 was paid by the DeKalb Township Road District.

The County Highway Department performed the preliminary and design engineering for the project. Brad Hunold of the County Highway Department performed the construction inspection.
In-house Projects

Each year, the Highway Department crews perform a large variety of projects such as pavement & shoulder maintenance, pipe replacements, sign maintenance, tree trimming, equipment maintenance, ditch mowing, and of course snow & ice removal.

The crews perform various jobs through the year. In the past few years, the crews have been kept busy with more projects being completed in-house instead of contracting out work. We have started purchasing more specialized equipment to make our work more efficient. Each maintainer is able to operate every piece of equipment.

Of course, the unsung heroes who are not on the roads and operate behind the scenes are the support personnel in the office. The small crew of three handles the day-to-day paperwork and much of the coordination between the rest of the department, the general public, and the 19 township highway commissioners.
Township Resurfacing Projects

Each year, township road districts request the County Highway Department 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.

In 2021, 9 township road districts completed hot-mix asphalt paving projects throughout the County. These projects, not including the $821,789 Twombly Road described above, covered 13.2 miles of roads at a cost of $1,140,653. They were paid using a combination of Township Motor Fuel Tax funds and Township local funds. The DeKalb County Highway Department prepared the plans for these paving projects and performed the construction inspection.

Seal Coat Projects

In 2021, 12 townships and one municipality joined the County’s seal coat contract. Seal coat is a preventative maintenance process used to extend the life of a pavement. The County seal coated 9.1 miles at a cost of $170,465. The township road districts seal coated 36.9 miles at a cost of $690,545. The municipal seal coat work cost $64,792. Brian Oberg of the County Highway Department was the resident inspector on these projects. The DeKalb County Highway Department prepared the plans for these seal coat projects and performed the construction inspection.
Rejuvenator Projects

The County also uses a liquid rejuvenator as a way to extend the life of its roads. 1.6 miles of multi-lane county roads were sprayed at a cost of $70,080. One municipality sprayed streets at a cost of $51,396. Brad Hunold of the County Highway Department was the resident engineer inspecting these projects. The DeKalb County Highway Department prepared the plans for these projects and performed the construction inspection.

Crack Routing and Filling Projects

Crack filling is another preventative maintenance program used to extend the life of pavements. The County uses in-house crews to rout and fill cracks on its roads. The townships and municipalities hire contractors to perform this work under the County’s oversight. In 2021, two townships had roads under this contract at a cost of $18,090. Two municipalities had streets under this contract at a cost of $39,465. Brian Oberg of the County Highway Department was the resident inspector on these projects. The DeKalb County Highway Department prepared the plans for these projects and performed the construction inspection.

Other Township and Municipal Maintenance Projects

Including the above work, 16 of the 19 township road districts and 4 municipalities had the County prepare various maintenance contracts on their behalf in 2021. In addition to the above-described projects, these included bituminous patching materials, various aggregates, calcium chloride, centerline and edge line striping, and drainage pipes. The DeKalb County Highway Department prepared the plans for these contracts.

In total, the County Highway Department oversaw more than $14.2 million in construction and maintenance projects during 2021.
2022 Projects

New Lebanon Road Bridge

The New Lebanon Road bridge over the Coon Creek east of Genoa, IL was constructed in 1964. The bridge has a weight limit posting of “Legal Load Only” due to a large crack in one of the beams comprising the bridge deck. After another beam was found with a large crack during a 2021 inspection of the bridge, the IDOT bridge office in Springfield determined the structure should be closed immediately. Coincidentally, the structure was already scheduled for replacement in 2022.

The 56 ft long bridge has a 24 ft wide deck. The proposed bridge scheduled in 2022 is to be 65 ft long with a 28 ft wide deck. The new structure will have an improved design for the concrete deck beams and a concrete wearing surface to protect the beams and extend their life.

The estimated cost of the project is $600,000 with 80% paid Federal Surface Transportation Funds (STP-Br), 16% from State Township Bridge Program funds, and the remaining 4% local match to be split between the County’s local Aid to Bridges Tax fund and the Genoa Township Road District.

Somonauk Road Concrete Box Culvert Extensions

This project is the replacement of two culverts under Somonauk Road and one culvert under Perry Road. Six of the culverts under Somonauk Road are located in the 2-mile stretch between Perry Road and Keslinger Road. These locations have steep foreslopes outside the roadway shoulders. The other culvert under Somonauk Road is located immediately south of Barber Greene Road. The culverts will be extended to widen the roadway shoulders and eliminate guardrail at that location. The last location is approximately ¼ mile east of Somonauk Road on Perry Road. This structure will be extended to eliminate a steep slope on one side of the road and eliminate the need for guardrail on the other side of the road.

Over 30,000 cubic yards of fill material was stockpiled on property owned by DeKalb County during the recent I-88 Tollway construction project. That material has been made available to backfill the culvert extensions and provide better slopes along Somonauk Road.

The estimated cost of the project is $500,000 and is budgeted to be paid using a combination of the County Motor Fuel Tax and local Aid to Bridges Tax fund.
North First Street Resurfacing

North First Street between Rich Road and Old State Road was last paved in 2005. While normally the road would not be repaved so soon, federal funds were acquired from the DeKalb-Sycamore Area Transportation Study (DSATS) to improve the road to an 80,000 lb weight limit year-round. The improvements will include a paved safety shoulder.

The County is partnering with the City of DeKalb and extending the project limits south to Bethany Road. The City recently repaved their section of North First Street but stopped short of the jurisdiction line. This project will complete the resurfacing of the street.

The estimated cost of the project is $950,000 and is budgeted to be paid using federal Surface Transportation Program Funds - Urban (STU). The local match will be paid using local County Matching Tax funds on the County’s section of highway while the City of DeKalb will be responsible for the local match on their section of highway.

Suydam Road Resurfacing

Suydam Road between Rollo Road and Illinois Route 23 is scheduled to be resurfaced in 2022. It was last paved in 1987. The project will upgrade the road to a designated truck route, meaning the weight limit will be 80,000 lb and not subject to reduced weight limits in the spring known as spring postings. The resurfacing includes paved safety shoulders.

The County has received a Truck Access Route Program (TARP) grant from IDOT. The estimated cost of the project is $1,740,000 with $694,260 paid using State TARP funds and $1,045,740 from the County’s local Matching Tax funds.
- Structurally deficient means one of the main components of the structure (deck, superstructure, substructure) is in poor condition and needs repairs

- A structurally deficient classification does not mean the structure is unsafe to use

- Of the 8 structurally deficient county structures, 4 are scheduled for replacement

- Of the 14 structurally deficient township structures, 8 are scheduled for replacement

- Of the 6 structurally deficient municipal structures, 4 are scheduled for replacement
Highway Department Funding Levels

Fiscal Year

Property Tax Levy or State Distribution of MFT

- Highway
- Aid to Bridges
- Motor Fuel Tax
- Federal Hwy Match