



Illinois Department of Transportation

Office of the Secretary
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January 20, 2023

MEMORANDUM TO THE HONORABLE MEMBERS OF THE 103rd GENERAL ASSEMBLY

SUBJECT: Public Act 96-0037 Progress on the Installation of Fiber-Optic Network Conduit

The Illinois Department of Transportation (IDOT) has been working with the Department of Innovation & Technology (DoIT), previously Department of Central Management Services (CMS), to ensure affordable high-speed, world-class core information and communication networks are available throughout Illinois as required by Illinois Public Act 96-0037.

During the 2010 legislative session, the legislature addressed the issue that parts of Illinois lacked access to high-speed information and communication (broadband) networks. To address this and encourage network development throughout Illinois, the legislature enacted legislation that included having the IDOT and CMS collaborate to install fiber-optic network conduit in state-funded construction projects along state-owned infrastructure. IDOT or CMS may then be able to lease fiber and/or empty conduit to any third-party entity to complete broadband networks to underserved areas in Illinois.

To comply with this, IDOT began to develop a draft policy and special provisions for contracts to handle the fiber-optic conduit installation. As work progressed in developing these documents, CMS and other public and private groups were awarded federal grants under the American Recovery and Reinvestment Act (ARRA) program to develop and build broadband networks. These grants were issued during spring and summer 2010. To further their collaboration, these groups that were awarded federal grants are part of the Illinois Broadband Opportunity Partnership (IBOP).

After reviewing the scope of these IBOP proposals it became clear that the network being constructed by these partnerships is huge and, once implemented, will cover a large portion of the State of Illinois. It also became clear that many of these projects will be installing fiber-optic cable on IDOT right of way. As a result, IDOT has shifted its focus to supporting the implementation of these regional initiatives and has begun the process of coordinating with CMS (now DoIT) and others in processing permits that will allow installation of fiber-optic cables on IDOT right of way. To date these projects have resulted in the installation of over 3,000 miles of fiber-optic cable within Illinois.

As a long-term strategy, IDOT is working with DoIT to identify "gaps" in this emerging network and identify which of our planned road and bridge projects are potential candidates for installation of fiber-optic network conduit. In identifying potential

projects, IDOT has been investigating to determine need and logical termini based on the following criteria:

- Is there an existing high-speed network anywhere along the corridor?
- Is there a demonstrated need for a broadband network along the corridor?
This requires looking at:
 - Population centers currently without a broadband network
 - New population growth or development
- Is the corridor a candidate for IDOT's Intelligent Transportation System (ITS) application?

While no construction projects were completed by the end of 2019 that included state-funded construction of spare fiber-optic conduit, the Dunlap to Peoria project replaced fiber-optic cable to make it usable for trade/lease. The cost to install this replacement fiber-optic cable was \$112,663. DoIT continues to manage the advertisement of excess fiber optic cable and spare conduit for lease. In coordination with DoIT, other routes are reviewed and preliminarily identified to include this conduit in future projects. Other routes being considered are: Moline to Prophetstown and sections of I-80 and I-39 in the IDOT District 3 region. In addition, IDOT is reviewing our multi-year plan to determine which projects are conducive to installing fiber optic conduit or cable.

There was some work done prior to 2010 that included IDOT constructing and subsequently leasing parts of a 26-mile long fiber-optic cable along I-39, bridging a gap between Rochelle and Rockford. Network provider companies still show interest in leasing this fiber optic segment from IDOT. Additionally, a permit was issued in 2000 to a private company to install fiber-optic cable along 292 miles of state highway in which the state received a number of fibers in the cable for its own network purposes. These fibers are currently under the control of DoIT and are included within the IBOP program.

IDOT had compiled the enclosed summation showing the currently constructed fiber-optic cable and spare duct along with an estimate of the work expected to be completed through 2020. This will be updated annually.

Thank you for your interest in the Illinois transportation system. If you have any questions or need additional information, please contact me.



Omer M. Osman, P.E.
Secretary

Enclosure

Constructed Fiber Optic Cable and Spare Duct

All lengths are in miles except where noted.

	<u>1999-2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023 ²</u>
<u>Fiber Optic Cable/Duct ¹</u>								
IDOT								
ITS (w/ Federal funds)	224.9	23.9	1.5	4.7	18.2	0.0	0.0	63.9
ITS (State only funded)	238.5	25.0	6.6	25.3	13.8	5.5	37.8	10.2
Leasable (I-39)	26.3	0.0						
IBOP ³								
DoIT (previously CMS)	1,052.0							
Clearwave	752.0							
iFiber (NIU)	601.0							
UC2B (U of I)	216.0							
DATA (DeKalb Co.)	144.0							
Other Partnership Permits								
Williams (I-55) ⁴	292.0							
SSMMA	27							
IRHN	1.0							
<u>Spare Inner-duct (w/ above fiber optic cable)</u>								
IDOT								
ITS (w/ Federal funds)	137.9	10.4	18.0	0.0	0.0	0.0	0.0	3.5
ITS (State only funded)	957.5	0.0	13.4	0.0	0.0	0.0	210.5	19.1
<u>Spare/extra duct/conduit (in addition to above)</u>								
IDOT								
ITS (w/ Federal funds)	15.9							
ITS (State only funded)	0							
<u>Leased/service-traded facilities</u>								
Fiber (# of strands * miles)	1,808.7	3.8	98.2	0	0	0		
Inner-duct/conduit (miles)	0.0	0	0	0	0	0		

NOTES:

1. Does not include projects to interconnect traffic signals.
2. Numbers shown are estimates based on bid documents or project descriptions.
3. Includes all fiber optic cable segment miles; not limited to state right-of-way.
4. Currently known as "CenturyLink". Installed under permit in 2000. Eight dark fibers given to CMS (now DoIT) by IDOT.

SSMMA = South Suburban Mayors and Managers Association

IRHN = Illinois Rural Health Net