



## Legislation Text

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File #: 52106, Version: 1

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### Fiscal Note

No Appropriation Required

### Title

Authorizing the City Engineer to Execute WISCORS Cooperative Agreement with the Wisconsin Department of Transportation.

### Body

#### PREAMBLE

The Wisconsin Department of Transportation (WisDOT) Geodetic Surveys Unit developed/manages a statewide Global Navigation Satellite System (GNSS) reference station network, called the Wisconsin Continuously Operating Reference Stations (WISCORS) Network. This network currently consists of over 98 permanent GNSS reference stations that provide GNSS corrections to mobile users in real-time. Mobile users properly equipped to take advantage of these GNSS corrections can position in the field to the 2 centimeter accuracy level in real-time.

The mission of the WisDOT Geodetic Surveys Unit is to apply state-of-the art methods of precise positioning and advanced geodetic techniques to establish and maintain the horizontal and vertical geodetic control infrastructure across the state of Wisconsin. A principal objective in that mission is the establishment and operation of a permanent GNSS CORS network in Wisconsin.

The WISCORS Network provides the following benefits: it eliminates the need and cost for another receiver to act as a base; it eliminates the resource time associated with equipment setup at the base site; it greatly enhances consistency of coordinate determination; it reduces the need for permanent monumentation on a local level; and reliability and redundancy is ensured.

The WisDOT Geodetic Surveys Unit partnered with the federal government ([NOAA-NGS <http://www.ngs.noaa.gov/>](http://www.ngs.noaa.gov/)), state and local government agencies, and multiple educational institutions in the development, implementation and operation of the system. Through cooperative agreements, host site partners like the City of Madison, have agreed to contribute facilities, power, and access to high-speed internet service. WisDOT has supplied nearly all of the GNSS hardware, all of the materials and supplies needed to construct the CORS monuments, all of the information technology (IT) components and network software needed to operate the system.

WHEREAS, the City continues to recognize the benefits to our City of Madison WISCORS partnership with WisDOT, in accordance with RES-08-00828 enacted by Madison Common Council on September 03, 2008 (Legistar File No. 11428). At that time, the City managed/operated a global positioning system (GPS) base station located at Traffic Engineering Division's Maintenance Facility, 1120 Sayle Street, since 2002. The City's base station provides continuous real-time correction data transmitted from Larkin Tower and logs correction data to the City's web server for access over the Internet. The correction data is used by City staff and by the public and is provided to the public at no cost. The City purchased a new GPS base station in 2006. At that time, the base relocated to Engineering Service Building (ESB), 1600 Emil Street. In May of 2018, City IT converted GPS Base Station from personal computer (PC) to virtual machine (VM) environment, thus the physical CPU is no longer located on-site at Engineering Service Building. All other GPS Base system hardware (receiver, antenna, etc) remains at the ESB; and,

WHEREAS, the Wisconsin Department of Transportation (WisDOT) established WI-CORS\_NET in the interest

of the traveling public and for the benefit of public safety and desires to locate a GPS base station in the City of Madison; and,

WHEREAS, continued participation by the City in the WisDOT's WI-CORS\_NET project will be mutually beneficial and there will be no cost to the City for participation in this project. The terms of this agreement are specified in WISDOT AGREEMENT NO. 25-25-02-2008. The City will continue to transmit correction data from Larkin Tower and log correction data to the City's web server for access over the Internet. The City be provided with fifteen (15) licenses to use the WisDOT's WI-CORS\_NET; and,

WHEREAS, as stated above, the initial WISDOT AGREEMENT NO. 25-25-02-2008 was entered into in 2008. That initial agreement stated the agreement must be reviewed every two (2) years coinciding with State of Wisconsin's biennium, with our current agreement scheduled to expire on June 30, 2018; and,

WHEREAS, primarily for administrative efficiency reasons, WisDOT suggests the City and State both agree to the removal of such renewal language. The State has provided the City updated WISDOT AGREEMENT NO. 25-25-02-2008, attached hereto and made part of this resolution.

NOW THEREFORE BE IT RESOLVED, the City Engineer is hereby authorized to solely sign on behalf of the City, this and any future amendments to WISDOT AGREEMENT NO. 25-25-02-2008 for continued participation in the Wisconsin Department of Transportation's Wisconsin Continuously Operating Reference Stations NETWORK, with any substantive changes subject to the approval of the City Attorney.