

Nebraska Department of Transportation E-Ticketing

How to get connected

The NDOT's E-Ticketing Portal vendor is HaulHub.

HaulHub currently supports **three options** for connecting:

1. HaulHub's simple digital connector tool.
 - a. For more information ([click here](#))
 - b. Nebraska DOT has secured services to get your e-ticketing operations up and running at no cost to you. You control what data is shared with the DOT. Service Level Agreement (SLA) requirements are the responsibility of HaulHub—with corporation from the Contractor, Producer/Supplier and 3rd Party Load-Out/Material Handling Systems vendor.
2. Producer/Supplier directly posting material records to an Application Programming Interface (API) with an authorized user key.
 - a. For more information ([click here](#))
 - b. Producers/Suppliers will POST data to an API with an authorized user key. HaulHub will publish technical documentation for your use. SLA requirements are the responsibility of the producer/supplier (5 min data transmission and customer service contact with availability during project operations)
3. A 3rd Party Load-Out/Material Handling Systems vendor will Post to an API with an authorized user key.
 - a. For more information ([click here](#))
 - b. Your current 3rd Party Load-Out/Material Handling Systems vendor will POST data to an API similar to the one above. SLA requirements are the responsibility of the producer/supplier or the 3rd party e-Ticketing solution (5 min data transmission and customer service contact with availability during project operations)

To sign up and for more information on how to connect to HaulHub ([click here](#))

For addition information:

[HaulHub University](#)

[HaulHub Security](#)

For questions regarding using HaulHub:

Email support@haulhub.com

Call 1 (833) HAULHUB

For questions regarding contract requirements:

Email (ndot.lcopavement@nebraska.gov)

For all other questions:

Email ndot.awprojectsupport@nebraska.gov

Data requirements for E-Tickets:

<u>General Material Record</u>	<u>Format/Data Type</u>	<u>Example</u>
• Department's Project ID Number (Contract ID Number)	String	12345A
• Unique truck identification code that included the truck identification number,	String	TRK201
• Date/Time (Time Zone Required) (Central Time = -05:00 Mountain Time = -06:00)	Date/Time Field 2023-07-10T07:38:23.000-06:00	
• Name of Contractor	String	Acme Construction
• Name of material supplier and,	String	AAA Paving
• Plant/scale name/ID (if more than one scale).	String	AAA-Scale1
<u>Material Records for Asphaltic Concrete</u>		
• Asphaltic concrete mix type	String	SPR
• Asphaltic concrete job mix formula number	String	123
• Gross weight of truck and load of asphaltic concrete (tons),	Numeric	37.29
• Tare weight of truck (tons),	Numeric	15.14
• Net weight of asphaltic concrete (tons),	Numeric	22.15
• Load count number to the project (daily)	Numeric	25
• Temperature of asphalt at loadout (°F)	Numeric	305.09
• Running daily total of the net weight of asphaltic concrete transported to project.	Numeric	549.25

Material Records for Portland Cement Concrete

• Volume of load—based on mix design (CY)	Numeric	10.00
• Aggregate wet weight (lbs.) and type/identifier—for each	String/Numeric	FineAgg, 14920.05 CoarseAgg, 19953.21
• Cementitious material weight with type name (lbs.)	String/Numeric	Cem1PF, 5790.89
• Total water (lb.) added to the load,	Numeric	2214.65
• Free-water* moisture content (%) for aggregate each type	String/Numeric	FineAgg, 1.00 CoarseAgg, 1.00
• Actual water/cement ratio for the load (min. two sig.-fig**)	Numeric	0.442
• Max. water/cement ratio (specified for mix.)	Numeric	0.45
• Max. allowable water that can be added to the load (Gal).	Numeric	5.55
• Admixture volume (oz.) & type/identifier—for each	String/Numeric	PlusAir, 200.01 WtrRdcr, 299.98
• Running daily total of the volume of portland cement concrete to project per mix design (CY)	Numeric	305.35
• Target aggregate wet weight (lbs./CY)—for each	Numeric	
• Target cementitious material weight with type name (lb)	String/Numeric	Cem1PF, 579.00
• Target dry weight of aggregates (lbs.) with type name—for each	String/Numeric	FineAgg, 1477.22 CoarseAGG, 1975.60
• Target water/cement ratio	Numeric	0.44
• Target admixture with type and brand name (oz.)—for each	String/Numeric	PlusAir, 20.00 WtrRdcr, 30.00

* Free-water is the total water in the aggregate less the water absorbed by the aggregate

** Mathematical significant figures

Glossary:

Term	Description
Application Programming Interface (API)	A way for the Producer's (or Supplier's) load-out/materials handling system to communicate with the NDOT E-Ticketing Portal.
Authorized user key	A unique credential provided to the material supplier for their secure submission of ticket data
Connectivity	1. The ability to connect from the material producer/supplier to the NDOT E-Ticketing Portal for the purpose of transmitting material records for the purpose of producing an E-Ticket. The ability to connect can be any feasible digital/electronic means to transmit the material records.
	2. The ability to connect from the NDOT E-Ticketing Portal to a smart device located near the material load's point of delivery for the purpose of receiving an E-Ticket.
Document-of-Record	A document that certifies the represented material records are accurate.
E-Ticket	Digital representation of a Material ticket.
Load	An individual delivery of a material (typically but not necessary a bulk load) to a specific project.
Material record	Distinct information pertaining to the material being delivered that is represented by a material ticket. A material record may be a numerical value, word or phrase and may be printed text for paper documents or digital data records for E-Tickets. The material record will represent a unit of measure, ratio, percentage, product name, material type or kind, descriptive text or other similar information about the material being delivered.
Material Ticket	A paper ticket or E-Ticket that is the document-of-record that represents a load of material delivered to a project. Material tickets provide "materials records" for load characteristics including project identification, quantity, type and/or description, date/time of delivery and delivery vehicle identification. Material tickets may also be required to include "material records" that represent physical or other aspects of the material being delivered.
NDOT	Nebraska Department of Transportation
NDOT E-Ticketing Portal	A web-based platform that collects (allows for the transmission of) digital material record from a material producer into a single user interface for the purpose of producing an E-Ticket.
Service Level Agreement (SLA)	An SLA outlines the expected standards for service, data security, and data availability for users of the NDOT E-Ticketing Portal. If integration Option 2 or Option 3 (<i>above</i>) are chosen, the supplier/producer or their 3rd party vendor takes responsibility for ensuring data availability and providing support for the integration.
Test of the ability to transmit materials records	This process involves the material producer/supplier and contractor sharing test data with the NDOT E-Ticketing Portal to ensure the readiness of the data connection for live projects. The goal is to confirm the presence of all correct data and ensure the seamless flow of information from the plant to the NDOT Portal in a timely manner. This test ensures that the system is fully prepared for real-world material record transmission.