

ELECTRONIC CONSTRUCTION DOCUMENTATION GUIDE

Prepared for

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Bismarck, North Dakota Website:

<http://www.dot.nd.gov/>

DIRECTOR

Grant Levi, P.E.

CONSTRUCTION SERVICES DIVISION

Cal J. Gendreau, P.E.

August 2015

Table of Contents

Introduction	3
Definitions.....	3
Devices.....	3
Apps	3
Documents 5	3
FasterScan HD.....	4
Skitch.....	4

Introduction

The NDDOT is currently looking for new and innovative ways to increase production and lower costs. As part of that goal, there will be many changes to the way project documentation is generated and stored. CARS is currently being updated with the goal of eliminating the need for paper documentation. The changes in CARS will likely be ongoing for a number of years. This guide will serve as an evolving document providing guidance to those changes. **Printing** this guide is **not recommended** as it will be **updated online frequently**.

This guide is meant to supplement the Construction Records Manual and offers additional guidelines for Project Managers who choose to take advantage of the available elements of e-Construction.

At this time, Project Managers including Consultants may utilize these standards for documentation with the approval of their respective District Engineers.

When Project Managers choose to use e-Construction, the information in this guide supersedes the Construction Records Manual.

Questions regarding e-Construction may be directed to Bryan Strasser at 328-2547.

Definitions

e-Construction – Creation, collection, review, approval, distribution, and storage of contract documents in an electronic environment.

Attach – Electronically attach through CARS

Pay Quantity Entry – The individual electronic entry made to document a pay item in CARS.

Devices

CARS may accessed from any internet enabled device. CARS was written for a PC environment and works best on a PC. Access in the field may be achieved with an internet connected laptop or tablet. NDDOT employees have been provided iPads as an option for field use.

When using an iPad with CARS, make sure to turn off the pop up blocker for the web browser.

Apps

There are many iPad apps that might contribute to documentation. NDDOT may only use approved apps. If a new app is desired, contact Construction Services to create a work order.

The following apps are currently used by the NDDOT

Documents 5

Documents 5 is a documents management app. Any file placed in Documents 5 may be uploaded to CARS. Folders may be created to help manage documents.

FastherScan HD

Used to scan documentation such as a haul sheets. Multiple pages may be scanned into one single file. Once the file is created it may be exported as a pdf to Documents 5 where it can then be uploaded to CARS.

Skitch

Used to annotate photos. There are several annotation tools that allow the user to mark up the photo. After the changes are made, the user can save the photo to Documents 5 or the gallery. Once the photo is in Documents 5 or the gallery, it may be uploaded to CARS. Users may also use Skitch to email the marked up photo.