



Illinois Department of Transportation

CADD Roadway and Structure Project Deliverables Policy

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**Prepared by Bureau of Bridges and Structures
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Archived versions of this guide are available to examine in the Policy and Research Center, Room 320 of the Hanley Building.

Electronic

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Hard Copy

This guide is not distributed in hard copy format. Users of this guide who choose to print a copy of the guide are responsible for ensuring use of the most current version.

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1 Introduction

Pursuant to Illinois Department of Transportation Departmental Policy BBS-14, this policy has been established to promote the development of highway improvement projects in a consistent and efficient manner. This document supersedes the June 21, 2013 version of the IDOT CADD Roadway and Structure Project Deliverables Policy and the Electronic Survey Data Requirements, effective January 1995.

This policy is established to ensure that IDOT will receive CADD drawings for a given project that are in a standard and consistent format that IDOT staff are accustomed to working with and can manage. As a provider of services to IDOT, the consultant will need to have the following information in order to provide an acceptable deliverable. Throughout the phases of the project with all parties complying, these requirements will provide a uniform project deliverable.

The ultimate goal of the Department is to take advantage of what technology has to offer and develop a process for electronic plans, that is, submission of plans in an electronic format. In order for that to happen there must be a level of consistency for drafting the plans and managing those files between all the entities that do the work in a fashion that will achieve a uniform product. The end product must be a deliverable that the Department can use and is compatible with all other associated processes the Department manages. This policy is an effort to move in that direction so that the information required and generated for a project can be effectively managed in an electronic format.

The Department will require CADD highway project data placed in a "Strip Map" format as surveyed on the Illinois state plane coordinate system with horizontal and vertical control elements in a design database. Contract plan sheets shall be created using references of the coordinate base files to the sheet files. This document contains the requirements that must be met in order to provide an acceptable deliverable.

2 IDOT CADD Requirements and Project Deliverables

2.1 General Information

Complete MicroStation and GEOPAK project files are required at the time of final plan submittal. All files necessary to recreate the design contract plans in their entirety shall be included in the submittal. GEOPAK files shall include all files generated by GEOPAK Road and GEOPAK Survey. A “**Project Content File**” (a Microsoft compatible document or spreadsheet listing each file submitted with the description of file content (sheet number, area and stationing if applicable) and any references associated to design files shall also be included with the above mentioned files at final submittal and each review submittal as required by the IDOT Project Engineer. CADD files that do not meet IDOT standards will be returned to the consultant for appropriate corrections at no additional cost to IDOT.

In addition to MicroStation and GEOPAK files, 11” x 17” PDFs of the contract plan sheets are also required. An individual PDF for each sheet and multi-page PDF(s) containing all contract plan sheets (up to 100 pages each) shall be submitted.

- For the individual sheets: The naming convention for the individual plan sheet shall be: “Contract Number-plan sheet number.pdf”. An example would be: **72111-001.pdf**.

If a, b, or c sheets are needed, use the following naming convention:

Plan sheet	File name
50a	72111-050abc1
50b	72111-050abc2
50c	72111-050abc3

- For the multi-page PDF's: The naming convention for the multi-page PDF's is as follows:
 - Sets of 100 or fewer sheets: Create one PDF containing a sheet for every plan sheet. Below is the proper naming format, followed by an example.

Format: “PLcontract#.pdf”

Example: **PL72111.pdf**.

- Sets of more than 100 sheets: Create multiple group files containing at most, 100 sheets each. Try to break the group files at logical points by sheet content. Use the Index of Sheets to help determine break points. Below is the proper naming format, followed by an example.

Format: “PLcontract#-beginSheetNo-endSheetNo.pdf”

Example: **PL72111-001-100.pdf; PL72111-101-180; PL72111-181-222.pdf**.

Additional requirements for these PDF's and their submittal is as follows:

- PDF's are to be exactly 11” x 17”.

- PDF's must be grayscale only, NO COLORS. Note: Grayscale is to be used for area fill only. All line work must be black.
- PDF's must NOT have layers.
- All PDF's must have landscape orientation.
- Signed sheets should be submitted both as a PDF and as a paper document. The signed paper sheet must also be 11" x 17".

Print styles, plot configuration files, and pen tables are included with the IDOT CADD configuration that is available under the Support section of the [Roadway CADD Downloads and Guidelines](#) site. These files may be used to create PDF's that meet the above requirements.

The format of the survey information to be submitted shall be according to Appendix B, Electronic Survey Data Requirements, of the Survey Manual. A hard copy and electronic copy will be required.

The Department may request a copy of the electronic project files at any time or at any designated review stage of the project. The frequency of submittals for plan review will be established at the beginning of the project.

Final project files shall be submitted on CD or DVD.

Preliminary and Pre-final document transfers may be by CD, DVD, posted to the [IDOT ProjectWise Web Server](#) or uploaded to the Illinois.gov [file transfer utility](#).

For more information, contact the district office you are doing business with for their document transfer preference and the use of these resources.

To request a ProjectWise login for access to the ProjectWise Web Server, click [here](#).

Roadway Plans: The following are additional requirements that are specific to roadway plans.

All project plans shall be developed and delivered ONLY in MicroStation V8.x .dgn format. Design File extensions shall be either .dgn or .3d only. Other extensions, i.e., .sht or .ref will not be accepted. All project design (.dgn) files shall be in 2d format except 3d (.3d) files will be accepted when used in processing surveyed data or vertical and horizontal control, or for displaying Digital Terrain Models unless previously agreed to with the IDOT Project Engineer.

The current CADD configuration for roadway plans shall be downloaded from the Support section of the [Roadway CADD Downloads and Guidelines](#) page. The current software versions used by IDOT are shown on this page. The IDOT CADD environment shall be downloaded and used for all CADD work. In order to be notified of updates, a subscription shall be obtained to the IDOT CADD Support Subscription Service.

Additional requirements for CADD work and contract deliverables shall be according to the [IDOT CADD Roadway Drafting Reference Guide](#). In case of a conflict between documents, this document shall supersede the CADD project information provided in other Department manuals and guides.

Structure Plans: The following are additional requirements that are specific to structure plans.

All structure plans shall be developed and delivered ONLY in MicroStation V8.x .dgn format. Design File extensions shall be “.dgn” only. Other extensions, i.e., .sht or .ref will not be accepted. All project design (.dgn) files shall be in 2d format.

The current CADD configuration is available under the Support section of the [Roadway CADD Downloads and Guidelines](#) page. The current software versions used by IDOT are shown on this page as well as additional resources. In order to be notified of updates, a subscription shall be obtained to the Bridges and Structures Subscription Service as well as the IDOT CADD support Subscription Service.

Additional requirements for CADD work and contract deliverables shall be according to the [IDOT CADD Structures Drafting Reference Guide](#).

2.2 Coordination

The project leader and consultant’s senior CADD person shall meet with the IDOT Project Engineer and CADD support staff at the beginning of the project to review CADD drafting standards and discuss how files are to be delivered and the procedures to be followed. The meeting time will be determined by the IDOT Project Engineer. This meeting will be well worth the time and effort to reduce corrections at the time of project submittal.

2.3 Design File Management

Plan sheet borders shall be placed at 0° with references rotated to match the sheet borders or viewed horizontally in the sheet file. If rotated views are used in the plan sheet files, sheet borders shall be displayed horizontally in the file or model.

IDOT color tables for roadway plans and structure plans are currently attached to all department seed files and shall be used in all design files. The department also defines a configuration variable to ensure the correct color table is displayed in files without an attached color table. The IDOT color table for roadway plans is IDOTcolor.tbl; whereas the color table for structure plans is bridge.tbl. Both are available within the IDOT CADD configuration.

All plans files, including cross sections, shall be submitted on standard sheet border format of the appropriate type as provided by IDOT or defined in the IDOT cell libraries for roadway or structure plans. Plan sheet files submitted shall have the associated references attached and appropriately documented in the sheet file and noted in the Project Content File, as defined in the [Section 2.1](#) of this policy.

In order to provide a simple level of file organization and maintain the file referencing, all project files shall be submitted in a file folder structure as follows:

<i>Project Folder Name</i>	<i>Folder Content</i>
 CADD_Drawings	All CADD drawing files
 CADD_Sheets	All CADD sheet files including structure sheets
 GEOPAK	All GEOPAK files
 Survey	All existing survey data obtained for the project
 Documents	Supporting documentation such as the Project Content File and/or other required documents or spreadsheets
 PDFs	PDFs of contract plan sheets

Roadway Plans: The following are additional requirements that are specific to roadway plans.

All existing project topography data shall be placed in one design file. The project shall be drafted in one continuous strip. Different design items may be placed in individual strip files. For example, separate strip files may be developed for the existing survey, alignment, proposed plans (roadway, drainage, electric, etc.), proposed profiles, existing and proposed Right of Way, etc. The number of strip files shall be agreed upon at the first negotiation meeting.

The placement of all elements and text within a design file shall conform to IDOT CADD standards. These include, but are not limited to the IDOT MicroStation and GEOPAK environment files available on the IDOT CADD Support page. It is essential to use the current IDOT seed files for the original generation of contract plan and cross section graphic files.

Utility, R.O.W. and centerline information shall be shown on cross sections using the standard IDOT cells found in the IDOTRoad.cel library.

Sample IDOT CADD files can be acquired for your reference by request from the IDOT Project Engineer.

Structure Plans: The following are additional requirements that are specific to structure plans.

The placement of all elements and text within a design file must conform to Bureau of Bridges and Structures CADD standards. These include, but are not limited to the IDOT MicroStation resource files, seed files, dgnlib files and the [IDOT CADD Structures Drafting Reference Guide](#).

Sample IDOT CADD files may be acquired for your reference on the Bureau of Bridges and Structures CADD Support page.

2.4 Design File Naming

All design files shall be named according to the file naming conventions shown in [Section 5](#). File and folder names shall be no more than 35 characters. Do not use SPACES or special characters, except for dashes and/or underscores, in file or folder names. A project must not contain duplicate file names.

The contract may require several project submittals for review or questions by the Project Engineer; therefore, folder or file renaming will not be allowed. For each required submittal the department will overwrite or update the current project copy located on the department project server to allow for quick response to any project questions.

2.5 Surveys

Point codes and associated descriptions used to label surveyed features shall be from the Survey Point Code Descriptions. These can be found under the Support section of the [Roadway CADD Downloads and Guidelines](#). Ground shots shall be taken to accommodate creation of a roadway model (digital terrain models -DTM's).

3 GEOPAK

The use of GEOPAK Road and GEOPAK Survey will be required for any project requiring horizontal and vertical control, and designated projects requiring land acquisition.

Each project submittal shall be delivered with only one GEOPAK database (*.gpk) file. This one database file shall contain all alignments (roadway, stream, and ditch), profiles, including ditch profiles, and other elements necessary to derive the final design. Alignments and profiles are required for all roadways, cross streets, retaining and noise walls, as well as drainage flow areas, and other structural items. Profiles shall be named similar to the alignment names in cases of roadways. Top and bottom of walls and other structures shall reflect the respective alignment name. Roadway alignments and profiles shall include existing and proposed where appropriate.

All final project profile and alignment elements within the GEOPAK database file shall be documented in a Microsoft compatible document or spreadsheet file.

3.1 Generation of Existing Ground Cross Sections

When processing ground cross sections from DTM format, IDOT recommends using a horizontal tolerance of 0.1 feet and a filter tolerance variance of 0.03 feet, in the GEOPAK Ground Cross Section dialog box. This avoids the infinitesimal pieces of ground lines which impede the production of proposed cross sections and produce erroneous results in earthwork. Existing ground lines shall be plotted on level "XSC_Exist Ground", color 10 at a line weight of 2 and with a line style of 3.

A master unit is defined as 1 U. S. survey foot. The horizontal distance between cross section cells shall be a minimum of 100 master units and the vertical distance between cross section cells shall be a minimum of 500 master units.

All existing ground data shall be processed using GEOPAK's DTM format (.tin).

3.2 Proposed Cross Sections

It is strongly recommended that GEOPAK's Typical Section Generator (TSG) be used along with the criteria files provided via the IDOT CADD configuration (available on the IDOT CADD Support page) to create proposed design cross sections. The criteria files have been coded for use with the TSG to follow IDOT Highway Standards. When manually drafting cross sections, for example a side road with only a few cross sections, element attributes must match attributes as defined in the TSG variables file. Two files shall be created. One file depicting the final TSG runs before manual changes are initiated and the contract cross section file that displays the addition of manual changes.

Cross sections created without the use of the TSG must be coordinated with the IDOT Project Engineer and CADD supervisor.

3.3 Cross Section Files

Each alignment must have its own set of cross sections, including R.O.W. lines and centerline identification, with the exception of a multiple configuration (divided highway) which shall be on the same set of sections. It is recommended that cross sections for each alignment be in

separate files. A viable GEOPAK cross section cell (i.e. recognizable by the cross section labeling window) must be present on each cross section at the correct location. Cross sections shall be labeled utilizing IDOT criteria input by station rather than graphically. The element symbology of all cross section elements shall be dictated by the IDOT criteria, via the use of the Typical Section Generator, or if standard criteria are not used, the element attributes shall conform to those listed in the variables.x file provided with IDOTCAD download. Under no circumstances will the top and bottom layer of any cross section feature have identical symbology including pavement features. Separate layers shall be provided for each aggregate. In place features, such as topsoil, pavement and shoulders shall be included on the cross sections.

3.4 Project Multiple Alignment Setup

The existing ground lines and shapes must be color coordinated to facilitate the processing of proposed cross sections. A cross section match line or shear line, when multiple alignments are utilized, must be supplied in addition to the actual cross section pattern line file. Unless otherwise specified by the Department, the GEOPAK default settings shall be used as described in the GEOPAK documentation.

3.5 Superelevation

Shapes must be color coordinated to provide a visual difference between dependent and independent shapes. Shaping shall be done for all roadway pavements, acceleration and deceleration lanes, truck climbing lanes, but should exclude shoulders.

3.6 Staged Construction

When staged earthworks or staging cross sections are required; a separate construction phase cross section file shall be provided for each project stage where earthworks are to be computed. See [Section 3.2](#) of this policy for additional information concerning required data.

3.7 Earthwork

Earthwork shall be processed to a tolerance of 0.01 feet, (which is the default menu setting in GEOPAK), and all input and log files shall be included. The results of the log files must be consistent with the graphic cross sections. Add volumes are permitted for unique circumstances on the project, such as driveway gravel quantities, but shall not be used in lieu of graphic elements for consistent trends in the sections (pavement or topsoil removal). A comment line added to the input file for each add volume shall specify the justification for the adjustment or a spreadsheet file shall be included to reflect the graphical end areas on the cross sections. Under no circumstances shall existing features or proposed features extend beyond the limits of the GEOPAK cross section cell. Earthwork shapes utilizing color stratification shall be included for all cross section files. Match lines are permitted where necessary to match two adjoining alignments; however, they may not be placed where they dissect a superelevation shape. When placed for sheet separation, the original cell must be left intact. GEOPAK cross section cells shall extend a minimum of 10 feet beyond the ground line.

4 Frequently Asked Questions (FAQ's)

4.1 CADD Roadway FAQ's

What manuals and policies govern CADD work for IDOT?

CADD related policies for roadway drafting include:

Electronic Survey Data Requirements – Appendix B of the Survey Manual

CADD related reference manuals for roadway drafting include:

Survey Manual

Bureau of Design and Environment Manual

CADD Roadway Drafting Reference Guide

How can I assure that my design file meets IDOT's requirements and standards?

Several things are involved. First, it is imperative to download and use the IDOT CADD environment and subscribe to the IDOT CADD Support Subscription Services to be notified of current updates. Make sure that the file adheres to the policies, standards and guidelines described in applicable Department manuals and policy memoranda. Also, verify that the drafting follows the conventions described in the [IDOT CADD Roadway Drafting Reference Guide](#). Use IDOT supplied seed files when creating new drafting files. Provided you are using the latest dgnlib available, run MicroStation Standards Checker to assure compliance with IDOT CADD standards. Refer to the Standards checker.doc file for instructions.

What tools and electronic files are available from IDOT to assist with electronic drafting for IDOT?

IDOT provides access to a number of CADD related files through IDOT's Internet site. These files include electronic versions of all IDOT standard symbols and Design Libraries, seed files for MicroStation, and various GEOPAK related files.

Where can I find IDOT's Internet site?

IDOT's home page is located at <http://www.idot.illinois.gov> . The Roadway CADD Downloads and Guidelines are located at <http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/roadway-cadd-downloads-guidelines> .

What if I have other questions about using CADD for IDOT that aren't in the policies or manuals?

Contact the IDOT Project Engineer. He or she can refer technical CADD questions to the appropriate CADD Supervisor.

What happens if I submit CADD files that do not meet IDOT standards?

CADD files that, in IDOT's judgment, do not meet IDOT standards will be returned to the consultant for appropriate corrections at no additional cost to IDOT.

Can we submit CADD drawings with all work for a portion of the highway on a single sheet?

No. IDOT standards require that a project be drafted in one continuous strip, not on individual sheets. Notes and Dimensions shall also be included on the strip plan or in sheet files if approved by the Project Engineer.

How does IDOT complete final drafting using reference files?

Final drafting is done in the file containing the strip plan or strip profile. This allows updates to be done in one location. These files are referenced to the sheets files. With the increase in the number of references that Microstation allows, project drafting can be accomplished with multiple strip files referenced to sheet files; for example, generate a survey topography file, an alignment file, proposed roadway, existing and proposed Right of Way, along with existing and proposed roadway and drainage profiles that could be referenced to sheet files. This method requires a complete and accurate Project Content File to describe all file content.

Do Aerial Survey files come referenced in grid or ground distance format?

Aerial Survey mapping files are referenced using grid distance format.

Do I need to use IDOT supplied seed files for CADD drafting?

Yes, **you need to use these files.** IDOT provides seed files through the Internet site so that working units are consistent between every file. The department seed files are available within the IDOT CADD configuration which may be downloaded from the IDOT CADD Support page.

Do files have to use the IDOT file naming conventions?

Yes. See [Section 5](#).

Should I use 2D or 3D design files?

Use 2D design files for roadway plans, profiles, cross sections and detail drawings. Use 3D design files for digital terrain models (DTM).

Why aren't 3D design files used for roadway plans, profiles, cross sections and detail drawings?

Since these elements are 2D representations, it makes sense to place them in a 2D file. Additionally, 2D files are needed for plotting from GEOPAK into the design file. Also, custom line styles in 3D files do not always display correctly.

What are the seed files that are to be used for drafting IDOT roadway plans?

For 2D English unit plans, use:	IDOTeng.dgn
For 3D English unit plans, use:	IDOTeng3d.dgn
For 2D Metric unit plans, use:	IDOTmet.dgn
For 3D Metric unit plans, use:	IDOTmet3d.dgn

What are the seed files that are to be used for drafting IDOT roadway cross sections?

For English Unit cross sections, use:	IDOTeng.dgn
For Metric Unit cross sections, use:	N/A (for MSv8 and later)

What cell library should I use for drafting roadway plans?

General roadway cell library for 2d English unit plans:	IDOTroad.cel
Guide signage cell library for 2d English unit plans:	SIGN_Guide.cel
Regulatory signage cell library for 2d English unit plans:	SIGN_Regulatory.cel
School zone signage cell library for 2d English unit plans:	SIGN_School Zone.cel
Temporary traffic control signage cell library for 2d English unit plans:	SIGN_Temporary Traffic Control.cel
Warning signage cell library for 2d English unit plans:	SIGN_Warning.cel
For 2D Metric Unit plans, use:	N/A (for MSv8 and later)

4.2 Surveying for CADD FAQ's

What are IDOT's electronic survey data deliverables?

Two deliverables will be required: A hard copy document and an electronic copy of the hard copy document.

What are the contents of the hard copy document?

The hard copy document must contain:

- A title page
- An index of documents/files
- Specific survey instructions
- The observation file listing
- The compiled reports
- A location map
- Appropriate sketches

What manuals and policies govern electronic surveying for IDOT?

Related policies include:

- Electronic Survey Data Requirements – Appendix B of the Survey Manual

Related reference manuals include:

- Survey Manual

How can I assure that my survey meets IDOT's requirements and standards?

Several things are involved. First, make sure that the survey adheres to the policies and guidelines described previously. Use IDOT's point codes when doing the survey. Survey a metric project in metric units. Survey an English project in English units. Finally, submit the survey data in the format described in the "Electronic Survey Data Requirements" Appendix B of the Survey Manual.

May I use a survey point code list other than IDOT's?

No. Only IDOT's point codes and point code descriptions may be used when doing a survey for IDOT. Conversion from one point code system to IDOT's is not permitted.

What if I encounter a feature for survey that is not covered by a point code?

If a feature, not covered by an IDOT point code is encountered, use one of the point codes described as "Default point code" for the feature. The point code number and its description should then be noted in the readme.txt file.

What is a "Default point code"?

"Default point code" is a description given to a number of point codes in IDOT's Point Code Lookup table. When one of these point codes is used, the description must be changed from "Default point code" to a description of the feature that the point code represents. A separate "Default point code" must be used for each type of undocumented feature surveyed.

How should the point codes be used?

The point code that best describes the feature being surveyed should be assigned to the feature and an additional point code (material type) may be used to further describe the feature. For example, if a point at the left edge of a concrete pavement is surveyed, the point code would be 871 (Pavement Edge, Left) and the material code would be 774 (CONCRETE).

What tools and electronic files are available from IDOT to assist with electronic surveying for IDOT?

IDOT provides access to its point code list under the Support section of the [Roadway CADD Downloads and Guidelines](#) site.

What if I have other questions about doing surveys for IDOT that aren't in the policies or manuals?

Contact the IDOT Project Engineer. He or she can refer technical questions to the appropriate District CADD Supervisor or Chief of Survey.

May I have IDOT review some sample survey files before I complete the project to ensure that I'm following the standards and requirements?

Yes. You can arrange to have sample survey files reviewed, on a one time basis, by IDOT CADD staff to determine how closely the files adhere to IDOT standards. Contact the Project Manager to arrange this review. After the review, IDOT will expect that all submittals (regardless of project) will follow IDOT standards and requirements.

4.3 CADD Structures FAQ's

What manuals and policies govern CADD work for IDOT?

CADD related policies for structure drafting include:

All Bureau of Bridges and Structures technical manuals

CADD related reference manuals for structure drafting include:

CADD Structures Drafting Reference Guide

How can I assure that my design file meets IDOT's requirements and standards?

Several things are involved. First, make sure that the file adheres to the policies, standards and guidelines described previously. Also, verify that the drafting follows the conventions described in the [IDOT CADD Structure Drafting Reference Guide](#). Use IDOT supplied seed files when creating new drafting files. Provided you are using the latest dgnlib available, run MicroStation Standards Checker to assure compliance with IDOT CADD standards.

What tools and electronic files are available from IDOT to assist with electronic drafting for IDOT?

IDOT provides access to a number of CADD related files through the IDOT CADD Support site and the Bridges and Structures CADD Support site. These sites contain the IDOT CADD environment and other resources.

Do I need to use IDOT supplied seed files for CADD drafting?

Yes, **you need to use these files**. The Bureau of Bridges and Structures provides seed files within the IDOT CADD environment which is available at the IDOT CADD Support site. The files exist within the folder "StrctStd\seed\" of the IDOT CADD environment.

What are the seed files that are to be used for drafting IDOT structure plans?

For consultant 2D English unit plans using models, use: **ebridge_models.dgn**

For consultant 2D English unit plans using individual design files, use: **ebridge_individual.dgn**

For in-house 2D English unit plans using models, use: **ebridge_in-house.dgn**

What cell libraries should I use for drafting structure plans?

A list of available cell libraries and their contents may be found at the Bridges and Structures CADD Support site. These files are also included with the IDOT CADD environment available on the IDOT CADD Support site.

Where can I find IDOT's Internet site?

IDOT's home page is located at <http://www.idot.illinois.gov> . The Bridges & Structures CADD Downloads and Guidelines is located at <http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/bridges-and-structures-cadd-downloads-and-guidelines> .

What if I have other questions about using CADD for IDOT that aren't in the policies or manuals?

Contact the IDOT Project Engineer. He or she can refer technical CADD questions to the appropriate CADD Supervisor.

What happens if I submit CADD files that do not meet IDOT standards?

CADD files that, in IDOT's judgment, do not meet IDOT standards will be returned to the consultant for appropriate corrections at no additional cost to IDOT.

5 Design File Naming

5.1 Roadway Plans

File names of contract sheet files:

D\$12345-sht-cover.dgn	Cover sheet
D\$12345-sht-gennote.dgn	Index of Sheets, General Notes sheets
D\$12345-sht-SOQ.dgn	Summary of Quantities
D\$12345-sht-typical.dgn	Typical Sections
D\$12345-sht-schedule.dgn	Schedule of Quantities sheets
D\$12345-sht-ATB.dgn	Alignment, Ties and Benchmarks sheets
D\$12345-sht-plnprf.dgn	Design Plan & Profile sheets
D\$12345-sht-plan.dgn	Design Plan sheets
D\$12345-sht-profile.dgn	Design Profile sheets
D\$12345-sht-elev.dgn	Elevation sheets
D\$12345-sht-staging.dgn	Staging and Traffic Control plan sheets
D\$12345-sht-eros.dgn	Erosion and Sediment Control sheets
D\$12345-sht-drain.dgn	Drainage sheets
D\$12345-sht-rowplan.dgn	R.O.W. plan sheets
D\$12345-sht-parcel.dgn	R.O.W. plat sheets
D\$12345-sht-intersec.dgn	Intersection Details sheets
D\$12345-sht-pvtjoint.dgn	Design pavement joint details
D\$12345-sht-pmk.dgn	Pavement marking plan sheets
D\$12345-sht-lndscp.dgn	Landscaping sheets
D\$12345-sht-ts.dgn	Traffic signal plan sheets
D\$12345-sht-light.dgn	Roadway Lighting sheets
D\$12345-sht-sign.dgn	Signing Plan sheets
D\$12345-sht-wetland.dgn	Wetlands Details sheets
D\$12345-sht-removal.dgn	Design removal sheets
D\$12345-sht-details.dgn	Detail drawings sheets
D\$12345-sht-soil.dgn	Soil report plan sheets
D\$12345-sht-blog.dgn	Boring Log Sheets
D\$12345-sht-xssht.dgn	Cross section sheets
D\$12345-sht-misc.dgn	Miscellaneous designs (non-highway work)
D\$12345-sht-bcr.dgn	Bridge condition report
D\$12345-sht-ids.dgn	Geometrics IDS sheets
D\$12345-sht-rpt.dgn	Project report sheets

File names of continuous strip map drawing files:

D\$12345-align.dgn	Survey Unit project alignment data file
D\$12345-topo.dgn	Topography plan conditions of project area
D\$12345-survey.dgn	Survey data owned by Survey Unit
D\$12345-gshot.dgn	XYZ ground shots file
D\$12345-CADD.dgn	CADD unit proposed compiled data file
D\$12345-Planning.dgn	Phase 1 Study work file
D\$12345-Environ.dgn	Environmental study work file
D\$12345-Design.dgn	Phase 2 Design Plans work file
D\$12345-Geom.dgn	Geometrics IDS work file
D\$12345-Hyd.dgn	Hydraulics Unit work file
D\$12345-prof.dgn	Phase 2 Profiles work file
D\$12345-drain.dgn	Drainage work file
D\$12345-ROW.dgn	Land Acquisition work file
D\$12345-Soil.dgn	Geotechnical soils work file
D\$12345-TS.dgn	Traffic Signal work file
D\$12345-signs.dgn	Roadway signing work file
D\$12345-light.dgn	Roadway Lighting work file
D\$12345-Indscp.dgn	Landscaping work file
D\$12345-eros.dgn	Erosion Control work file
D\$12345-staging.dgn	Traffic Staging and Traffic Control work file
D\$12345-wetland.dgn	Wetlands work file
D\$12345-pmk.dgn	Pavement marking work files
D\$12345-contour.dgn	Existing contour layout
D\$12345-util.dgn	Utility company survey
D\$12345-SUE.dgn	Sub-surface Utility Engineering
D\$12345-xscTSG_ml.dgn	Cross sections after initial run of the TSG- Mainline
D\$12345-xsc_ml.dgn	Completed Cross Section cells-Mainline
D\$12345-xscTSG_sr.dgn	Cross Sections after initial run of the TSG- Side Roads
D\$12345-xsc_sr.dgn	Completed Cross Section cells-Side Roads
D\$12345-layout.dgn	Layout file for GEOPAK plan and profile sheet composition
D\$12345-geolines.dgn	GEOPAK work file
D\$12345-quantityfile.dgn	GEOPAK quantity shape file

Where: \$ = District number
12345 = Contract number

For alternate designs an alpha character shall be added to the end of the file name (Ex: A=first alternate, B=second alternate, etc.). As an example, two alternates for a design plan would be named D\$12345-DesignA.dgn and D\$12345-DesignB.dgn.

If there is a continued sequence of files for a large project or a project contains multiple sections to which multiple files are required for each section, a numeric character shall be added to the end of the file name. As an example, two files that contain the design plan of a given project would be D\$12345-Design1.dgn and D\$12345-Design2.dgn.

Recognizing that using this naming convention may not cover all circumstances, if unique files are required or for large projects that may have a large number of design sections, the file naming may be modified to accommodate the situation. Any revised naming convention shall be requested and approved by the IDOT Project Engineer.

5.2 Structure Plans

For single design file using models:

The main design file shall be in the format: Structure Number-Contract Number.dgn (0100272-90758.dgn).

The Individual model names shall be in the format: Structure Number-Contract Number-Sheet Number (0100272-90758-001). The description fields shall be representative of what is in each model. The individual structure planning model name(s) shall be in the format: Structure Number-Contract Number-TSL-Sheet Number (0100272-90758-TSL-001).

For individual design files for each sheet:

Each planning and design file shall be named in the following format: Structure Number-Contract Number-Sheet Number-Brief description of sheet.dgn (0100272-90758-001-GPE.dgn).

Additional files or models required for the development of the plans (i.e. reference files/models) do not have to follow the above naming conventions. However, they must have file/model names that are representative of their content.