This document is a guide as to which project documents shall be released as reference information documents (RID) for bidding purposes, and what format and file naming convention shall apply. To apply to projects for any given job number (XXXXXX):

Prefixes:

A- Alignment

B- Base\Master (overall project files referenced to the sheets)

C- Changes to Letting Files (Addendums, Plan Revisions, etc.)

D- Design (Design based files typically not referenced to the sheets)

E- Environmental

G- Geotechnical

1. Images (Aerial, photos, etc.)

M- Models (3D component, or line string)

R- Reports

S- Survey

U- Utilities (Any utility information not included in the design files)

X- Cross Sections

Z- Miscellaneous (Anything we might have missed or should be included)

**Alignment Files:**

* A-XXXXXX\_Align\_*Roadway*\_20YY-MM-DD.dgn
  + DGN file from design that contains all project horizontal roadway alignments for mainline and side street alignments. (If using models or multiple alignment scales, include only one set of the project alignments, preferably the alignments at the scale used for the Alignment/ROW Sheets.)
  + Please refer to alignment levels within the Alignments Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to horizontal geometry levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* A-XXXXXX\_Align\_Supp\_*Roadway*\_20YY-MM-DD.dgn
  + DGN file from design that contains all project horizontal roadway alignments for all supplemental design alignments. (If using models or multiple alignment scales, include only one set of the project alignments, preferably the alignments at the scale used for the Alignment/ROW Sheets.)
  + Please refer to alignment levels within the Alignments Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to horizontal geometry levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* A-XXXXXX\_Prof\_*Roadway*\_20YY-MM-DD.dgn
  + DGN file(s) from design that contains profile information.
  + Please refer to profile levels within the Profile Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to vertical geometry levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* A-XXXXXX\_Prof\_Supp\_*Roadway*\_20YY-MM-DD.dgn
  + DGN file(s) from design that contains supplemental profile information.
  + Please refer to profile levels within the Profile Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to vertical geometry levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* A-XXXXXX\_LandXML\_*Geometry*\_20YY-MM-DD.xml
  + File from design that shall include all alignments (horizontal and vertical) for each roadway (over 200’ in length) in separate files. Side roads under 200’ in length should be included with the mainline roadway.
  + Alignments for other roadway features such as independent ditches, retaining walls, etc. should also be provided if necessary for construction.
  + See the [Power GEOPAK Training Videos](http://michigan.gov/mdot/0,4616,7-151-9625_21540_36037_65127---,00.html) for more information on creating LandXML Files.

**Base/Master Files:**

* B-XXXXXX\_Const\_20YY-MM-DD.dgn
  + DGN file from design that contains proposed construction elements.
  + It is not necessary to merge all proposed elements into one DGN. The data can be presented in separate DGN files by disciplines as warranted by the project; however each file must be listed and clearly described in the Project data Summary.
* B-XXXXXX\_Light\_20YY-MM-DD.dgn
  + DGN file from design that contains proposed lighting elements.
  + Please refer to the proposed lighting levels within the lighting Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to the lighting levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* B-XXXXXX\_Sign\_20YY-MM-DD.dgn
  + DGN file from design that contains proposed Sign elements.
  + Please refer to the proposed Signing levels within the Signing Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to the Sign levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* B-XXXXXX\_Signal\_20YY-MM-DD.dgn
  + DGN file from design that contains proposed Signal elements.
  + This file is intended to be a compilation of all signals for a given project.
  + Please refer to the proposed Signal levels within the Signal Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to the Signal levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* B-XXXXXX\_ITS\_20YY-MM-DD.dgn
  + DGN file from design that contains proposed ITS elements.
  + Please refer to the proposed ITS levels within the ITS Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to the proposed ITS levels within the ITS Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* B-XXXXXX\_Drain\_20YY-MM-DD.dgn
  + DGN file from design that contains **proposed** project drainage. Depending on the size of the project, and the design preferences of the project team, the information in this file may be included in the B-XXXXXX\_Const\_20YY-MM-DD.dgn.
  + Please refer to the proposed drainage levels within the Drainage Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to the drainage levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* B-XXXXXX\_Topo\_20YY-MM-DD.dgn
  + DGN file from design that contains existing topographic project data.
  + This file includes topographic project data from surveys, and any existing items moved to a removal, adjust, or relocate level.

**Changes Made After Advertisement:**

* C(*X*-*XXXXXX\_Original\_File\_Name)*\_20YY-MM-DD.dgn
  + Replace the Prefix at the beginning of the original file name with a **“C-“**to denote a change has been made to the file. Keep the same file name but change the date to reflect the date the change was made only after advertisement. For example C*B-XXXXXX\_Topo\_20YY-MM-DD.dgn.*

**Design Files:**

* jobXXX.gpk
  + Design.gpk file from GEOPAK

**Environmental Files:**

* E-XXXXXX\_Envir\_20YY-MM-DD.dgn
  + DGN file from design that contains existing or proposed environmental drawings.
  + Wetland mitigation drawing
  + Permit information other than that already provided in the project proposal

**Geotechnical Files:**

* G-XXXXXX\_Boring\_Logs\_20YY-MM-DD.docx or .dgn format
  + Soil Boring Logs for any soil borings performed on the project in a document format or a in a microstation .dgn format

**Images:**

* I-XXXXXX\_Bridge
  + Folder containing pictures of bridge elements
* I-XXXXXX\_Drainage
  + Folder containing pictures of drainage elements
* I-XXXXXX\_Roadway
  + Folder containing pictures of roadway elements

**Models:**

If using GEOPAK SS2 please refer to the [3D Model Submittal Preparation SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b0a28149e-0ba7-4337-9d63-3169de6b7a11%7d) document for detailed instructions on how to create the following files.

If using GEOPAK SS3 please refer to the 3D Model Submittal Preparation – SS3 document for detailed instructions on how to create the following files.

* M-XXXXXX\_PrModel\_20YY-MM-DD.dgn
  + A 3D DGN file from design which shall contain **all** the proposed 3D line strings (features) from the entire proposed project or in logical portions clearly defined in the Project Data Summary as warranted by the size or complexity of the project
  + 3D line strings should be free of unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Line string levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_Pr3DCompnt\_20YY-MM-DD.dgn
  + A 3D DGN file from design which shall contain the proposed 3D components of the entire proposed project or in logical portions clearly defined in the Project Data Summary as warranted by the size or complexity of the project
  + 3D components should be free of unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Component levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_Pr3DSurf\_Master\_20YY-MM-DD.dgn
  + A 3D DGN file from design which shall contain the proposed 3D line strings (features) from the **top surface** of the entire proposed project or in logical portions clearly defined in the Project Data Summary as warranted by the size or complexity of the project
  + 3D line strings should be free of unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Line string levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_Pr3DSubSurf\_Master\_20YY-MM-DD.dgn\*\*
  + A 3D DGN file from design which shall contain the 3D line strings (features) from the **subbase or clay grade surface** of the entire proposed project or in logical portions clearly defined in the Project Data Summary as warranted by the size or complexity of the project.
  + 3D line strings should be free from unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Line string levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_Pr3DSurf\_*roadway\_*20YY-MM-DD.dgn
  + A 3D DGN file from design of each individual side road (greater than 200’ in length) and mainline roadway, which shall contain the 3D line strings (features) from the top surface of the roadways in separate files.
  + 3D Line strings should be free from unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Line string levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_Pr3DSubSurf\_*roadway\_*20YY-MM-DD.dgn\*\*
  + A 3D DGN file of each individual side road (greater than 200’ in length) and mainline roadway, which shall contain the 3D line strings (features) from the subbase or clay grade surface of the roadways in separate files.
  + 3D line strings should be free from unnecessary gaps in the hard surfaces of the roadway, small gaps (less than 0.2 stations) or anomalies in the side slopes around transitions and radii are acceptable.
  + Line string levels shall be consistent with the required level naming convention as shown in the [3D Model Surface Feature List SS2.pdf](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7b09d46d7d-a3a3-4e91-b5e6-fdd32a08a208%7d) or 3D Model Surface Feature List SS3.pdf.
* M-XXXXXX\_PrTriangle\_20YY-MM-DD.dgn
  + File from design that contains the proposed surface triangle file for the project.
* M-XXXXXX\_LandXML\_PrSurf\_Master*\_*20YY-MM-DD.xml
  + File from design that shall include the proposed top surface (for each roadway over 200’ in length) in separate XML files. Side roads under 200’ in length should be included with the mainline roadway.
* M-XXXXXX\_LandXML\_PrSubSurf\_Master*\_*20YY-MM-DD.xml\*\*
  + File(s) from design that shall include the proposed subbase or clay grade surface (for each roadway over 200’ in length) in separate XML files. Side roads under 200’ in length should be included with the mainline roadway.
* M-XXXXXX\_LandXML\_PrSurf\_*roadway\_*20YY-MM-DD.xml
  + File(s) from design that shall include the proposed surface (for each roadway over 200’ in length) in separate XML files. Side roads under 200’ in length should be included with the mainline roadway.
* M-XXXXXX\_LandXML\_PrSubSurf\_*roadway\_*20YY-MM-DD.xml\*\*
  + File(s) from design that shall include the proposed subbase or clay grade surface (for each roadway over 200’ in length) in separate XML files. Side roads under 200’ in length should be included with the mainline roadway.

**Reports:**

* R-XXXXXX\_Alignment\_Name\_Report\_20YY-MM-DD.pdf
  + Alignment Reports containing the alignment report generated from GEOPAK for each alignment within the project.
* R-XXXXXX\_Drain\_Report\_20YY-MM-DD.pdf
  + Drainage Reports generated containing all drainage calculations.
* R-XXXXXX\_Earth\_Report\_20YY-MM-DD.pdf
  + Earthwork Reports generated containing all earthwork calculations.
* R-XXXXXX\_Traffic\_Report\_20YY-MM-DD.pdf
  + Traffic Report for each roadway

**Survey:**

* S-XXXXXX\_ControlPts\_20YY-MM-DD.txt
  + Copy of the original survey control points and benchmarks delivered for the project in a comma delimited file (ASCII text) of the points included in the Survey Info Sheet shall include the following format (Point Name / Number, Northing, Easting, Elevation, Description). This file should be in its original state and should not contain any changes from design.
  + This file should be placed in the RID folder by the Survey PM at the time the design survey is delivered to the Engineer.
* S-XXXXXX\_ROW\_20YY-MM-DD.dgn
  + DGN file from design that contains existing and proposed ROW information.
  + Please refer to boundary levels within the Boundary Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to boundary levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3
* S-XXXXXX\_ROW\_20YY-MM-DD.xml
  + LandXML file from Survey that contains existing Legal or Non-Legal Alignments
* S-XXXXXX\_ExDTM\_20YY-MM-DD.tin *or* S-XXXXXX\_ExDTM\_20YY-MM-DD.dat
  + Copy of the original survey existing tin file (current standard survey deliverable) or .dat file (previous standard survey deliverable) GEOPAK file delivered for the project design.
  + This file should be in its original state and should not contain any changes from design.
* S-XXXXXX\_ExTriangle\_20MM-YY-DD.dgn
  + Copy of the original survey existing surface triangle file delivered for the project design.
  + This file should be in its original state and should not contain any changes from design.
* S-XXXXXX\_Survey\_2D\_20YY-MM-DD.dgn *and* S-XXXXXX\_Survey\_3D\_20YY-MM-DD.dgn
  + Copies of the original survey topo files delivered for the project design.
  + These files should be in their original state and should not contain any changes from design.
* S-XXXXXX\_Parcel\_20YY-MM-DD.dgn**\***
  + DGN file from real estate/design that contains project parcel information. This file should be provided by Real Estate or the Real Estate consultant.
  + Please refer to parcel levels within the Boundary Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to boundarylevels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.

**Utilities:**

* U-XXXXXX\_Utility\_20YY-MM-DD.dgn
  + DGN file from design that contains underground and overhead utility lines. Typically this information is provided by the utility companies during the life of the project and may be in approximate locations.
  + Please refer to underground and overhead utility line levels within the Utilities Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to utilities line levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.
* U-XXXXXX\_ExUtility\_20YY-MM-DD.dgn
  + DGN file from design that contains the existing underground and overhead utility lines **(SUE)**.
* U-XXXXXX\_Sanitary\_20YY-MM-DD.dgn
  + DGN file from design that contains the proposed sanitary sewer system.
* U-XXXXXX\_Water\_20YY-MM-DD.dgn
  + DGN file from design that contains the proposed water system.

**Cross-Sections:**

* X-XXXXXX\_XS\_*roadname\_*20YY-MM-DD.dgn
  + Cross-section files from design placed on cross-section grids.
  + Add station range to the file name if necessary.

(X-XXXXXX\_XS\_roadname\_20YY-MM-DD\_310-320.pdf)

* + Please refer to cross-section levels within the XS Level Library (mdot\_01 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS2.
  + Please refer to XS levels within the Level Library (mdot\_02 workspace) for standard levels that would be used within this reference file in Power GEOPAK SS3.

**Miscellaneous:**

* Z-XXXXXX\_Project \_Data\_Summary\_20YY-MM-DD.pdf
  + Index of all items submitted in the RID Folder

\*\*Not required on overlay projects without wedging or on reconstruction projects without superelevation when all of the strata are a direct offset from the finished surface.

Please Note:

1. For *date*, label with the date of original project turn in to the Specifications & Estimates Unit in the format (20YY-MM-DD). Or, in the case of file updates, please use the date of the addendum. The date will be important for tracking changes that have been made during advertisement. The process for adding updated files to e-Proposal after advertisement will be the same process as the MDOT Notice to Bidder Inquiry process. Add updated files with the appropriate date to the RID area in ProjectWise, include an updated Project Data Summary, and change the state on the additional files. (MDOT Project Managers - [Design Submittal Requirements.docx](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7bb703da78-b859-4d6b-91a0-e402e0565a70%7d) for directions or contact MDOT’s Design Services Section for more information.)
2. If design files were created with an older MDOT workspace than MDOT’s current workspace, please provide the design files with the appropriate levels from the workspace used to design the project.
3. If multiple existing topo and TIN files were used on the project they should be merged together or submitted as separate files, clearly defined in the Project Data Summary, clipped (cleaned) such that there is no conflicting data submitted for any project area. Additionally, existing surface anomalies which do not impact the design or construction of roadway do not need to be corrected prior to submittal.
4. Proposed 3D models of retaining walls and other significant roadway features not directly in the influence of a roadway such as independent ditches can be supplied in separate DGN and LandXML files per the specified file naming convention and clearly defined in the Project Data Summary if warranted.
5. RID files shall be submitted in accordance with MDOT’s [Design Submittal Requirements.docx](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7bb703da78-b859-4d6b-91a0-e402e0565a70%7d) *document*.
6. RID files should be standalone DGN files free of any reference files.
7. RID Files should be submitted in a compressed (ZIP file named XXXXXX\_Rid\_File\_20XX-MM-DD.zip).
8. Any files generated in design not specifically listed in this document but considered useful for construction should be included in the RID submittal clearly defined in the Project Data Summary and placed in the Misc Section.

For any questions and clarification regarding this matter, please contact MDOT’s Design Services Section.

See the MDOT V81 CADD file Naming Standards for the appropriate file names at milestone turn in [Cadd Filenames.docx](pw://HCS591PWISPA901.som.ad.state.mi.us:MDOTProjectWise/Documents/D%7ba1dfac3f-08c9-45df-a195-42bbf1a4da0a%7d).

See the Level Library for a list of levels to be used.

See the Supporting Documents Naming Conventions file for the appropriate file names. This file will be created as part of a future process improvement.

**Milestone Submittal File Naming Convention**

For the given job number XXXXXX:

Base Plans:

XXXXXX \_Road\_Base.pdf

XXXXXX \_Bridge\_Base.pdf

XXXXXX \_Proposal\_Base.pdf (if applicable)

Preliminary Plans:

XXXXXX \_Road\_Prelim.pdf

XXXXXX \_Bridge\_Prelim.pdf

XXXXXX \_Proposal\_Prelim.pdf (if applicable)

Marked Final ROW:

XXXXXX \_Road\_MFROW.pdf

OEC Plans:

XXXXXX \_Road\_OEC.pdf

XXXXXX \_Bridge\_OEC.pdf

XXXXXX \_Proposal\_OEC.pdf

Final Plan Turn In:

XXXXXX \_Road.pdf

XXXXXX \_Bridge.pdf

XXXXXX \_Proposal.pdf

The maximum pdf file size for any given plan set submittal is **30 MB**. If more than one set is needed per package due to size, number sets sequentially. For example:

XXXXXX \_Road\_OEC1.pdf

XXXXXX \_Road\_OEC2.pdf