CMW DELIVERABLES SPECIFICATION
Version 1.0

CONTENTS

1 – INTRODUCTION

This CADD deliverables specification is prepared by the Command of Military Works referred herein as CMW and are part of the construction project contract.

2 – GENERAL

All CADD drawings and textual data related to the present project that are to be provided under this contract shall be accomplished and developed using Computer-Aided Design and Drafting (CADD) software and procedures conforming to the following criteria.

3 – GRAPHIC FORMAT

All CADD data shall be supplied in Autodesk's, three-dimensional, AutoCAD 2007 or AutoCAD 2010, native electronic digital format (i.e. .DWG). The contractor shall ensure that all digital files and data (e.g. model files, reference files, and block libraries) are compatible with the Command of Military Works CADD Standard, and adhere to the standards and requirements specified herein. The term "compatible" means that data can be accessed directly by AutoCAD 2007-2012 without translation, preprocessing, or post processing of the electronic digital data files. It is the responsibility of the contractor to ensure this level of compatibility.

Any non-graphical database, such as schedules, delivered with the drawings shall be in Microsoft Access or Microsoft Excel version 2003 or higher, format.

4 – CADD STANDARDS

CADD drawings shall be prepared in accordance with the applicable provisions of the latest version "CMW Architectural/Engineering/Construction (A/E/C) Computer-Aided Design and Drafting (CADD) Standard".

Sheet drawing size, drawing units, file-naming conventions for model and sheet files, details, the electronic detail library, the electronic symbol library, the electronic text and font library, and the electronic line style/type library shall all be in accordance with the above standard. The Contractor shall submit a written request for approval of any deviations from the CMW's established CADD standard. No deviations from the CMW established CADD standard will be permitted unless prior written approval of such deviation has been received from the CMW.

CMW will ensure the provision of A/E/C CADD Standard documents at the start of the project. Refer to section 9 of this report for a complete list of the CMW provided material.

5 – DELIVERY MEDIA AND FORMAT

A copy of all CADD data and files developed under this contract shall be delivered to the CMW on electronic digital media with each submittal as required in the Schedule of Work. The electronic digital data and files shall be provided on **CD-ROM** or **DVD**. The external label for each electronic digital media shall contain, as a minimum, the following information:

1 – The Contract Number (and Delivery Order Number if applicable) and date.

2 – The format and version of operating system software.

3 – The name and version of utility software used for preparation (e.g. compression/decompression) and copying files to the media.

4 – The sequence number of the digital media.

5 – A list of the filenames.

Before a CADD file is placed on the delivery electronic digital media, the following procedures shall be performed:

1 – The project should be named according to conventions outlined in the CMW document CMW-CADD-STD-01

2 – The project should be placed under a folder named …\PROJECTS

3 – Make sure all reference files are attached within this structure (using a 'Relative' attachment method).

4 – Include all files, both graphic and nongraphic, required for the project (i.e. color tables, pen tables, font libraries, blocks, user command files, plot files, etc.). All blocks not provided among the CMW furnished materials must be submitted to the CMW as a part of the electronic digital deliverables.

   No deviations from the CMW established CADD standard will be permitted unless prior written approval of such deviation has been received from the CMW.

5 – Include any standard sheets (i.e. abbreviation sheets, standard symbol sheets, etc.) necessary for a complete project.

6 – Document any fonts, tables, etc. developed by the A-E or not provided among the CMW furnished materials.

   The contractor shall obtain CMW approval before using anything other than the CMW standard fonts, line styles, tables, etc.

7 – Each finished drawing (sheet) shall have its own separate plot file. The plot file for each finished drawing shall be provided to the CMW in a HP PLOTTER 5500

6 – DRAWING DEVELOPMENT DOCUMENTATION

Complete documentation concerning the development of each finished drawing shall be included in the first eight layers as described in the "A/E/C CADD Standard." The following additional information for each finished drawing shall also be included in the non-plot layer, X-ANNO-NPLT:

1 – How the data was input, e.g. keyed in, downloaded from a survey total station instrument (name and model).

2 – Brief drawing development history, e.g. date started, modification date(s) with brief description of item(s) modified, author's name.

3 – The names of the reference files, blocks, symbols, details, tables, and schedule files required for the finished drawing.

4 – Layer assignments and lock settings.

5 – Text fonts, line styles used (if different from the provided templates).

7 – HARD COPY TRANSMITTALS

A transmittal letter shall accompany each electronic digital media submittal to the CMW. The transmittal letter shall contain, as a minimum, the following information:

1 – The information included on the external label of each media unit (CD-ROM or DVD), along with the total number being delivered, and a list of the names and descriptions of the files on each media unit.

2 – Brief instructions for transferring the files from the media.

3 – Certification that all delivery media are free of known computer viruses. A statement including the name(s) and release date(s) of the virus-scanning software used to analyze the delivery media, the date the virus scan was performed, and the operator's name shall also be included with the certification. The release or version date of the virus-scanning software shall be the current version which has detected the latest known viruses at the time of delivery of the digital media.

4 – A statement indicating that the contractor will retain a copy of all delivered electronic digital media (with all files included) for at least one year and, during this period of time, will provide up to 5 additional copies of each to the CMW, if requested, at no additional cost.

In addition, the Contractor shall provide the following "Plot File Development and Project Documentation Information" as an enclosure or attachment to the transmittal letter provided with each electronic digital media submittal:

1 – Documentation of the plot file(s) for each drawing which will be needed to enable duplicating the creation of the plot files by the CMW at a later date. This documentation shall include the plotter configuration (e.g. name and model of plotter), drawing orientation, drawing size, and any other special instructions.

2 – Instructions concerning how to generate plotted, or hard copy, drawings from the provided plot files.

3 – List of any deviations from the CMW standard layer scheme and file-naming conventions.

4 – List of all new figures, symbols, tables, schedules, details, and other blocks created for the project, which was not provided to the Contractor among the CMW furnished materials, and any associated properties.

No deviations from the CMW established CADD standard will be permitted unless prior written approval of such deviation has been received from the CMW.

5 – List of all database files associated with each drawing, as well as a description and documentation of the database format and schema design.

The Contractor shall also provide 5 full-size Mylar hard copies of each finished drawing with each electronic digital media submittal to the CMW.

8 – OWNERSHIP

The CMW will have unlimited rights under this contract to all information and materials developed under this contract and furnished to the CMW and documentation thereof, reports and listings, and all other items pertaining to the work and services pursuant to this agreement including any copyright. Unlimited rights under this contract are rights to use, duplicate, or disclose text, data, drawings, and information, in whole or in part in any manner and for any purpose whatsoever without compensation to or approval from the Contractor. The CMW will at all reasonable times have the right to inspect the work and will have access to and the right to make copies of the above-mentioned items. All text, electronic digital files, data, and other products generated under this contract shall become the property of the CMW.

9 – CMW-FURNISHED MATERIALS

1 – An electronic copy of latest version of "CMW A/E/C CADD Standard" is in document code: CMW-CADD-STD-01 under the folder:

…\CMW_Resources\Standard_documents

2 – Electronic model and sheet template drawings containing the CMW's preset standard settings such as working units, layers names, colors, line styles, line width, text styles, for use by the Contractor. Folder name:

…\CMW_Resources\AEC_Resources\Templates\Individual_Templates

3 – A list of model files with their respective layers can be found in document code: CMW-CADD-STD-02.xls under the folder:

    …\CMW_Resources\Standard_documents

4 – CMW sheet template <**project_internal_code**>**.DWG** provided under the folder:

    …\CMW_Resources\ style_sheets

It should be noted that the information in the style sheet should be filled in by the contractor from the documents provided by CMW. For the missing information the contractor should make a request from CMW for this information.

5 – Pattern libraries from folder name:

    …\CMW_Resources\AEC_Resources\Patterns

6 – CMW used blocks folder name is:

    …\CMW_Resources\AEC_Resources\Blocks

7 – Line styles under folder name:

    …\CMW_Resources\AEC_Resources\Line Types

8 – Lists of line styles, blocks, and patterns can be found in document code: CMW-CADD-STD-03 under the folder:

    …\CMW_Resources\Standard_documents

9 – The project code file <**internal_project_code**>**.txt** under the folder:

    …\CMW_Resources\projectscodes

10 – CMW drafting feature tables database in Microsoft Access 2003 format. This database is to be used with CADconform software for customizing the drafting operations and checking the A/E/C drawings content. Default folder under **C:\Program Files\Altiva Software\CADconform\Database**. It should be noted that this is optional and it is up to the contractor to use whatever drafting tools to deliver the required products to the required standard.

11 – The CMW developed the Standard Production System (**SPS**) application for the automatic creation of the model and sheet files with the standard naming conventions. This will also be provided to the Contractor by CMW. The file SPS.exe will be placed under the …\CMW_Resources\vb_server folder and a desktop shortcut to the application will be created by the resources installer.

12 – The files **usernames.txt** under the folder:

    …\CMW_Resources

10 – REQUESTS OF AMENDEMENTS TO THE STANDARD BY CONTRACTORS

Changes and additions to the standards are allowed only if they abide with the following criteria and procedures:

The contractor could add a new block, a new model file, a new layer in an existing model file, only if these do not exist in the standard. For this a written request must be addressed to CMW with the required additions and CMW should approve or disapprove the request for the amendment. In the case of approval the contractor should deliver the following:

1 – In case of a new block

    a. A drawing file of the block

    b. A list containing the name of the block and the symbol library where it should be added

2 – In case of a new model file

    a. The name of the model file

    b. A list containing the layer names, layer color, linetype, line width

    c. The drawing file of this model comprised of the layers with their specification (color, linetype, line width) with the dimension styles and the proper units as the existing templates

3 – In case of a new layer in an existing model file

    a. A list comprising of the layer name, layer color, linetype, line width

4 – In case of a new pattern

    a. The pattern file(s) ".pat"

5 – In case of a new dimension style

    a. The name of the dimension style (for example DIM_40, or DIM_40_ex)

    b. A drawing file containing the dimension style to be added