

The City of Peachtree Corners – Electronic Computer Aided Drawing (CAD)/Building Information Modeling (BIM) is Data Submission

PURPOSE

The City of Peachtree Corners CAD/BIM Standards Manual establishes requirements and procedures for the preparation and submission of CAD/BIM based drawings throughout the project life cycle. Adherence to this standard insures that both City of Peachtree Corners internal staff and consultants involved will receive and produce graphic and tabular data in a consistent format. This consistency will improve the compatibility of these drawings internally and the efficient exchange of data between the City of Peachtree Corners consultants, and client agencies.

The City of Peachtree Corners CAD/BIM Standards Manual largely reflects the National CAD/BIM Standards. The role of an individual assigned to the project determines the level of understanding required of the CAD/BIM Standards. For CAD/BIM operators, designers, and supervisors a thorough knowledge of CAD/BIM related elements associated with a project is crucial.

The CAD system adopted by City of Peachtree Corners is Autodesk AutoCAD format (various versions) and Bentley Systems format. All deliverables must be compatible with this format. Throughout this manual terminology and references will be made that are unique to this Autodesk and Bentley application.

ACCESSING THE CAD STANDARDS

The City of Peachtree Corners CAD Standards consists of a series of support files, which are available at the City of Peachtree Corners website located at <https://www.peachtreecornersga.gov/>.

USING THE STANDARDS FILES

The Standards directory contains two primary types of files: files that do not require ongoing user interaction to utilize and files that do require ongoing user interaction to utilize. The first type refers to files used as AutoCAD support files, which only

need to be copied once to the proper support folders. The second type refers to files such as Borders and Title Sheets along with their associated revision blocks. These files do require some user interaction to utilize in a drawing.

FILE NAMING CONVENTION

Model Files: (DWG/ BIM - Building Information Modeling Folder)

Model files are working drawing files containing actual design geometry. These drawings will be named by providing the discipline code followed by the Project Number; a plan type and a user defined description of the drawings contents. Please refer to the tables below for the plan type codes. Once defined, a model file's name shall not change through the life cycle of the project. This restriction is required due to the nature of externally referencing Model files.

OPTIONAL - The filename will take the form of:

PN D-FP-User Description.dwg

PN = Project Number

*D = The Discipline Code

**FP = Model File Plan Type

User Description = User defined description
of the files contents

Coordinate System Format

All CAD/BIM deliverable data should be delivered in the Georgia State Plane Coordinate System, the details are shown below:

Projected Coordinate System: NAD_1983_StatePlane_Georgia_West_FIPS_1002_Feet

Projection: Transverse_Mercator

False_Easting: 2296583.33333333

False_Northing: 0.00000000

Central_Meridian: -84.16666667

Scale_Factor: 0.99990000

Latitude_Of_Origin: 30.00000000

Linear Unit: Foot_US

Geographic Coordinate System: GCS_North_American_1983

Datum: D_North_American_1983

Prime Meridian: Greenwich
Angular Unit: Degree

All final digital data will be delivered in BIM (Building Information Modeling), DWG, DGN or DXF format on one - Zip file format, CD-ROM or DVD suitable for use with AutoCAD or GIS.

ELECTRONIC DELIVERABLES

Electronic files and documentation are due with the final submission (and any required interim submission) for each project.

This includes studies, data, or graphics, which may or may not include drawings. Final submissions that do not include all files and documentation are incomplete. CITY OF PEACHTREE CORNERS strongly emphasizes the importance of final record drawings. These drawings will be used in the management of CITY OF PEACHTREE CORNERS buildings by CITY OF PEACHTREE CORNERS and by client Facilities Management departments. State buildings typically have significant changes in their configuration over their life span. Accurate record drawings are of vital importance in these building management and alteration processes.

CAD deliverables

In addition to data to be delivered to CITY OF PEACHTREE CORNERS in .dwg format, the following items, described as GIS deliverables, are to be delivered as specified below:

- Parcel boundaries (if a project requirement)
- Building foot prints (if a project requirement)
- Roads (if new) within the survey (if a project requirement)
- Contours and elevation data (if a project requirement)

MEDIA FORMAT REQUIREMENTS

A copy of all electronic files and documentation shall be delivered to City of Peachtree Corners's offices on CD-R, DVD-R, DVD+R or as Zip File. Media used shall be in a format that can be read and processed by City of Peachtree Corners supported hardware and software. Media jewel cases shall be labeled with the information below. Label the media themselves to contain as a minimum: date, City of Peachtree Corners project name/number

QUALITY CONTROL

The Designer/Contractor is responsible for the quality control of their submissions. City of Peachtree Corners will visually and electronically check these submissions to verify compliance. High quality of drawings is essential, Drawings must be cleaned up before submittal in the matter that lines in corners shall connect; blocks on unnecessary locations shall be deleted or purged.

Suggested References/Online Resources:

<https://thecadgeek.com/blog/2008/01/converting-a-drawings-coordinate-system/>

<http://www.thecadmasters.com/2010/10/08/coordinate-transformations-part-1-translating-point-files-using-civil-3d/>

<http://www.thecadmasters.com/2010/10/26/coordinate-transformations-part-2-re-projecting-drawings/>

<https://www.nh.gov/dot/cadd/microstation/geographic-coordinate.htm>