SECTION C1: CIVIL 3D SET-UP PROCEDURES

The use of AutoCAD Civil 3D can provide the user greater efficiency when downloading, processing, designing and plotting data. Several features in AutoCAD Civil 3D will need to be downloaded, set up and correlated with each other. The procedures as described below shall be followed when setting the NRCS Customized Files such as the Florida Localized Template (original size 22x34 ANSI D), Tool Palettes, Survey Database coordinate system (UTM83-16N Panhandle, and UTM83-17N), Survey Database Working folder, and Figure databases. Proper setting up Civil 3D ensures the user seamless compatibility between 3rd party programs and Civil 3D.

This procedure assumes the user has a basic understanding of AutoCAD Civil 3D. If a more detailed explanation is required, refer to the online Reference Guides (RGuides) located at www.nrcsknowledge.com.

Before using these procedures, user should make sure the following programs and files are up to date on computer. Compatibility issues may arise if any program is not up to date:

- NRCS Civil 3D files – several features have been localized from National Headquarters Civil 3D template including all of the Florida Survey codes, Coordinate systems, and Styles
- Windows Mobile Device Center Program – used to link external devices such as Data Collector (TSC3) data collectors and various Total Stations.
- Geoid Model files (GGF) installed using AutoCAD and Trimble Link menu from Civil3D. (An IT specialist may have to do this)

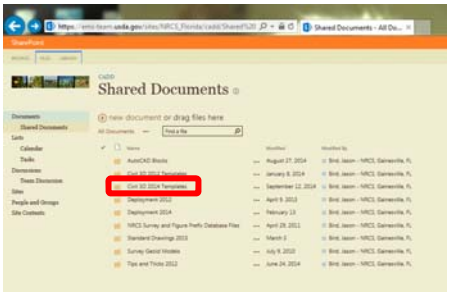
I. DOWNLOADING TEMPLATES AND USER FILES FROM FLORIDA SHAREPOINT

A. Launch **Internet Explorer**

B. Navigate to the Florida NRCS CAD Share Point at following web address: https://ems-team.usda.gov/sites/NRCS_Florida/cadd/Shared%20Documents/Forms/AllItems.aspx

Recommend bookmarking this site.

C. Download all **"AutoCAD"** Folders directly to the C:Drive. As set-up occurs these files are necessary.



D. Download folders by navigating to the three tabs in the upper left of screen (BROWSE, FILES, AND LIBRARY)

E. Click on the **"Library"** tab

F. From the **"Ribbon"** find the command **"Open with Explorer"** and click on it

G. Highlight all folders and copy to the C:Drive [Do NOT CUT- this will eliminate all folders from the Sharepoint.]

II. SETTING UP NRCS TOOLS ON CIVIL 3D

Support files & tools were developed for use with AutoCAD software in support of the National NRCS CAD standards. User Customization settings are done on an individual user basis and need to be completed within the login for each individual user.

A. Launching the NRCS Support Tools

1. Launch Civil 3D ***Metric*** via Start… All Programs… Autodesk… AutoCAD Civil 3D…**AutoCAD Civil 3D *Metric***.
2. If the Carlson Connect Registration Wizard appears at this time, click **"Exit"**.
3. At the Welcome Screen, click the **"X"** to Close. *You can access the Welcome screen features via the pulldown for Help… Show Welcome Screen… at a later time.*
4. Type **"Options"** > [Enter] to pull up the Options dialog box.
5. Select the **Profiles** tab.
6. Highlight <<C3D_Imperial>> and click the "**Rename**" button.

7. Rename Profile to **Original<<C3D_Imperial>>**
8. Click "**Apply**" Click "**Close**".
9. Click "**Import**" Button
10. Browse to the following path - **C:\ ProgramData\Autodesk\C3D 2014\SupportNRCS**
11. *May have Area IT Specialist "Unhide" all support file folders in case the "ProgramData" folder does NOT appear.*
12. Once **"SupportNRCS"** folder is opened > Select the file ***"C3D_Imperial_2014_NRCSv3.arg"*** Click "**Open**".
13. Rename the Profile to **<<C3D_Imperial>>,** checkmark "**Include path information**".
14. *Be sure to include the "<<" & ">>" in the name.*
15. Click "**Apply**" then "**Close**".
16. Click "**OK**" to exit Options dialog.

Note: The .arg file is the NRCS interface for Civil3D. It brings in NRCS tools and defaults to the NRCS templates - which can be manually changed accordingly.

17. Quit out of AutoCAD Civil 3D ***Metric*** by clicking Exit from the Application Menu.
18. Do not save the drawing.
19. Launch Civil 3D ***Imperial***.
20. An Autodesk Customer Involvement Program window appears. Select a choice and Click "**OK**".

B. Disabling the Carlson Connect CUI
1. Click **"Exit"** to start disable process
2. Type **"CUI"**, Press **[Enter]**
3. Click on ***"Customizations in All Files"*** to expand window.
4. Once expanded all files shall appear-
5. Under **"CIVIL"** expand the **"Partial Customization Files"** by clicking the "plus box".
6. Highlight the **"CarlsonConnect.cuix"** file
7. Right Click and select **"Unload"**
8. Click "**OK**" to close the CUI.

C. Registering the Trimble Link CUI
1. Initialize a Trimble Link command from the menu or toolbar. An Authorize box will appear. Click "**Yes I Agree**".
2. Click on the link to the Trimble registration page and complete the information.
3. A registration key will be provided
4. Enter the registration key in to the Authorization code of the Trimble Link dialog.
5. Click "**OK**"
6. The Trimble Link tool will be enabled.

D. To activate the TOOL SPACE *(If not turned on upon start-up)*
1. Activate the Tool Space dialog box **"Home" tab > "Toolspace" tile** or Type in **"Toolspace"**
2. Anchor the Toolspace to the right or the left of screen- if duel monitors are used- the Toolspace may be used on either monitor.
3. Toolspace is vital to Civil 3D as data may be manipulated, created, changed, and added to design drawing.

E. Customizing the TOOL PALETTES
1. Turn on Tool Palette dialog box – from **Home Tab > "Palettes" >Tool Palette** button or type in **"TP"** or **"Ctrl+3"** this will turn it on and off
2. To add new tool palettes type **Customize** > [Enter]
3. The Customize dialog box will appear > the left window is for single palettes – the right window is palette groupings

4. Go to the Left Window and Right Click select **"Import"** Palette name in the right-hand column.
5. Browse to C:\AutoCAD Palettes
6. Select all Palettes that apply
7. Click "**Open**".
8. All selected Palettes will be added to list as well as the current Palette Group.
9. Click "Ok" to exit

III. FLORIDA CIVIL 3D TEMPLATE SET-UP

A. From Civil 3D Navigate to Options by right clicking and selecting **"Options"** or type in **"Options".**

B. From the Options Dialog Box, click on the **"Files"** Tab from the top.

C. Navigate to the **"Template Settings"** and expand the options.

D. Expand the first option **"Drawing Template Files Location"** and click the **"Browse"** button.

E. Navigate to **C:AutoCAD Templates**

IV. SURVEY DATABASE SET-UP –

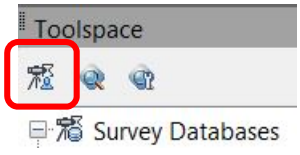
Survey Database Set-up is setting the coordinate system for ALL newly created Survey Databases. Use coordinate system normally used in the area.

A. If AutoCAD Civil 3D is open, go to the **"Toolspace"** palette if not already open by clicking **"General">"Toolspace"**, or type **"showts"** into the command line.

B. From the Toolspace> click the **"Survey"** tab.

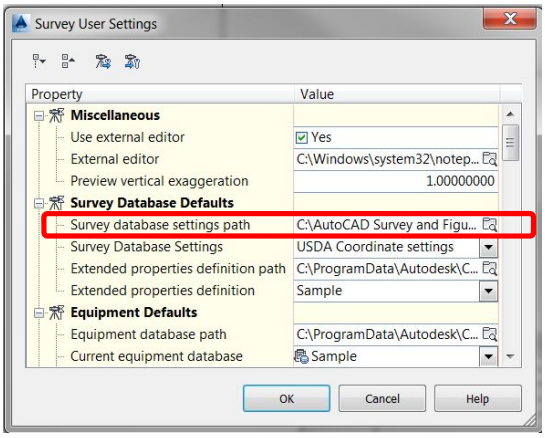
C. Click the **"Survey User Settings"** icon at the upper left corner of the survey tab. See Figure A-1.

Figure A-1: Survey User Settings icon



D. In the **"Survey User Settings"** dialog box Scroll to **"Survey Database Defaults"** > Click the file path icon for "**Survey database settings path"**. See Figure A-2.

Figure A-2: Survey User Settings Dialog Box



E. Click the **"Browse for Folder"** window

F. Browse to ***"C:AutoCAD Survey and Figure Prefix Databases"*** folder and click "Ok" to close

1. If there is no file folder, *This can been downloaded from the Florida Sharepoint. See Section I Steps A-G*

G. In the **"Survey User Settings"** dialog Box go to the *"Survey Database Settings"* and use the "dropdown" arrow and select the correct Coordinate System.

1. This file path contains localized coordinate systems for Florida
2. Most will use the **"UTM 17 North"** but it also contains the **"UTM 16 North"** coordinate system.
3. Every time a Survey Database is created, it will default to the localized coordinate system that is selected.
4. **Be Aware of what coordinate system was used for the survey – if different then coordinates listed, the user will have to edit survey settings for that individual Survey Database**
5. To do so, Highlight Survey Database, and Right-Click select **"Open for Edit"**
6. Once Open, Right Click again and select **"Edit Survey Database Settings"**

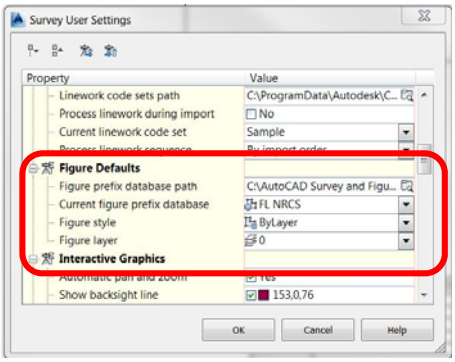
7. From here the user may change the survey database coordinate system to match survey.

V. FIGURE PREFIX DATABASE SET UP

A Figure Prefix Database Set-up is setting the localized Florida Survey Coding to produce Linework when importing surveys. It also uses the Florida Templates Layers to import the linework. The surveyor shall use the special coding when needing to produce the linework.

A. In the **"Survey User Settings"** dialog box scroll to the **"Figure Defaults"**

B. Click the **"Browse for Folder"** window



C. Browse to ***"C:AutoCAD Survey and Figure Prefix Databases"*** folder. Click "Ok" to Close the window

D. In the "Survey User Settings" dialog box scroll to "Current figure prefix database" dropdown and select "FL NRCS" for the Localized Figure Prefix

E. Click **"OK"** to close the **"Survey User Settings"** dialog box.

VI. SETTING UP LOCATION TO STORE SURVEY DATABASES

The folder will be a place that Civil 3D will store all Survey Databases. – User can only delete a survey database from this folder and not through Civil 3D.

A. Go to **"Windows Explorer"** and create a new File Folder in a desired location and call it **"Survey Databases".**

B. The location should be easy to remember and if in office with multiple C3D users, should be on an external harddrive so multiple users can be directed to it.

C. If AutoCAD Civil 3D is open go to the "Toolspace" and go to the "Survey" Tab

D. Highlight the "Survey Databases" header and right Click and select from the menu **"Set Working folder"**.

E. Browse to the newly created Folder and select it and click **"Ok".**

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