

***Maricopa County***  
***Department of Transportation***



**OpenRoads Designer**  
**MCDOT CONNECT Workspace**  
**Setup Guide**

*January 11, 2023*

CADD GROUP  
2901 West Durango Street  
Phoenix, AZ 85009

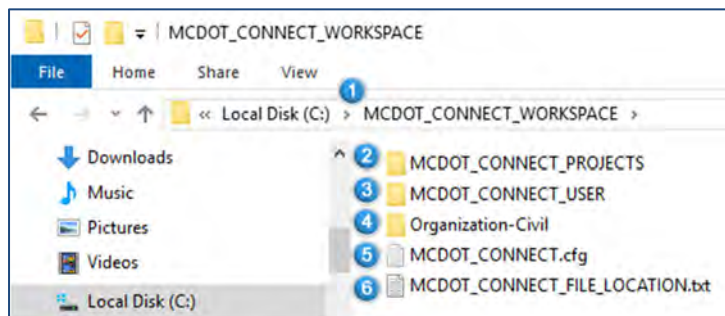
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# Summary

Note: This installation guide describes the steps for installing the MCDOT CONNECT Workspace for OpenRoads Designer 2022 Release 1. The workspace is designed to be installed on the local C: Drive as a standalone installation. Options for editing the configuration files and achieving a network installation are also included in this document.

The Workspace is located within one main folder with other files and sub folders as described below:

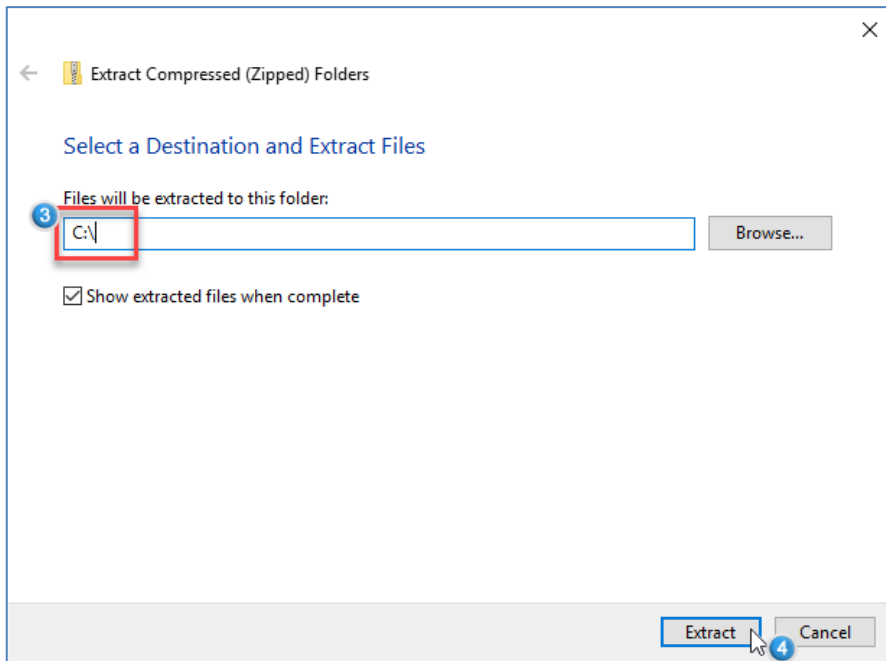
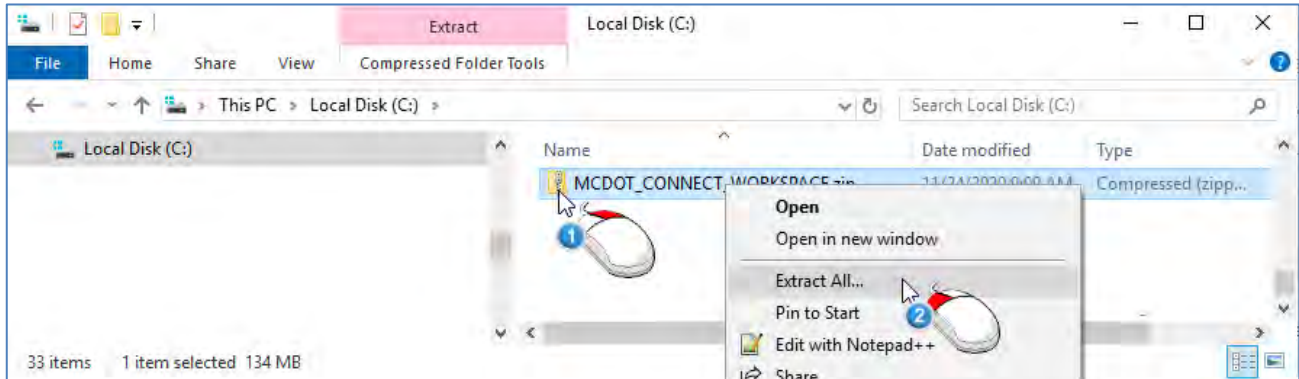


1. The main folder is named **MCDOT\_CONNECT\_WORKSPACE**.
2. The starting folder for a new project is named **MCDOT\_CONNECT\_PROJECTS**.
3. The user configuration files and preferences are stored in the folder **MCDOT\_CONNECT\_USER**.
4. The MCDOT workspace standards and resource files are all located within the folder named **Organization-Civil**.
5. The main configuration file that by default is pointing to the root of the C: Drive is named *MCDOT\_CONNECT.cfg*.
6. A text file named *MCDOT\_CONNECT\_FILE\_LOCATION.txt* specifies the location within your OpenRoads Designer installation where the *MCDOT\_CONNECT.cfg* file needs to reside for the workspace to work properly.

## Workstation Only Install for MCDOT CONNECT Workspace

For a standalone workstation installation of the MCDOT CONNECT Workspace for use with Bentley OpenRoads Designer Connect Edition 2022 Release 1:

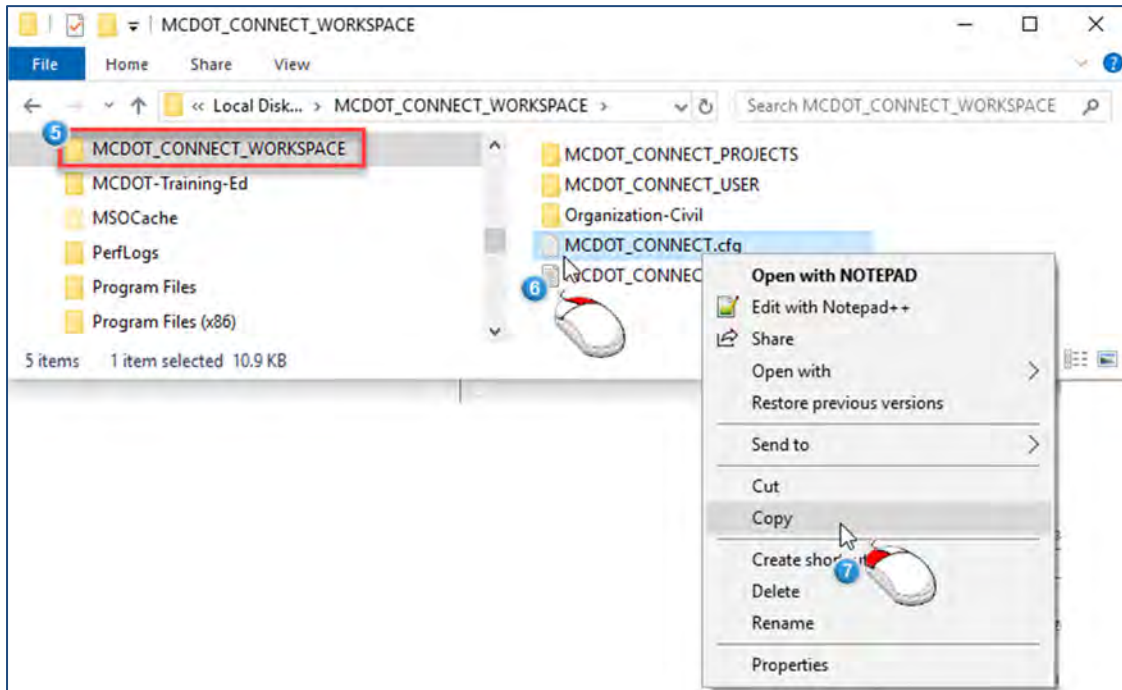
- A. Install Bentley OpenRoads Designer 2022 Release 1 using all of the default settings. *(The MCDOT CONNECT Workspace may work with your custom installation of OpenRoads Designer as long as the MCDOT\_CONNECT.cfg file is placed within your configured Workspaces folder)*
- B. Download the MCDOT\_CONNECT\_WORKSPACE.zip file from the [Maricopa County CADD Website](#).
  - a. Place the file in the root of the C:\ Drive if possible. *(Can also be installed from the Desktop or another location if the C:Drive root is not accessible)*
- C. Extract the contents of the zip file as shown.



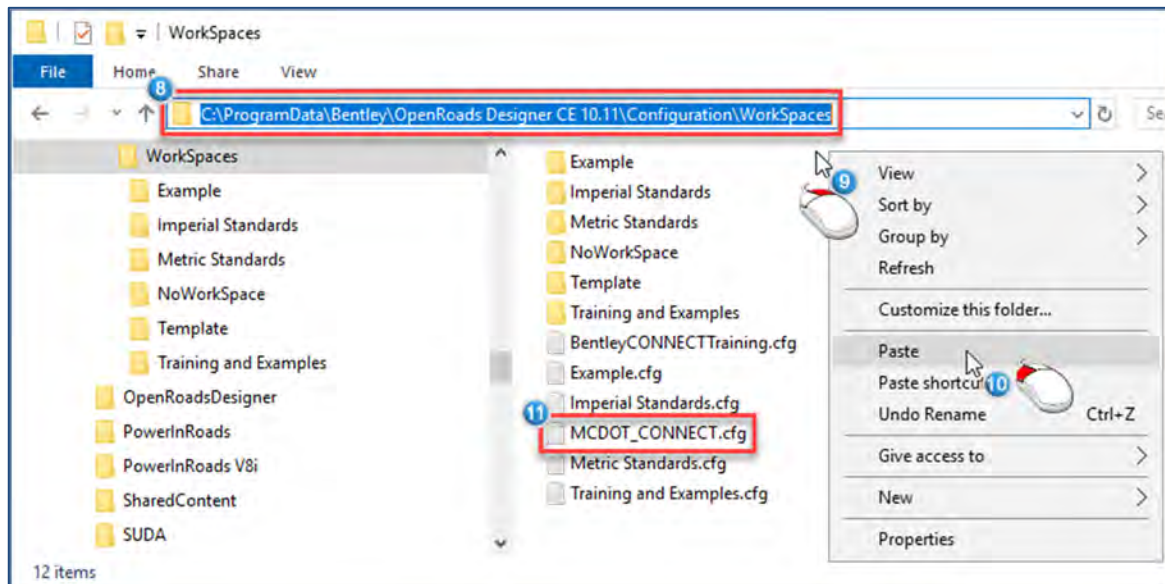
1. Right-Click the Zip file and open the context menu.
2. Left-Click on the **Extract All...** menu item.
3. Change the location to extract the files to **C:\** as shown.
4. Press the **[Extract]** button.

(continued)

- D. Open the **MCDOT\_CONNECT\_WORKSPACE** folder and copy the **MCDOT\_CONNECT.cfg** file to the **C:\ProgramData\Bentley\OpenRoads Designer CE 10.11\Configuration\WorkSpaces** folder.

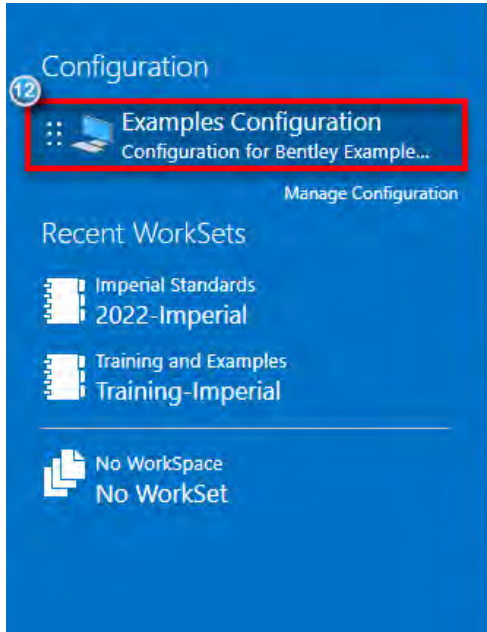


5. Open the **MCDOT\_CONNECT\_WORKSPACE** folder.
6. Right-Click on **MCDOT\_CONNECT.cfg** file.
7. Left-Click on the **Copy** menu item.
8. Navigate to the **C:\ProgramData\Bentley\OpenRoads Designer CE 10.11\Configuration\WorkSpaces** folder.
9. Right-click in empty space to access the drop down menu.
10. Select **Paste** from the menu.
11. The file is placed.

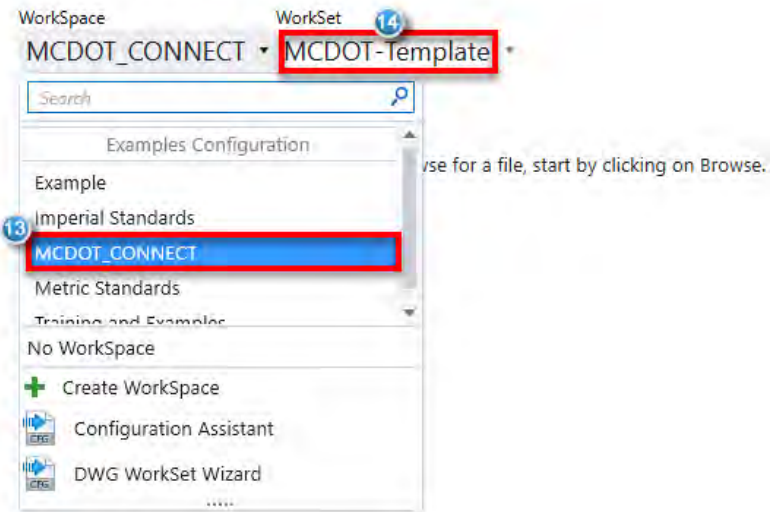


E. Start **OpenRoads Designer** normally.

12. Select the **Examples Configuration** in the left-hand panel.
13. Change the **WorkSpace** from the drop-down list to **MCDOT\_CONNECT**.
14. The delivered **WorkSet** will appear as **MCDOT-Template**.



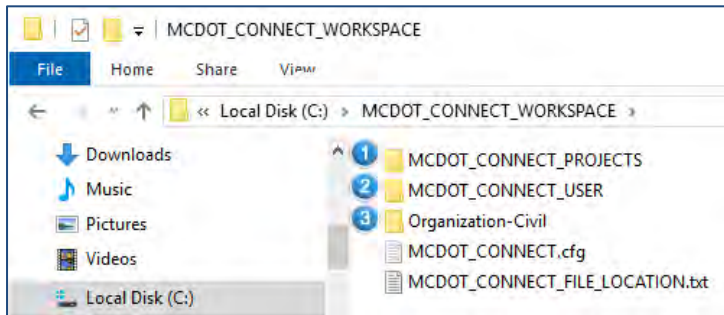
## OpenRoads Designer CE



*Note: You will not use the WorkSet **MCDOT-Template** for any work. This WorkSet is provided to act as a template for creating new WorkSet/Projects for Maricopa County DOT work.*

## [Client / Server Install for MCDOT CONNECT Workspace](#)

To install the MCDOT CONNECT Workspace for use in a client server environment, extract the zip file as described in the stand alone workspace section of this document. Take note of the (3) folders that can be moved to other locations within your network. You can relocate any combination or all of the three folders shown below:

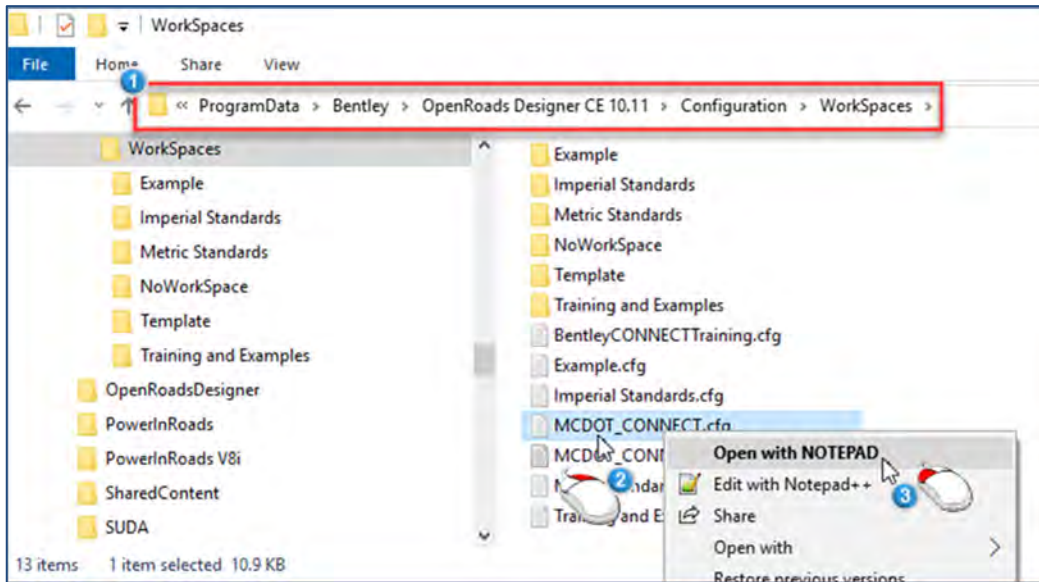


1. The starting folder for new projects is named **MCDOT\_CONNECT\_PROJECTS**.
2. The user configuration files and preferences are stored in the folder **MCDOT\_CONNECT\_USER**.

3. The MCDOT workspace standards and resource files are all located within the folder named **Organization-Civil**.

Move the folders to the locations that you want them to reside and then edit the **MCDOT\_CONNECT.cfg** file to point to the new locations.

1. (Make sure to edit the **MCDOT\_CONNECT.cfg** file that resides in the *C:\ProgramData\Bentley\OpenRoads Designer CE 10.11\Configuration\WorkSpaces* folder. This file would need to be copied to all client workstations after editing).



2. Right-click on the **MCDOT\_CONNECT.cfg** file.
3. Left-click on **Open with NOTEPAD** menu item.

## Relocate the MCDOT CONNECT Workspace Resources:

The **Workspace Standard Location** and the **Civil Organization Standard Location** resources reside within the **MCDOT CONNECT Workspace** in the same *Organization-Civil* folder. You will need to edit this within the *MCDOT\_CONNECT.cfg* file in two areas.

### 1. Edit the path to where the *Civil Organization Standard Location* has been relocated:

```
#-----  
# Civil Organization Standard Location  
#-----  
# Organization standards are base standards for a country or region or a  
# large asset owner such as a DOT. These standards should be the base that  
# provide most of the settings needed for OpenRoads Designer. Additional  
# company specific and project specific standards can be layered onto the  
# the Organizational standards using the WorkSpace and WorkSet respectively.  
#  
# By default Organization standards are located at  
# \ProgramData\Bentley\OpenRoads Designer CE 10.11\Configuration\Organization-Civil\  
#  
# The default location can be changed using the MY_CIVIL_ORGANIZATION_ROOT variable.  
# To redirect the entire configuration folder to a network location, uncomment the  
# MY_CIVIL_ORGANIZATION_ROOT line and replace the network path with the appropriate network path.  
#  
# <<<< Make Changes Here >>>>  
MY_CIVIL_ORGANIZATION_ROOT = C:/MCDOT_CONNECT_WORKSPACE/Organization-Civil/  
  
%if defined (MY_CIVIL_ORGANIZATION_ROOT) && exists ($(MY_CIVIL_ORGANIZATION_ROOT))  
    CIVIL_ORGANIZATION_ROOT          = $(MY_CIVIL_ORGANIZATION_ROOT)  
%else  
    CIVIL_ORGANIZATION_ROOT          = $( _USTN_CONFIGURATION)Organization-Civil/  
%endif  
#-----
```

For example: If the new location for the Organizational-Civil Folder was moved to a server location, the edited line may look like this:

```
MY_CIVIL_ORGANIZATION_ROOT = //server-name/MCDOT_CONNECT_WORKSPACE/Organization-Civil/
```

Where **server-name** would be replaced with your actual UNC.

Make sure that the entire folder structure exists at the new location.



2. Edit the path to where the *Workspace Standard Location* has been relocated:

```
#=====
# Workspace Standard Location
#=====
# Workspace standards are extensions or overlays to an Organization standard.
# A common use for Workspace standards is for company or client standards.
# Organization + Workspace + WorkSet = OpenRoads Designer Environment
#
# By default Workspace standards are located at
# \ProgramData\Bentley\OpenRoads Designer CE 10.10\Configuration\WorkSpaces\
#
# The default location can be changed using the _USTN_WORKSPACESROOT variable.
# To redirect just the Workspace folder to a network location, uncomment the
# following line and replace the network path with the appropriate network path.
#
# <<<< Make Changes Here >>>>
MY_WORKSPACES_LOCATION = C:/MCDOT_CONNECT_WORKSPACE/Organization-Civil/

%if defined (MY_WORKSPACES_LOCATION) && exists ($(MY_WORKSPACES_LOCATION))
    _USTN_WORKSPACESROOT = $(MY_WORKSPACES_LOCATION)
%endif
#-----
```

Always make sure that the path name ends with a "/" as shown above.

## Relocate the MCDOT\_CONNECT\_PROJECTS folder:

The **Projects Location** is also known as the **WorkSet location**. This can be relocated to a new place as well. You will need to edit this within the *MCDOT\_CONNECT.cfg* file as shown below.

### Edit the path to where the *WorkSet Standard Location* has been relocated:

```
#####  
# WorkSet Standard Location  
#####  
# WorkSet standards are extensions or overlays to a Workspace standard.  
# A common use for WorkSet standards is for project specific standards and data.  
# Organization + Workspace + WorkSet = OpenRoads Designer Environment  
#  
# By default WorkSets are children of WorkSpaces and are stored in  
# a sub folder of the Workspace. In other words, each Workspace has its  
# own set of WorkSets. The default location is a sub folder named WorkSets. For example,  
# \ProgramData\Bentley\OpenRoads Designer CE 10.10\Configuration\WorkSpaces\{workspace name}\Wor  
#  
# If the Workspace is redirected to the network using the MY_WORKSPACES_LOCATION  
# variable as described in the previous section, the WorkSet is automatically  
# redirected to that same network location and no changes are needed in this section.  
#  
# If you choose to store the WorkSet in a different network location from  
# the Workspace standards, this section should be used. When WorkSets are  
# stored at a different network location than the Workspace, they are still  
# a child of the Workspace and they must still be organized with parent folders  
# named the same as the Workspace. These folders must be created manually.  
# Optionally the WorkSets could be stored in a separate folder from the Workspace  
# but be aware that this can cause users confusion because it is possible to create  
# new files in a WorkSet (project) using incorrect Workspace standards. To use this  
# optional method storing WorkSpaces and WorkSets in separate folders, uncomment the  
# _USTN_WORKSETSROOT = $(MY_WORKSET_LOCATION)/ line below and deleted or commented  
# out the line above it.  
#  
# To redirect to a network location, uncomment the MY_WORKSET_LOCATION line and  
# replace the network path with your network path. This is the root path  
# where the WorkSets are located and does not include the required  
# Workspace folders that must be created manually.  
#  
# <<<< Make Changes Here >>>>  
MY_WORKSET_LOCATION = C:/MCDOT_CONNECT_WORKSPACE/MCDOT_CONNECT_PROJECTS/
```

## Relocate the MCDOT\_CONNECT\_USER folder:

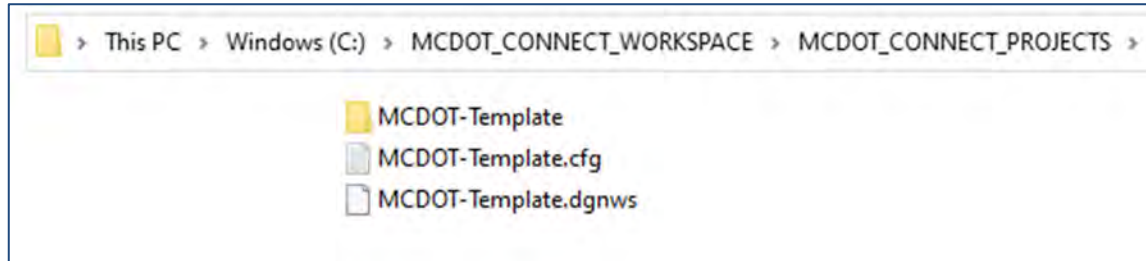
The **MCDOT\_CONNECT\_USER** folder contains the user preferences files and function key assignments among other settings that we use at MCDOT. These resources can be relocated as well. You will need to edit the new location in 2 lines of the *MCDOT\_CONNECT.cfg* file as shown below.

### **Edit the path to where the MCDOT\_CONNECT\_USER preferences have been relocated:**

```
#-----  
# Preference files used to create user preferences, GUI, docking,  
# function keys, etc. for a 'Bentley Civil' environment.  
#-----  
_USTN_HOMEPREFS      = C:/MCDOT_CONNECT_WORKSPACE/MCDOT_CONNECT_USER/Prefs/  
_USTN_HOMEROOT       = C:/MCDOT_CONNECT_WORKSPACE/MCDOT_CONNECT_USER/  
MS_USERPREFSEED     = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/preferences.spf  
MS_GROUPPANELPREFSEED = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/group_panel_seed.xml  
MS_DOCKINGPREFSEED  = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/docking_seed.xml  
MS_RIBBONPREFSSEED  = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/ribbon_seed.xml  
MS_EXPLORERSETTINGSSEED = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/explorer_settings_seed.xml  
MS_FKEYMNUSEED      = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/function_keys_seed.mnu  
MS_BUTTONMNUSEED    = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/Default.btnmenu  
MS_KEYBOARDSHORTCUTSSEED = $(CIVIL_ORGANIZATION_ROOT)Preference Seeds/keyboard_shortcuts_seed.xml  
#-----
```

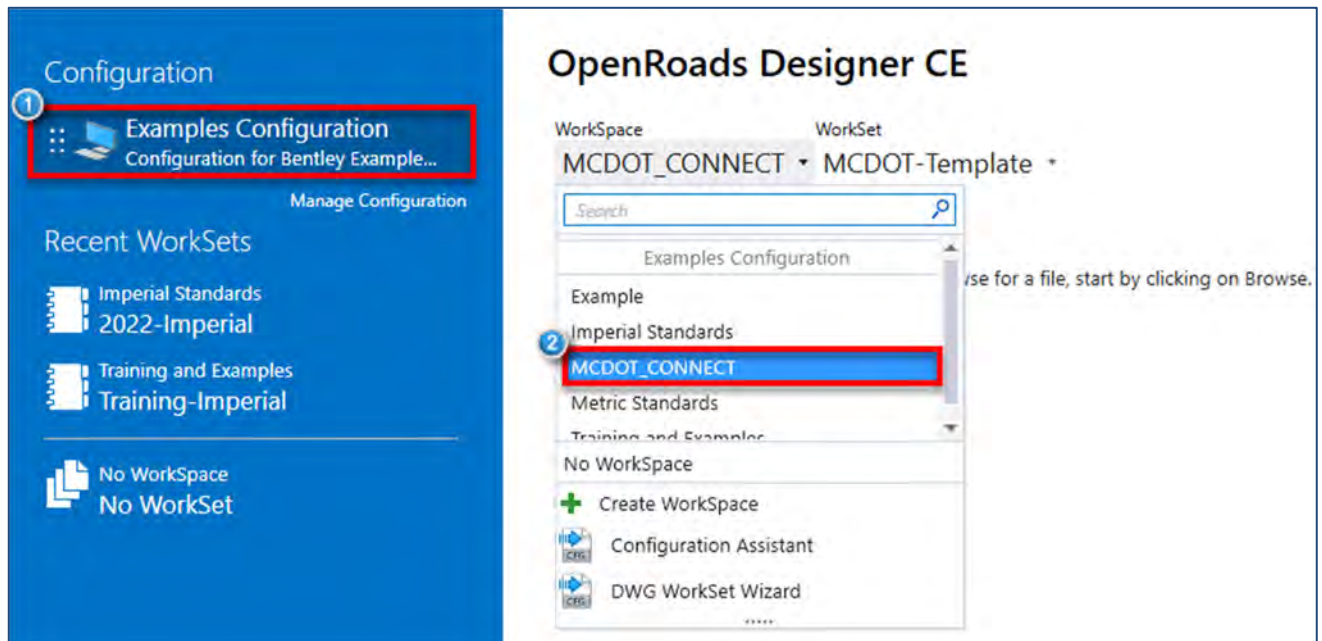
## Creating a New WorkSet/Project:

The **MCDOT\_CONNECT\_PROJECTS** folder is provided as a template for creating new MCDOT projects.

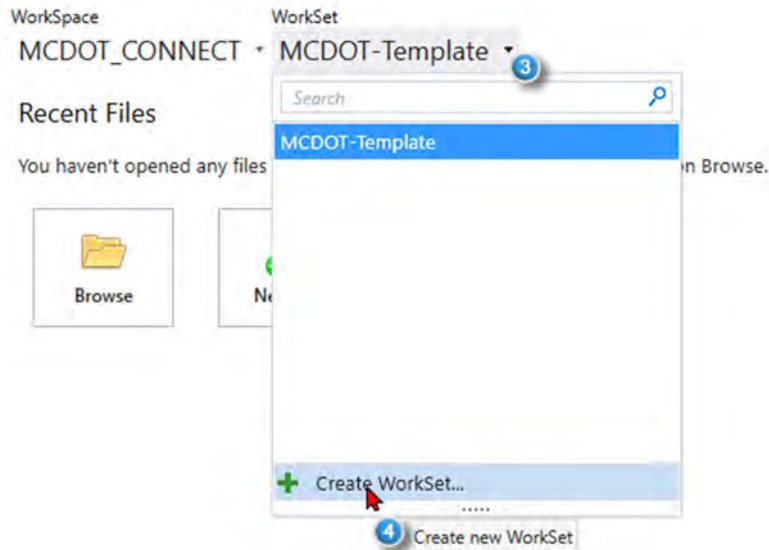


To create a **New WorkSet** to be used for a project:

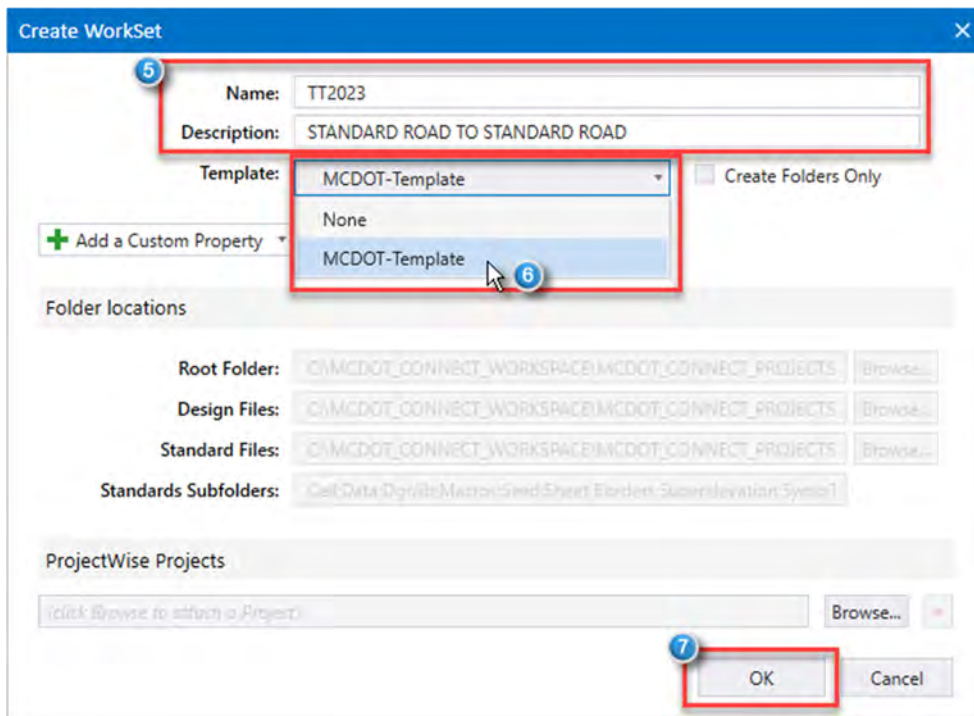
1. Start OpenRoads Designer and select the default **Examples Configuration**.
2. Select the **MCDOT\_CONNECT WorkSpace** from the drop-down list.



3. Select the WorkSet entitled **MCDOT-Template**.
4. Select **Create New WorkSet**.



5. Fill in the **Project Name/Number** and the **Description** of the project.
6. From the **Template** pick list, select the **MCDOT-Template** entry.
7. Select OK to return to the main screen.



Your new project is now available as well as all of the **WorkSet Properties** that are used to automatically update the **Text Fields** that are located within the Title Blocks of the **MCDOT Border Cells**.

## OpenRoads Designer CE

The screenshot shows the OpenRoads Designer CE interface. At the top, the 'WorkSpace' is set to 'MCDOT\_CONNECT' and the 'WorkSet' is set to 'TT2023'. Below this is the 'Recent Files' section, which is currently empty. To the right, a 'Properties' panel is open, displaying the following information:

Name	TT2023
Description	STANDARD ROAD TO STANDARD ROAD
WorkSpace	MCDOT_CONNECT
(TB) CHECKED	A. N. ENGINEER
(TB) DESIGNED	A. N. ENGINEER
(TB) DRAWN	A. TECHNICIAN
Agency or City Name	<AGENCY OR CITY NAME HERE>
Chairman	JACK SELLERS
Director	JENNIFER TOTH, P.E.
District 1	JACK SELLERS
District 2	THOMAS GALVIN
District 3	BILL GATES
District 4	CLINT L. HICKMAN
District 5	STEVE GALLARDO
Percent Plans	15%
Project Description	STANDARD ROAD SECTION AVE TO SECTION DRIVE
Project Manager's Name	MANAGER'S NAME
TIP Project Number	TTXXXX
TRACS NO.	_____

Below the table, it says 'ProjectWise Project Properties' and 'No project attached.' with a 'Show All Properties' link.

To edit the WorkSet Properties:

Select the **Properties** drop down and select **Advanced Properties**.

The screenshot shows the 'Properties' dropdown menu. The 'Advanced Properties' option is highlighted, and a mouse cursor is pointing at it. Below the dropdown, the following information is visible:

WorkSpace	MCDOT_CONNECT
(TB) CHECKED	A. N. ENGINEER
(TB) DESIGNED	A. N. ENGINEER
(TB) DRAWN	A. TECHNICIAN
Agency or City Name	<AGENCY OR CITY NAME HERE>
Chairman	JACK SELLERS
Director	JENNIFER TOTH, P.E.
District 1	JACK SELLERS

Edit any of the fields. These will be reflected in the Sheet Borders.

**Edit WorkSet** [X]

Name:

Description:

(TB) CHECKED:

(TB) DESIGNED:

(TB) DRAWN:

Agency or City Name:

Chairman:

Director:

District 1:

District 2:

District 3:

District 4:

District 5:

+ Add a Custom Property ▾

**Folder locations**

Root Folder:

Design Files:

Standard Files:

**ProjectWise Projects**

\*