

## Workflow 4: Calculating “Clearing” Quantities

1. *Open the cross section file, project manager, and select the Reports & XS quantities button.*

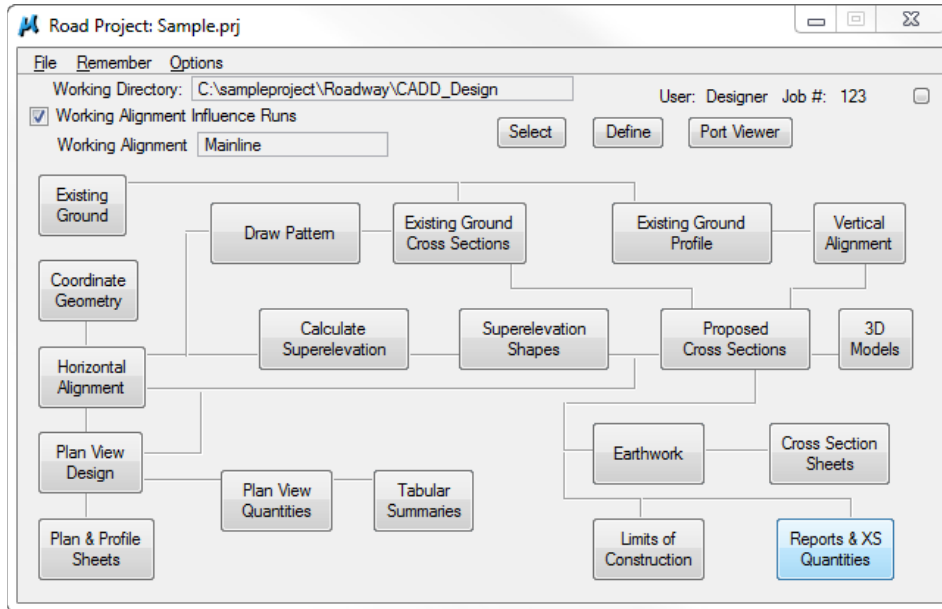


Figure 10.4-1: Accessing Reports & XS Quantities

*Or by pressing the XS Reports button from the Road Tools Dialog Box.*

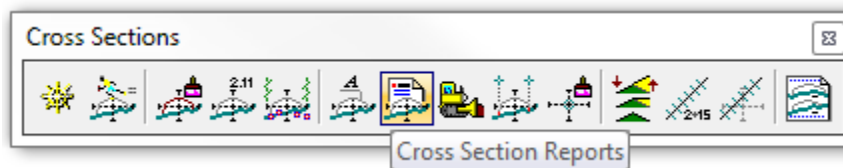


Figure 10.4-2: Accessing Cross Section Reports Icon

2. *Select User>Preferences.*

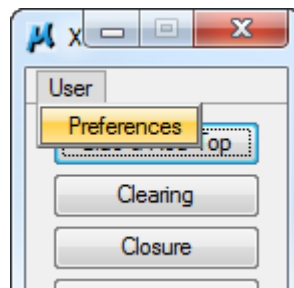
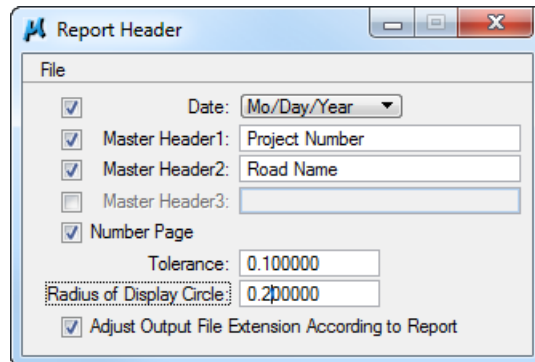


Figure 10.4-3: Reports Dialog Box

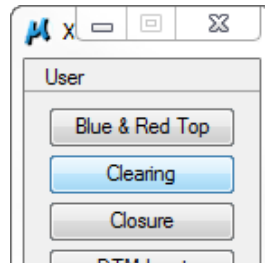
3. *Populate the Report headers. Include the Project Number in the Master Header 1 space, and the Road Name in the Master Header 2 space. This information will be put at the top of the quantity report.*



The 'Report Header' dialog box is shown. It has a 'File' tab. The 'Date' is set to 'Mo/Day/Year'. The 'Master Header1' is 'Project Number' and 'Master Header2' is 'Road Name'. 'Master Header3' is empty. 'Number Page' is checked. 'Tolerance' is 0.100000 and 'Radius of Display Circle' is 0.200000. 'Adjust Output File Extension According to Report' is checked.

Figure 10.4-4: Report Settings

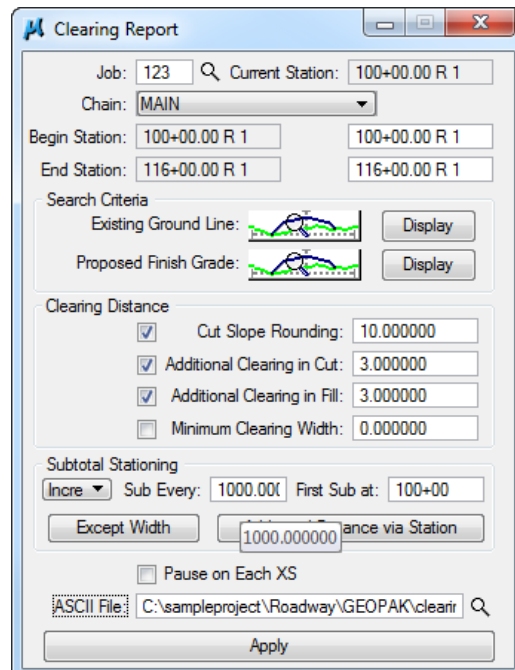
4. *Select the Clearing button in the XS Report dialog box.*



The 'XS Report' dialog box is shown. It has a 'User' tab. The 'Clearing' button is highlighted in blue. Other buttons include 'Blue & Red Top', 'Closure', and 'DTM List'.

Figure 10.4-5: Clearing Button

5. *Adjust the Beg Station and End Station to ensure that they are the stations you want. For multiple station ranges, the report may need to be run multiple times.*



The 'Clearing Report' dialog box is shown. It has a 'Job' field set to 123 and a 'Current Station' field set to 100+00.00 R 1. The 'Chain' is set to 'MAIN'. The 'Begin Station' is 100+00.00 R 1 and the 'End Station' is 116+00.00 R 1. The 'Search Criteria' section shows 'Existing Ground Line' and 'Proposed Finish Grade' with 'Display' buttons. The 'Clearing Distance' section has 'Cut Slope Rounding' (10.000000), 'Additional Clearing in Cut' (3.000000), 'Additional Clearing in Fill' (3.000000), and 'Minimum Clearing Width' (0.000000). The 'Subtotal Stationing' section has 'Incr' (Increment), 'Sub Every' (1000.00), 'First Sub at' (100+00), 'Except Width' (1000.000000), and 'Distance via Station'. There is a 'Pause on Each XS' checkbox. The 'ASCII File' is 'C:\sampleproject\Roadway\GEOPAK\clearin'. An 'Apply' button is at the bottom.

Figure 10.4-6: Clearing Report Dialog

6. Select the Existing Ground Line symbology and set as shown below.

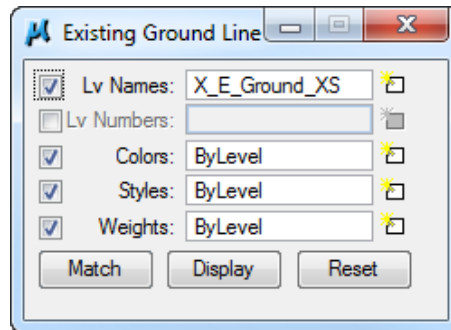


Figure 10.4-7: Existing Ground Symbology

7. Select the Proposed Finish Grade symbology button and select set to allow GEOPAK to trace completely across from the left catch point, over the top of pavement to the right catch point.

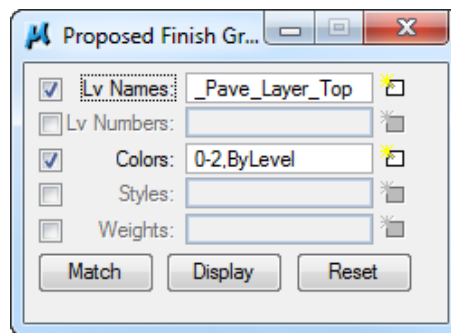


Figure 10.4-8: Proposed Finish Grade Symbology

8. Set Cut slope rounding, Additional Clearing in Cut, and Additional Clearing in Fill to match what is shown in the typical sections. Each project may have different values. Typical values are 3.0 m or 10 ft. for Cut Slope Rounding and the Additional Clearing in Cut and Fill typically are set at 1.0 m or 3 ft.

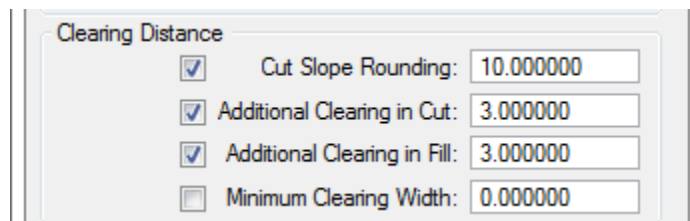


Figure 10.4-9: Clearing Distance Settings

9. Set the Subtotal Stationing to Increment and the value to 500 m or 1000 ft.

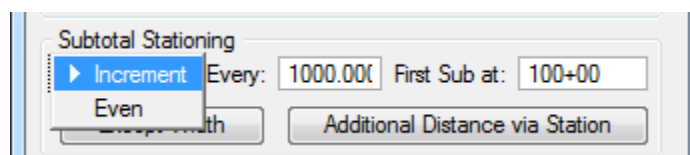


Figure 10.4-10: Subtotal Stationing Settings



The Exception Width can be used to subtract out the existing pavement width. CFLHD typically does not subtract the existing pavement out, but this can be used if needed. Press the Except Width button and fill in the beginning station, ending station, and width, then pick the add button. Close the Exception Width dialog box when complete.

10. Type in the output filename for the Clearing Report, and then select Apply.

**Clearing Report**

Job: 123 Current Station: 116+00.00 R 1

Chain: MAIN

Begin Station: 100+00.00 R 1 100+00.00 R 1

End Station: 116+00.00 R 1 116+00.00 R 1

**Search Criteria**

Existing Ground Line: Display

Proposed Finish Grade: Display

**Clearing Distance**

☒ Cut Slope Rounding: 10.000000

☒ Additional Clearing in Cut: 3.000000

☒ Additional Clearing in Fill: 3.000000

☐ Minimum Clearing Width: 0.000000

**Subtotal Stationing**

Incre Sub Every: 1000.00 First Sub at: 100+00

Except Width Additional Distance via Station

☐ Pause on Each XS

ASCII File: clearing.clr

Apply

Figure 10.4-11: Subtotal Stationing Settings

11. The following output file is produced.

08/31/2015

Project Number  
Road Name  
CLEARING REPORT

Page# 1

CUT SLOPE ROUNDING = 10.0000 Ft  
ADDITIONAL CLEARING IN CUT = 3.0000 Ft  
ADDITIONAL CLEARING IN FILL = 3.0000 Ft  
MINIMUM CLEARING WIDTH = 0.0000 Ft  
SUBTOTALS EVERY 1000.0000 Ft. BEGINNING AT STATION 100+00 METHOD INCR  
ADDITIONAL EXCEPT WIDTH = 0.00 Ft  
ADDITIONAL CLEARING LEFT SIDE = 0.00 Ft  
ADDITIONAL CLEARING RIGHT SIDE = 0.00 Ft

| STATION       | CLEARING<br>LT | DISTANCE<br>RT | EXCEPTION<br>WIDTH | AREA<br>SF | SUBTOTAL<br>SF | AREAS<br>ACRES |
|---------------|----------------|----------------|--------------------|------------|----------------|----------------|
| 100+00.00 R 1 | 44.40          | 20.56          |                    |            | 0              |                |
| 100+50.00 R 1 | 44.65          | 37.48          | 0.00               | 3678       |                |                |
| 101+00.00 R 1 | 45.38          | 27.54          | 0.00               | 3877       |                |                |
| 101+50.00 R 1 | 71.97          | -15.00         | 0.00               | 3248       |                |                |
| 102+00.00 R 1 | 61.04          | -15.00         | 0.00               | 2576       |                |                |
| 102+50.00 R 1 | 45.55          | -15.00         | 0.00               | 1915       |                |                |
| 103+00.00 R 1 | 54.07          | -15.00         | 0.00               | 1741       |                |                |
| 103+50.00 R 1 | 103.78         | 37.59          | 0.00               | 4512       |                |                |
| 104+00.00 R 1 | 105.41         | 30.92          | 0.00               | 6943       |                |                |
| 104+50.00 R 1 | 48.17          | 41.34          | 0.00               | 5647       |                |                |
| 105+00.00 R 1 | 24.50          | 49.00          | 0.00               | 4076       |                |                |
| 105+50.00 R 1 | 32.18          | 28.45          | 0.00               | 3354       |                |                |
| 106+00.00 R 1 | 52.29          | 47.24          | 0.00               | 4005       |                |                |

08/31/2015

Project Number  
Road Name  
CLEARING REPORT

Page# 2

| STATION       | CLEARING<br>LT | DISTANCE<br>RT | EXCEPTION<br>WIDTH | AREA<br>SF | SUBTOTAL<br>SF | AREAS<br>ACRES                 |
|---------------|----------------|----------------|--------------------|------------|----------------|--------------------------------|
| 106+50.00 R 1 | 60.36          | 50.80          | 0.00               | 5268       |                |                                |
| 107+00.00 R 1 | 55.15          | 55.12          | 0.00               | 5536       |                |                                |
| 107+50.00 R 1 | 51.95          | 46.20          | 0.00               | 5211       |                |                                |
| 108+00.00 R 1 | 58.35          | 49.09          | 0.00               | 5140       |                |                                |
| 108+50.00 R 1 | 52.34          | 48.26          | 0.00               | 5201       |                |                                |
| 109+00.00 R 1 | 46.96          | 46.16          | 0.00               | 4843       |                |                                |
| 109+50.00 R 1 | 42.55          | 44.28          | 0.00               | 4499       |                |                                |
| 110+00.00 R 1 | 39.69          | 39.90          | 0.00               | 4161       | 85431          | 1.9612 (ACCUM SF 85431.0000 )  |
| 110+50.00 R 1 | 36.10          | 39.55          | 0.00               | 3881       |                |                                |
| 111+00.00 R 1 | 35.77          | 39.30          | 0.00               | 3768       |                |                                |
| 111+50.00 R 1 | 34.42          | 36.34          | 0.00               | 3646       |                |                                |
| 112+00.00 R 1 | 37.92          | 35.59          | 0.00               | 3607       |                |                                |
| 112+50.00 R 1 | 28.56          | 43.84          | 0.00               | 3648       |                |                                |
| 113+00.00 R 1 | 29.46          | 39.57          | 0.00               | 3536       |                |                                |
| 113+50.00 R 1 | 21.29          | 41.44          | 0.00               | 3295       |                |                                |
| 114+00.00 R 1 | 27.49          | 26.05          | 0.00               | 2907       |                |                                |
| 115+00.00 R 1 | 32.17          | 30.68          | 0.00               | 5820       |                |                                |
| 116+00.00 R 1 | 19.22          | 57.38          | 0.00               | 6973       |                |                                |
| DEDUCTED      | ACRES          | =              | 0.0000             |            | 41081          | 0.9431 (ACCUM SF 126512.0000 ) |
| TOTAL         | SF             | =              | 126512.0000        |            |                |                                |
| TOTAL         | ACRES          | =              | 2.9043             |            |                |                                |

Figure 10.4-12: Clearing Report Output

After the clearing report has been created the clearing limits should then be added to the plan and profile sheets. The clearing limits are the outside limits of disturbance for the contractor.



Recommendations for slope rounding can be found in Chapter 9 of the Project Development Design Manual (PDDM)

12. Open the plan view dgn.

13. Open the D&C Manager and select the Draw Clearing Limits in Plan View from the 3PC folder.

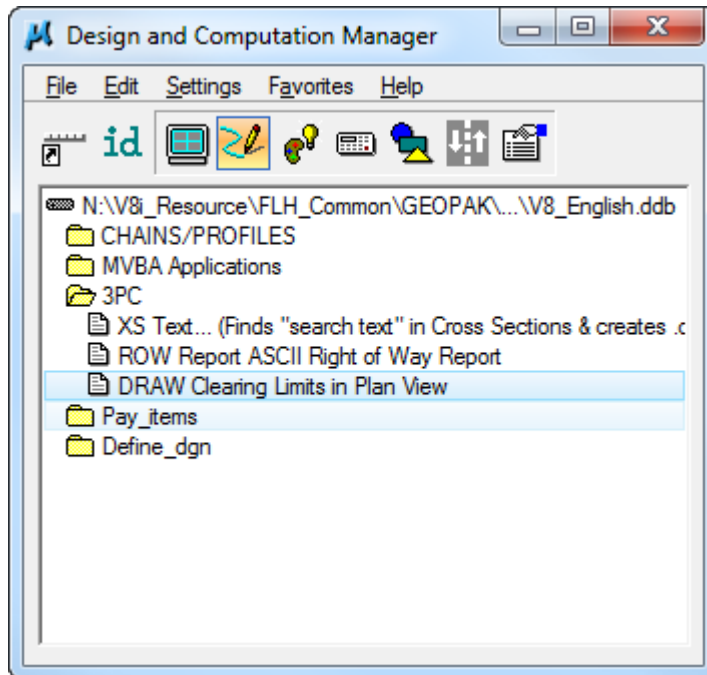


Figure 10.4-13: D&C Manager



Make sure the C:\temp directory exists on the computer and make sure there are no spaces in the file name. They are both necessary to run the 3PC.

14. Select the clearing report created above.

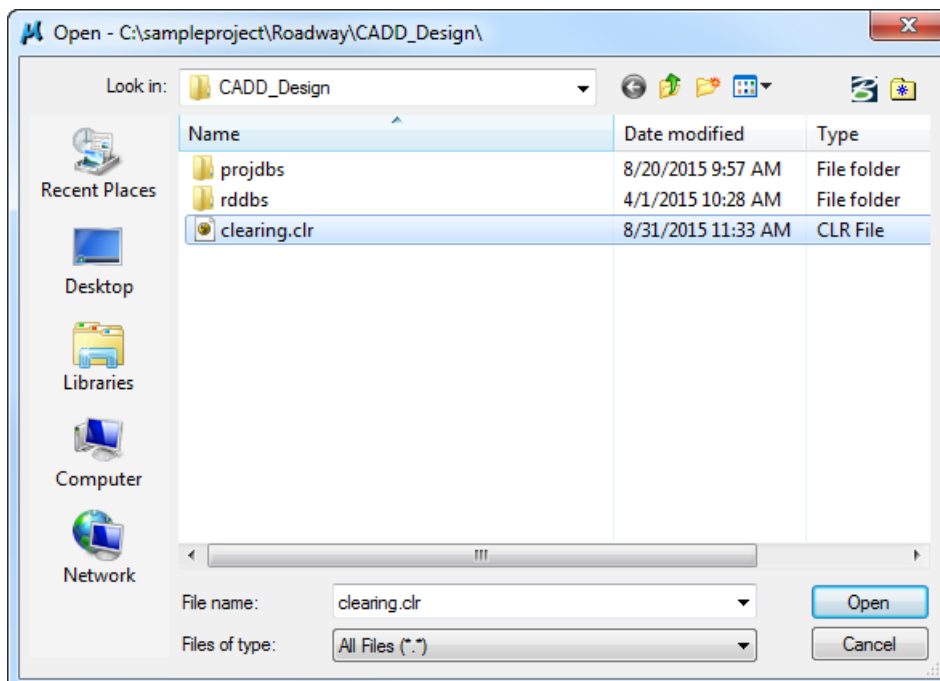
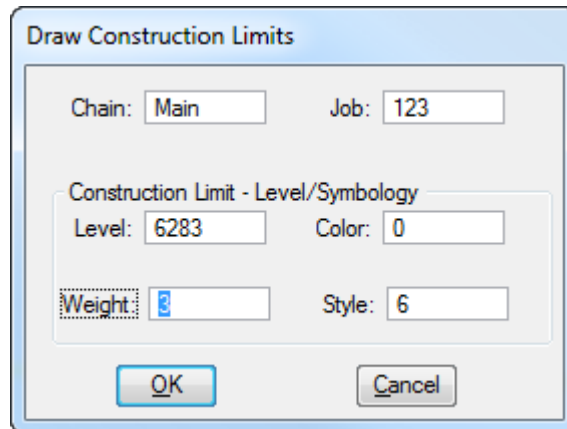


Figure 10.4-14: Clearing Report Selection

15. Type in the Chain, Job number, level symbology.



Draw Construction Limits

Chain:  Job:

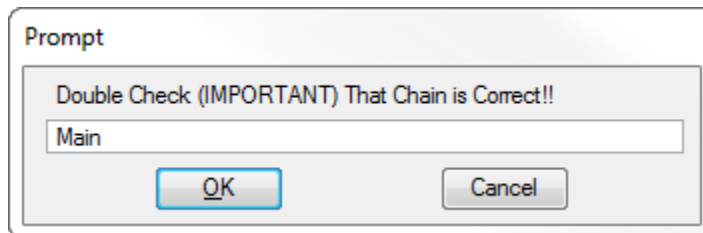
Construction Limit - Level/Symbology

Level:  Color:

Weight:  Style:

Figure 10.4-15: Construction Limits Symbology

16. Verify that the chain name is correct. Change if incorrect. Select OK.



Prompt

Double Check (IMPORTANT) That Chain is Correct!!

Figure 10.4-16: Chain Name Prompt

17. Verify that construction limits were drawn into the plan view file.

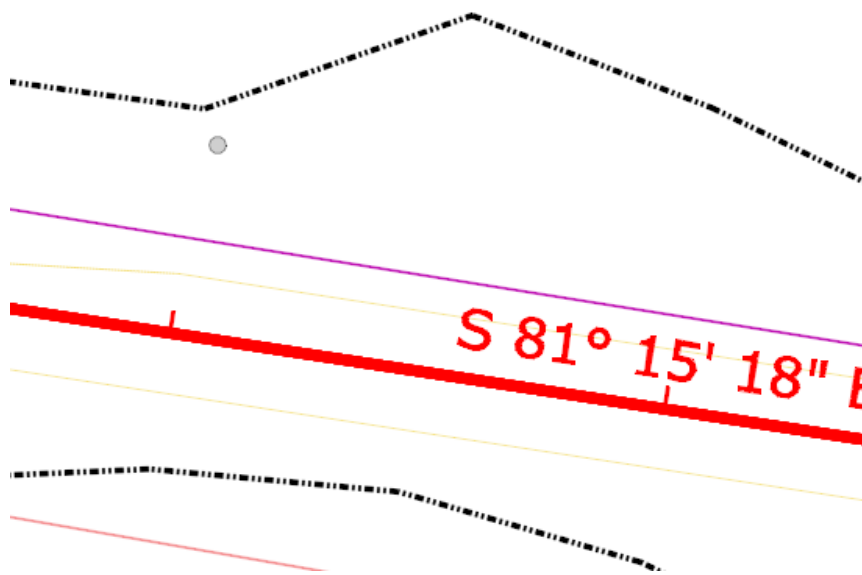


Figure 10.4-17: Construction Limits