



Workflow 4: Calculating “Clearing” Quantities

1. *Open your cross section file and access the XS Reports dialog box. This can be done by selecting the Reports & XS Quantities button in the bottom right hand corner of Project Manager Workflow Dialog Box, or by pressing Applications>GEOPAK ROAD>Cross Sections>Report.*

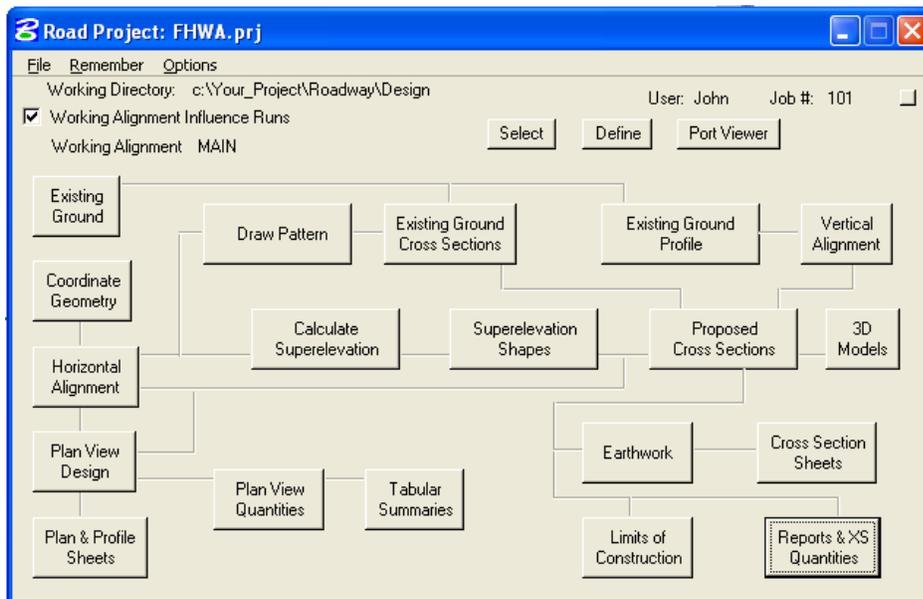


Figure 10-20: Accessing Reports & XS Quantities

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

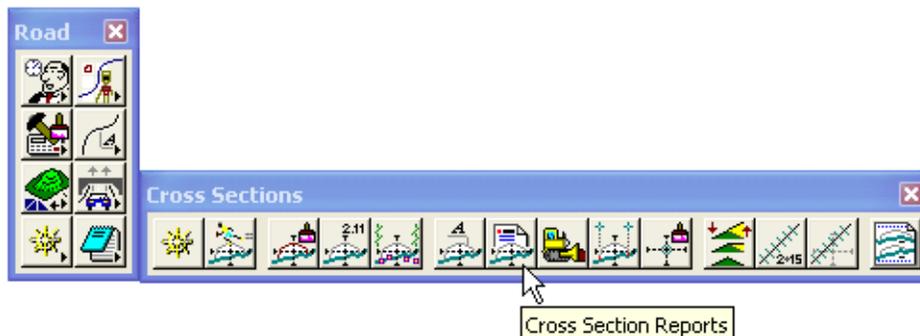


Figure 10-21: Accessing Cross Section Reports Icon



2. This will bring up the following dialog box.

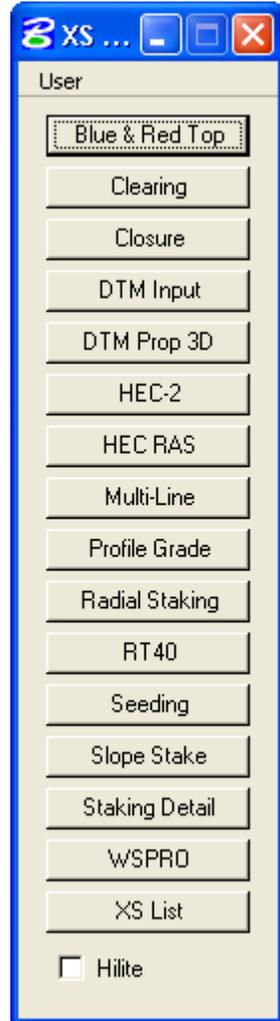


Figure 10-22: Reports Dialog Box

3. Select User>Preferences to bring up the following dialog box.

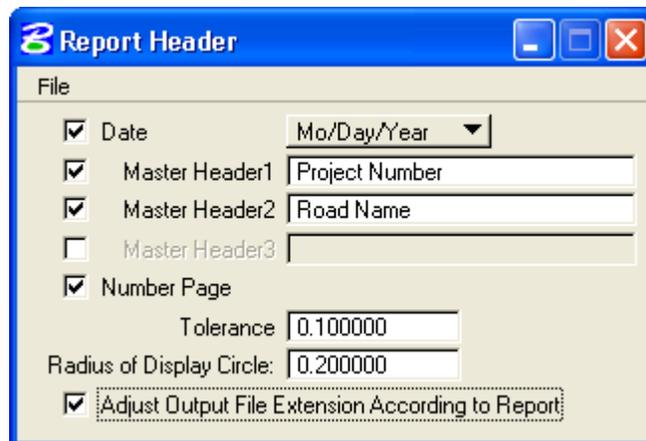


Figure 10-23: Report Settings



4. *This information will be put at the top of the quantity report. Include the Project Number in the Master Header 1 space, and the Road Name in the Master Header 2 space.*
5. *Press the Clearing button in the XS Report dialog box.*



Figure 10-24: Clearing Button

6. *This will bring up the following Clearing Report Dialog box.*

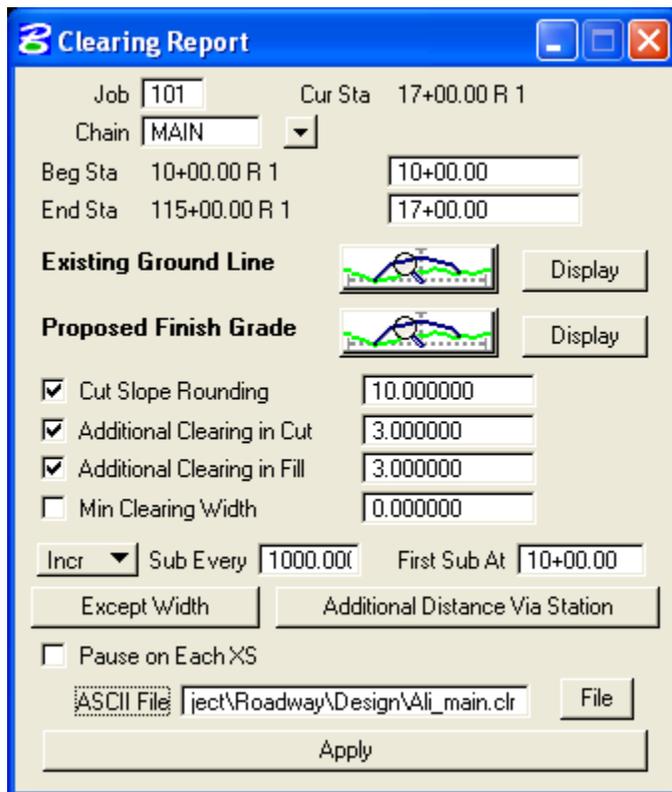


Figure 10-25: Clearing Report Dialog

7. *Make sure you check 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.*



8. The symbology for the Existing Ground should be set as shown below.

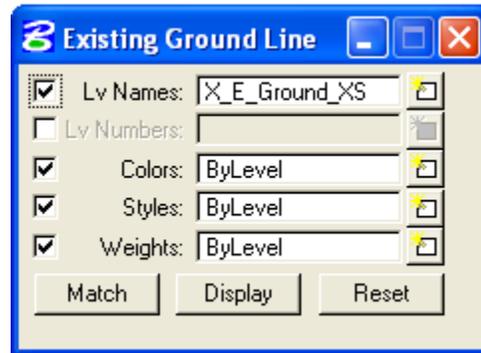


Figure 10-26: Existing Ground Symbology

9. The symbology for the Proposed Ground should allow GEOPAK to trace completely across from the left catch point, over the top of pavement to the right catch point. To choose the selected symbology, pick the symbology button  next to the Proposed Finished Grade.
10. Cut slope rounding, Additional Clearing in Cut, and Additional Clearing in Fill should 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. The increment is set at 500 m or 1000 ft.
11. 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 to get the following dialog box. Fill in the beginning station, ending station, and width, then pick the add button as shown. Close the Exception Width dialog box when complete.

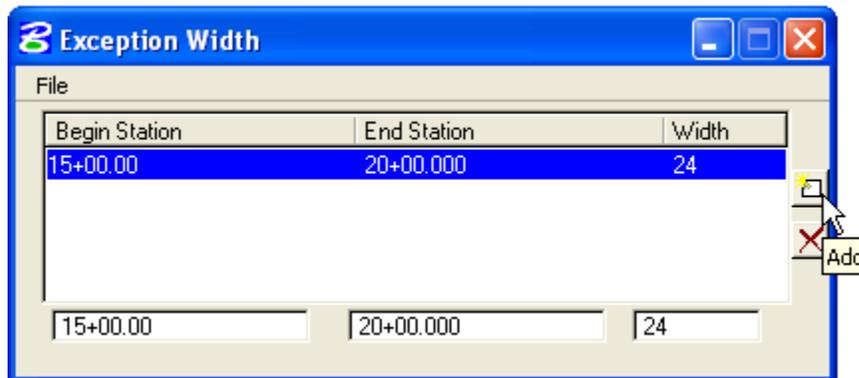


Figure 10-27: Exception Width

12. Type in the output filename for the Clearing Repor, and then select Apply in the Clearing Report Dialog Box. The following output file is produced.



04/25/2006

Project Number
Road Name
CLEARING REPORT

Page# 1

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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 10+00.00 METHOD INCR
ADDITIONAL EXCEPT WIDTH VIA STATION RANGE
15+00.00 TO 20+00.00 = 24.0000 Ft
.....
ADDITIONAL CLEARING LEFT SIDE = 0.00 Ft
ADDITIONAL CLEARING RIGHT SIDE = 0.00 Ft
.....
STATION      CLEARING  DISTANCE  EXCEPTION  AREA  SUBTOTAL  AREAS
              LT      RT          WIDTH     SF      SF      ACRES

11+00.00 R 1  29.14   27.33          0.00   5673         0
12+00.00 R 1  29.20   27.79          0.00   5825      5673  0.1302 (ACCUM SF 5673.0000 )
13+00.00 R 1  31.43   28.07          0.00   5845      5825  0.1337 (ACCUM SF 11498.0000 )
14+00.00 R 1  29.89   27.48          0.00   5845      5845  0.1342 (ACCUM SF 17343.0000 )
15+00.00 R 1  29.13   28.11         24.00   3331      3331  0.0765 (ACCUM SF 20674.0000 )
16+00.00 R 1  32.35   27.83         24.00   3472      3472  0.0797 (ACCUM SF 24146.0000 )
17+00.00 R 1  26.50   28.59         24.00   3364      3364  0.0772 (ACCUM SF 27510.0000 )
DEDUCTED ACRES = 0.1377
TOTAL SF = 27510.0000
TOTAL ACRES = 0.6315

```

Figure 10-28: Clearing Report Output

Workflow 5: Calculating "Seeding" Quantities

1. Follow steps 1 through 3 in workflow 4.
2. Press the Seeding button on the XS Report dialog box. This will bring up the Seeding Report Dialog box.



Figure 10-29: Seeding Button

3. The Proposed Finish Grade elements are the same as the Clearing Report. The Candidate Seeding Element section needs the symbology of the slopes that will be seeded (typically the cut, fill, and ditch foreslope). These are the slopes that will be seeded.



The Max Allowable Slope can vary on each project. This slope will be determined during the project, but for preliminary quantity calculations, you should use 1V:2H as the Max Allowable Slope.

Figure 10-30: Seeding Report Dialog

4. Pick the *Additional Distance* button to bring up the following dialog box.

Figure 10-31: Additional Distance

5. Fill in the appropriate values. They should be the same as the *Cut Slope Rounding* and *Additional clearing in fill* values used in the *Clearing Report*. Select *OK*.
6. Type in the output filename for your *Seeding Report* and then select *Apply* in the *Seeding Report Dialog Box*. *GEOPAK* will produce the following file.



04/25/2006

Project Number
Road Name
SEEDING REPORT

Page# 1

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NUMBER OF LEFT CUT SLOPES TO BE BYPASSED      = 0
NUMBER OF LEFT FILL SLOPES TO BE BYPASSED     = 0
NUMBER OF RIGHT CUT SLOPES TO BE BYPASSED     = 0
NUMBER OF RIGHT FILL SLOPES TO BE BYPASSED    = 0
ROUNDING DISTANCE FROM CUT SLOPE STAKE        = 10.00      Ft
MAXIMUM ALLOWABLE SLOPE FOR SEEDING/SODDING 1.0000 / 2.0000 Rise over Run
ADDITIONAL SEEDING LEFT SIDE                  = 0.00      Ft
ADDITIONAL SEEDING RIGHT SIDE                 = 0.00      Ft
ADDITIONAL SEEDING IN CUT                     = 3.00      Ft
ADDITIONAL SEEDING IN FILL                    = 3.00      Ft
SUBTOTALS EVERY 1000.0000 Ft BEGINNING AT STATION 10+00.00 METHOD INCR
SCALING FACTOR                               = 1.00000   WITH LABEL   [ SF ]
  
```

STATION	SLOPE DISTANCE		AVERAGE SLOPE DIST		A R E A		SF BOTH	SUBTOTAL LT	A R E A		SF BOTH
	LT	RT	LT	RT	LT	RT			RT		
11+00.00 R 1	20.51	16.90						0	0	0	
	(37.41)		26.83	22.42	2683	2242	4925				
12+00.00 R 1	33.14	27.94									
	(61.08)		33.09	22.71	3309	2271	5580				
13+00.00 R 1	33.04	17.48									
	(50.52)		33.03	22.90	3303	2290	5593				
14+00.00 R 1	33.02	28.32									
	(61.34)		31.25	30.40	3125	3040	6165				
15+00.00 R 1	29.48	32.48									
	(61.96)		31.29	29.35	3129	2935	6064				
16+00.00 R 1	33.10	26.22									
	(59.32)		33.14	28.03	3314	2803	6117				
17+00.00 R 1	33.19	29.84						18863	15581	34445	
	(63.03)										
TOTAL	LEFT		RIGHT		BOTH						
SF=	18863.0000		15581.0000		34445.0000						
ACRES=	0.4330		0.3577		0.7907						

Figure 10-32: Seeding Report Output

Related links: Using Knucklehead's Guide for GEOPAK Road 2004 Edition.

[Clearing Notes](#)

[Seeding Notes](#)