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.*
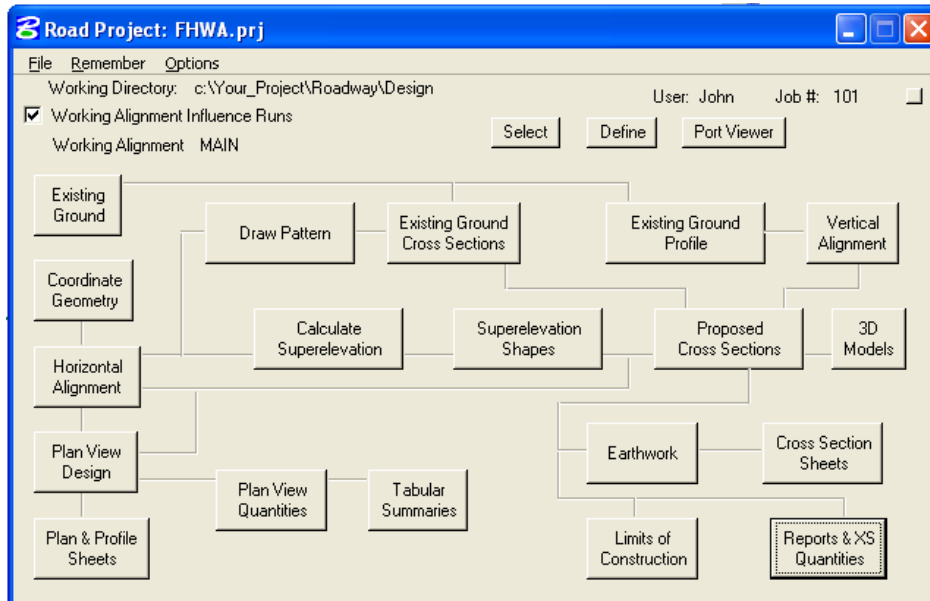

Figure 10-20: Accessing Reports & XS Quantities

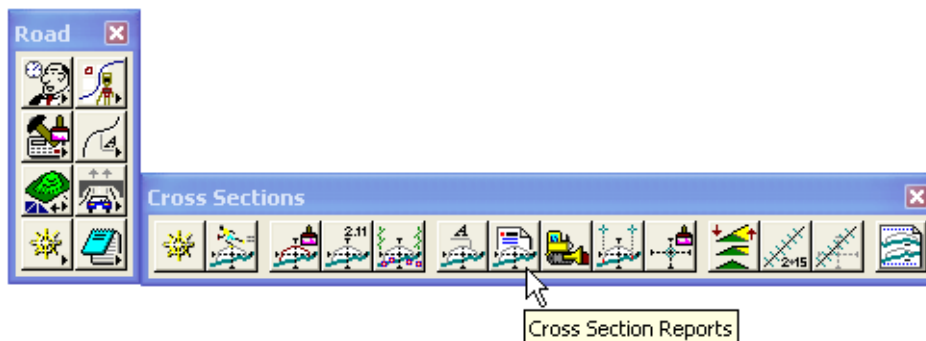*Or by pressing the XS Reports button from the Road Tools Dialog Box.*

Figure 10-21: Accessing Cross Section Reports Icon

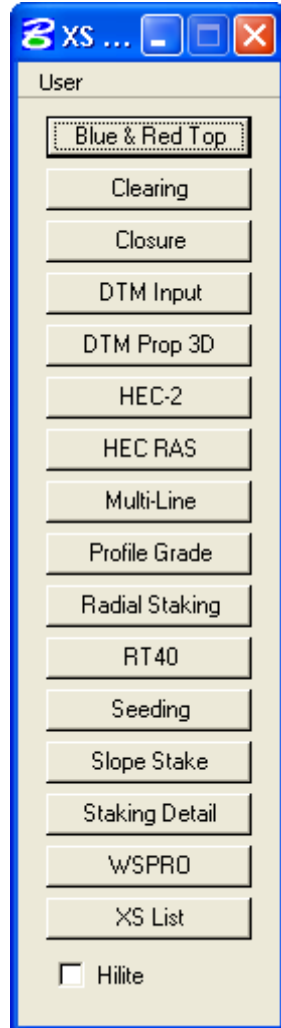2. *This will bring up the following dialog box.*

Figure 10-22: Reports Dialog Box

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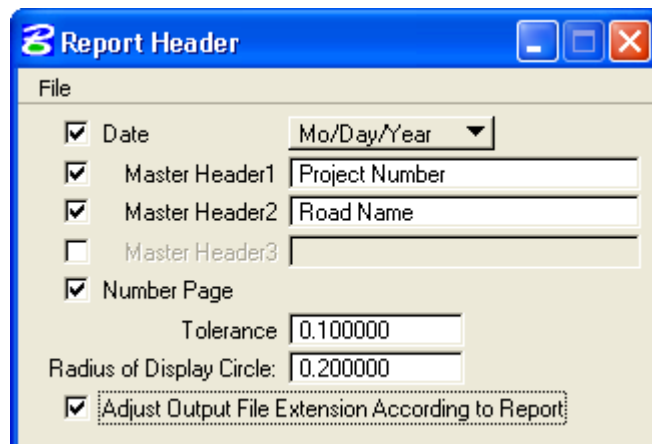

Figure 10-23: Report Settings

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.*
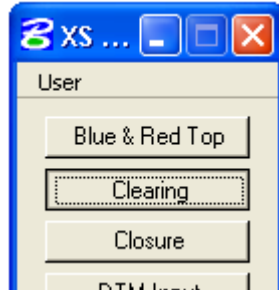
Figure 10-24: Clearing Button

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.
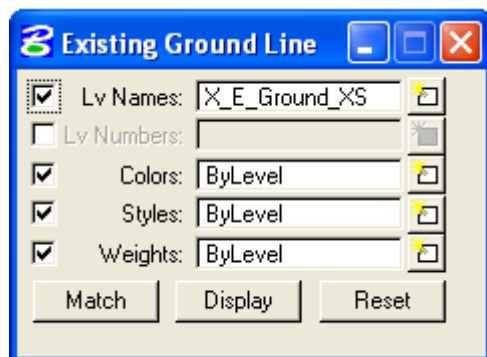
Figure 10-26: Existing Ground Symbology

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 ![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                    Page# 1
                                          Road Name
                                        CLEARING REPORT

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+00.000      = 24.000     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
                                             0.00        5673
  12+00.00 R 1       29.20     27.79                                5673     0.1302   (ACCUM SF 5673.0000   )
                                             0.00        5825
  13+00.00 R 1       31.43     28.07                                5825     0.1337   (ACCUM SF 11498.0000  )
                                             0.00        5845
  14+00.00 R 1       29.89     27.48                                5845     0.1342   (ACCUM SF 17343.0000  )
                                            24.00        3331
  15+00.00 R 1       29.13     28.11                                3331     0.0765   (ACCUM SF 20674.0000  )
                                            24.00        3472
  16+00.00 R 1       32.35     27.83                                3472     0.0797   (ACCUM SF 24146.0000  )
                                            24.00        3364
  17+00.00 R 1       26.50     28.59                                3364     0.0772   (ACCUM SF 27510.0000  )
DEDUCTED     ACRES  =        0.1377
TOTAL        SF     =    27510.0000
TOTAL        ACRES  =        0.6315
```
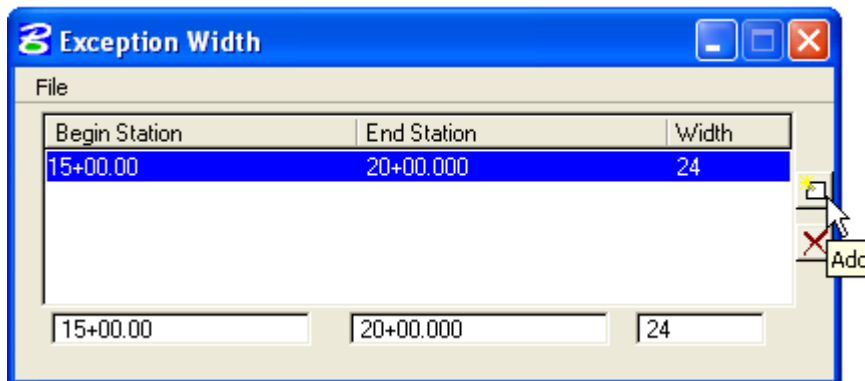
Figure 10-28: Clearing Report Output

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.*
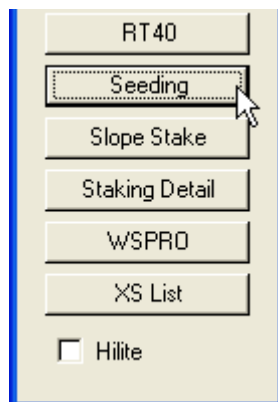

Figure 10-29: Seeding Button

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                                    Page# 1
                                                 Road Name
                                               SEEDING REPORT

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    SUBTOTAL  A R E A    SF
                    LT      RT      LT      RT         LT      RT      BOTH    LT        RT      BOTH
                      (TOTAL)


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](#)