FHWA TNM 2.1 Release Notes:

Dear TNM users,

A new upgrade, TNM Version 2.1, is now available. This new version includes the
following:

Expanded menu/screen navigation options:
    (1) Hide Rows function now fully operational.
    (2) Directional arrow keys now fully active for panning views in Barrier
        Design.
    (3) Clicking on a background window will bring it to the foreground.

Error messages added/updated:
    (1) Hard drives 2.1 GB and greater in size no longer generate an "out of
        space" error.
    (2) When a user enters a noise reduction coefficient (NRC) greater than 0.95
        for the default value for barrier surfaces, a dialog box pops up "NRC
        must be within range 0.00 to 0.95." When entering an NRC value directly
        in a cell for a specific barrier segment, the value will be limited to
        the range of 0.00 to 0.95.

Calculations updated:
    (1) Function added to better handle non-intersecting objects in close
        proximity, which reduces the occurrence of "invalidated" receivers.
    (2) When importing Stamina files, TNM now fully supports shielding factors.
    (3) Dollar amounts are now rounded to the nearest whole dollar.
    (4) Barrier Design Table now includes "additional cost" values when
        calculating "Total Cost, All Barriers".
    (5) Calculations for L_{dn} and L_{den} have been modified to incorporate accurate
        numbers of hours. The calculations for L_{dn} and L_{den} in TNM Version 2.0 and
        all previous versions assumed the entered ADT value was split evenly
        between day and night for L_{dn} and day, evening, and night for L_{den}.
        Because the calculations were not accounting for the different number of
        hours included in day, evening, and night, erroneously high sound levels
        were being calculated for L_{dn} and L_{den}.
    (6) In the Barrier Design Table, when "Height" is perturbed, related values
        are dynamically calculated.

Inputs updated:
    (1) Input for the Adjustment Factors in the Receivers Input Dialog Box has
        been redesigned. This was done to clarify some confusion with the
        previous version of the input, remove unnecessary portions, and make the
        overall use of adjustment factors easier. The redesign includes:
            (a) <Select> function removed. All adjustment factor assignments must
                be done using the <edit> function.
            (b) Two fields have been removed from the top: "Default Receiver
                Settings" and "Assigned Adj. Factor (dB)."
            (c) The "Assigned Factor" column has been removed. Values in this
                column were used only as defaults when entering the <edit>
                function, not as assigned adjustment factors.
            (d) In conformance with standard Windows operations, the Shift key has
                been enabled for selecting a group of inputs, and the Control key
                is enabled for selecting multiple inputs.
            (e) The "Clear All" button has been removed to avoid confusion and
                miscomprehension about which assignment factors are being removed.

Keep in mind that assigned adjustment factor values must be removed before re-assigning a value.
(f) In the Adjustment Factors input box, text has been added to the top to give guidance on adjustment factor functionality: "Adjustment factors are applied to individual roadway segments in TNM. To assign a single adjustment factor to a receiver, assign the adjustment factor to all roadways, all segments. Use the Shift key to select multiple segments of roadway."
(g) The "Roadway Name" column has been widened.

Table displays updated:
(1) A "calculated with" current version number stamp now appears in all results tables.
(2) For the Adjustment Factors Input Table, the "Default Adj. Factors" column has been removed.
(3) In the Barrier Descriptions Table, values over $500,000 are now displayed properly.
(4) The Barrier Design Table has been updated and simplified:
    (a) The "Total Cost, All Barriers" graphic now reads "Total Cost, All Barriers (including additional cost(s))."
    (b) The "Cost (Barrier + Miscellaneous Other)/DU Benefited" field has been removed. Under certain conditions, this value was improperly calculated in previous versions. In order to properly calculate this value, divide the Total Cost in the Barrier Design Table by "Dwelling Units – All that meet NR goal" in the Sound Level Results Table.
    (c) The "Total Cost, All Barriers" column is widened to display the dollar sign on amounts over one million dollars.
    (d) The "Important Segments" field gives both the barrier segment name and number.
(5) In the Barrier Input Table, column widths have been resized to allow all fields to be displayed without horizontal scrolling.

* Other items updated
(1) The status bar has been redesigned and enlarged.
(2) In Barrier Input Dialog Box -> Reflections, changing the NRC invalidates sound level results.
(3) Changing names and notes no longer invalidates sound level results. Names and notes are now dynamically linked and appear as their current names in the tables.
(4) In the Barrier Design Table, the Total Cost, All Barriers field is dynamically updated if the Cost in the barrier input dialog box is changed.
(5) The Adjustment Factors dialog box is now dynamically linked to the Receiver Adjustment Factors Table.
(6) In menu -> Input, the "Adjustment Factors" option has been removed to avoid confusion (Refer to Adjustment Factor text in the *Inputs updated* category.).

Additional Notes
(1) Hidden rows become unhidden after printing with File -> Print. This does not occur when using Tables -> Print Tables.
(2) Clicking the green bar on the bottom of input dialog box or input tabs will not bring a background window to the foreground.

Installation Instructions

This update is a self-installing executable and requires TNM 2.0 installed.

    (1) Download the TNM Version 2.1 Update file at
           http://www.trafficnoisemodel.org/downloads/Tnm210Update.exe

    (2) Copy the Update file into your TNM 2.0 directory.

    (3) Double click on the Update file and follow the onscreen instructions.