

Guidelines for using **The Wizard**
Part A: Main Wizard

Step One: Log onto this website;

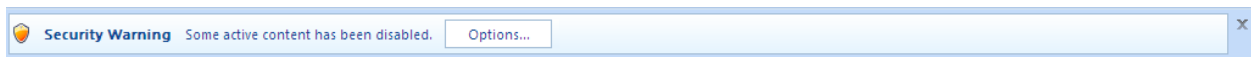
<http://www.nevadadot.com/divisions/802/programdevelopment/default.asp>

Step Two: Click “Download link for Project Estimation **Wizard**”

Step Three: Click “Open,” and window will open full of excel files and PDFs

Step Four: Open the excel sheet labeled “Estimate 6 1 10.xls”

Step Five: When Excel opens there will be a Security Warning toolbar located under the Clipboard, font, alignment, and number toolbar. (This is for 2007 Version it may look different in other versions)



Press the “Options...” button

A window will pop up, in this window under the macro section select “Enable this content” circle and then press “OK” (This will need to be done every time the work sheet is opened)

A warning will pop up. Press “Ok.”

Step Six: Fill in the Project Estimate Information

Note: When the “**Note**” checkboxes are checked they provide additional information about the question they are next to. The questions with checkboxes are labeled below.

- a. Estimate prepared by (user's name): Insert name here.
- b. Date of initial estimate: The start date of the estimate.
- c. Date of latest estimate revision (this estimate): The date of the latest change in the estimate.
- d. Date of Design Start: Design must start a year and half to two years before construction.
If exact date is unknown use January 1st
- e. Date of Construction Start: The date of when construction is planned to start.
If exact date is unknown use January 1st
- f. Level of estimate development:
 - 1) Conceptual/ RTIP (Regional Transportation Improvement Program)
Basic overview, an idea of what will happen

- 2) STIP (State Transportation Improvement Program)
State instead of Regional
- 3) Scoping/3R Estimates (Rehabilitation, Resurfacing, Restoration)
Quick estimate for front office

g. Route name or number: Name of route/road that will be worked on

h. Project Title: Name of project

i. Project length (miles): From start of project to end of project.

j. District? (**Note**) One of the three in Nevada, this will greatly affect the price of the estimate due to the varying prices in the state.

k. Predominant County: County that the project is in.

l. Is this project located in an Urban or Rural area? (**Note**) Choose Urban or Rural

m. NDOT Project Manager: State the name of the project manager of the project.

n. Is location in mountainous or rocky terrain? (**Note**) Choose Yes or No

Step Seven: Fill in the Section I: Roadway Construction

1- What Primary Type of Project is this?

New Roadway Construction-No previous existing roadway

Preservation- 3Rs, having to do with cold mill and cold recycle

Enhancement/ Betterment – Usually a City/Tribe/etc. is usually more of an aesthetic/accessory type of project

Roundabout- Implementation of a roundabout

Road Safety Audit- Research of a problem area

2- Will the predominant paving type be concrete or asphalt? (**Note**) Choose Concrete or Asphalt

3- Will the drainage be primarily an open or closed system? (**Note**) Choose Open or Closed

Step Eight: Once the above is filled in, press the “After answering all 3 questions, press here to go to the Primary Type Project and enter the typical section lengths” button to take you to Section I: Roadway construction in the estimate spreadsheet.

Note: The **BLUE** cells are the one that can and should be changed.

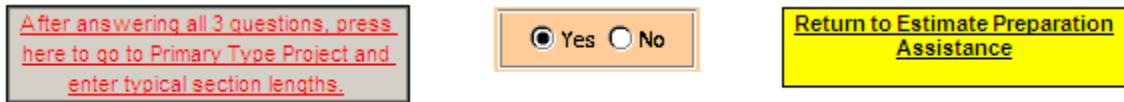
Once in the detail estimate sheet select one of the following different options for the first section; New Roadway Construction, Roadway Widening, Roadway Resurfacing. Also make sure you are under the right section as far as open/closed and concrete/asphalt goes. Once you have decided which one pertains to your project, fill in the appropriate boxes such as length, depth and number of lanes, for your project.

NEW ROADWAY CONSTRUCTION				
OPEN DRAINAGE				
ASPHALT PAVEMENT				

Example of section heading

When done inputting information into section I then you can press the **YELLOW** “Return to Estimate Preparation Assistance” button, located in the upper right hand corner of the screen. This will take you back to the first sheet, Estimate Preparation Assistance.

Note: You can move from sheet to sheet with the buttons provided. The **Wizard** is designed so you can move back and forth to the Estimate sheet for the next step and Estimate Preparation Assistance for the next question.



Examples of buttons

Step Nine: Scroll down to Section IA- Roadway Construction, Cont’d. The next question will ask you “Have you input all applicable typical sections on the estimates page?” Depending on the answer the sheet will navigate you to the next step.

YES: It will move you down to Section II- Grade Separations, where you can continue to answer questions about the project.

NO: You will need to fill in the available boxes for explanation.

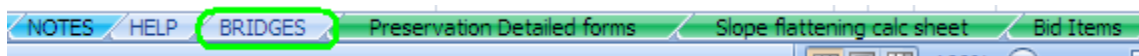
* Should be **noted** that all the setting are set to “Yes” as the default answer. If for your project the answer is yes, you should still check “yes” because it is a button that will take you to the necessary sheet to complete the estimate.

Step Ten: Section II- Grade Separations (Bridges) is the next step in the **Wizard** process. Once again select the button corresponding to the question, “Are there any bridges on this project?”

YES: Will take you to Section II- Grade Separations in the estimate worksheet where you can continue to answer questions about the project. In the appropriate subdivision (divided/undivided rural crossing, new divided/ undivided urban crossing with walls, etc) of the bridge section, fill in the quantities such as length, width, and height for the project. Once done press the **YELLOW** “Return to Estimate Preparation Assistance”

NO: It will move you down to Section III-Walls, where you can continue to answer questions about the project.

Note: For help deciding unknown bridge dimensions, there is “Bridge” tab at the bottom of the screen



The Bridge Dimension Help Tab

Step 11: Section III-Walls is the next step in the estimating process. Once again select the button corresponding to the question, “Are there any walls on this project?”

YES: Will take you to Section III-Walls in the estimate worksheet where you can continue to answer questions about the project. There are three kinds of walls to pick from including; mechanically stabilized earth, sound walls, and temporary walls. Select one and fill in the quantities for the project.

NO: It will move you down to Section IV-Typical Interchanges, where you can continue to answer questions about the project.

Wizard

Step 12: Section IV- Typical Interchanges is the next step in the **Wizard** process. Once again select the button corresponding to the question, “Are there any interchanges in this project?”

YES: Will take you to Section IV- Typical Interchanges in the estimate worksheet where you can continue to answer questions about the project. Select the type of interchange and fill in the quantities for the project.

NO: It will move you down to Section V- Signalized Interchanges, where you can continue to answer questions about the project.

Step 13: Section V- Signalized Interchanges is the next step in the estimating process. Once again select the button corresponding to the question, “Are there any signalized interchanges?”

YES: Will take you to Section V- Signalized Interchanges in the estimate worksheet where you can continue to answer questions about the project. Depending on the configuration/layout of the signals will determine the number of sections you need to fill out. For example, if you have a six lane main line and two crossroads that are both two lanes each then you would only have to fill in one section. The boxes reading down would be 6, 2, and 2. If you had a one lane crossroad and a two lane crossroad you would have to have two section and the boxes reading down would be; intersection one 6, 1, and 1 then intersection two 6, 2, and 1(for a 6 lane main road).

WRITE INTERSECTION DESCRIPTION HERE		
NUMBER OF LANES - ROADWAY 1	6	LN
NUMBER OF LANES - ROADWAY 2	2	LN
NUMBER OF SIGNALIZED INTERSECTIONS OF THIS CONFIGURATION	2	EA

Example 1

WRITE INTERSECTION DESCRIPTION HERE		
NUMBER OF LANES - ROADWAY 1	6	LN
NUMBER OF LANES - ROADWAY 2	2	LN
NUMBER OF SIGNALIZED INTERSECTIONS OF THIS CONFIGURATION	1	EA
WRITE INTERSECTION DESCRIPTION HERE		
NUMBER OF LANES - ROADWAY 1	6	LN
NUMBER OF LANES - ROADWAY 2	5	LN
NUMBER OF SIGNALIZED INTERSECTIONS OF THIS CONFIGURATION	1	EA

Example 2

NO: It will move you down to Section VI-Demolition, where you can continue to answer questions about the project.

Wizard

Step 14: Section VI-Demolition is the next step in the **Wizard** process. Once again select the button corresponding to the question, “Is there any Demolition?”

YES: Will take you to Section VI-Demolition in the estimate worksheet where you can continue to answer questions about the project. Select from the available choices and fill in the quantities for the project (Additional demolition items, which are not listed in the **BLUE** rows, can be added at the bottom of the section VI).

NO: It will move you down to Section VII-Additional Items, where you can continue to answer questions about the project.

Step 15: Section VII-Additional Items is the next step in the estimating process. Once again select the button corresponding to the question, “Are you ready to review and input additional items?” There is only one button for this section, “**Go To INPUT ADDITIONAL ITEMS.**” This button will take you to Section VII-Additional Items in the estimate worksheet where you can continue to answer questions about the project. Please **note** that you should fill in any items not already covered previously in the worksheet. If **unsure** check the “Default Factor Percentage” at the top of Section VII in the Estimate Spreadsheet. There is a **YELLOW** button “CLICK HERE FOR THE SUGGESTED DEFAULT FACTOR PERCENTAGES” which will provide you with guidelines on which percentage to choose. Press the **YELLOW** “RETURN TO ESTIAMTE PAGE” when done.

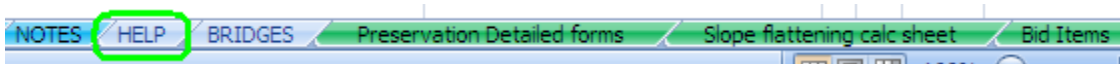
CLICK HERE FOR SUGGESTED DEFAULT FACTOR PERCENTAGES

Button 1

RETURN TO ESTIMATE PAGE

Button 2

Note: There is also a tab labeled “Help” at the bottom of screen that will take you to the percentages as well.



The Percentages Help Tab

Step 16: Section VIII-Standard Percentages (**Note**) is the next step in the **Wizard** process. Once again select the button corresponding to the question, “Are you ready to review the Standard Percentage Adders?”

There is only one button for this section, “**Go To STANARD PERCENTAGES ADDERS.**” This button will take you to Section VIII-Standard Percentages in the estimate worksheet where you can continue to answer questions about the project. If unsure about the quantities to put check the percentages by pressing the **YELLOW** button “CLICK HERE FOR ADDER PERCENTAGES GUIDELINES” located at the top of Section VIII in the Estimate Spreadsheet. This button will provide you with guidelines on which percentages to choose. Press the **YELLOW** “RETURN TO ESTIAMTE PAGE” when done.

CLICK HERE FOR ADDER PERCENTAGE GUIDELINES

Button 1

RETURN TO ESTIMATE PAGE

Button 2

Note: Be sure that if there is a change to the standard percentages outside the range provided that you describe the reasoning in the space provided on the Estimate Preparation Assistance sheet.

After adjusting the percentages scroll down in the estimate spread sheet, to the Total Present Day Construction Cost. There is a year written in a **BLUE** writing with **RED** box, which needs to be changed to the year when construction is planned to start.

TOTAL PRESENT DAY CONSTRUCTION COST		\$137,334,355
CONSTRUCTION ESCALATION TO YEAR - (projected start year)	2015	14.74% \$20,243,084

Year Box to Change

If you keep scrolling there is another year box that need to be changed to the year construction is planned to begin. This box is under total Construction Cost to Escalated.

TOTAL CONSTRUCTION COST ESCALATED TO.....	2015	\$157,577,439
PRELIMINARY ENGINEERING (PRESENT DAY COST)	3.0%	\$4,120,031
PRELIMINARY R/W ENGINEERING (PRESENT DAY COST)	\$5,000	\$5,000
FINAL ENGINEERING (PRESENT DAY COST)	7.0%	\$9,613,405
ENVIRONMENTAL ASSESSMENT (PRESENT DAY COST)	0.2%	\$274,669
ADMINISTRATION (PRESENT DAY COST)	1.0%	\$1,373,344
LEGAL (PRESENT DAY COST)	1.0%	\$1,373,344
TRIBAL EMPLOYMENT RIGHTS ORDINANCE (TERO) (PRESENT DAY COST - 0%-3%)	1.0%	\$1,373,344
ENGINEERING AND ADMINISTRATION ESCALATION TO YEAR	2015	14.74% \$2,470,393
TOTAL ENGINEERING / ADMINISTRATION / LEGAL COSTS (ESCALATED)		\$20,603,528

Year Box to Change 2

Step 17: Section IX- Right-Of-Way (ROW) Acquisition is the next step in the estimating process. Once again select the button corresponding to the question, “Will there be Right-Of-Way Acquisition Cost?”

YES: Will take you to Section IX- Right-Of-Way (ROW) Acquisition in the estimate worksheet where you can continue to answer questions about the project. Fill in the quantities and the unit price for the project. Change the year box to at least a year before construction is due to start so that there is enough time to acquire the Right-Of-Way. Example: if construction is set for 2015 then the Right-Of-Way year should be at least 2014.

NO: It will move you down to Section X-Environmental Considerations, where you can continue to answer questions about the project.

Wizard

Step 18: Section X-Environmental Considerations is the next step in the **Wizard** process. Once again select the button corresponding to the question, “Will there be Environmental Consideration costs?”

YES: Will take you to Section X-Environmental Considerations in the estimate worksheet where you can continue to answer questions about the project. Fill in the percentage quantities for the project. If unsure about the quantities to put check the percentages by pressing the **YELLOW** button “CLICK HERE FOR ADDER PERCENTAGES GUIDELINES” located at the top of Section VIII in the Estimate Spreadsheet.

This button will provide you with guidelines on which percentages to choose. Press the **YELLOW** “RETURN TO ESTIAMTE PAGE” when done. Change the year box to at least a year before construction is

due to start so that there is enough time to accomplish the study. Example: if construction is set for 2015 then the Environmental consideration year should be at least 2014.

NO: It will move you down to Estimates Basis, Assumptions and Exclusions, where you can continue to answer questions about the project.

Step 19: Estimates Basis, Assumptions and Exclusions (**Notes**) is the next step in the estimating process. Once again select the button corresponding to the comments, "Please list any assumptions made in preparing the estimate" and "Please list any exclusions made in preparing the estimate." If either of these applies to your project then write the appropriate comments in the available boxes.

Note: The boxes are not connected so once one is full move to the one beneath it.

Step 20: After you had completed the comments scroll down and answer the next comment; "Please provide a written project scope description." There are 4 lines provided for you to do so.

Note: The boxes are not connected so once one is full move to the next one beneath.

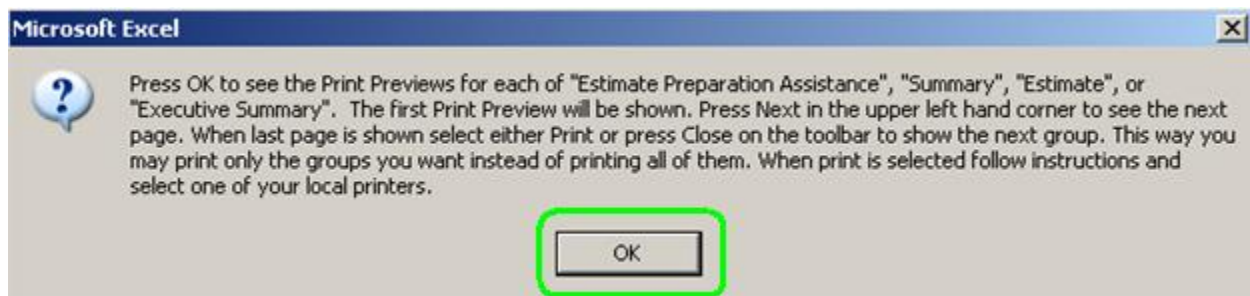
Next it asks "Do you want to review the estimate input sheet? If so press the icon." There will be a button that says "**Go To ESTIMATE PROBABLE CONSTRUCTION COST**" which will take you to the beginning for the Estimate spreadsheet.

Note: If you have a maintenance or 3R project you are not done and must continue one to **Part B: Maintenance** or to **Part C: 3R**

Step 21: The last question is "Are you ready to print?" (The following steps/pictures are for version 2007 of Excel)

YES:

A window will appear telling you that the documents will come up in the print preview screens. Press "OK".

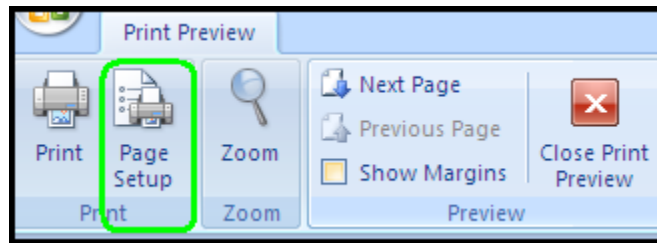


Print Preview Notice

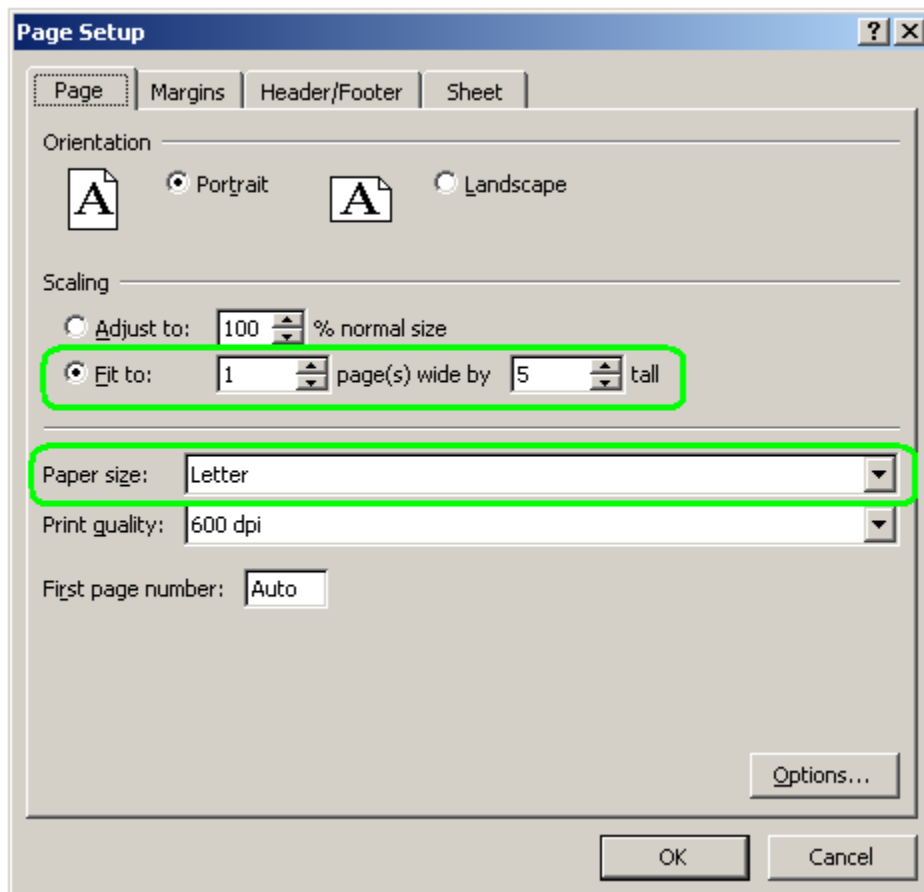
The first section is the Estimate Preparation Assistance.
(The words in **Purple** and *italic* have picture examples below to help you navigate through the printing process)

If you would like to print this section of documentation:

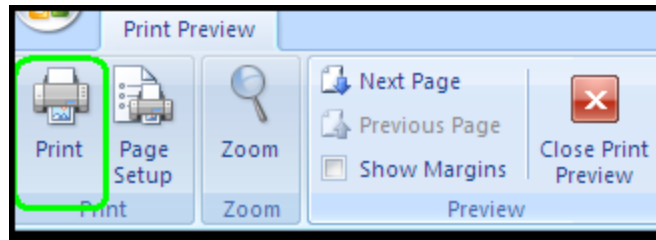
Go to the *page setup button* in the upper left hand corner of the screen. Once the *page setup window* appears, change the scaling “Fit To” **1** page(s) wide by **5** tall. After setting the scaling make sure the page size still says **Letter**. Then press “OK.” The window will close and the print preview page will still be up. Press the *Print button* in the upper left hand corner and the print preview page will close and the *Print window* will open. In the print box check to make sure that the printer is correct and then press “OK.”



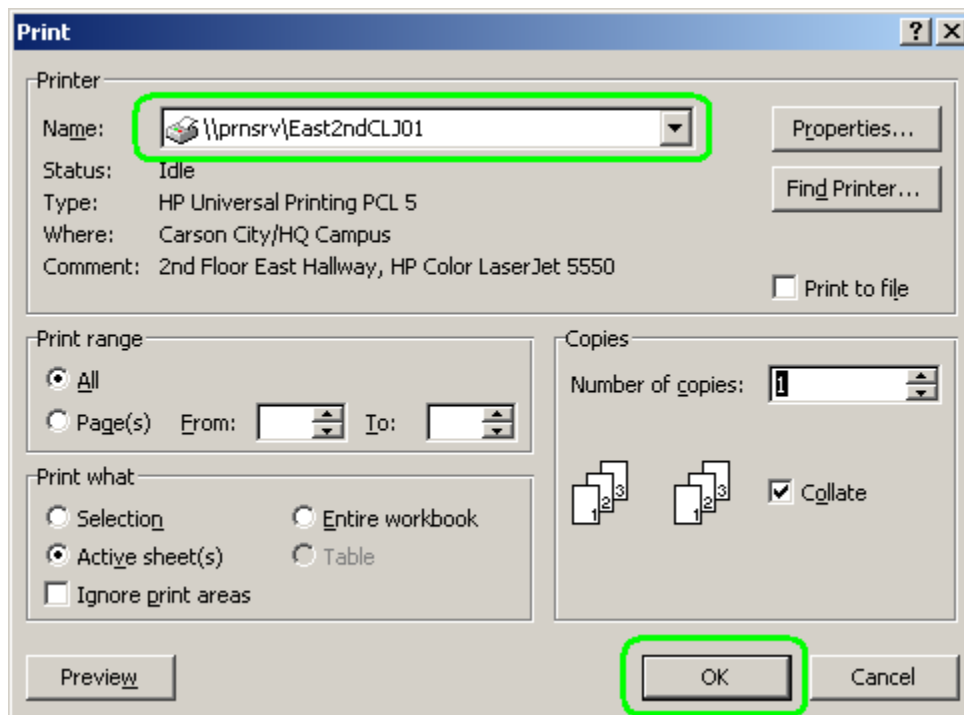
Page Setup Button



Page Setup Window

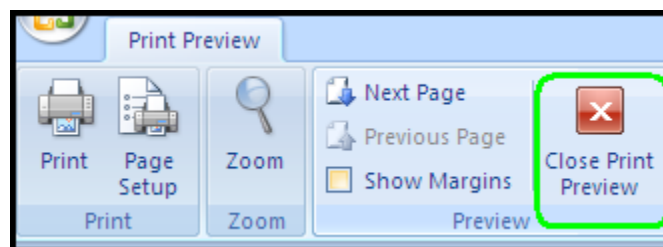


Print Button



Print Window

If you would not like to print this section of documentation:
Press the *Close print preview button* in the upper left corner.



Close Print Preview Button

The next section of documentation that will automatically materialize is the Summary section. Follow the same steps as before only if you do choose to print you will need to change the scaling in the page setup window to "Fit To" **1** page(s) wide by **1** tall. After setting the scaling make sure the page size still says **Letter**. Then press "OK."

After completing the steps for Printing/Not printing the Summary section the Estimate Probable Construction section will appear. Follow the same steps as before only if you do choose to print you will need to change the scaling in the page setup window to “Fit To” **1** page(s) wide by **8** tall. After setting the scaling make sure the page size still says **Letter**. Then press “OK.”

After completing the steps for Printing/Not printing the Estimate Probable Construction section the Executive Summary section will appear. Follow the same steps as before only if you do choose to print you will need to change the scaling in the page setup window to “Fit To” **1** page(s) wide by **1** tall.

After setting the scaling make sure the page size still says **Letter**. Then press “OK.”

Once this window closes you will be back at the initial **Wizard** screen, go pick up your pages from the printer and you will be done. Remember there is more to the Wizard if the project has Maintenance or 3R components.