Field Data Collection System

Training Manual

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1 REVISION HISTORY

Date	Revision Number	By	CRF	Section	Description
3/3/03	3.31	Roger Pruitt	XX	All	Version update
2/26/04	4.0	Cora Sharp	XX	All	Version update

1.1 List of Changes in the Field Data Collection System (FDCS) Version 4

1.1.1 System:

- Add FDCS Manual FDCS Manual FDCS Manual FDCS Manual Button to main page.
- Web Upload Process to replace the BBS Upload.
- New Backup System. Backup/restore selected records user user-specified criteria with the option of overwriting or appending to existing records. It also recognizes duplicate records and only backup/restore the latest ones.

1.1.2 Asphalt:

- Customize AC Correction Factor and Temperature Correction Factor for each sample in 159 report.
- Asphalt Rating Report: New Summary and Detail Reports
- Corrected Report 150 cursor bug. Cursor pointed to second record even when it should point to the last record.
- Add date range to Asphalt Plant Summary Report.
- Add input fields for daily tonnage in 159 report.
- Add rating time period to Asphalt Plant Rating Report.
- Disable Average % Deviation Fields on Report 159 Samples.
- Add Lots Summary Report for DOT159. This can be used to check for Lots without Compaction.
- Add Contract ID as search field for DOT150.
- Connect Data Information between DOT159 and DOT150.
- Add Contract ID in the Find DOT150.

1.1.3 Aggregate:

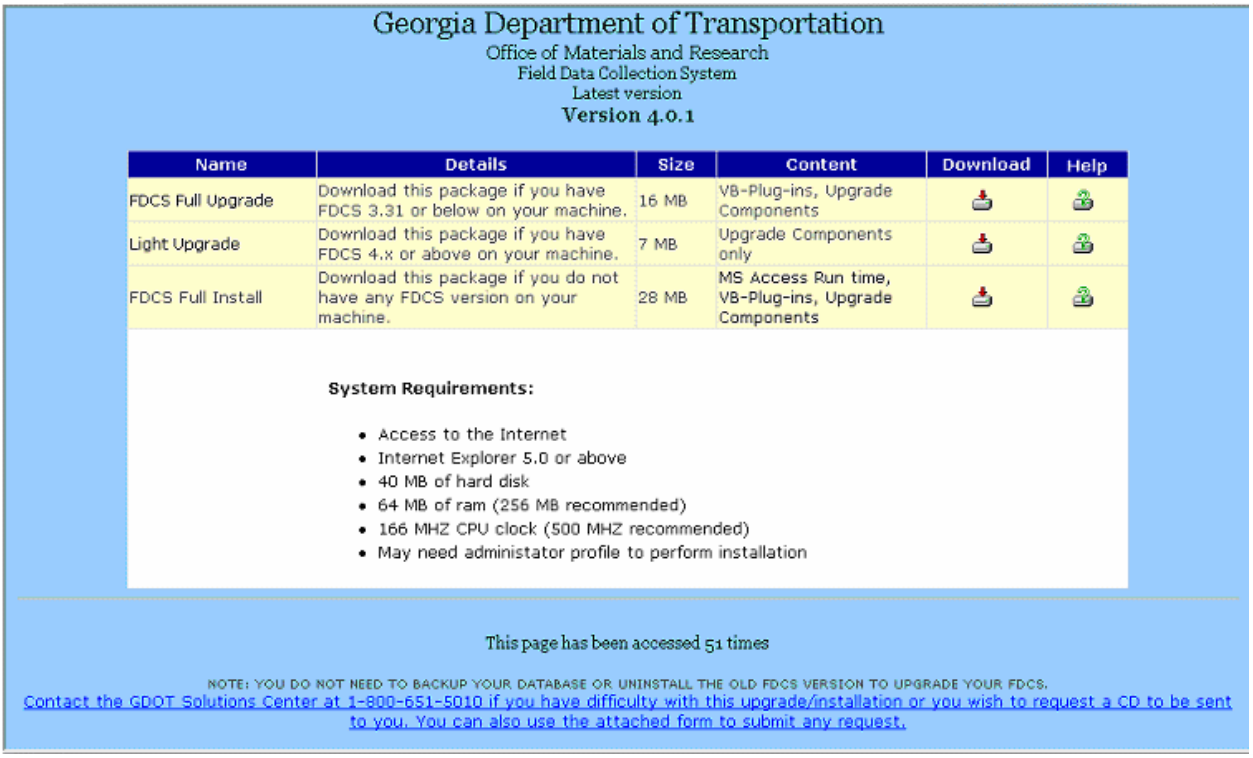
- Aggregate Grouping: Move source 067C, 031C, and 112C to class II.
- Add Verified button to DOT 640 to verify the entire block. Add Plant Code grouping.
- Exclude Aggregate Quality Control Blended Sources ("B".) in Aggregate Rating report.
- Correct Sieves order for Aggregate Report.
- Check for Empty Used In Codes in DOT640.

1.1.4 Miscellaneous:

- Add the Contractor Code to DOT553.
- Gauge Calibration: Add four more decimal digits to gauge factors and correct default values in the density blocks and the moisture blocks.
- Provide a Material Summary Report Generation tool for DOT116, DOT150, DOT162, DOT163, DOT168, DOT386, and DOT553.

2 Installation Instructions for FDCS 4.0

This chapter provides an overview on how to install the latest version of FDCS.
Download the correct update by clicking the link at
http://tomcat2.dot.state.ga.us/fdcs/upgrade/fdcsupgrade2.cfm
See the installation instructions under the Help button for each type of installation.



Georgia Department of Transportation
Office of Materials and Research
Field Data Collection System
Latest version
Version 4.0.1

Name	Details	Size	Content	Download	Help
FDCS Full Upgrade	Download this package if you have FDCS 3.31 or below on your machine.	16 MB	VB-Plug-ins, Upgrade Components		
Light Upgrade	Download this package if you have FDCS 4.x or above on your machine.	7 MB	Upgrade Components only		
FDCS Full Install	Download this package if you do not have any FDCS version on your machine.	28 MB	MS Access Run time, VB-Plug-ins, Upgrade Components		

System Requirements:

- Access to the Internet
- Internet Explorer 5.0 or above
- 40 MB of hard disk
- 64 MB of ram (256 MB recommended)
- 166 MHZ CPU clock (500 MHZ recommended)
- May need administator profile to perform installation

This page has been accessed 51 times

NOTE: YOU DO NOT NEED TO BACKUP YOUR DATABASE OR UNINSTALL THE OLD FDCS VERSION TO UPGRADE YOUR FDCS.
Contact the GDOT Solutions Center at 1-800-651-5010 if you have difficulty with this upgrade/installation or you wish to request a CD to be sent to you. You can also use the attached form to submit any request.

2.1 Full Upgrade from Field Data Collection System 3.x.

If you are upgrading from a previous Version 3.x you should back up any field data using the Data Collection System's built in Backup function prior to installing Version 4.0. This is ONLY a precaution and is not required.

With Version 4.0, it is not necessary to uninstall the previous version. With Version 4.0, it is not necessary to Backup your database prior to installation; the database on your hard drive is updated along with the application.

2.2 Light Upgrade - Future Updates of Version 4.x

You can find links to the latest version of the GDOT Field Data Collection System and related documents at: http://www.dot.state.ga.us/dot/construction/materials-research/software.shtml

You must keep your copy of FDCS up-to-date. GDOT does not support older versions of this software. Attempting to Upload with an unsupported version will result in an error message directing the user to the FDCS Update webpage.

2.3 New Installation of the Field Data Collection System

If the technician's computer does not have any previous version of FDCS, use the Full Install.

2.4 Technical Information

FDCS was written in Microsoft Access 97 code and is distributed with the Microsoft Access 97 runtime database engine. The software is available for installation in several ways:

- Installing from an Internet download
- Installing from a CD-ROM
- Installing from a GDOT network download

Additional technical information regarding the operation of this program can be found on the CD-ROM in the DOCS folder. If you did not receive this program on CD-ROM then they can be downloaded from the Internet on the update page mentioned above.

2.4.1 System Requirements

For the best results you should have at least a Microsoft Windows 95 or higher (Windows NT 4 needs service pack 4 or later). This program requires:

- Access to the Internet (any Internet Service Provider or GDOT Network connection)
- Internet Explorer 5.0 or above
- 40 MB of hard disk
- 64 MB of ram (256 MB recommended)
- 166 MHZ CPU clock (500 MHZ recommended)
- WinZip
- May need administrator profile to perform installation.

IMPORTANT: If this software is to be installed on a computer that belongs to your company, you must contact your computer systems administrator and get permission to install it or have them install it for you. Your administrator will also need to make sure that you have write permissions to the **GDOTDCS.MDE** file.

2.5 Contacting GDOT for support

You may contact the GDOT IT Division Solutions Center for assistance with this software, using the Support Request form on the OMR Software webpage. However, before you do please check the following things:

1. Check for a new version of this software. If you have run in to a problem with the program, it may have already been fixed in the latest version. Additionally the Solutions Center only provides support for current version of FDCS.
2. Write down any error messages you are getting exactly as they appear on your computer's screen. Do not paraphrase them. OR Make a “screen shot” of the error message(s). Include these with the Support Request.
3. If you have not already read it, read this manual. Most usage problems can be answered by reading the manual.
4. Be at your computer when contacted by the GDOT IT Division Solutions Center. You may be asked to do things to your computer while talking to them.

The phone number for the GDOT IT Division Solutions Center is 404-651-5010. The first available Solution Provider will take your call.

3 Introduction to Field Data Collection System, Version 4.0

This chapter briefly describes the Field Data Collection Software test forms and documents the flow of test data from the field project sites to the Office of Materials and Research database server.

3.1 Terminology

The following terms are used through out this document:

FDCS - Abbreviation for the Field Data Collection System.
Client – The edition of FDCS on the technician's computer. The data collected in this edition should be uploaded to the Server version and can be used to generate local reports.
Server – The central database collection of uploaded test data. The data can be verified and used for various reports on a statewide basis.
Field - A single piece of information, such as a measurement or a description (when referring to data entry).
Record - A group of fields that describe one entity. In this application the entity is usually a sample taken for testing.
Key fields - Each record must contain a field or a set of fields that uniquely identifies it. This prevents duplicates and enables searching. These special fields are called key fields.
Filter - The process used to show you a specified selection of your records or just one record rather than all records at once.
Form - In the Field Data Collection System, a Form is a window or dialog containing the contents of one or more records that you may view, edit, or add to.
Report - A record or group of records, or calculation obtained from one or more records, specially formatted for printing.
Upload - The process of electronically sending data to the GDOT using the Field Data Collection System.

3.2 Overview of the Field Data Collection Software

The GDOT Field Data Collection Software (FDCS) is a computer program that is used by GDOT Testing Technicians and Contractor Testing Technicians to collect and distribute field test data. It is designed to be a standalone system that can be used in remote location to collect field test data for future distribution.

FDCS is composed of a collection of field test data forms that are used to collect, distribute and report field material test data. It is broken down into four functional areas (Roadway & Plant, Independent Assurance, Aggregates, and Portland Cement).

3.2.1 Additional Options Provided By Field Data Collection Software

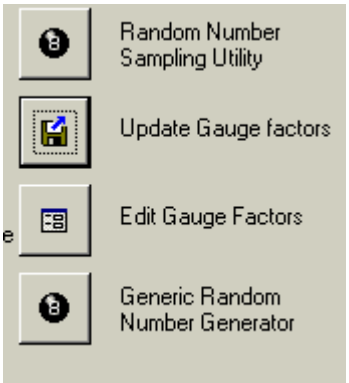
Special features include a link to the Office of Materials and Research web page where reference data (Contract Numbers, Nuclear Gauge Calibrations, latest version of the Field Data Collection Software) can be downloaded to the client.

- Forms perform calculations: Many of the entry screens perform the initial calculations on the test data.
- Ability to Backup or Restore test data
- Ability to exchange data between technicians: Some tests are multi-part, which are started by one technician and finished by another. This requires that technicians be able to exchange test report data between machines. The FDCS provides the technicians the ability to backup test data, exchange the data, and restore from the backup file. Computer diskettes or e-mail attachments are the recommended media to use to exchange test data between technicians at remote locations.
- Ability to generate hardcopy test reports and statistical summaries and quality ratings: Field Technicians can also generate hardcopy or electronic test reports. Some of the test forms provide for generation of statistical and quality ratings on the data collected on the client.
- Ability to edit, review or delete test data
- Ability to upload test data to the GDOT
- For certain producers, the ability to Import test data from their own system to FDCS.
- Certified data can be downloaded into the client and used for reference data

This Training Guide can be reviewed by clicking the button at the bottom of the main screen labeled.

OMR Training Manual

Other Options



Random Number Sampling Utility

Update Nuclear Gauge factors

Edit Nuclear Gauge Factors

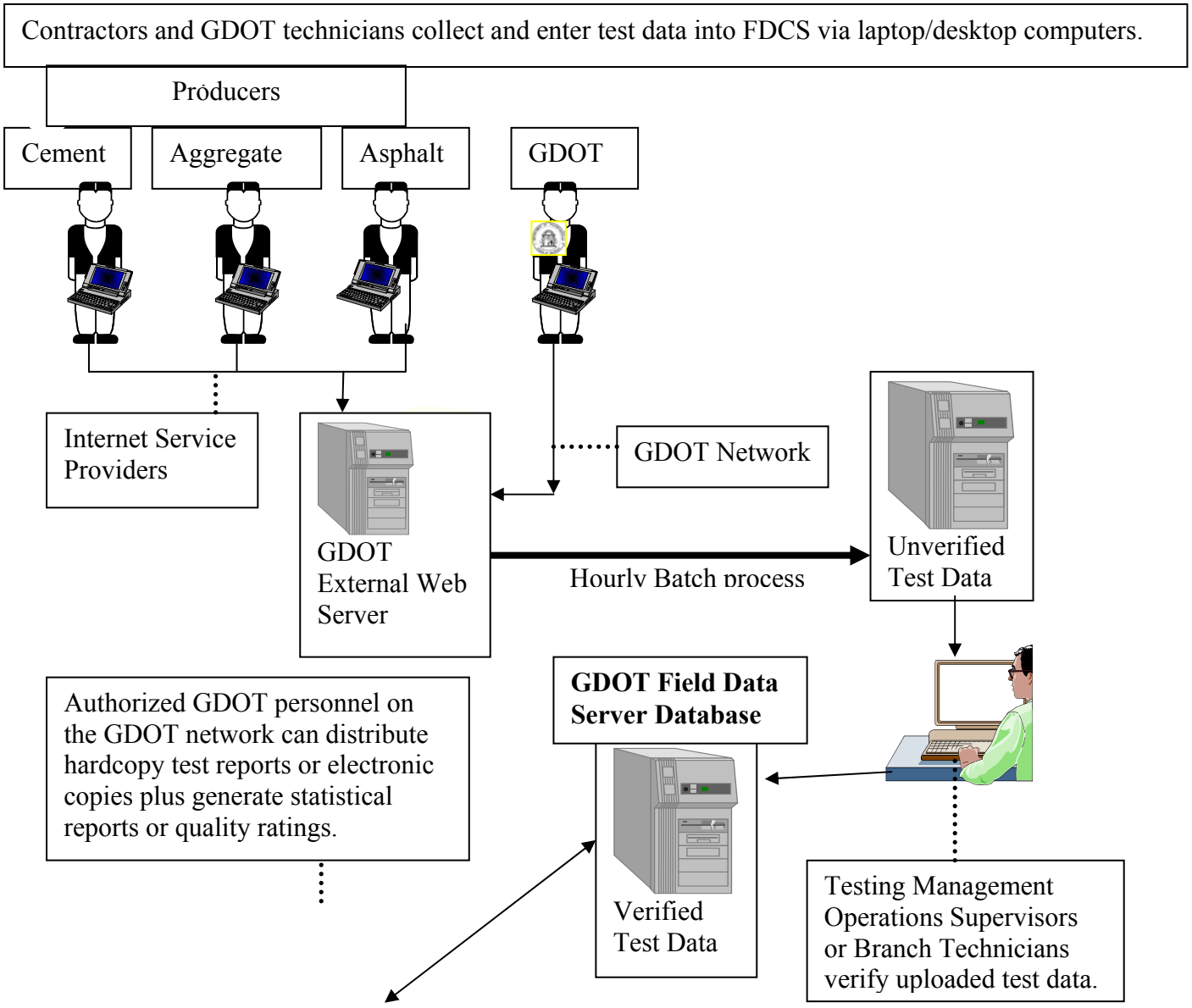
Generic Random Number Generator

3.3 Processing and Flow of Uploaded Test Data

Most technicians are not near a telephone or GDOT network line at the time they collect the data. This requires the Field Data Collection Software to be able to

- Store and save test data locally on the client computer
- Upload the test data to the GDOT External Web Server.
- Batch process copy the data to a temporary database every hour
- Data verified by certified GDOT personnel.

Only reviewed and verified test data is used to generate the final test reports or to generate statistical reports or quality product ratings. ***Note**: On each test report is a field you must check in order for the data to be uploaded to the GDOT. If this field is not checked the FDCS software does not upload this record to GDOT.*



4 Using the Field Data Collection System

This chapter provides brief introduction to the Field Data Collection System (FDCS) main menu options and describes the additional options available within the software. It also provides a brief introduction to the windows functions within the software and how to navigate within the FDCS using these functions.

4.1 Getting Started with FDCS

You can start the application in two ways:

- Accessing from the Desktop
- Accessing from the Program Menu

Starting from the Desktop

When the Field Data Collection System software installs on your computer, it automatically copies a shortcut to your desktop.

Follow the steps below to start the application from your desktop:

1. Locate the Field Data Collection System Icon.

2. Double-click to start the application.

Starting from the Programs Menu

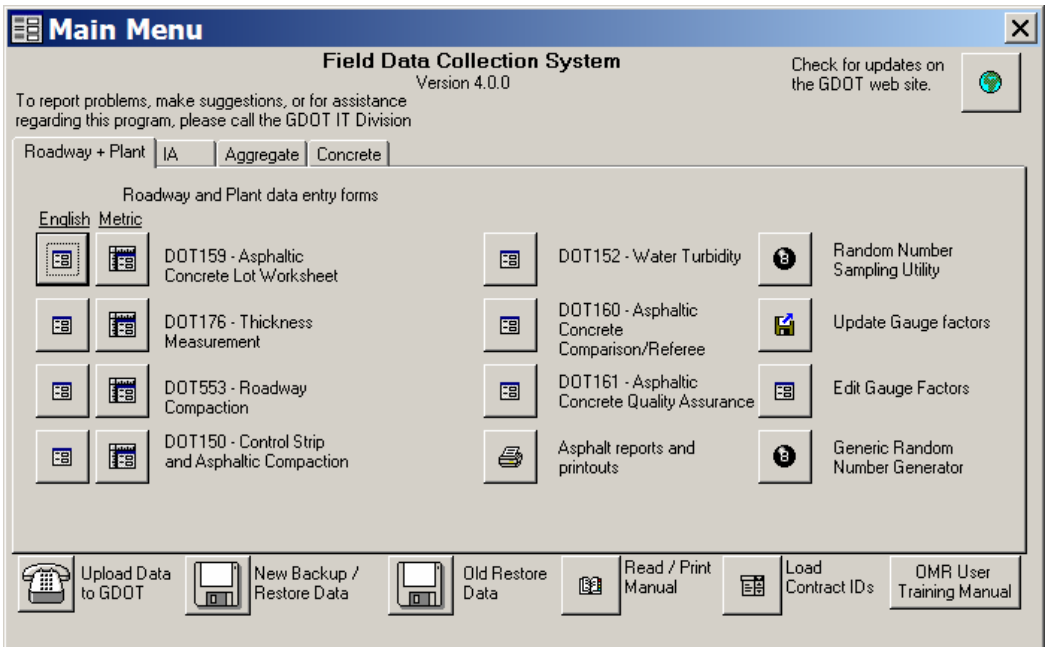
You also have the option to start the Field Data Collection System software from the Windows Program menu.

Follow the steps below to start the software from the Program menu:

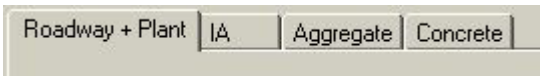
1. Click Start.
2. Click Programs.
3. Click Field Data Collection System

4.2 Navigating the Main Menu

When you start FDCS, the first thing you will see is the Main Menu. The Main Menu provides a "pallet" of entry forms and utilities for each testing group that uses this application. Click on the tab with the name of your testing group to see the forms and reports.



1. Click on the first tab for **Roadway + Plant**. Note the test forms, reports and reference updates on this panel.



2. Click the fourth tab for Concrete. Note the different test forms, reports and reference updates on this panel.
3. Other buttons on the Main Menu:

Button	Description
Check for updates on the GDOT web site	Clicking this button opens your default web browser and takes you to the GDOT FDCS download web page. (This requires an Internet connection). You should check this page regularly.
Upload Data to GDOT	Click this button to start the process of sending entered and modified data to the GDOT electronically.
Backup/Restore	Clicking this button will open the backup/restore window that enables you to make a copy of your data on floppy disk or re-load data from a diskette.
Read / Print Manual	Clicking this button opens the User Manual, which includes a detailed description of each function and form.
Load Contract IDs	Contract ID fields on all entry forms have a pull down box that lets you select from a list of current contract IDs. (You can still type Contract IDs in the field.) The list on the OMR web site is not currently being updated.
OMR User Training Manual	Clicking this button opens this Training Manual.

The following test forms are available: (depending on which testing group tab you selected)

Form Number	***Roadway and Plant Group Test Forms English and Metric Units***
DOT159-5	Asphaltic Concrete Lot Worksheet entry form.
DOT176	Thickness Measurement entry form
DOT553	Roadway Compaction Form
DOT150	Control Strip and Asphaltic Compaction data entry form.
DOT152	Water Turbidity entry form.
DOT152	Asphaltic Concrete Comparison / Referee entry form.
DOT161	Asphaltic Concrete Quality Entry form.
DOT160	Asphaltic Concrete Comparison/Referee
Form Number	***Independent Assurance Group Test Forms English and Metric Units***
DOT176	Thickness Measurement entry form
DOT553	Roadway Compaction Form
DOT386	Asphaltic Comparison Compaction / Void data entry form.
DOT168	Concrete Quality Comparison data entry form.
DOT163	Field Paint Thickness data entry form.
DOT162	Bridge Painting Conditions data entry form.
DOT165	Galvanized Coating data entry form.
DOT116	Pipe Certification and Quality data entry form.
DOT150	Control Strip and Asphaltic Compaction data entry form.
DOT160	Asphaltic Concrete Comparison / Referee entry form.
DOT169	Miscellaneous data entry form
Form Number	***Aggregate Group Test Forms English and Metric Units***
DOT 640	Aggregate Producer Quality data entry form.
DOT 641	Aggregate Producer Quantify data entry form.
Form Number	***Portland Cement Group Test Forms English and Metric Units***
OMR-049	Portland Cement data entry form.

Other options provided by the software include the following:

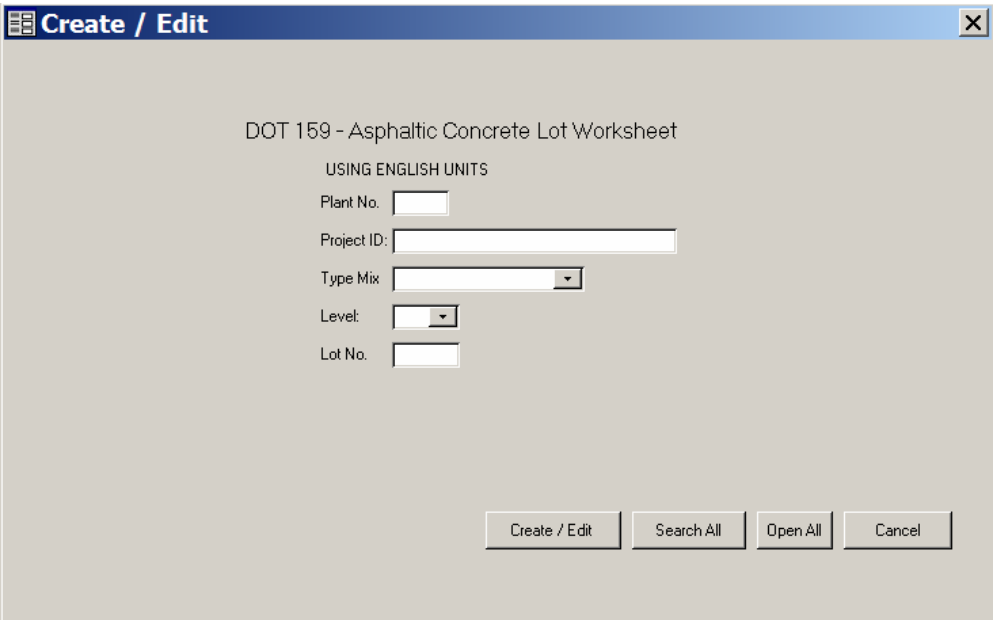
Options	Description
Asphalt Reports	Clicking this button will open the Asphalt Reports window, which contains options for generating printed statistical reports relating to the DOT 159 Asphaltic Concrete Lot Worksheet.
Aggregate Reports	Clicking this button will open the Aggregate Reports dialog box, which contains options for generating printed statistical reports relating to the DOT 640 and DOT 641 reports.
Materials Summary Report	A test report can be created for each form that does not have a specified report.
Edit Gauge Factors	Clicking this button will show you the gauge factors used for the DOT 553 Roadway Compaction form. You may also edit them if necessary, but usually you will use the "Update Gauge Factors" to get the correct factors.
Update Gauge Factors	Clicking this button will update the list of gauge factors with one provided on an update disk.
Import Custom Data	This is a special function for Aggregate producers and Portland Cement producers who use their own custom software for data collection. It enables them to automatically import data from their system and send it to the GDOT.
Random Number Sampling Utility	Users of the 159 forms use this to determine which loads in a lot are randomly sampled.
Generic Random Number Generator	This utility is a general-purpose random number generator for tests that use random sampling.

4.3 Opening a form for data entry

Each form has fields which are unique to the test type. For the training example, we will use the DOT 159 on the first tab for **Roadway + Plant.**

1. Click on the button for **DOT 159 (English)**

2. The DOT 159 Create/ Edit window will open. Enter the Header information:
   - Plant No.: **123**
   - Project ID: **STP-123(11)01**
   - Type Mix: **19mm**
   - Level: **A**
   - Lot No.: **01**



Header Field	Description
Plant Number	An Asphalt Plant Number is the designation assigned by the DOT to asphalt producers that supply material to the DOT. The Source Plant Number entered must be the number of the plant producing the mix. This is a numeric field. Only numbers may be entered.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in EXACTLY as it is issued; otherwise your data may not be filed properly.
Type Mix	The GDOT Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Level	The level of the mix if applicable. Select one: N/A, A, B, C or D.
Lot No	The lot number of the mix being tested. Only positive integer numeric values are valid in this field. Letters and symbols are not allowed.

3. Click the **Create/Edit** button.

Button	Description
Create/Edit	If you entered values for all fields you will be taken to the record if it exists. If it does not, a new one is created automatically. (Note: When using this method new blank records are immediately created and stored. To remove this record you must delete it.) If you left one or more fields blank and more than one record matching the entered values is found, you will be prompted to select a record from a list.
Search All	Clicking this brings up a list of all records you have entered. This is the same as if you left all of the prompted fields blank and clicked create/edit.
Open All	Opens the data entry form but lets you work with all records at once instead of just one at a time. You may browse all of the records using the navigation buttons at the bottom of the entry form. This also allows you to use the "find" option on the form and apply your own filters.
Cancel	Returns you to the main menu.

4. The DOT 159 Asphaltic Concrete Lot Worksheet will open. Notice the header information from the Create/Edit screen is populated on the top row of the window.

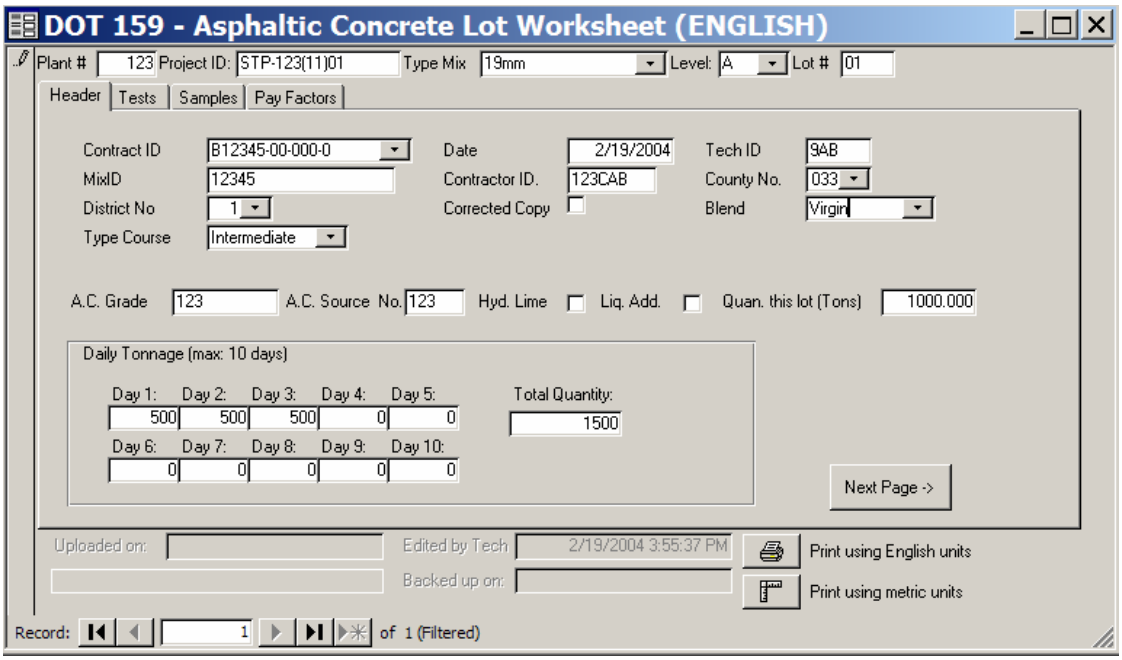


Figure 1 - Asphaltic Concrete Lot Worksheet

Because of the large number of fields on this form, the form in broken up in to multiple pages which can be selected by clicking on the appropriate tab.

With the exception of the 640, 641, and OMR-049, which are continuous forms (that is you can see more than one record at a time), you must specify which record you wish to enter.

Note: If you created a new record, some fields will be filled in automatically with the values from the last form of that type that you edited.

4.4 Basic Data Entry Commands

All of the forms are quite different from each other, but are all made up of the same basic field types and controls. **Note: Data is automatically saved when you move to a new line in a data sheet view or a new page in a form view.**
Here is a legend of what you will find in most forms:

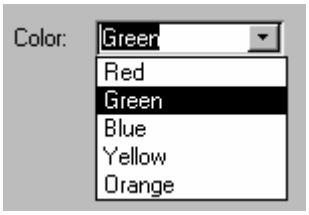
Tabs: Some forms have more than one page. These forms have tabs at the top of the page that represents each page of the form. Clicking on a tab will bring the page to the top.

Text Box: This is the most common field on a form. When the cursor appears in it you may type in your data using the keyboard. Disabled text boxes appear grayish and will not allow you to edit them.

Note: For test data, leave fields blank to indicate that a test was not run or a value was not collected. Entering a zero indicates that the test was run and a value of zero were measured.

Result Box: Usually these are calculated fields, and cannot be edited.

Drop-down box: Drop-down boxes are like text boxes but let you select from a menu of options. To display this menu, click on the down-triangle at the right of the box. Depending on its function a drop-down box may limit what you can enter to what is available in the list.

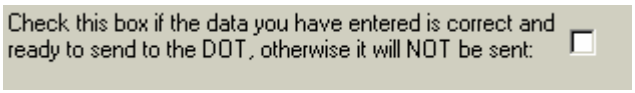


Check box: These boxes can be either checked or unchecked. Clicking on the check box changes its condition. (Pressing the space bar while it is selected also changes its value)

Help Bar: The help bar displays a brief explanation of what you should enter in the currently selected field, and may include an example.

Units: All fields for measurements specify a unit. (In this example it is inches). The value you enter must be in the specified unit. Some entry forms have metric versions in which the only differences are the units. It is critical that you are aware of what unit you must use. FDCS stores all measurements in a common set of units, which enables you to view the same data using both metric and English forms.

Ready To Send: This check box appears all entry forms. **If you do not check this box the record you have entered will not be uploaded to the GDOT.** By checking this box, you signify that the data you have entered is completely correct and is ready to be uploaded to the GDOT server.



Print current data: Most forms have a button like this on them that, when clicked, displays a printable version of the data on the form.

Toolbar: The tool bar contains commonly used option buttons that you can click on while editing data in a form.

- "New Record" will show a blank line or form for data entry.
- "Delete Record" deletes the currently selected record.
- "Save Record" immediately saves the data in the line or form that you are editing,
- "Find" enables you to search all currently available records for a piece of data.

Note: If the form has been opened to create or edit just one record the "new record" button will be grayed out. Additionally performing a "find" will yield no results, as it will search only the current record rather than all records on file.

4.5 General Form Navigation Commands

All data entry forms have the same options in the pull-down menus.

File:

- New Record – When available creates a new blank record. Unless you are using the OMR-049, the 640 or 641 entry forms you should use the create/edit screen to create new records.
- Save Record – Immediately saves all data in the form to your computer's hard disk drive. Data in forms are automatically saved when they are closed or you move to another record.
- Delete Record – Deletes the currently displaying or selected record.
- Close – Closes the current form and returns you to the main menu. Any changes you have made to the data in the form are automatically saved.
- Exit – Quits the GDOT Field Data Collection System. Any changes you have made to the data in the form are automatically saved.

Edit:

- Undo – Reverses the results of any typing or editing.
- Cut – Removes a field or record and places it on the clipboard.
- Copy – Makes a copy of a field or record and places it on the clipboard.
- Paste – Places the continence of the clipboard
- Find – Find records that match a value for the currently selected field. This is only useful if all records have been opened for browsing.
- Spelling – Check the spelling of text in a text or memo field. This option is only available if the Microsoft Word spell checker is installed on your computer.

View:

- Form View – View your data one record at a time. This is the normal view for most forms.
- Datasheet View – View multiple records at a time. This is for advanced users only. Buttons, sub forms, and other features of normal forms will not be visible in this view.

Filter:

- Filter by Selection – Limits the current set of records you are working with to just those that have matching values to the currently selected field.
- Filter Excluding Selection – Limits the current set of records you are working with to just those that have values that do not match the currently selected field.
- Remove Filter/Sort – Returns you to working with all records that you have entered.
- Apply Filter Sort – After removing a Filter or sort this can re-apply the same filter or sort without re-specifying what it is you want to filter or sort by.

Sort:

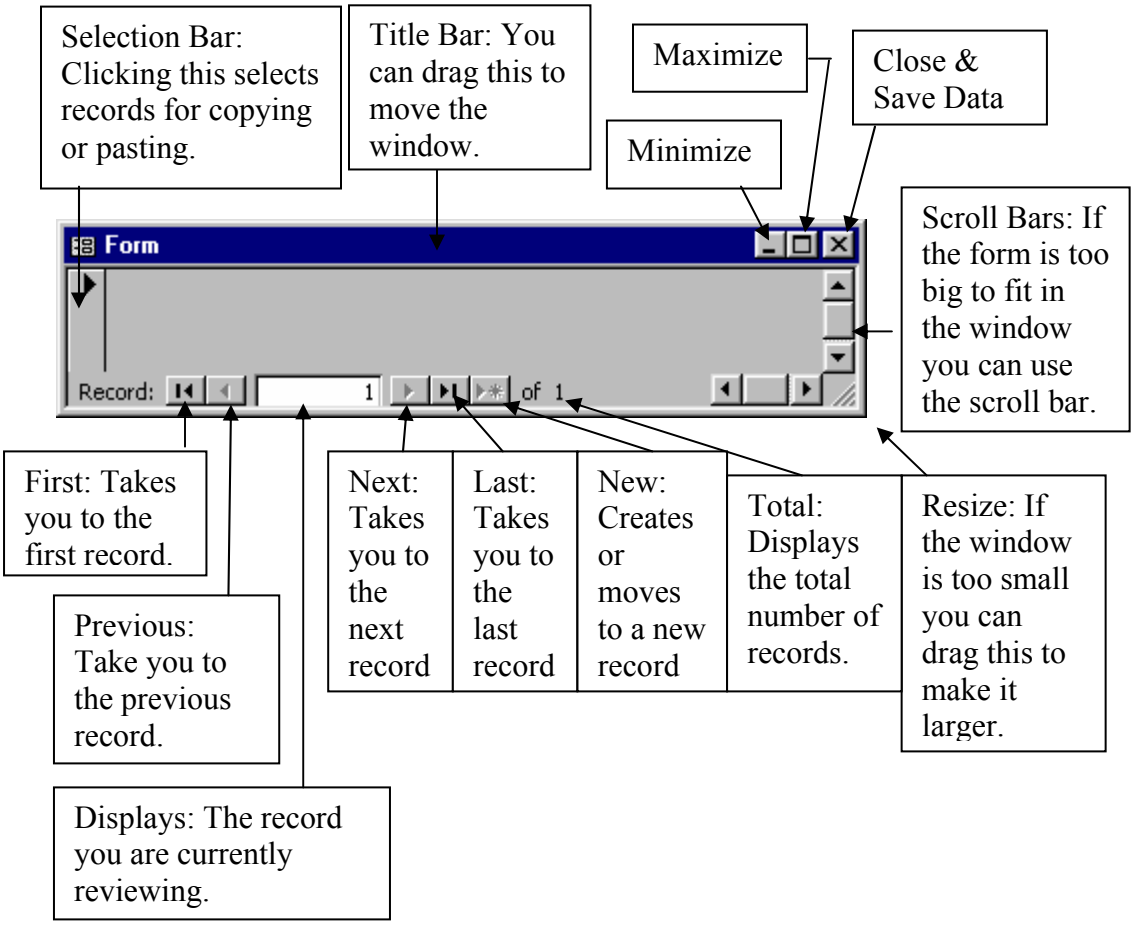
- Sort Ascending – Sorts all records you are working with in ascending order by the currently selected field.
- Sort Descending – Sorts all records you are working with in descending order by the currently selected field.

Help:

- About... Displays the name of the program and the current contact information.

4.5.1 Form buttons

This is an example of a generic data entry form.



5 On-line Reference & Support Information

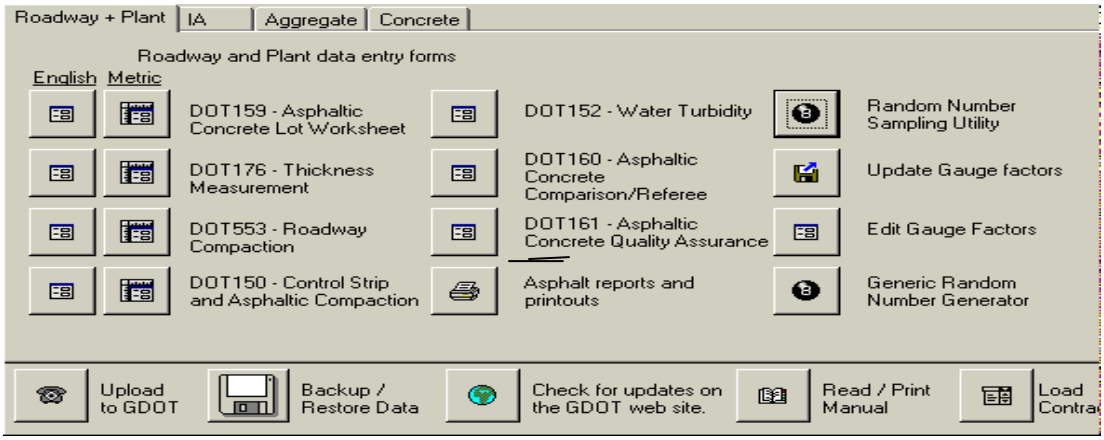
The FDCS software can be used to generate random numbers for sampling purposes, plus reference data such as contract ids and nuclear gauge factors can be downloaded from the OMR web page. It is recommended that the technician download contact information at least every two weeks.

5.1 Random Number Sampling Utility

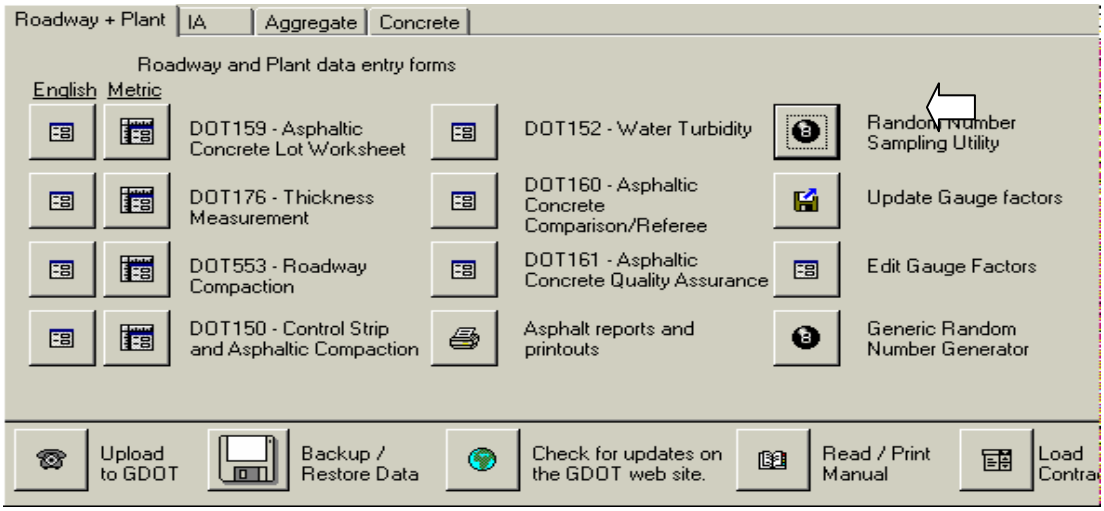
The Asphaltic Concrete Random Sampling Utility is a utility that generates and print random Asphaltic Concrete load numbers.

To create a list of random load numbers use the following steps.

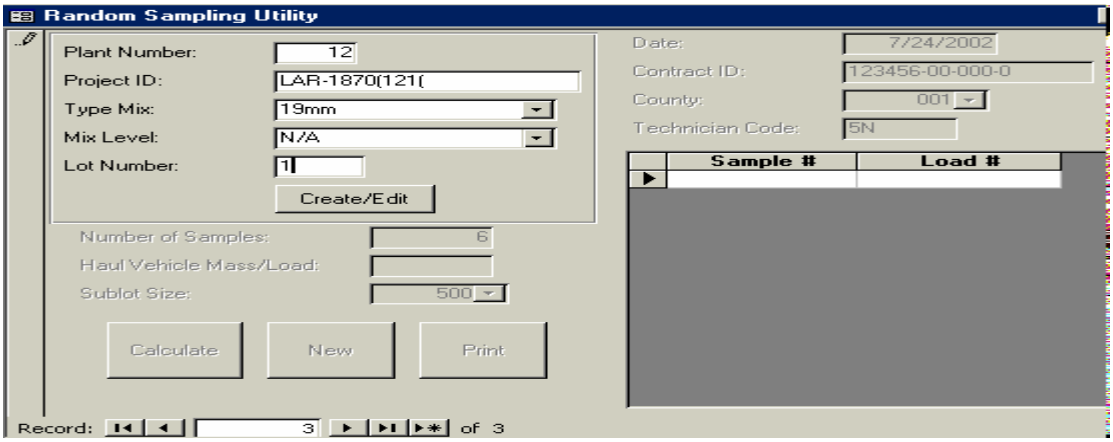
1. Click on the Roadway & Plant Tab



2. Single click the button labeled Random Number Sampling Utility



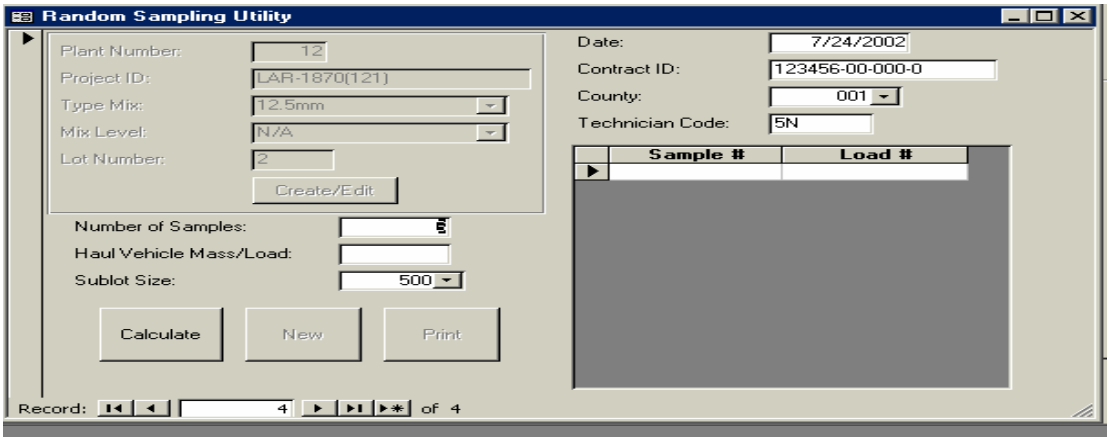
3. The Random Sampling Utility will open to this screen



- Enter the Asphaltic Concrete Plant Number
- Enter the Project ID Number
- Enter the Lot Number
- Select the Type of Mix
- Select the Mix Level
- Enter the Lot Number

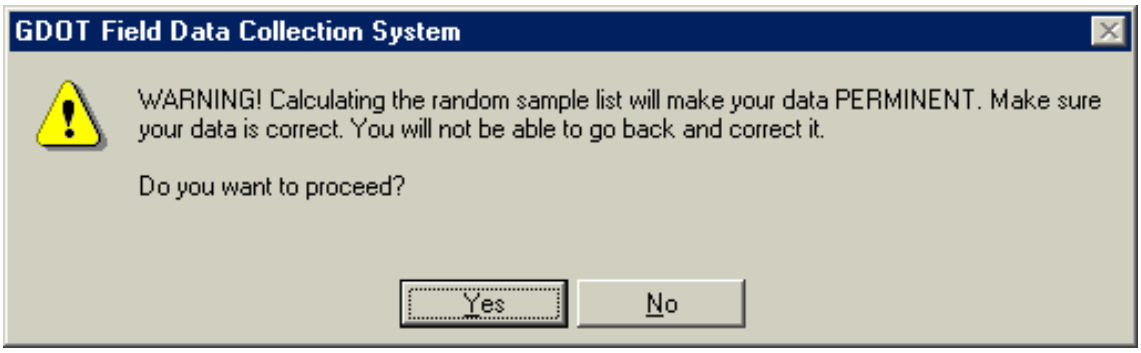
4. Single click the button labeled **Create/Edit**

The following screen appears.

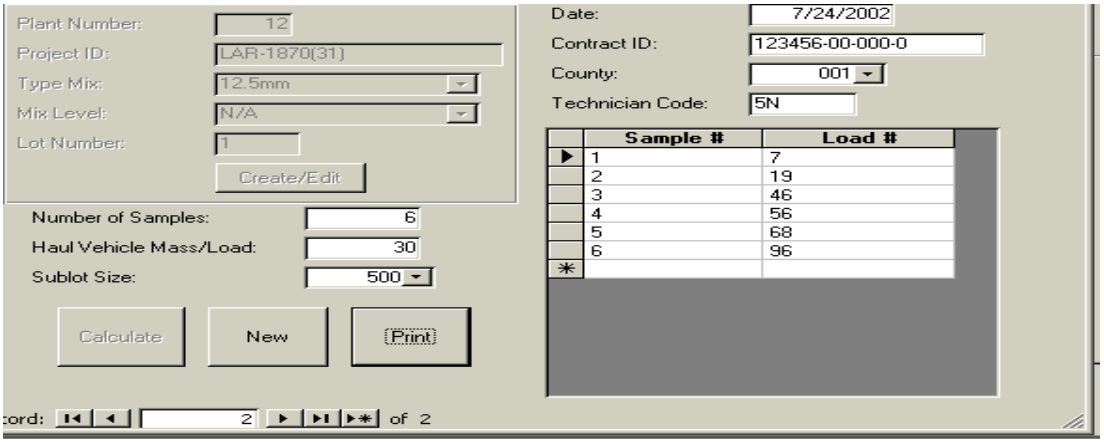


- Enter Number of Samples (default is 6)
- Enter Vehicle Mass Load (est. tons)
- Enter Sublot Size
- Enter date (default is current date)
- Enter Contract ID Number
- Enter County Number
- Enter GDOT Technician Code

5. After filling in the fields, check your data to make sure it is correct and then click the Calculate button. You will receive the following warning screen.



6. Click yes to proceed. Notice 6 load numbers were calculated.



7. To print a hard copy of the results, click the Print button to view the print preview, then click “File” and “Print” to print the preview

Example of Random Error Report

Department of Transportation
State of Georgia
Asphaltic Concrete Random Sampling Report

Plant Number:	12	Calculation Number:	1
Project ID:	LAR-1870(31)	Date:	7/24/2002
Type Mix:	12.5mm	Contract ID:	123456-00-000-0
Mix Level:	N/A	County:	1
Lot Number:	1	Technician Code:	5N
Number of Samples:	6		
Vehicle Mass/Load:	30		
Sublot Size:	500		
Reason for Recalc:			

Sample No.	Load Number
1	7
2	19
3	46
4	56
5	68
6	96

If you want to start another record, click New.

This program stores all generated records in a database on your hard drive. This is done so that previous lists may be recalled should the need arise.

Please note that once a random sampling list is generated you cannot go back and make changes to the record.

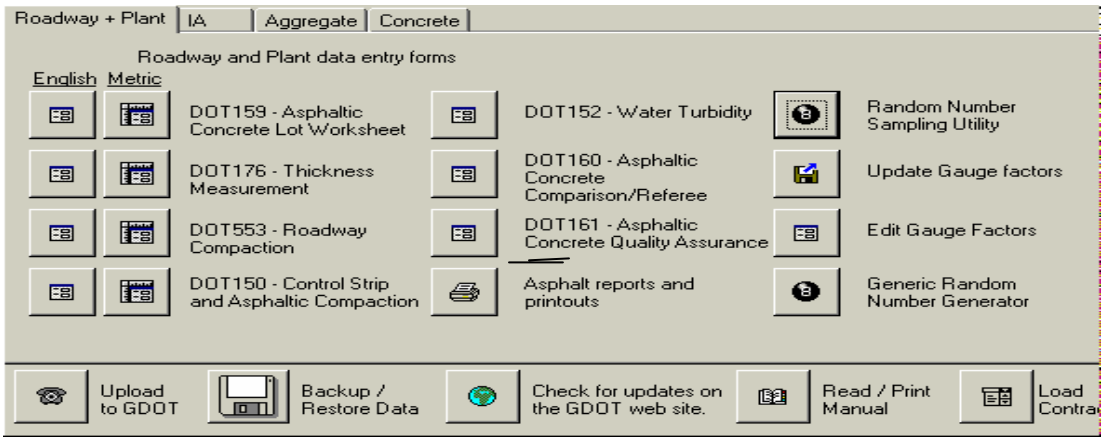
For your convenience, this program keeps track of the fields that rarely change. For example after you type in your plant number it will be there the next time you start a new report. You may type over the value in any of these fields, in which case the new value will be remembered.

Note: Unlike the other databases the reports from this database are not uploaded to the DOT.

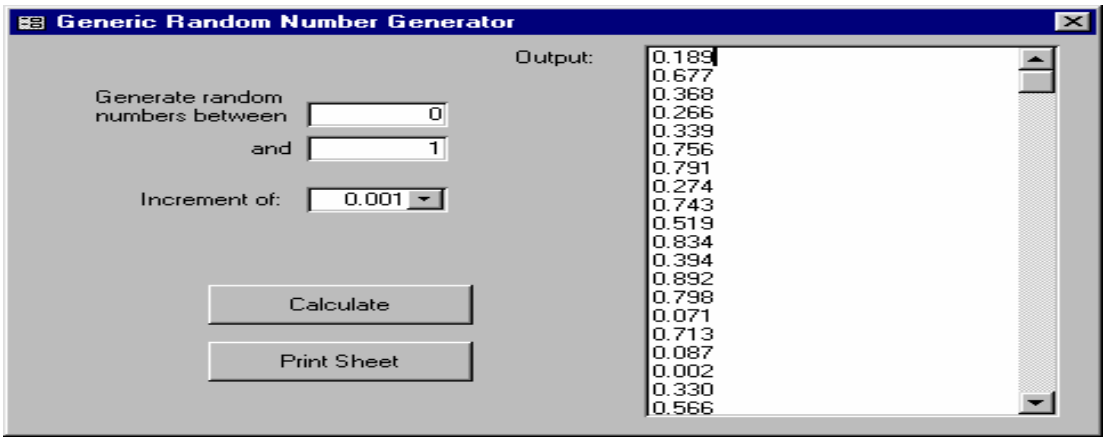
5.2 Generic Random Number Generator

This utility generates random numbers for tests that require random sampling.

1. Click on the Roadway & Plant Tab



2. Single click the button labeled Generic Random Number Generator
3. The following screen will appear to use this utility follow the instructions listed below.



- Enter the range in which you want to generate these numbers (the range is inclusive).
- Increment
- Single click the button labeled Calculate.
- This generates a list of 35 numbers (the amount that will fit on one printed page).
- If you wish to print the list of random numbers, click “Print sheet”

Example of Random Numbers Report

Georgia Department of Transportation
Random Numbers

generated between 0 and 20 at increments of 0.001

7.816
1.617
17.547
6.512
3.110
1.581
5.121
6.389
0.670
2.322
7.630
9.669
3.414
1.341
13.819
6.362
12.559
1.238
17.141
12.359
11.683
17.523
12.319
19.740
15.795
11.424
16.908
12.091

5.3 Modifying or Updating the Nuclear Gauge Factors

The GDOT recalibrates the nuclear gauges yearly to insure that densities and moistures are calculated correctly. Each gauge standard counts are compared against blocks of materials with known densities. A computer program calculates correlation factors for each gauge based upon the block counts. You have three ways of obtaining the latest nuclear gauge factors.

- The correction factors per nuclear gauge can be downloaded into the FDCS using a floppy disk supplied by the OMR.
- You can download the file from the Office of Materials and Research web page.
- You can create an update disk from the Field Data server database.

5.4 Create Nuclear Gauge Update Disk

After you install the new FDCS program you will need to update your gauge factors to the latest calibration factors. You can use you the update diskette that Daniel Lancaster sends to each Branch laboratories or you can create a new update diskette by following these steps or go to the OMR web site and download the file.

1. Open the Field Data database (the program where test reports are verified)
2. Click on the Gauge tab
3. Click on the icon called **Create Nuclear Gauge Update Disk**.
4. Insert a blank diskette in the A:\ drive, then click **OK**

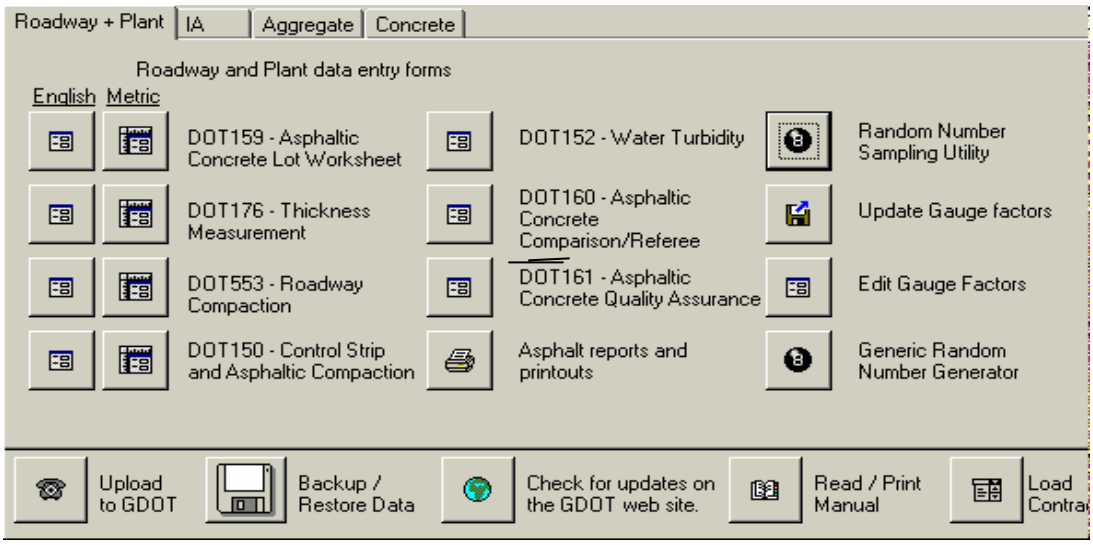
This gauge update diskette will contain the gauge factors for all gauges statewide.
Anytime the FDCS is reinstalled the gauge factors will have to be updated.

Once you have updated your gauge factors in the FDCS you will need to reselect your gauge (on the GDOT553 & GDOT 150 test report, click on another gauge in the gauge drop down box the reselect your gauge number) you will also need to reselect your gauge mode (depth)

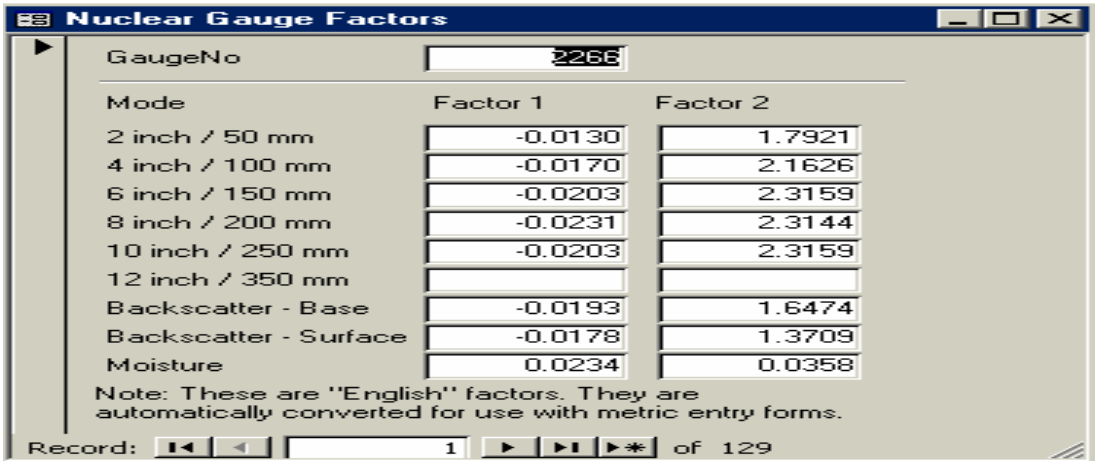
5.5 Editing Gauge Factors

Follow these steps to modify gauge factors on the client.

1. Click on the **Roadway + Plant** Tab

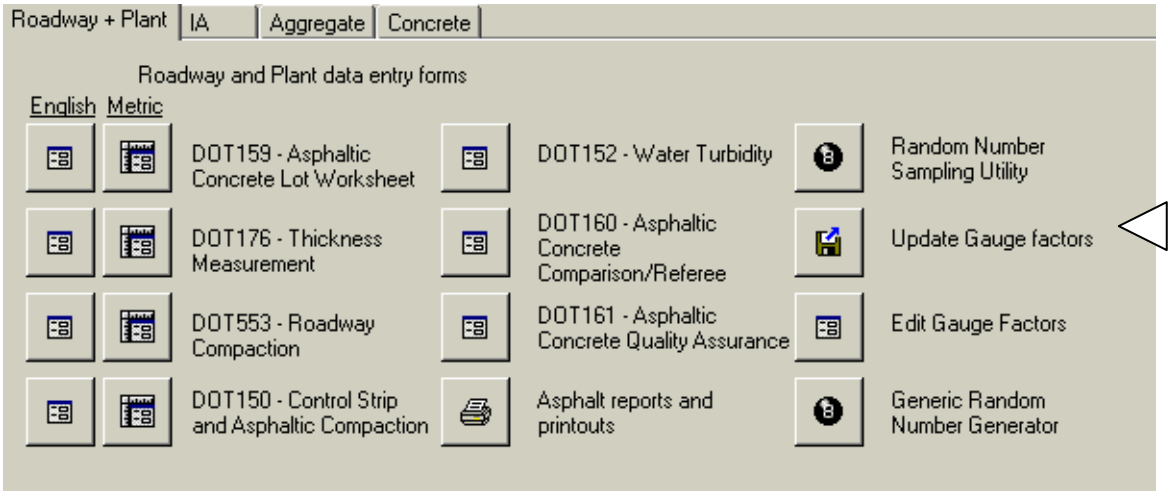


2. Single click the button labeled **Edit Gauge Factors**
3. The following screen will appear.

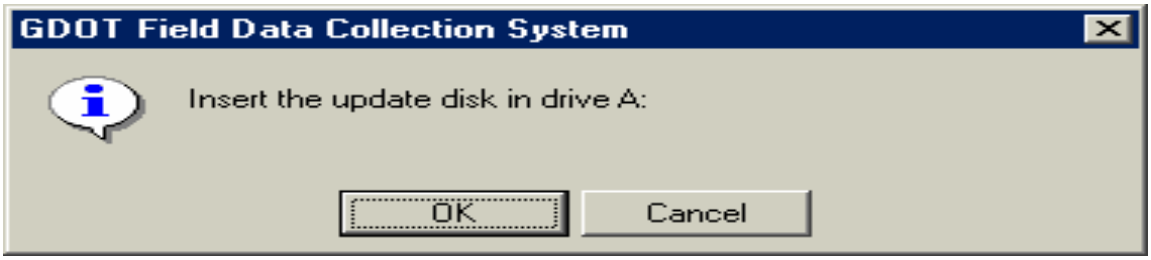


4. Use the record selection button located at the bottom of the screen to select the gauge number you wish to edit.
5. Edit each factor as needed.
6. Use the close ✕ button to close the form. Your changes will be saved.

5.6 Updating Gauge Factors using Diskette



1. Single click the button labeled “Update Gauge Factors”



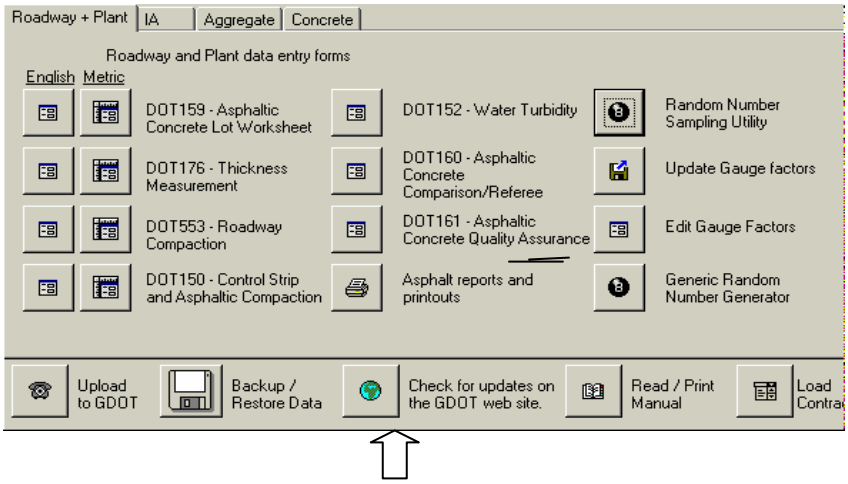
2. When prompted insert the diskette that contains the nuclear gauge factors into your floppy drive, then single click the button labeled. OK.
3. The program will update the gauge factors on the client using the factors on the floppy.

Note: Once you have updated your gauge factors in the FDCS you will need to reselect your gauge (on the GDOT553 & GDOT 150 test report, click on another gauge in the gauge drop down box the reselect your gauge number) you will also need to reselect your gauge mode (depth)

5.7 Downloading Gauge Factors from the Web

Follow these steps to modify gauge factors on the client.

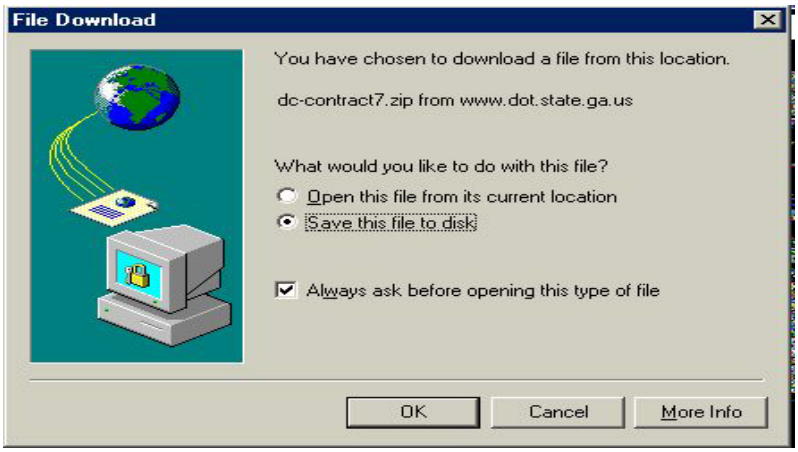
1. Click on the Roadway & Plant Tab



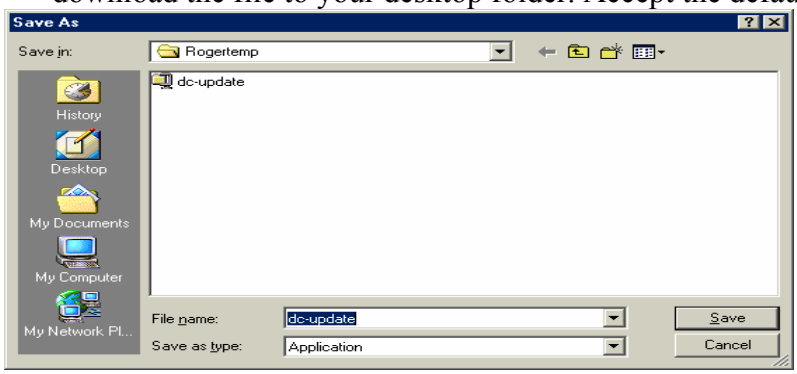
2. Click on the button labeled “Check for updates on the GDOT web site”.
3. Double click the file labeled “Gauge Update.exe”.

Locate the Nuclear gauge calibration update file on the web site. This file contains correction factors for all the GDOT gauges.

4. Click button labeled “OK”

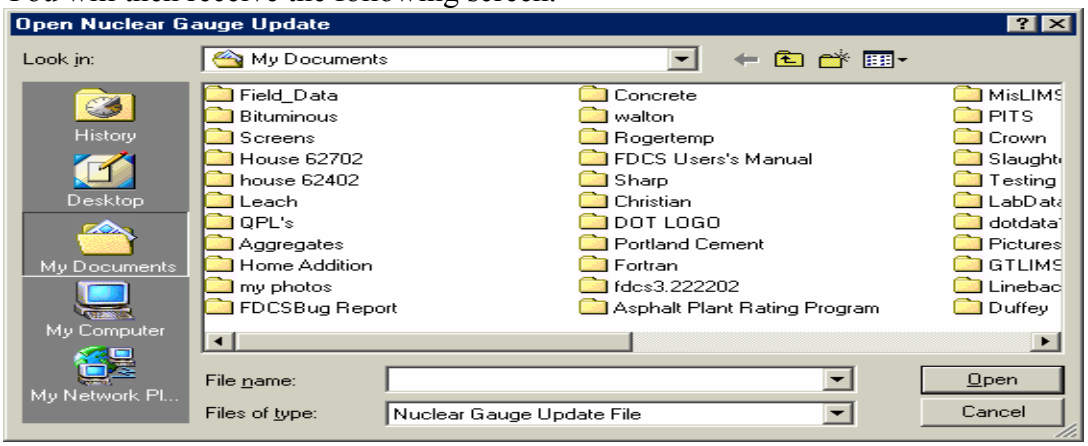


5. Select the folder on your computer where you want to download the file. You may download the file to your desktop folder. Accept the default file name and file type.



5.8 Updating Gauge Factors using File Downloaded from the Web

1. If the nuclear gauge factors are located in some other locations than your floppy drive, single click **OK**.
2. You will then receive the following screen.



3. Scroll to the folder where the gauge factors are located.
4. Double click to select the file and to accept the new gauge calibrations.
5. The program will update the gauge factors using the factors in the file.

Note: Once you have updated your gauge factors in the FDCS you will need to reselect your gauge (on the GDOT553 & GDOT 150 test report, click on another gauge in the gauge drop down box the reselect your gauge number) you will also need to reselect your gauge mode (depth)

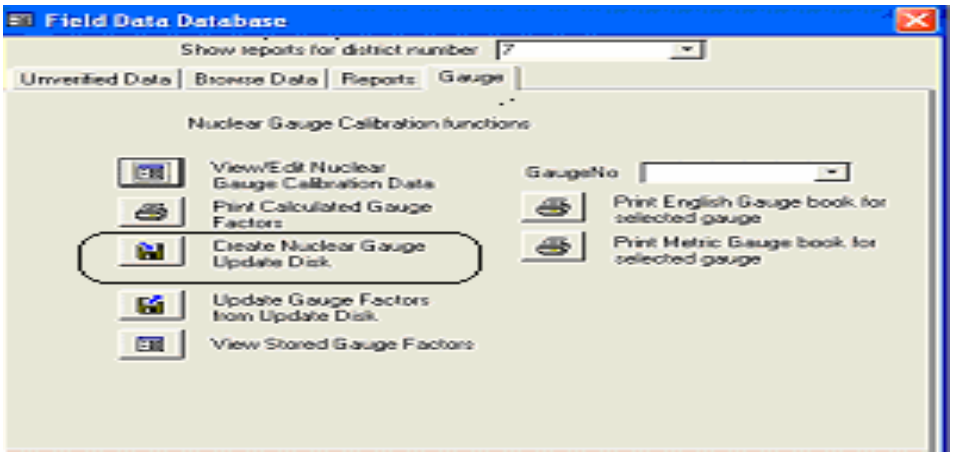
5.9 Updating Gauge Factors using File created from GDOT database server

After you install the new FDCS program you will need to update your gauge factors to the latest factors. You can use you the annual update diskette that Daniel Lancaster sent to each Branch Lab or you can create a new update diskette by following these steps.

1. Open the Field Data database (the program where test reports are verified)
2. Click on the Gauge tab
3. Click on the icon called **Create Nuclear Gauge Update Disk**. The third icon from the top left
4. Insert a blank floppy then click OK

This gauge update diskette will contain the gauge factors for all gauges statewide.
Anytime the FDCS is reinstalled the gauge factors will have to be updated.

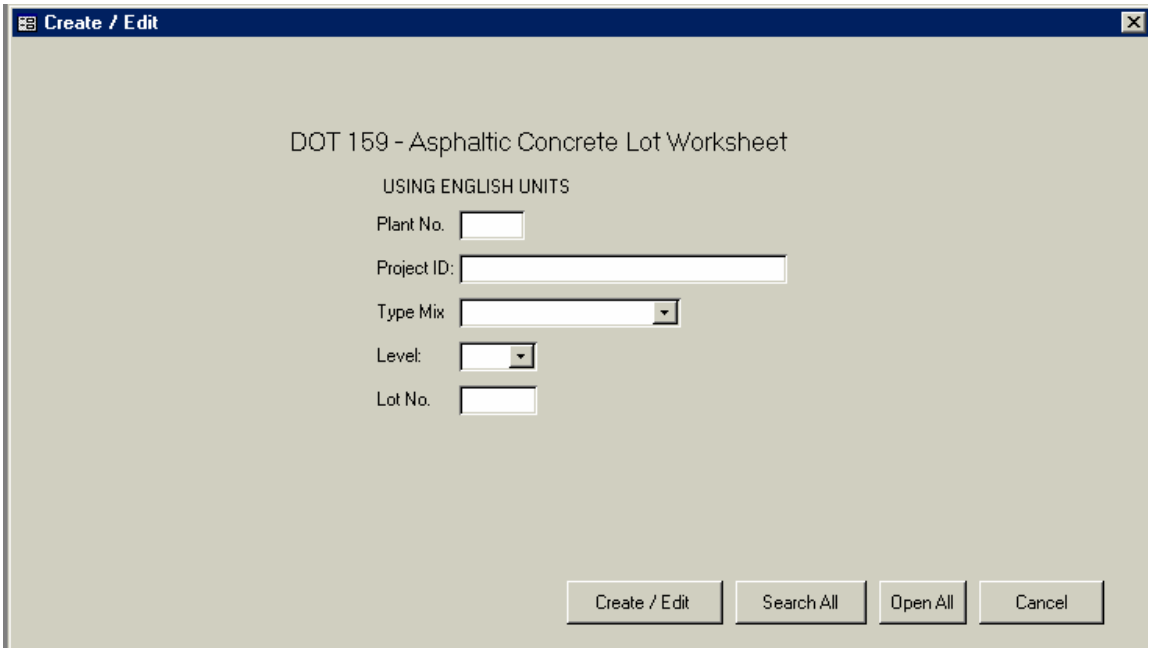
Note: Once you have updated your gauge factors in the FDCS you will need to reselect your gauge (on the GDOT553 & GDOT 150 test report, click on another gauge in the gauge drop down box the reselect your gauge number) you will also need to reselect your gauge mode (depth)



6 Roadway and Plant Test Data Entry Forms

The Testing Management Branch is primarily responsible for all field and laboratory testing of materials used on roadway construction projects. This unit has Seven Testing Management Operation Centers located across the state, one with field-testing capabilities and the other six with both field and laboratory testing capabilities. These seven branch offices monitor the Contractors Acceptance Testing and Consultants Roadway Testing Technician Programs, certify Asphalt Plant and Roadway Testing Technicians, to perform the sophisticated testing necessary to assure that high quality standards are met in both the production and construction of a variety of roadway materials, monitor the testing methods of contractor QCT's and coordinate the work of technicians in the field and laboratories. This centralized testing program is under the control of the Office of Materials and Research and is the most unique testing system operation in the nation.

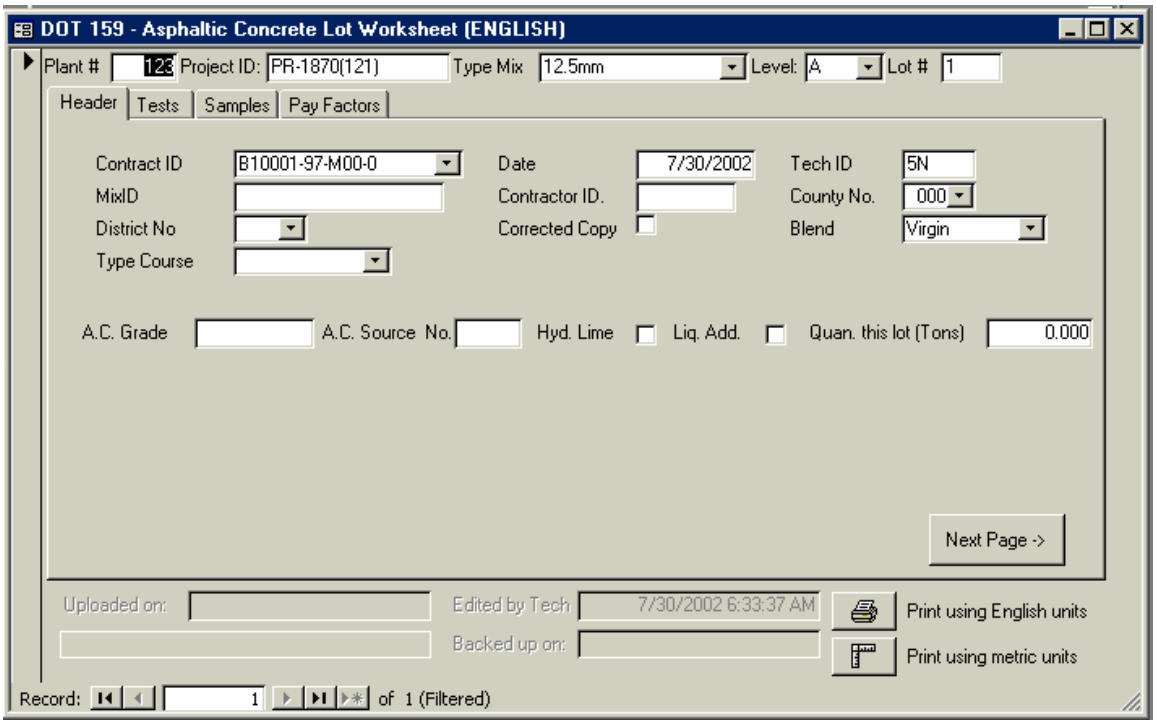
6.1 DOT159-5 Asphaltic Concrete Lot Report



The fields, known as the primary keys, that uniquely identify your DOT159-5 record are:

- Asphalt Plant Number
- Project ID Code
- Type Mix
- Level
- Lot Number

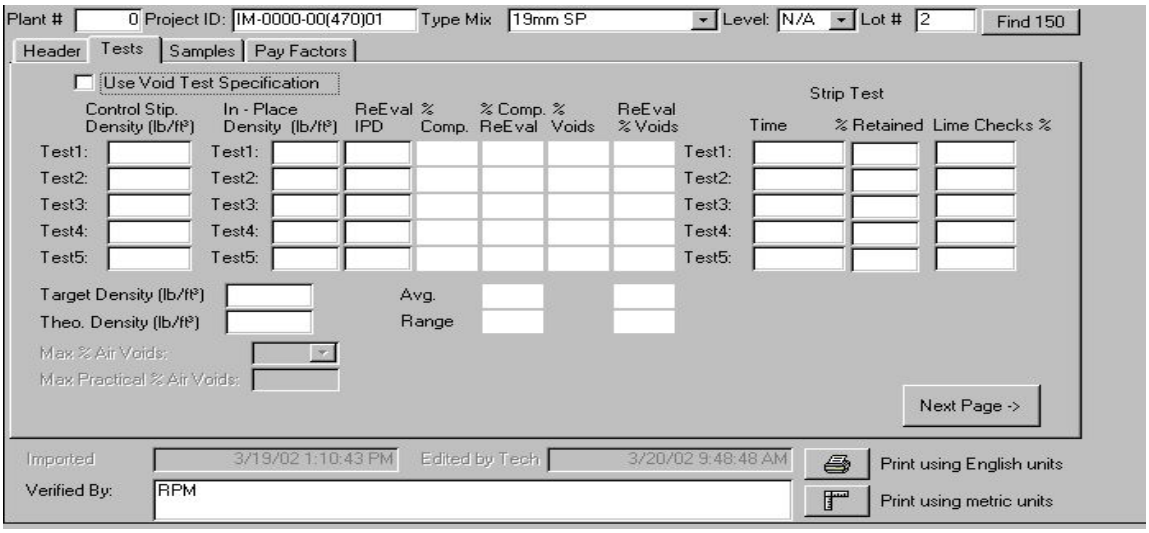
6.1.1 DOT159-5 Asphaltic Concrete Lot Report (Header Data Entry Form)



The following fields are listed in the Header Data Entry Form

Field	Description
Asphalt Plant Number	An Asphalt Plant Number is the designation assigned by the GDOT to asphalt producers that supply material to the GDOT. The Plant Number entered must be the number of the plant producing the mix. This is a numeric field. Only numbers may be entered.
Project ID Code	This is the project id where the mix is being placed. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
Type Mix	The GDOT Asphaltic Concrete Mix Code for the type of mix being tested. This must be a valid mix code selected from the dropdown list.
Level	The level of the mix if applicable. Either N/A, A, B, C or D.
Lot No	The lot number of the mix being tested. Only positive integer numeric values are valid in this field. Letters and symbols are not allowed. Zero padding is not allowed.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Mix ID	The mix I.D number from the Job Mix Formula.
District Number	The GDOT District Number where the project is located. This is 1, 2, 3,4,5,6, or 7.
Type of Course	The designation code for the course being placed (B)ase, (I)ntermediate, (S)urface, (L)evel, (P)atch
Blend	Rap, Virgin Rap, PM Rap, PM Virgin, Gilsonite
Date	The date of production for this lot.
Contractor Vendor ID	The code number of the paving contractor placing the mix. This is the 6-digit code assigned to the contractor by the Office of Contracts.
Corrected Copy	Check the corrected copy box if this is a corrected copy report.
GDOT Technician Code	The code assigned by the GDOT to designated people who are authorized to submit test reports to the GDOT.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Asphalt Cement Grade	The Asphalt Cement or Binder Grade number from the Job Mix Formula.
Asphalt Cement Source Number	Asphalt Cement Source Number The code number for the Asphalt Cement Supplier.
Hydrated Lime	Check this box if the Mix contains hydrated lime.
Liquid Anti-Strippage Additive	Check this box if the mix contains liquid anti-strippage additive as an ingredient.
Quantity this lot	The total tons produced in this lot. The English form requires you to enter this value in tons, and the metric form requires you to enter this value in mega grams. If you do not use the specified unit of measure your data will be wrong.

6.1.2 DOT159-5 Tests Asphaltic Concrete Lot Report (Tests Screen)



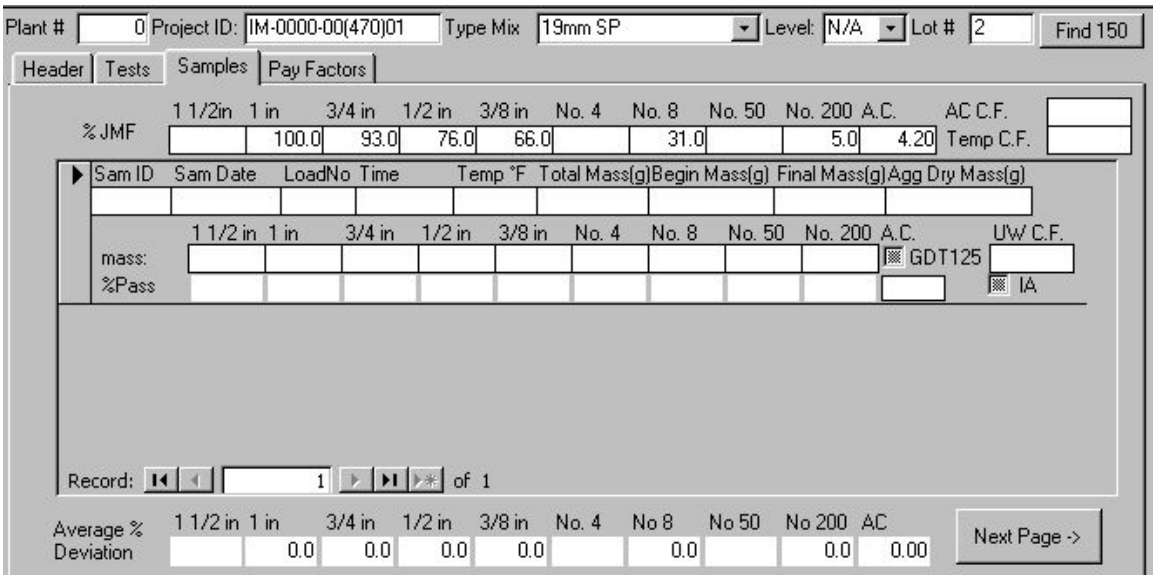
Note: If you do not use the specified unit of measure your data will be wrong.

The fields on the Test Data Entry Form are as follows:

Field	Description
Use Void Test Specification	Check this box if the Void Test Specification is being use to perform this test rather than the compaction specification.
Control Strip Density .	The control strip density. The English form requires you to enter this value in lbs/ft³ and the metric form requires you to enter this value in kg/m³.
Target Density	The target density (the average of the control strip density) The English form requires you to enter this value in lbs/ft³ and the metric form requires you to enter this value in kg/m³.
Theoretical Density	The theoretical density specified from the Job Mix Formula. The English form requires you to enter this value in lbs/ft³ and the metric form requires you to enter this value in kg/m³.
Maximum % Air Voids	The Maximum allowed air voids from the spec – 7.8 for end result or 8.3 for a non-end result. This value is specified only when using the voids testing spec.
Maximum Practical % Air Voids	The Maximum practical allowed air voids if the specifications air voids cannot be met.

In Place Density	The individual density measured at the compaction test sites. The English form requires you to enter this value in lbs/ft³ and the metric form requires you to enter this value in kg/m³.
In Place Density ReEval	The in place density measured from a re-evaluation test.
Strippage Test Time	The time the strippage test was performed.
Strippage Test % Retained	The percent of the material that is not stripped from the strippage (boil test).
% Lime Check	The percent of hydrated lime in the mix.

6.1.3 DOT159-5 Asphaltic Concrete Lot Report (Samples Data Entry Form)

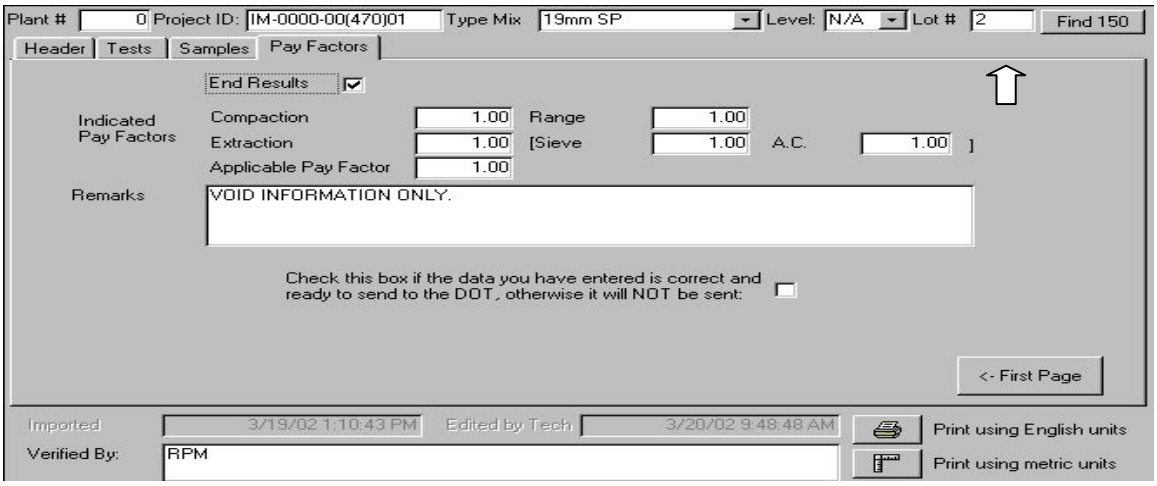


The following fields are listed in the Samples Data Entry Form

Percent Job Mix Formula Per Sieve Size	The required percent passing from the Job Mix Formula. (1 1/2in, 1 in, 1/2in, 3/8 in, No. 4, No. 8, No. 50, No. 200) sieves
Percent Job Mix Formula Asphalt Cement or Binder	The percent of Asphalt Cement from the Job Mix Formula.
Asphalt Cement Correction Factor	Enter the AC correction Factor if the Ignition Burn Oven GDT 125 Method is used to calculate the % ac in the sample
Temperature Correction Factor	Enter the temperature correction factor from the Ignition Burn Oven Ticket for the first temperature correction test in the lot.

Extractions:	
Sample ID	An ID code consisting of your Technician code, a dash, and the sample number assigned to the sample.
SampleDate	The date on which the sample was taken.
Load Number	Number of the truckload this sample was taken from.
Sample Time	The time at which this sample was taken.
Temperature	The temperature of the mix when the sample is taken. The English form requires you to enter this value in Fahrenheit and the metric form requires you to enter this value in Celsius. If you do not use the specified unit of measure your data will be wrong.
Total Mass (g)	The total mass of the sample in grams.
Beginning Mass (g)	The dry mass, in grams, of the silica and the filter paper.
Final Mass (g)	The constant dry mass, in grams, of the silica, the filter and the -200 material
Aggregate Dry Mass (g)	The aggregate dry mass of the sample in grams
Mass or Sieve weights	The accumulated mass, in grams, retained on the sieve. Mass: (for 1 1/2in, 1 in, 1/2in, 3/8 in, No. 4, No. 8, No. 50, No. 200) sieves
Percent Passing each Sieve Calculated Fields	Percent Passing is calculated by dividing accumulated mass in grams for each sieve by the total Aggregate Dry Mass X 100.
GDT125 (Ignition Burn Oven) Method	Check this box if this sample uses the GDT125 Ignition Burn Oven test rather than the extraction method to calculate AC Content.
Percent Asphalt Cement Calculated Field	The % Asphalt Cement or Binder in the sample is calculated as Total Mass of sample minus the Aggregate Dry Mass minus the difference between Begin Mass and Final Mass divided by Total Mass X 100.
Unwashed –200 Correction Factor	Enter the correction factor for the –200 sieve when the GDT125 Ignition Burn Oven was used to calculate the % ac in the sample.
Independent Assurance Sample	Check this box is there was an IA comparison taken with this sample.

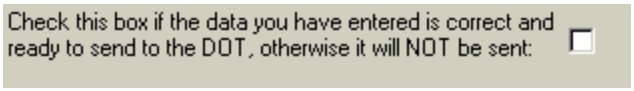
6.1.4 DOT159-5 Asphaltic Concrete Lot Report (Pay Factors Data Entry Form)



The following fields are listed in the Pay Factors Data Entry Form

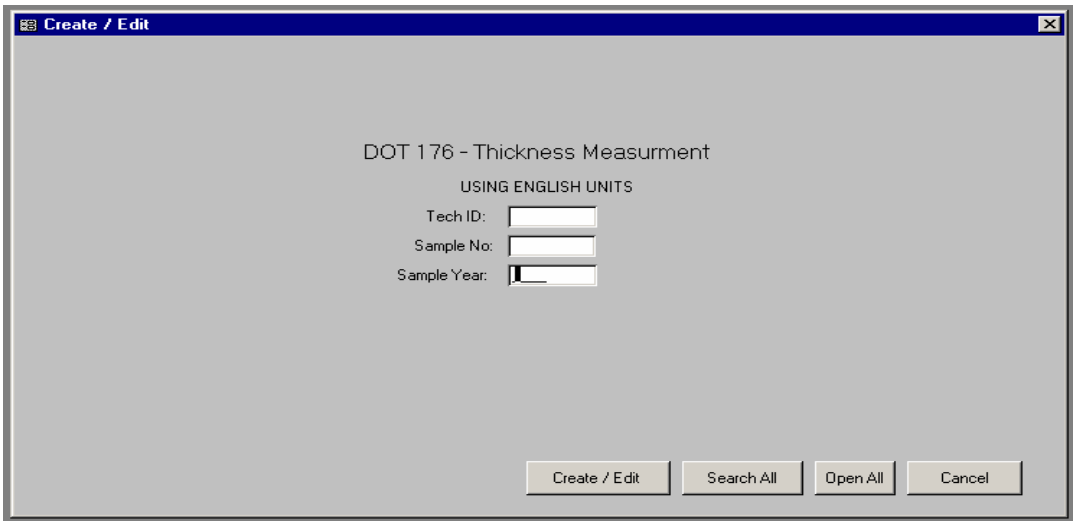
End Results	Check this box if end results specification were used to calculate pay factors.
Compactions	
Average Compaction Pay Factor	Pay factor for average percent compaction.
Range Pay Factor	Pay factor for range.
Extraction	
Sieve Pay Factor	Pay factor for sieve.
Asphalt Cement Pay Factor	Pay factor for asphalt cement content
Applicable	
Applicable Pay Factor	Applicable pay factor.
Remarks	Any additional information.

There are several things to note about the DOT 159-5 reports. First, because there are so many fields in the report, it uses tabs to contain different sections of the report. Click on the tab to display the corresponding panel of the report. The report also has a tab, which allows you to review the DOT150 report if it has been associated with the DOT159-5.



Note: The box at the bottom of this form Check this box if the data you have entered is correct and ready to send to the Dot, otherwise it will not be send.

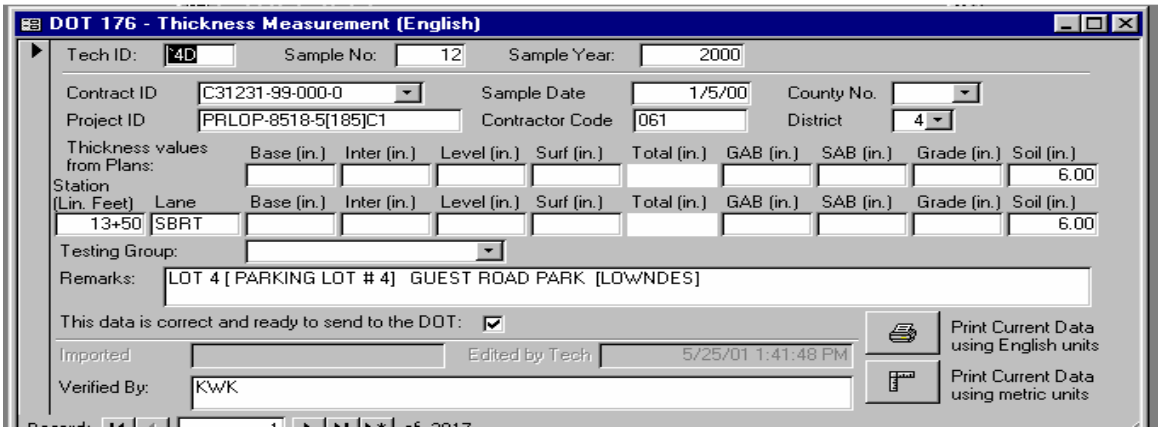
6.2 DOT 176 – Thickness Measurements Primary Keys



The key fields that uniquely identify each DOT176 record are:

- Technician ID
- Sample Number
- Sample Year

DOT 176 Thickness Report Data Entry Form



This is a single measurement, but they are actually grouped by project with the planed thickness for that project. This screen appears when browsing invalidated reports because the measurements are validated individually.

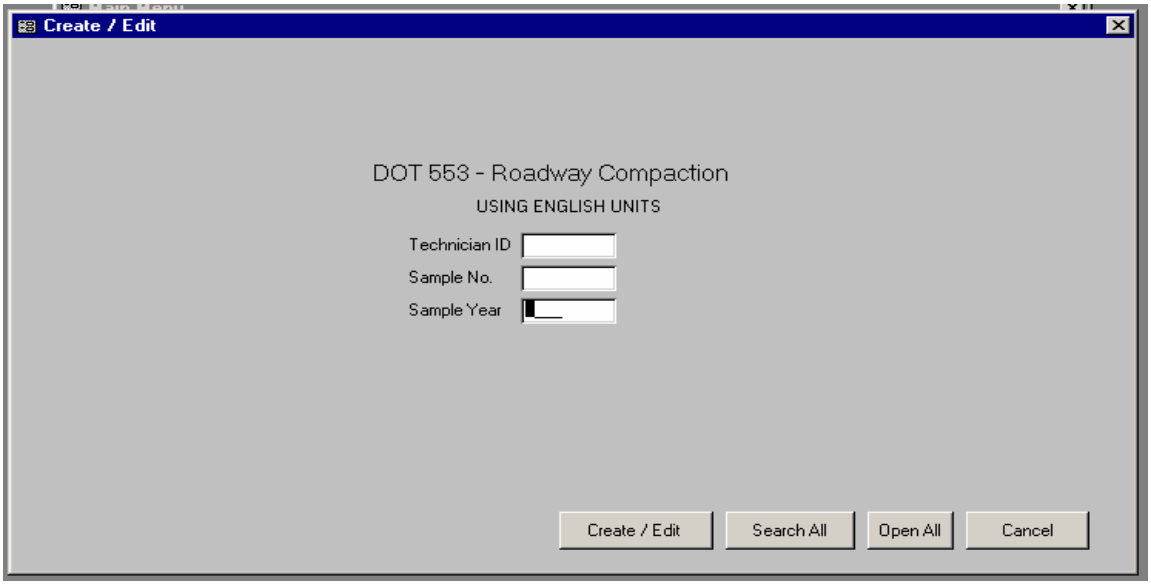
The fields on the DOT176 Data Entry Form are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Sample Date	The date the mix was sampled.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Project ID	This is the project designation for the specific project where the work is being performed under this contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
Contractor Vendor Code	The 6-digit Vendor code number assigned to the contractor placing the mix. This is a six digit code designation assigned by the Office of Contracts
District Number	The GDOT District Number where the project is located. This is 1,2,3,4,5,6, or 7.
Base Thickness	The Base thickness that is required to bring this location to Typical Selection or the required base thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Intermediate Thickness	The Intermediate thickness that is required to bring this location to Typical Selection or the required intermediate thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Level Thickness	The Level required thickness that is required to bring this location to Typical Selection or the required leveling thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Surface Thickness	The Surface required thickness that is required to bring this location to Typical Selection or the required surface thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.

Plans Total Thickness Calculated Field	Total Required thickness. Is the combined total of the Base, Intermediate, Leveling and the Surface? The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plans Graded Aggregate Base (GAB)	The GAB thickness that is required to bring this location to Typical Selection or the required GAB thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plans Soil Aggregate Base (SAB)	The SAB thickness that is required to bring this location to Typical Selection or the required SAB thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plans Grade	The Required thickness that is required to bring this location to Typical Selection or the required thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plans Soil	The Soil thickness that is required to bring this location to Typical Selection or the required soil thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Lane	The lane the measurement was taken, example South Bound Lane (SBL)
Actual Base Thickness	The base measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.

Actual Intermediate Thickness	The intermediate measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Actual Level	The level measurement that has been placed. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Actual Surface Thickness	The surface measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Actual Total Thickness Calculated Field	Total thickness as placed. Is the combined total of the Base, Intermediate, Leveling and the Surface? The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Graded Aggregate Base (GAB)	The total measurement of the Graded Aggregate Base placed. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Soil Aggregate Base (SAB)	The total measurement of the Soil Aggregate Base placed. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Actual Grade	The total thickness of the final lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Actual Soil	The total thickness of the final Soil lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Testing Group	Name of the testing group performing the test.
Remarks	Any additional information that is needed for this record.

DOT 553 – Roadway Compaction Report Primary Keys

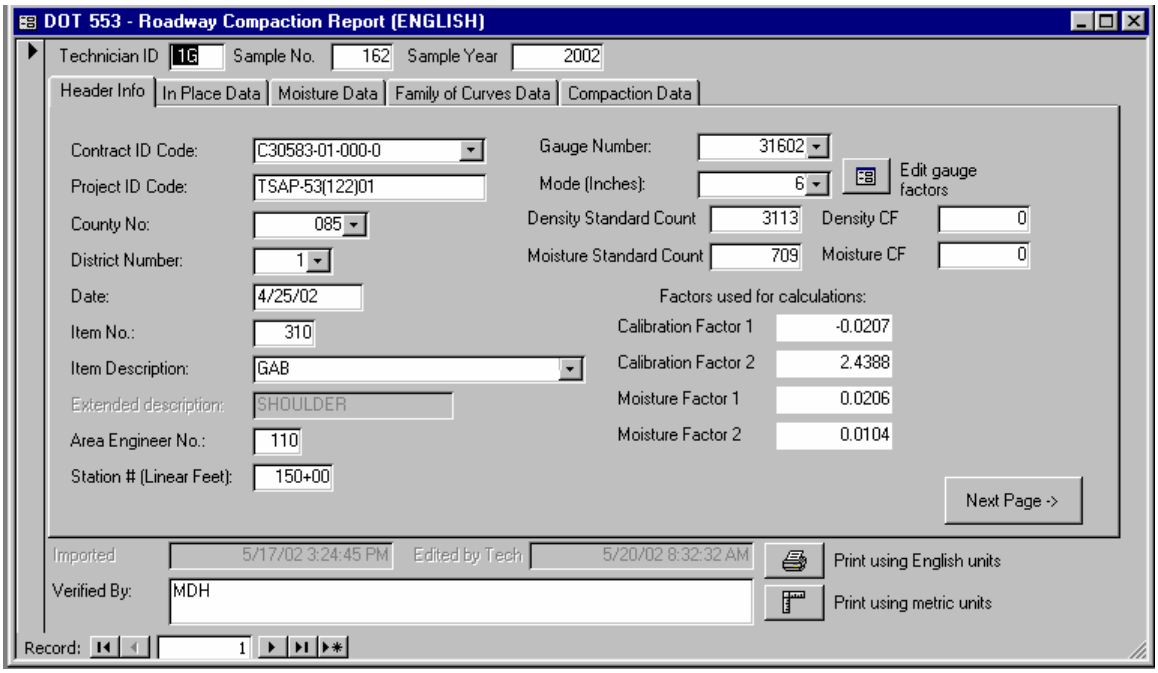


The key fields that uniquely identify each 553 record are:

- Technician Number
- Sample Number
- Sample Year

Like the 159, the 553 reports have enough fields that it has been separated in to five tabs. Click on the desired tab to display the corresponding panel.

DOT 553 Roadway Compaction (Header Data Entry Form)



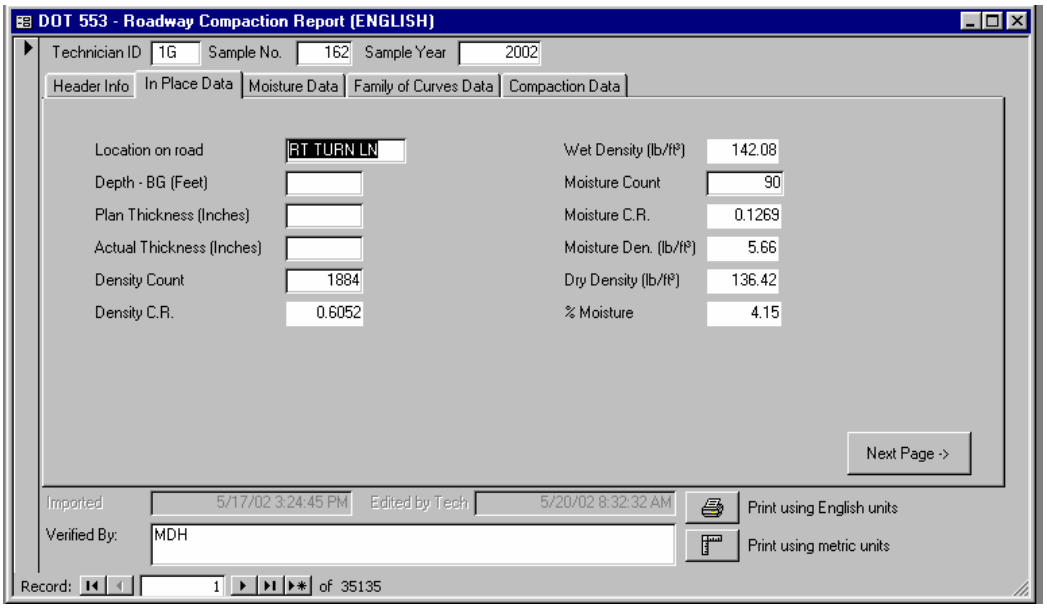
Note: This is the screen that appears when browsing all reports. The project and the related planed thickness appear at the top.

This is the fields in the Header Information Data Entry Form

Technician ID	The GDOT assigned code of the technician taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year in which this sample was taken.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is 1,2,3,4,5,6, or 7.
Date	The date this sample was taken.
Item Number	The item number for the material the compaction is being run on.
Item Description	The type of material being tested. Select a valid type from the drop down list.
Extended Description	Extended description of item if "other" is selected for item description.
Area Engineer Number	The area engineer in charge of the project.
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4360 meters from the start of the project.
Gauge Number	The number of the nuclear gage used by the technician. This must be a valid gauge from the list of available gauges. If your gauge number does not appear you may need to update the calibration factors.
Mode	The mode the gauge is set to: 50, 100, 150,

	200, 250, 300, BB, or BS in Metric or. 2, 4, 6, 8, 10, 12, BB, or BS in English.
Density Standard Count	The Density standard count.
Density Correction Factor	The density standard count correction factor.
Moisture Standard Count	The Moisture standard count.
Moisture Correction Factor	The Moisture standard count correction factor.

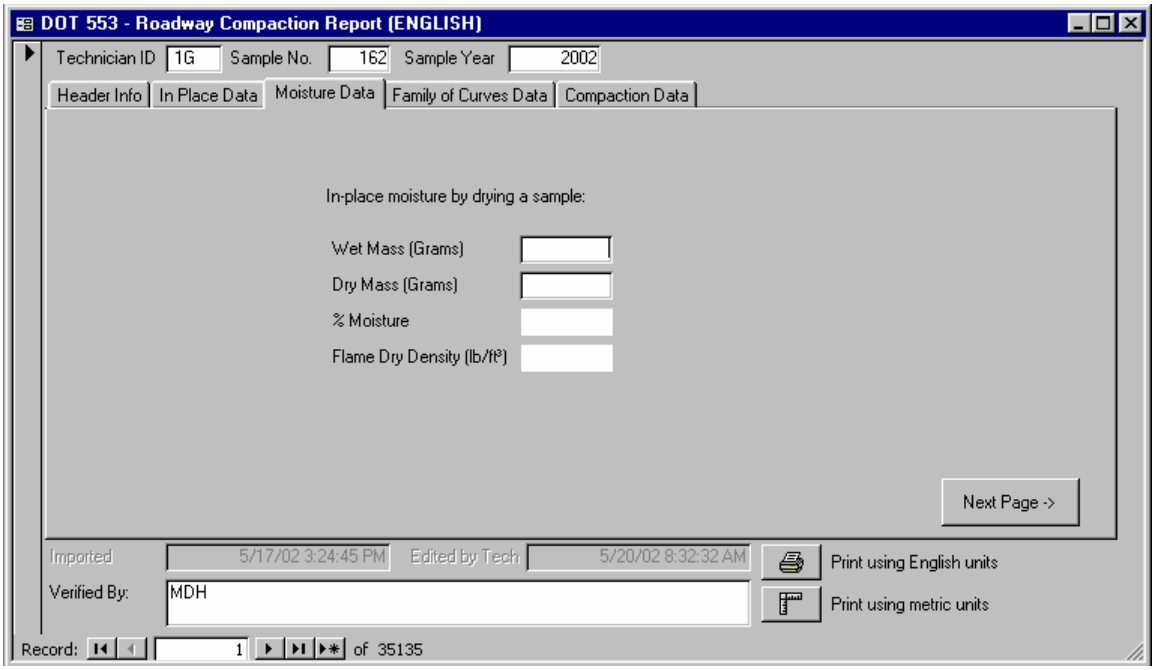
DOT 553 Roadway Compaction Report (In Place Data Entry Form)



List of fields in the In Place Data Entry Form

Location on road	Location of the road where the sample is taken.
Depth Below Grade (feet)	The depth below grade that the sample represents.
Plan Thickness (inches)	Plan thickness of the course being tested
Actual Thickness	Actual thickness of the course being tested
Density Count	Nuclear Gauge Density Count
Density Correction Factor	Nuclear Gauge Density Correction Factor
Wet Density Calculated Field	Is calculated by the gauge using the density count. It's the density before correction for the % moisture in the sample.
Moisture Count	Nuclear Gauge Moisture Count
Moisture Correction Factor	Nuclear Gauge Moisture Correction Factor
Moisture Density Calculated Field	Is calculated by the gauge using the moisture count.
Dry Density Calculated Field	Is the Wet Density divided by the % (moisture + 100)? X100.
% Moisture Calculated Field	Is the calculated by the gauge using the moisture count?

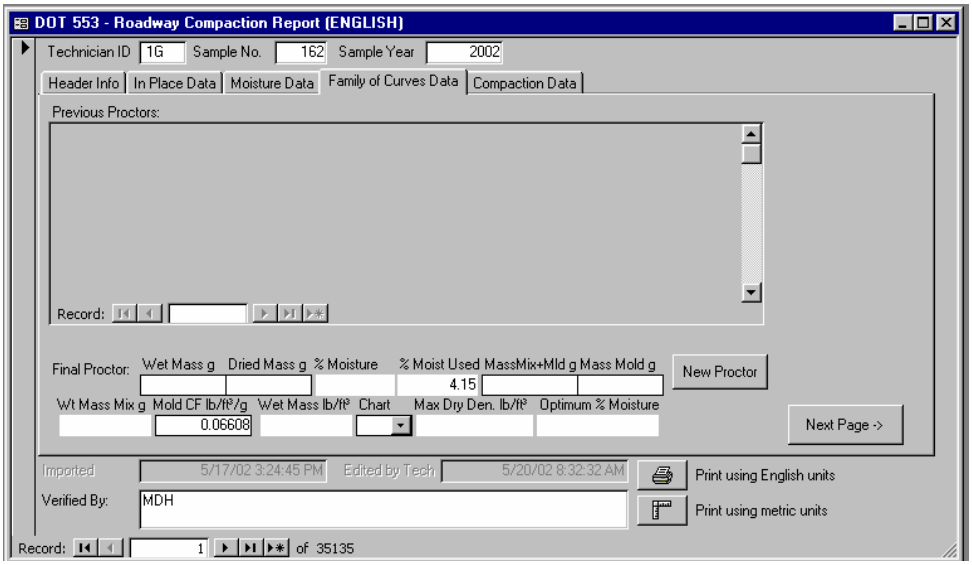
DOT 553 Roadway Compaction Report (Moisture Data Entry Form)



List of fields in the Moisture Data Entry Form

Wet Mass	The total mass in grams used for moisture sample.
Dry Mass	The final dry mass in grams of the moisture sample
% Moisture Calculated Field	% Moisture based upon the values for the Wet Mass and Dry Mass it's the difference between Wet Mass and Dry Mass divided by (Dry Mass) X 100.
Flame Dry Density Calculated	Flame Dry Density is calculated based upon the Frame dried moisture instead of the gauge readings. Is the Wet Density divided by the % (moisture + 100). X100.

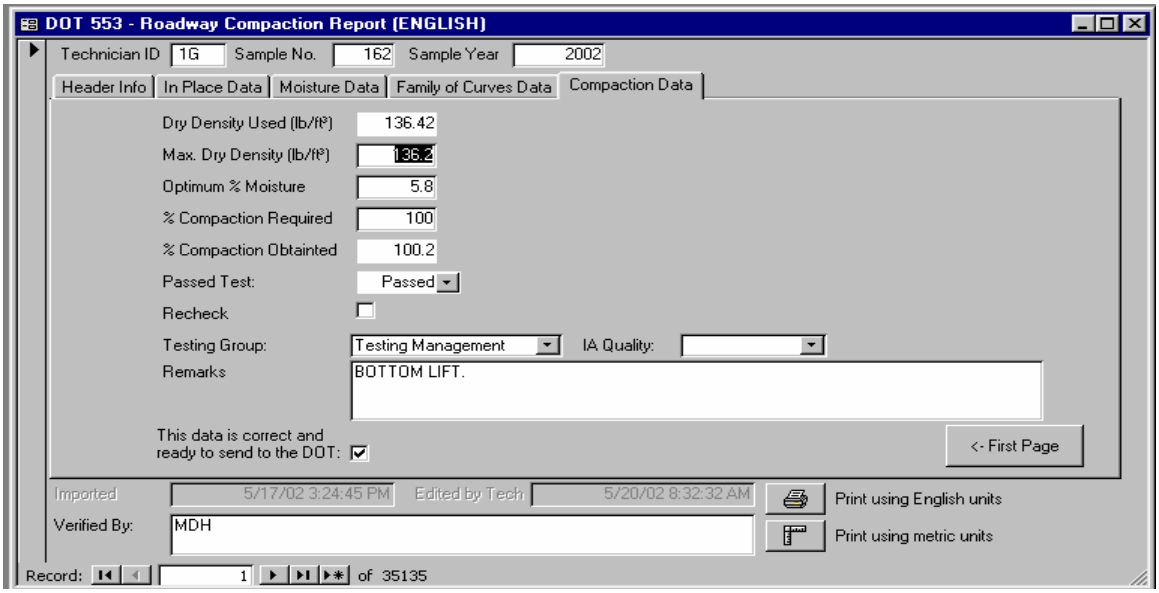
DOT 553 Roadway Compaction Report (Family of Curves Data Entry Form)



The fields in the Family of Curves Data Entry Form

Family of Curves Data from proctor	*The fields you can enter represent the "final proctor". If a new set of measurements from another proctor is needed, then click "New Proctor". The old data will be moved in to the "Previous Proctors" section and you may enter the new set of measurements in the "final proctor" section*
Wet Mass	Total mass of the sample in grams.
Dried Mass	Final dry mass of the sample in grams.
% Moisture	Calculated Field Calculated % moisture based upon the values for the Wet Mass and Dry Mass it's the difference between (Wet Mass and Dry Mass divided by Dry Mass) X 100.
% Moisture Used	Calculated Field. Same as % Moisture. Calculated % moisture based upon the values for the Wet Mass and Dry Mass it's the difference between Wet Mass and Dry Mass divided by Dry Mass X 100.
Mass of Mixture plus Mold	The mass of the sample plus the weight of the mold in grams.
Mass of Mold	The mass of the mold in grams.
Wet Mass Mixture	Calculated Difference between the Mass of Mixture plus Mold minus the Mass of Mold.
Mold Correction Factor	Mold Correction Factor in lb/ft³/g in English or kg/m³/g in Metric.
Wet Mass Corrected	Calculated Wet Density corrected based upon the Mold Correction Factors.
Chart	The Family of Curves chart use A, B, C or L for Laboratory values.
Maximum Dry Density Selected from Family of curves	Maximum. Dry Density from Family of Curves table. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Optimum Percent Moisture	Optimum Percent Moisture from Family of Curves table that corresponds to the Maximum Dry Density selected.

DOT 553 Roadway Compaction Report (Compaction Data Entry Form)

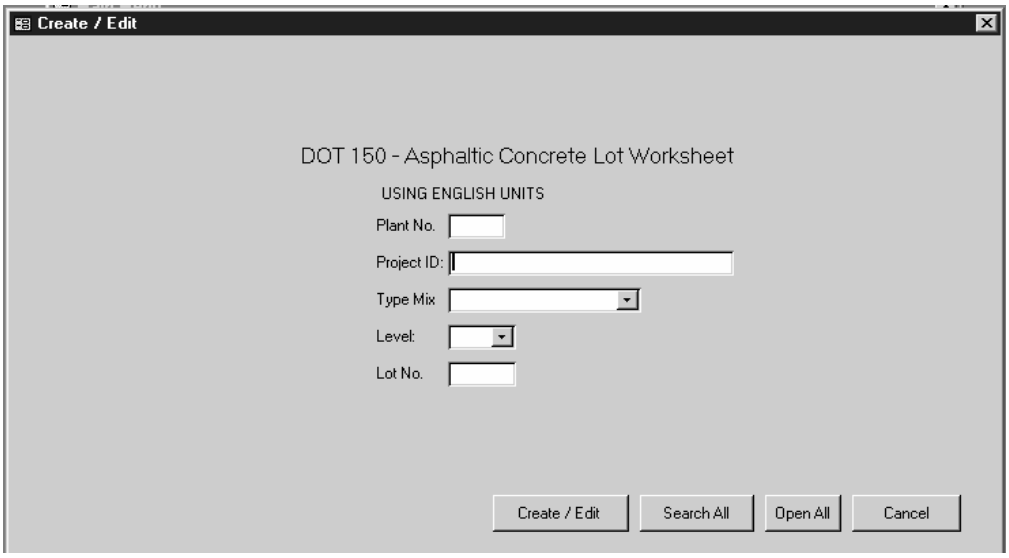


The fields in the Compaction Data Entry Form

Dry Density Used Calculated Field	The calculated Dry Density. It's Wet Density Divided by % moisture +100 X 100. This value can be over written. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Maximum Dry Density	Family of Curves
Optimum Percent Moisture Calculated Field	Optimum Percent Moisture in the sample.
Percent Compaction Required	Percent compaction required for this test.
Percent Compaction Obtained Calculated Field	Dry Density Used divided by Max. Dry Density times 100.
Recheck	Check this box if the sample is a recheck.
Testing Group	Select the testing group that took this sample.
IA Quality	The Sample Quality as reported by IA techs.
Remarks	Any additional remarks.

Note: Grams are used for units of mass on both English and Metric entry forms.

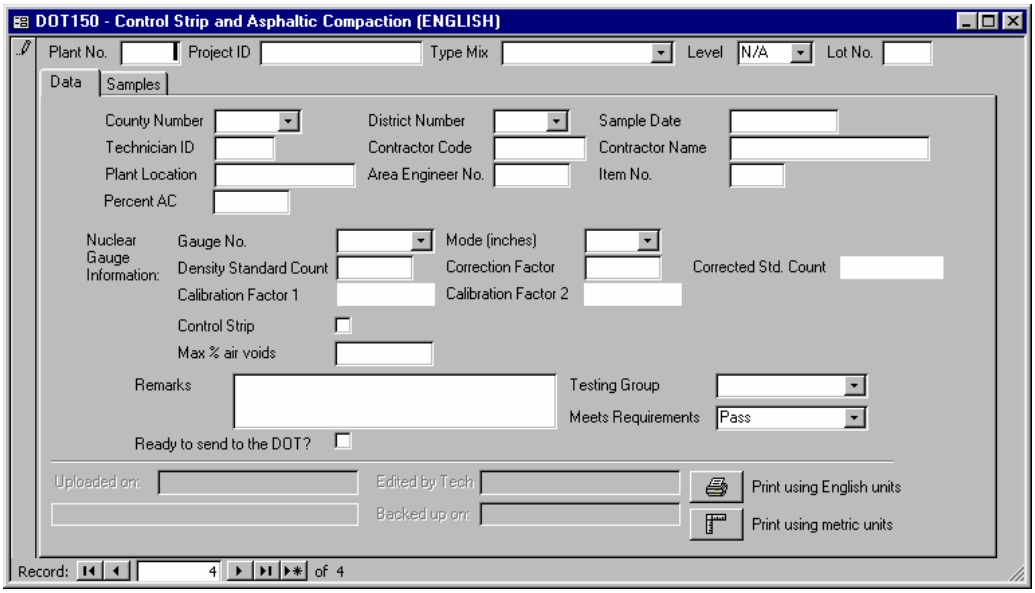
6.3 DOT150 - Control Strip and Asphaltic Compaction Primary Keys



The key fields that uniquely identify each DOT150 record are:

- Plant Number
- Project ID
- Type Mix
- Level
- Lot. Number

DOT150 - Control Strip and Asphaltic Compaction (Data Entry Form)

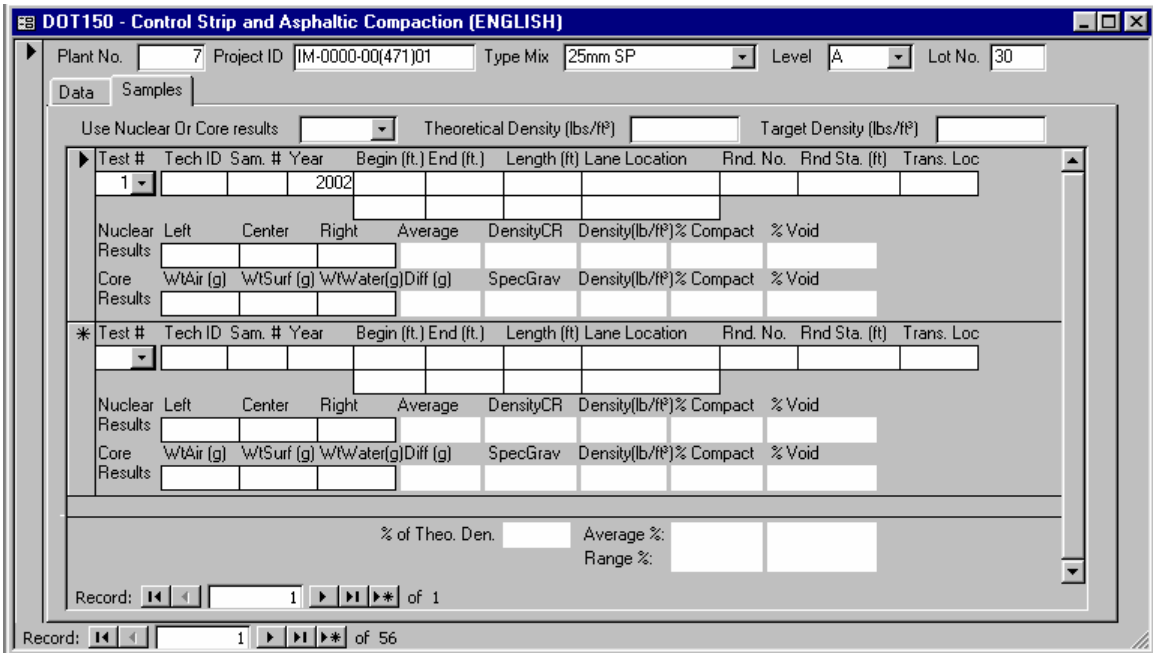


The fields on the DOT150 data form are as follows:

Plant Number	The numeric designation of the asphalt plant producing the mix.
Project ID	The project code from the DOT contract
Type of Mix	The GDOT Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Lot Number	Lot - The lot code number of the mix being tested
Level	The level of the mix
County Number	The DOT county designation code that the work for this contract is being preformed in.
District Number	The DOT District Number where the project is located. This is 1,2,3,4,5,6, or 7.
Sample Date	The date that this sample was taken
GDOT Technician Code	The technician's GDOT assigned technician code.
Prime Contractor Code Number	The 6-digit code number of the prime contractor.
Prime Contractor Name	The prime contractor's name.
Plant Location	A description of the location of the plant
Area Engineer Number	Area Engineer in charge of project
Pay Item No.	The item number for the material the test is being run on
Percent Asphalt Cement	The percent of AC in the mix: (One decimal place)
Nuclear Gauge Information	
Gauge Number	The number assigned to the gauge by the OMR. (From list of gauges)
Gauge Mode	The selected mode on the gauge used to take the samples. (From list of modes)
Calibration Factor 1 Calculated Field	Calibration factor from factor table for this gauge
Calibration Factor 2 Calculated Field	Calibration factor from factor table for this gauge
Control Strip	Check this boxes if the test is of a control strip.
Density Standard Count	The standard count measured by the gauge
Correction Factor	The density standard count correction factor for that Asphalt Mix
Corrected Standard Count Calculated Field	Density Standard Count + the Correction Factor
Use Nuclear or Core Results. Use the results from the nuclear tests or the core tests to use in the following calculations.	

Average Density	
Theoretical Density	The specified density of the material. . The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Target Density Calculated Field (for control strips only)	The average of the core densities from the nuclear or core tests depending on which one is to be used. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Percent of Theoretical Density Calculated Field	Target Density / Theoretical Density *100
Max % air voids	Specified maximum percent air voids i.e. (normally 7.8 or 8.3 but may be other)
Average Compaction Calculated Field	Average of the percent compaction field from the nuclear or core test depending on which one is to be used.
Average Voids Calculated Field	Average of the percent voids field from the nuclear or core test depending on which one is to be used.
Compaction Range Calculated Field	Compaction range percent (diff. between high and low compaction)
Void Range Calculated Field	Void range percent (diff. between high and low void)
Remarks	Any additional information.
Testing Group:	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements:	(P)ass or (F)ail

DOT150 Control Strip & Asphaltic Compaction Samples Data Entry Form



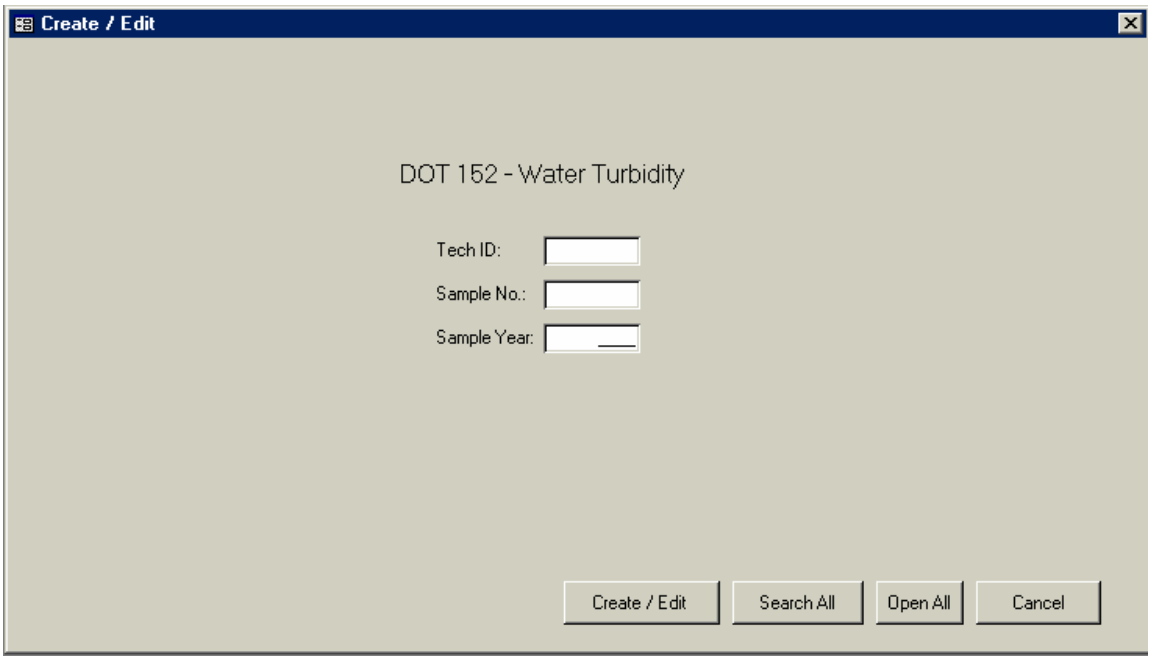
The fields on the DOT150 Samples Data Entry Form are as follows:

Samples section	
Use Nuclear or Core Results	Select either core or nuclear
Theoretical Density	Enter the Theoretical Density from Job Mix Formula
Target Density	Enter the Target Density from Job Mix Formula
Test Number	A number between 1and 10 that identifies which test on this reports this is.
Technician ID	The technician's GDOT assigned technician code
Sample Number	The number assigned to the sample by the testing technician.
Sample Year –	The year in which this sample was taken
Begin Station Number 1	The station at which this sublot begins. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30 which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360 which means the station is 4,360 meters from the start of the project.
End Station Number 1	The station at which this sublot ends. The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.

Length 1	The length of the test. The English form requires you to enter this value in feet and the Metric form requires you to enter this value in meters. If you do not use the specified unit of measure your data will be wrong.
Lane Location 1	A description of which lane the sample was taken from
Begin Station Number 2	The station at which this sublot begins. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
End Station Number 2	The station at which this sublot ends. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Length 2	The length of the test. The English form requires you to enter this value in feet and the Metric form requires you to enter this value in meters. If you do not use the specified unit of measure your data will be wrong.
Lane Location 2	A description of which lane the sample was taken from.
Random Position	A random value between 0 and 1 that represents the position between the beginning and end of the project from which this sample is to be taken. (Three decimal places) (This value is filled automatically when the record is generated but the user can overwrite this value)
Sampled Station Number	The actual station where the sample was taken. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Transverse Locations -	The random number that selects the transverse test locations
Nuclear results,	**test method GDT59**
Nuclear Left	Gauge density count measurement on left side of lane.
Nuclear Center	Gauge density count measurement in the center of lane.
Nuclear Right	Gauge density count measurement on the right side of lane.
Nuclear Average Calculated, stored	The density count measurement of Left, Center and Right. (no decimals)
Nuclear Density Count Ratio Calculated Field	Density Count / (Density Standard Count + Density Correction Factor)
Nuclear Density Calculated Field	The density calculated from the gauge readings = (log (Density Count Ratio, stored) – Calibration Factor 2) / Calibration

	Factor 1. Lbs/ft³ for English and kg/m³ for Metric
Nuclear Percent Compaction Calculated Field	(Density/target density) x 100
Nuclear Percent Voids Calculated Field	Abs ((Density/Theo Density) -1) x100
Core results,	***test method GDT39***
Core Weight Air	Weight of dry sample in air in grams.
Core Weight Surf. Air	Weight of surface-dry sample in air in grams.
Core Weight Water	Weight of sample in water in grams.
Core Difference Calculated Field	Core Weight Surface Air – Core Weight Water
Core Specific Gravity Calculated Field	Core Weight Air / (Core Weight Surf. Air – Core Weight Water)
Core Density Calculated Field	Core Specific Gravity * 62.42 lb/ft³ for English or Core Specific Gravity * 1000 kg/m³ for Metric. (Lbs/ft³ for English and kg/m³ for Metric)
Core Percent Compaction Calculated Field	(Core Density/Target Density) * 100
Core Percent Voids Calculated Field	Abs ((Core Density/Theo. Density)-1) * 100

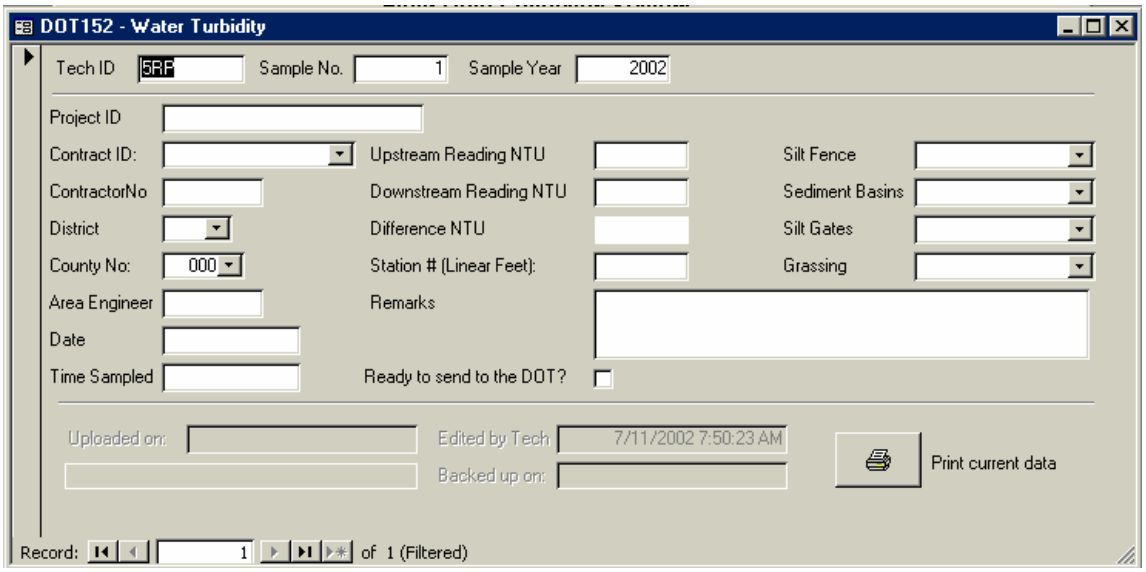
6.4 DOT 152 Water Turbidity Test Report Primary keys



The key fields that identify your DOT152 reports are:

- TechID
- Sample Number
- Sample Year

DOT 152 Water Turbidity Data Entry Form

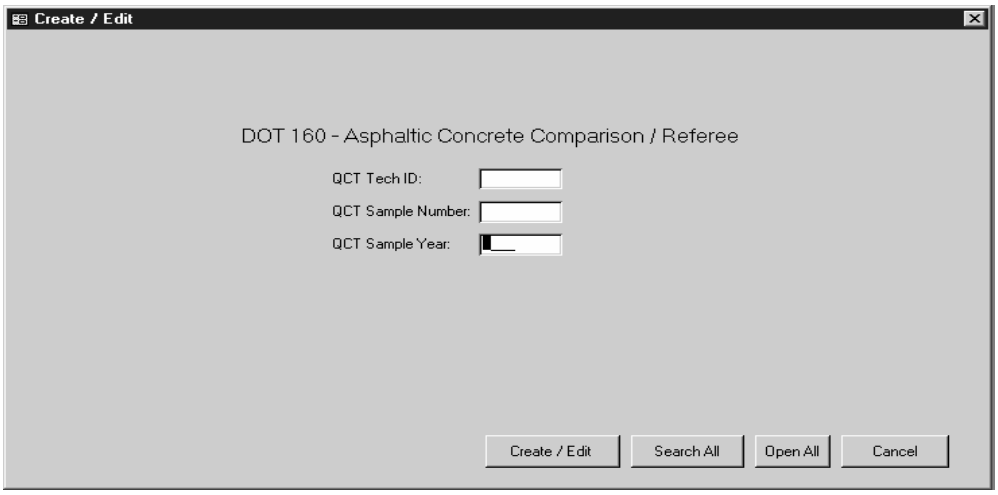


The fields on the DOT152 Data Entry Form are as follows:

Technician ID Code	The code assigned by the DOT to designated people who are authorized to submit test reports to the DOT
Sample Number	This is the arbitrarily assigned number assigned to the sample by the testing technician. This is an integer numeric value.
Sample Year	Because the sample numbers restart at the beginning of each year, each sample number must also be accompanied by the year in which the sample was taken.
Project Code	This is the project designation for the specific project being performed under the contract. You must type the project code in EXACTLY as it is issued; otherwise your data may not be filed properly.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Contractor No.	This is the ID code of the paving contractor placing the mix. The 6-digit code assigned by the Office of Contracts.
District No.	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Area Engineer	The Area Engineer ID Code for the area engineer who is responsible for the project.
Date Sampled	The date the sample was taken. The Date field is a date time object that can contain any date between 1/1/100 and 12/31/9999. Under the Microsoft Windows operating system a date can be displayed and entered in a number of different ways and depends on your country settings in the Windows control panel.
Time Sampled	The time at which the sample was taken. Under the Microsoft Windows operating system a time can be displayed and entered in a number of different ways and depends on your country settings in the Windows control panel.
Upstream reading NTU	The Upstream reading in NTUs
Downstream reading NTU	The Downstream reading in NTUs.
Difference Calculated Field	Difference between the Upstream-Downstream

Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project. It is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. If the location of the test is not at a station, then specify in the remarks.
Silt Fence, Sediment Basin, Silt Gates, and Grassing	A rating of each of these items at the test site, which may be (P)oor, (F)air, (S)atisfactory, (G)ood, or (E)xcellent.
Remarks	Any additional remarks may be entered here.
Ready To Send	Be sure and check this box if you are ready to upload the report to the GDOT server database.

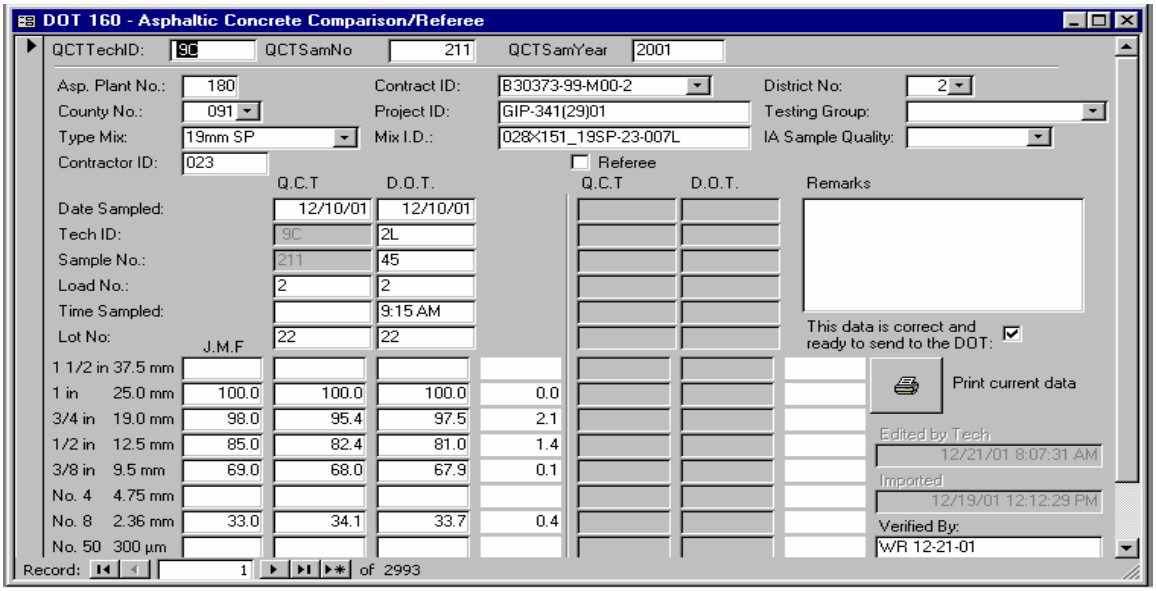
6.5 DOT 160 Asphaltic Concrete Comparison Referee Primary Keys



The key fields that uniquely identify each DOT160 record are:

- QCT Technician Number
- QCT Sample Number
- QCT Sample Year

DOT 160 Asphaltic Concrete Comparison/Referee Screen Data Entry Form



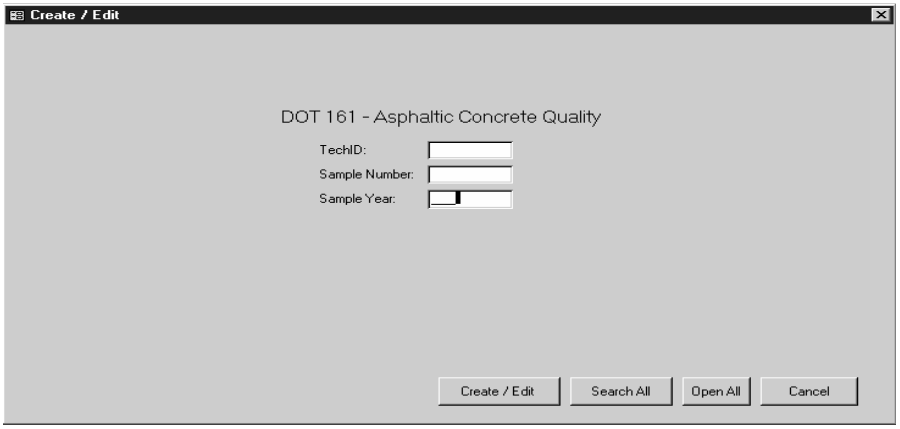
Note: The differences are calculated on the form and are not actually stored data values.

The fields on the DOT160 Data Entry Form are as follows:

QCT Technician ID	The GDOT assigned technician code of the QCT Tech taking the sample.
QCT Sample Number	The number assigned to the sample by the QCT Technician.
QCT Sample Year	The year this sample was taken in.
Asphaltic Plant Number	An Asphalt Plant Number is the designation assigned by the DOT to asphalt producers that supply material to the DOT. The plant number entered must be the number of the plant producing the mix. This is a numeric field. Only numbers may be entered.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Type Mix	The GDOT Asphaltic Concrete Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Contractor ID	The code number of the paving contractor placing the mix.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in EXACTLY as it is issued; otherwise your data may not be filed properly.
Mix. I.D. Code	The mix ID code of the Job Mix Formula.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Testing Group	The testing group that took this sample: Independent Assurance, Testing Management, or Contractor.
Independent Assurance Sample Quality	The sample quality as determined by an Independent assurance-testing technician.
Job Mix Formula	The percent passing or percent AC for each sieve from the job mix formula.
QCT Date Sampled	The date this sample was taken.
QCT Load Number	The load number of the sample being tested.
QCT Time	The time the mix was sampled.
QCT Lot Number	The lot this sample is from.
QCT Percent Passing and Percent AC	The percent passing each sieve from the QCT's test.
GDOT Sample Date	The date this sample was taken.
GDOT Technician ID	The GDOT Technician ID of the GDOT technician taking this sample.
GDOT Sample Number	The technician ID number and the sample number of this sample.
DOT Load Number	The load number of the sample being tested.
DOT Time	The time the mix was sampled.
DOT Lot Number	The lot this sample is from.

DOT Percent Passing or Asphalt Cement	The percent passing the sieve or percent AC.
Referee	Check this box if there is a referee sample.
Referee QCT Date Sampled	Check this box if there is a referee sample.
Referee QCT Technician ID	The GDOT Technician ID of the QCT technician taking this sample.
Referee QCT Sample Number	The number assigned to this sample by the testing technician.
Referee QCT Load Number	The GDOT assigned technician code of the QCT Tech taking the sample.
Referee QCT Time	The time the mix was sampled.
Referee QCT Lot Number	The lot this sample is from.
Referee QCT Percent Passing and Percent AC	The percent passing each sieve from the QCT's test.
Referee DOT Sample Date	The date this sample was taken.
Referee DOT Technician ID	The GDOT Technician ID of the GDOT technician taking this sample.
Referee DOT Sample Number	The number assigned to this sample by the testing technician.
Referee DOT Load Number	The load number of the sample being tested.
Referee DOT Time	The time the mix was sampled.
Referee DOT Lot Number	The lot this sample is from.
Referee DOT Percent Passing or AC	The percent passing the sieves or percent AC.
Remarks	Any additional information you want to record.

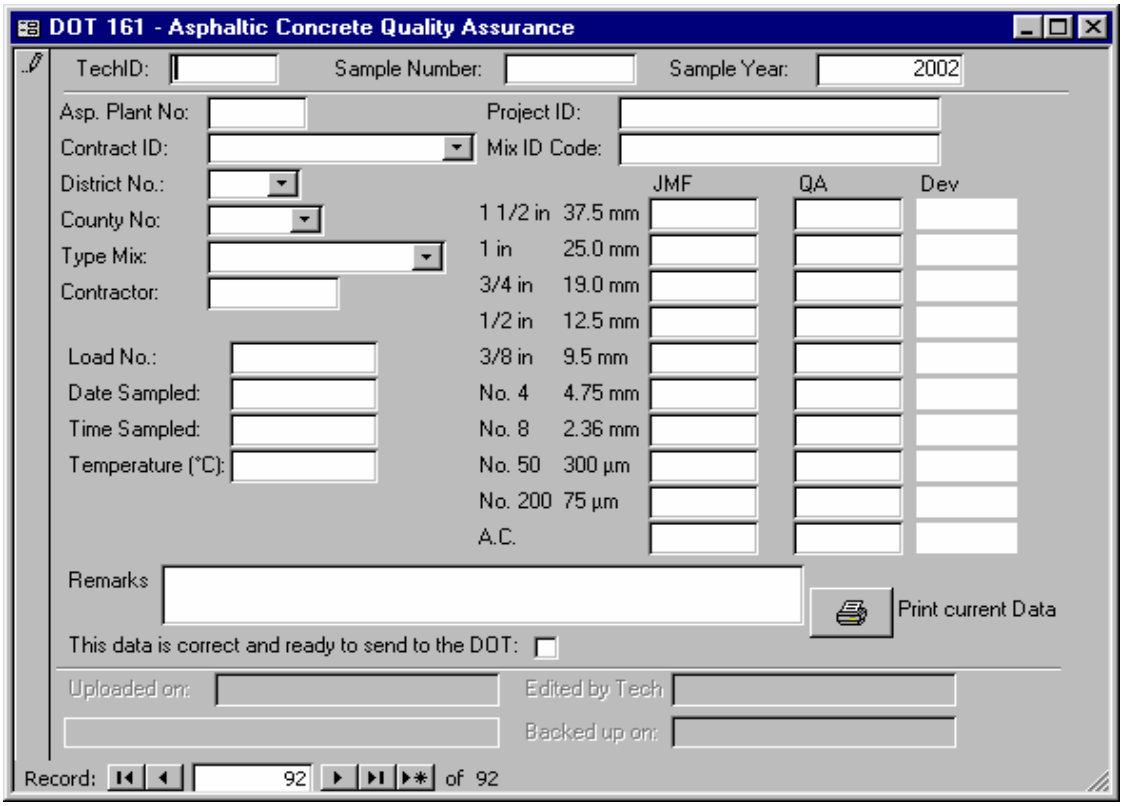
6.6 DOT 161 Asphaltic Concrete Quality Primary Keys



The fields that uniquely identify DOT161s are:

- Technician ID
- Sample Number
- Sample Year

DOT 161 Asphaltic Concrete Quality Assurance Data Entry Form



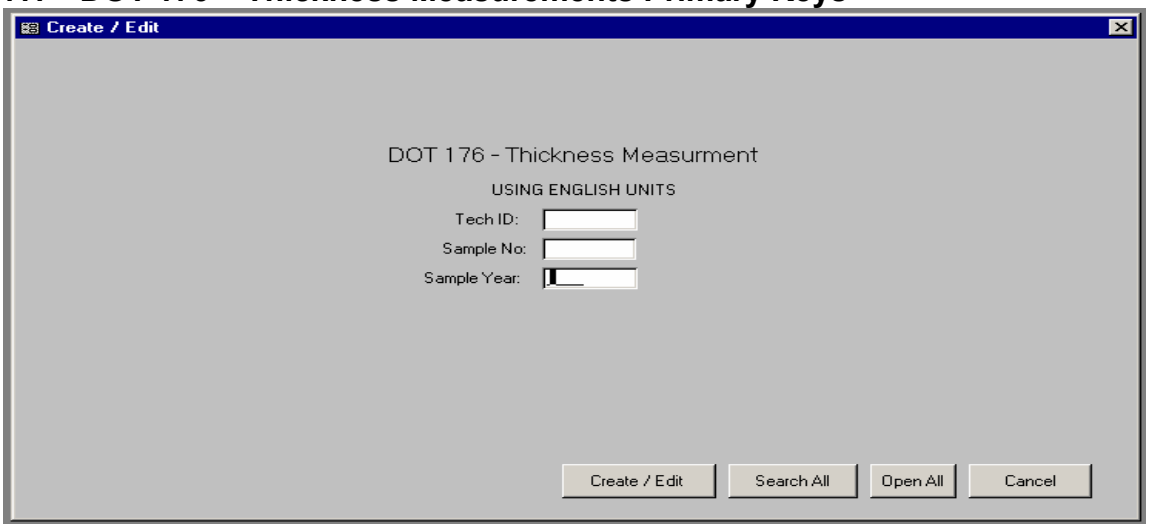
The fields on the DOT161 Data Entry Form are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Asphaltic Concrete Plant Number	An Asphalt Plant Number is the designation assigned by the GDOT to asphalt producers that supply material to the GDOT. The plant number entered must be the number of the plant producing the mix. This is a numeric field. Only numbers may be entered.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Type Mix	The GDOT Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Contractor Code	The code number of the paving contractor placing the mix
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
Mix. I.D. Code	The mix ID code of the Job Mix Formula.
Load Number	The load number of the sample being tested.
Date Sampled	The date the mix was sampled.
Time Sampled	The time the mix was sampled.
Temperature	The temperature, in Fahrenheit (around 300) or Celsius (around 150), of the mix
Job Mix Formula	The Percent passing per sieve as specified in the job mix formula and the percent asphalt cement specified on the job mix formula.
QA Percent Passing and AC	The percent passing the sieve or percent AC
Remarks	Any additional information you want to record.

7 Independent Assurance Test Data Entry Forms

The Federal Highway Administration requires that the Georgia Department of Transportation evaluate project acceptance sampling and testing, to determine that the Department's Quality Control Program is sufficient and is being effectively applied to assure that materials and test procedures used are in substantial compliance with the Department's requirements. To meet this requirement the **Independent Assurance Unit** performs comparison sampling and testing while project acceptance sampling and testing is being performed. This process assures that the Department's acceptance program complies with all sampling and testing procedures. This in turn assures that construction procedures and construction materials comply with the Department Specifications. In a typical year the Independent Assurance Engineers will conduct approximately 10,000 assurance tests. The Independent Assurance Unit also provides technical support for the GDOT's Lead Abatement Program for structural steel bridges. The test report forms listed under the IA tab are used in the field by the Independent Assurance Unit to collect and distribute field test data.

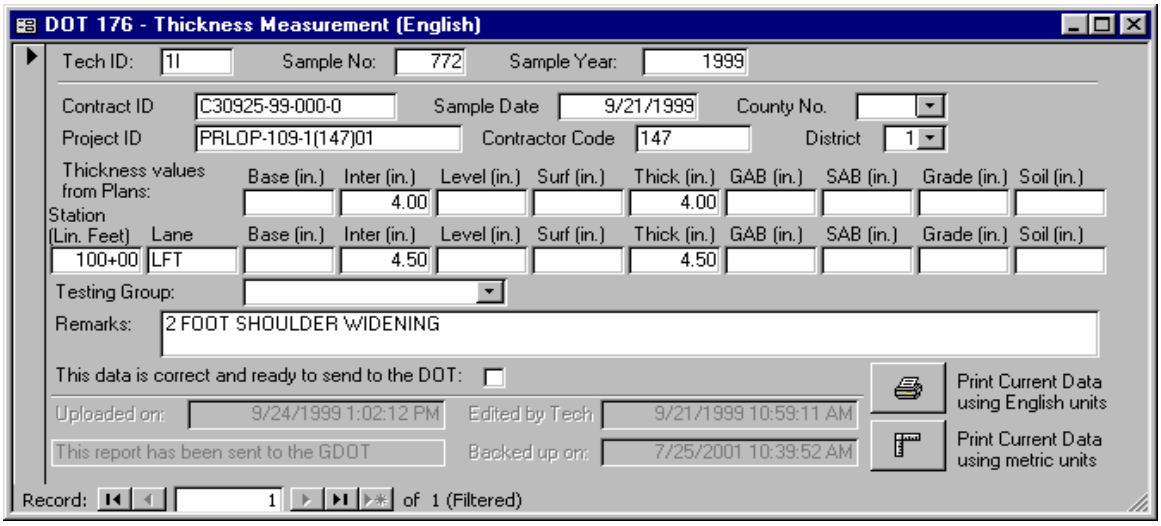
7.1 DOT 176 – Thickness Measurements Primary Keys



The key fields that uniquely identify each DOT176 record are:

- Technician ID
- Sample Number
- Sample Year

DOT 176 – Thickness Measurements Test Data Form



The fields on the DOT176 form are as follows:

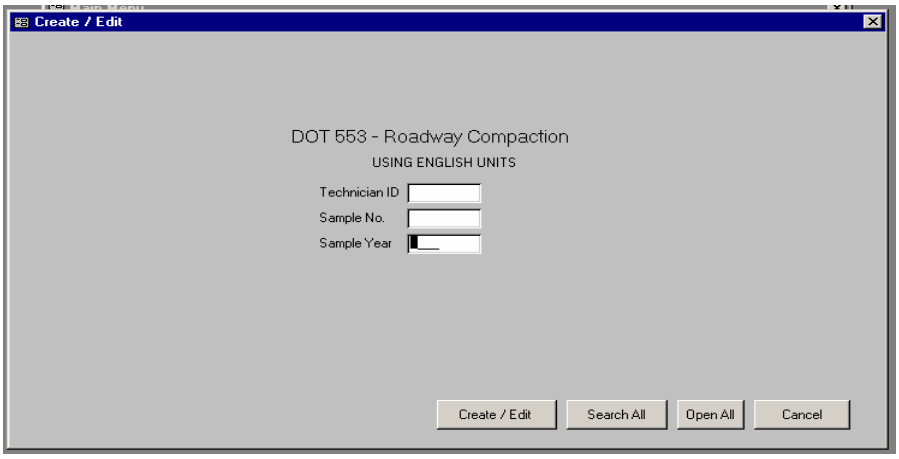
Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Sample Date	The date the mix was sampled.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in EXACTLY as it is issued; otherwise your data may not be filed properly.
Contractor Code	The code number of the paving contractor placing the mix. This is a 6-digit code assigned by the Office of Contracts.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Plan Base	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to

	enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Intermediate	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Level	The Required Leveling Thickness that is required to bring this location to Typical Selection or the Required Leveling Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Surface	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Thickness	Total Required thickness. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Graded Aggregate Base	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Soil Aggregate Base	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value

	in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Grade	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Plan Soil	The Required thickness that is required to bring this location to Typical Selection or the Required Thickness from the plans. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Lane	The lane the measurement was taken, example SBL
Base	The base measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. You if you do not use the specified unit of measure your data will be wrong.
Intermediate	The intermediate measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Level	The level measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to

	enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Surface	The surf measurement of the core. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Thickness	The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Graded Aggregate Base	The total measurement of the final lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Soil Aggregate Base	The total measurement of the final lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Grade	The total thickness of the final lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Soil	The total thickness of the final lift. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Testing Group	Comparison sample by independent assurance.
Remarks	Any additional information that is needed for this record.

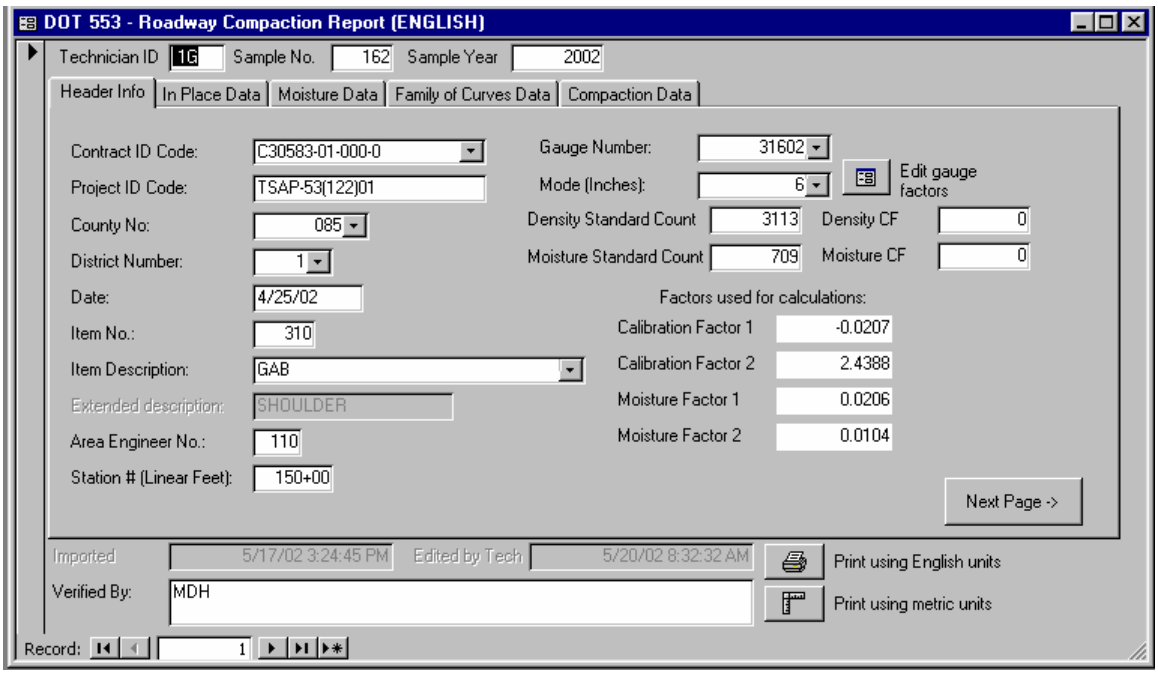
7.2 DOT 553 – Roadway Compaction Report Primary Keys



The key fields that uniquely identify each 553 record are:

- Technician Number
- Sample Number
- Sample Year

DOT 553 Roadway Compaction Header Data Entry Form

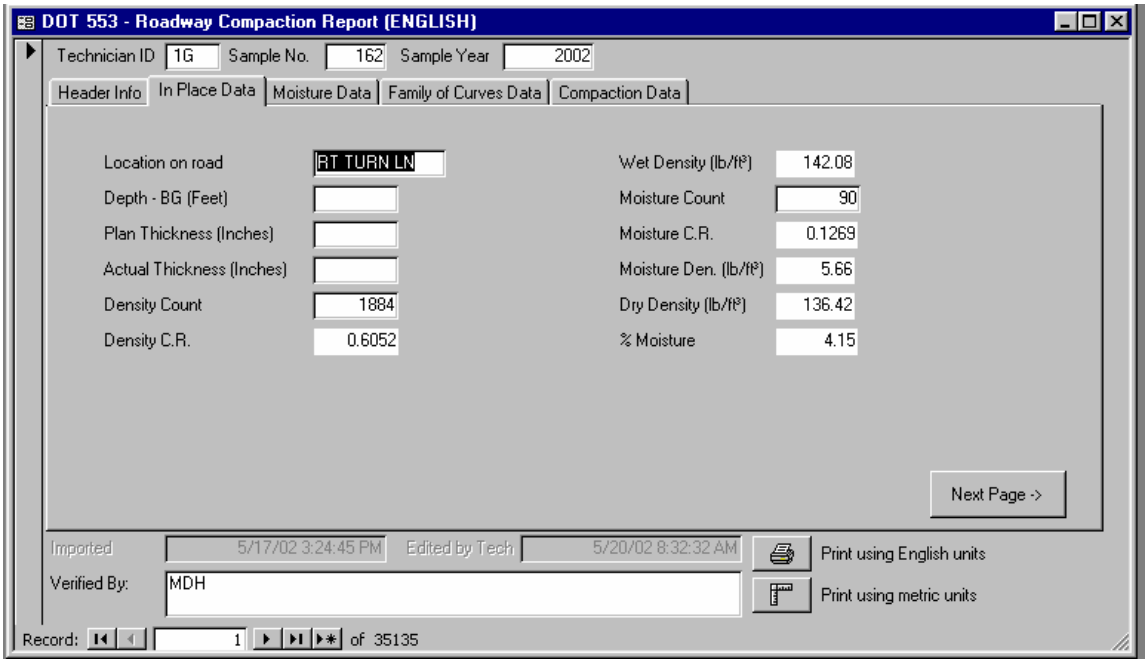


This is the screen that appears when browsing all reports. The project and the related planned thickness appear at the top.
Like the 159, the 553 reports have enough fields that it has been separated in to five tabs. Click on the desired tab to display the corresponding panel.

The fields on the Header Info Data Entry Form are as follows:

Technician ID	The GDOT assigned code of the technician taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year in which this sample was taken.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Date	The date this sample was taken.
Item Number	The item number for the material the compaction is being run on.
Item Description	The type of material being tested. Select a valid type from the drop down list.
Extended Description	Extended description of item if "other" is selected for item description.
Area Engineer Number	The area engineer in charge of the project.
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Nuclear Gauge Number	The number of the nuclear gage used by the technician. This must be a valid gauge from the list of available gauges. If your gauge number does not appear you may need to update the calibration factors.
Mode	The mode the gauge is set to: 50, 100, 150, 200, 250, 300, BB, or BS in Metric or. 2, 4, 6, 8, 10, 12, BB, or BS in English.
Density Standard Count	The density standard count of the gauge
Density Correction Factor	The density standard count correction factor.
Moisture Standard Count	The moisture standard count of the gauge
Moisture Correction Factor	The moisture standard count correction factor.

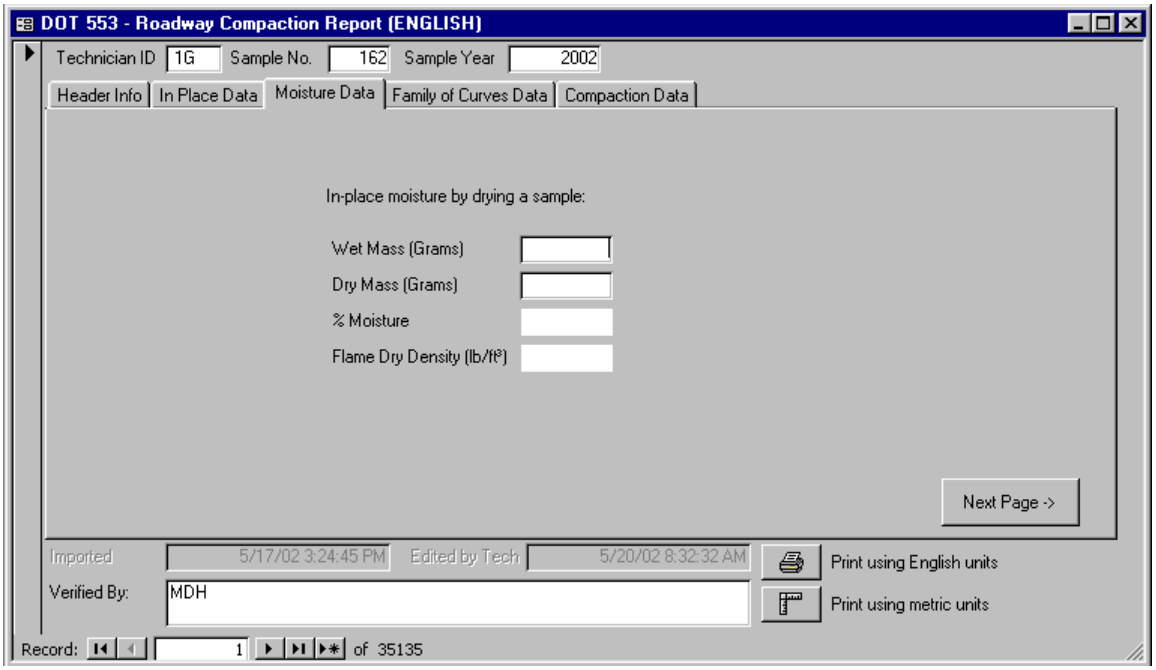
DOT 553 Roadway Compaction Report (In Place Data Entry Form)



The following fields are on the In Place Data Entry Form

Location on road	Location of the road where the sample is taken.
Depth Below Grade (feet)	The depth below grade that the sample represents.
Plan Thickness (inches)	Plan thickness of the course being tested
Actual Thickness	Actual thickness of the course being tested
Density Count	Nuclear Gauge Density Count
Density Correction Factor	Nuclear Gauge Density Correction Factor
Wet Density Calculated Field	Calculated Field Wet Density Lbs. Per Cubic Ft.
Moisture Count	Nuclear Gauge Moisture Count
Moisture Correction Factor	Nuclear Gauge Moisture Correction Factor
Moisture	Moisture Density Lbs. Per Cubic Ft.
Dry Density Calculated Field	Calculated Field Dry Density Lbs Per Cubic Ft.
% Moisture	Moisture in percent

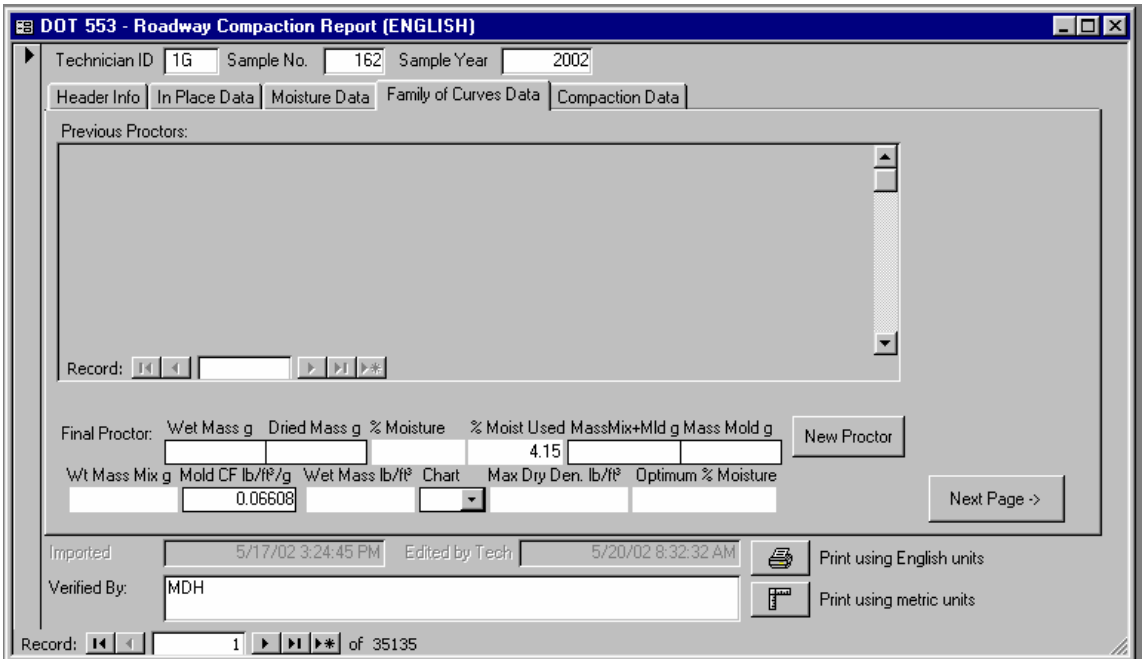
DOT 553 Roadway Compaction Report Moisture Data Entry Form



The following fields are on the Moisture Data Entry Form

Wet Mass	The total mass in grams used for moisture sample.
Dry Mass	The final dry mass in grams of the moisture sample
% Moisture	Calculated Field % Moisture based upon the values for the Wet Mass and Dry Mass it's the difference between Wet Mass and Dry Mass divided by Dry Mass X 100.
Flame Dry Density	Calculated Field Dry Density based upon the Frame dried moisture.

DOT 553 Roadway Compaction Report Family of Curves Data Entry Form



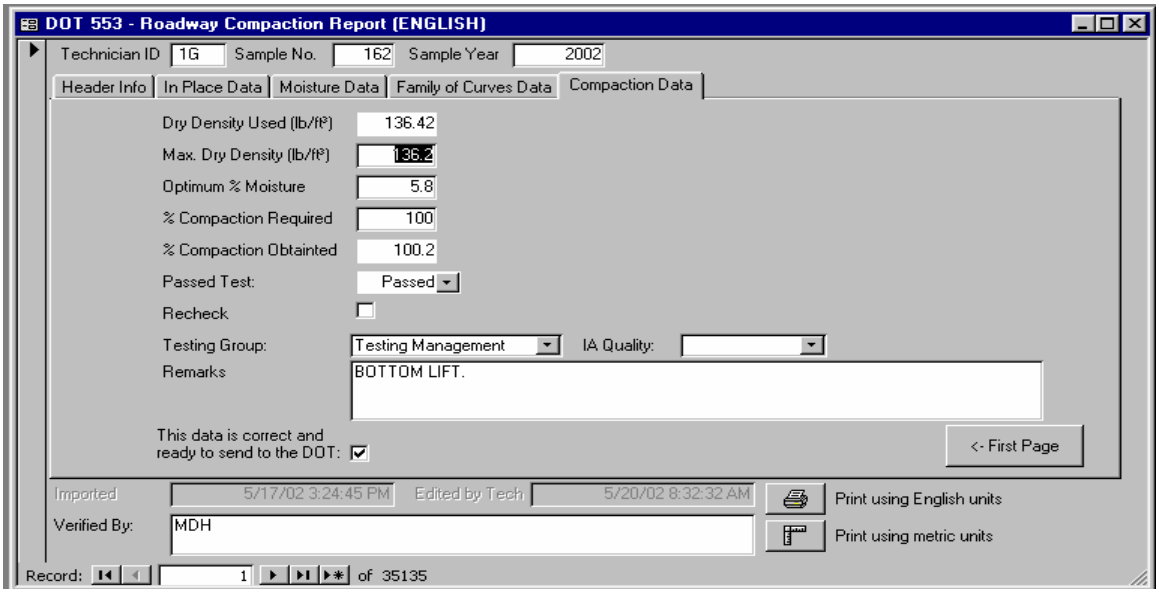
The following fields are on the Family of Curves Data Form

Family of Curves Data	from proctor
Wet Mass	Total mass of the sample in grams.
Dried Mass	Final dry mass of the sample in grams.
% Moisture	Calculated Field % Moisture based upon the values for the Wet Mass and Dry Mass it's the difference between Wet Mass and Dry Mass divided by Dry Mass X 100.
% Moisture Used	Calculated Field
Mass of Mixture plus Mold	The mass of the sample plus the weight of the mold in grams.
Mass of Mold	The mass of the mold in grams.
Wet Mass Mixture	Calculated Field
Mold Correction Factor	Mold Correction Factor in lb/ft³/g in English or kg/m³/g in Metric.
Wet Mass Corrected	Calculated Field
Chart	The Family of Curves chart to use A, B, C or L for Laboratory values.
Maximum Dry Density	Maximum. Dry Density from Family of Curves table. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Optimum Percent Moisture	Optimum Percent Moisture from Family of Curves table that corresponds to the Maximum Dry Density selected.

Note: The fields you can enter represent the "final proctor". If a new set of measurements from another proctor is needed, then click "New Proctor". The old data will be moved in to the "Previous Proctors" section and you may enter the new set of measurements in the "final proctor" section

.

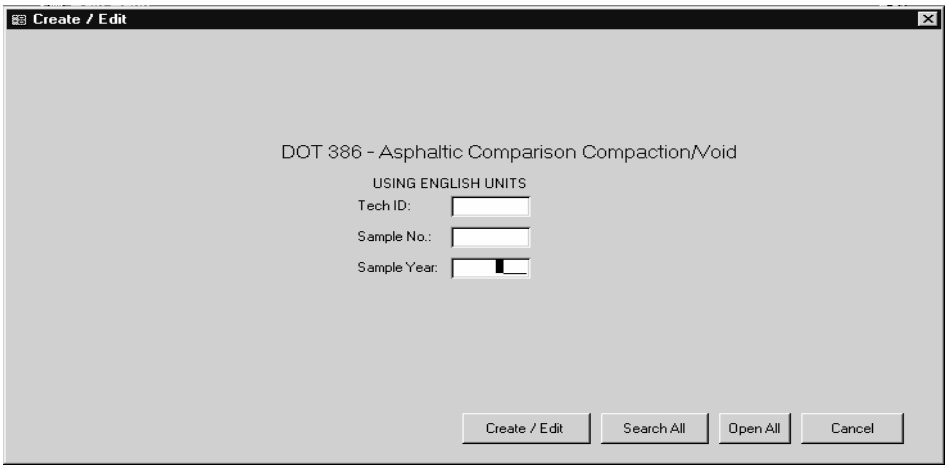
DOT 553 Roadway Compaction Report Compaction Data Entry Form



The following fields are on the Compaction Data Entry Form

Maximum Dry Density	The Calculated Field Maximum dries density. This value can be over written. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Optimum Percent Moisture	Optimum Percent Moisture in the sample.
Percent Compaction Required	Percent compaction required for this test.
Recheck	Check this boxes if the sample is a recheck.
Testing Group	Select the testing group that took this sample.
Independent Assurance Quality	The Sample Quality as reported by IA techs.
Remarks	Any additional remarks.

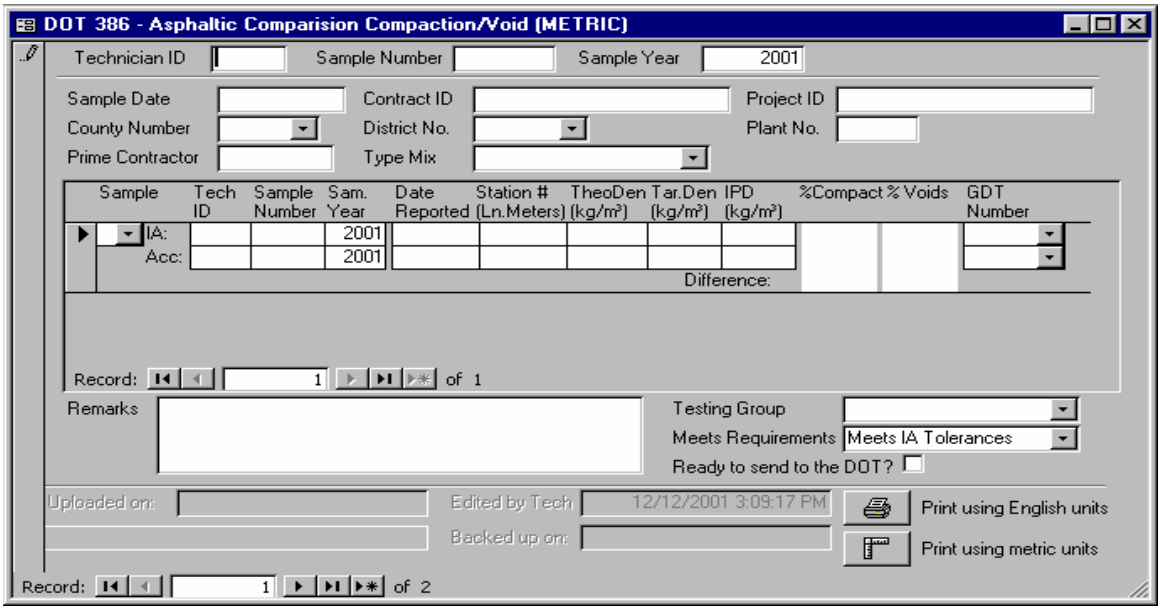
7.3 DOT386 Asphalt Comparison Compaction / Void Primary Keys



The key fields that uniquely identify each DOT386 record are:

- Technician Number
- Sample Number
- Sample Year

DOT386 - Asphalted Comparison Compaction / Void Data Entry Form



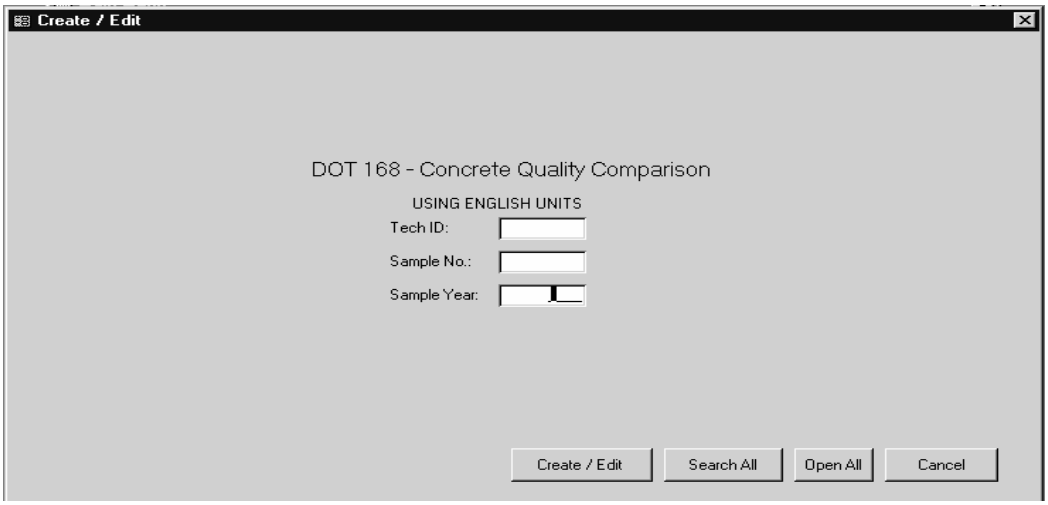
Note: The comparison test is assigned the sample number of the first sample taken, but may contain more samples taken immediately after the first sample. Usually there are 5 samples.

List of entry fields on the DOT386 form are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Asphalt Plant Number	The numeric designation of the asphalt plant producing the mix.
Prime Contractor Code	The 6-digit ID code of the paving contractor placing the mix.
Type of Mix	The GDOT Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
	Each GDOT 386 comparison test may have one or more comparison samples
	Independent Assurance sample
IA Technician ID	The GDOT assigned Independent Assurance technician code of the person taking this sample.
IA Sample Number	The sample number assigned to the sample by the testing technician.
IA Sample Year	The year that the sample was taken in.
IA Sample Date	The date that the Independent Assurance sample was taken in
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
IA Theoretical Density	The void less density of the mix. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
IA Target Density	The specified density requirement. . The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
IA In Place Density	The measured density of the material tested. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the

	specified unit of measure your data will be wrong.
IA Percent Compaction Calculated Field	In place Density/ Target Density *100 (In percent)
IA Percent Voids Calculated Field	Abs (((In place density / theoretical density)-1)*100) The percentage of the voids (non solid mix or air) in the in place mixes.
IA GDT Number	Test specification number from sampling and testing manual. Either GDT59 or GDT310.
Acceptance Testing sample	
Acceptance Technician ID	The GDOT assigned Acceptance Testing technician code of the person taking this sample.
Acceptance Sample Number	The number assigned to the sample by the testing technician.
Acceptance Sample Year	The year that the sample was taken in.
Acceptance Sample Date	The date that the IA sample was taken in
Acceptance Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Acceptance Theoretical Density	The void less density of the mix. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Acceptance Target Density	The specified density requirement. . The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Acceptance In Place Density	The measured density of the material tested. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Acceptance Percent Compaction Calculated Field	In place Density/ Target Density *100 (In percent)
Acceptance Percent Voids Calculated Field	Abs (((In place density / theoretical density)-1)*100) The percentage of the voids (non solid mix or air) in the in place mixes.
Acceptance GDT Number	Test specification number from the sampling and testing manual. Either GDT59 or GDT310.
Remarks	Any additional remarks
Testing Group:	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements:	(M)eets (E)xceeds

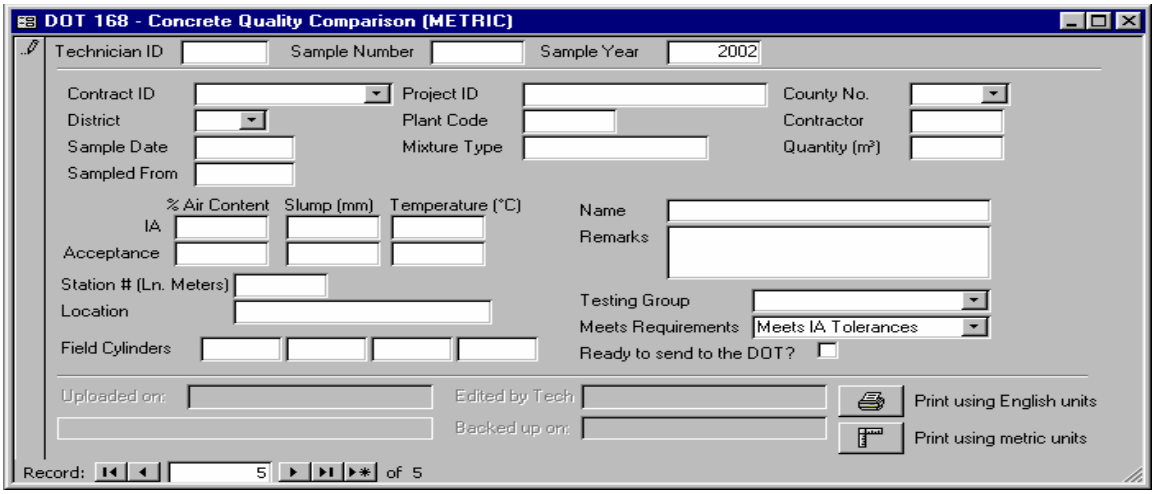
7.4 DOT168 - Concrete Quality Comparison Form Primary Keys



The key fields that uniquely identify each DOT168 record are:

- Technician Number
- Sample Number
- Sample Year

DOT168 - Concrete Quality Comparison Data Entry Form

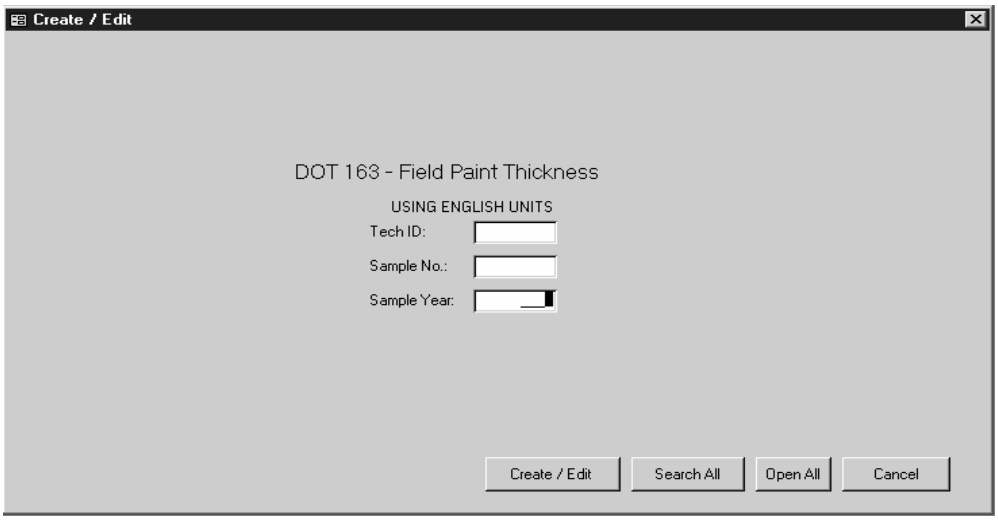


List of entry fields on the DOT168 are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Asphaltic Plant Code	The plant that produced the material
Prime Contractor Code	The 6-digit ID code of the paving contractor placing the mix. This is the Vendor code assigned by the Office of Contracts.
Sample Date	The date that the sample was taken in
Mixture Type	A description of the mixture being sampled
Quantity	The amount of material for this test. . The English form requires you to enter this value in yards^3 and the Metric form requires you to enter this value in meters^3. If you do not use the specified unit of measure your data will be wrong.
Sample From	A description of where the material was sampled from.
Independent Assurance Results	
IA % Air Content	% Air Content of the concrete mixture as measured by Independent Assurance Technician.
IA Slump	The slump of the concrete mixture determined from slump test as measured by Independent Assurance. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
IA Temperature	The temperature of the mix as measured by Independent Assurance Technician. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
Acceptance Results	
Acceptance % Air Content	% Air Content of the concrete mixture as measured by acceptance.

Acceptance Slump	The slump of the concrete mixture determined from slump test as measured by Acceptance Testing. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Acceptance Temperature	The temperature of the mix as measured by Acceptance Testing Technician. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
Station Number	The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4360 meters from the start of the project.
Location	Physical location of where the concrete is placed on a project. This can be the name of a bridge or comment
Field Cylinder #1	The designation of the cylinders of concrete that were produced used to test the compressive strength of the concrete mixture – additional cylinder numbers can be listed in the comments if there are more than 4. Designations are each 5 characters long.
Field Cylinder #2	The designation of the cylinders of concrete that were produced used to test the compressive strength of the concrete mixture – additional cylinder numbers can be listed in the comments if there are more than 4. Designations are each 5 characters long.
Field Cylinder #3	The designation of the cylinders of concrete that were produced used to test the compressive strength of the concrete mixture – additional cylinder numbers can be listed in the comments if there are more than 4. Designations are each 5 characters long.
Field Cylinder #4	The designation of the cylinders of concrete that were produced used to test the compressive strength of the concrete mixture – additional cylinder numbers can be listed in the comments if there are more than 4. Designations are each 5 characters long.
Name	The name of the individual who made the cylinders and was observed to be in accordance with GDT 26,27 & 35 procedures.
Remarks	Any additional remarks
Testing Group	(I)ndependent Assurance or (A)cceptance Testing
Results	Meets IA Tolerance or Exceeds IA Tolerances

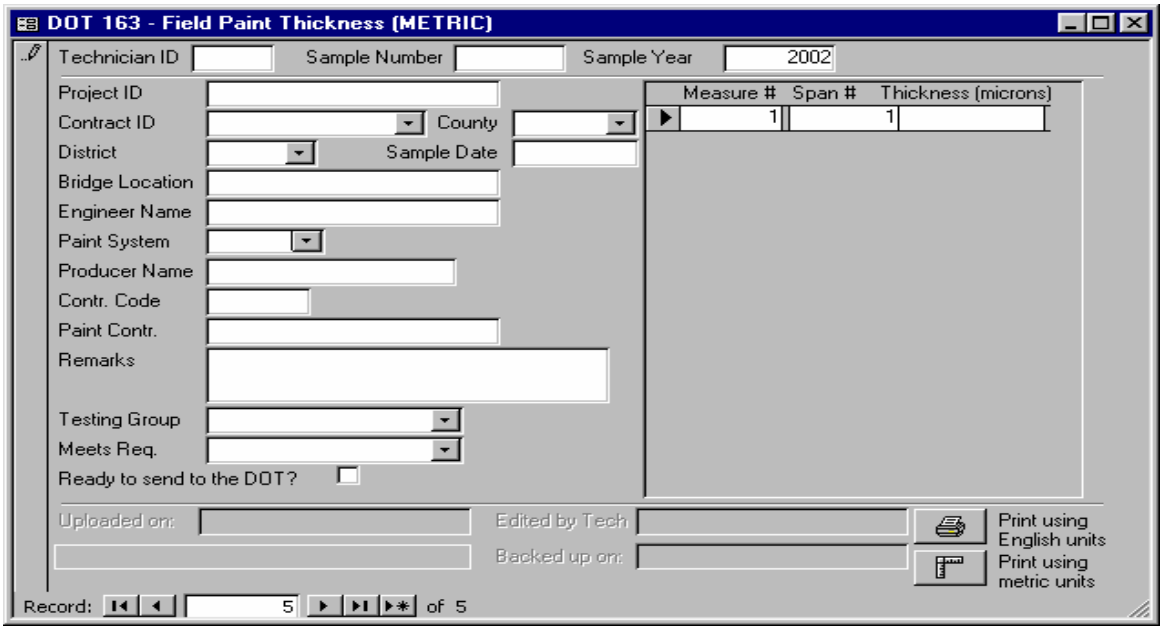
7.5 DOT163 - Field Paint Thickness Primary Keys



The key fields that uniquely identify each 163 record are:

- Technician Number
- Sample Number
- Sample Year

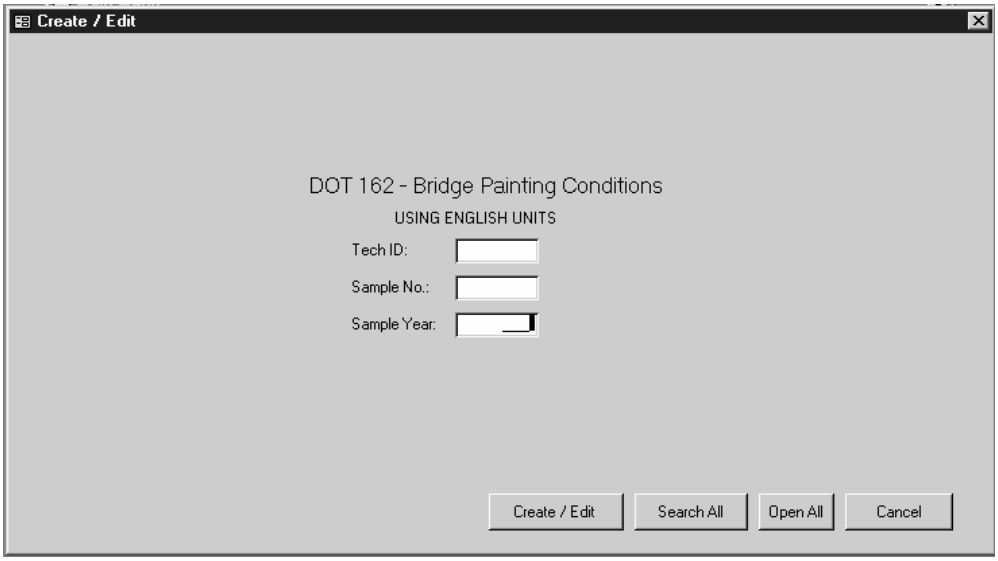
DOT163 - Field Paint Thickness Data Entry Form



List of entry fields on the DOT163 are as follows:

Technician ID	The GDOT assigned code of the technician taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year in which this sample was taken.
Project ID	This is the project designation for the specific project being performed under the contract.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample date	The date the sample was taken.
Bridge Location	The name or description of the location of the bridge.
Project Engineer Name	The name of the project engineer.
Paint System	The number of the painting system specification used on this location. Paint system specifications are designated using roman numerals.
Producer Name	The name of the company that produced the paint used at this location.
Prime Contractor Code	The code for the contractor performing this project.
Paint Contractor Code	The code of the subcontractor performing the painting.
Remarks	Any additional remarks
Testing Group:	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements	(P)ass or (F)ail
Thickness Measurements	
Measurement Number	An incremental number to identify the measurement
Span Number	The span this measurement was taken from
Thickness Measurement	The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.

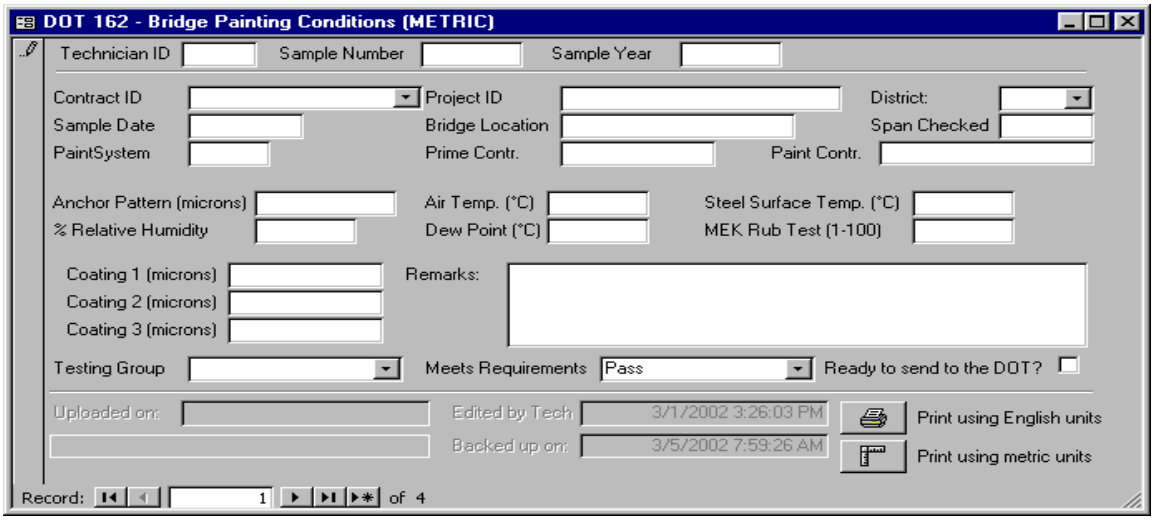
7.6 DOT162 - Bridge Painting Conditions Primary Keys



The key fields that uniquely identify each DOT162 record are:

- Technician Number
- Sample Number
- Sample Year

DOT162 - Bridge Painting Conditions Data Entry Form

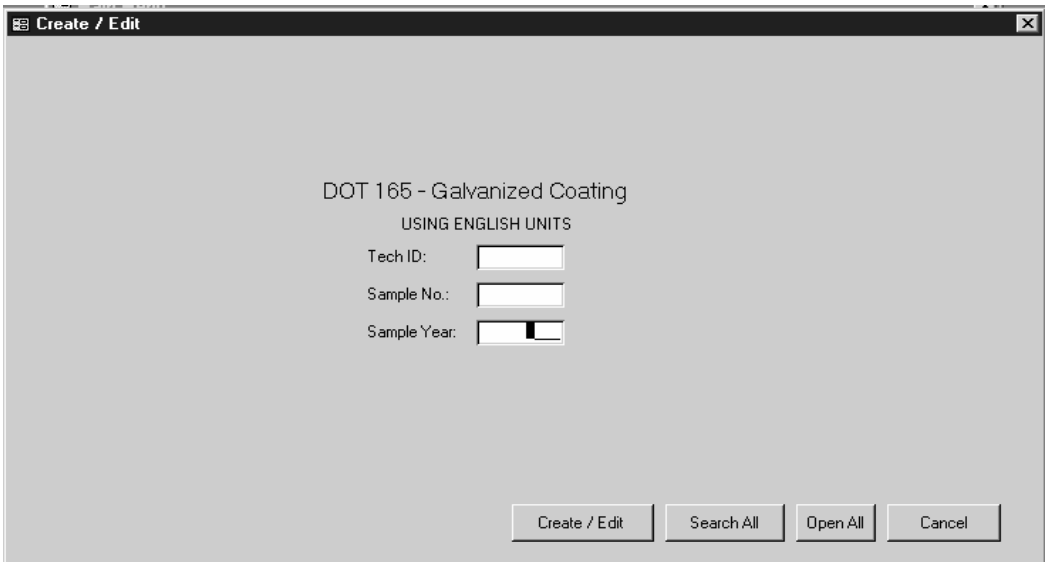


List of entry fields on the DOT162 are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date this sample was taken
Bridge Location	The name or a description of the location of the bridge.
Span Checked	The number that represents the span the sample was taken on from the bridge.
Paint System	The number of the painting system specification used on this location.
Prime Contractor Code	The code of the contractor performing this project. This is the 6 digit Vendor code assigned to the prime contractor by the Office of Contracts.
Paint Contractor Code	The code of the subcontractor performing the painting.
Anchor Pattern	The measured roughness of the steel beam. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Air Temperature	The ambient air temperature bridge location. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.

Steel Surface Temperature	The measured temperature of the steel from the bridge. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
% Relative Humidity	The measured percent humidity at the bridge location
Dew Point	The measured dew point temperature at the bridge location. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
MEK Rub Test	The visual measurement (1 to 10) of the quality of the coating
Coating 1	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Coating 2	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Coating 3	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Remarks	Any additional remarks
Sampling Group	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements:	(P)ass or (F)ail

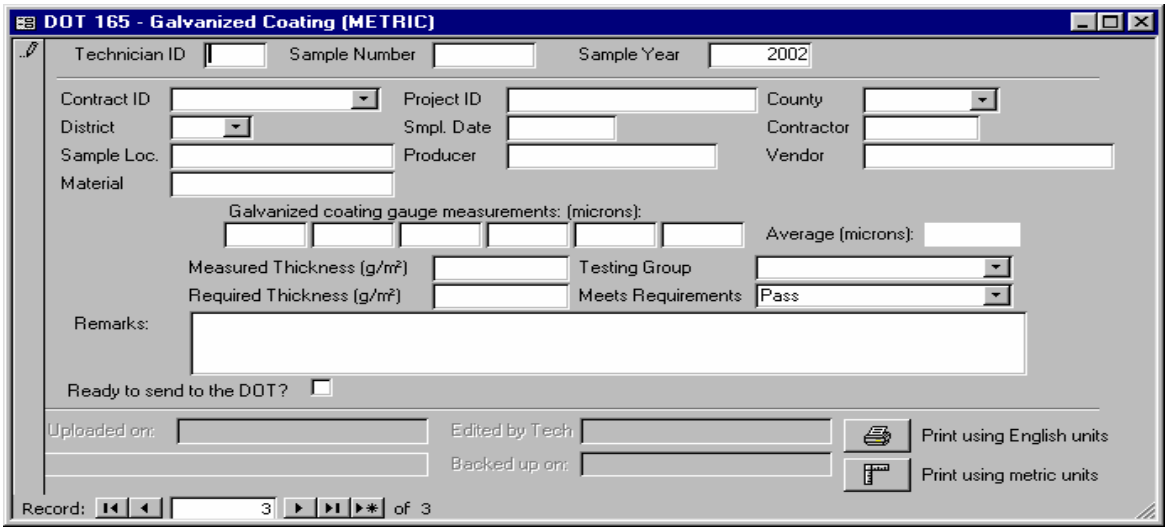
7.7 DOT165 - Galvanized Coating Primary Keys



The key fields that uniquely identify each 165 record are:

- Technician Number,
- Sample Number
- Sample Year

DOT165 - Galvanized Coating Data Entry Form

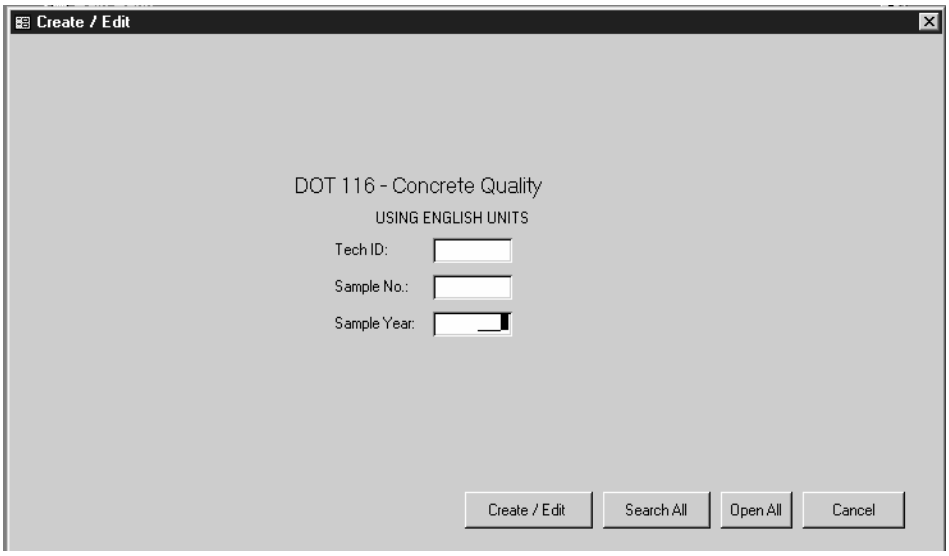


List of entry fields on the DOT165 are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date that this sample was taken on
Prime Contractor Code	The code for the contractor performing this project. The 6-digit vendor code assigned by the Office of Contracts to each vendor performing state work.
Sampled from	A description of the location the sample was taken from
Producer Name	The name of the plant or contractor where the material came from
Vendor Name	The name of the vendor who sold the material if different from the producer.
Material	The coated galvanized material being tested such as Guardrail, bolt nut, post, etc.
Gauge Reading # 1	The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns
Gauge Reading # 2	The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns.
Gauge Reading # 3	The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns.

Gauge Reading # 4	The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns.
Gauge Reading # 5	The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns.
Gauge Reading # 6	GaugeReading6 – The gauge measurement of the thickness of the galvanized coating. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns.
Average Reading Calculated Field	The average of the 6 gauge readings
Measured Thickness	The measured thickness of the galvanized coating. . The English form requires you to enter this value in oz/ft² and the Metric form requires you to enter this value in g/m².
Required Measured Thickness	The specified required thickness of the galvanized coating. The English form requires you to enter this value in oz/ft² and the Metric form requires you to enter this value in g/m
Remarks	Any additional remarks and data.
Testing Group	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements	(P)ass or (F)ail

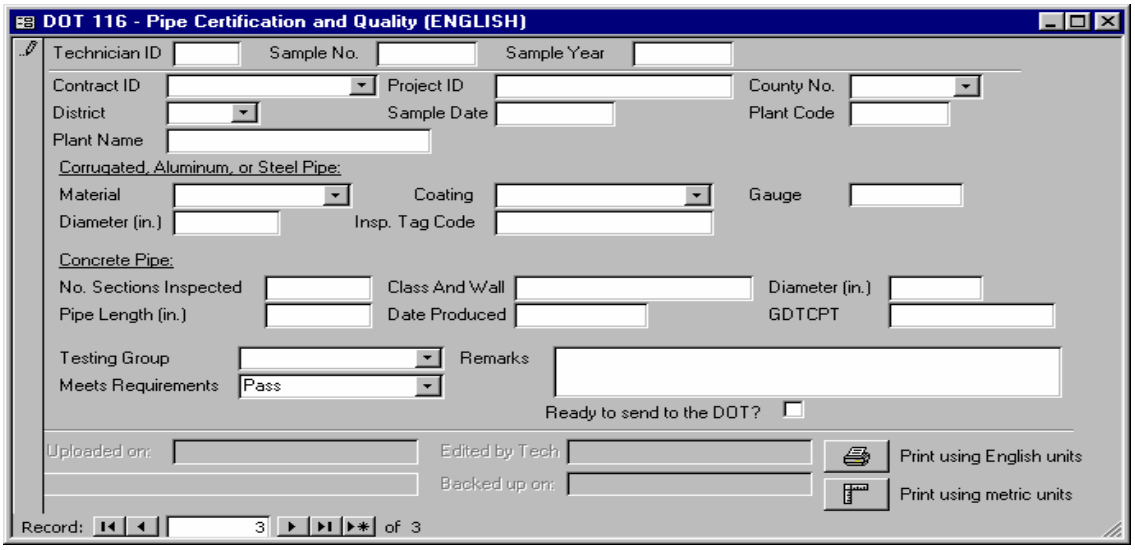
7.8 DOT116 - Pipe Certification and Quality Primary Keys



The key fields that uniquely identify each DOT116 record are:

- Technician Number,
- Sample Number
- Sample Year

DOT116 - Pipe Certification and Quality Data Entry Form

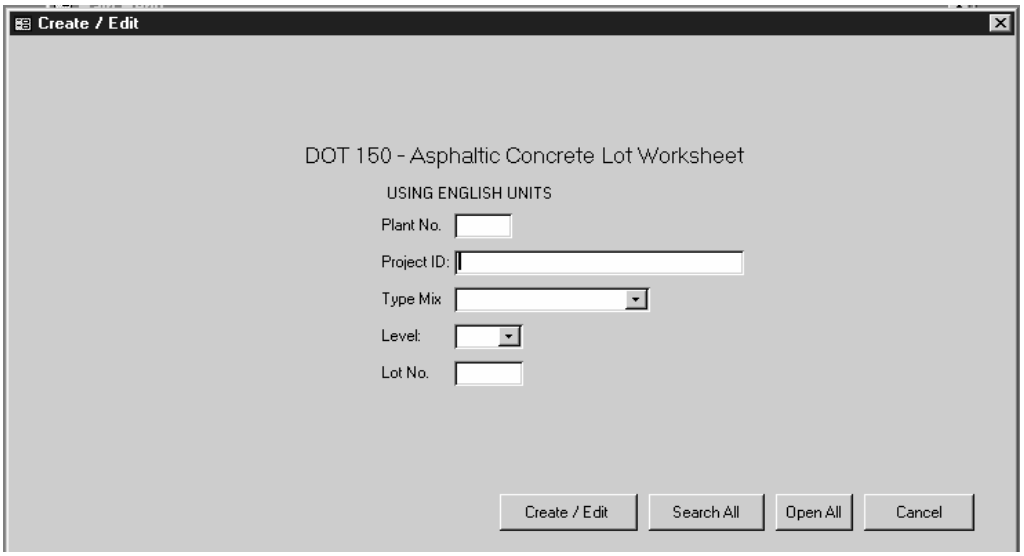


List of entry fields on the DOT116 are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The
Project ID	This is the project designation for the specific project being performed under the contract. -
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date that this sample was taken on
Pipe Plant Code	The plant code, if applicable, of the manufacturer of the pipe.
Manufacturer Name	The name of the manufacture of the pipe
Pipe Material	"Corrugated, Aluminum, or Steel" (G)alvanized steel, (A)luminized steel, or a(L)uminum alloy.
Pipe Coating	(P)lain, (A) – fully coated, (B) –half coated and paved, or (C) – fully coated and paved, (D) – fully coated and 100%paved or limed.
Heat Number	The reference code from the pipe that identifies the batch the manufacturer produced it in.
Pipe Gauge	The measured gauge of the pipe
Pipe Diameter	The measured diameter of the pipe. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters. If you do not use the specified unit of measure your data will be wrong.
Inspection Tag Number	The reference number that the plant inspector stamps on to the pipe
Section "Concrete Pipe"	
Number Sections Inspected	Number of sections inspected.
Class & Wall	Certification information stamped inside pipe.
Diameter of Pipe	The measured diameter of the section of pipe being tested. The English form requires you to enter this value in inches and the Metric form requires you to enter this value in millimeters.

Length of Section of Pipe	The length of the section of pipe being tested. The English form requires you to enter this value in feet and the Metric form requires you to enter this value in meters. If you do not use the specified unit of measure your data will be wrong.
Date Made	Date the piece of pipe was produced.
GDT or CPT number	Certification code obtained form the pipe.
Remarks	Any additional remarks
Sampling Group	(I)ndependent Assurance or (A)cceptance Testing (Currently Testing management)
Meets Requirements	(P)ass or (F)ail

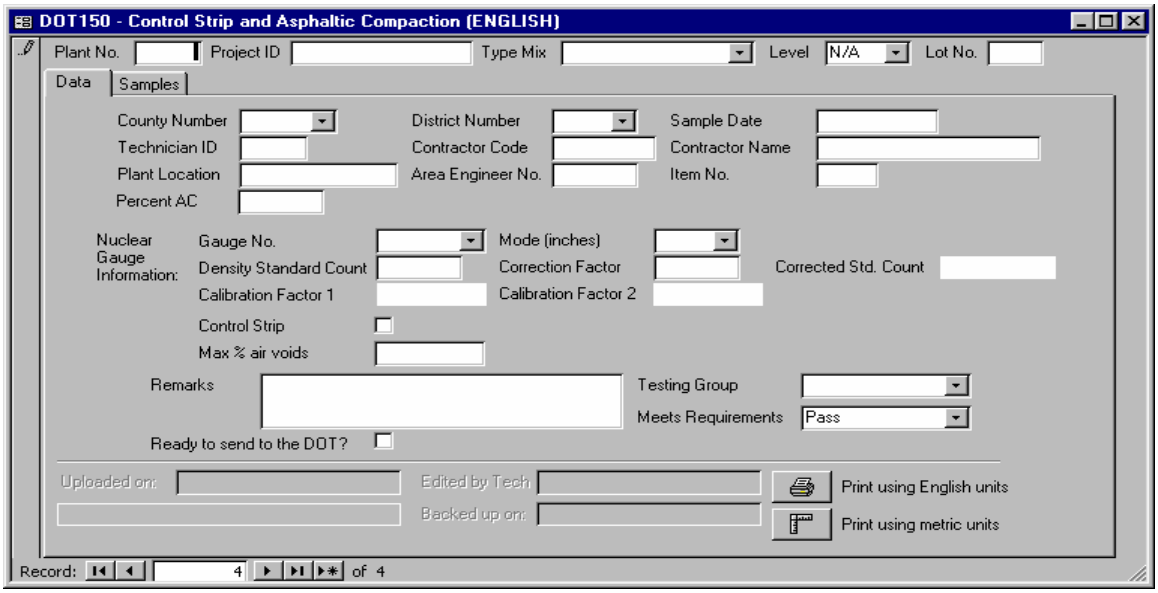
7.9 DOT150 - Control Strip and Asphaltic Compaction Primary Keys



The key fields that uniquely identify each 150 record are:

- Asphaltic Concrete Plant Number
- Project ID
- Type Mix
- Level
- Lot Number

DOT150 - Control Strip and Asphaltic Compaction (Data Entry Form)

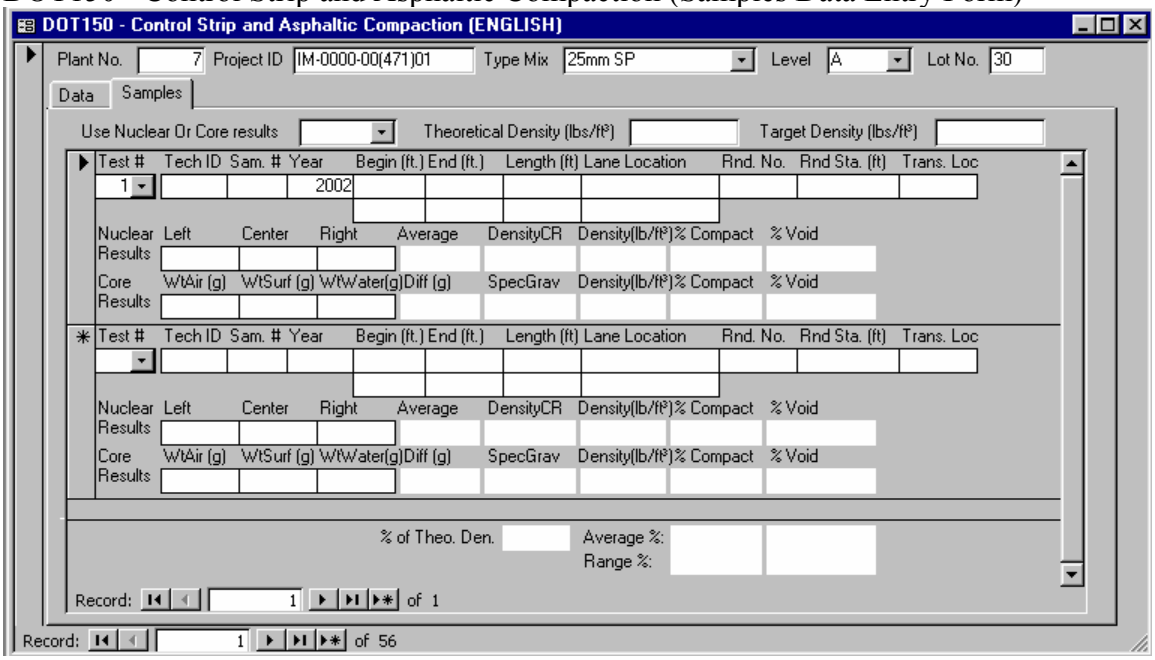


List of entry fields on the DOT150 are as follows:

Asphaltic Concrete Plant Number	The numeric designation of the asphalt plant producing the mix.
Project ID	The project code from the GDOT contract were the work is being performed.
Type of Asphaltic Concrete Mix	The GDOT Asphaltic Concrete Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Lot No.	The lot code number of the mix being tested
Level of Mix	The level of the mix
County Number	The GDOT County designation code where the contract is located.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date that this sample was taken
Technician ID Code	The technician's GDOT assigned technician code.
Prime Contractor Code	The ID code of the paving contractor placing the mix. The 6-digit ID code assigned by the Office of Contracts.
Prime Contractor Name	The prime contractor's name.
Asphaltic Concrete Plant Location	A description of the location of the plant
Area Engineer Number	Area Engineer in charge of project
Pay Item Number	The item number for the material the test is being run on
Percent Asphalt Cement	The percent of AC in the mix: (One decimal place)
Nuclear Gauge Information	
Gauge Number	The number assigned to the gauge by the OMR. (From list of gauges)
Gauge Mode	The selected mode on the gauge used to take the samples. (From list of modes)
Calibration Factor 1 Calculated Field	Nuclear Calibration factor from factor table for this gauge
Calibration Factor 2 Calculated Field	Nuclear Calibration factor from factor table for this gauge
Control Strip	Check this box if the test is of a control strip.
Density Standard Count	The standard count measured by the gauge
Correction Factor	The density standard count correction factor for that Asphalt Mix
Corrected Standard Count Calculated Field	Density Standard Count + the Correction Factor
Use Nuclear or Core Results	Use the results from the nuclear tests or the core tests to use in the following calculations.
Average Density	

Theoretical Density	The specified density of the material. . The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Target Density Calculated Field	(For control strips only) The average of the core densities from the nuclear or core tests depending on which one is to be used. The English form requires you to enter this value in lbs/ft³ and the Metric form requires you to enter this value in kg/m³. If you do not use the specified unit of measure your data will be wrong.
Percent of Theoretical Density Calculated Field	Target Density / Theoretical Density *100
Max % air voids	Specified maximum percent air voids i.e. (normally 7.8 or 8.3 but may be other)
Average Compaction Calculated Field	Average of the percent compaction field from the nuclear or core test depending on which one is to be used.
Average Voids Calculated Field	Average of the percent voids field from the nuclear or core test depending on which one is to be used.
Compaction Range Calculated Field	Compaction range percent (difference between highest and lowest compaction)
Void Range Calculated Field	Void range percent (difference between highest and lowest void)
Remarks	Any additional details you wish to add.
Testing Group	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements	(P)ass or (F)ail

DOT150 - Control Strip and Asphaltic Compaction (Samples Data Entry Form)



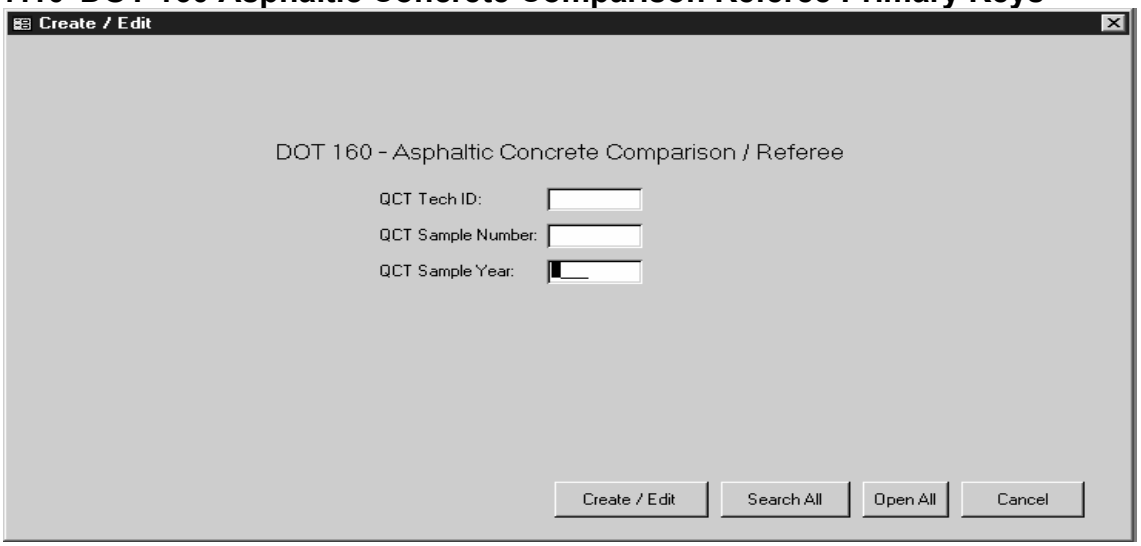
List of entry fields on the DOT150 Samples Data Entry Form

Test Section	
Test Number	A number between 1 and 10 that identifies which test on this report this is.
Technician ID	The technician's GDOT assigned technician code
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year in which this sample was taken
Begin Station Number # 1	The station at which this sublot begins. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
End Station Number # 1	The station at which this sublot ends. The station number where this test is performed. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the

	start of the project.
Length # 1	The length of the project. The English form requires you to enter this value in feet and the Metric form requires you to enter this value in meters. If you do not use the specified unit of measure your data will be wrong.
Lane Location # 1	A description of which lane the sample was taken from
Begin Station Number # 2	The station at which this sublot begins. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
End Station Number # 2	The station at which this sublot ends. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.
Length # 2	The length of the project. The English form requires you to enter this value in feet and the Metric form requires you to enter this value in meters. If you do not use the specified unit of measure your data will be wrong.
Lane Location # 2	A description of which lane the sample was taken from.
Random Position	A random value between 0 and 1 that represents the position between the beginning and end of the project from which this sample is to be taken. (Three decimal places) (This value is filled automatically when the record is generated but the user can overwrite this value)
Sampled Station Number	The actual station where the sample was taken. This is measured in Linear Feet from the start of the project in English, and Linear Meters in Metric. In English it is formatted, as 16+30, which means the station is 1,630 feet from the start of the project. In Metric it is formatted 4+360, which means the station is 4,360 meters from the start of the project.

Transverse Locations	The random number that selects the transverse test locations
Nuclear results, test method GDT59	
Nuclear Left	Gauge density count measurement on left side of lane.
Nuclear Center	Gauge density count measurement in the center of lane.
Nuclear Right	Gauge density count measurement on the right side of lane.
Nuclear Average Calculated Field and stored	The density count measurement of Left, Center and Right. (No decimals)
Nuclear Density Count Ratio Calculated Field	Density Count / (Density Standard Count + Density Correction Factor)
Nuclear Density Calculated Field	The density Calculated Field from the gauge readings = (log (Density Count Ratio, stored) – Calibration Factor 2) / Calibration Factor 1. Lbs/ft³ for English and kg/m³ for Metric
Nuclear Percent Compaction Calculated Field	(Density/target density) x 100
Nuclear Percent Voids Calculated Field	Abs ((Density/Theo Density) -1) x100
Core Results, Test Method GDT39	
Core Weight Air	Weight of dry sample in air in grams.
Core Weight Water	Core Weight Surf. Air - Weight of surface-dry sample in air in grams.
Weight of sample in water in grams.	
Core Difference Calculated Field	Core Weight Surface Air – Core Weight Water
Core Specific Gravity Calculated Field	Core Weight Air / (Core Weight Surf. Air – Core Weight Water)
Core Density Calculated Field	The density Calculated Field from the core tests. = Core Specific Gravity * 62.42 lb/ft³ for English or Core Specific Gravity * 1000 kg/m³ for Metric. (Lbs/ft³ for English and kg/m³ for Metric)
Core Percent Compaction Calculated Field	(Core Density/Target Density) * 100
Core Percent Voids Calculated Field	Abs ((Core Density/Theo. Density)-1) * 100

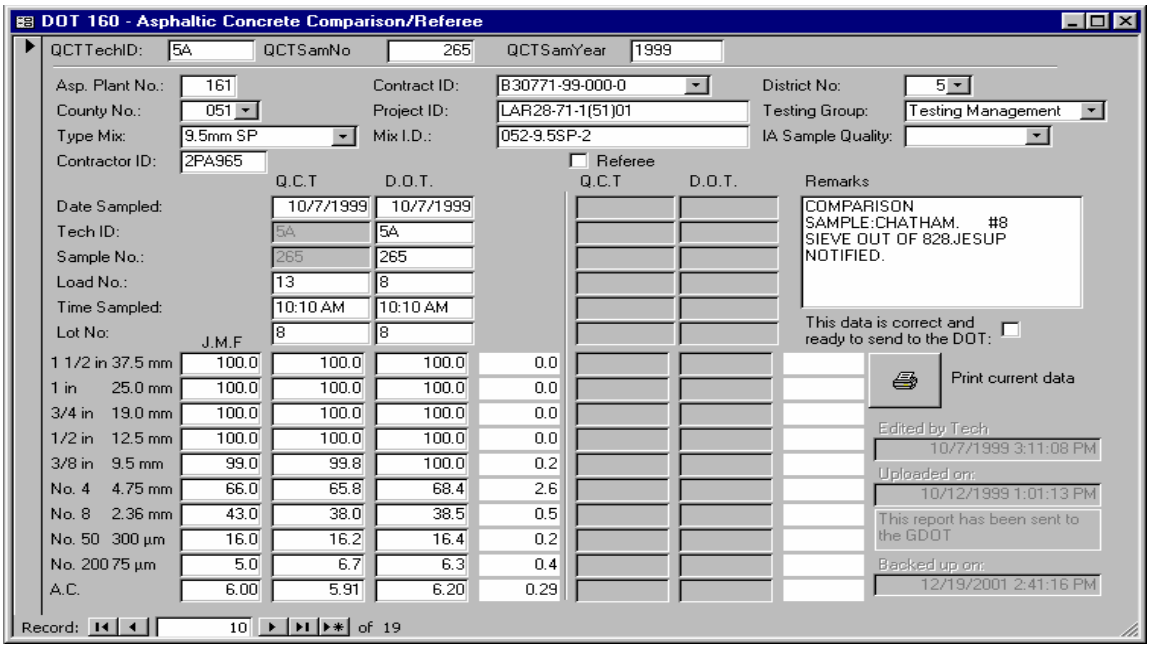
7.10 DOT 160 Asphaltic Concrete Comparison Referee Primary Keys



The key fields that uniquely identify each 160 record are:

- QCT Technician Number
- QCT Sample Number
- QCT Sample Year

DOT 160 Asphaltic Concrete Comparison Referee Data Entry Form

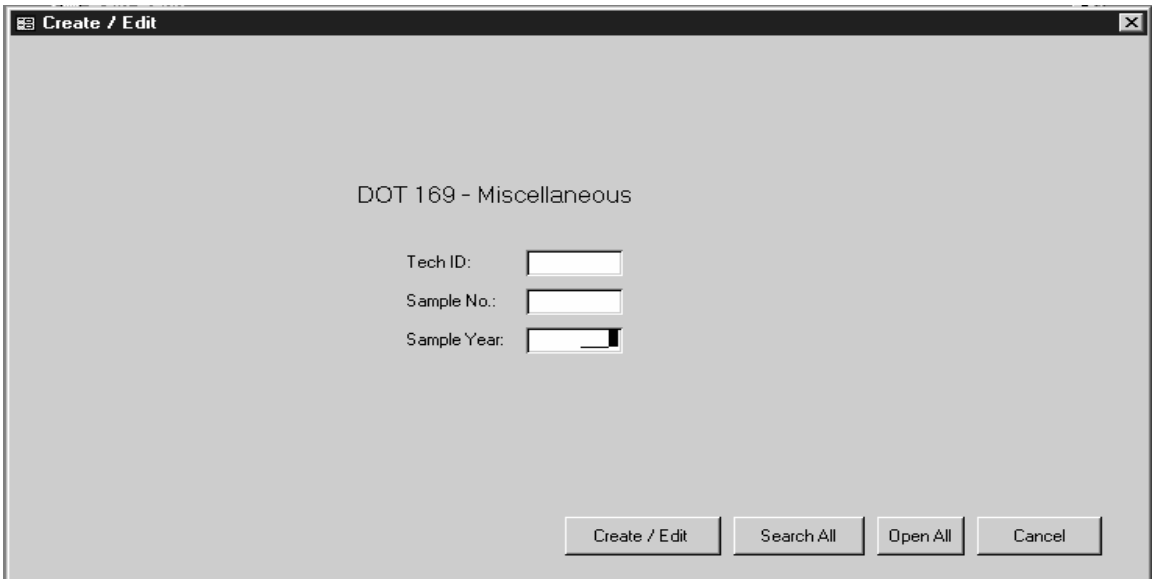


List of entry fields on this form:

QCT Technician ID	The GDOT assigned technician code of the QCT Tech taking the sample.
QCT Sample Number	The number assigned to the sample by the QCT Technician.
QCT Sample Year	The year this sample was taken in.
Asphalt Plant Number	An Asphalt Plant Number is the designation assigned by the GDOT to asphalt producers that supply material to the DOT. The plant number entered must be the number of the plant producing the mix. This is a numeric field. Only numbers may be entered.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Type Mix	The GDOT Asphaltic Concrete Mix designation for the mix being tested. This must be a valid mix code selected from the dropdown list.
Contractor ID	The code number of the paving contractor placing the mix. The 6-digit vendor code assigned by the Office of Contracts.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
Mix. I.D. Code	The mix ID code of the Job Mix Formula.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Testing Group	The testing group that took this sample: Independent Assurance, Testing Management, or Contractor.
IA Sample Quality	The sample quality as determined by an Independent assurance-testing technician.
Job Mix Formula	The percent passing or percent AC for each sieve from the job mix formula.
QCT Date Sampled	The date this sample was taken.
QCT Load Number	The load number of the sample being tested.
QCT Time	The time the mix was sampled.
QCT Lot Number -	The lot this sample is from.

QCT Percent Passing and Percent Asphalt Cement	The percent passing each sieve from e QCT's test.
DOT Sample Date	The date this sample was taken.
DOT Technician ID	The GDOT Technician ID of the GDOT technician taking this sample.
DOT Sample Number	The technician ID number and the sample number of this sample.
DOT Load Number	The load number of the sample being tested.
DOT Time	The time the mix was sampled.
DOT Lot Number	The lot this sample is from.
DOT Percent Passing or AC	The percent passing the sieve or percent AC.
Referee	Check this box if there is a referee sample.
Referee QCT Date Sampled	Check this box if there is a referee sample.
Referee QCT Technician ID	The GDOT Technician ID of the QCT technician taking this sample.
Referee QCT Sample Number	The number assigned to this sample by the testing technician.
Referee QCT Load Number	The GDOT assigned technician code of the QCT Tech taking the sample.
Referee QCT Time	The time the mix was sampled.
Referee QCT Lot Number	The lot this sample is from.
Referee QCT Percent Passing and Percent Asphalt Cement	The percent passing each sieve from the QCT's test.
Referee GDOT Sample Date	The date this sample was taken.
Referee GDOT Technician ID	The GDOT Technician ID of the GDOT technician taking this sample.
Referee GDOT Sample Number	The number assigned to this sample by the testing technician.
Referee GDOT Load Number	The load number of the sample being tested.
Referee GDOT Time	The time the mix was sampled.
Referee GDOT Lot Number	The lot this sample is from.
Referee GDOT Percent Passing or AC	The percent passing the sieves or percent AC.
Remarks	Any additional information you want to record.

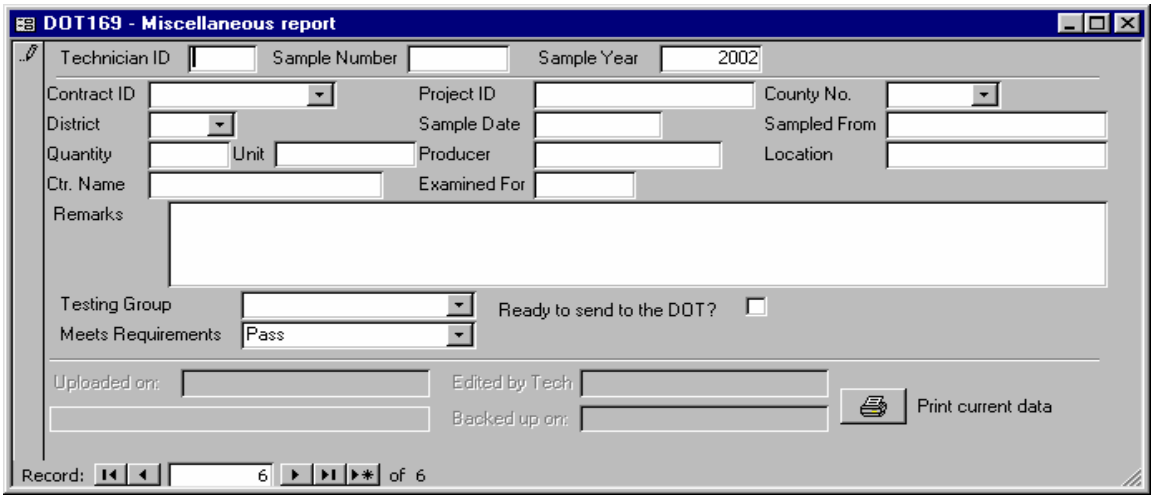
7.11 DOT169 – Miscellaneous Report Primary Keys



The key fields that uniquely identify each DOT169 record are:

- Technician Number
- Sample Number
- Sample Year

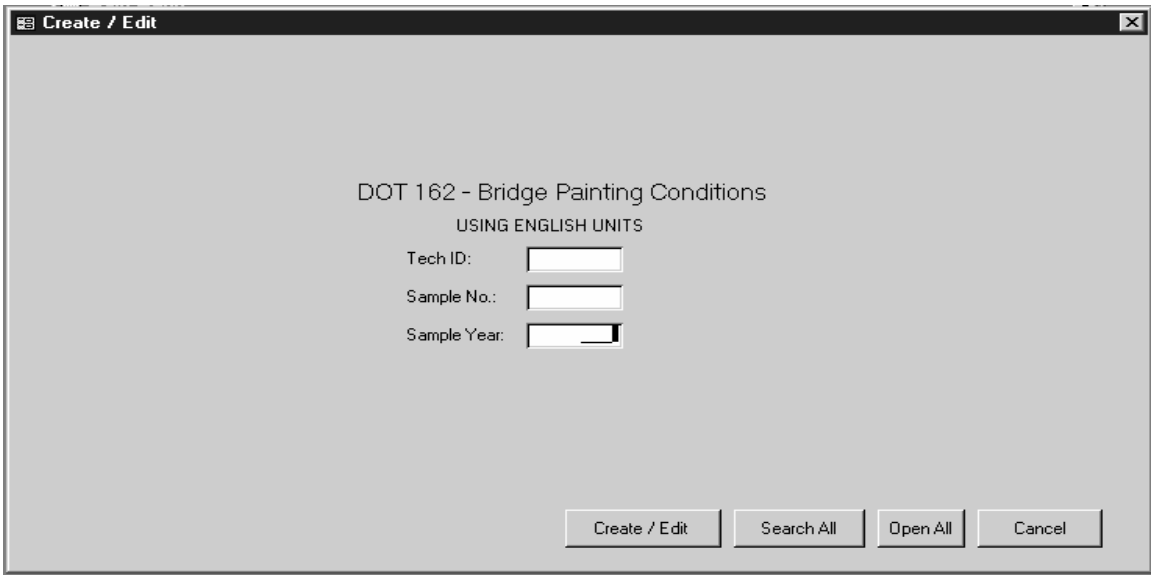
DOT169 – Miscellaneous Report Data Entry Form



List of entry fields on the DOT169 are as follows:

Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date this sample was taken in.
Sampled From	A description of the location the sample was taken from.
Quantity	The numeric portion of the Quantity of the material used in this sample. You must also specify a unit or else your data will be meaningless.
Unit	The unit in which the quantity is measured.
Producer	The plant code or name of the producer of the material.
Location of Supply	A description of the Location of the supply.
Contractor Name	The name of the contractor.
Examined For	Specification article number from the spec book that was used to perform this test.
Remarks	Any additional remarks and data.
Testing Group	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements	(P)ass or (F)ail

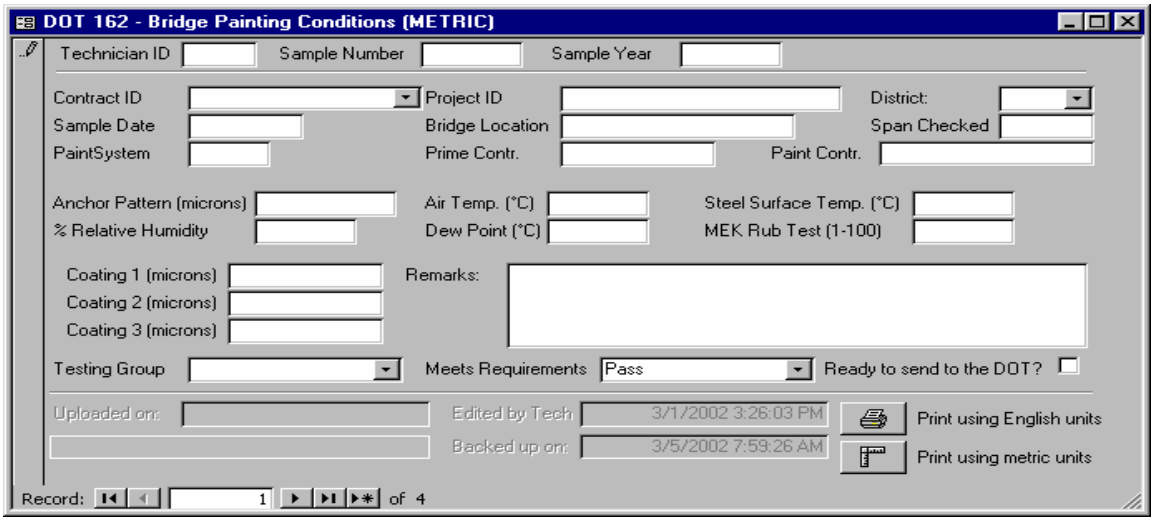
7.12 DOT162 - Bridge Painting Conditions Primary Keys



The key fields that uniquely identify each DOT162 record are:

- Technician Number
- Sample Number
- Sample Year

DOT162 - Bridge Painting Conditions Data Entry Form



List of entry fields on the DOT162 are as follows:

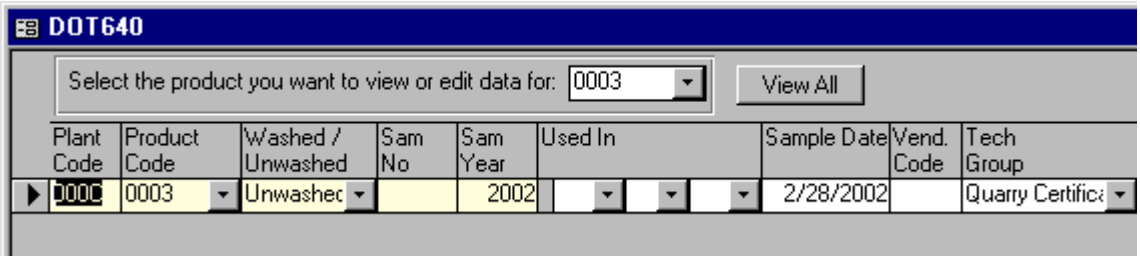
Technician ID	The GDOT assigned technician code of the person taking this sample.
Sample Number	The number assigned to the sample by the testing technician.
Sample Year	The year that the sample was taken in.
Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
Project ID	This is the project designation for the specific project being performed under the contract. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
District Number	The GDOT District Number where the project is located. This is either 1,2,3,4,5,6, or 7.
Sample Date	The date this sample was taken
Bridge Location	The name or a description of the location of the bridge.
Span Checked	The number that represents the span the sample was taken on from the bridge.
Paint System	The number of the painting system specification used on this location.
Prime Contractor Code	The code of the contractor performing this project.
Paint Contractor Code	The code of the subcontractor performing the painting.
Anchor Pattern	The measured roughness of the steel beam. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Air Temperature	The ambient air temperature bridge location. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.

Steel Surface Temperature	The measured temperature of the steel from the bridge. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
% Relative Humidity	The measured percent humidity at the bridge location.
Dew Point	The measured dew point temperature at the bridge location. The English form requires you to enter this value in °F and the Metric form requires you to enter this value in °C. If you do not use the specified unit of measure your data will be wrong.
MEK Rub Test	The visual measurement (1 to 10) of the quality of the coating
Coating 1	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Coating 2	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Coating 3	Measurement of the thickness of each paint coating as measured using the Tooke gauge. The English form requires you to enter this value in mils and the Metric form requires you to enter this value in microns. If you do not use the specified unit of measure your data will be wrong.
Remarks	Any additional remarks
Sampling Group	(I)ndependent Assurance or (A)cceptance Testing
Meets Requirements	(P)assed or (F)ails

8 Aggregate Test Data

The Aggregate Test forms Dot640 and Dot641 are used by the Aggregate Producers to submit test data to the GDOT. Qualifying Producers are approved to certify that their aggregate materials comply with GDOT Specifications. Aggregate materials tested and in compliance can be shipped and used without any notification to the Department or further pre-testing by the Department being required. Producer data is rated to insure that gradations are consistent and not marginal. This chapter describes the Aggregate test reports fields and provides a detailed explanation on how to import test data from external sources into the FDCS database.

8.1 DOT 640 Aggregate Quality Data Entry Form Primary Keys

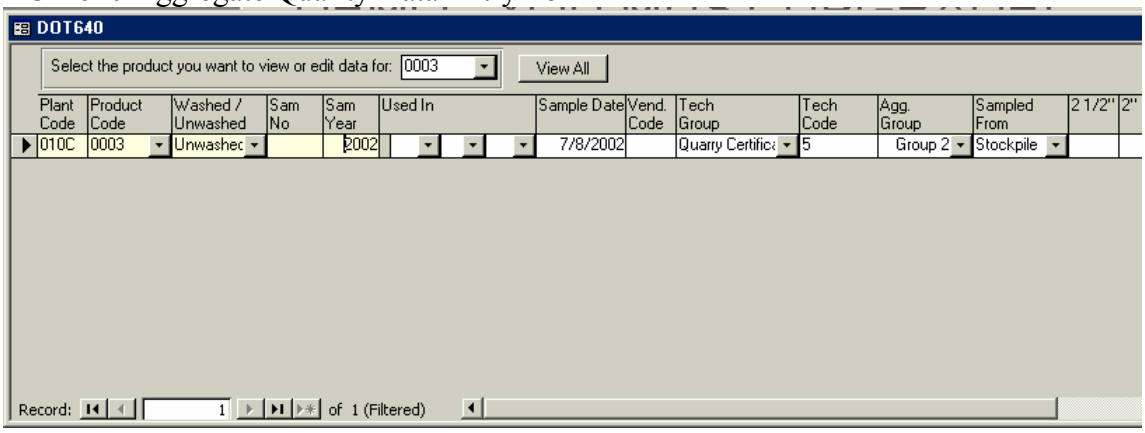


The fields that identify an individual DOT 640 record are:

- Aggregate Source Code
- Aggregate Product Code
- Washed/Unwashed
- Sample Number
- Year the sample is taken

***Note: This form only allows viewing one product type at a time. This is because required sieve sizes are different for each product, and the data* in the columns would become meaningless if all products were viewed at once.**

DOT 640 Aggregate Quality Data Entry Form

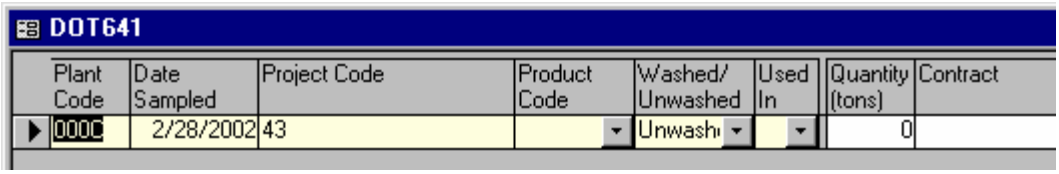


The fields in the DOT 640 are as follows:

Source Plant Code	The designation assigned by the GDOT to producers that supply material to the GDOT. The Source Plant Code entered must be the Code of the plant shipping the reported quantity of material. The source plant code is a 4-character field. The first three characters are a zero padded right justified number and the last character is an upper case letter. Correct 032C, 141C, Incorrect 32C, 141
Aggregate Product Code	The designation assigned by the GDOT to various aggregate materials supplied to the GDOT. The aggregate product code is a 4-character field that must contain a valid aggregate product code. To ensure the accuracy of this field, the designation is selected from a list.
Washed/Unwashed	Indicates that the aggregate was produced as a (W)ashed or (U)nwashed product.
Sample Number	This is the arbitrarily assigned number assigned to the sample by the testing technician. This is an integer numeric value. The same sample number may be used for different products.
Sample Year	Because the sample numbers restart at the beginning of each year, each sample number must also be accompanied by the year in which the sample was taken.
Used in codes 1-3	These fields specify up to three different ways in which the material will be used. These are each single character fields that may contain “A” through “Y”. A list of GDOT used in-codes is provided in a drop-down box. Values may be left blank if there are less than 3 uses.
Sample Date	This is the date on which the sample was tested. The Date field is a date time object that can contain any date between 1/1/100 and 12/31/9999. Under the Microsoft Windows operating system a date can be entered and displayed in a number of different ways depending on the country settings in the Windows control panel.

Vendor Code	This is the GDOT assigned Vendor designation of a company that is to resell the material. This value is only supplied if the material is being re-sold instead of being delivered to a project. This is a 4-character code from QPL2. If there is no vendor then leave this field blank.
Technician Group	Specifies the testing group the technician taking this sample belongs to. Test samples are taken by either Quarry Certification (Technicians employed by the aggregate plant) or Independent assurance (technicians employed by the GDOT).
GDOT Technician Code	The code assigned by the GDOT to designated people who are authorized to submit test reports to the GDOT
Aggregate Group	Specifies if the material falls in to aggregate group 1 (limestone) or aggregate group 2 (granite)
Sampled From	A generalized location from which the sample was taken. This is either (S)tockpile, (B)elt, (R)oadway, rail (C)ar, (T)ruck, or (O)ther.
Percent Passing 1-10	The percent of material passing each of the required sieves (ten max). The sieve sizes required for testing are pulled from a pre-programmed list and are displayed on the column heading on the entry form. Decimal values may be specified. Each percent passing value obtained from the test is required to be less than the previous value A larger value would represent a physical impossibility.
Sand Equivalency	If applicable, the numeric results obtained from a GDT-63 sand equivalency test.
Meets Requirements	Indicates if the sample is passing or failing based on the results.
Remarks	The remark field is a memo field where users can enter any additional relevant data they want.
Send	Checking this box indicates that you are ready to send this data to the GDOT. The label next to this box indicates if this record has been sent (Or more accurately, extracted for sending)

8.2 DOT 641 Aggregate Quantity Data Entry Form Primary Keys

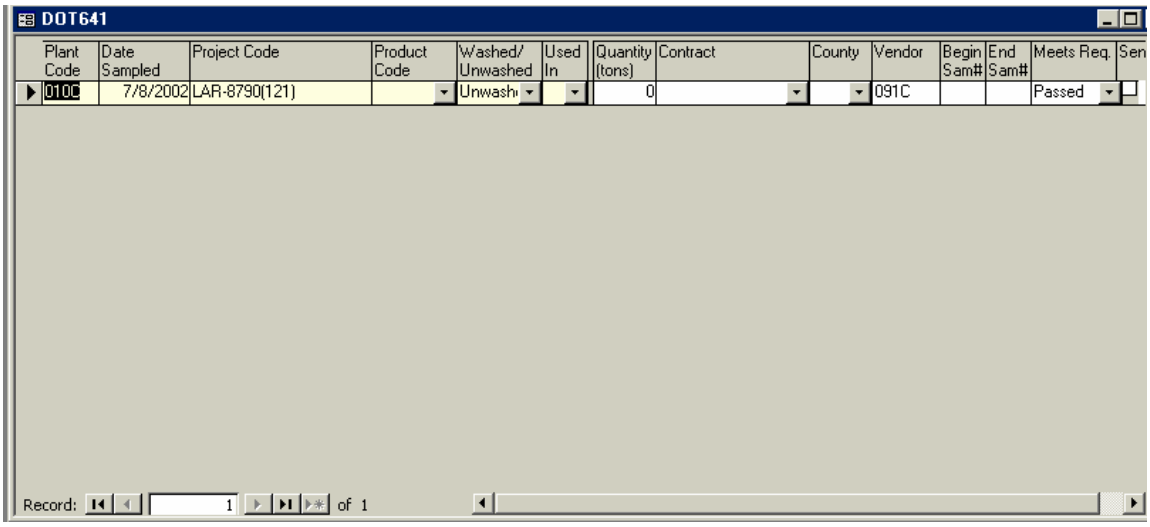


The fields that uniquely identify a DOT 641 report are:

- Aggregate Source Code
- Date Sampled
- Project Code
- Aggregate Product Code
- Washed/Unwashed
- Used In

The DOT 641 Aggregate Quantity Producer Report is a report of the quantity of material supplied by a source plant on a specific day, separately reporting the quantities of each product for each use for each project.

DOT 641 Aggregate Quantity Test Data Entry Form



The fields in the DOT 640 are as follows:

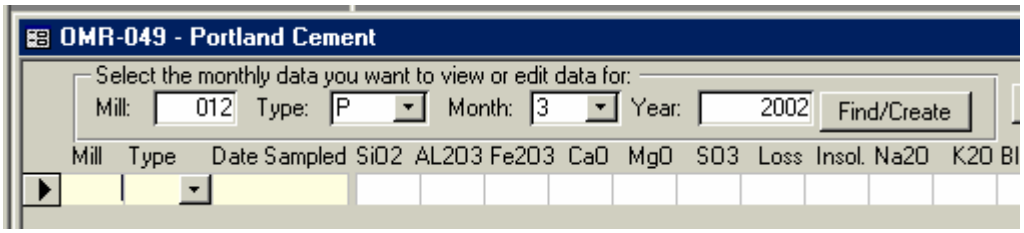
Source Plant Code	The designation assigned by the GDOT to producers that supply material to the GDOT. The Aggregate Source Plant Code entered must be the Code of the plant shipping the reported quantity of material. The plant code is a 4-character field. The first three characters are zero padded right justified number and the last character is an upper case letter to indicate type of source. Examples Correct: 032C 141C Incorrect: 32C, 141
Date Sampled	The date is the single date on which the quantity of material was shipped. The Date field is a date time object that can contain any date between 1/1/100 and 12/31/9999. Under the Microsoft Windows operating system a date can be displayed and entered in a number of different ways and depends on the country settings in the Windows control panel.
Project Code	This is the project code number for the specific project where the aggregate is being shipped. You must type the project code in exactly as it is issued; otherwise your data may not be filed properly.
Aggregate Product Code	The designation assigned by the GDOT to various aggregate materials supplied to the GDOT. The aggregate product code is a 4-character field that must contain a valid aggregate product code. To ensure the accuracy of this field, the designation is selected from a list.
Washed/Unwashed	Indicates that the aggregate is produced as a (W)ashed or (U)nwashed product.
Used In	The Used In code specifies what the material is going to be used for. The code is from a list of GDOT Used In codes. The Used In code field is a single upper case letter from A to Z. Each letter represents a different way in which the material can be used.
Quantity	The Quantity is the amount, in TONS of the specified product that the Supplier has shipped on that day for a specific contract for a specific use.

Contract ID	This is the ID of the contract under which this work is being preformed and paid under. The Contract ID's format is upper case, letter "O"s are not allowed, and dashes in the format: 000000-00-000-0.
County Number	The GDOT county designation code that the work for this contract is being preformed in.
Vendor code	This is the GDOT assigned Vendor designation of a company that is to resell the material. This value is only supplied if the material is being re-sold instead of being delivered to a project. This is a 4-character code from QPL2.
Beginning Sample No and Ending Sample No	The beginning and ending Sample Numbers are the sample numbers from the DOT 640 tests, which were run on the quantity of material being reported in this report. Because the sample numbers restart at the beginning of each year, the year of these samples MUST match the year on the report.
Results	This indicates if the test samples, specified above, were generally passing or failing from the DOT 640 tests run on the material.
Send	Checking this box indicates that you are ready to send this data to the GDOT. The label next to this box indicates if this record has been sent (Or more accurately, extracted for sending).

9 Portland Cement Test Data

The Portland Cement Test form OMR-049 is used by the Portland Cement Producers to submit test data to the GDOT. Qualifying Producers are approved to certify that their Portland cement materials comply with GDOT Specifications. Portland Cement materials tested and in compliance can be shipped and used without any notification to the Department or further pre-testing by the Department being required. Raw samples of Portland cement are submitted to the GDOT for comparison testing by GDOT testing personnel. A statistical analysis report is run to determine if test data is in compliance with acceptable testing levels. This chapter describes the fields in the OMR-049 test report and gives a detailed explanation on how to import test data from other sources into the FDCS database.

9.1 OMR-049 – Portland Cement Test Form Primary Key Fields



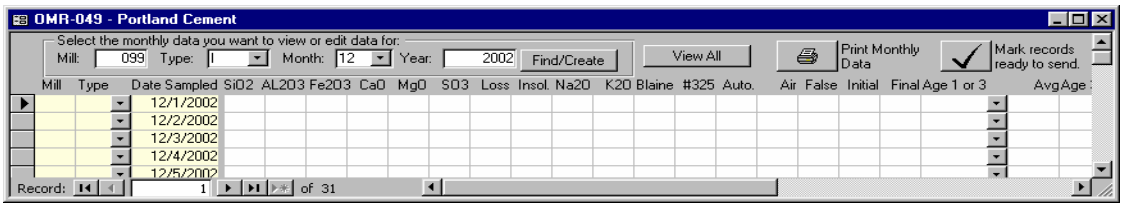
The fields that uniquely identify OMR-049s are:

- Mill code
- Material Type
- Date Sampled

This entry form can operate in two different modes:

View	Description
Continuous form view	Shows all entered records and allows entry of new records at the bottom
Monthly data sheet view	By entering a Mill Code, Material Type, month, and year in the text boxes at the top and clicking “Find/Create” the form will display just the records (if any) for that month. There will be a row for each day of the month. Rows with no data will appear as blank. Click “View All” to return to the continuous form view.

9.1.1 OMR-049 – Portland Cement Test Data Entry Form



Note 1: You can only use the "Print Monthly Data" button while in Monthly data sheet view.
Note 2: Mark records ready to send - Use this button to mark all currently displayed records as being ready to send to the GDOT.

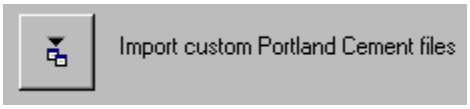
List of entry fields on the OMR-049 is as follows:

Field	Description
Mill Code	The Qualified Product List producer code for the mill that submitted the sample.
Material Type	The Qualified Product List material code for the material being tested. (A drop down list is provided)
Date Sampled	The date the sample was taken/created.
Silicon Dioxide	Percent by weight silicon dioxide in the sample.
Aluminum Oxide	Percent by weight aluminum oxide in the sample.
Ferric Oxide	Percent by weight ferric oxide in the sample.
Calcium Oxide	Percent by weight calcium oxide in the sample.
Magnesium Oxide	Percent by weight magnesium oxide in the sample.
Sulfur Trioxide	Percent by weight sulfur trioxide in the sample.
Loss	Percent weight lost after burning the sample.
Insoluble	Percent of sample, which will not dissolve in hydrochloric acid.
Sodium Oxide	Percent by weight sodium oxide in the sample.
Potassium Oxide	Percent by weight potassium oxide.
Blaine	Fineness of the sample.
Retention Number 325	Percent by weight of the sample retained on the #325 sieve.
Sound Autoclave Expansion	Percent change in length of a hardened cement specimen after autoclaving.
Air content	Percent by volume air in a cement mortar specimen.
False Set	Equals final penetration over initial penetration.
Vicat Initial	Time (in minutes) elapsed until the Vicat needle penetrates 25mm into a cement paste specimen.
Vicat Final	Time (in minutes) elapsed until the Vicat needle cannot penetrate a cement paste specimen.
Age 1 or 3	Age of compressive strength specimen in days.
Average for 1 or 3	Average for 1 or 3 days.
Age 3 or 7	Age of compressive strength specimen.
Average for 3 or 7	Average for 3 or 7 days.
Split Sample (SS)	Check this box if this is a Split Sample.
Meets Requirements	Select passed or failed based on the results.
Remarks	Remarks made by the supplier.

9.2 Importing External Portland Cement Test Data

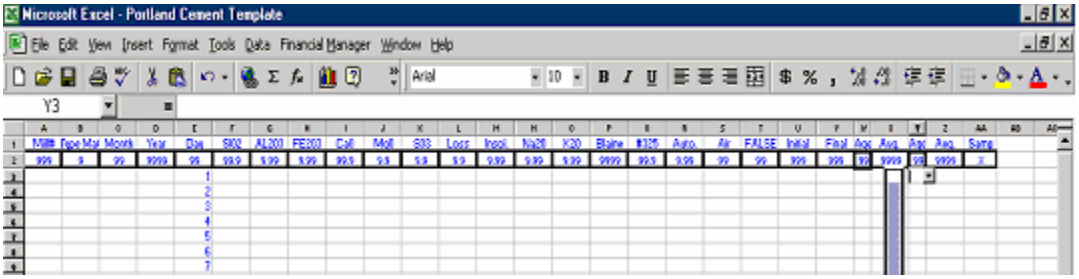
The GDOT Field Data Collection System has the ability to import OMR-049 data from external sources. This feature exists to enable Portland cement producers who have their own database systems to automate importing of test data to the Field Data Collection Software database.

See “Appendix F - Portland Cement File Formats Required To Import Data” for the import file requirements.



To use this feature:

First create the text files with your data as per the specification found in "PC File Format RP.doc".



Next place your text files in to the program's import folder. The Portland Cement import uses the folder "**PCimpor**t", which should be located in "C:\Program Files\GDOTDCS\PCimport".

Then start FDCS and click either the "Import Custom Portland Cement Files" button or the "Import Custom Aggregate Files" button. Click "OK" to begin importing.

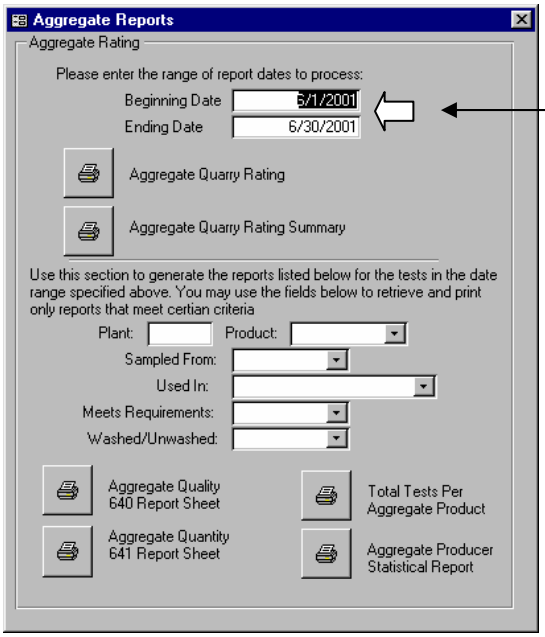
Note: Once the data is imported you should remove the text files from the PCimport folder; otherwise they will be re-imported the next time you use this feature.

10 Generating Reports in FDCS Client Software

This chapter describes how users can generate reports from the client FDCS. Three types of reports are available from within the client software.

10.1 Generating Aggregate Reports

When you click the "Aggregate reports" button from the main menu, you will see the following screen:



Before running any of the reports listed here, you must enter a range of dates that you wish the report to cover.

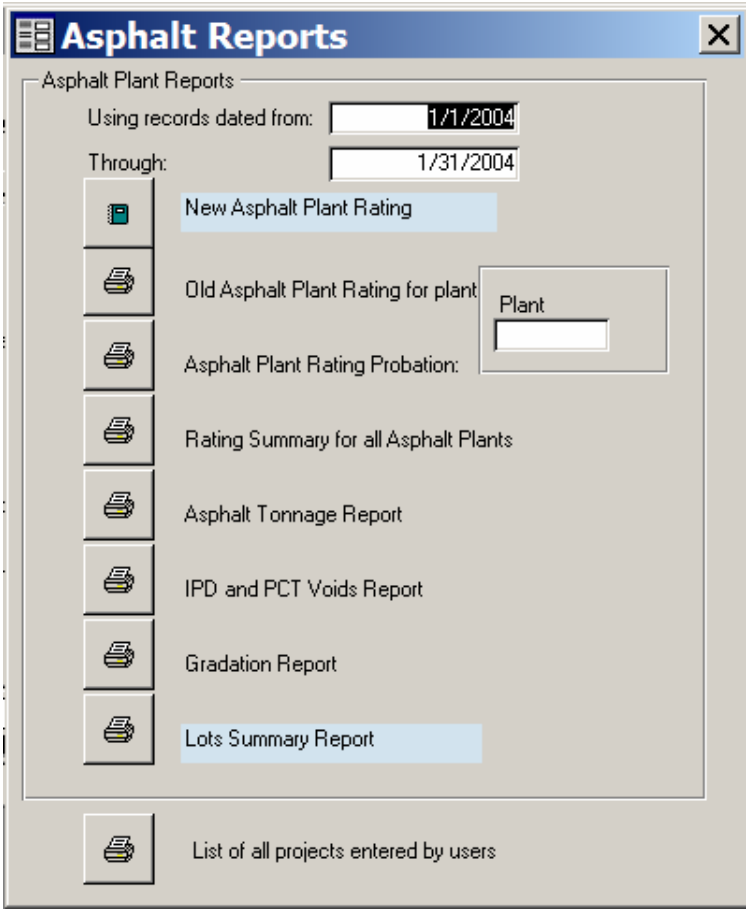
Optional
Plant – Source Number
Product – Aggregate Size Code
Sample From – Where the sample was taken.
Used In – Pay Item Code
Meets Requirements – Passed or Failed
Washed/Washed – Is the product produced as washed or unwashed.

From here you may generate the following aggregate reports:

Report Name	Description of Report
Aggregate Quarry Rating	A quality rating system for "Standard Coarse Aggregate Sources has been developed. This system is designed to provide Industry and the Department with a management tool for measuring the success of the Producer Certification Program and to promote consistency of products. This program will generate a quality rating based upon the data you have entered into the client.
Aggregate Quarry Rating Summary	Provides a summary based on the results of the above report.
Aggregate Quality 640 Test Report	This will print a report on all Quality test data entered for the specified time period.
Aggregate Quantity 641 Test Report	This will print a report on all Quantity test data entered for the specified time period.
Total Tests Per Aggregate Product	Is a summary report that shows how many tests were performed per aggregate size?
Aggregate Producer Statistical Report	Generates averages and standard deviations per sieve size per aggregate size.

10.2 Generating Asphalt Reports From FDCS

When you click the "Asphalt Reports and Printouts" button from the main menu, you will see the following screen:



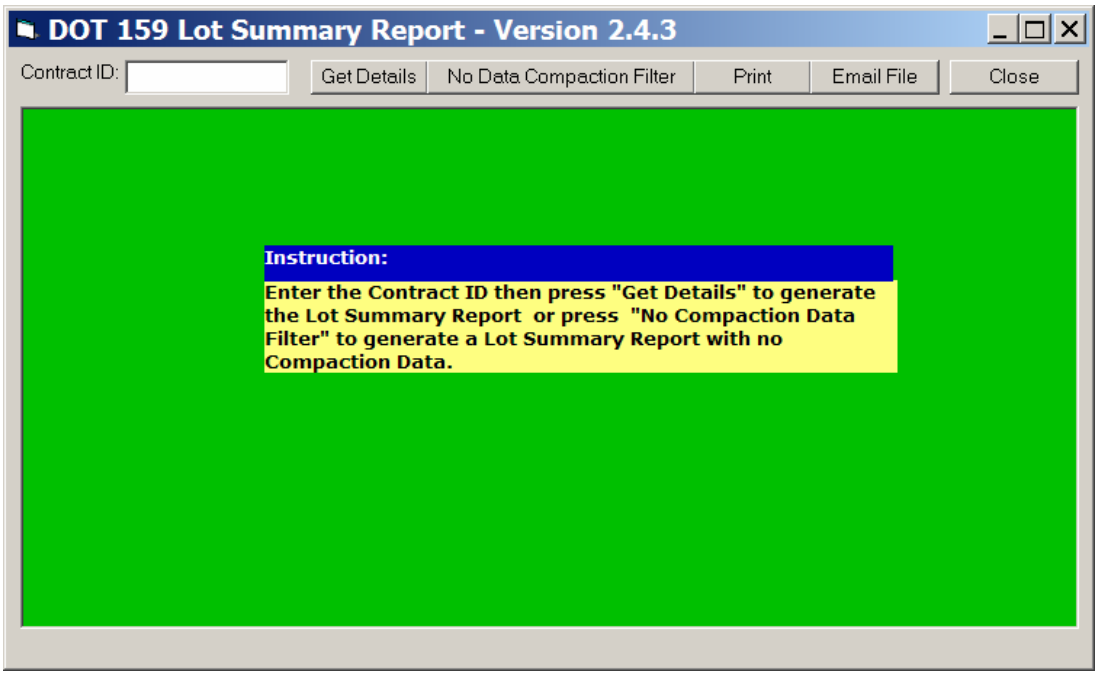
From here you may generate the following asphaltic concrete reports:

Report Name	Report Description
Asphalt Plant Rating	The asphalt plant rating system was developed using the Mixture Control Tolerances established in Section 828 of Georgia's Standard Specifications. Uses the data from all of the entered 159 Asphalt Concrete Lot Worksheets within the specified time range to generate a rating for a specified plant. Requires three samples per product code to be rated.
Asphalt Plant Rating Probation	Same as above, but there is no minimum number of samples needed to generate a score.
Rating Summary for all Asphalt Plants	A summary of Asphalt Plant Ratings from all of the entered 159 Asphalt Concrete Lot Worksheets within the specified time range for all plants.

Asphalt Tonnage Report	A report of all tonnage from all 159s within the specified time range.
IPD and PCT Voids Report	A statistical report of in-place densities and percent voids for each asphaltic concrete mix.
Gradation Report	A statistical breakdown of gradations for each asphaltic concrete mix.
Lots Summary Report	A summary report of Asphalt Lots per Contract ID
List of all projects entered by users	Produces a list of unique project codes gathered from all entered 159 reports. This helps identify incorrectly typed project codes.

10.2.1 Lots Summary Report

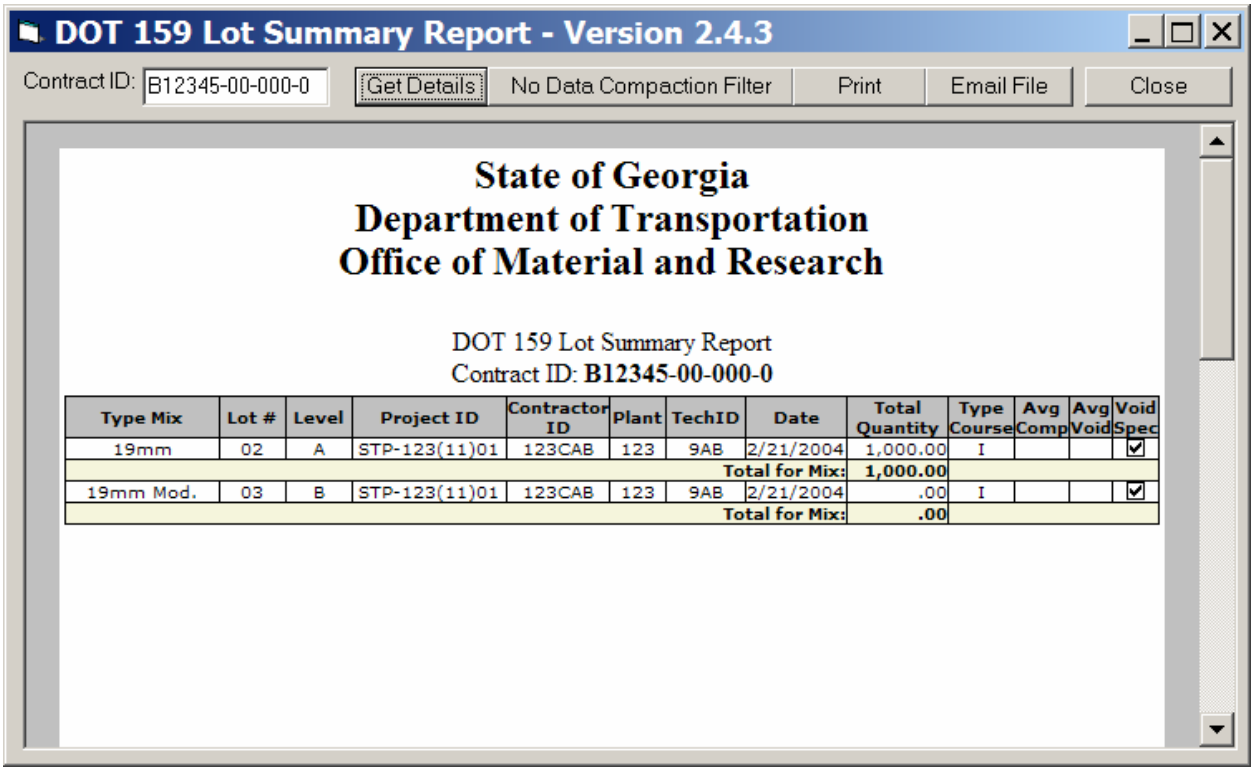
1. Click the **Lots Summary Report** button. The report detail screen appears.



Report Detail Screen

2. In the Contract ID field, enter **B12345-00-000-0**
3. Click **Get Details,** and the Lots Summary report appears.
4. Click **Print** or **Email File** to save or share the report.

Note: Each Type Mix is grouped and a Total Quantity for each mix is calculated. The Lots are listed in numeric order, making it easier to notice missing Lots or missing compaction data.

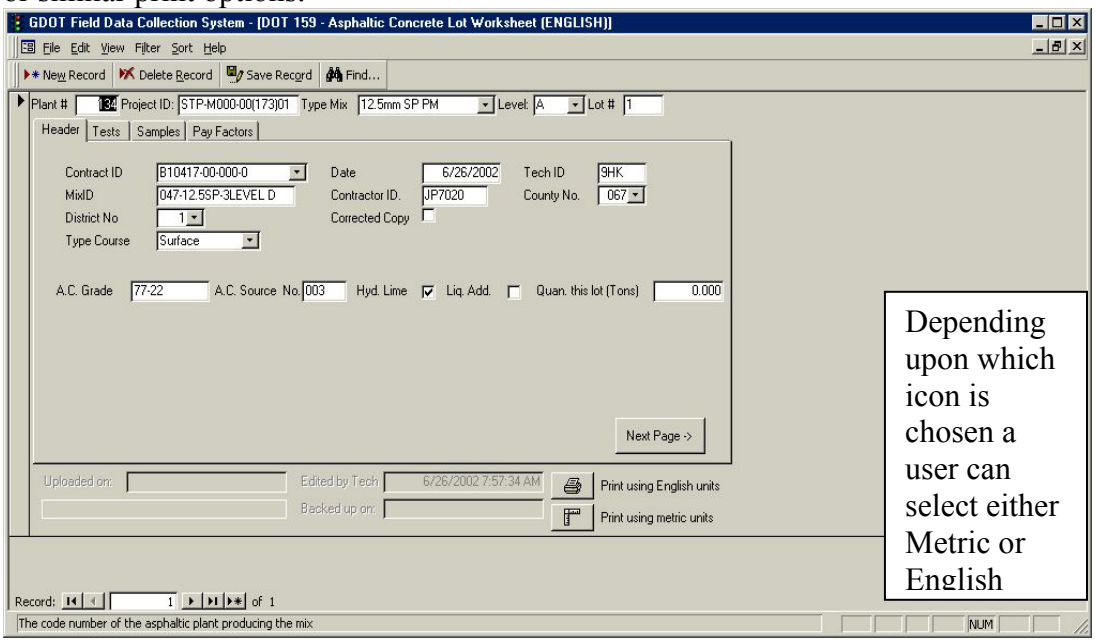


Type Mix	Lot #	Level	Project ID	Contractor ID	Plant	TechID	Date	Total Quantity	Type Course	Avg Comp	Avg Void	Void Spec
19mm	02	A	STP-123(11)01	123CAB	123	9AB	2/21/2004	1,000.00	I			☑
							Total for Mix:	1,000.00				
19mm Mod.	03	B	STP-123(11)01	123CAB	123	9AB	2/21/2004	.00	I			☑
							Total for Mix:	.00				

Example of Lots Summary Report

10.2.2 Generating A DOT159 Test Report

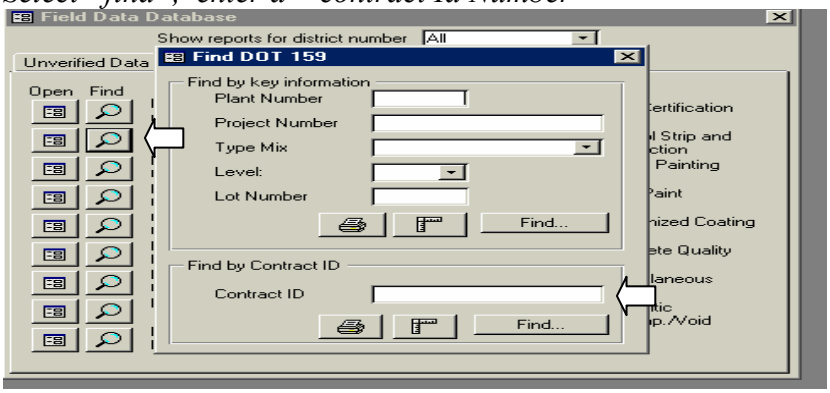
The button at the bottom right of the 159-5 Asphaltic Concrete Lot Worksheet provides the user with the functionality to create a Metric or English report. All other test reports provide the same or similar print options.



Test Reports can be generated using Metric or English measurements.
To generate a report use the find button to locate the record, then select either the Metric or English icon this will create a report on your screen. You can Print this report or save it to file or send it by email.

Note: Although a test report can be generated from the client Field Data Collection Software it cannot be verified until it has been uploaded to the External Web Server and copied over to the Field Data database.

To generate more than one report at a time use the find button and follow the instructions. Select "find", enter a " contract Id Number"



Example of Asphaltic Concrete Lot English test report created using the FDCS.

GDOT 159 - Asphaltic Concrete Lot Worksheet (ENGLISH)

Plant Number: 002 Project ID: EDS-19(41)01 Type Mix: 12.5mm Level: N/A Lot Number: 12

Contract ID: B39704-97-000-0 Date: 8/9/1999 Tech ID:
Mix ID: 017X077E1 Contractor ID: 022 County Number:
District Number: 3 Corrected copy: N Blend: Virgin
Type course: S Completed report: Y

AC Grade: AC20S AC Source No: 024 Hyd. Lime: Y Liq. Add.: N Quan. This report (tons): 1700.63 Void Spec: N

Control Strip Density(lb/ft³)	In Place Density (lb/ft³)	ReEval IPD	% Comp	% Comp ReEval	% Voids	ReEval % Voids	Strip Test Time	% Ret	Lime Checks %
	145.0		99.9		6.2		7:30 AM	100	0.97
	145.0		100.0		6.1		7:20 AM	100	0.95
	144.0		99.0		7.0		7:30 AM	100	0.00
	145.0		99.5		6.6				
	145.0		99.6		6.4				

Target Density (lb/ft³) 145.0 Max Air Voids: Avg: 99.6 6.5 AC C.F.:
Theo. Density (lb/ft³) 155.0 Max Practical Air Voids: Range 1.0 Temp. C.F.:

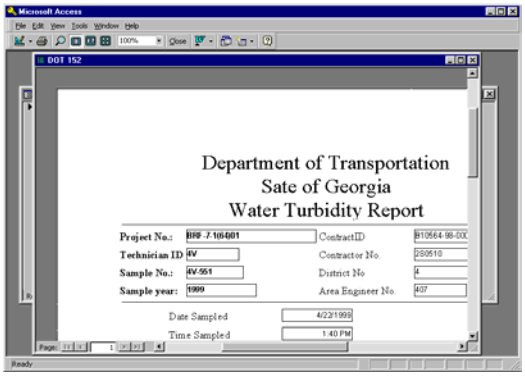
Sam No	Sample Date	Load No	Time	Temp.	Total Mass(g)	Begin Mass(g)	Final Mass(g)	AggDry Mass(g)		1 1/2 in	1 in	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 50	No. 200	A.C.	UW C.F.
									JMF:			100.0	98.0	85.0		45.0	17.0	6.0	5.30	
9BT-142	8/9/1999	20	9:10 AM	320	1736.2	150.0	215.2	1582.7	Mass(g):			0.0	32.5	279.4		900.9	1334.6	1545.6	125:N	
									%Pass:			100.0	98.0	85.0		45.3	19.0	6.2	5.09	A:N
9BT-143	8/9/1999	48	12:10 PM	320	1770.6	150.0	224.0	1600.0	Mass(g):			0.0	15.5	239.7		895.9	1348.7	1565.8	125:N	
									%Pass:			100.0	99.1	85.7		46.5	19.4	6.5	5.46	A:N
9BT-145	8/9/1999	65	2:45 PM	315	1625.9	150.0	223.6	1466.3	Mass(g):			0.0	35.7	230.8		875.2	1245.2	1436.5	125:N	
									%Pass:			100.0	97.7	85.0		43.2	19.1	6.7	5.29	A:N
									Avg. % Dev:			0.0	0.5	0.9		1.2	2.2	0.5	0.13	

Indicated Pay Factors
Comp: 1.00 Range: 1.00 Extr: 1.00 Sieve: 1.00 AC: 1.00
End Results: Y Remarks:
Appli Pay Factor: 1.00
Verified By: Michael L. Ellington

Sunday, January 12, 2003 Page 3 of 20

Note: To determine the number of reports that were created using this option go to the lower right hand corner of the report and look for the page number of pages.

10.3 Printing or E-mailing reports



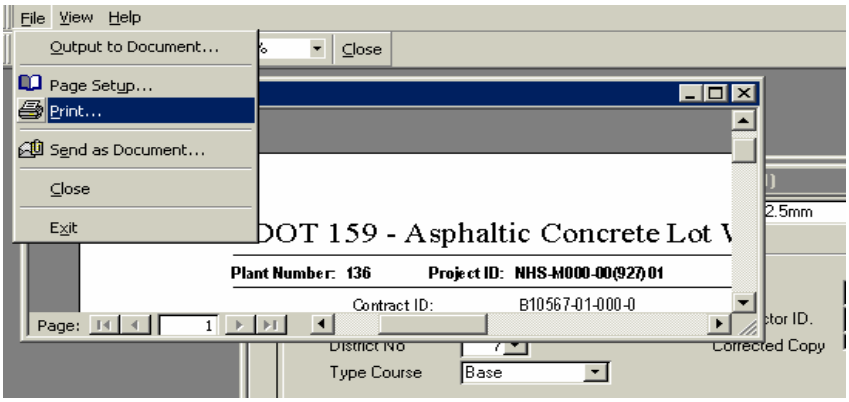
After clicking on the button with the picture of the printer, a preview of the report to be printed will appear on the screen. This preview may be printed, e-mailed, or saved to a folder on your (desktop, a diskette or a folder on the network). Be sure and create the folder before you create the report.

To create a folder on the desktop (right click your mouse, select new, select folder, rename the folder),

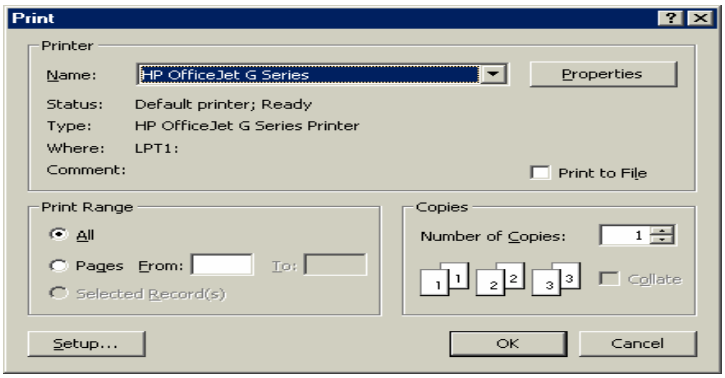
Note: This example will create a sub-folder in the windows default desktop folder.

10.3.1 To Print a Report

To print a hardcopy report if you are attached to a printer, click "File" and then "Print".

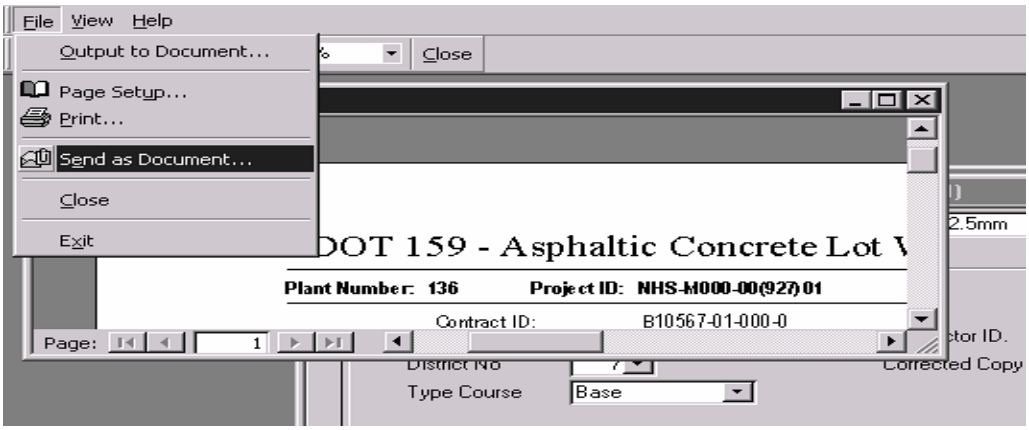


When the print dialog box appears click "OK".



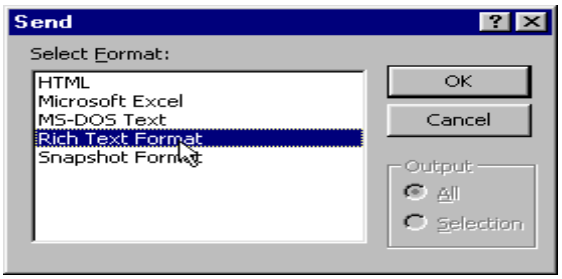
10.3.2 To e mail a Report

1. To e-mail the report, click “File” and then “Send as Document”.

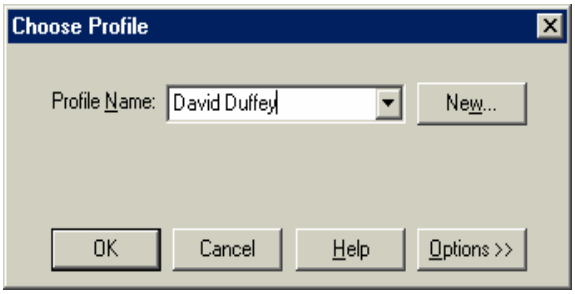


2. Select Format: to send as **Rich Text Format**.
3. Click **OK**. At this point your e-mail program should appear.

Note: This is a generic document format recognized by most Word Processing Software

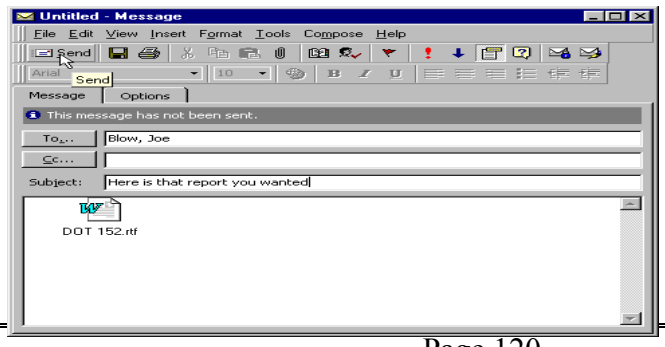


4. Typically this is Microsoft Outlook, in which case it will prompt you for your user profile. Select your profile and click **OK**.

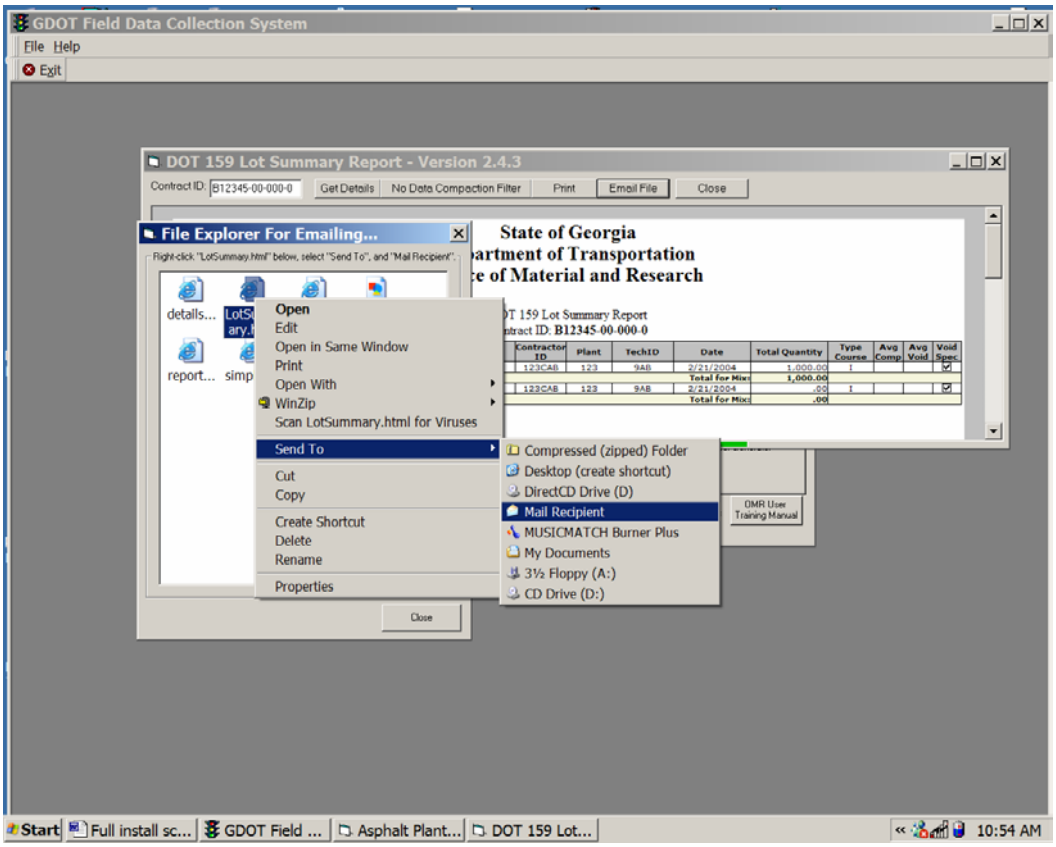


5. Your report will appear in the email as an attachment.

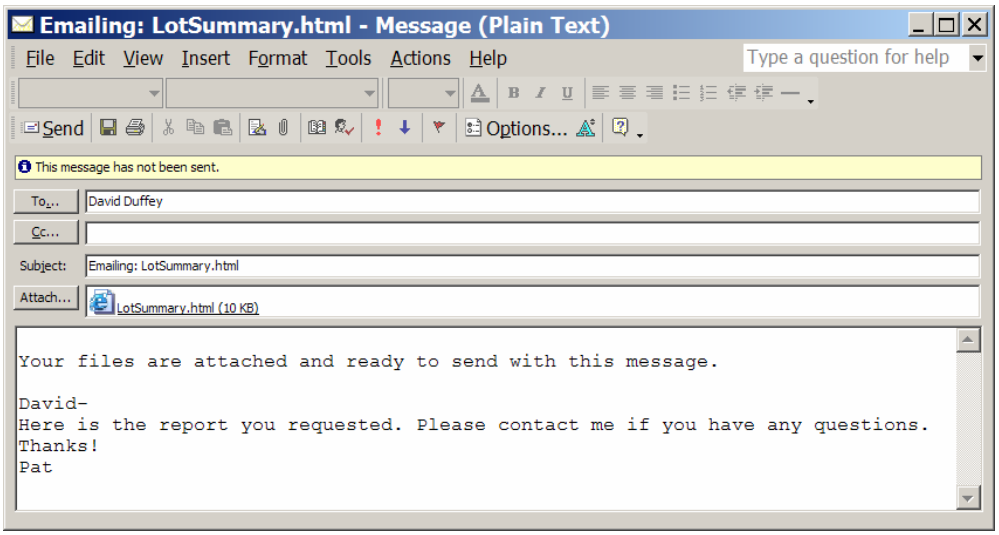
Note: Using this method you can only send one report. You must send the e-mail before you continue with any other program.



10.3.3 Alternate method to send a report.



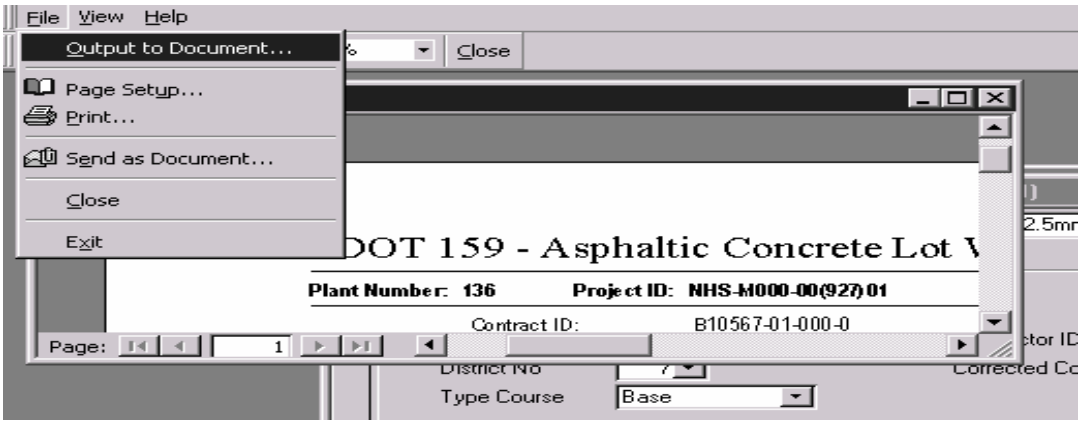
1. After generating the report, click **Email File** button
2. Right click the file with the report name
3. Select **Send To\-> Mail Recipient**
4. Choose Outlook as the mail profile



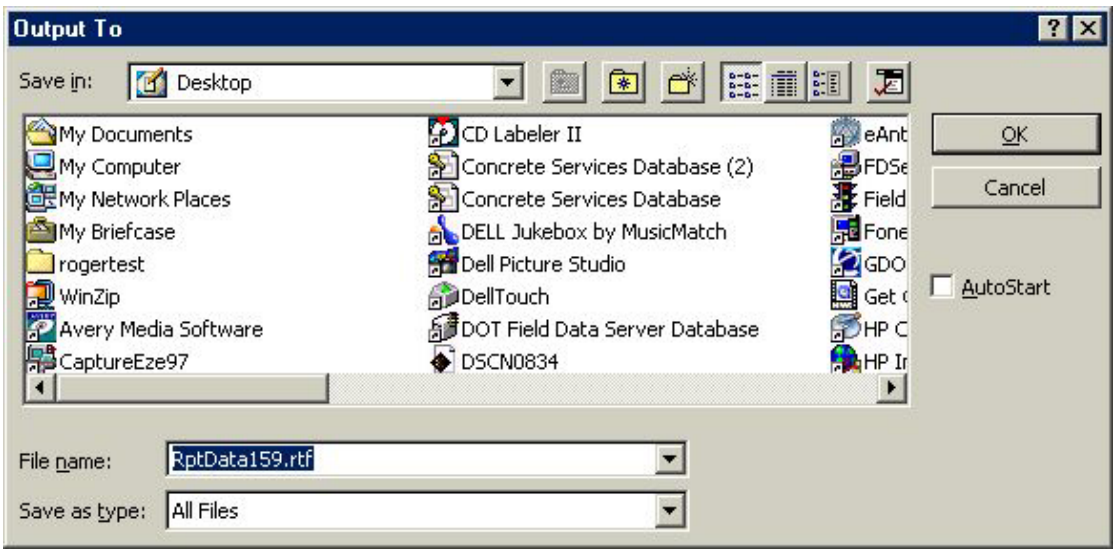
5. Enter the e-mail addressee and click **Send** the message.

10.4 Save a Report to a folder on your computer

1. On the File menu, select **Output to Document**



2. Select the folder where you wish to save the report, then click **OK**.

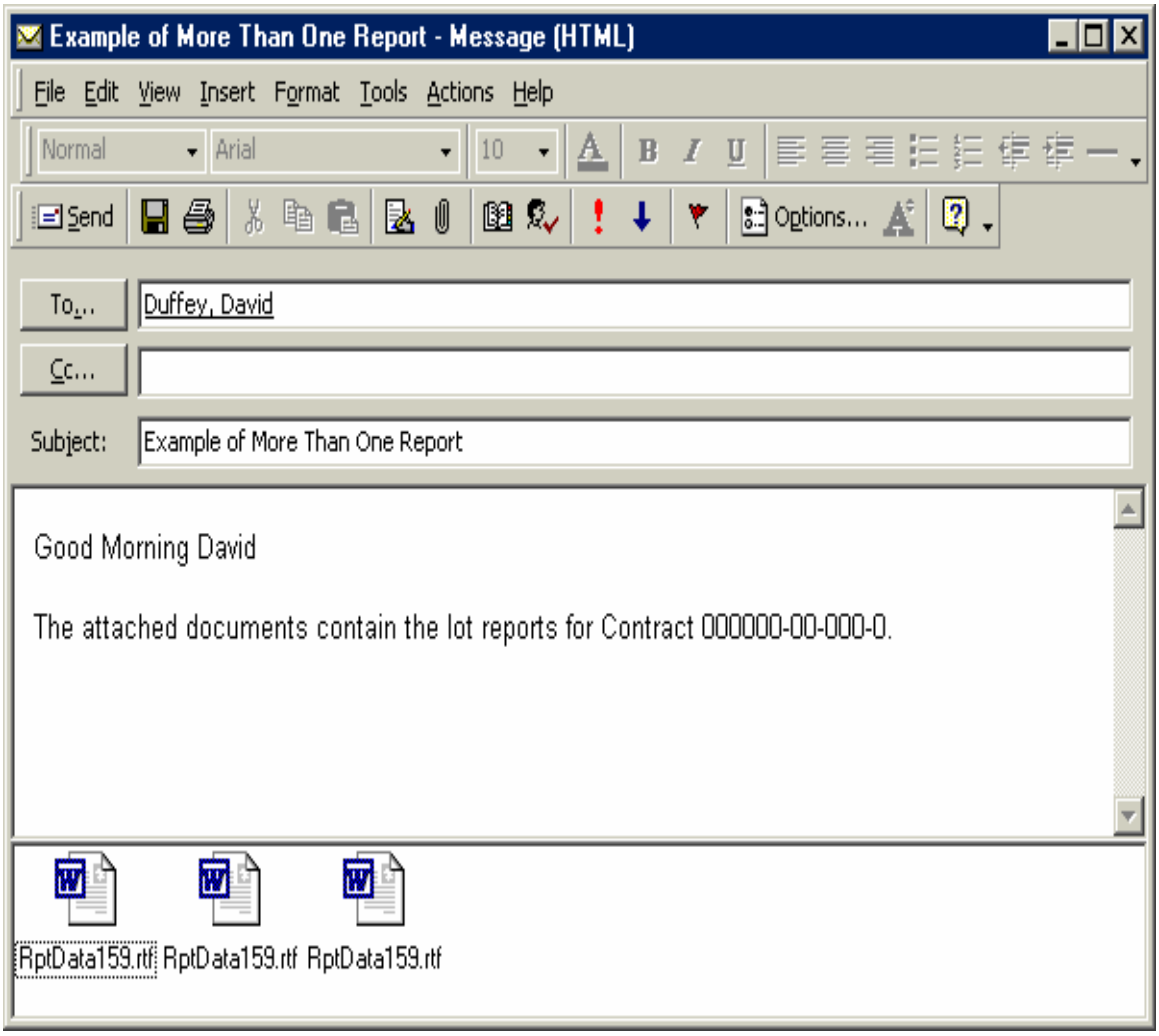


Note: Be sure to use the rtf extension on the file. The Rich Text Format (RTF) preserves the special formatting and header information in the test report. If you try to save the report using any other format extension it rearranges the data within the test report.

10.5 To e-mail a group of reports

To email more than one report at a time it is recommended that you save all the reports to one folder on your computer. Then create an e-mail message and insert all the reports into the message as follows.

1. Open your email program.
2. Create a new message.
3. Use the **Insert** menu to select and include multiple report files in your email message.
4. Address and Send the message.



11 Uploading to the GDOT External Web Server

The Web Upload process replaces the former BBS upload process. Test data uploaded to the web server is copied through secure GDOT network lines into the main GDOT Field Data database. Only authorized personnel can Verify the test data once it has been uploaded to the database server.

Note: See Section 2.4 for Technical Requirements.

Users of the Field Data Collection System Web Upload must have an Account ID, Password, and Technician Code. Please contact the District Testing Management Operations Supervisor, OMR Pit & Quarry Branch Chief, OMR Concrete Branch Chief, or OMR Bituminous Paving Branch Chief to have an account set up.

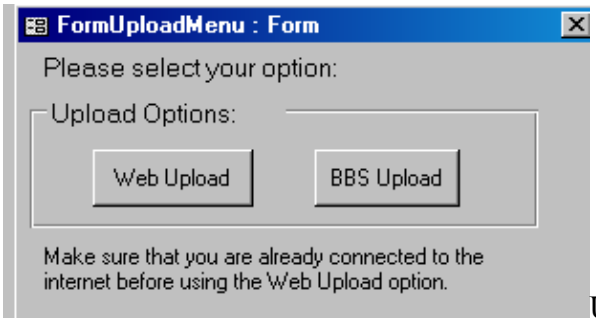
11.1 Web Upload Process

The Web Upload process replaces the BBS process in prior versions. To perform this process, you must be connected to the internet (via Virtual Private Network (VPN) or your Internet Service Provider (ISP). Also, you will need to obtain login credentials (name and password) as provided by your Administrator. Once you have your login information and are connected to the internet, follow the steps detailed below to upload your information.

1. Connect to your internet provider.

Note: For GDOT personnel, this means you should be logged on to the GDOT network. For non-GDOT personnel, you should be able to open your internet e-mail account.

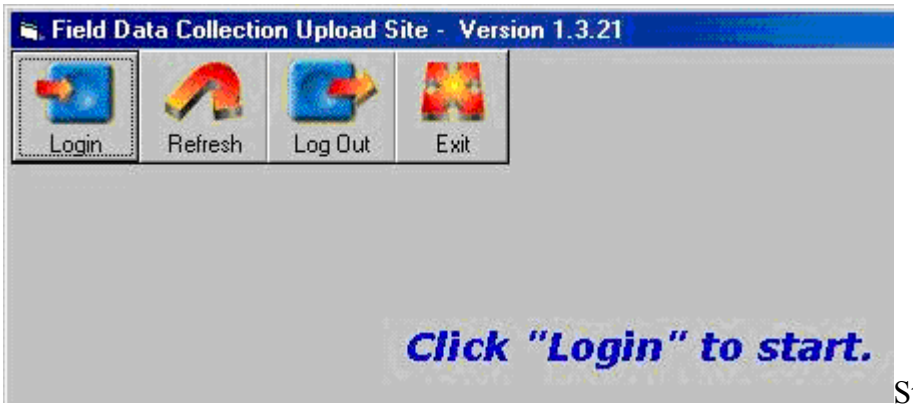
2. From the main menu, click the **Upload Data to GDOT** button in the lower left hand corner. The upload options window appears.



Upload Options

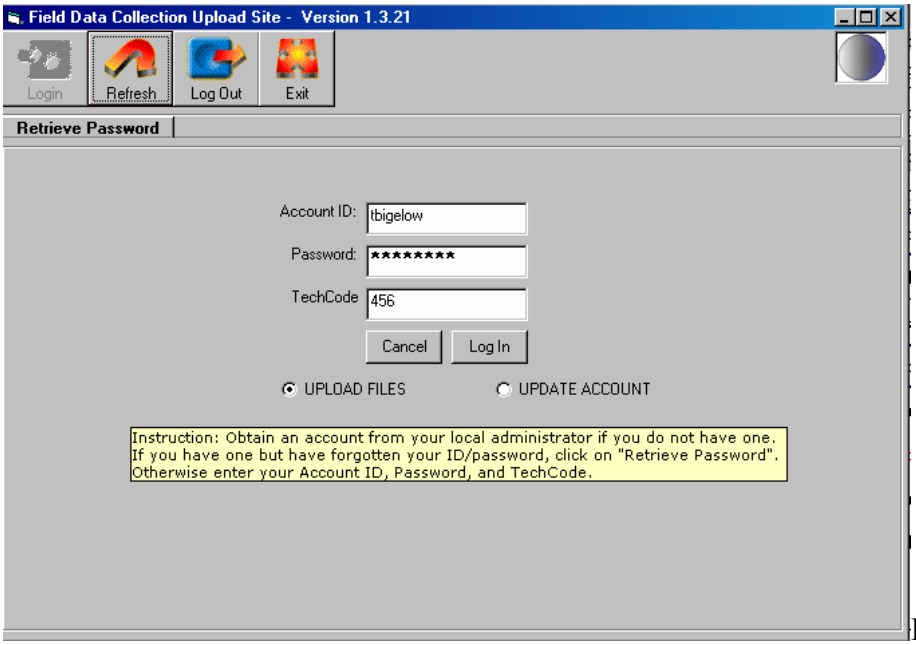
3. Click the **Web Upload** option. The start screen options screen appears.

4. Click the **Login** button in the top left hand corner.



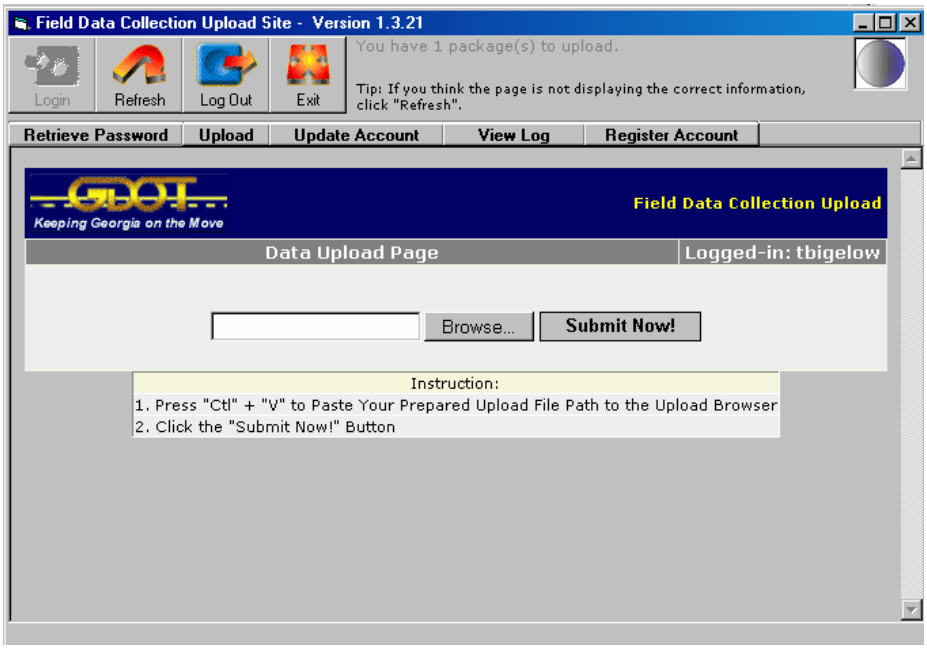
Start screen

5. The log in screen appears. Enter your account ID, password and TechCode.



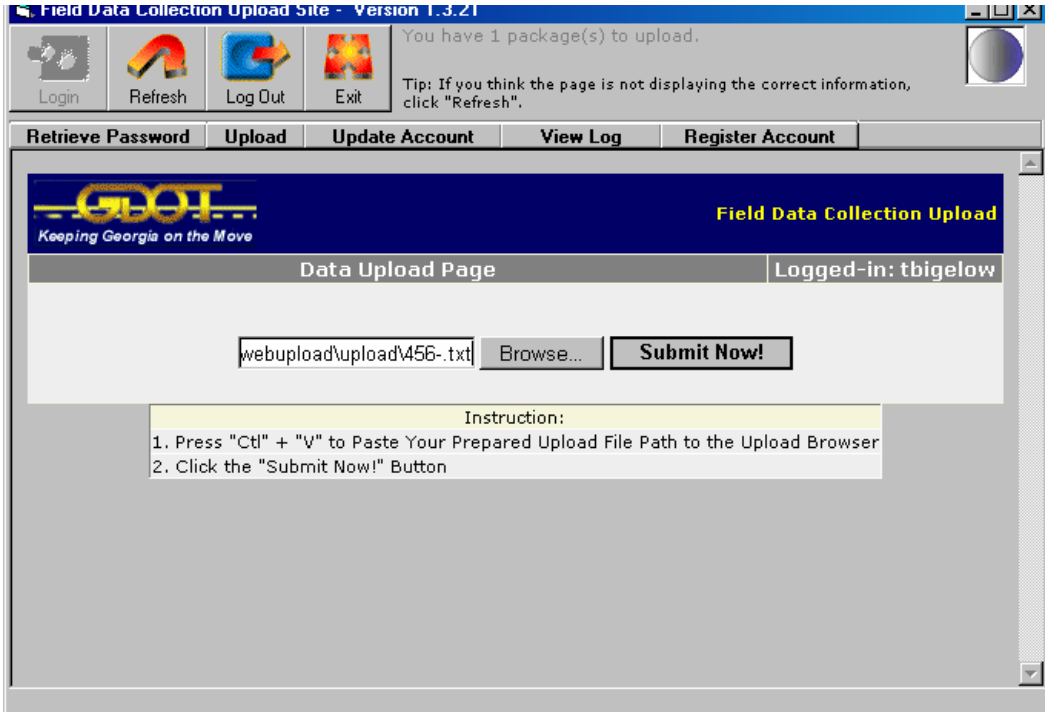
Log In screen

6. Verify the **Upload Files** option (to the left) is selected.
7. Click the **Log In** button (under the TechCode field). The Data Upload Page appears.



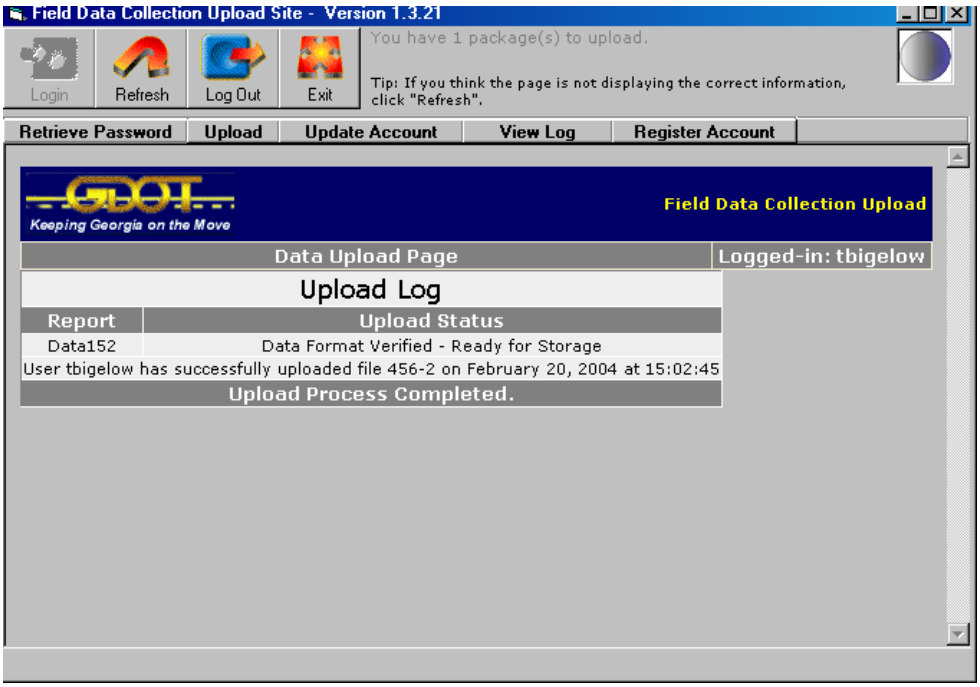
Data Upload Page

8. Simultaneously press the 'Ctrl' and 'V' keys. This will enter the information necessary in the data upload field.
9. If the location entered is not correct, click the Browse… key and locate it manually. If you've successfully done the Ctrl-V step, your screen will look like the one below (Figure 67).



Data Upload File screen

10. The path to the file is shown in the file field
    (in this example, C:\Program Files\GDOTDCS\VBPlugins\webupload\upload\456-.txt.)
11. Click the **Submit Now!** button. The data upload log appears.

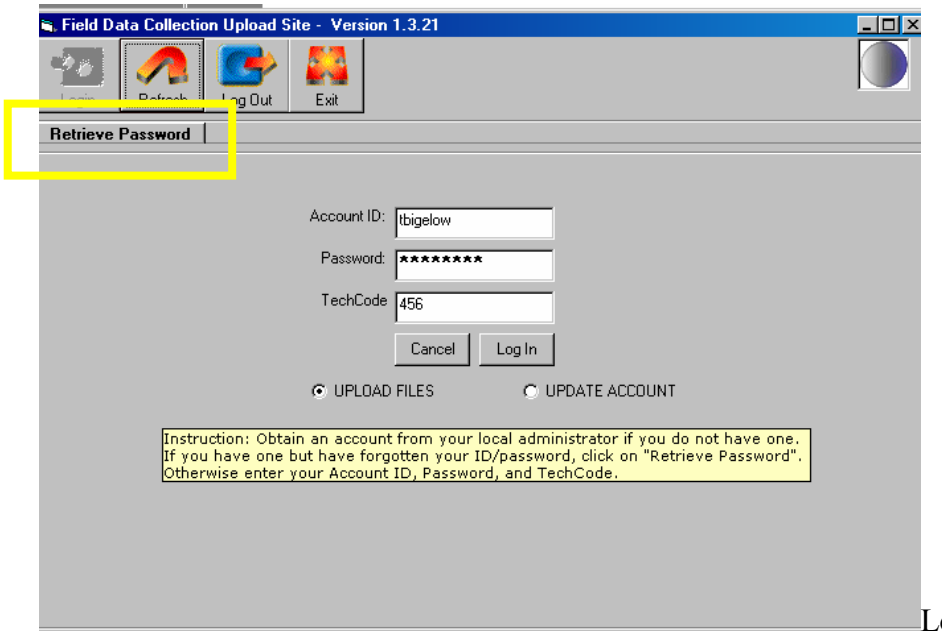


Upload Confirmation

11.2 Retrieve Password

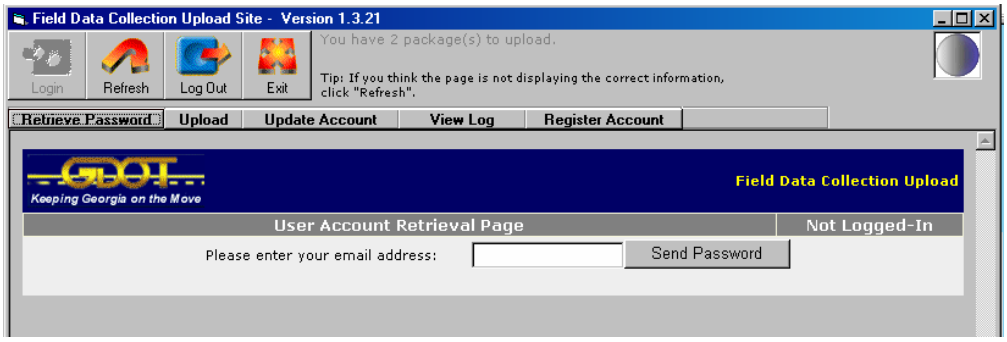
Users of the Web Upload can retrieve their Password or Account ID based on the account's authorized e-mail address.

1. From the Upload Main menu, click the log in button. The log in screen appears.



Log In screen

2. Click the **Retrieve Password** button. The password retrieval screen appears.



Password Retrieval Screen

3. Enter the email address associated with account.
4. Click **Send Password**.
5. An e-mail from the Solutions Center will be sent to the address with the Account ID and Password information. (This should arrive within 10 minutes.)

11.3 Update User Account Information

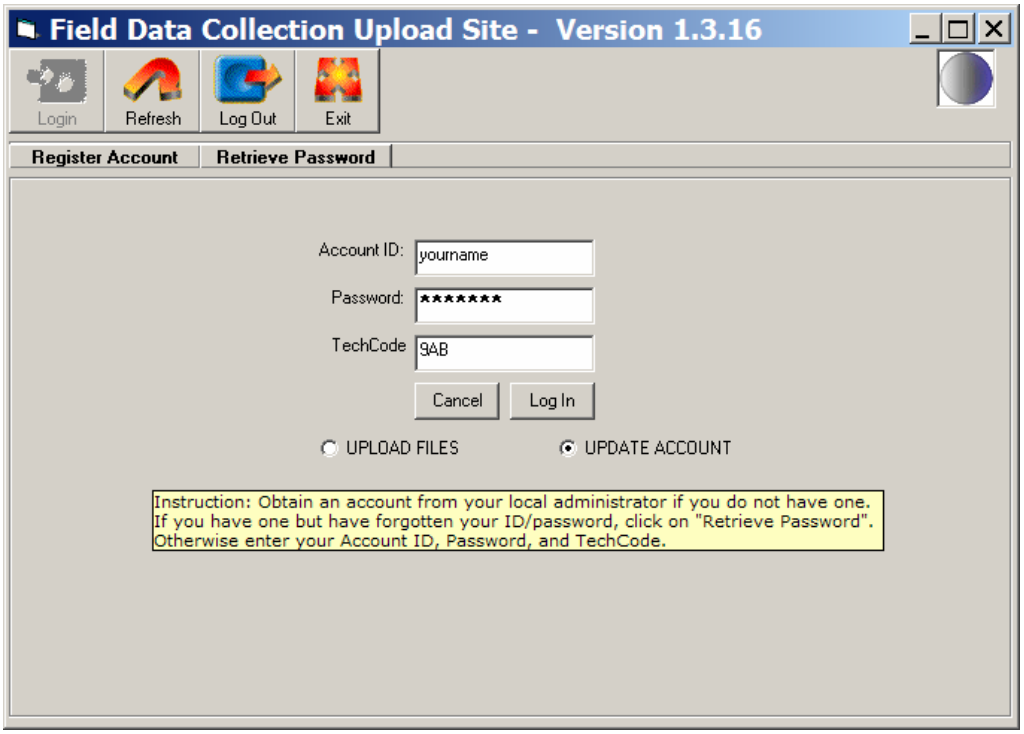
1. Connect to your internet provider.

Note: For GDOT personnel, this means you should be logged on to the GDOT network. For non-GDOT personnel, you should be able to open your internet e-mail account.

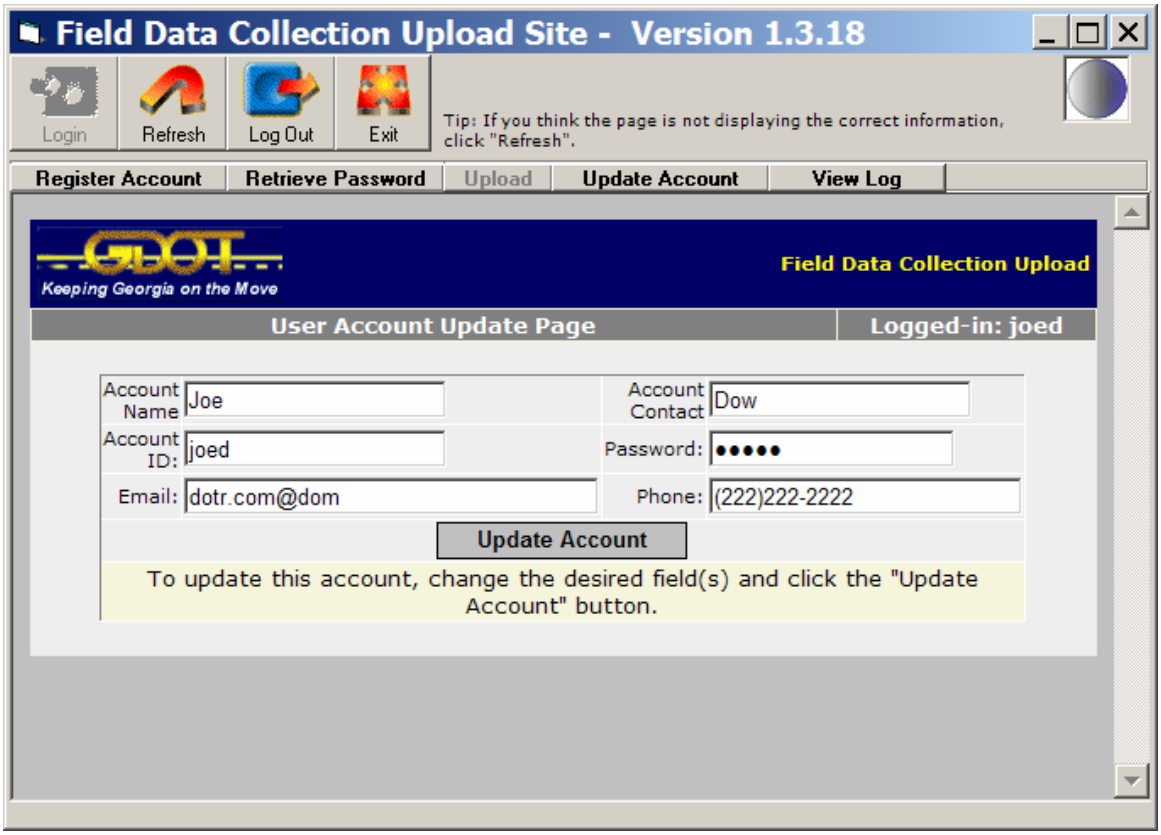
2. Open FDCS, if not already in use.
3. Click on the **Upload Data to GDOT** button.
4. Click **Web Upload** button.
5. Enter your Account ID, password, and technician code.

Note: The default password for new accounts is NICEDAY.

6. Check the **UPDATE ACCOUNT** radio button.
7. Click the **Log In** button.



8. Check your user account to make sure it is correct.
   - Update your password (up to 10 characters) to change it from NICEDAY.
   - Update your telephone number if necessary.
   - Update e-mail address if necessary. This will be used if you ever need to retrieve your password, so it is critical that this is correct.



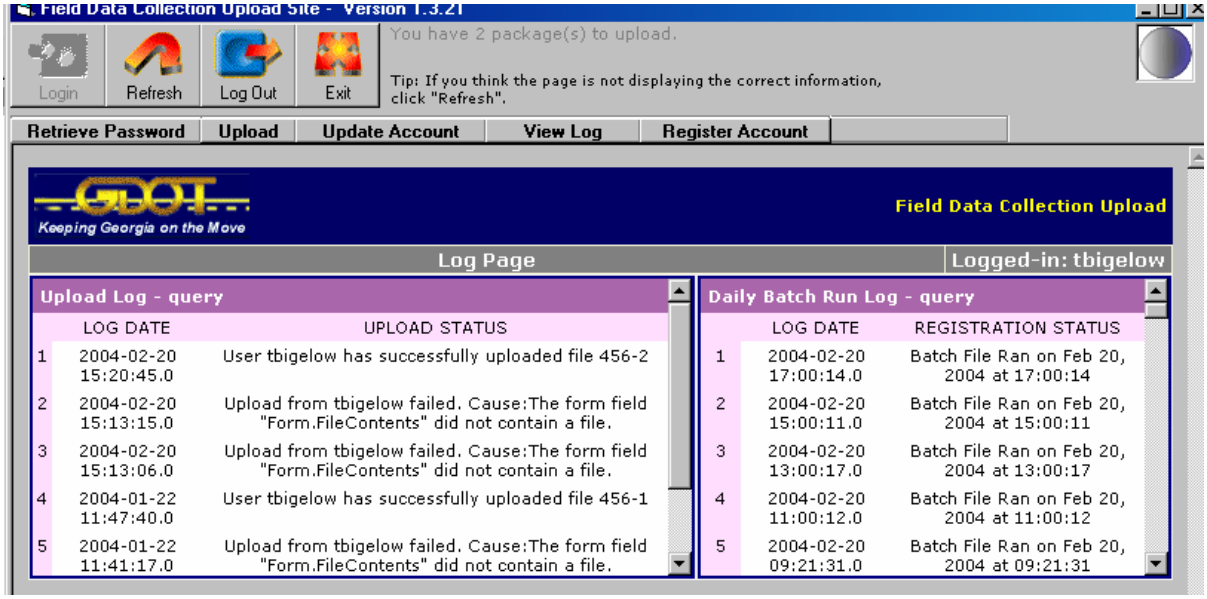
9. Click the **Update Account** button to save the changes to your information.
10. **Exit** the user account update.

Note: Account ID is protected and can only be changed by an account administrator.

11.4 View Log

If the user wants to see a log of the files uploaded, click the 'View Log' option.

1. Click the **View Log** button. The View log screen appears
2. The panel on the left displays the log of files uploaded to the server.
3. The panel on the right is the list of the batch run that uploads data from the external web server to the internal server to be verified by GDOT personnel.



View Log

12 Using The Backup/Restore Utility

The Field Data Collection Software backup/restore utility program enables users to back up or restore data that has been saved to a diskette, hard drive or to a networked computer or server. This utility can be used to Backup test reports and transfer the file to another user to Restore on their computer to view or update the test report data. This chapter provides a description of what is provided by the Backup/Restore Data utility in FDCS.

Note:The backup/restore process has changed significantly from version 3.31 to version 4.0 of the Field Data Collection System.

12.1 Backing Up Data

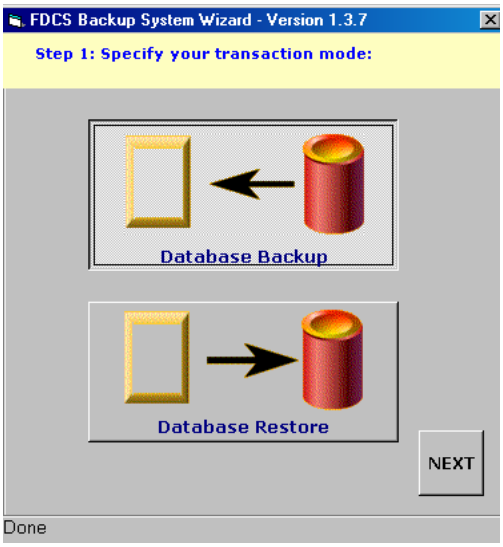
4. From the main menu, click the **New Backup/Restore Data** button. The FDCS Backup window appears.

FDCS Backup System

5. Click the **Start** button to begin the backup/restore process. The transaction mode screen appears:

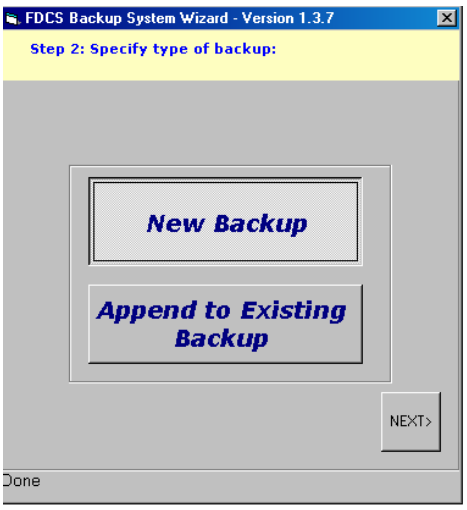
12.1.1 Database Backup – New Backup

6. On the transaction mode screen, click the **Database Backup** option.



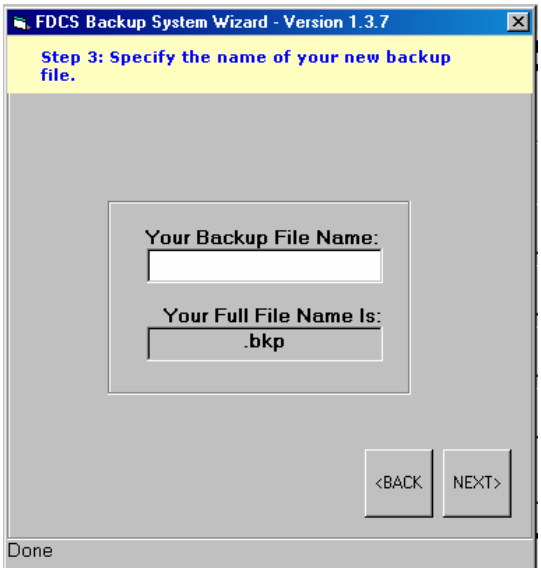
Database Backup Selected

7. Click the **Next** button, which will take you to the backup options screen appears:



Backup Options

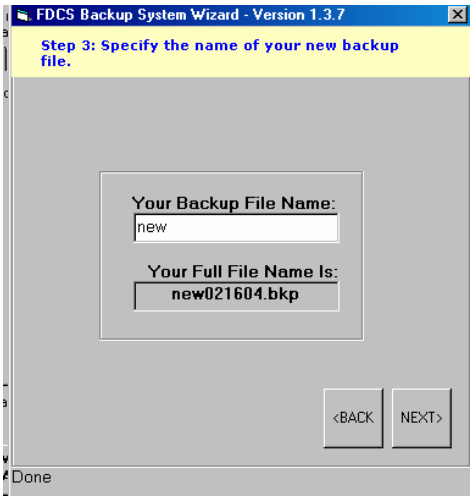
8. Select the **New Backup** option and click the **Next** button.



Backup File Name

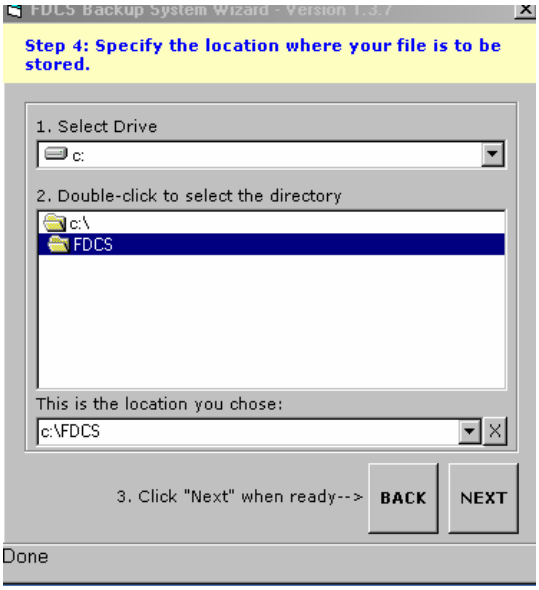
9. Enter the backup file name **Atraining**

Note: In the "Your Full Name Is:" field, the system will add the date and file extension '.bkp'



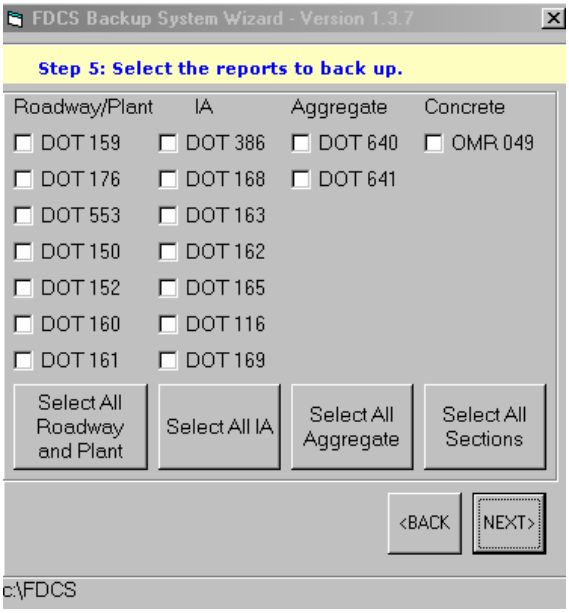
Full File Name

10. Click the **Next** button.



File Location

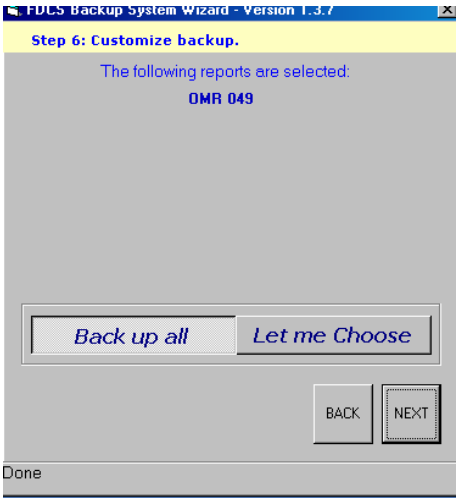
11. In "1.Select Drive" field, select the **C:** drive.
12. In "2." directory field, double click the **FDCS** folder.
13. Verify "This is the location you chose:" and click the **Next** button. The reports selection screen appears.



Reports Selection

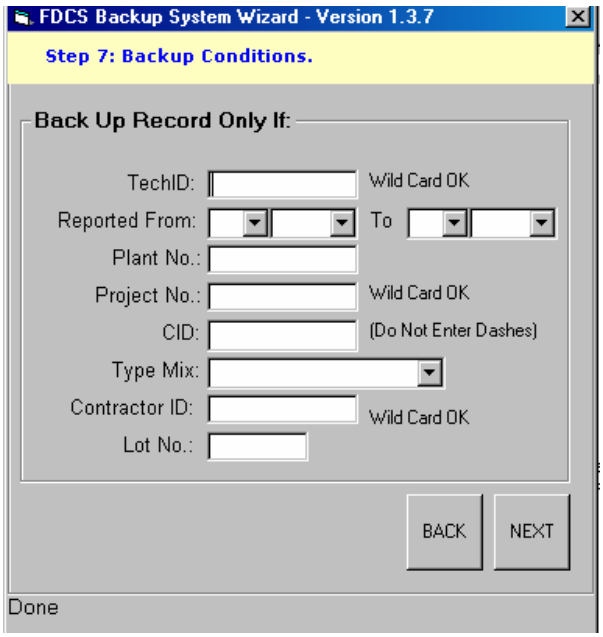
14. Click the **Select All Sections** button.
15. Click the **Next** button

Note: You can either select all of a type of reports (by click this 'Select All' button beneath the corresponding reports) or select individual types of reports.



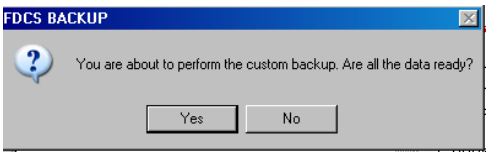
Backup Customization

16. Click the **Let Me Choose** option.
17. Click **Next**.



Back Up Conditions

18. In the "Project No.:" field, enter **STP-123(11)01**
19. Click the **Next** button. The confirmation window appears.



Confirmation of Back up

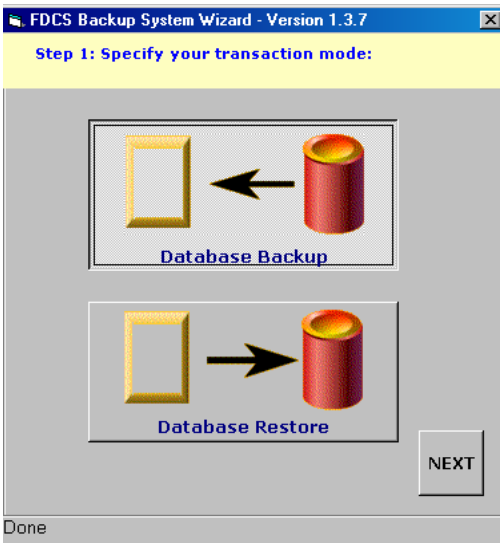
20. Click **Yes**.

Process Complete

21. Click the **Exit** button to return to the Main Menu.

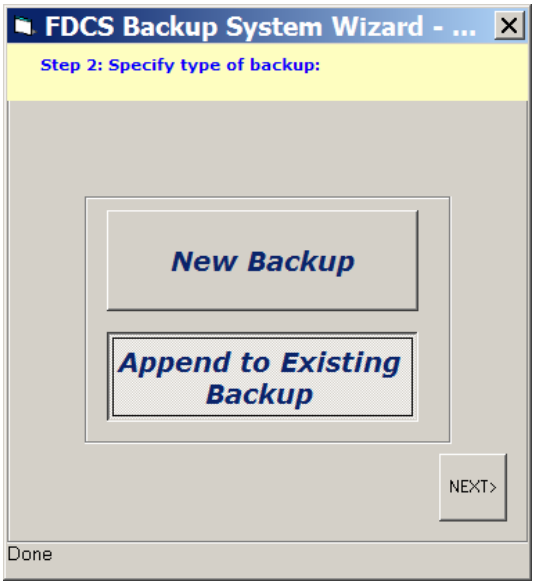
12.1.2 Database Backup – Append

22. From the main menu, click the **New Backup/Restore Data** button. On the transaction mode screen, click the **Database Backup** option.



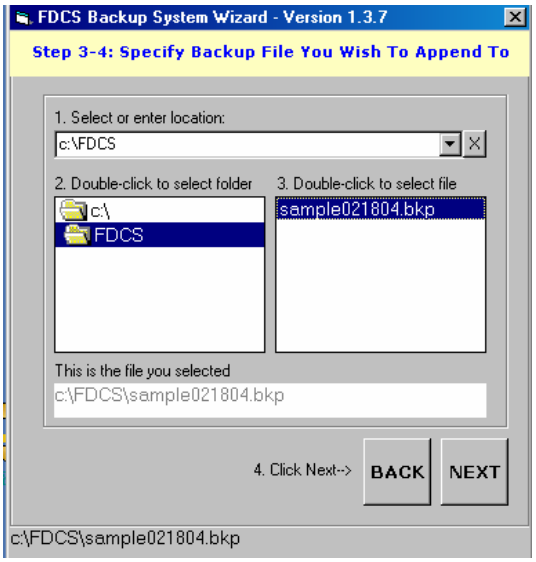
Database Backup Selected

23. Click the **Next** button, which will take you to the backup options screen appears:



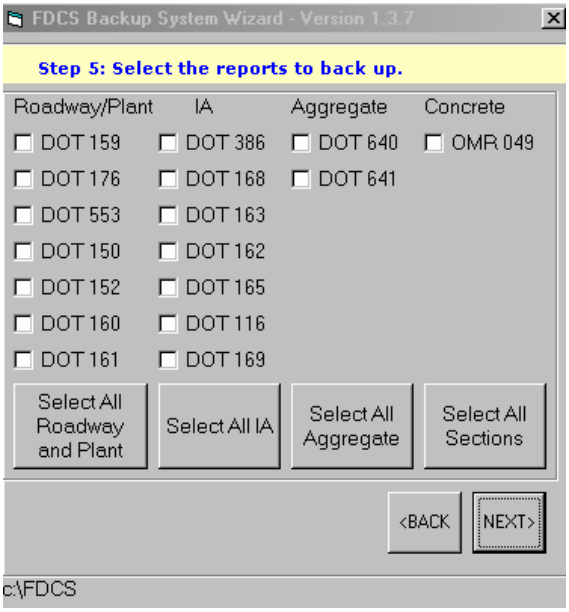
Backup Options

24. Select the **Append to Existing Backup** option and click the **Next** button. The file location window appears.



File Location

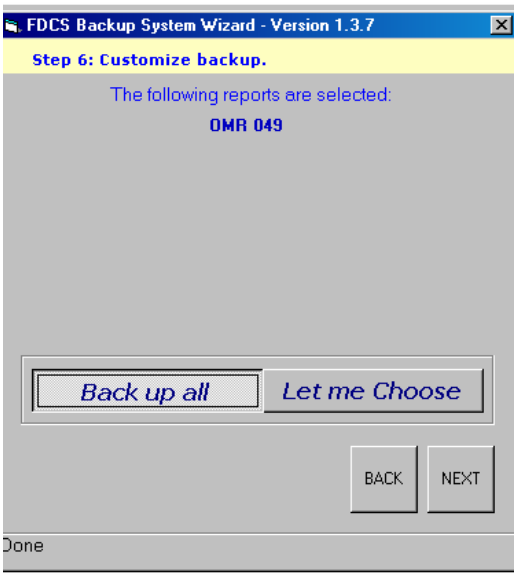
25. In "1.Select Drive" field, select the **C:** drive.
26. In "2." directory field, double click the **FDCS** folder.
27. In "3.", double click the **Atraining***.bkp** file
28. Verify "This is the file you selected:" and click the **Next** button. The reports selection screen appears.



Reports Selection

29. Click the **Select All Sections** button.
30. Click the **Next** button

Note: You can either select all of a type of report (by clicking the 'Select All' button beneath the corresponding reports) or select individual report types.



Backup Customization

31. Click **Back up all**.
32. Click **Next.**

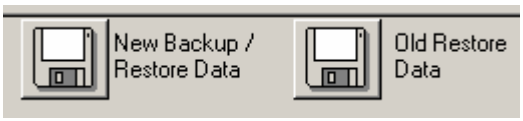
Process Complete Screen

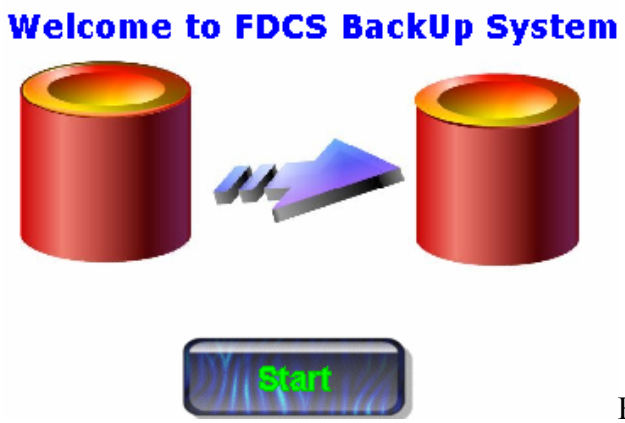
33. Click the **Exit** button to return to the Main Menu.

12.2 Database Restore

FDCS users are encouraged to utilize the New Backup/Restore Data process detailed in the section that follows. Completing the Database Restore process is very similar to the Database Backup process detailed in the previous section.

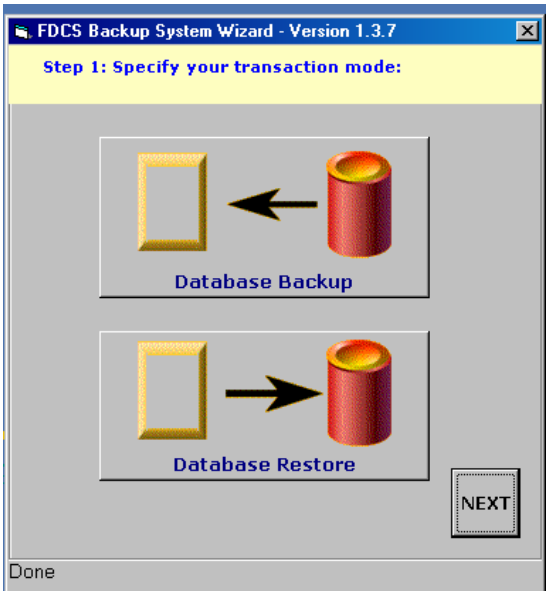
34. From the main menu, click the **New Backup/Restore Data** button. The FDCS Backup window appears.





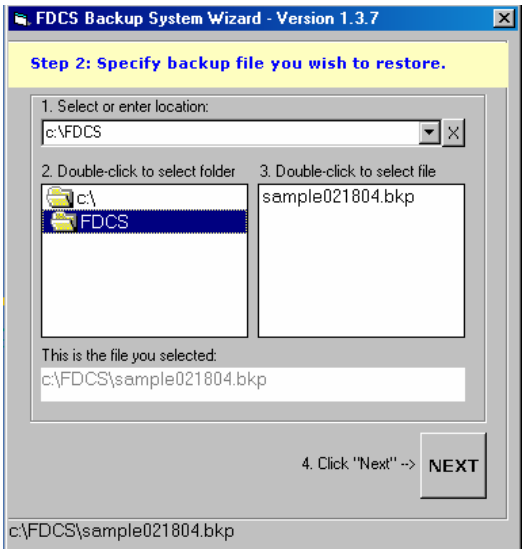
FDCS Backup System

35. Click the **Start** button to begin the restore process. The transaction mode screen appears.



Transaction Mode Screen

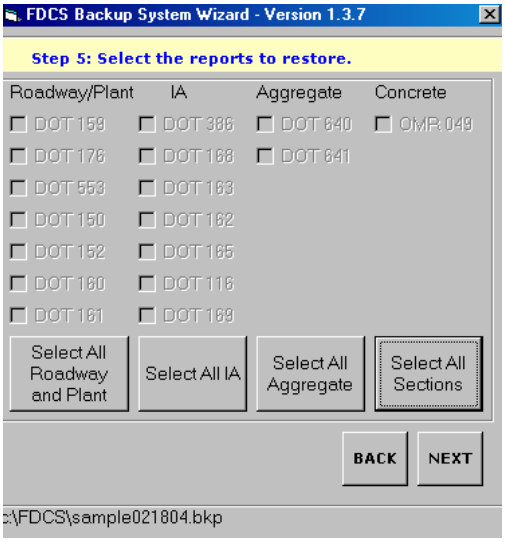
36. Click the **Database Restore** button and click the **Next** button. The file location screen appears.



File Location – Restore

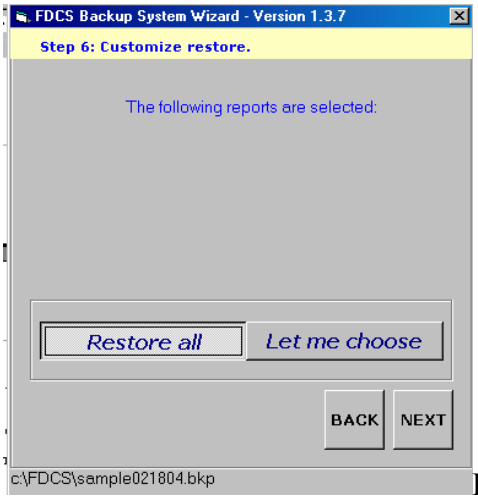
37. In the "1. Select or enter location:" field, select **C:\FDCS**
38. In "2." field, select the folder where the file resides. And finally,
39. Double click the file **Atraining***.bkp**.
40. Verify "This is the file you selected:" and click the **Next** button. The Reports Restore Selection screen appears.

Note: If you ordinarily restore data from your 'A:' drive and you do not have a diskette in that drive, you may see the following error (Figure 55). Click the OK button.



Reports Restore Selection

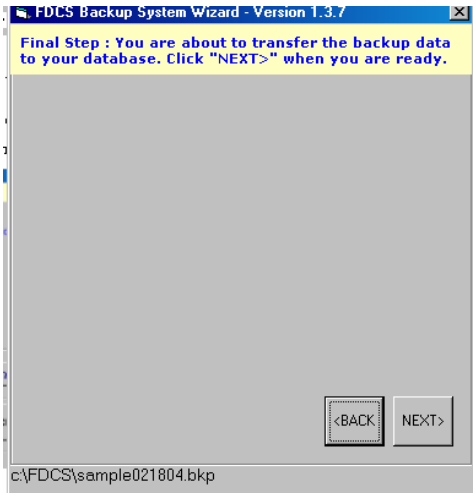
41. Click the **Select All Sections** button
42. Click the **Next** button, which will bring you to the restore customization screen.



Restore Customization

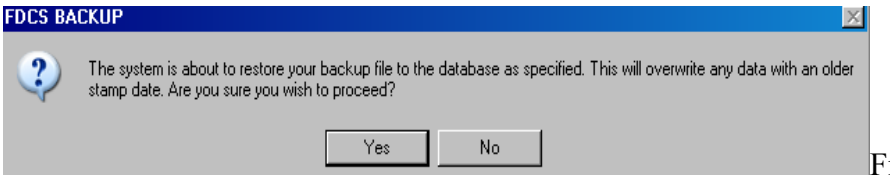
43. Click **Restore All.**
44. Click **Next**.

Note: The user can either backup all or choose which ones to back up. The "Let me choose" options are shown in the 'Backup-New file' training.



Restore verification

45. Click the **Next** button. The final restore verification screen appears, confirming the restoration.



Final Confirmation

46. Click **Yes**. The Process Complete screen appears.

Process Complete

47. Click **Exit** to return to the main menu.

13 Generation of Reports on Field Data Server database

The DOT Data Server Database is a Microsoft Access Database file. It is populated with information that is uploaded daily by GDOT technicians and Producers or Contractors via the Web Upload. This information is then reviewed and verified by Testing Management supervisors before test data is included on reports generated from the Field Data Server. See Section 3.2 for a diagram of how the data is collected and stored.

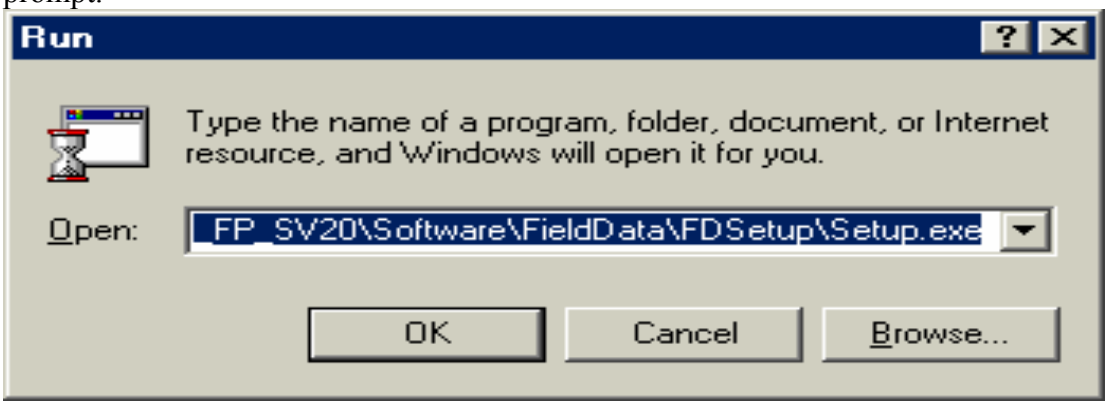
This chapter describes how users can generate hard copy test reports, quality ratings and statistical reports from the test data uploaded to the Field Data.

13.1 Tasks That Can Be Performed on Field Data Server

- Verify that correct test data has been received from the field
- Search for reports based on multiple criteria
- Edit uploaded reports
- Delete a record
- View and print uploaded reports
- Distribute a hard copy and/or a electronic report to the Area Construction Personnel
- Generate Quality Ratings
- Generate Statistical Reports

13.2 Installing and Accessing the Field Data Server Database

1 To run the reports in the Field_ Data database from your personal computer you must be logged into the GDOT computer network the use the following commands at the run prompt.



➢ **\\gdot_fp_sv20\Software\FieldData\FDSetup\Setup.exe**

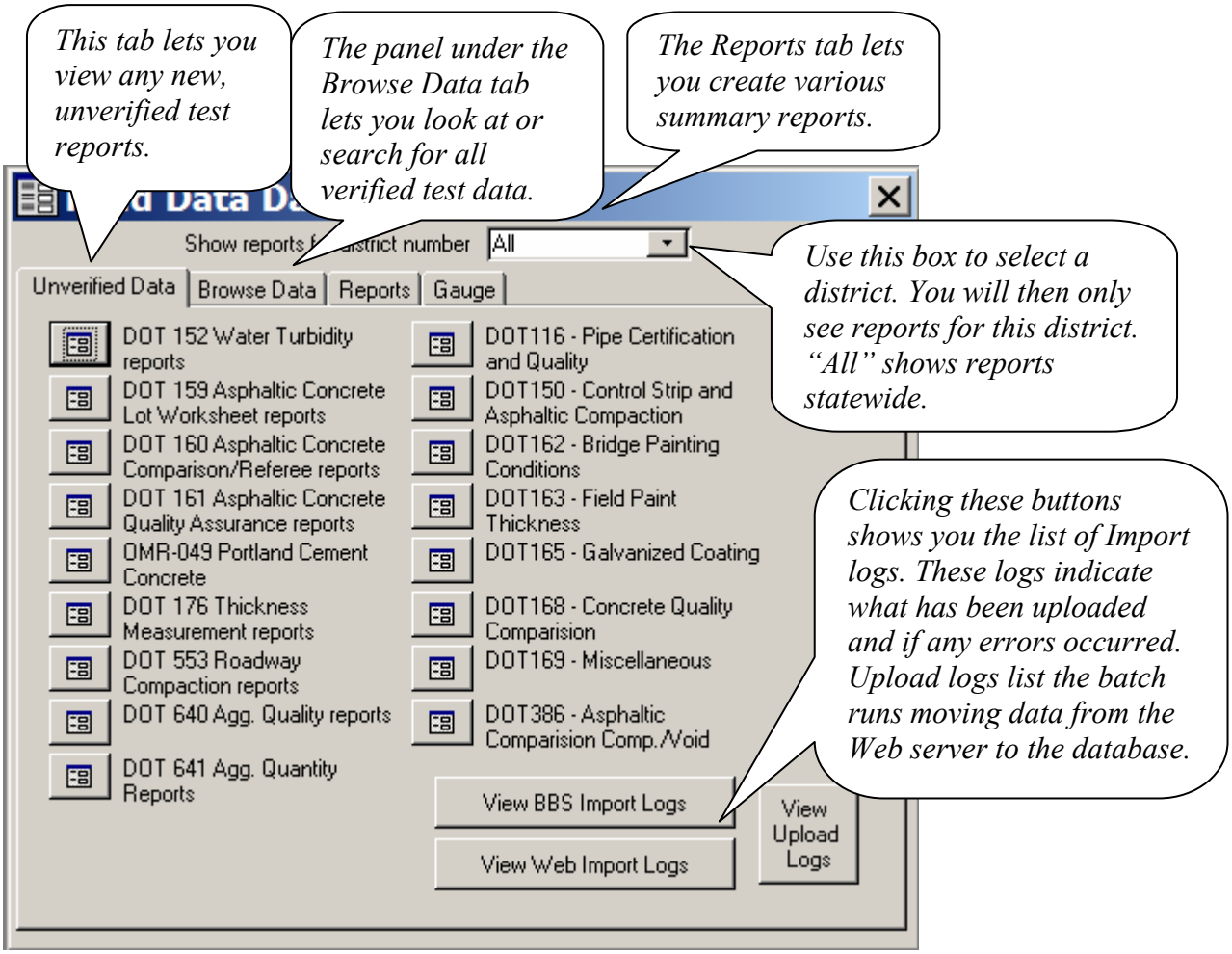
Note: There are underscores between gdot_fp and between fp_sv20.

Note: Two icons will be installed on your desktop. One of the icons only provides read access to the database the other icon provides full access to supervisors and administrators.

13.3 Field Data Server Main Menu

When you start the Field Data Server Database the first screen you will see is the Main Menu. The Main Menu consists of four tabs.

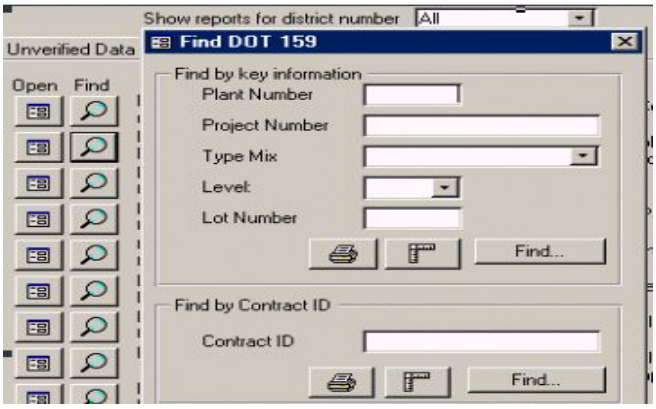
1. The first tab displays the Unverified Data panel.
   - View all test reports submitted but unverified. Designated DOT District personnel must verify each new report.
   - To view or edit the unverified reports, click the button next to the desired report type.
2. The second tab displays the **Browse Data** panel.
   - This panel lets you find and view all verified test reports.
3. The third tab displays the **Reports** panel.
   - Asphalt Plant Ratings
   - Aggregate Reports
   - Portland Cement Reports
   - Material Summary Reports
4. The fourth tab, **Gauge**, allows update of the nuclear gauge factors.



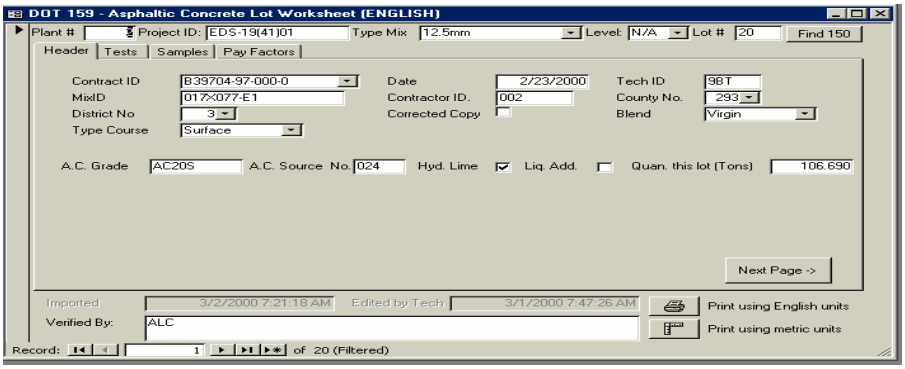
13.4 A Typical Search Dialog:

The search dialogs allow you to find reports by multiple sets of criteria depending on the data actually collected in the report. This usually includes the key information fields and the contract ID. Searching single fields not listed on this dialog can be accomplished by opening the form (unfiltered), selecting the field you want to search in, and pressing Control-F.

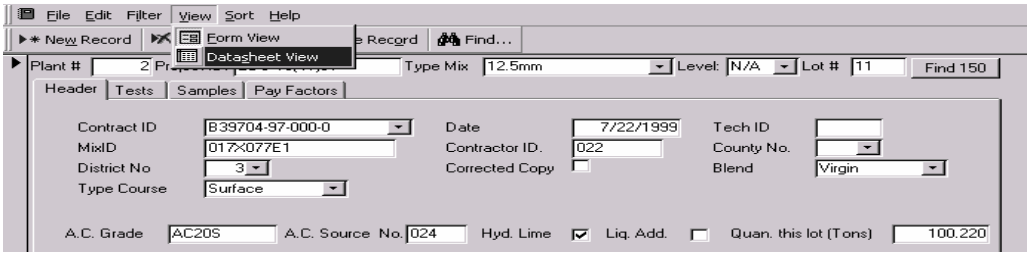
Example of the find box, and the results of using the find button select all of reports for the contract number B39704-97-000-0. If you wanted to create hardcopy copy reports use the print buttons instead of the find button.



Example using the Find button. ***Note: 20 records were located.***

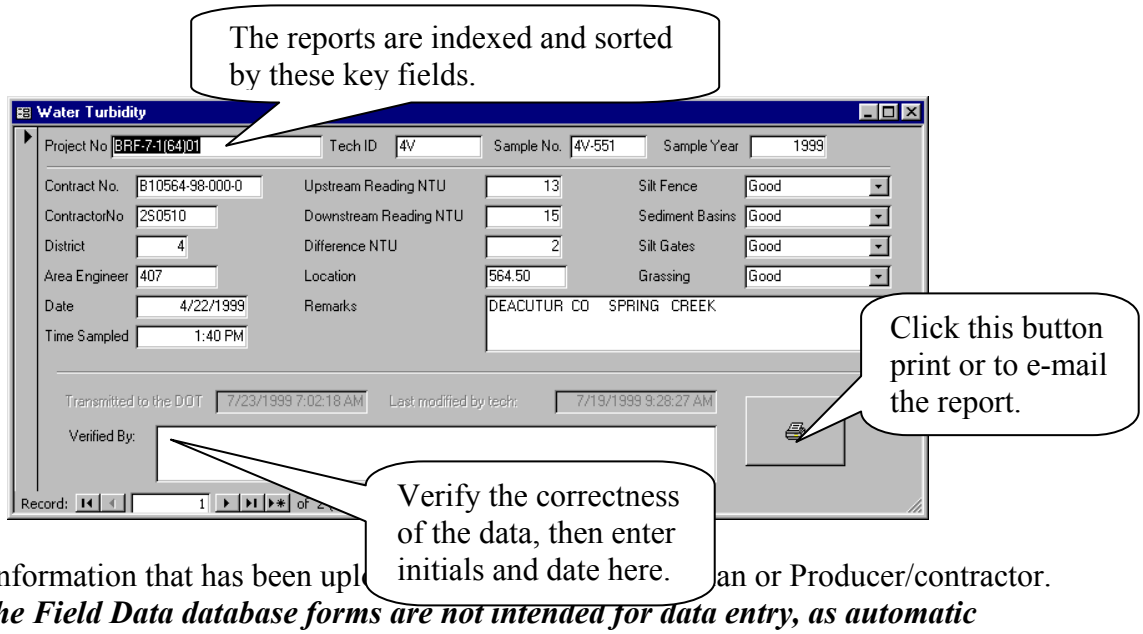


You may select to review the data in datasheet view instead of form review. To convert to datasheet view select “View”, select “Datasheet View”.



13.5 Using Field Data Forms To Review and Verify Test Data

A typical report looks like this:



This is information that has been upl an or Producer/contractor.

Note: The Field Data database forms are not intended for data entry, as automatic calculations are not done. New reports should be entered and uploaded using the FDCS Client.

- Use the navigation buttons at the bottom of the form to view the next or previous report.
- The topmost fields are the "key" fields. The reports are indexed and sorted by these fields.

Note: The database on the client FDCS database is not sorted exactly as the Field Data database and this is due to the different indexes being used to group the data.

- The last field is the "Verified By" field. Designated district personnel will verify the information the DOT Technician or contractor uploaded is correct and then enter their name and the current date in this field.
- Click the button with the picture of the printer to print or e-mail a report.

If a technician needs to re-upload a corrected test report from the FDCS client software you must first perform the following steps.

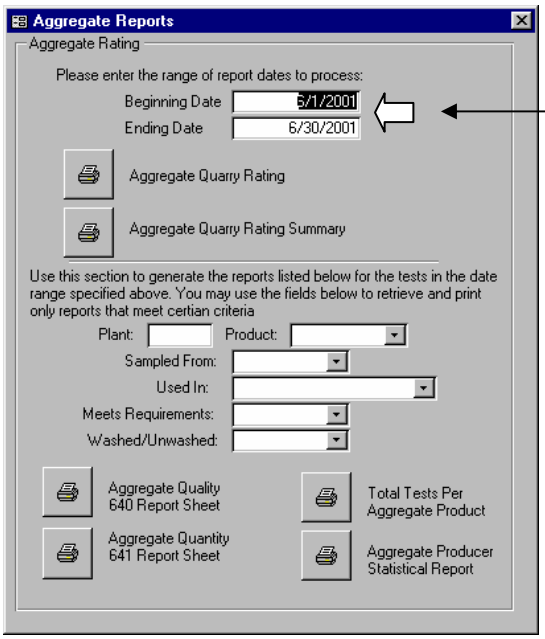
4 Authorized personnel must remove the verification from the test report on the Field Data server database by simply removing the data in the" Verified By" field.

5 The technician resubmitting the corrected report must open the report on the client using the FDCS.

Note: That all of the Field Data forms use ENGLISH units. Any reports that are uploaded using Metric units are hard-converted to English units. The exception to this is the Asphaltic Concrete Type Mix designations.

13.6 Generating Aggregate Reports

When you click the “Aggregate reports" button from the main menu, you will see the following screen:



Before running any of the reports listed here, you must enter a range of dates that you wish the report to cover.

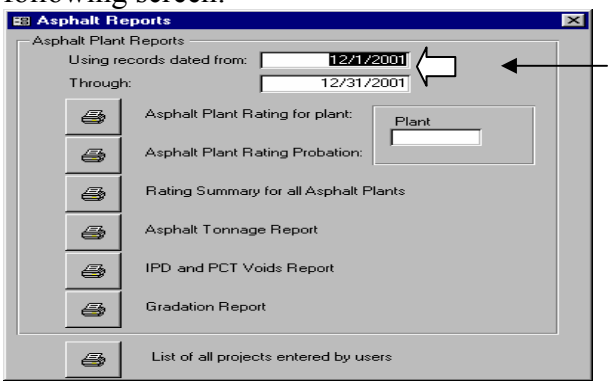
Optional
Plant – Source Number
Product – Aggregate Size Code
Sample From – Where the sample was taken.
Used In – Pay Item Code
Meets Requirements – Passed or Failed
Washed/Washed – Is the product produced as washed or unwashed.

From here you may generate the following aggregate reports:

Report Name	Description of Report
Aggregate Quarry Rating	A quality rating system for "Standard Coarse Aggregate Sources has been developed. This system is designed to provide Industry and the Department with a management tool for measuring the success of the Producer Certification Program and to promote consistency of products. This program will generate a quality rating based upon the data you have entered into the client.
Aggregate Quarry Rating Summary	Provides a summary based on the results of the above report.
Aggregate Quality 640 Test Report	This will print a report on all Quality test data entered for the specified time period.
Aggregate Quantity 641 Test Report	This will print a report on all Quantity test data entered for the specified time period.
Total Tests Per Aggregate Product	Is a summary report that shows how many tests were performed per aggregate size?
Aggregate Producer Statistical Report	Generates averages and standard deviations per sieve size per aggregate size.

13.7 Generating Asphaltic Concrete Reports

When you click the "Asphalt Reports and Printouts" button from the main menu, you will see the following screen:

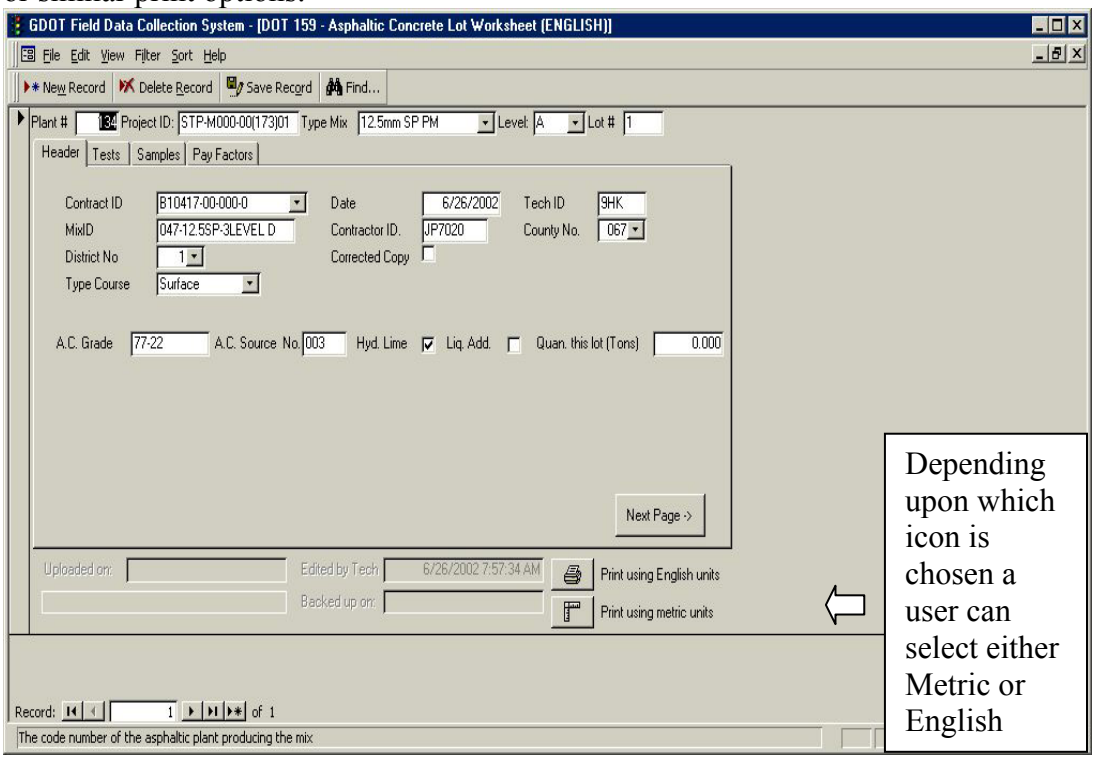


From here you may generate the following asphaltic concrete reports:

Report Name	Report Description
Asphaltic Concrete Plant Rating	The asphalt plant rating system was developed using the Mixture Control Tolerances established in Section 828 of Georgia's Standard Specifications. This system is designed to provide Industry and the Department with a management tool for measuring the success of the Producer Certification Program and to promote consistency of Asphaltic Concrete products. Uses the data from all of the entered 159 Asphalt Concrete Lot Worksheets within the specified time range to generate a rating for a specified plant. Requires three samples per product code to be rated.
Asphalt Plant Rating Probation	Same as above, but there is no minimum number of samples needed to generate a score.
Rating Summary for all Asphalt Plants	A summary of Asphalt Plant Ratings from all of the entered 159 Asphalt Concrete Lot Worksheets within the specified time range for all plants.
Asphalt Tonnage Report	A report of all tonnage from all 159s within the specified time range.
IPD and PCT Voids Report	A statistical report of in-place densities and percent voids for each asphaltic concrete mix.
Gradation Report	A statistical breakdown of gradations for each asphaltic concrete mix.
List of all projects entered by users	Produces a list of unique project codes gathered from all entered 159 reports. This helps identify incorrectly typed project codes.

13.8 Printing a Test Report

The button at the bottom right of the 159-5 Asphaltic Concrete Lot Worksheet provides the user with the functionality to create a Metric or English report. All other test reports provide the same or similar print options.



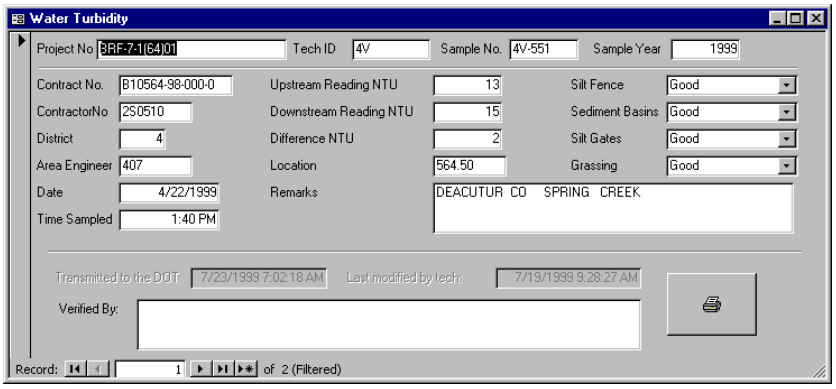
Test Reports can be generated using Metric or English measurements.
To generate a report on a specific record use the find button to locate the record, then select either the Metric or English icon this will create a report on your screen. You can Print this report or save it to file or send it by email.

Note: Although a test report can be generated from the client Field Data Collection Software (FDCS) it cannot be verified until it has been uploaded to the External Web Server and copied over to the Field Data Server database.

13.9 Examples of Field Data Server Database Data Entry Forms and Printed Reports

This is a list of the data entry screens and the reports that can be generated from the test data.

13.9.1 DOT 152 is used to record water turbidity test results.



DOT 152 Water Turbidity Data Entry Screen

Example of DOT 152 Water Turbidity Test Report

Department of Transportation
Sate of Georgia
Water Turbidity Report

Technician ID:	1P	ContractID:	B19525-96-000-1
Sample No.:	11	Contractor No.:	2BL900
Sample year:	1998	District No:	1
Project No.:	IM-STP-85-2(128)01	Area Engineer No.:	150

Date Sampled:	2/3/1998
Time Sampled:	10:30 AM
Upstream Reading NTU:	350
Downstream Reading NTU	240
Difference NTU:	110
Station # (Linear Feet)	
Remarks:	THIS IS A CORRECTED COPY. THE NTU READINGS

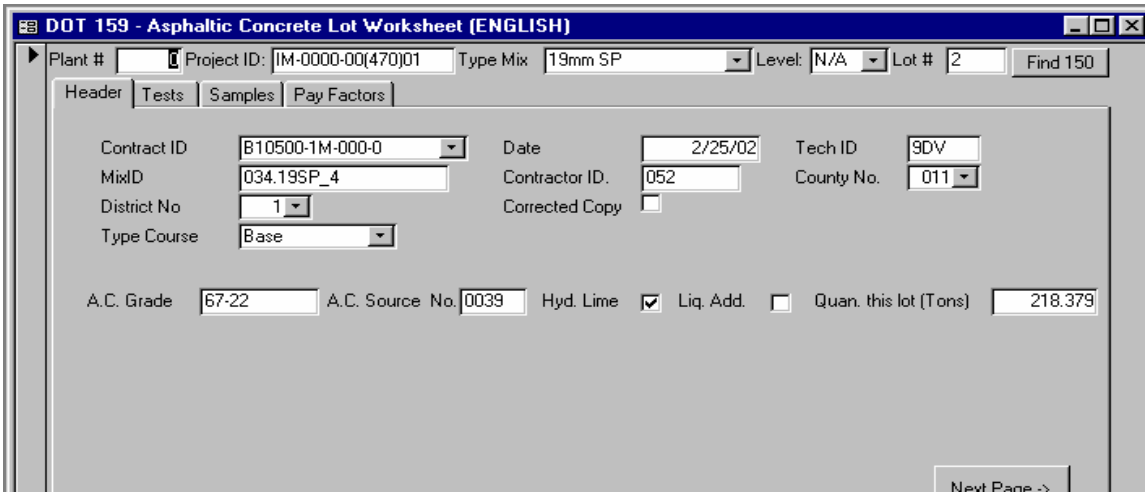
13.9.2 DOT159-5 is used to record the Asphaltic Concrete Lot Test Results

The Asphaltic Concrete Lot Test Report is composed of four header tabs.

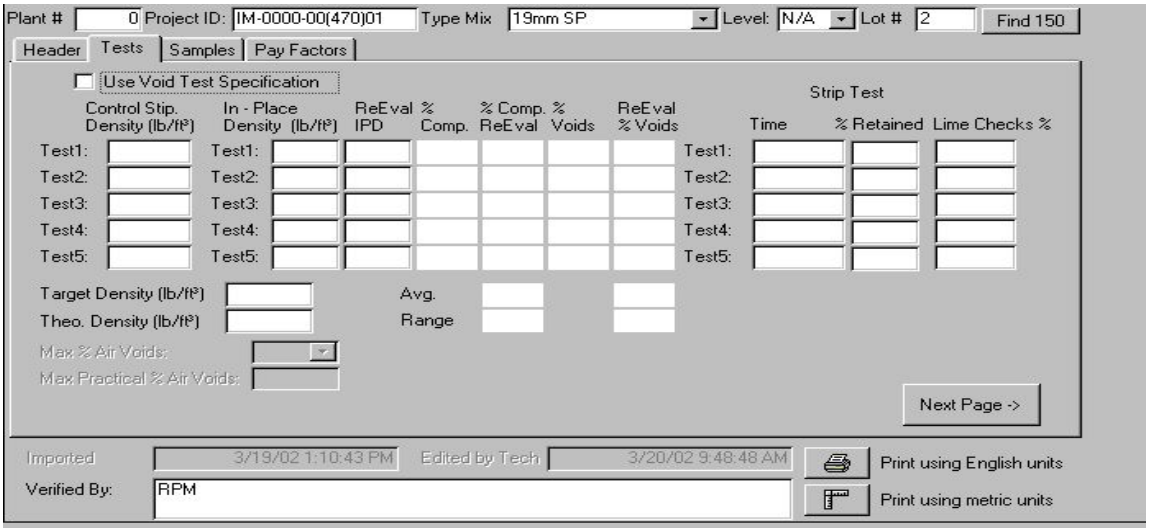
- Header
- Tests
- Samples
- Pay Factors

There are several things to note about the DOT 159-5 reports. First, because there are so many fields in the report, it uses tabs to contain different sections of the report. Click on the tab to display the corresponding panel of the report.

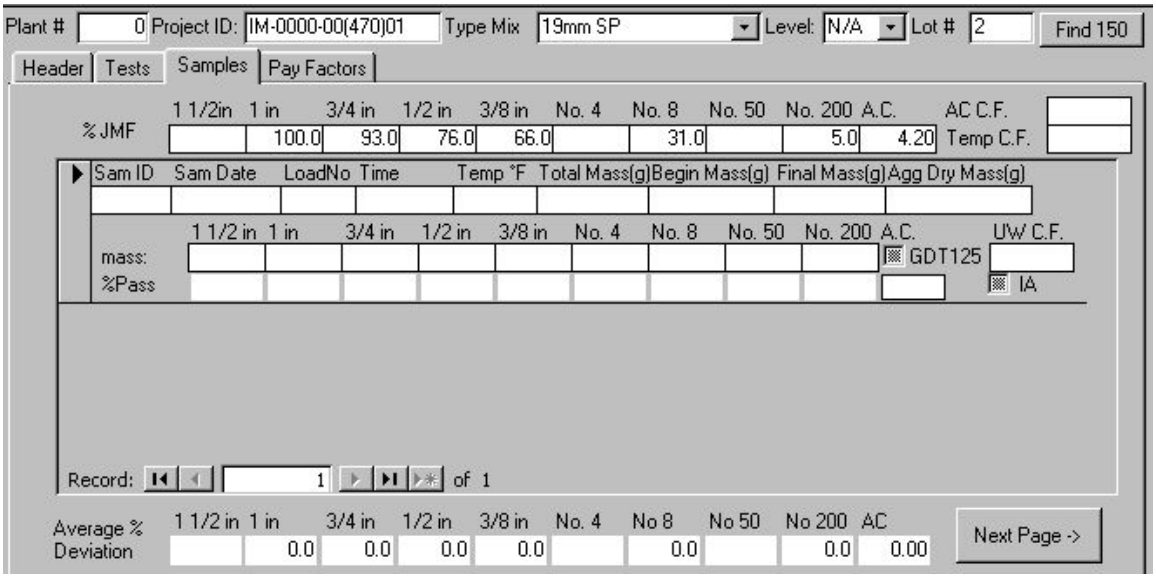
DOT159-5 Asphaltic Concrete (Header Tab) Data Entry Screen



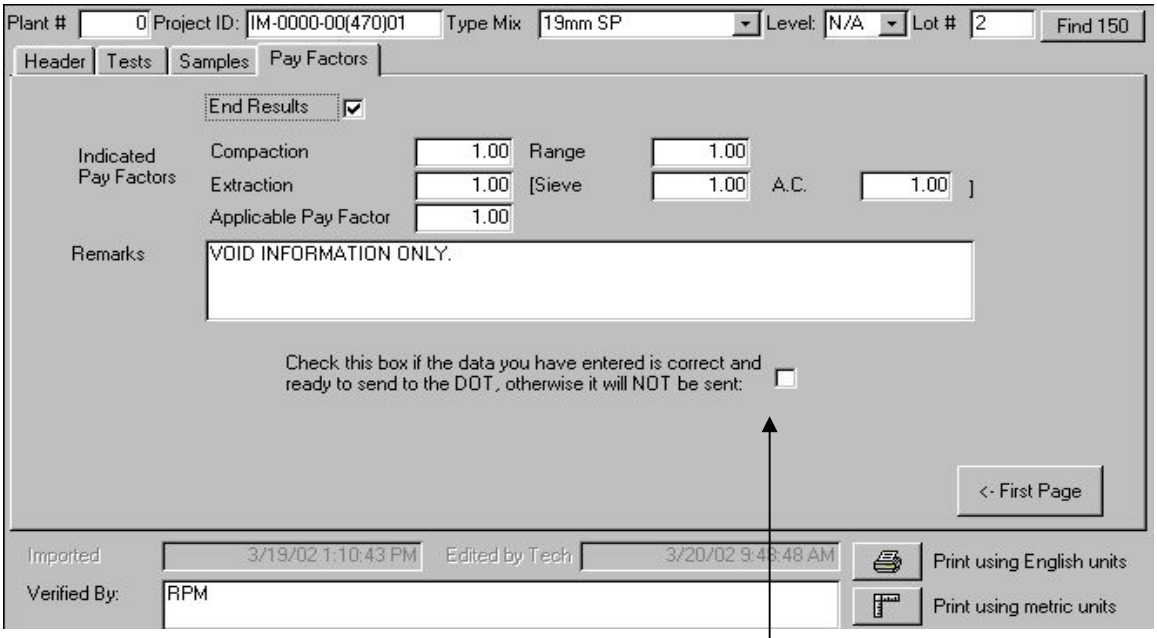
DOT159-5 Asphaltic Concrete (Tests Tab) Data Entry Screen



DOT159-5 Asphaltic Concrete (Samples Tab) Data Entry Screen



DOT159-5 Asphaltic Concrete (Pay Factors Tab) Data Entry Screen



Please note the box at the bottom of this form. Check this box if the data you have entered is correct and ready to be uploaded to the GDOT.

Example of DOT159-5 Test Report

GDOT 159 - Asphaltic Concrete Lot Worksheet (ENGLISH)

Plant Number: 080 Project ID: LAU28-8631-24(136)C1 Type Mix: 9.5mm SP Level: N/A Lot Number: 1

Contract ID:	C308 06-99-000-0	Date:	2/29/2000	Tech ID:	9LH
Mix ID:	048 X 151-9.5SP-9-004L	Contractor ID:	026	County Number:	135
District Number:	1	Corrected copy:	N	Blend:	Virgin
Type course:	S	Completed report:	Y		

AC Grade: 67-22 AC Source No: 003 Hyd. Lime: Y Liq. Add.: N Quan. This report (tons): 304.469 Void Spec: N

Control Strip Density(lb/ft³)	In Place Density (lb/ft³)	ReEval IPD	% Comp	% Comp ReEval	% Voids	ReEval % Voids	Strip Test Time	% Ret	Lime Checks %

Target Density (lb/ft³	Max Air Voids:	Avg:	AC C.F.:
Theo. Density (lb/ft³)	Max Practical Air Voids:	Range	Temp. C.F.:

Sam No	Sample Date	Load No	Time	Temp . °F	Total Mass(g)	Begin Mass(g)	Final Mass(g)	AggDry Mass(g)		1 1/2 in	1 in	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 50	No. 200	A.C.	UW C.F.
									JMF:				100.0	99.0	75.0	53.0	21.0	6.0	5.50	
									Avg. % Dev:				0.0	0.0	0.0	0.0	0.0	0.0	0.00	

Indicated Pay Factors

Comp: 1.00 Range: 1.00 Extr: 1.00 Sieve: 1.00 AC: 1.00

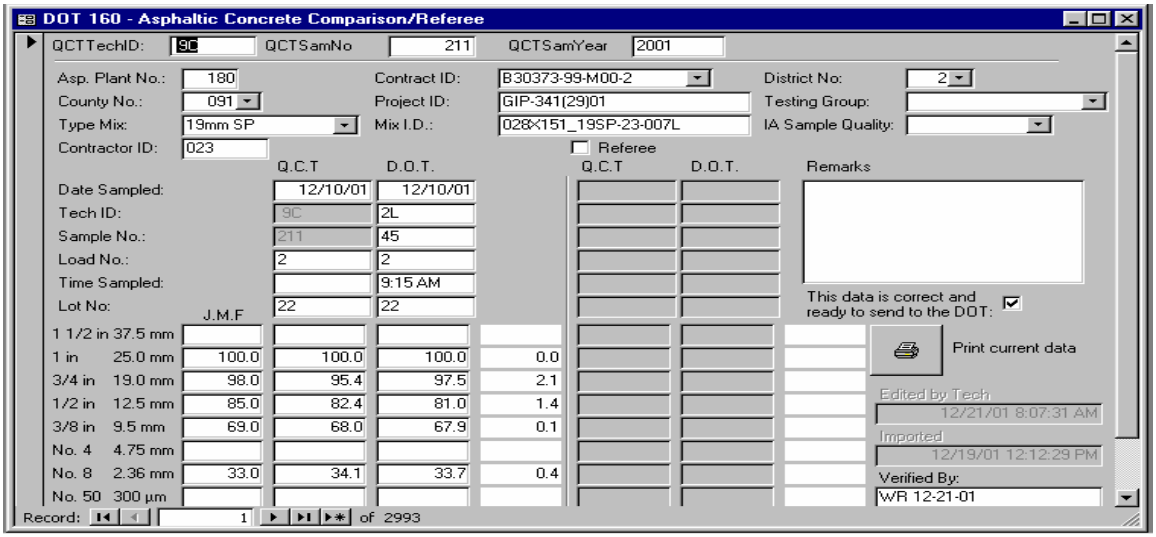
End Results: Y Remarks: CONT. TSTG. LOT-1; 335.62 TONS; 18 LDS.; no comp. reqd.; rndm. # not reached

Appli Pay Factor: 1.00

Verified By: rpm

13.9.3 DOT 160 Asphaltic Concrete referee data.

DOT 160 Asphaltic Concrete Comparison/Referee Data Entry Screen



The only note on this is that the differences are calculated on the form and are not actually stored values.

Example of DOT 160 Test Report

GDOT 160 - Asphaltic Concrete Comparison/Referee

QCT Tech ID: 9JR QCT Sample No.: 1 QCT Sample Year: 2001

Plant No.:	95	Contract ID:	B10279-00-000-0	District No.:	1
County No.:	135	Project ID:	STP-M000-00(175)01	Testing Group:	IA
Type Mix:	12.5mm SP	Mix ID No.:	12.5MMSP	IA Sam. Quality:	Exceeded
Blend:	Virgin	Contractor ID:	2SH500	Referee Sample:	N

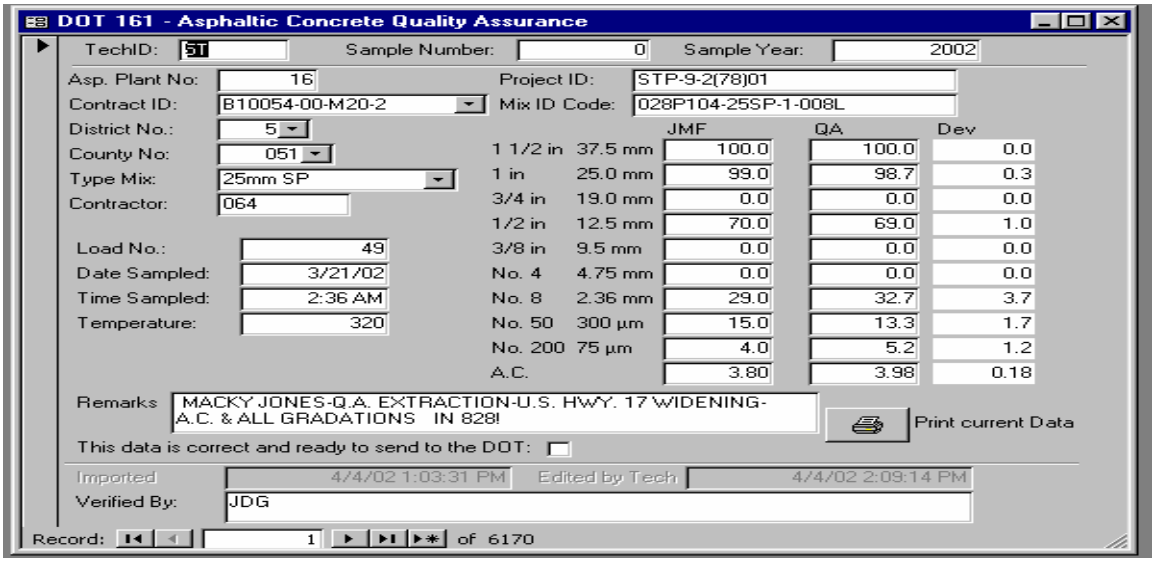
	Q.C.T.	D.O.T.	Q.C.T.	D.O.T.
Date Sampled:	3/12/2001	3/12/2001		
Tech ID:	9JR	8B		
Sample No:	1	87		
Load No.:				
Time Sampled:				
Lot No.:				

		J.M.F.	Q.C.T.	D.O.T.	DIFF	Q.C.T.	D.O.T.	DIFF.
1 1/2 in	37.5 mm							
1 in	25.0 mm							
3/4 in	19.0 mm	100.0	100.0	100.0	0.0			
1/2 in	12.5 mm	99.0	98.5	95.7	2.8			
3/8 in	9.5 mm	81.0	81.1	76.4	4.7			
No. 4	4.75 mm							
No. 8	2.36 mm	37.0	36.8	38.6	1.8			
No. 50	300 µm							
No. 200	75 µm	5.0	4.7	5.6	0.9			
A.C.		4.70	4.64	4.40	0.24			

Remarks: Sample exceeds on the 9.5 due to segregation during quartering.

13.9.4 DOT 161 Asphaltic Concrete Quality Assurance

DOT 161 Asphaltic Concrete Quality Assurance Screen Data Entry Screen



Again, the differences are calculated on the form and are not actually stored.

Example of DOT 161 Test Report

GDOT 161 - Asphaltic ConcreteQuality Assurance

TechID: 7G **Sample No.: 0** **Sample Year: 2001**

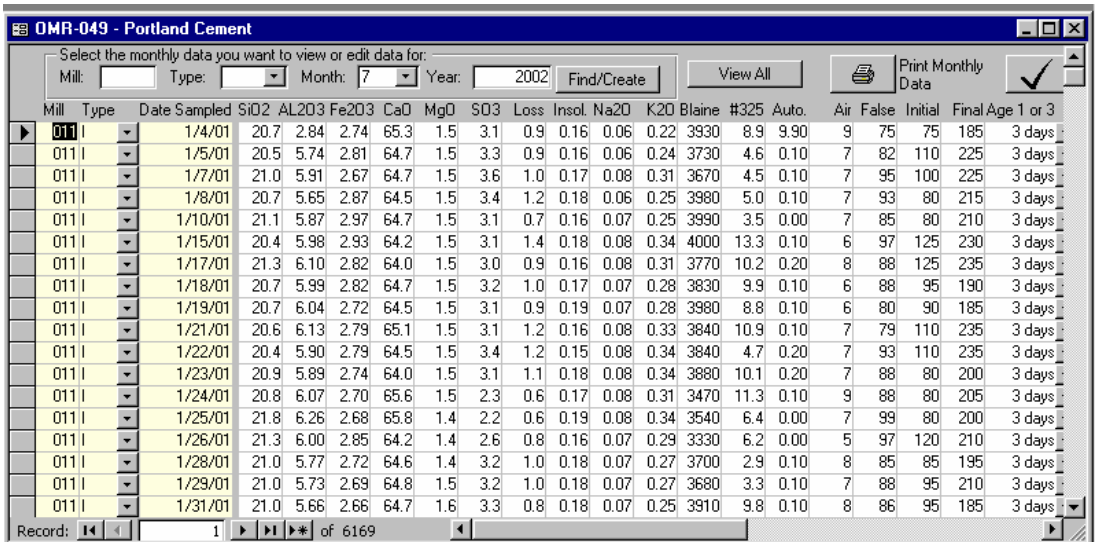
Plant No.:	97	Mix ID:	117-9.5SP-2-004L
Contract ID:	B32099-00-000-0	Project No:	LAR30-201-1(297)01
District No.:	1		
County No.:	297		
Type Mix:	9.5mm SP		
Blend:	Virgin		
Contractor No.:	2SH500		

Load No.: 25
Sample Date: 3/8/2001
Sample Time: 12:41 PM
Temperature: 305

		J.M.F.	Q.A.	Dev
1 1/2 in	37.5 mm			
1 in	25.0 mm			
3/4 in	19.0 mm			
1/2 in	12.5 mm	100.0	100.0	0.0
3/8 in	9.5 mm	97.0	98.7	1.7
No. 4	4.75 mm	75.0	76.5	1.5
No. 8	2.36 mm	55.0	59.3	4.3
No. 50	300 µm			
No. 200	75 µm	7.0	8.5	1.5
A.C.		6.10	6.19	0.09

13.9.5 OMR-049 Portland Cement Quality Test Data

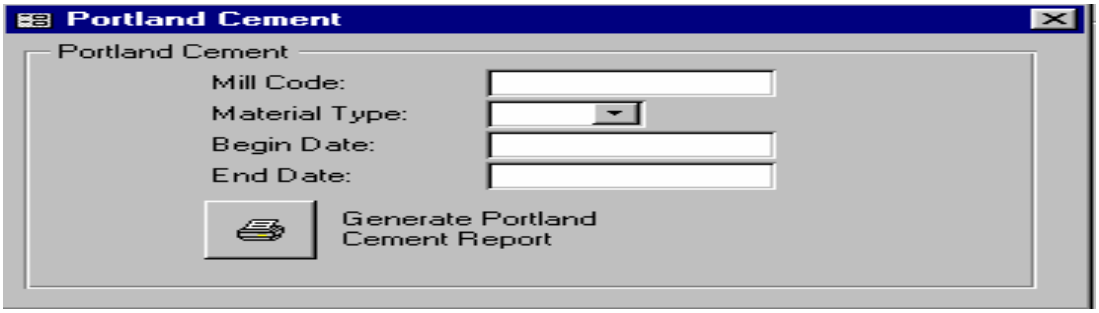
OMR-049 Portland Cement Data Entry Screen



Mill	Type	Date Sampled	SiO2	AL2O3	Fe2O3	CaO	MgO	SO3	Loss	Insol.	Na2O	K2O	Blaine	#325	Auto.	Air	False	Initial	Final	Age 1 or 3
011	I	1/4/01	20.7	2.84	2.74	65.3	1.5	3.1	0.9	0.16	0.06	0.22	3930	8.9	9.90	9	75	75	185	3 days
011	I	1/5/01	20.5	5.74	2.81	64.7	1.5	3.3	0.9	0.16	0.06	0.24	3730	4.6	0.10	7	82	110	225	3 days
011	I	1/7/01	21.0	5.91	2.67	64.7	1.5	3.6	1.0	0.17	0.08	0.31	3670	4.5	0.10	7	95	100	225	3 days
011	I	1/8/01	20.7	5.65	2.87	64.5	1.5	3.4	1.2	0.18	0.06	0.25	3980	5.0	0.10	7	93	80	215	3 days
011	I	1/10/01	21.1	5.87	2.97	64.7	1.5	3.1	0.7	0.16	0.07	0.25	3990	3.5	0.00	7	85	80	210	3 days
011	I	1/15/01	20.4	5.98	2.93	64.2	1.5	3.1	1.4	0.18	0.08	0.34	4000	13.3	0.10	6	97	125	230	3 days
011	I	1/17/01	21.3	6.10	2.82	64.0	1.5	3.0	0.9	0.16	0.08	0.31	3770	10.2	0.20	8	88	125	235	3 days
011	I	1/18/01	20.7	5.99	2.82	64.7	1.5	3.2	1.0	0.17	0.07	0.28	3830	9.9	0.10	6	88	95	190	3 days
011	I	1/19/01	20.7	6.04	2.72	64.5	1.5	3.1	0.9	0.19	0.07	0.28	3980	8.8	0.10	6	80	90	185	3 days
011	I	1/21/01	20.6	6.13	2.79	65.1	1.5	3.1	1.2	0.16	0.08	0.33	3840	10.9	0.10	7	79	110	235	3 days
011	I	1/22/01	20.4	5.90	2.79	64.5	1.5	3.4	1.2	0.15	0.08	0.34	3840	4.7	0.20	7	93	110	235	3 days
011	I	1/23/01	20.9	5.89	2.74	64.0	1.5	3.1	1.1	0.18	0.08	0.34	3880	10.1	0.20	7	88	80	200	3 days
011	I	1/24/01	20.8	6.07	2.70	65.6	1.5	2.3	0.6	0.17	0.08	0.31	3470	11.3	0.10	9	88	80	205	3 days
011	I	1/25/01	21.8	6.26	2.68	65.8	1.4	2.2	0.6	0.19	0.08	0.34	3540	6.4	0.00	7	99	80	200	3 days
011	I	1/26/01	21.3	6.00	2.85	64.2	1.4	2.6	0.8	0.16	0.07	0.29	3330	6.2	0.00	5	97	120	210	3 days
011	I	1/28/01	21.0	5.77	2.72	64.6	1.4	3.2	1.0	0.18	0.07	0.27	3700	2.9	0.10	8	85	85	195	3 days
011	I	1/29/01	21.0	5.73	2.69	64.8	1.5	3.2	1.0	0.18	0.07	0.27	3680	3.3	0.10	7	88	95	210	3 days
011	I	1/31/01	21.0	5.66	2.66	64.7	1.6	3.3	0.8	0.18	0.07	0.25	3910	9.8	0.10	8	86	95	185	3 days

Record: 1 of 6169

Report Button For Creating Portland Cement Reports



Example of OMR-049 Portland Cement Test Report

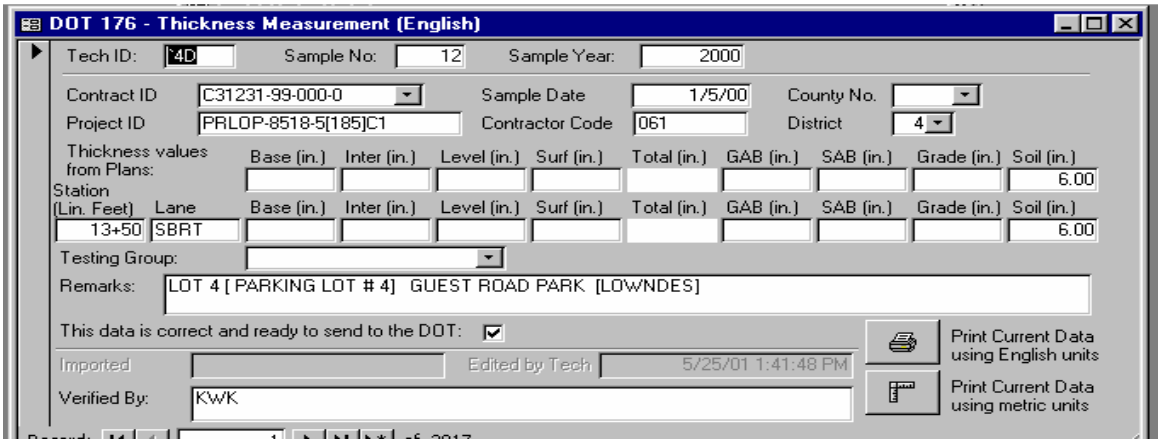
Georgia Department of Transportaion
Office of Materials and Research
OMR-049 Portland Cement Monthly Data

Mill 011 material type I for the month of January, 2001

Mill Code	Matl. Type	Date Sampled	SiO2	AL2O3	Fe2O3	CaO	MgO	SO3	Loss Ign.	Insol. Res	Na2O	K2O	Blaine	Rtn 325	Auto clave	Air Cont.	False Set	Vicat Initial	Vicat Final	Age 1/3	Age Avg.	Age 3/7	SS Avg.	Meet Req.	C3A	C3S	C2S	C4AF	Alkali Equiv.	Remarks
011	I	1/4/2001	20.7	2.84	2.74	65.3	1.5	3.1	0.9	0.16	0.06	0.22	3930	8.9	9.90	9	75	75	185	3	3710	7	5200	N	P	2.9	76.7	1.5	8.3	0.20	This type should be monitored
011	I	1/5/2001	20.5	5.74	2.81	64.7	1.5	3.3	0.9	0.16	0.06	0.24	3730	4.6	0.10	7	82	110	225	3	3490	7	5280	N	P	10.5	55.6	16.8	8.6	0.22	
011	I	1/7/2001	21.0	5.91	2.67	64.7	1.5	3.6	1.0	0.17	0.08	0.31	3670	4.5	0.10	7	95	100	225	3	3600	7	5150	N	P	11.1	50.0	22.5	8.1	0.28	
011	I	1/8/2001	20.7	5.65	2.87	64.5	1.5	3.4	1.2	0.18	0.06	0.25	3980	5.0	0.10	7	93	80	215	3	3940	7	5100	N	P	10.1	53.5	19.0	8.7	0.22	
011	I	1/10/2001	21.1	5.87	2.97	64.7	1.5	3.1	0.7	0.16	0.07	0.25	3990	3.5	0.00	7	85	80	210	3	3500	7	5020	N	P	10.5	50.5	22.4	9.0	0.23	
011	I	1/15/2001	20.4	5.98	2.93	64.2	1.5	3.1	1.4	0.18	0.08	0.34	4000	13.3	0.10	6	97	125	230	3	3710	7	5240	N	P	10.9	53.1	18.4	8.9	0.30	
011	I	1/17/2001	21.3	6.10	2.82	64.0	1.5	3.0	0.9	0.16	0.08	0.31	3770	10.2	0.20	8	88	125	235	3	3220	7	4200	N	P	11.4	45.1	27.0	8.6	0.28	
011	I	1/18/2001	20.7	5.99	2.82	64.7	1.5	3.2	1.0	0.17	0.07	0.28	3830	9.9	0.10	6	88	95	190	3	3360	7	4840	N	P	11.1	52.7	19.6	8.6	0.25	
011	I	1/19/2001	20.7	6.04	2.72	64.5	1.5	3.1	0.9	0.19	0.07	0.28	3980	8.8	0.10	6	80	90	185	3	3680	7	5040	N	P	11.4	52.0	20.2	8.3	0.25	
011	I	1/21/2001	20.6	6.13	2.79	65.1	1.5	3.1	1.2	0.16	0.08	0.33	3840	10.9	0.10	7	79	110	235	3	3470	7	4910	N	P	11.5	54.4	18.0	8.5	0.30	
011	I	1/22/2001	20.4	5.90	2.79	64.5	1.5	3.4	1.2	0.15	0.08	0.34	3840	4.7	0.20	7	93	110	235	3	3460	7	5040	N	P	10.9	54.2	17.6	8.5	0.30	
011	I	1/23/2001	20.9	5.89	2.74	64.0	1.5	3.1	1.1	0.18	0.08	0.34	3880	10.1	0.20	7	88	80	200	3	3510	7	4840	N	P	11.0	49.4	22.7	8.3	0.30	
011	I	1/24/2001	20.8	6.07	2.70	65.6	1.5	2.3	0.6	0.17	0.08	0.31	3470	11.3	0.10	9	88	80	205	3	3460	7	4690	N	P	11.5	57.8	16.0	8.2	0.28	
011	I	1/25/2001	21.8	6.26	2.68	65.8	1.4	2.2	0.6	0.19	0.08	0.34	3540	6.4	0.00	7	99	80	200	3	3120	7	4710	N	P	12.1	50.0	24.8	8.2	0.30	
011	I	1/26/2001	21.3	6.00	2.85	64.2	1.4	2.6	0.8	0.16	0.07	0.29	3330	6.2	0.00	5	97	120	210	3	3020	7	4670	N	P	11.1	47.7	25.1	8.7	0.26	
011	I	1/28/2001	21.0	5.77	2.72	64.6	1.4	3.2	1.0	0.18	0.07	0.27	3700	2.9	0.10	8	85	85	195	3	3610	7	5150	N	P	10.7	51.6	21.3	8.3	0.25	
011	I	1/29/2001	21.0	5.73	2.69	64.8	1.5	3.2	1.0	0.18	0.07	0.27	3680	3.3	0.10	7	88	95	210	3	3350	7	4980	N	P	10.6	52.7	20.4	8.2	0.25	
011	I	1/31/2001	21.0	5.66	2.66	64.7	1.6	3.3	0.8	0.18	0.07	0.25	3910	9.8	0.10	8	86	95	185	3	3470	7	4550	N	P	10.5	52.6	20.6	8.1	0.23	

13.9.6 DOT 176 Thickness Measurements on Pavements and Foundations

DOT 176 Thickness Report Data Entry Screen



This is a single measurement, but they are actually grouped by project. This screen appears when browsing validated reports because the measurements are validated individually.

DOT 176 Thickness Measurement Test Report

GDOT 176 - Thickness Measurement (English)

Tech ID: 1J **Sample No:** 123 **Sample Year:** 2001

Contract ID: B39530-00-000-0 Sample Date: 8/21/2001 County No.: 11

Project ID: EDS-441(21)01 Contractor Code: 2SL450 District: 1

Thickness Values from Plans		Base (in.)	Inter (in.)	Level (in.)	Surf (in.)	Total (in.)	GAB (in.)	SAB (in.)	Grade(in.)	Soil (in.)
		5.00	2.00		1.50	8.50				
Station (Lin. Feet)	**Lane**	**Base (in.)**	**Inter (in.)**	**Level (in.)**	**Surf (in.)**	**Total (in.)**	**GAB (in.)**	**SAB (in.)**	**Grade(in.)**	**Soil (in.)**
1025+00	LTLT	4.50	2.00		1.50	8.00				

Testing Group:

Verified By: RPM

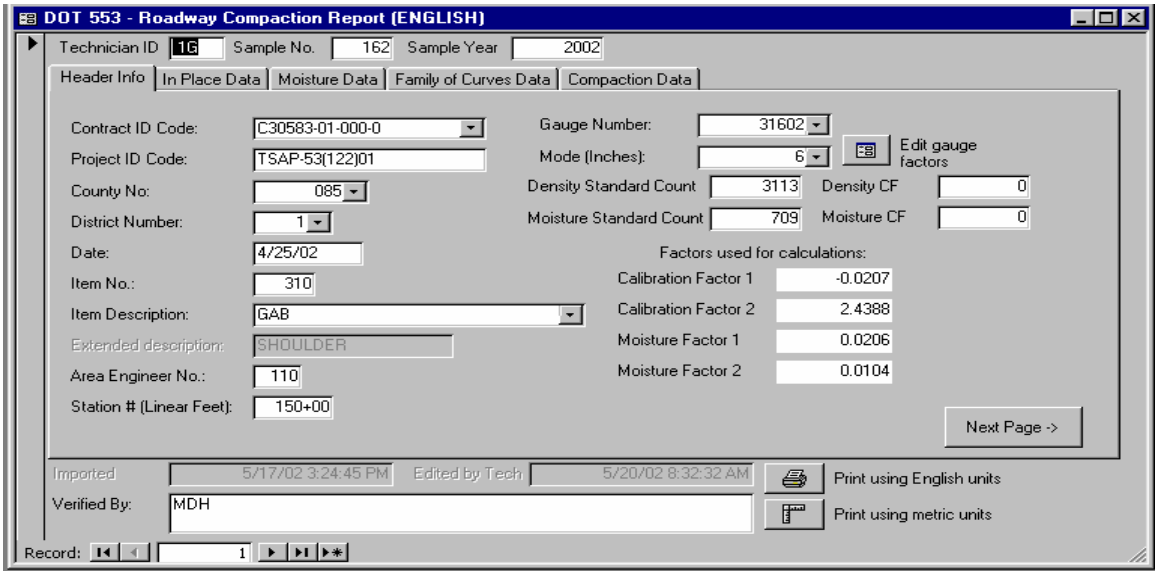
Remarks:

13.9.7 DOT 553 Roadway Compactions

The DOT 553 is composed of five tabs.

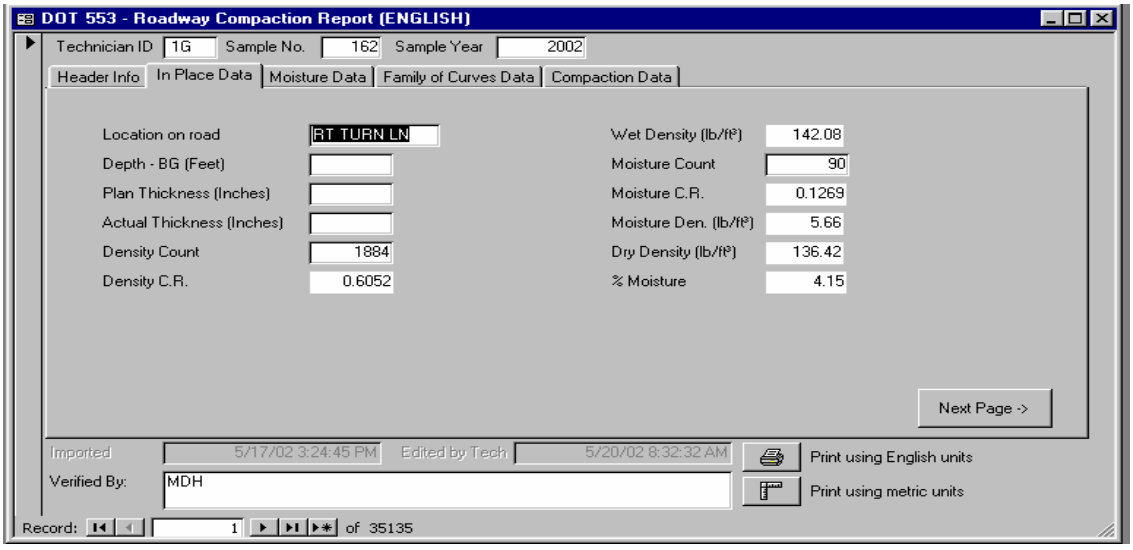
- Header Info
- In Place Data
- Moisture Data
- Family of Curves Data
- Compaction Data

DOT 553 Roadway Compaction (Header Tab) Data Entry Screen

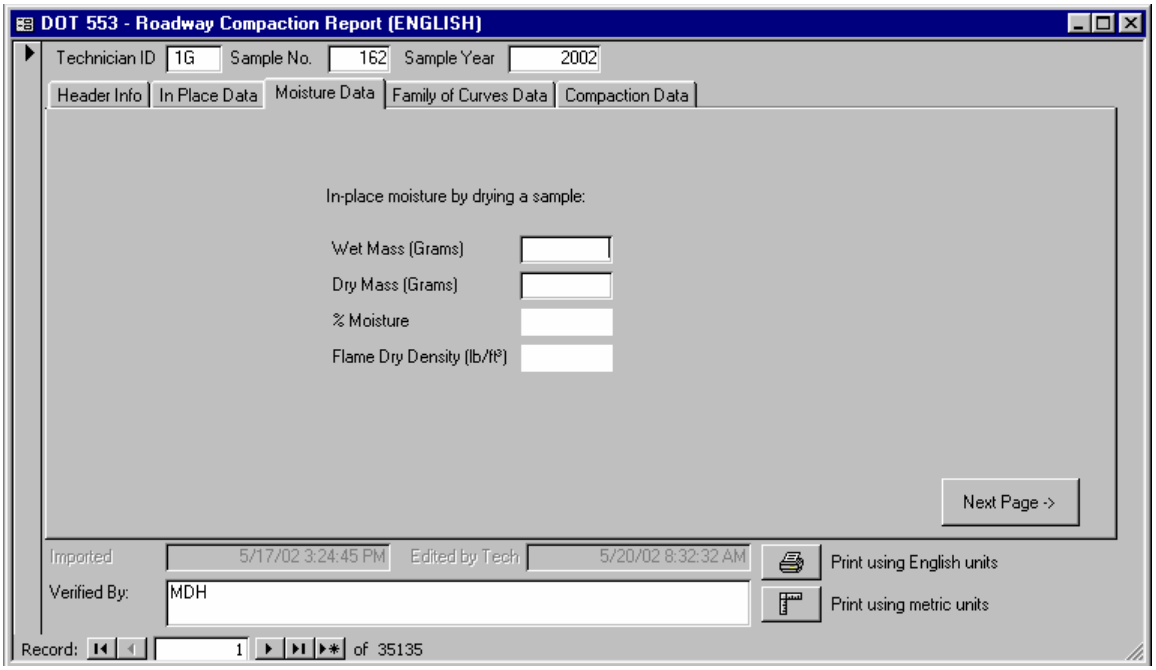


This is the screen that appears when browsing all reports. The project and the related planed thickness appear at the top. Click on the desired tab to display the corresponding panel.

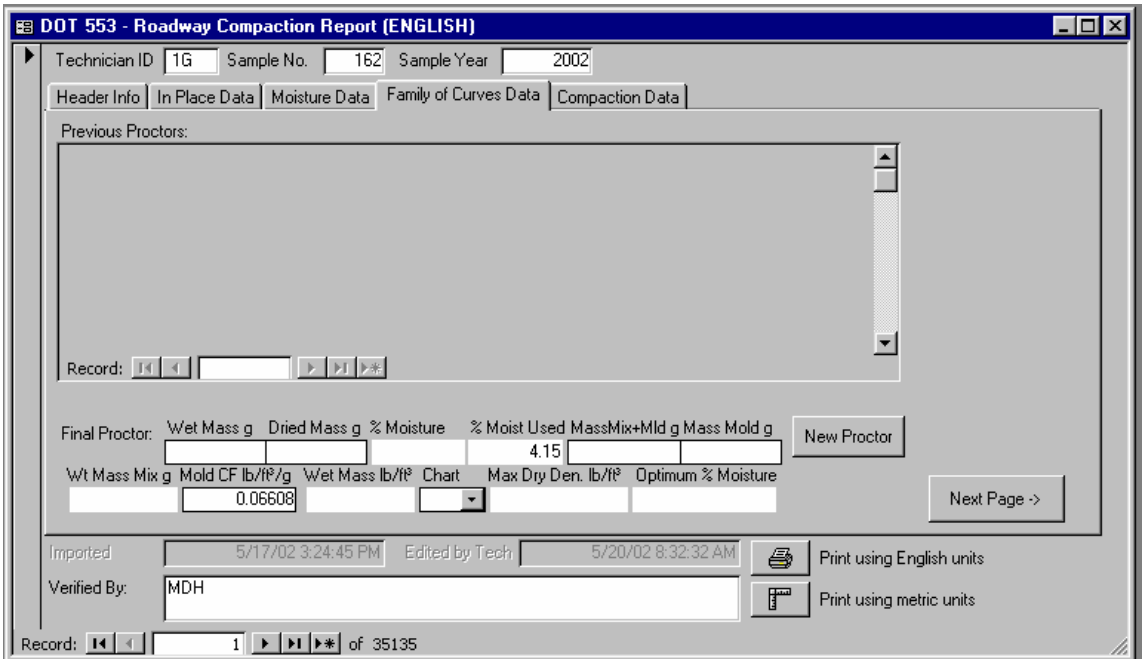
DOT 553 Roadway Compaction Report (In Place Data Tab) Data Entry Screen



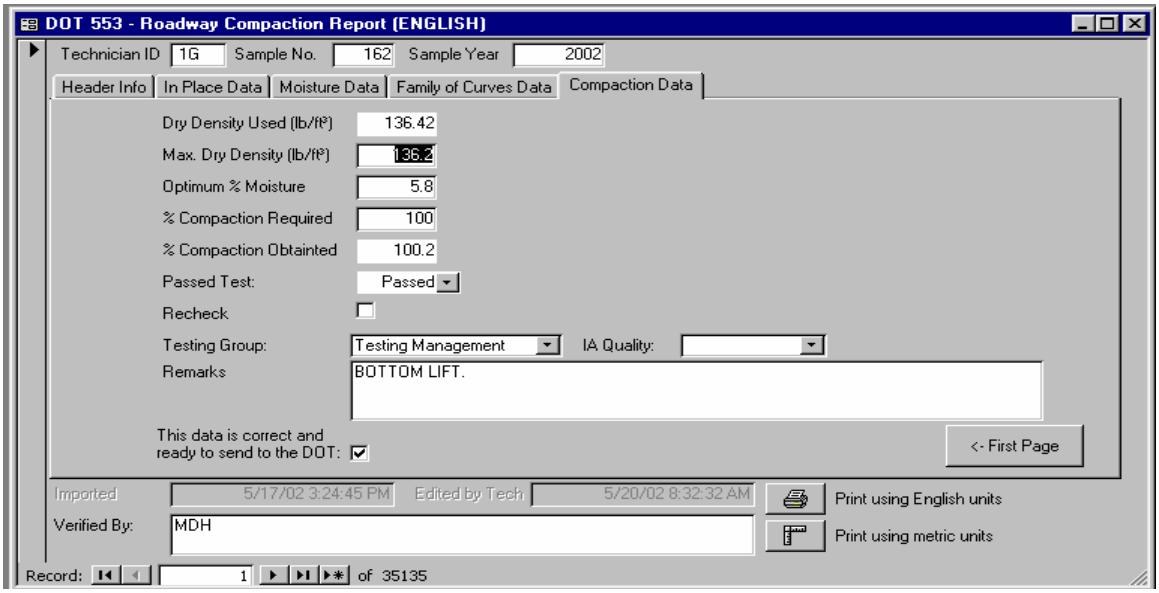
DOT 553 Roadway Compaction Report (Moisture Data Tab) Data Entry Screen



DOT 553 Roadway Compaction Report (Family of Curves Tab) Data Entry Screen



DOT 553 Roadway Compaction Report (Compaction Tab) Data Entry Screen



Example of DOT 553 Test Report

GDOT 553 - Roadway Compaction Report (English)

Tech ID: 1G Sample Number: 162 Sample Year: 2002

Contract ID No.: C30583-01-000-0 County No: 085
Project No.: TSAP-53(122)01 District No: 1 Date: 4/25/2002
Item No.: 310 Item Desc: GAB Area Engineer No: 110 Station No.(ft.): 150+00

Gauge No: 31602 Mode: 6 Density Standard Count: 3113 C.F.: 0
Moisture Standard Count: 709 C.F.: 0

In Place Data

Location:	RT TURN LN	Wet Density (lb/ft³):	142.08
Depth - BG (feet):		Moisture Count:	90
Plan Thickness (inches)		Moisture C.R.:	0.1269
Actual Thickness (inches		Moisture PCF (lb/ft³):	5.66
Density Count:	1884	Dry Density (lb/ft³):	136.42
Density C.R.:	0.6052	% Moisture:	4.15

Moisture Data
Wet Mass (grams):
Dry Mass (grams):
% Moisture:
Dry Density(lb/ft³):

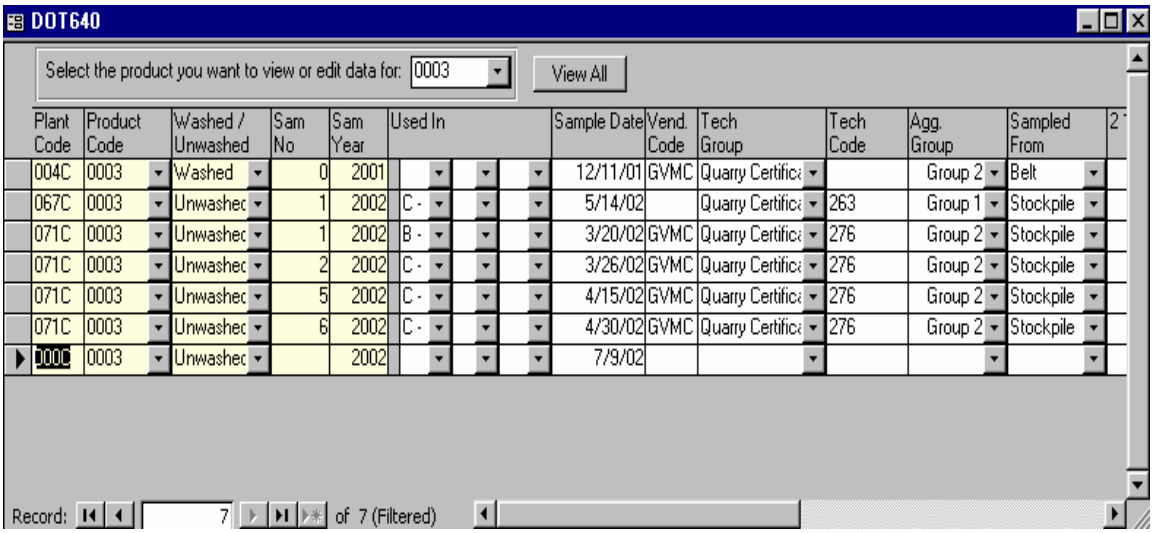
Proctor #	Wet Mass grams	Dry Mass grams	% Moisture	% Moist. Used	MassMix +Mold (grams)	Mass of Mold (grams)	WetMass of Mix (grams)	MoldCorr. Fctr (lb/ft³/g)	Wet Mass PCF (lb/ft³)	Soil curve chart	Max. Dry Den(lb/ft³) Ff. Curve	Optimum % Moisture
Final:				4.15				0.06508				

Dry Density Used (lb/ft³): 136.42
Max. Dry Density (lb/ft³): 136.2
Optimum % Moisture 5.8
% Compaction Required: 100
% Compaction Obtained: 100.2
Remarks:
BOTTOM LIFT.

Passed Test Passed
Recheck: N
Testing Group: Testing Management
IA Quality:
Verified By: MDH

13.9.8 DOT 640 Aggregate Quality test data

DOT 640 Aggregate Quality Report Data Entry Screen



Plant Code	Product Code	Washed / Unwashed	Sam No	Sam Year	Used In	Sample Date	Vend. Code	Tech Group	Tech Code	Agg. Group	Sampled From
004C	0003	Washed	0	2001		12/11/01	GVMC	Quarry Certifica		Group 2	Belt
067C	0003	Unwashed	1	2002	C -	5/14/02		Quarry Certifica	263	Group 1	Stockpile
071C	0003	Unwashed	1	2002	B -	3/20/02	GVMC	Quarry Certifica	276	Group 2	Stockpile
071C	0003	Unwashed	2	2002	C -	3/26/02	GVMC	Quarry Certifica	276	Group 2	Stockpile
071C	0003	Unwashed	5	2002	C -	4/15/02	GVMC	Quarry Certifica	276	Group 2	Stockpile
071C	0003	Unwashed	6	2002	C -	4/30/02	GVMC	Quarry Certifica	276	Group 2	Stockpile
000C	0003	Unwashed		2002		7/9/02					

Example of DOT 640 Aggregate Quality Test Report

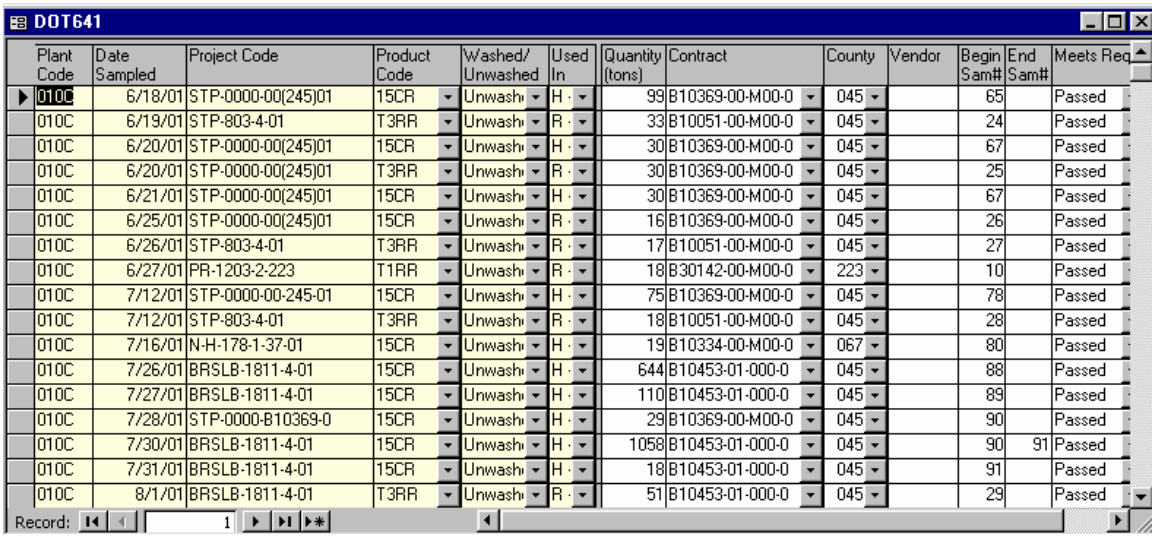
Georgia Department of Transportation
Office of Materials and Research
Aggregate Producer Quality 640 Report Sheet
For 6/1/2002 to 6/30/2002
For Plant 010C For Product 0057

Product Code: 0057 No. 57's

Plant Code	W/U	Sam No	Sam Year	Used In	Date	Vendor Code	Tech Group	TechCode	Agg Grp.	Smpl From	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 200	Sand Equ	Meets Req.	Remarks
010C	W	111	2002	A	6/17/2002		Q	408	2	B	100	100	76	37	20	2	0.5			P	
010C	W	102	2002	A	6/4/2002		Q	408	2	B	100	100	80	35	15	1	0.3			P	
010C	W	103	2002	A	6/5/2002		Q	408	2	B	100	99	78	38	16	1	0.5			P	
010C	W	104	2002	A	6/6/2002		Q	408	2	B	100	100	76	34	16	1	0.2			P	
010C	W	105	2002	A	6/7/2002		Q	408	2	B	100	99	78	35	15	1	0.5			P	
010C	W	106	2002	A	6/10/2002		Q	408	2	B	100	99	79	37	16	1	0.3			P	
010C	W	107	2002	A	6/11/2002		Q	408	2	B	100	99	71	34	12	1	0.2			P	
010C	W	108	2002	A	6/12/2002		Q	408	2	B	100	99	78	39	17	1	0.2			P	
010C	W	101	2002	A	6/3/2002		Q	408	2	B	100	99	76	40	15	1	0.2			P	
010C	W	110	2002	A	6/14/2002		Q	408	2	B	100	100	80	41	20	1	0.5			P	
010C	W	120	2002	A	6/28/2002		Q	408	2	B	100	100	84	41	22	3	0.5			P	
010C	W	112	2002	A	6/18/2002		Q	408	2	B	100	100	82	38	21	2	0.5			P	
010C	W	113	2002	A	6/19/2002		Q	408	2	B	100	100	81	38	23	3	0.5			P	
010C	W	114	2002	A	6/20/2002		Q	408	2	B	100	99	80	37	25	2	0.2			P	
010C	W	115	2002	A	6/21/2002		Q	408	2	B	100	99	79	38	19	2	0.2			P	
010C	W	116	2002	A	6/24/2002		Q	408	2	B	100	99	79	39	21	2	0.5			P	
010C	W	117	2002	A	6/25/2002		Q	408	2	B	100	100	83	38	20	2	0.2			P	
010C	W	118	2002	A	6/26/2002		Q	408	2	B	100	99	82	38	21	3	0.2			P	
010C	W	119	2002	A	6/27/2002		Q	408	2	B	100	100	84	42	24	3	0.2			P	
010C	W	109	2002	A	6/13/2002		A	23408	2	B	100	100	83	46	25	2	0.3			P	

13.9.9 DOT 641 Aggregate Quantity Data

DOT 641 Aggregate Quantity Report Test Data Screen



DOT641

Plant Code	Date Sampled	Project Code	Product Code	Washed/ Unwashed	Used In	Quantity (tons)	Contract	County	Vendor	Begin Sam#	End Sam#	Meets Req
010C	6/18/01	STP-0000-00(245)01	15CR	Unwash	H	99	B10369-00-M00-0	045		65		Passed
010C	6/19/01	STP-803-4-01	T3RR	Unwash	R	33	B10051-00-M00-0	045		24		Passed
010C	6/20/01	STP-0000-00(245)01	15CR	Unwash	H	30	B10369-00-M00-0	045		67		Passed
010C	6/20/01	STP-0000-00(245)01	T3RR	Unwash	R	30	B10369-00-M00-0	045		25		Passed
010C	6/21/01	STP-0000-00(245)01	15CR	Unwash	H	30	B10369-00-M00-0	045		67		Passed
010C	6/25/01	STP-0000-00(245)01	15CR	Unwash	R	16	B10369-00-M00-0	045		26		Passed
010C	6/26/01	STP-803-4-01	T3RR	Unwash	R	17	B10051-00-M00-0	045		27		Passed
010C	6/27/01	PR-1203-2-223	T1RR	Unwash	R	18	B30142-00-M00-0	223		10		Passed
010C	7/12/01	STP-0000-00-245-01	15CR	Unwash	H	75	B10369-00-M00-0	045		78		Passed
010C	7/12/01	STP-803-4-01	T3RR	Unwash	R	18	B10051-00-M00-0	045		28		Passed
010C	7/16/01	N-H-178-1-37-01	15CR	Unwash	H	19	B10334-00-M00-0	067		80		Passed
010C	7/26/01	BRSLB-1811-4-01	15CR	Unwash	H	644	B10453-01-000-0	045		88		Passed
010C	7/27/01	BRSLB-1811-4-01	15CR	Unwash	H	110	B10453-01-000-0	045		89		Passed
010C	7/28/01	STP-0000-B10369-0	15CR	Unwash	H	29	B10369-00-M00-0	045		90		Passed
010C	7/30/01	BRSLB-1811-4-01	15CR	Unwash	H	1058	B10453-01-000-0	045		90	91	Passed
010C	7/31/01	BRSLB-1811-4-01	15CR	Unwash	H	18	B10453-01-000-0	045		91		Passed
010C	8/1/01	BRSLB-1811-4-01	T3RR	Unwash	R	51	B10453-01-000-0	045		29		Passed

Record: 1

Example of DOT 641 Aggregate Quantity Report

Georgia Department of Transportation
Office of Materials and Research
Aggregate Producer Quantity 641 Report Sheet

For 7/1/2001 to 7/31/2001
For Plant 017C For Product 15CR

Plant Code	Date Sampled	Project Code	Product Code	W/U	Used In	Quan.	Contract	County No.	Vendor Code	Begin Sam No	End Sam No	Meets Req.
017C	7/2/2001	IM-475-1(206)	15CR	U	H	19	B10657-99-M00-0	021		101	101	P
017C	7/3/2001	STP3257(1)	15CR	U	H	115	B10891-89-M00-1	153		102	102	P
017C	7/5/2001	IM-NH-475(2)	15CR	U	H	687	B10657-99-M00-1	021		103	103	P
017C	7/5/2001	STP3257(1)	15CR	U	H	174	B10818-9M-001-0	153		103	103	P
017C	7/6/2001	GIP341-(22)01	15CR	U	H	298	B30420-98-000-0	153		104	104	P
017C	7/6/2001	IM-NH-475(2)	15CR	U	H	170	B10657-99-M00-0	021		104	104	P
017C	7/6/2001	NH-IM-95-1(122)01	15CR	U	H	1035	B10908-99-000-0	197		104	104	P
017C	7/9/2001	GIP341-(22)01	15CR	U	H	1358	B30420-98-000-0	153		105	106	P
017C	7/9/2001	STP3257(1)	15CR	U	H	1048	B10818-9M-001-0	153		105	106	P
017C	7/10/2001	GIP341-(22)01	15CR	U	H	671	B30420-98-000-0	153		107	107	P
017C	7/10/2001	IM-475-1(206)	15CR	U	H	89	B10657-99-M00-0	021		107	107	P
017C	7/10/2001	STP3257(1)	15CR	U	H	44	B10818-9M-001-0	153		107	107	P
017C	7/11/2001	GIP341-(22)01	15CR	U	H	1543	B30420-98-000-0	153		108	108	P
017C	7/11/2001	IM-475-1(206)	15CR	U	H	94	B10657-99-M00-0	021		108	108	P
017C	7/11/2001	STP3257(1)	15CR	U	H	356	B10818-9M-000-0	153		108	108	P
017C	7/12/2001	GIP341-(22)01	15CR	U	H	1886	B30420-98-000-0	153		109	109	P
017C	7/12/2001	IM-475-1(206)	15CR	U	H	33	B10657-99-M00-0	021		109	109	P
017C	7/12/2001	STP3257(1)	15CR	U	H	783	B10818-9M-000-0	153		109	109	P
017C	7/13/2001	GIP341-(22)01	15CR	U	H	1028	B30420-98-000-0	153		109	109	P
017C	7/13/2001	IM-475-1(206)	15CR	U	H	36	B10657-99-M00-0	021		109	109	P
017C	7/13/2001	STP3257(1)	15CR	U	H	625	B10818-9M-000-0	153		109	109	P
017C	7/16/2001	GIP341-(22)01	15CR	U	H	2478	B30470-98-000-0	153		110	112	P
017C	7/16/2001	IM-475-1(206)	15CR	U	H	15	B10657-99-M00-0	021		110	112	P
017C	7/16/2001	STP3257(1)	15CR	U	H	685	B10818-9M-001-0	153		110	112	P

Example of Aggregate Statistical Report

Georgia Department of Transportation
Office of Materials and Research
Aggregate Producer Statistical Report of all samples except unwashed samples.
For 7/1/2001 to 7/31/2001
For Plant 017C For Product 15CR

Plant Code: 017C

Product Code: 15CR

Tech. Group:

Quarry Certification

	2"	1 1/2"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200	Sand Eq.
Average:	100.0	99.4	74.8			48.0		38.4	20.3	5.3	5.0
Standard Deveation:	0.0	0.5	3.8			6.4		3.1	9.8	0.3	17.3
Number of tests:	25	25	25	0	0	25	0	25	6	6	25

Example of Aggregate Quantity Report

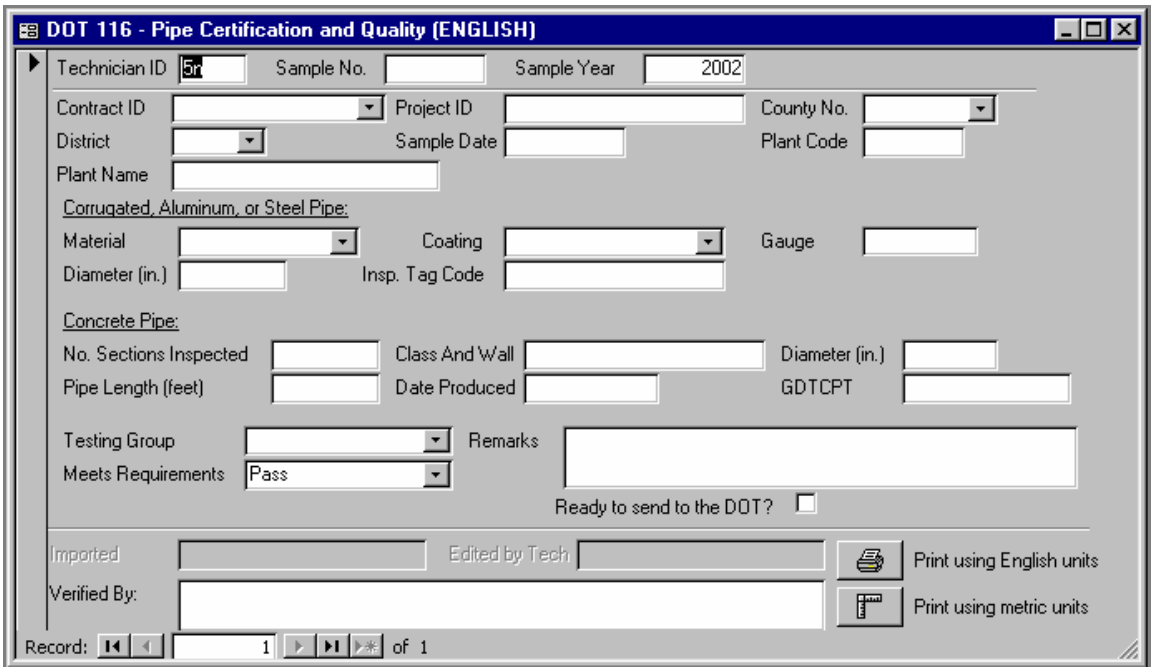
Georgia Department of Transportation
Office of Materials and Research
Total Tests Per Aggregate Size
For 7/1/2001 to 7/31/2001
For Plant 017C For Product 15CR

Product Code	Total Tests	Passed	Failed
15CR	25	25	0

Total Tests:	25		
Total Tests Passing:	25	**Total Tests Failing**	0
Total Quarry Samples Passing:	25	**Total Quarry Samples Failing**	0
Total Quality Assurance Samples Passing	0	**Total Quality Assurance Samples Failing**	0

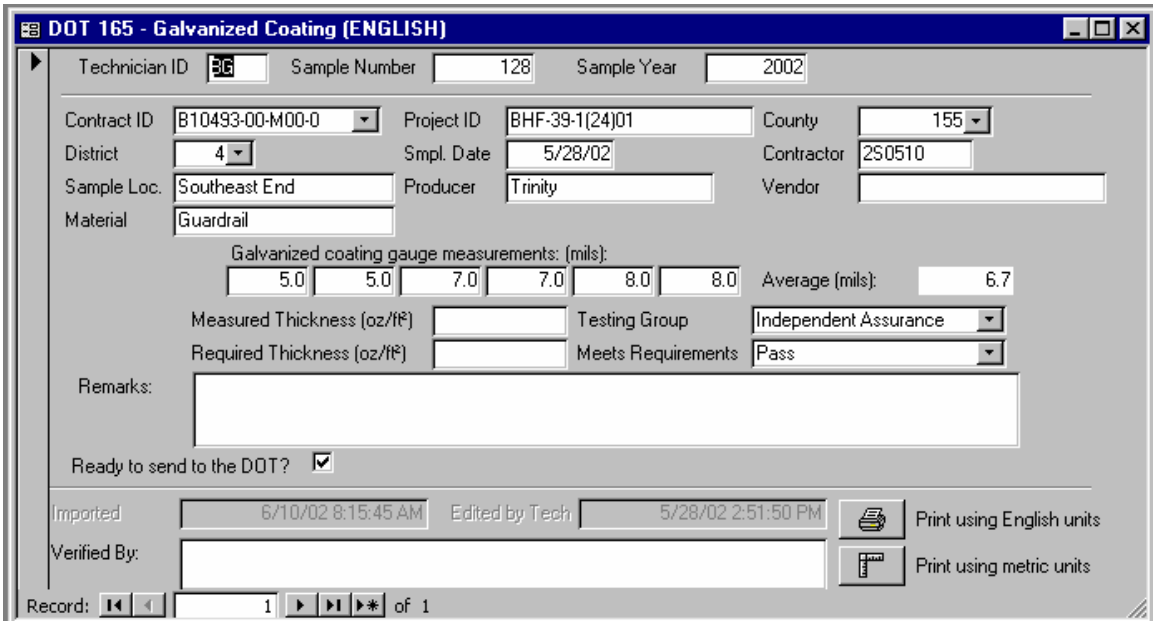
13.9.10 DOT 116 Pipe Certification and Quality

DOT 116 Test Report Data Entry Screen



13.9.11 DOT 165 Galvanized Coating Test Report

DOT 165 Galvanized Coating Data Entry Screen



Example of DOT 165 Galvanized Coating Test Report

GDOT 165 - Galvanized Coating (ENGLISH)

Technician ID: 8G **Sample Number:** 128 **Sample Year:** 2002

Contract ID:	B10493-00-M00-0	Project ID:	BHF-39-1(24)01	County:	155
District:	4	Smpl. Date:	5/28/2002	Contractor:	2S0510
Smpl. Loc.:	Southeast End	Producer:	Trinity	Vendor:	
Material:	Guardrail				

Galvanized coating gauge measurments: (mils)

5.0	5.0	7.0	7.0	8.0	8.0	Average (mils):	6.7

Measured Thickness (oz/ft²):		Testing Group:	Independent Assurance
Required Thickness (oz/ft²):		Meets Requirements:	Pass

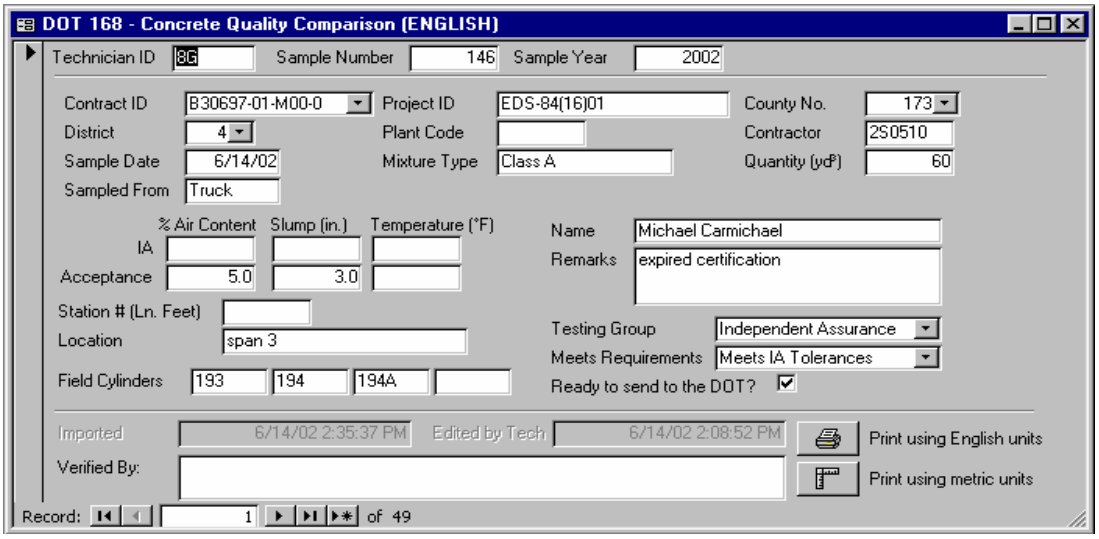
Remarks:

Verified By:

13.9.12 DOT 168 Concrete Quality Comparison Test Report

This form is used by GDOT Independent Assurance technicians.

DOT 168 Concrete Quality Comparison Data Entry Screen



Example of DOT 168 Concrete Quality Comparison Test Report

GDOT168 - Concrete Quality Comparison (ENGLISH)

Technician ID: 8E **Sample Number:** 903 **Sample Year:** 2002

Contract ID:	B10754-01-000-0	Project ID:	NH-7141-00(900)01	County No.:	121
District:	7	Plant Code:	301	Contractor:	2MA850
Sample Date:	7/10/2002	Mixture Type:	AA	Quantity (yd³):	750
Sampled From:	truck				

	% Air Content	Slump (in.)	Temperature (°F)
IA:	4.6	3.8	90
Acceptance:	5.5	3.8	

Station # (Ln. Feet):

Location: Column , Footing 2,, Bent 1

Field Cylinders: 409, 410

Name: Kwesi Nantambu

Remarks: Slump was observed.
8E-903-906

Testing Group: Independent Assurance

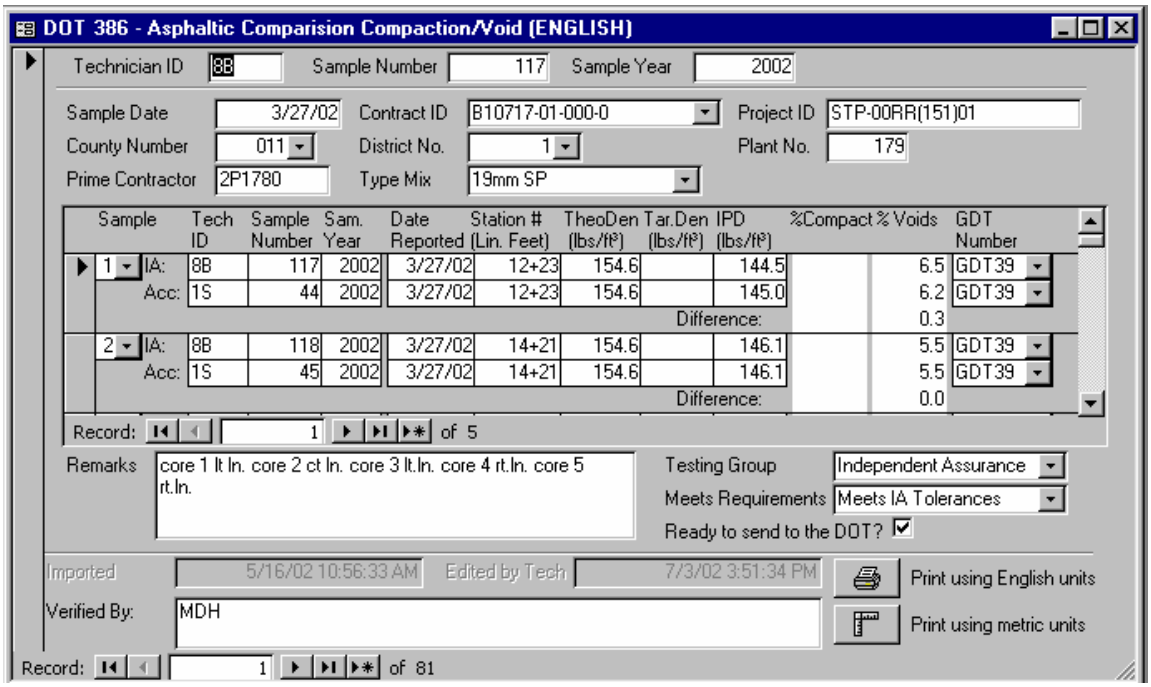
Meets Requirements: Meets IA Tolerances

Verified By:

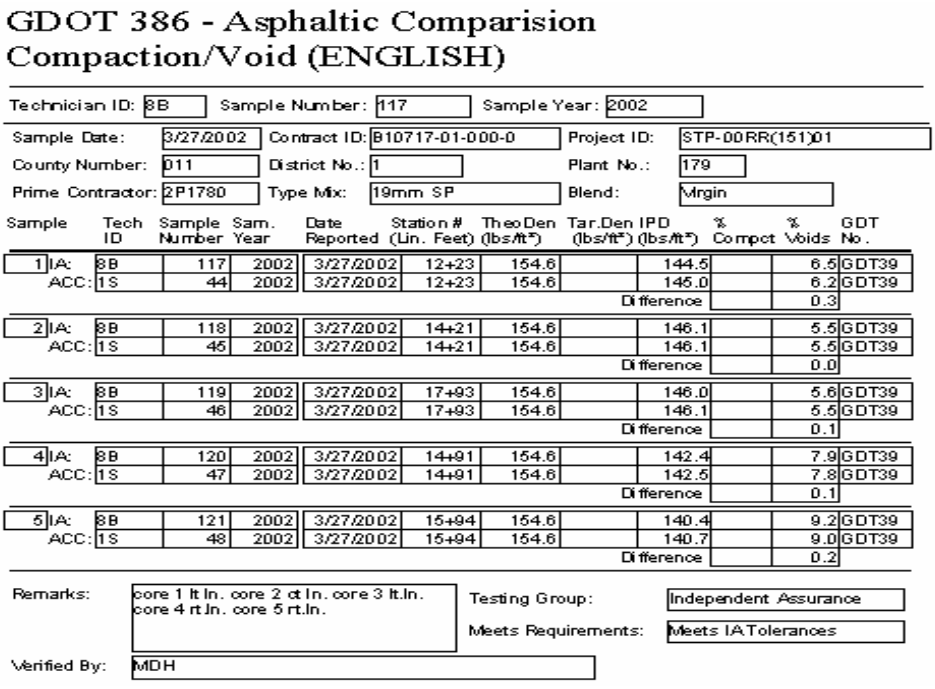
13.9.13 DOT 386 Asphaltic Concrete comparison compaction/void test data

This form is used by GDOT Independent Assurance technicians.

DOT 386 Asphaltic Comparison Compaction/Void Data Entry Screen



Example of DOT 386 Asphaltic Comparison Compaction Void Test Report



GDOT 386 - Asphaltic Comparision Compaction/Void (ENGLISH)

Technician ID: 8B Sample Number: 117 Sample Year: 2002

Sample Date: 3/27/2002 Contract ID: B10717-01-000-0 Project ID: STP-00RR(151)01

County Number: 011 District No.: 1 Plant No.: 179

Prime Contractor: 2P1780 Type Mix: 19mm SP Blend: Virgin

Sample		Tech ID	Sample Number	Sam. Year	Date Reported	Station # (Lin. Feet)	TheoDen (lbs/ft³)	Tar.Den (lbs/ft³)	IPD (lbs/ft³)	% Compct	% Voids	GDT No.
1	IA:	8B	117	2002	3/27/2002	12+23	154.6		144.5		6.5	GDT39
	ACC:	1S	44	2002	3/27/2002	12+23	154.6		145.0		6.2	GDT39
									Difference		0.3	
2	IA:	8B	118	2002	3/27/2002	14+21	154.6		146.1		5.5	GDT39
	ACC:	1S	46	2002	3/27/2002	14+21	154.6		146.1		5.5	GDT39
									Difference		0.0	
3	IA:	8B	119	2002	3/27/2002	17+93	154.6		146.0		5.6	GDT39
	ACC:	1S	46	2002	3/27/2002	17+93	154.6		146.1		5.5	GDT39
									Difference		0.1	
4	IA:	8B	120	2002	3/27/2002	14+91	154.6		142.4		7.9	GDT39
	ACC:	1S	47	2002	3/27/2002	14+91	154.6		142.5		7.8	GDT39
									Difference		0.1	
5	IA:	8B	121	2002	3/27/2002	15+94	154.6		140.4		9.2	GDT39
	ACC:	1S	48	2002	3/27/2002	15+94	154.6		140.7		9.0	GDT39
									Difference		0.2	

Remarks: core 1 lt ln. core 2 ct ln. core 3 lt.ln. core 4 rt ln. core 5 rt.ln.

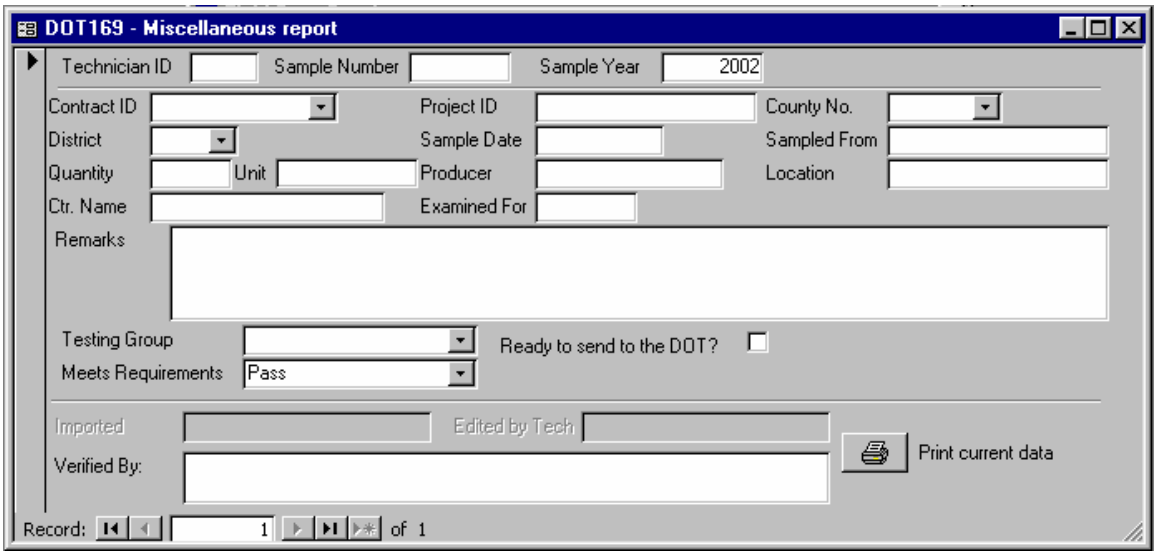
Testing Group: Independent Assurance

Meets Requirements: Meets IA Tolerances

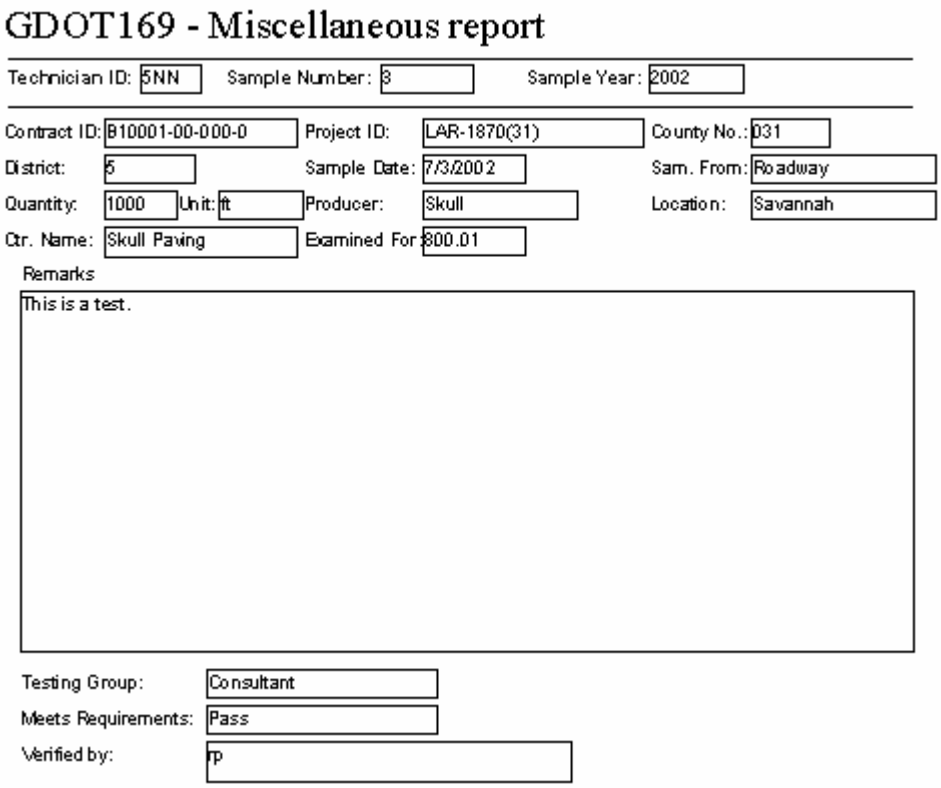
Verified By: MDH

13.9.14 DOT 169 Miscellaneous Test Report

DOT 169 Miscellaneous Test Report Data Entry Screen



Example of DOT 169 Miscellaneous Test Report



14 Appendix A Common File Formats

The large number of file formats used by Windows and Windows software confuses many Windows users. Which file types are associated with which program? Which programs open which file types? Which file types are system files, necessary for Windows to operate? The following list should clarify some of these issues.

.ani	windows animated cursor file
.avi	video for windows video clip
.bak	backup file
.bat	ms-dos system start-up file
.bmp	windows bitmapped graphic image
.cdr	corel draw 3, 4 and 5 vector image
.cmx	corel draw 5, 6 vector image
.com	ms-dos application
.cur	windows cursor file
.dll	dynamic link library system file
.doc	microsoft word/wordpad document
.dos	ms-dos file
.dot	microsoft word template
.eps	encapsulated postscript image
.exe	executable program file
.gif	CompuServe Internet graphic image
.hlp	windows help file
.htm	Internet document file (created on a PC)
.html	Internet document file (created on a Mac)
.ico	windows icon file
.inf	windows setup file
.ini	program configuration text file
.jpg	compressed quiktime image/Internet picture
.log	notepad log (text file)
.mid	windows midi music file
.old	old file, usually an earlier version of a replaced file
.pcx	pc paintbrush bitmap image
.pdf	adobe acrobat file (multi-operating system)
.pm6	adobe pagemaker 6 file
.pot	microsoft powerpoint template
.ppt	microsoft powerpoint presentation
.psd	adobe photoshop image file
.pub	microsoft publisher file
.qic	microsoft backup file
.rpt	report (text) file
.rtf	rich text format
.scp	dialup-networking script file
.scr	windows screensaver
.sea, .sit	Macintosh compressed file
.sys	system text file

.tif	tagged image format image file
.tmp	temporary file
.ttf	true type font file
.txt	text file, associated with notepad
.url	internet address shortcut
.wav	wave for windows sound file
.wfn	corel draw symbol file
.wmf	windows metafile image format
.wpd	wordperfect document
.wpg	wordperfect vector graphics file
.wps	microsoft works document
.wri	windows write wordprocessor
.xlc	microsoft excel chart
.xls	microsoft excel version 4, 5
.zip	windows zipped compressed file

15 Appendix B Valid Georgia County Codes

Code	County	Code	County	Code	County
003	Atkinson	087	Decatur	171	Lamar
005	Bacon	089	DeKalb	173	Lanier
007	Baker	091	Dodge	175	Laurens
009	Baldwin	093	Dooly	177	Lee
011	Banks	095	Dougherty	179	Liberty
013	Barrow	097	Douglas	181	Lincoln
015	Bartow	099	Early	183	Long
017	Ben Hill	101	Echols	185	Lowndes
019	Berrien	103	Effingham	187	Lumpkin
021	Bibb	105	Elbert	189	Macon
023	Bleckley	107	Emanuel	191	Madison
025	Brantley	109	Evans	193	Marion
027	Brooks	113	Fayette	195	McDuffie
029	Bryan	115	Floyd	197	McIntosh
031	Bulloch	117	Forsyth	199	Meriwether
033	Burke	119	Franklin	201	Miller
035	Butts	121	Fulton	205	Mitchell
037	Calhoun	123	Gilmer	207	Monroe
039	Camden	125	Glascock	209	Montgomery
043	Candler	127	Glynn	211	Morgan
045	Carroll	129	Gordon	213	Murray
047	Catoosa	131	Grady	215	Muscogee
049	Charlton	133	Greene	217	Newton
051	Chatham	135	Gwinnett	219	Oconee
053	Chattahoochee	137	Habersham	225	Peach
055	Chattooga	139	Hall	227	Pickens
057	Cherokee	141	Hancock	229	Pierce
059	Clarke	143	Haralson	231	Pike
061	Clay	145	Harris	233	Polk
063	Clayton	147	Hart	235	Pulaski
065	Clinch	149	Heard	237	Putnam
067	Cobb	151	Henry	239	Quitman
069	Coffee	153	Houston	241	Rabun
071	Colquitt	155	Irwin	243	Randolph
073	Columbia	157	Jackson	245	Richmond
075	Cook	159	Jasper	247	Rockdale
077	Coweta	161	Jeff Davis	249	Schley
079	Crawford	163	Jefferson	251	Screven
081	Crisp	165	Jenkins	253	Seminole
083	Dade	167	Johnson	255	Spalding
085	**Dawson**	**169**	**Jones**	**257**	Stephens

Code	County	Code	County
259	Stewart	295	Walker
261	Sumter	297	Walton
263	Talbot	299	Ware
265	Taliaferro	301	Warren
267	Tattnall	303	Washingto
269	Taylor	305	Wayne
271	Telfair	307	Webster
273	Terrell	309	Wheeler
275	Thomas	311	White
277	Tifton	313	Whitfield
279	Toombs	315	Wilcox
281	Towns	317	Wilkes
283	Treutlen	319	Wilkinson
285	Troup	321	Worth
287	Turner		
289	Twiggs		
291	Union		
293	Upson		

16 Appendix C Troubleshooting FDCS

This Section covers common problems that you may come across while uploading test data.

16.1 Modem Does Not Dial

If the modem does not dial and if nothing appears in the terminal window, then check the following:

- If your modem is external, make sure you plugged it in, turned it on, and you connected it properly to your computer.
- Check the communications settings. Make sure you specified the correct communications port and baud rate.

16.2 Modem Dials, But there is No Answer

If you can hear the modem dial, but you do not hear the sounds of modems connecting, then check the following:

- Make sure you properly connected your modem to a phone line.
- Check the number you are dialing in the dialing settings. You may need to dial a "9" prefix to get an outside line.

16.3 Modem Connects but Text is garbled

If you successfully connect to the GDOT BBS, but the text in the terminal window appears garbled, and the auto-upload fails, then check the following:

- Check your communications settings. Make sure you have specified the correct baud rate for your modem. If the baud rate you selected is greater than 2400, try a lower baud rate.
- Check your phone line. A bad phone connection can cause this problem.

16.4 Modem Hangs up Unexpectedly

- If other people have access to your line from other phones, make sure they do not pick up the phone while your computer is uploading.
- If you have call waiting, then you need to disable it by setting the *70 prefix in the Dialing Settings option.

16.5 Unable to open Comm port

If you get this error while starting the DOT Terminal Link, then check the following:

- Close any other communications program such as Windows Terminal, Hyper Terminal, Internet dial-up programs, or FAX modem programs. These programs lock the communications port for exclusive use.
- Make sure you specified a communication port that exists on your system.

16.6 Everything was working fine, but suddenly the modem won't work

- Try powering down the computer and the modem and restarting.
- Double-check the settings, in case someone else changed them.

Note: Whenever you have a problem dialing in to the GDOT BBS, always try dialing more than once. Normal line noise can cause the modem connection to fail occasionally.

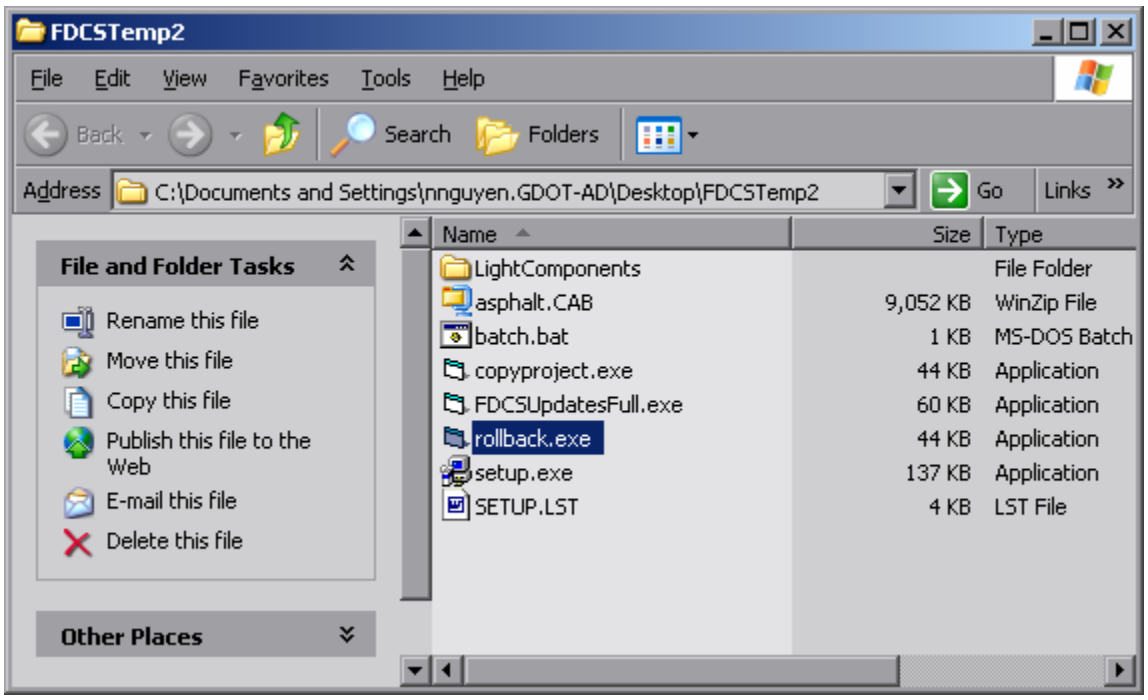
16.7 Additional Information

- If you have not already read it, read this manual. Most usage problems can be answered by reading the manual.
- Write down any error messages you are getting exactly as they appear on your computer's screen. Do not paraphrase them.
- Be at your computer when calling the GDOT IT Division Solutions Center. You may be asked to do things to your computer while talking to them. The phone number for the GDOT IT Division Solutions Center is **404-651-5010**. The first available Solution Provider will take your call.

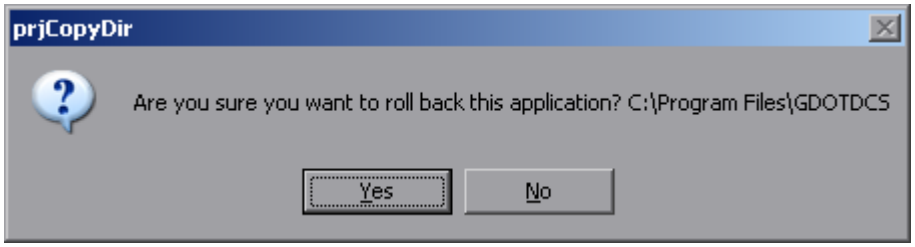
17 . Appendix D – Emergency ONLY Roll Back to previous FDCS 3.x

1. Double click to Open the folder **FDCSTemp2** on your desktop:

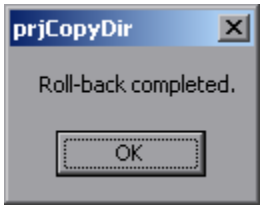
2. Double click on the file named **rollback**



3. Click **Yes**



4. Click **OK** until the roll-back complete screen appears. Click **OK** again.

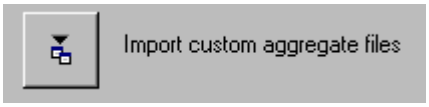


5. Double click on the **Field Data Collection System** icon to confirm that FDCS 3.31 opens.

6. . **Right click** on the copied short-cut “FDCS3.31” on Desktop and click **Delete**.

18 Appendix E - Importing External DOT641 and DOT640 Aggregate Data

The GDOT Field Data Collection System has the ability to import DOT640, DOT641 data from external sources. This feature exists to enable Aggregate producers who have their own database systems to automate importing of their data in to the FDCS.



To use this feature:

First create the text files with your data using the following formats.

The following are the specifications for the file format used by aggregate producers to import 640 and 641 data.

Note: As of FDCS Version 3.2 the Washed / Unwashed field has been added to the Primary key of the 640 and 641. As a result the "DOT640ACUSTOM" and "DOT641ACUSTOM" file formats are no longer valid. If you are using these file formats you must upgrade your file formats to "DOT640BCUSTOM" and "DOT641BCUSTOM" as described in this document.

DOT 640 file
The file must start with the text "DOT640BCUSTOM" (include the quotes).

All remaining lines are comma delimited containing the following items:

Field Name	Type Data	Size
Plant Source Code	Text	4
Aggregate Product Code	Text	4
Washed/Unwashed Code	Text	1
Sample Number	Number (Long)	
Sample Year	Number (Long)	
Used In Code	Text	1
Used In Code	Text	1
Used In Code	Text	1
Sample Date	Date/Time	
Vendor Code Number	Text	4
Technician Group	Text	1
Technician Code	Text	8
Graded Aggregate Class	Number (Long)	
Aggregate Group	Number (Long)	
Sampled From Code	Text	1
Percent Passing sieve 1	Number (Single)	
Percent Passing sieve 2	Number (Single)	

Percent Passing sieve 3	Number (Single)	
Percent Passing sieve 4	Number (Single)	
Percent Passing sieve 5	Number (Single)	
Percent Passing sieve 6	Number (Single)	
Percent Passing sieve 7	Number (Single)	
Percent Passing sieve 8	Number (Single)	
Percent Passing sieve 9	Number (Single)	
Percent Passing sieve 10	Number (Single)	
Sand Equivalency Value	Number (Integer)	
Meets Requirements	Text	1
Remarks	Memo	

DOT 641 file
The file must start with the text "DOT641BCUSTOM" (include the quotes).

All remaining lines are comma delimited containing the following items:

Field Name	Type Data	Size
Plant Source Code	Text	4
Sample Date	Date/Time	
Project Number	Text	30
Aggregate Product Code	Text	4
Washed/Unwashed Code	Text	1
Used In Code	Text	1
Quantity in Tons	Number (Long)	
Contract ID Number	Text	15
County Code Number	Number (Long)	
Vendor Code Number	Text	4
Beginning Sample Number	Number (Long)	
Ending Sample Number	Number (Long)	
Meets Requirements	Text	1

The data types in the file are formatted as follows:
Text: Numbers, characters, and symbols (except for double quotes) enclosed in double quotes. The maximum length of the string determined by the field's size specified above. Empty strings are not allowed, instead place a null value.

Memo: Same as text, but no maximum size.

Number (integer) an integer value between -32,768 to 32,767

Number (long) an integer value between -2,147,483,648 to 2,147,483,647

Number (single) a single-precision floating-point number from -3.402823E38 to -1.401298E-45 for negative values; 1.401298E-45 to 3.402823E38 for positive values. (In other words, a number with a few decimals)

Date/Time : A date from January 1, 100 to December 31, 9999. This must be formatted as follows: #YYYY-MM-DD#. For example: #2001-01-31# .

Any value that contains a null value is represented in the file as the text “#NULL#” (without the quotes).

Examples of the file formats: (Note: do not include the line wrapping)

"DOT640BCUSTOM"
"199C","0005","W",32,2001,"A",#NULL#,#NULL#,#2001-04-10#,#NULL#,"Q","9ZX",#NULL#,1,"S",100,98.3,79.3,43,32.7,2.1,#NULL#,#NULL#,#NULL#,#NULL#,55,"P","This is a remark"
"199C","0005","U",33,2001,"C","E","H",#2001-04-10#,"112V","Q","9ZX",#NULL#,1,"S",100,98.7,77.5,54.3,44.7,3,#NULL#,#NULL#,#NULL#,#NULL#,66,"P",#NULL#
"199C","15CR","W",70,2001,"C","E",#NULL#,#2001-04-10#,"112V","Q","9ZX",1,1,"S",100,90,80,#NULL#,60,40,#NULL#,30,22,11,22,"F","Another remark."

"DOT641BCUSTOM"
"199C",#2001-04-10#,"(BLA)(ELSE)-PROJ","0005","W","A",4,"B77879-79-780-9",7,#NULL#,99,99,"P"
"199C",#2001-04-10#,"(BLA)(SOMETHIG)-PROJ","0005","U","A",67,"B30022-00-322-0",39,#NULL#,50,52,"P"
"199C",#2001-04-10#,"(BLA)(SOMETHIG)-PROJ","0005","W","B",77,"B40040-40-409-9",7,#NULL#,69,77,"P"

18.1 Aggregate Product Codes

ProductCode	ProductName
0003	No. 3's
0004	No. 4's
0005	No. 5's
0006	No. 6's
0007	No. 7's
0008	No. 8's
0009	No. 9's
0056	No. 56's
0057	No. 57's
0067	No. 67's
0068	No. 68's
0078	No. 78's
0089	No. 89s
0122	Type II Backfill
0161	Soil Aggregate Base
02LR	Limerock Base
0357	No. 357's
0467	No. 467's
0626	Backfill for Reinforced Earh
0811	Rock Embankment
0831	Type 1 Stabilizer
0832	Type 2 Stabilizer
0833	Type 3 Stabilizer
0834	Type IV Stabilizer
0862	Crushed Stone Drainage
0863	Drainage Blanket
0M10	M10 Screenings
0PRR	Plain Rip Rap
10FM	Fine Manf. Concrete Sand
10NS	Natural Concrete Sand
10SM	Std. Manf. Concrete Sand
15CR	Graded Aggregate
20NS	Natural Mortar Sand
AW10	Washed Screenings
M810	810 Screenings
T1RR	Type 1 Rip Rap
T2RR	Type 2 Rip Rap
T3RR	Type 3 Rip Rap
UCLB	Unconsolidated Limerock

18.2 Sieve sizes used for each aggregate product code

Rating	1	2	3	4	5	6	7	8	9	10
0003	2 1/2"	2"	1 1/2"	1"	3/4"	1/2"				
0004	2"	1 1/2"	1"	3/4"	1/2"	3/8"	No. 200			
0005	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 200			
0006	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 200			
0007	3/4"	1/2"	3/8"	No. 4	No. 8	No. 16	No. 200			
0008	1/2"	3/8"	No. 4	No. 8	No. 16	No. 50	No. 200			
0009	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 200			
0056	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 200			
0057	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 200		
0067	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 200			
0068	3/4"	1/2"	3/8"	No. 4	No. 8	No. 16	No. 200			
0078	3/4"	1/2"	3/8"	No. 4	No. 8	No. 16	No. 200			
0089	1/2"	3/8"	No. 4	No. 8	No. 16	No. 50	No. 200			
0122	2"	1 1/2"	1"	3/4"	3/8"	No. 4	No. 8			
0161	2"	1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	
02LR	2"	1 1/2"	3/4"	No. 10	No. 60	No. 200				
0357	2 1/2"	2"	1 1/2"	1"	1/2"	No. 4	No. 200			
0467	2"	1 1/2"	1"	3/4"	3/8"	No. 4	No. 200			
0626	4"	2"	1 1/2"	No. 4	No. 10	No. 200				
0811										
0831	1 1/2"	1"	3/4"	1/2"	No. 4	No. 8				
0832	2"	1 1/2"	3/4"	No. 16	No. 10	No. 60	No. 200			
0833	6"	4"	2"	1"	No. 4	No. 10				
0834	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200				
0862	2"	1 1/2"	3/4"	No. 4	No. 10	No. 100				
0863	No. 10	No. 30	No. 60	No. 200						
0M10	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
0PRR										
10FM	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
10NS	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
10SM	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
15CR-	2"	1 1/2"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200
15CR-	2"	1 1/2"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200
15CR-	2"	1 1/2"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200
15CR-	2"	1 1/2"	3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 60	No. 200
20NS	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
AW10	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
M810	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200		
T1RR										
T2RR										
T3RR										
UCLB	3 1/2"	2"	1 1/2"	No. 4	No. 10	No. 200				

18.3 Valid "Sampled From" and "Used In" locations codes & List of Used In Codes

List of Sample From Codes

SampleFromI	SampleFrom
S	Stockpile
B	Belt
R	Roadway
C	Rail Car
T	Truck
O	Other

List of Used In codes: (only the description is shown in the entry form)

UsedInID	UsedInDescr
A	A - 500 Concrete
B	B - 400 Asphalt
C	C - 207 Backfill
D	D - 222 UnderDrain
E	E - 400 Sma Stone
F	F - 427 Slurry Seal
G	G - 424 Surf Treatment
H	H - 310 Gab
I	I - 304 Soil Agg. Base
J	J - 209 Subgrade Stab
K	K - 316 Cem. Stab. Base
L	L - 430 Concete Pavement
M	M - 318 Agg. Surface
N	N - 303 Topsoil Const
O	O - 326 Conc. Sub. Base &
P	P - 219 Subbase
Q	Q - 602 Modular Wall
R	R - 603 Rip-Rap
U	U - 626 Mech. Stab. Ret.
V	V - 232 Ballast
W	W - 232 Sub Ballast
X	X - 208 Rock Emb
Y	Y - Other

19 Appendix F - Portland Cement File Formats Required To Import Data

The following are the specifications for the custom file format used by Portland Cement producers to import OMR-049 data.

Note: There is no version identification in this file format specification; therefore backwards compatibility is not possible. Producers will be responsible for ensuring that the text files they generate match the specification for the current version of FDCS software they are using.

Each line in the text file is comma delimited containing the following items.

Field	Type	Size/example
Mill code	Number	999
Material Type	Text	X (15 char)
Month Sampled	Number	99
Year Sampled	Number	9999
Day Sampled	Number	99
SiO2	Number	9.99
AL2O3	Number	9.99
Fe2O3	Number	9.99
CaO	Number	99.9
MgO	Number	9.9
SO3	Number	9.9
Loss On Ignition	Number	9.9
Insoluble Residue	Number	9.99
Na2O	Number	9.99
K2O	Number	9.99
Blaine	Number	9999
Retention325	Number	99.9
Autoclave	Number	9.99
Air Content	Number	99
False Set	Number	99
Vicat Initial	Number	999
Vicat Final	Number	999
First Age	Number	99
First Average	Number	9999
Second Age	Number	99
Second Average	Number	9999
Split Sample	Text	(Y/N)

The datatypes in the file are formatted as follows:
Text: Numbers, characters, and symbols (except for double quotes and commas). The maximum length of the string determined by the field's size specified above.

Number (integer) an integer value between -32,768 to 32,767

Number (long) an integer value between -2,147,483,648 to 2,147,483,647

Number (single) a single-precision floating-point number from -3.402823E38 to -1.401298E-45 for negative values; 1.401298E-45 to 3.402823E38 for positive values. (In other words, a number with a few decimals)

The Mill Code, Material Type, Month Sampled, Year Sampled, Day Sampled, and SiO2 are required fields for a valid sample (otherwise the line is ignored). The rest may be left "empty" when not applicable to the sample. An empty field is placed in the text file by having two commas with nothing between them (or nothing following it if it is the comma at the end of a line). For example "1,3" would represent 1, empty, and 3.

For more specific formatting of the contents of the individual fields, see the data entry section of the documentation.

Examples of the file formats: (Note: do not include the line wrapping)
049,I,03,2002,16,20.03,5.56,2.58,64.30,0.82,3.11,1.64,0.30,0.24,0.42,3630,92.8,0.00,8.0
,70.0,101,233,3750,3,4880,7,X
049,I,03,2002,17,19.88,5.52,2.57,64.33,0.80,3.30,1.67,0.31,0.24,0.36,3580,93.6,0.00,8.4
,85.3,101,233,3750,3,4890,7,
049,I,03,2002,18,19.87,5.60,2.61,64.63,0.82,3.18,1.43,0.29,0.22,0.27,3570,93.9,0.00,8.4
,78.6,92,216,3610,3,4700,7,

19.1 Portland Cement Product Codes

I	Normal Cement
II	Low Heat Cement
III	High Early Strength
IV	Low Heat
V	Sulphate Resistant
P	IP
S	IS
M	Masonry
F	FlyAsh/Slag