# LAB 17 - Create a General Notes Sheet

The 12345DES\_GenNote.dgn has been created in the project's \Design\Drawings folder through the create project utility. This sheet file currently is linked to a generic notes doc file in the CDOT workspace. However, the sheet files should reference the project-specific notes file, 12345GemeralNote.dgn located in the \Design\Drawings\Reference Files folder. You must first update the references in the sheet file to point to the project notes, and then edit the project notes file to be project-specific.

*Note:* This process is the same for any specialty group.

#### Chapter Objectives:

After completing this exercise you will know how to:

- Open a project notes sheet file.
- Update the Word document link to point to the 12345 project directory.
- Edit the project-specific general notes Word file.
- Re-link the General Notes Word file to the Notes sheet file.

# Lab 17.1 - Create Project General Notes Sheet

# **Updating Links**

1. Start MicroStation and open the file 12345DES\_GenNote##.dgn from the C:\Projects\12345\Design\Drawings folder.

THESE GENERAL NOTES SHEETS ARE LINKED TO A DOCUMENT FILE (DES\_GROUNDO.DOC). TO EDIT, DOUBLE CLICK ON GRAPHIC. IF YOU EDIT THE FILE SHO RE-LINK THE FILES. ID LINK FILES, FIRST DELETE LINK, THE COPY INFORMATION DUT OF DOCUMENT FILE (DES\_GROUNDO.DOC). IN MICROSTATION GO TO EDIT>PASTE SPECIAL, SELECT THE LINKED MICROSOFT OFFIC COOCUMENT, SLECCY METHOD TO BE BY SIZE, FILLIN 18, CENTER AND PLANE DO COMENT.



This file was automatically generated by the create project utility program and contains links to a General Notes Word document in the generic project template folder. You will need to update these links to the General Notes Word document in the project folder.

2. Select Edit > Links.

3. Highlight the first link in the list and select **Change Source**.

Links			<b>.</b>
	Type DES_GenNote.doc!OLE_Link1 Document DES_GenNote.doc!OLE_Link2 Document		Close Update Now Open Source Change Source
			Break Link
Source: Type: Update:	C:\\Tabs\12345DES_GenNote.do Microsoft Office Word 97 - 2003 Doc O Automatic I Ma	ument	

 In the Change Source dialog box, set the Look in folder to C:\Projects\12345\Design\Drawings\Tabs and select the file 12345DES\_GenNote.doc.

📕 Change Source								×
Look in:	🐌 Tabs			•	G 🦻	⊳ 🔝		
Recent Places	Name 12345DES_G 12345DES_S 12345DES_T 12345DES_T 12345DES_T 12345DES_T	WMP.doc abEarthwork.» abMisc.xls		Size		Tags		
Computer Network								
Network	File name:		GenNote.doc			•	Open	
	Files of type:	All Files (*.*)				•	Cancel	
Item Name:	OLE_LINK1							

- 5. Select **Open** to update the link.
- 6. Repeat this process for the second link.

Links				×
	ES_GenNote.doc!OLE_L ES_GenNote.doc!OLE_L		Update Manual Manual	Close Update Now Open Source Change Source Break Link
Source: Type: Update:	C:\\Tabs\12345D Microsoft Office Wor	-	ent	

- 7. Close the Links dialog box.
- 8. Save Settings (File > Save Settings).

The General Notes sheet file is now linked to the GenNotes.doc file in the project-specific folder. You can now edit the Word file for your project-specific requirements.

## **Editing the Notes**

1. Double click on the first notes link (left sheet).

This opens Microsoft Word and the GenNotes.doc file.

[Notes within [ ] are designer directions - delete all directions prior to final plan submittal. All XXX shall be filled in by the designer during design phase. If the note does not apply delete it.] Prior to placing bituminous be paid for separately, but For preliminary plan quantities of pavement materials, the following rates of application The Contractor shall coordi were used: existing grades is obtained unless otherwise approved b Overlay of planed areas sha otherwise approved by the E The pavement shall be cut to for separately, but shall b It is estimated that the old Diluted emulsified asphalt for tack coat shall consist of 1 part emulsified asphalt and 1 part water. Moisture-density control wi Asphalt rejuvenating agent shall be diluted in accordance with manufacture's recommendations. For estimating purposes, [XXX] gallons of asphalt rejuvenating agent to one Depth of moisture-density c Eull depth of embankmen Top IXXI Feet of these. Full depth of embankmen Full depth of all emban gallon of water was used. It should be noted that the use of asphalt rejuvenating agent is dependent on results of Bases of cuts and fills Bases of fills [XX] Fee Full depth of spur dike tests performed after completion of surfacing and may not be required by the Engineer. Rejuvenating agent, if required, will be applied as seal coat at the time of construction. Rates of application shall be as determined by the Engineer at the time of application. Full depth of embankmen Diluted [XXX] shall be used as a dust palliative where required and shall consist of a dilution of [XXX] and water, the portions of which shall be [XXX] part(s) water and [XXX] part [XXX], based on volume measurement. Locations shall be as directed by the Engineer. Excavation required for com that operation and will not The minimum thickness of to required based on the avera Water shall be used as a dust palliative where required. Locations shall be as directed by the Engineer. Type of compaction for this Magnesium Chloride shall be used as a dust palliative where required. Locations directed. It is estimated that [XXX] gallons will be required on this project. Locations shall be as Concrete pipe joint fastene All concrete culvert in All concrete culvert in The following shall be furnished with each bituminous naver: A ski type device at least 30 Feet in length.
 Short ski or shoe. Guard posts, delineators an 3. [XXX] Feet of control line and stakes. Mile posts will be adjusted Any layer of bituminous pavement that is to have a succeeding layer placed thereon shall be It is estimated that [XX] g

- 2. Read the first instructional paragraph (red text) and then delete it.
- 3. Delete the following text:

Prime Coat (MC-70) [XXXX] ......@ .XX Gals./Sq. Yd.
Seal Coat (RC[XX]) Diluted Emulsified Asphalt [XXXX] ......@ XX Gals./Sq. Yd. (Diluted)
Cover Coat Material [XXXX]......@ XX Lbs./Sq. Yd.
Tack Coat (AC[XX]......@ XXX].....@ XX Lbs./Sq. Yd.
Asphalt Rejuvenating Agent [XXXX].....@ XX Gals./Sq. Yd.
Edit the following text to read as follows: Tack Coat Diluted Emulsified Asphalt.....@ 0.1 Gals./Sq. Yd. (Diluted)

Bituminous Pavement	@ 110 Lbs./Sq. Yd./Inch
Aggregate Base Course (Class 6)	@ 133 Lbs/Cu Yd

5. At the bottom of the first column, add a blank line to place the paragraph beginning "*The Contractor shall coordinate the shouldering*..." at the top of the next column.

Asphalt joints shall fall on lines, shoulders lines or median lines, except where stated in the plans.	It is estimated that [XX] gallons of pavement mar follows:
All travel lanes are subject to smoothness incentive/disincentive payments. Pavement smoothness incentive/disincentive shall be based on Inches/Wile.	White Yellow
	Final signing and striping will be done by state
Road approaches which require bituminous pavement shall be primed and an [XX] Inches thickness of pavement (and [XX] Inches thickness of ABC) placed as follows:	It is estimated that [XX] hours of blading with a
thickness of pavement (and [XX] inches thickness of ABC) placed as follows:	horsepower range will be required as directed by
Public approaches and entrances to building or residences shall be paved 50 Feet out from	Torseporer range will be required as all ceced by
the edge of shoulder or to the Right-Of-Way line, whichever is less. Field entrances shall be paved 4 Feet out from the edge of shoulder.	It is estimated that <u>IXX1</u> hours of dozing with a horsepower range will be required as directed by
The Contractor shall not park any vehicles or equipment in, or disturb any areas not	It is estimated that [XX] mile posts will be adju
approved by the Engineer.	Reset Marker.
Millings shall become the property of the State. The Contractor shall supply all necessary equipment to haul	It is estimated that [XX] days of Traffic Control
this material to a site within the limits of the	It is estimated that [XX] days of Traffic Control
project as direct by the Engineer.	• • •
	It is estimated that [XX] hours of Flagging will
Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for	It is estimated that [XX] Sanitary Facility will
separately, but shall be included in the cost of the	It is estimated that [XX] Sanitary Facility Will
Hot Mix Asphalt Pavement item.	It is estimated that [XX] Public Information Serv
The Contractor shall coordinate the shouldering operation such that full compliance to the existing	It is estimated that [XX] Mobile Profilograph Ope
operation such that full compliance to the existing	
It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.	
It is estimated that [XX] hours will be required for potholing. The Contractor shall be	
responsible for contacting and coordinating with the appropriate utility representatives to	
be onsite during potholing and shall likewise be responsible for determining the type and	

responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

6. Look at the top of the next page and note that your edits have adjusted the text wrapping. The next page now starts with the note:

It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

Millings shall become the property of the State. The Contractor shall supply all necessary equipment to haul this material to a site within the limits of the project as direct by the Engineer.	It is estimated that [XX] days of Traffic Contro: It is estimated that [XX] days of Traffic Contro:
Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for separately, but shall be included in the cost of the Hot Mix Asphalt Pavement item.	It is estimated that $[XX]$ hours of Flagging will
	It is estimated that [XX] Sanitary Facility will
	It is estimated that [XX] Public Information Serv
	It is estimated that [XX] Mobile Profilograph Op(

It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project. It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements. It is estimated that (XX) tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

- 7. Review the text to make sure the edits are correct. If not, edit the text again until you're satisfied.
- 8. In Word, select File > Exit and select Yes when prompted to save changes.

You are returned to the General Notes sheet in MicroStation.

### Review the changes in the sheet file

1. Zoom in on the notes on the first sheet and note your text edits have been updated in the DGN file.

GENERAL NOTES						
For preliminary plan quantities of pavement materials, the following rates of application were used:	The Contractor shall coordinate the shouldering operation such that full compliance to the existing grades is obtained on a daily basis following the paving operation for the affected area unless otherwise approved by the Engineer.					
Tack Coat Diluted Emulsfiled Asphalt	Overlay of planed areas shall commence within 5 working days following the planning unless otherwise approved by the Engineer.					
Diluted emulsified asphalt for tack coat shall consist of 1 part emulsified asphalt and 1 part water.	The pavement shall be cut to a neat line (XXX) as directed by the Engineer. This will not be paid for separately, but shall be included in the Hot Mix Asphalt Pavement item.					
Asphalt rejuvenating agent shall be diluted in accordance with manufacture's recommendations. For estimating purposes, [XXX] gallons of asphalt rejuvenating agent to one gallon of water was used.	It is estimated that the old road is to be obliterated at the following locations: $[XX + XX]$ Noisture-density control will be required for the full depth of those embankments on this project.					
	interes constrait concrete many on reducer on one rote other or enous components or one holdress					
It should be noted that the use of asphalt rejuvenating agent is dependent on results of tests performed after completion of surfacing and may not be required by the Engineer.	Depth of moisture-density control for this project shall be as follows: Full depth of embankments within 100 Feet of bridge abutments. Top [DX0] Feet of these embankments which [DX0] Feet or more in height.					
Rejuvenating agent, if required, will be applied as seal coat at the time of construction. Rates of application shall be as determined by the Engineer at the time of application.	Full depth of embankments which are less than [XX] Feet in height. Full depth of all embankments: Bases of cuts and fills [XX] Feet.					
Diluted [XXX] shall be used as a dust palliative where required and shall consist of a dilution of [XXX] and water, the portions of which shall be [XXX] part(s) water and [XXX] part [XXX], based on volume measurement. Locations shall be as directed by the Engineer.	buss of Golina (III) (vector less in height, [XX] Peet. Buss of fills [XX] Peet or less in height, [XX] Peet. Full depth of mahankent sections used for dictees and channel changes.					
Mater shall be used as a dust palliative where required. Locations shall be as directed by the Engineer.	Excavation required for compaction of bases of cuts and fills will be considered as subsidiary to that operation and will not be paid for separately.					
Magnesium Chloride shall be used as a dust palliative where required. Locations shall be as directed. It is estimated that [3000] gallons will be required on this project.	The minimum thickness of topsoil shall be [XXX Inches. It is estimated that [XX] Cu. Yds. will be required based on the average thickness of [XX] Inches.					
The following shall be furnished with each bituminous paver: 1. A ski type device at least 30 Feet in length.	Type of compaction for this project will be AA5HTO T-[X00X].					
<ol> <li>Short ski or shoe.</li> <li>[XOX] Feet of control line and stakes.</li> </ol>	Concrete pipe joint fasteners as shown on M-Standard are required on: All concrete culvert installations excluding side drains. All concrete culvert installations located at stations [XXX+XX].					
Any layer of bituminous pavement that is to have a succeeding layer placed thereon shall be completed full width before succeeding layer is placed.	Guard posts, delineators and (XXX) will be removed by State forces at no cost to the project. Mile posts will be adjusted or reset by State forces at no cost to the project.					
Asphalt joints shall fall on lines, shoulders lines or median lines, except where stated in the plans.	It is estimated that [XX] gallons of pavement marking paint will be required on this project as					
All travel lanes are subject to smoothness incentive/disincentive payments. Pavement smoothness incentive/disincentive shall be based on Inches/Hile.	follows: white					
Road approaches which require bituminous pavement shall be primed and an (XX) Inches thickness of pavement (and (XX) Inches thickness of ABC) placed as follows:	Final signing and striping will be done by state forces at no cost to the project.					
	It is estimated that $[XX]$ hours of blading with a motor grader in the $[XX]$ to $[XX]$ flywheel					

2. Zoom in on the notes on the second sheet (right side) and notice that your edits have *not* been updated in the file.

It is estimated that  $\ensuremath{\left[\mathsf{XX}\right]}$  days of Traffic Control Inspection will be required on this project.

It is estimated that [XX] hours of Flagging will be required on this project.

It is estimated that [XX] Sanitary Facility will be required on this project.

It is estimated that [XX] Public Information Services will be required on this project.

It is estimated that  $\ensuremath{\left[\mathsf{XX}\right]}$  Mobile Profilograph Operation Zone will be required on this project.

It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.

It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.

It is estimated that  $\ensuremath{\left[XX\right]}$  tons of Hot Mix Asphalt Pavement (patching) will be required on this project.

No Right-Of-Way acquisition will be needed for this project. All work will be completed

*Note:* If you make edits that change the wrapping of text between pages in the Word document, you must re-link the file for the edits to update in the MicroStation DGN file.

#### **Re-link the Word document**

1. Use the **Element Selection** tool to select the Word document link on the second (right-side) sheet.

#### 2. Select Delete.

IF YOU GOLT THE FILE SHEETS ARE LINKED TO A DOCUMENT FILE (QES GONNOTO DOC). TO EDIT, DOUBLE CLICK ON GRAPHIC. RE-LINK THE FILES! SPECIAL, SELEST THE LINKED MICROSOFT OFFIC DOCUMENTS, SELECT METHOD TO BE BY SIZE, FILL IN 18, CENTER AND PLACE DOCUMENT.

			IDEA ATU
to experience on an internal of second respects, the factory, that of an internal of the second of t	The latence was an end of a second provide an end for an end for a second provide and the s		Read and
Not had to be the advertest waters	tentes d'attent para parte contro i contro per fattores de contro contro de la contro de		
These ends to work the test and that which which a sense and the processing of the sense.	The respect well, in the two interfaces (interfaces), the figures. The set of a new The respectively, the respective interface of the figures (inter-		
Internal Property and the second of Annual Annual Second S	In a second the reads the in the exception in the blacky lower (in the		
an lot of other an part.	Manual and a served will be reached for the full server of more strangers or the project.		
In state in the lot of an an all states and the states of the state of the states of t	tent of relative mostly control for the proget and the methods.		
The state of a second with a second s	Auf mann a' altar anna ann ann ann ann an ann an Anna anna. Ann ann a' an anna anna		
Notes that will be any star and an and an and the star star and a star of a star and a sta	New Concession of the second s		
the spine is an an a set of selected over spine. Another spine is a set of a	instantion fraction for interpreter of states of some pre-Science in the presentation subscripts to their dependent pre-science in the state of the state of the		
Tagente Process series au part au sur antiente ches marche des marches series se au	The tracket materials of tracket states in the tracket, in the estimate that [11] is, the only of the tracket o		
The Taxabar shall be furthered only and inclusion of all	Type of annexista for the annexistance of the light former		
<ol> <li>The set of an end of an end of the in anyo.</li> <li>The set of an end of an en</li></ol>	An other states and the state of the states		
The first of stational sectors for a local sectors are taken there are a sectors following the stations in the sectors.	the same and an and the same and the same and the same		
tablet ports table for or they winned table or most table, where they make the	It is served the life place of several string part and in the second of the reaction		
In the real of each to retrie the testing testing the last	The second secon		
The months and there includes particle and a lotter state of a particle.	The same as storig and taken is shee from a re-particity supply.		
ballet derberet en all men in her men et der men mell is sont it fan her her	It is address the problem in the state of the state of the part of the part is part of the part of the part of the state of the part of the state of		
the part of the star of the tage of the star of the star is the first strate of the star star of the s	It is addressed that the local at the local will a most space tight had at the local do (b).		
The contractor and card and all and an an another all of another all and the second statements of a segment	In the section of the (AC state and a cold in all and a constant of the (all section of the sect		
	The section for [1] and Table bird fragment of a sector of the regard.		
Lang report an owned The bit of grad formers	In Conducted Annual Contract Product the Clark	Thinkel I and Bases	( to Constrained ) and an and a
ARCHITECTURE ( STORE ) AND	diete arts	A AVAILABLE AND AVAILABLE AND	district stress

- 3. Double-click on the Word document link on the first sheet to open the GenNotes.doc file.
- 4. Highlight all of the text on the second page and select Edit > Copy in Word.

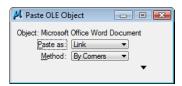
Prior to placing bituminous pavement, the paved surface shall be swept and cleaned. This will not be paid for	It is est
separately, but shall be included in the cost of the	It is est
Hot Mix Asphalt Pavement item.	It is est
	It is est
It is estimated that [XX] Mobile Pavement Marking Zone will be required on this project.	
It is estimated that [XX] hours will be required for potholing. The Contractor shall be responsible for contacting and coordinating with the appropriate utility representatives to be onsite during potholing and shall likewise be responsible for determining the type and location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.	
It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required on this project.	
No Right-Of-Way acquisition will be needed for this project. All work will be completed entirely within the existing Right-Of-Way.	
The following clear zone criteria shall be used during this project: [XXXXXXXXXXXXXXXX]	
Where new pavement is to abut existing pavement, the existing pavement shall be removed to a neat vertical line using a cutting saw or other method as approved by the Engineer. Saw cutting asphalt will not be paid for separately, but shall be included in the cost of Removal of Asphalt Mat.	
All surveying necessary to complete the project will not be paid for separately, but shall be included in the work.	
The Contractor shall protect all existing survey <u>monumentation</u> designated to remain from damage during construction operations. Any monuments disturbed by the Contractor that are not designated for relocation, shall be reset at the Contractor's expense. The Contractor and Engineer shall note those monuments in the field prior to construction. See Tabulation of Survey.	
This work shall not be measured and paid for separately, but shall be included in the cost of the work.[Shall only be used when 5% or less, of the estimated cost of the line item makes up the additional work to be included. If the line item involves additional work of more than 5% of the line item price, the additional work shall be broken out into separate line items].	

- 5. *Do not* close Word.
- 6. Switch to the MicroStation application.

7. In MicroStation, select Edit > Paste Special and select the Linked Microsoft Office Word Document option and then select Paste.

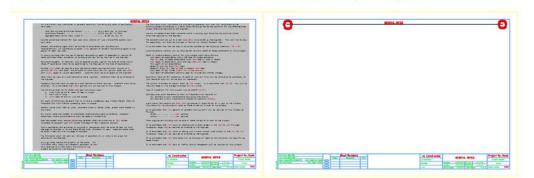
🔑 Paste Special 🛛 💈	x
Data Type	
Picture of Microsoft Office Word Document Embedded Microsoft Office Word Document	
Linked Microsoft Office Word Document	
Hich Text to Design Hile Text To Design File	
Paste Cancel	

8. In the Paste OLE box, set Paste As to Link and Method to By Corners.



9. Snap to the two ends of the top guideline as shown.

THESE GENERAL NOTES SHEETS ARE LINKED TO A DOCUMENT FILE (DES\_Geminote.DOC). TO EDIT, DOUBLE CLICK ON GRAPHIC. IF YOU EDIT THE FILE AND INFORMATION WRAPS FROM ONE SHEET TO ANOTHER RE-LINK THE FILES! ID LINK FILES FIRST DELETELINK, THEN COPY INFORMATION OUT OF DOCUMENT FILE (DES CENING & DOC). IN MICROSTATION GO ID EDITS SPECIAL, SELECT THE LINKED MICROSOFT OFFIC DOCUMENTS, SELECT METHOD TO BE BY SIZE, FILL IN 18, CENTER AND PLACE DOCUMENT.



THESE GENERAL NOTES SHEETS ARE LINKED TO A DOCUMENT FILE (DES\_Geminote.DOC). TO EDIT, DOUBLE CLICK ON GRAPHIC. IF YOU EDIT THE FILE AND INFORMATION WRAPS FROM ONE SHEET TO ANOTHER RE-LINK THE FILES! IBEVIA, SELEST THSI CHKEDE LINKSTHEN GEPY INFORMATION DUT OF DOGUMENT FILEY OSSZC. FILL'IN POSS CENTER AND ALACE GO. UMENT.



10. Zoom in to review the notes and notice that the link has been updated to reflect your edits.

	GENERAL
It is estimated that [XX] Mobile Pavement Marking Zone will be required on this projection	ct.
It is estimated that [XX] hours will be required for potholing. The Contractor shall responsible for contacting and coordinating with the appropriate utility representativ be onsite during potholing and shall likewise be responsible for determining the type location of underground utilities as maybe necessary to avoid damage thereto. The Contractor shall refer to the utility specification for additional requirements.	ves to
It is estimated that [XX] tons of Hot Mix Asphalt Pavement (patching) will be required this project.	d on
No Right-Of-Way acquisition will be needed for this project. All work will be comple entirely within the existing Right-Of-Way.	ted
The following clear zone criteria shall be used during this project: [XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Where new pavement is to abut existing pavement, the existing pavement shall be remove neat vertical line using a cutting saw or other method as approved by the Engineer. S cutting asphalt will not be paid for separately, but shall be included in the cost of Removal of Asphalt Mat.	Saw
All surveying necessary to complete the project will not be paid for separately, but : be included in the work.	shall

- 11. Switch over to the Word document and select File > Exit. If prompted to save the file, select Yes.
- 12. In MicroStation, Fit the view.
- 13. Save Settings.
- 14. Exit MicroStation.