LAB 24 - Land Survey Control Diagram Plan Sheet

Chapter Objectives:

• Import XML data into a MicroStation file

In this sheet, coordinate information will be input in a tabular format.

1. Select File > Open (if MicroStation is currently open).

Look in:	Drawings		- () 🏚 📂 💷 🕈	Õ	S 🖹		3D - V8 DGN	
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		Open as read-only			Optio	ns	Interface:	CDOT	

- 2. **<D>** the filename *12345SURV_PlanLSCD##.dgn*
- 3. Select File > Save As from the MicroStation Manger dialog.
- 4. Key-in 12345SURV_PlanLSCD3B.dgn

5. **<D> Save**

📕 Save As - C:\P	rojects\12345\RO\	V_Survey\Drawings	١						X
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Network	File name: Save as type:	12345SURV_PlanL MicroStation V8 DG	-		•	Save Cance Option	3		

- 6. **Zoom/Window** into the upper-right corner of the sheet.
- 7. Edit the text as shown using Edit Text command.

Land Survey ControlDiagram								
Plan Sheet								
Project Number: STA 086A-039								
Project Location: SH 86 CORRIDOR PE								
Project Location: COUNTY RD. 25 & 27 & 33								
Project Code: Last Mod. Date Subset Sheets Sheet No.								
12345 09-25-09 3 of X.XX 3B								

8. Use the MicroStation Fit command to view the entire sheet.



In this sheet, place coordinate information representing a Project Coordinate Summary Table. This coordinate information will be extracted from InRoads using the reporting utility XML.

Using XML to report on Coordinates

Use InRoads and XML reporting to insert a Project Coordinate Summary Table. Report on points 100-120.

<unnamed> -</unnamed>	1 😤 🚳 🔪	💓 📈 🗶 🐜 🗉		
<u>File Surface Geometry Drainage</u>	Survey Evaluation	<u>M</u> odeler Dr <u>a</u> fting <u>T</u> ools <u>H</u> elp		
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and acomeny mojects	100	Section Corner	T_Section Cor	1558
🗈 🚞 Default	102	Quarter Section Corner	T_Quarter Sect	1558
🖃 🚰 12345_ROW	103	Quarter Section Corner	T_Quarter Sect	1555
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3878_1	:: 106	Quarter Section Corner	T_Quarter Sect	1558
1095_2	107	Quarter Section Corner	T_Quarter Sect	1555
	108	Quarter Section Corner	T_Quarter Sect	1555
Surfaces 📇 Geometry 🔹	<u> </u>			÷.

- 9. If not already running and loaded:
 - Launch InRoads & Load the Geometry Project 12345_ROW.alg from C:\Projects\12345\ROW_Survey\InRoads\Geometry
- 10. Select Tools > XML Reports > Geometry from the InRoads interface.
- 11. In the XML Reports dialog, **<D>** the Geometry folder and identify Cogo points **100-120**

in Geometry Report		- • •
Horizontal Alignments Include: Selected:	Cogo Points Include: 100-120 Selected:	+ Apply Close
Name Description Style	Name Style 100 T_Section Comer 102 T_Quarter Section Co 103 T_Quarter Section Co 104 T_Quarter Section Co 105 T_Section Comer 106 T_Quarter Section Co 107 T_Quarter Section Co	Filter Freferences Help
Include Vertical Alignments Ali Active Include Cant Alignments Ali Active Include Vertical Event Points Include Horizontal Event Points	Interval: 50.00 Limits Station Start: 0+00.00 Stop: 0+00.00	+ +

- 12. **<D> Apply**. The report browser will open to a default report style.
- 13. **<D>** the CDOT Folder.

14. **<D>** the **CDOT_ListCoordinates.xsl** style sheet.

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C:Workspace Workspace CDOT_XM\Standards Global\InReads VMI Bidge Cort CDOT Aline Description xal CDOT A Rights Easement Description xal CDOT Permanent Easement Description xal CDOT Description xal CDOT Description xal CDOT Utily Easement Description xal CDOT Monumertation_Clearance xal CDOT_Monumertation_ListCoordinates xal Clearance Custom Evaluation Ecaluation Ecalu	Pro Descrip File Na	Li ject: 12345_R/ tion: mme: C:\Projec rROW_S	OW ts\12345	ed: 9/25/200 12:32pm Geometry\12		
ICS Intersecting Alignment Stations Idegal Description Ught RallManufacturing MapCheck Obsolete RoadwayDesign Schemas	Cogo Points POINT NAME 100 102	NORTH (ft) 1558457.41 1558430.90	EAST (ft) 3269295.23 3266629.98	ELEV (ft) 6654.37 6654.37	DESCRIPTION Section Corner Quarter Section Corn	er

- 15. Select File > Save As
- 16. Navigate to the 12345\ROW_Survey\InRoads\Reports folder and input the file name 12345_PCST01.xml

Save in:	I Reports			• +	🗈 📸 🎫	
(Ba	Name	Date modif	Туре	Size	Tags	
Recent Places	SBP Lot 1					
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Computer Vetwork	File name:	12345_PCS	T01.xml		<u> </u>	Save
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17. **<D> Save** to save the file.

Excel in MicroStation

Tables can be created in MicroStation by linking information that is contained in an Excel spreadsheet. There are several advantages to using the linked spreadsheet method. Some of these are:

- Text formatting in the spreadsheet is retained by MicroStation
- Graphics (borders, girds, etc) are retained from the Excel file

• Updates to the Excel file are reflected in the MicroStation file

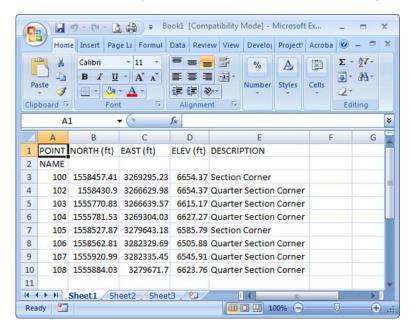
In the Bentley InRoads Report Browser:

18. **<R>** on the report in the coordinate list area as shown. A fly out menu will appear.

:\Workspace\Workspace-CDOT_XM\Standards-Global\InRoads\XMI	_		
CDOT CDOT Are Rights Easement Description xal CDOT Fee Parcel Description xal CDOT Fee Parcel Description xal CDOT Fee Parcel Description xal CDOT Temporary Easement Description xal CDOT Contract Description xal CDOT ListCoordinates xal CDOT_ListCoordinates xal Coarance Custom DataCollection Evaluation Geometry ICS Images CDOT Interval Interval	D	Back: Forward Save Background As Set as Background Copy Background Select All Paste Create Shortcut Add to Favorites View Source Encoding ▶ Print	ates Report d: 9/25/2009 2:39pm ieometry\12345_ROW.alg 0:21 PM
IntersectingAlgrimentStations LegalDescription UghtRalMenufacturing MapCheck Obsolete RoadwayDesign Schemas Stakeout StationOffset	Cogo P N	Print Preview Print Preview Refresh Append to Existing PDF Convert to Adobe PDF Customize Menu Export to Microsoft Excel Fill Forms RoboForm Toolbar Save Forms	ELEV (ft) DESCRIPTION 6654.37 Section Corner 6654.37 Quarter Section Corner

19. Place the cursor over the coordinates (the bottom half of report) and select **Export to Microsoft Excel** from the fly-out menu.

Excel should automatically launch if it is installed on the PC being used.



20. Make changes to the data or add formatting.

	А	В	С	D	E
1		PROJECT (COORDINATE S	UMMARY T	ABLE
2	POINT NAME	PROJECT COO	RDINATES		DESCRIPTION
3		NORTH (ft)	EAST (ft)	ELEV (ft)	DESCRIPTION
4	100	1558457.41	3269295.23	6654.37	Section Corner
5	102	1558430.9	3266629.98	6654.37	Quarter Section Corner
6	103	1555770.83	3266639.57	6615.17	Quarter Section Corner
7	104	1555781.53	3269304.03	6627.27	Quarter Section Corner
8	105	1558527.87	3279643.18	6585.79	Section Corner
9	106	1558562.81	3282329.69	6505.88	Quarter Section Corner
10	107	1555920.99	3282335.45	6545.91	Quarter Section Corner
11	108	1555884.03	3279671.7	6623.76	Quarter Section Corner
12					

21. and save the spreadsheet to the ... \ROW_Survey \InRoads \Reports \ directory.

Save As									×
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Save as type:	Excel 97-2003 Workboo	k (*.:	xls)						•
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2	POINT NAME PROJECT COO		RDINATES		x	Cu <u>t</u>		
3		NORTH (ft)	EAST (ft)	ELE	D	Copy		
4	100	1558457.41	3269295.23	6		Paste		
5	102	1558430.9	3266629.98	6		Paste Special		
6	103	1555770.83	3266639.57	6		Insert		
7	104	1555781.53	3269304.03	6		Delete		
8	105	1558527.87	3279643.18	6		Clear Contents		
9	106	1558562.81	3282329.69	6				
10	107	1555920.99	3282335.45	6		Filt <u>e</u> r		
11	108	1555884.03	3279671.7	6		Sort		
12	← ▶ Sheet1	A	eet3 / 🞾	2		Insert Comment Format Cells		
A	verage. 1209566.5.	25 Count: 47	Sum: 56706852.72			Pick From Drop-down List		

22. Select the range of information to be displayed in the MicroStation file.

23. **<R>** on the spreadsheet data and select **Copy** from the fly-out menu.

RETURN TO MICROSTATION

24. Select **Edit > Paste Special** from the MicroStation menu bar.



- 25. <D> the Linked Microsoft Office Excel 2003 Worksheet option.
- 26. <D> Paste
 - **Note:** By choosing linked, updates made to the Excel file can be passed back to the MicroStation file through updating. Selecting embedded does not provide this dynamic ability.

27. In the Paste OLE dialog box, set Paste as to *Link*, Method to *By Size*, and input a Scale of *10*

📕 Paste OLE Object 🛛 🗖 🔳 🎫	
Object: Microsoft Office Excel 2003 Work Paste as: Link Method: By Size	
 Display as icon Transparent Background Rotate With View Scale: 10.0000 	
Size: (42.917 x 20.937) "	

Note: At this time, we do not fully understand the correlation between the scale and resulting text size. For this example, 10 seemed to produce reasonable results. Once placed, the text height can be measured and the bounding shape of the linked Excel table can be scaled up or down accordingly to achieve required text size.

POINT	NORTH (ft)	EAST (ft)	ELEV (ft)	DESCRIPTION
102	1,558,430.90	3,266,629.98	6,654.37	Control Monument-Project
103	1,555,770.83	3,266,639.57	6,615.17	Control Monument-Project
104	1,555,781.53	3,269,304.03	6,627.27	Control Monument-Project
105	1,558,527.87	3,279,643.18	6,585.79	Control Monument-Project
106	1,558,562.81	3,282,329.69	6,505.88	Control Monument-Project
107	1,555,920.99	3,282,335.45	6,545.91	Control Monument-Project
108	1,555,884.03	3,279,671.70	6,623.76	Control Monument-Project
113	1,556,247.10	3,279,252.22	6,624.10	Traffic Control Double Yellow
117	1,558,514.31	3,277,056.40	-	N 1/4 Cor Section 14
119	1,555,884.03	3,279,671.70	6,585.79	W 1/4 Cor Sec 13
120	1,553,239.97	3,279,699.86	-	SE Cor Section 14

- **Note:** Hatching on the MicroStation representation of the linked Excel data indicates the spreadsheet is currently open for editing.
- 28. Close Excel and note the hatching is eliminated from the display.

Activating the Element Selection tool and entering a <D><D> on the border of the linked table in MicroStation will launch the Excel application. If the Excel file is initialized from MicroStation the linked data will automatically update when the Excel file is saved and closed.

29. Use the MicroStation Element Selection Tool and <D><D> on the border of the linked data.



30. Make an edit to the spreadsheet data or formatting.

POI	NT	NORTH	EAST	ELEV	DESCRIPTION
	102	1,558,430.90	3,266,629.98	6,654.37	Control Monument-Project
	103	1,555,770.83	3,266,639.57	6,615.17	Control Monument-Project
	104	1,555,781.53	3,269,304.03	6,627.27	Control Monument-Project
	105	1,558,527.87	3,279,643.18	6,585.79	Control Monument-Project
	106	1,558,562.81	3,282,329.69	6,505.88	Control Monument-Project
	107	1,555,920.99	3,282,335.45	6,545.91	Control Monument-Project
	108	1,555,884.03	3,279,671.70	6,623.76	Control Monument-Project
	113	1,556,247.10	3,279,252.22	6,624.10	Traffic Control Double Yellow
	117	1,558,514.31	3,277,056.40	N/A	North 1/4 Cor Section 14

31. Save and Close the Excel file. Note the linked data in the MicroStation file updates.

If the linked data is edited by launching the application outside of MicroStation, a manual update command must be executed. Select **Edit** > **Update Links** from the MicroStation menu bar to refresh the linked MicroStation graphics.

The linked data can be moved, scaled, or otherwise manipulated with MicroStation commands by selecting the border of the linked object.