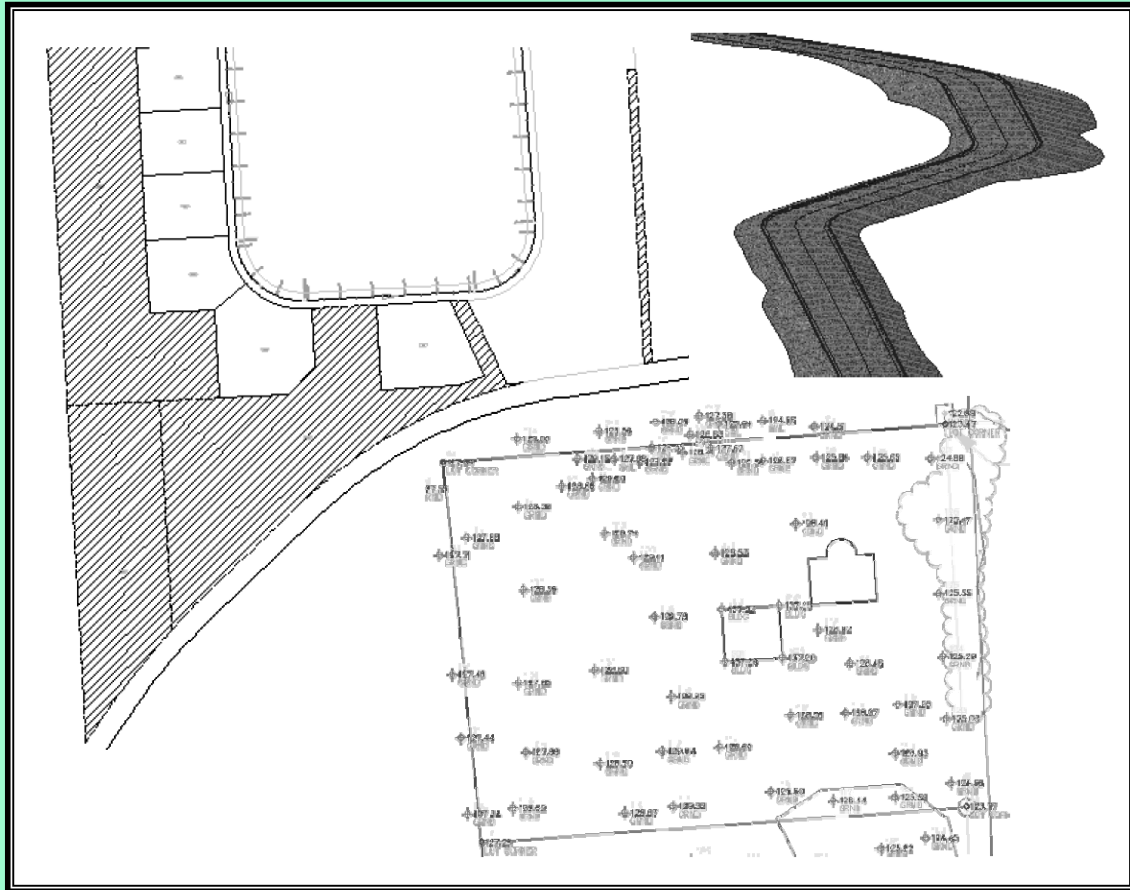


AutoCAD Civil 3D 2010 ESSENTIALS



SDC
PUBLICATIONS

Schroff Development Corporation
www.schroff.com

Better Textbooks. Lower Prices.

Contents

Preface.....	v
Introduction	vii
Module 1: The AutoCAD Civil 3D Interface and Project Structure	1-1
Section 1: The AutoCAD Civil 3D Interface.....	1-2
Product Overview.....	1-3
AutoCAD Civil 3D Workspaces.....	1-4
AutoCAD Civil 3D User Interface.....	1-5
AutoCAD Civil 3D Toolspace	1-9
AutoCAD Civil 3D Panorama.....	1-18
Self Check: The AutoCAD Civil 3D Interface	1-28
Section 2: AutoCAD Civil 3D Projects and Shortcuts	1-29
AutoCAD Civil 3D Projects.....	1-30
Sharing Data.....	1-31
Optional Practices	1-35
Section 3: Vault.....	1-44
Vault Overview	1-45
Using the Vault Client.....	1-48
Self Check: Shortcuts and Vault	1-62
Module 2: Project Startup, Points, and Survey Fieldbooks	2-1
Section 1: Project Startup.....	2-2
Settings and Templates.....	2-3
Creating Project Drawings	2-4
Self Check: Project Setup.....	2-12
Section 2: Survey Fieldbooks, Points, and Point Groups	2-13
Points Overview	2-14
Importing and Exporting Points	2-16
Survey Fieldbooks.....	2-18
Reviewing and Editing Points.....	2-19
Referencing Points	2-21
Creating Points	2-32
Point Groups.....	2-40
Description Key Sets Overview	2-42
Self Check: Points and Point Groups	2-46
Optional Practices	2-47

Module 3: Surfaces	3-1
Section 1: Surface Overview.....	3-2
Surface Process	3-3
Surface Properties	3-9
Breaklines and Boundaries.....	3-15
Contour Data	3-21
Other Surface Data.....	3-25
Surface Analysis Tools.....	3-26
Self Check: Surface Overview	3-42
Section 2: Surface Editing.....	3-43
Surface Editing.....	3-44
Adjusting Surfaces through Surface Properties	3-51
Self Check: Surface Editing	3-59
Section 3: Surface Labels and Analysis.....	3-60
Surface Labels	3-61
Surface Volume Calculations.....	3-63
Surface Analysis Display	3-65
Viewing Surfaces in 3D	3-68
Self Check: Surface Labels and Analysis	3-79
Optional Practices	3-80
Module 4: Alignments and Profiles	4-1
Section 1: Alignments.....	4-2
Roadway Design Overview.....	4-3
AutoCAD Civil 3D Sites.....	4-4
Alignments	4-5
Alignment Properties.....	4-19
Labels and Tables.....	4-21
Self Check: Alignments	4-31
Section 2: Profiles	4-32
Profiles Overview.....	4-33
Create Profiles from Surface.....	4-35
Create Profile View Wizard	4-36
Finished Ground Profiles	4-48
Creating and Editing Profiles	4-49
Self Check: Profiles.....	4-63
Section 3: Productivity Tools.....	4-64
Plan Production Tools	4-65
Self Check: Productivity Tools	4-67
Optional Practices	4-68

Module 5: Assemblies, Corridors, and Sections	5-1
Section 1: Assemblies	5-2
Assembly Overview	5-3
Modifying Assemblies	5-6
Self Check: Assemblies	5-21
Section 2: Corridors	5-22
Creating a Corridor	5-23
Corridor Properties	5-25
Corridor Surfaces	5-49
Corridor Section Review and Edit	5-51
Self Check: Corridors	5-61
Section 3: Sections	5-62
Sample Line Groups	5-63
Section Views	5-70
Section Volume Calculations	5-79
Self Check: Sections	5-90
Module 6: Grading, Pipes, and Production Tools	6-1
Section 1: Grading	6-2
Grading Overview	6-3
Configuring AutoCAD Civil 3D Grading	6-7
Self Check: Grading	6-28
Section 2: Creating Pipe Networks	6-29
AutoCAD Civil 3D Pipes Overview	6-30
Pipes Configuration	6-32
The Network Layout Toolbar	6-40
Creating Networks from Objects	6-42
Self Check: Creating Pipe Networks	6-56
Section 3: Pipe Editing and Annotation	6-57
Network Editing	6-58
Annotating Pipe Networks	6-60
Self Check: Pipe Editing and Annotation	6-67
Section 4: Productivity Tools	6-68
Labeling Features	6-69
Inquiries and Reporting	6-70
Self Check: Productivity Tools	6-79
Optional Practices	6-80
Module 7: Parcels	7-1
Section 1: Parcels Overview	7-2
Introduction to Parcels	7-3
Create Parcels from Objects	7-8
Self Check: Parcels Overview	7-17

Section 2: Subdividing Parcels	7-18
Creating and Editing Parcels by Layout Overview	7-19
Creating and Editing Parcel Techniques	7-22
Self Check: Subdividing Parcels	7-39
Section 3: Parcel Reports, Annotation, and Tables	7-40
Parcel Reports	7-41
Parcel Labels	7-42
Renumbering Parcels.....	7-44
Parcel Tables	7-45
Self Check: Parcel Reports, Annotation, and Tables	7-53
Optional Practices	7-54
Appendix.....	8-1
How to Learn More	8-2
Survey Tab (AutoCAD Civil 3D Toolspace).....	8-3
Index.....	9-1
Index.....	9-3