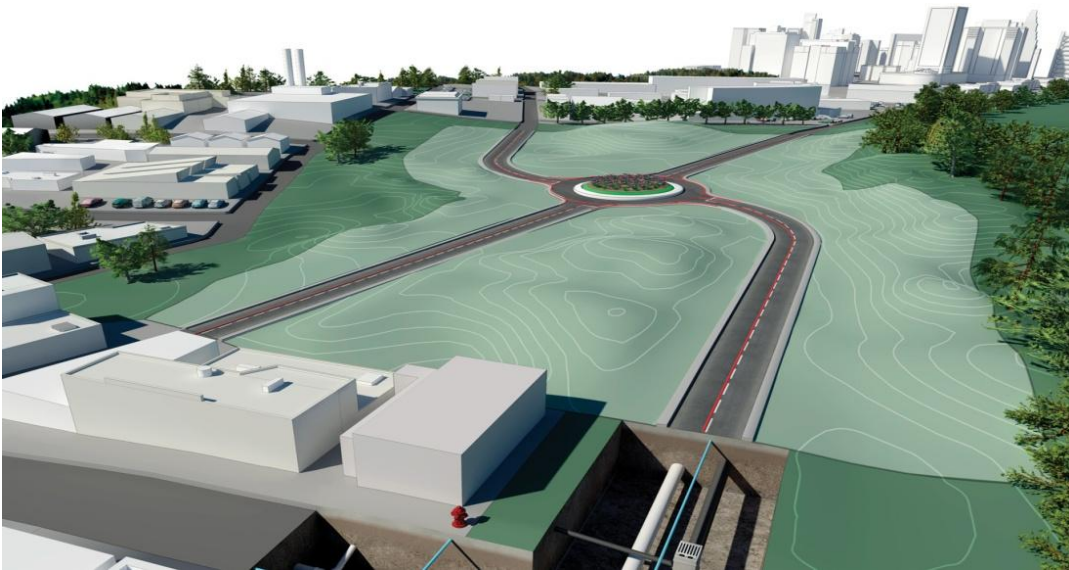


AutoCAD® Civil 3D® 2012

Australia & New Zealand

Country Content



Revision History	Status
27 Feb '11	Draft

Contents

1	Overview.....	3
1.1	Introduction from Author and Creator	3
2	Fonts and Text Styles.....	4
3	Layers.....	5
4	Reports	35
5	Drawing Settings > Object Layers	37
5.1	Ambient Settings	38
6	Object Styles	44
6.1	Multi-purpose Styles.....	44
6.2	Points	82
6.3	Surfaces	166
6.4	Parcels.....	187
6.5	Grading	205
6.6	Alignments.....	209
6.7	Profiles.....	241
6.8	Sections.....	259
6.9	Pipe Networks	268
6.10	Corridors	280
6.11	Plan and Profile Sheets	281
6.12	Survey	Error! Bookmark not defined.
6.13	General - Multipurpose Styles – Shape Styles	282
7	Object Defaults.....	Error! Bookmark not defined.
8	Tool palette(s)	283
8.1	Subassemblies and assemblies	283
9	Pipe and Structure Catalogs	285
10	Highway design check files	318
11	Quantity Take Off	319
11.1	Overview.....	319
11.2	Codes	319
12	Superelevation standards.....	364
13	Intersection feature – Styles, Names and Assembly sets	367

1 Overview

1.1 Introduction from Author and Creator

This document is an overview of the Civil 3D 2012 Country Kit for Australia and New Zealand.

The DWT's are layer based to allow easy customization to specific standards easily, using a minimum number of layers to achieve this. The general styles are based from user feedback and suggestions which is how the Country Kit will continue to grow.

There are 3 Templates with the installation:

- _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt
- _AutoCAD Civil3D 2012 ANZ Survey Alpha Codes_ANZ.dwt
- _AutoCAD Civil3D 2012 ANZ Survey Numeric Codes_ANZ.dwt

The reasons for separating the Survey Templates from the general Design Template is to keep the number of layers down.

We were advised that there should be no more than 250 layers in the generic Design Template and managed to achieve this by going back to basics and reworking the entire DWT's.

2 Fonts and Text Styles

The following 3 fonts are used for the styles. Changing the definition will alter the font in all styles in the template.

Text Style	Description	Font
Civil 3D Standard Text	Used for all styles	ISOCP
Civil 3D Heading Text	Used for Table Headings and Profile Band Headings	ISOCP
Civil 3D Title Text	Used for all Titles	ISOCP

3 Layers

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

<i>Layer Name</i>	<i>Colour</i>	<i>Linetype</i>
0	7	Continuous
0_constructionTriangle	8	Continuous
0_island	2	Continuous
0_islandOffset	2	Continuous
0_markings	253	Continuous
0_trafficSigns	1	Continuous
BORDER	1	Continuous
C_POINTS_2D-BB-(Bottom of Bank)-PT	1	Continuous
C_POINTS_2D-BB-(Bottom of Bank)-TXT	1	Continuous
C_POINTS_2D-BK-(Back of Kerb)-PT	1	Continuous
C_POINTS_2D-BK-(Back of Kerb)-TXT	1	Continuous
C_POINTS_2D-CL-(Centreline)-PT	1	Continuous
C_POINTS_2D-CL-(Centreline)-TXT	1	Continuous
C_POINTS_2D-EB-(Electricity Box)-PT	1	Continuous
C_POINTS_2D-EB-(Electricity Box)-TXT	1	Continuous
C_POINTS_2D-TB-(Top of Bank)-PT	1	Continuous
C_POINTS_2D-TB-(Top of Bank)-TXT	1	Continuous
C_POINTS_2D-TK-(Top Kerb)-PT	1	Continuous
C_POINTS_2D-TK-(Top Kerb)-TXT	1	Continuous
C_POINTS_3D-PT	1	Continuous
C_POINTS_3D-TXT	1	Continuous
C-ALIGNMENT_Design	130	Continuous
C-ALIGNMENT_Pipe CL	8	Continuous
C-ALIGNMENT_Plotting_Kerb>Returns	52	Continuous
C-ALIGNMENT_Plotting_Main Strings	93	CENTER
C-ALIGNMENT_Plotting_Offset Strings	130	Continuous
C-ALIGNMENTS	7	Continuous
C-ASSEMBLIES	7	Continuous
C-ASSEMBLIES_Points	7	Continuous
C-BUILDINGSITES	7	Continuous
C-BUILDINGSITES_Building Footprint	2	Continuous
C-BUILDINGSITES_Building Model	4	Continuous
C-BUILDINGSITES_Building Utilities	6	Continuous
C-BUILDINGSITES_Property Lines	9	Continuous
C-BUILDINGSITES_Site Model	3	Continuous
C-CORRIDORS	7	Continuous

C-CORRIDORS_Transparent 50	7	Continuous
C-CORRIDORS_Transparent 80	7	Continuous
C-FEATURELINES_Edge of Paved Shoulder	4	Continuous
C-FEATURELINES_General	52	Continuous
C-FEATURELINES_Grading	102	Continuous
C-FEATURELINES_Rd_(Top)_Crown	55	Continuous
C-FEATURELINES_Rd_(Top)_Daylight - (Bottom of Batter)	2	Continuous
C-FEATURELINES_Rd_(Top)_Daylight - (Top of Batter)	73	Continuous
C-FEATURELINES_Rd_(Top)_Ditch	86	Continuous
C-FEATURELINES_Rd_(Top)_Edge of Bitumen	130	Continuous
C-FEATURELINES_Rd_(Top)_Footpath	1	Continuous
C-FEATURELINES_Rd_(Top)_Kerb (Back of Kerb)	22	Continuous
C-FEATURELINES_Rd_(Top)_Kerb (Invert of Kerb)	93	Continuous
C-FEATURELINES_Rd_(Top)_Kerb (Top of Kerb)	130	Continuous
C-FEATURELINES_Rd_Bottom of Batter (Daylight)	6	Continuous
C-FEATURELINES_RD_Extracted From Corridor	132	Continuous
C-FEATURELINES_Rd_STRING (from marked Point)	224	Continuous
C-FEATURELINES_Rd_String from GENERIC LINK	4	Continuous
C-FEATURELINES_Rd_Sub_Base	44	DASHED
C-FEATURELINES_Rd_Sub_Pave1	44	DASHED
C-FEATURELINES_Rd_Sub_Pave2	12	DASHED
C-FEATURELINES_Rd_Sub_SubBase	132	Continuous
C-GRADING_CUT	1	Continuous
C-GRADING_Fill	5	Continuous
C-GRADING_Offset	52	Continuous
C-INTERSECTIONS	7	Continuous
C-LABELS	7	Continuous
C-LABELS_Alignment_CH_and_Offset	7	Continuous
C-LABELS_Alignment_Chainages etc	7	Continuous
C-LABELS_Alignment_General	7	Continuous
C-LABELS_Parcels	7	Continuous
C-LABELS_Pipe	1	Continuous
C-LABELS_Points (Cogo POINTS)	7	Continuous
C-LABELS_Profile	3	Continuous
C-LABELS_Section	7	Continuous
C-LABELS_Section_Chainages	54	Continuous
C-LABELS_Surfaces	3	Continuous
C-LABELS_Surfaces_Contour_Major	1	Continuous
C-LABELS_Surfaces_Contour_Minor	1	Continuous
C-LABELS_Surfaces_Tick_Marks	4	Continuous
C-LINKS_(2D and 3D) Corr_Top	132	Continuous

C-LINKS_(2D and 3D)Corr_Pave	132	Continuous
C-LINKS_(3D) Corr_Datum	132	DASHED
C-LINKS_(3D) Corr_SubStrata_Pave2	12	DASHED
C-LINKS_Corr_General	132	Continuous
C-LINKS_Corr_NO CODES	132	Continuous
C-LINKS_Corr_SubStrata (3D)	44	DASHED
C-LINKS_Cross Section Plotting (General)	155	Continuous
C-LINKS_Cross Section Plotting (TOP)	1	Continuous
C-LINKS_Subassembly	142	Continuous
C-LOTS_Fill	74	Continuous
C-LOTS_Segments	82	Continuous
C-MARKERS	7	Continuous
C-MARKERS_Alignment	2	Continuous
C-MARKERS_Alignment (Offsets)	6	Continuous
C-MARKERS_Profile	7	Continuous
C-MARKERS_Standard	6	Continuous
C-MARKER-Subassembly	6	Continuous
C-MASSHAUL	7	Continuous
C-MASSHAUL_Free Haul hatch	8	Continuous
C-MASSHAUL_Free Haul Line	7	Continuous
C-MASSHAUL_Line	1	Continuous
C-MASSHAUL_Overhaul Hatch	1	Continuous
C-MASSHAULV_Grid Major	7	Continuous
C-MASSHAULV_Grid Minor	7	Continuous
C-MASSHAULVIEWS_Grid at Sample Lines	7	Continuous
C-MASSHAULVIEWS_Linework	7	Continuous
C-MASSHAULVIEWS_Text	7	Continuous
C-MASSHAULVIEWS_Ticks	7	Continuous
C-MASSHAULVIEWS-HGP	5	Continuous
C-PARCELS	7	Continuous
C-PIPE_Interference Clash Detection	7	Continuous
C-PIPE-LABL	150	Continuous
C-PIPENETWORK_(PIPE - Crossing) Profile Wall (Hatch)	8	Continuous
C-PIPENETWORK_(PIPE - Crossing) Profile Wall (Inside)	8	DASHED
C-PIPENETWORK_(PIPE - Crossing) Profile Wall (Outside)	8	DASHED
C-PIPENETWORK_(PIPE) Model 3D Solid	52	Continuous
C-PIPENETWORK_(PIPE) Plan Centreline	8	Continuous
C-PIPENETWORK_(PIPE) Plan End Line	92	Continuous
C-PIPENETWORK_(PIPE) Plan Hatch	92	Continuous

C-PIPENETWORK_(PIPE) Plan SERVICES EXISTING	8	Continuous
C-PIPENETWORK_(PIPE) Plan Wall (Inside)	92	Continuous
C-PIPENETWORK_(PIPE) Plan Wall (Outside)	92	Continuous
C-PIPENETWORK_(PIPE) Profile Centreline	142	Continuous
C-PIPENETWORK_(PIPE) Profile Design EGL	3	Continuous
C-PIPENETWORK_(PIPE) Profile Design HGL	2	Continuous
C-PIPENETWORK_(PIPE) Profile End Line	142	Continuous
C-PIPENETWORK_(PIPE) Profile Hatch	8	Continuous
C-PIPENETWORK_(PIPE) Profile SERVICES CROSSING	8	DASHED
C-PIPENETWORK_(PIPE) Profile Wall (Inside)	142	Continuous
C-PIPENETWORK_(PIPE) Profile Wall (Outside)	142	Continuous
C-PIPENETWORK_(PIPE) Section Hatch	52	Continuous
C-PIPENETWORK_(PIPE) Section SERVICES CROSSING	8	Continuous
C-PIPENETWORK_(PIPE) Section Wall (Inside)	8	Continuous
C-PIPENETWORK_(PIPE) Section Wall (Outside)	8	Continuous
C-PIPENETWORK_(PIT) Model 3D Solid	52	Continuous
C-PIPENETWORK_(PIT) Plan Structure	22	Continuous
C-PIPENETWORK_(PIT) Plan Structure Hatch	22	Continuous
C-PIPENETWORK_(PIT) Profile Structure	8	Continuous
C-PIPENETWORK_(PIT) Profile Structure Hatch	8	Continuous
C-PIPENETWORK_(PIT) Profile Structure Pipe Outlines	8	Continuous
C-PIPENETWORK_(PIT) Section Structure	144	Continuous
C-PIPENETWORK_(PIT) Section Structure Hatch	144	Continuous
C-PIPENETWORK_(PIT) Section Structure Pipe Outlines	8	Continuous
C-PIPENETWORK-STRC_Model 3D Solid	5	Continuous
C-PIPENETWORK-STRC_Plan Structure	150	Continuous
C-PIPENETWORK-STRC_Plan Structure Hatch	9	Continuous
C-PIPENETWORK-STRC_Profile Structure	150	Continuous
C-PIPENETWORK-STRC_Profile Structure Hatch	9	Continuous
C-PIPENETWORK-STRC_Profile Structure Outline	150	Continuous
C-PIPENETWORK-STRC_Section Structure	150	Continuous
C-PIPENETWORK-STRC_Section Structure Hatch	9	Continuous
C-PIPENETWORK-STRC_Section Structure Outline	9	Continuous
C-PIPES	7	Continuous
C-POINTCLOUDS	7	Continuous
C-POINTCLOUDS_Lidar_Class_Building	12	Continuous
C-POINTCLOUDS_Lidar_Class_Ground	44	Continuous
C-POINTCLOUDS_Lidar_Class_Mass Points	249	Continuous
C-POINTCLOUDS_Lidar_Class_Vegetation (High)	82	Continuous
C-POINTCLOUDS_Lidar_Class_Vegetation (Low)	62	Continuous
C-POINTCLOUDS_Lidar_Class_Vegetation (Medium)	72	Continuous

C-PROFILES	7	Continuous
C-PROFILES_3D_Design	84	Continuous
C-PROFILES_3D_Existing	84	Continuous
C-PROFILES_Design (Conceptual)	7	Continuous
C-PROFILES_Design (plotting)	1	Continuous
C-PROFILES_Design (Ref Planes 1%)	1	Continuous
C-PROFILES_Design (Ref Planes 2%)	2	Continuous
C-PROFILES_Design (Ref Planes 3%)	3	Continuous
C-PROFILES_Design (Ref Planes 4%)	4	Continuous
C-PROFILES_Design (Ref Planes 5%)	5	Continuous
C-PROFILES_Design (Superimposed)	22	Continuous
C-PROFILES_FeatureLines_RD	7	Continuous
C-PROFILES_Hatching - General	94	Continuous
C-PROFILES_Hatching - Cut Solid	1	Continuous
C-PROFILES_Hatching - Fill Solid	5	Continuous
C-PROFILES_Surfaces_Additional_01	132	Continuous
C-PROFILES_Surfaces_Additional_02	214	Continuous
C-PROFILES_Surfaces_Existing	84	HIDDEN
C-PROFILES_Surfaces_Rock	122	Continuous
C-PROFILEVIEW_Linework (vert geom bands)	14	Continuous
C-PROFILEVIEW_Superelevation_Left Inside Lane	4	Continuous
C-PROFILEVIEW_Superelevation_Left Inside Shoulder	3	Continuous
C-PROFILEVIEW_Superelevation_Left Outside Lane	5	Continuous
C-PROFILEVIEW_Superelevation_Left Outside Shoulder	6	Continuous
C-PROFILEVIEW_Superelevation_Reference Line	8	Continuous
C-PROFILEVIEW_Superelevation_Right Inside Lane	4	Continuous
C-PROFILEVIEW_Superelevation_Right Inside Shoulder	3	Continuous
C-PROFILEVIEW_Superelevation_Right Outside Lane	5	Continuous
C-PROFILEVIEW_Superelevation_Right Outside Shoulder	6	Continuous
C-PROFILEVIEW_Text (General)	3	Continuous
C-PROFILEVIEW_Text (Headings)	7	Continuous
C-PROFILEVIEW_Text (Main Heading)	4	Continuous
C-PROFILEVIEW-Grid	8	Continuous
C-PROFILEVIEWS	7	Continuous
C-PROJECTEDOBJECTS	7	Continuous
C-PROJECTEDOBJECTS_Cross Sections	4	Continuous
C-QTO_Hatch	54	Continuous
C-SAMPLELINES	7	Continuous
C-SECTION_Sample Lines	54	Continuous

C-SECTIONS	7	Continuous
C-SECTIONS_Points	7	Continuous
C-SECTIONS_Surfaces_Additional_01	132	Continuous
C-SECTIONS_Surfaces_Additional_02	54	Continuous
C-SECTIONS_Surfaces_Design	22	Continuous
C-SECTIONS_Surfaces_Existing Ground	84	HIDDEN
C-SECTIONS_Surfaces_Rock	214	Continuous
C-SECTIONVIEWGROUP	92	Continuous
C-SECTIONVIEWS	7	Continuous
C-SECTIONVIEWS_Grid	8	Continuous
C-SECTIONVIEWS_Grid Sample Line Vertices	8	Continuous
C-SECTIONVIEWS_Ordinate Lines (Vertical)	8	Continuous
C-SECTIONVIEWS_Text (Band Entries)	3	Continuous
C-SECTIONVIEWS_Text (Titles)	7	Continuous
C-SHAPES_Corridor Plan (pattern)	8	Continuous
C-SHAPES_Corridor Plan (Solid) - Daylight Area	82	Continuous
C-SHAPES_Corridor Plan (Solid) - Footpath Area	8	Continuous
C-SHAPES_Corridor Plan (Solid) - Kerbed Area	12	Continuous
C-SHAPES_Corridor Plan (Solid) - Paved Area	133	Continuous
C-SHAPES_Subassembly	3	Continuous
C-SUBASSEMBLIES	7	Continuous
C-SUPERELEVATION_Graph	7	Continuous
C-SURFACE_Border	1	Continuous
C-SURFACE_Contour_Major	22	Continuous
C-SURFACE_Contour_Minor	54	Continuous
C-SURFACE_Contour_User	1	Continuous
C-SURFACE_Grid	1	Continuous
C-SURFACE_Nodes	1	Continuous
C-SURFACE_Section View	24	Continuous
C-SURFACE_Triangles	8	Continuous
C-SURFACE_Watersheds	1	Continuous
C-SURFACES	7	Continuous
C-SURVEY	7	Continuous
C-SURVEY_Figures	7	Continuous
C-SURVEY_Figures-BB-(Bottom of Bank)-STRING	1	Continuous
C-SURVEY_Figures-BK-(Back of Kerb)-STRING	1	Continuous
C-SURVEY_Figures-CL-(Centreline)-STRING	1	Continuous
C-SURVEY_Figures-EB-(Electricity Box)-STRING	1	Continuous
C-SURVEY_Figures-TB-(Top of Bank)-STRING	5	Continuous
C-SURVEY_Figures-TK-(Top Kerb)-STRING	1	Continuous
C-TABLES	7	Continuous

C-TABLES_Fill	7	Continuous
C-TABLES_Linework	8	Continuous
C-TABLES_Text	3	Continuous
C-VIEWFRAMES	7	Continuous
Defpoints	7	Continuous
PANNEAUX	7	Continuous
SHET-TITLE-TXT	7	Continuous

Additional Layers in the Alpha Survey Template:

<i>Layer Name</i>	<i>Description</i>
C_POINTS_2D-AG-(Artificial Grass)-PT	Artificial Grass - Cogo Point
C_POINTS_2D-AG-(Artificial Grass)-TXT	Artificial Grass - Point Label
C_POINTS_2D-AWN-(Awning)-PT	Awning - Cogo Point
C_POINTS_2D-AWN-(Awning)-TXT	Awning - Point Label
C_POINTS_2D-BA-(Barked Area)-PT	Barked Area - Cogo Point
C_POINTS_2D-BA-(Barked Area)-TXT	Barked Area - Point Label
C_POINTS_2D-BB-(Bottom of Bank)-PT	Bottom of Bank - Cogo Point
C_POINTS_2D-BB-(Bottom of Bank)-TXT	Bottom of Bank - Point Label
C_POINTS_2D-BBQ-(BBQ)-PT	BBQ - Cogo Point
C_POINTS_2D-BBQ-(BBQ)-TXT	BBQ - Point Label
C_POINTS_2D-BC-(Bottom Cutting)-PT	Bottom Cutting - Cogo Point
C_POINTS_2D-BC-(Bottom Cutting)-TXT	Bottom Cutting - Point Label
C_POINTS_2D-BD-(Bridge Deck)-PT	Bridge Deck - Cogo Point
C_POINTS_2D-BD-(Bridge Deck)-TXT	Bridge Deck - Point Label
C_POINTS_2D-BDA-(Broad Arrow)-PT	Broad Arrow - Cogo Point
C_POINTS_2D-BDA-(Broad Arrow)-TXT	Broad Arrow - Point Label
C_POINTS_2D-BDY-(Boundary)-PT	Boundary - Cogo Point
C_POINTS_2D-BDY-(Boundary)-TXT	Boundary - Point Label
C_POINTS_2D-BE-(Easement Line)-PT	Easement Line - Cogo Point
C_POINTS_2D-BE-(Easement Line)-TXT	Easement Line - Point Label
C_POINTS_2D-BG-(Boom Gate)-PT	Boom Gate - Cogo Point
C_POINTS_2D-BG-(Boom Gate)-TXT	Boom Gate - Point Label
C_POINTS_2D-BIN-(Bin)-PT	Bin - Cogo Point
C_POINTS_2D-BIN-(Bin)-TXT	Bin - Point Label
C_POINTS_2D-BK-(Back of Kerb)-PT	Back of Kerb - Cogo Point
C_POINTS_2D-BK-(Back of Kerb)-TXT	Back of Kerb - Point Label
C_POINTS_2D-BL-(Broken Paint Line)-PT	Broken Paint Line - Cogo Point
C_POINTS_2D-BL-(Broken Paint Line)-TXT	Broken Paint Line - Point Label
C_POINTS_2D-BLT-(Bolt)-PT	Bolt - Cogo Point
C_POINTS_2D-BLT-(Bolt)-TXT	Bolt - Point Label

C_POINTS_2D-BM-(Benchmark)-PT	Benchmark - Cogo Point
C_POINTS_2D-BM-(Benchmark)-TXT	Benchmark - Point Label
C_POINTS_2D-BOL-(Bollard)-PT	Bollard - Cogo Point
C_POINTS_2D-BOL-(Bollard)-TXT	Bollard - Point Label
C_POINTS_2D-Bore-(Bore Hole)-PT	Bore Hole - Cogo Point
C_POINTS_2D-Bore-(Bore Hole)-TXT	Bore Hole - Point Label
C_POINTS_2D-BS-(Backsight)-PT	Backsight - Cogo Point
C_POINTS_2D-BS-(Backsight)-TXT	Backsight - Point Label
C_POINTS_2D-BSH-(Bush)-PT	Bush - Cogo Point
C_POINTS_2D-BSH-(Bush)-TXT	Bush - Point Label
C_POINTS_2D-BU-(Building)-PT	Building - Cogo Point
C_POINTS_2D-BU-(Building)-TXT	Building - Point Label
C_POINTS_2D-BUS-(Bus Shelter)-PT	Bus Shelter - Cogo Point
C_POINTS_2D-BUS-(Bus Shelter)-TXT	Bus Shelter - Point Label
C_POINTS_2D-BW-(Bottom of Wall)-PT	Bottom of Wall - Cogo Point
C_POINTS_2D-BW-(Bottom of Wall)-TXT	Bottom of Wall - Point Label
C_POINTS_2D-C-(Concrete)-PT	Concrete - Cogo Point
C_POINTS_2D-C-(Concrete)-TXT	Concrete - Point Label
C_POINTS_2D-CAM-(Security Camera)-PT	Security Camera - Cogo Point
C_POINTS_2D-CAM-(Security Camera)-TXT	Security Camera - Point Label
C_POINTS_2D-CB-(Concrete Block)-PT	Concrete Block - Cogo Point
C_POINTS_2D-CB-(Concrete Block)-TXT	Concrete Block - Point Label
C_POINTS_2D-CC-(Concrete Converter)-PT	Concrete Converter - Cogo Point
C_POINTS_2D-CC-(Concrete Converter)-TXT	Concrete Converter - Point Label
C_POINTS_2D-CL-(Centreline)-PT	Centreline - Cogo Point
C_POINTS_2D-CL-(Centreline)-TXT	Centreline - Point Label
C_POINTS_2D-CP-(Control Point)-PT	Control Point - Cogo Point
C_POINTS_2D-CP-(Control Point)-TXT	Control Point - Point Label
C_POINTS_2D-CR-(Crown Road)-PT	Crown Road - Cogo Point
C_POINTS_2D-CR-(Crown Road)-TXT	Crown Road - Point Label
C_POINTS_2D-CROSS-(Point Cross)-PT	Point Cross - Cogo Point
C_POINTS_2D-CROSS-(Point Cross)-TXT	Point Cross - Point Label
C_POINTS_2D-CULV-(Culvert)-PT	Culvert - Cogo Point
C_POINTS_2D-CULV-(Culvert)-TXT	Culvert - Point Label
C_POINTS_2D-D-(Driveway)-PT	Driveway - Cogo Point
C_POINTS_2D-D-(Driveway)-TXT	Driveway - Point Label
C_POINTS_2D-DD-(Dish Drain)-PT	Dish Drain - Cogo Point
C_POINTS_2D-DD-(Dish Drain)-TXT	Dish Drain - Point Label
C_POINTS_2D-DH-(Drill Hole)-PT	Drill Hole - Cogo Point
C_POINTS_2D-DH-(Drill Hole)-TXT	Drill Hole - Point Label
C_POINTS_2D-DHW-(Drill Hole & Wing)-PT	Drill Hole & Wing - Cogo Point

C_POINTS_2D-DHW-(Drill Hole & Wing)-TXT	Drill Hole & Wing - Point Label
C_POINTS_2D-DJP-(Drain Junction Pit)-PT	Drain Junction Pit - Cogo Point
C_POINTS_2D-DJP-(Drain Junction Pit)-TXT	Drain Junction Pit - Point Label
C_POINTS_2D-DL-(Double Line)-PT	Double Line - Cogo Point
C_POINTS_2D-DL-(Double Line)-TXT	Double Line - Point Label
C_POINTS_2D-DP-(Drain Down Pipe)-PT	Drain Down Pipe - Cogo Point
C_POINTS_2D-DP-(Drain Down Pipe)-TXT	Drain Down Pipe - Point Label
C_POINTS_2D-DPY-(Dumpy)-PT	Dumpy - Cogo Point
C_POINTS_2D-DPY-(Dumpy)-TXT	Dumpy - Point Label
C_POINTS_2D-DR-(Drain)-PT	Drain - Cogo Point
C_POINTS_2D-DR-(Drain)-TXT	Drain - Point Label
C_POINTS_2D-EB-(Electricity Box)-PT	Electricity Box - Cogo Point
C_POINTS_2D-EB-(Electricity Box)-TXT	Electricity Box - Point Label
C_POINTS_2D-ECM-(Elect Cable Marker)-PT	Elect Cable Marker - Cogo Point
C_POINTS_2D-ECM-(Elect Cable Marker)-TXT	Elect Cable Marker - Point Label
C_POINTS_2D-EF-(Edge of Formation)-PT	Edge of Formation - Cogo Point
C_POINTS_2D-EF-(Edge of Formation)-TXT	Edge of Formation - Point Label
C_POINTS_2D-EG-(Edge of Garden)-PT	Edge of Garden - Cogo Point
C_POINTS_2D-EG-(Edge of Garden)-TXT	Edge of Garden - Point Label
C_POINTS_2D-EM-(Edge of Median)-PT	Edge of Median - Cogo Point
C_POINTS_2D-EM-(Edge of Median)-TXT	Edge of Median - Point Label
C_POINTS_2D-EP-(Edge of Pavement)-PT	Edge of Pavement - Cogo Point
C_POINTS_2D-EP-(Edge of Pavement)-TXT	Edge of Pavement - Point Label
C_POINTS_2D-EPG-(Edge of Playground)-PT	Edge of Playground - Cogo Point
C_POINTS_2D-EPG-(Edge of Playground)-TXT	Edge of Playground - Point Label
C_POINTS_2D-EPIL-(Electricity Pillar)-PT	Electricity Pillar - Cogo Point
C_POINTS_2D-EPIL-(Electricity Pillar)-TXT	Electricity Pillar - Point Label
C_POINTS_2D-EPL-(Electricity Pylon Leg)-PT	Electricity Pylon Leg - Cogo Point
C_POINTS_2D-EPL-(Electricity Pylon Leg)-TXT	Electricity Pylon Leg - Point Label
C_POINTS_2D-EPT-(Electricity Pit)-PT	Electricity Pit - Cogo Point
C_POINTS_2D-EPT-(Electricity Pit)-TXT	Electricity Pit - Point Label
C_POINTS_2D-ES-(Edge of Seal)-PT	Edge of Seal - Cogo Point
C_POINTS_2D-ES-(Edge of Seal)-TXT	Edge of Seal - Point Label
C_POINTS_2D-ET-(Edge of Track)-PT	Edge of Track - Cogo Point
C_POINTS_2D-ET-(Edge of Track)-TXT	Edge of Track - Point Label
C_POINTS_2D-ETC-(Elect Transformer Cabinet)-PT	Elect Transformer Cabinet - Cogo Point
C_POINTS_2D-ETC-(Elect Transformer Cabinet)-TXT	Elect Transformer Cabinet - Point Label
C_POINTS_2D-ETR-(Edge of Trees)-PT	Edge of Trees - Cogo Point
C_POINTS_2D-ETR-(Edge of Trees)-TXT	Edge of Trees - Point Label
C_POINTS_2D-EUR-(Edge Unsealed Road)-PT	Edge Unsealed Road - Cogo Point
C_POINTS_2D-EUR-(Edge Unsealed Road)-TXT	Edge Unsealed Road - Point Label

C_POINTS_2D-F-(Fence)-PT	Fence - Cogo Point
C_POINTS_2D-F-(Fence)-TXT	Fence - Point Label
C_POINTS_2D-FB-(Fuse Box)-PT	Fuse Box - Cogo Point
C_POINTS_2D-FB-(Fuse Box)-TXT	Fuse Box - Point Label
C_POINTS_2D-FHD-(Fire Hydrant)-PT	Fire Hydrant - Cogo Point
C_POINTS_2D-FHD-(Fire Hydrant)-TXT	Fire Hydrant - Point Label
C_POINTS_2D-FL-(Fence Line)-PT	Fence Line - Cogo Point
C_POINTS_2D-FL-(Fence Line)-TXT	Fence Line - Point Label
C_POINTS_2D-FLR-(Floor Level)-PT	Floor Level - Cogo Point
C_POINTS_2D-FLR-(Floor Level)-TXT	Floor Level - Point Label
C_POINTS_2D-FP-(Footpath)-PT	Footpath - Cogo Point
C_POINTS_2D-FP-(Footpath)-TXT	Footpath - Point Label
C_POINTS_2D-FPIT-(Flusher Pit)-PT	Flusher Pit - Cogo Point
C_POINTS_2D-FPIT-(Flusher Pit)-TXT	Flusher Pit - Point Label
C_POINTS_2D-FPL-(Full Paint Line)-PT	Full Paint Line - Cogo Point
C_POINTS_2D-FPL-(Full Paint Line)-TXT	Full Paint Line - Point Label
C_POINTS_2D-FPLUG-(Fire Plug)-PT	Fire Plug - Cogo Point
C_POINTS_2D-FPLUG-(Fire Plug)-TXT	Fire Plug - Point Label
C_POINTS_2D-G-(Gutter)-PT	Gutter - Cogo Point
C_POINTS_2D-G-(Gutter)-TXT	Gutter - Point Label
C_POINTS_2D-GAS-(Gas Manhole)-PT	Gas Manhole - Cogo Point
C_POINTS_2D-GAS-(Gas Manhole)-TXT	Gas Manhole - Point Label
C_POINTS_2D-GATE-(Gate)-PT	Gate - Cogo Point
C_POINTS_2D-GATE-(Gate)-TXT	Gate - Point Label
C_POINTS_2D-GIN-(Gal Iron Nail)-PT	Gal Iron Nail - Cogo Point
C_POINTS_2D-GIN-(Gal Iron Nail)-TXT	Gal Iron Nail - Point Label
C_POINTS_2D-GIP-(GIPIPE)-PT	GIPIPE - Cogo Point
C_POINTS_2D-GIP-(GIPIPE)-TXT	GIPIPE - Point Label
C_POINTS_2D-GMP-(Gas Marker Post)-PT	Gas Marker Post - Cogo Point
C_POINTS_2D-GMP-(Gas Marker Post)-TXT	Gas Marker Post - Point Label
C_POINTS_2D-GP-(Guide Post)-PT	Guide Post - Cogo Point
C_POINTS_2D-GP-(Guide Post)-TXT	Guide Post - Point Label
C_POINTS_2D-GR-(Guard Rail)-PT	Guard Rail - Cogo Point
C_POINTS_2D-GR-(Guard Rail)-TXT	Guard Rail - Point Label
C_POINTS_2D-GRAV-(Gravel)-PT	Gravel - Cogo Point
C_POINTS_2D-GRAV-(Gravel)-TXT	Gravel - Point Label
C_POINTS_2D-GRID-(Cattle Grid)-PT	Cattle Grid - Cogo Point
C_POINTS_2D-GRID-(Cattle Grid)-TXT	Cattle Grid - Point Label
C_POINTS_2D-GUL-(Gully Pit)-PT	Gully Pit - Cogo Point
C_POINTS_2D-GUL-(Gully Pit)-TXT	Gully Pit - Point Label
C_POINTS_2D-GV-(Gas Valve)-PT	Gas Valve - Cogo Point

C_POINTS_2D-GV-(Gas Valve)-TXT	Gas Valve - Point Label
C_POINTS_2D-HW-(Headwall)-PT	Headwall - Cogo Point
C_POINTS_2D-HW-(Headwall)-TXT	Headwall - Point Label
C_POINTS_2D-HWB-(Bottom of Headwall)-PT	Bottom of Headwall - Cogo Point
C_POINTS_2D-HWB-(Bottom of Headwall)-TXT	Bottom of Headwall - Point Label
C_POINTS_2D-HWT-(Top of Headwall)-PT	Top of Headwall - Cogo Point
C_POINTS_2D-HWT-(Top of Headwall)-TXT	Top of Headwall - Point Label
C_POINTS_2D-INV-(Invert of Pipe)-PT	Invert of Pipe - Cogo Point
C_POINTS_2D-INV-(Invert of Pipe)-TXT	Invert of Pipe - Point Label
C_POINTS_2D-JBX-(Junction Box)-PT	Junction Box - Cogo Point
C_POINTS_2D-JBX-(Junction Box)-TXT	Junction Box - Point Label
C_POINTS_2D-K-(Top of Kerb)-PT	Top of Kerb - Cogo Point
C_POINTS_2D-K-(Top of Kerb)-TXT	Top of Kerb - Point Label
C_POINTS_2D-KI-(Kerb Inlet)-PT	Kerb Inlet - Cogo Point
C_POINTS_2D-KI-(Kerb Inlet)-TXT	Kerb Inlet - Point Label
C_POINTS_2D-KL-(Kerb Lintel)-PT	Kerb Lintel - Cogo Point
C_POINTS_2D-KL-(Kerb Lintel)-TXT	Kerb Lintel - Point Label
C_POINTS_2D-KP-(Kilometer Post)-PT	Kilometer Post - Cogo Point
C_POINTS_2D-KP-(Kilometer Post)-TXT	Kilometer Post - Point Label
C_POINTS_2D-L-(Lip)-PT	Lip - Cogo Point
C_POINTS_2D-L-(Lip)-TXT	Lip - Point Label
C_POINTS_2D-LB-(Log Barrier)-PT	Log Barrier - Cogo Point
C_POINTS_2D-LB-(Log Barrier)-TXT	Log Barrier - Point Label
C_POINTS_2D-LPL-(Light Pole)-PT	Light Pole - Cogo Point
C_POINTS_2D-LPL-(Light Pole)-TXT	Light Pole - Point Label
C_POINTS_2D-MB-(Letter Box Australia Post)-PT	Letter Box Australia Post - Cogo Point
C_POINTS_2D-MB-(Letter Box Australia Post)-TXT	Letter Box Australia Post - Point Label
C_POINTS_2D-MBR-(Monkey Bars)-PT	Monkey Bars - Cogo Point
C_POINTS_2D-MBR-(Monkey Bars)-TXT	Monkey Bars - Point Label
C_POINTS_2D-MBX-(Mailbox)-PT	Mailbox - Cogo Point
C_POINTS_2D-MBX-(Mailbox)-TXT	Mailbox - Point Label
C_POINTS_2D-MH-(Manhole)-PT	Manhole - Cogo Point
C_POINTS_2D-MH-(Manhole)-TXT	Manhole - Point Label
C_POINTS_2D-MO-(Monument)-PT	Monument - Cogo Point
C_POINTS_2D-MO-(Monument)-TXT	Monument - Point Label
C_POINTS_2D-NS-(Natural Surface)-PT	Natural Surface - Cogo Point
C_POINTS_2D-NS-(Natural Surface)-TXT	Natural Surface - Point Label
C_POINTS_2D-OBV-(Obvert of Pipe)-PT	Obvert of Pipe - Cogo Point
C_POINTS_2D-OBV-(Obvert of Pipe)-TXT	Obvert of Pipe - Point Label
C_POINTS_2D-OPT-(Optus Pit)-PT	Optus Pit - Cogo Point
C_POINTS_2D-OPT-(Optus Pit)-TXT	Optus Pit - Point Label

C_POINTS_2D-P-(Pavement)-PT	Pavement - Cogo Point
C_POINTS_2D-P-(Pavement)-TXT	Pavement - Point Label
C_POINTS_2D-PB-(Petrol Bowser)-PT	Petrol Bowser - Cogo Point
C_POINTS_2D-PB-(Petrol Bowser)-TXT	Petrol Bowser - Point Label
C_POINTS_2D-PBOX-(Planter Box)-PT	Planter Box - Cogo Point
C_POINTS_2D-PBOX-(Planter Box)-TXT	Planter Box - Point Label
C_POINTS_2D-PBX-(Phone Box)-PT	Phone Box - Cogo Point
C_POINTS_2D-PBX-(Phone Box)-TXT	Phone Box - Point Label
C_POINTS_2D-PEG-(Peg)-PT	Peg - Cogo Point
C_POINTS_2D-PEG-(Peg)-TXT	Peg - Point Label
C_POINTS_2D-PH-(Phone)-PT	Phone - Cogo Point
C_POINTS_2D-PH-(Phone)-TXT	Phone - Point Label
C_POINTS_2D-PIT-(Pit)-PT	Pit - Cogo Point
C_POINTS_2D-PIT-(Pit)-TXT	Pit - Point Label
C_POINTS_2D-PLP-(Power Light Pole)-PT	Power Light Pole - Cogo Point
C_POINTS_2D-PLP-(Power Light Pole)-TXT	Power Light Pole - Point Label
C_POINTS_2D-PM-(Permanent Mark)-PT	Permanent Mark - Cogo Point
C_POINTS_2D-PM-(Permanent Mark)-TXT	Permanent Mark - Point Label
C_POINTS_2D-PMP-(Pump)-PT	Pump - Cogo Point
C_POINTS_2D-PMP-(Pump)-TXT	Pump - Point Label
C_POINTS_2D-PMT-(Parking Meter)-PT	Parking Meter - Cogo Point
C_POINTS_2D-PMT-(Parking Meter)-TXT	Parking Meter - Point Label
C_POINTS_2D-POLE-(Pole)-PT	Pole - Cogo Point
C_POINTS_2D-POLE-(Pole)-TXT	Pole - Point Label
C_POINTS_2D-PPL-(Power Pole)-PT	Power Pole - Cogo Point
C_POINTS_2D-PPL-(Power Pole)-TXT	Power Pole - Point Label
C_POINTS_2D-PR-(Pram Ramp)-PT	Pram Ramp - Cogo Point
C_POINTS_2D-PR-(Pram Ramp)-TXT	Pram Ramp - Point Label
C_POINTS_2D-PTH-(Path)-PT	Path - Cogo Point
C_POINTS_2D-PTH-(Path)-TXT	Path - Point Label
C_POINTS_2D-PTR-(Power Transformer Pole)-PT	Power Transformer Pole - Cogo Point
C_POINTS_2D-PTR-(Power Transformer Pole)-TXT	Power Transformer Pole - Point Label
C_POINTS_2D-PV-(Petrol Valve)-PT	Petrol Valve - Cogo Point
C_POINTS_2D-PV-(Petrol Valve)-TXT	Petrol Valve - Point Label
C_POINTS_2D-PX-(Pedestrian Crossing)-PT	Pedestrian Crossing - Cogo Point
C_POINTS_2D-PX-(Pedestrian Crossing)-TXT	Pedestrian Crossing - Point Label
C_POINTS_2D-RFP-(Round Post)-PT	Round Post - Cogo Point
C_POINTS_2D-RFP-(Round Post)-TXT	Round Post - Point Label
C_POINTS_2D-RHY-(Recycle Water Hydrant)-PT	Recycle Water Hydrant - Cogo Point
C_POINTS_2D-RHY-(Recycle Water Hydrant)-TXT	Recycle Water Hydrant - Point Label
C_POINTS_2D-RKR-(Rocker)-PT	Rocker - Cogo Point

C_POINTS_2D-RKR-(Rocker)-TXT	Rocker - Point Label
C_POINTS_2D-RLC-(Red Light Camera)-PT	Red Light Camera - Cogo Point
C_POINTS_2D-RLC-(Red Light Camera)-TXT	Red Light Camera - Point Label
C_POINTS_2D-RSB-(Rail Signal Box)-PT	Rail Signal Box - Cogo Point
C_POINTS_2D-RSB-(Rail Signal Box)-TXT	Rail Signal Box - Point Label
C_POINTS_2D-RSN-(Ramset Nail)-PT	Ramset Nail - Cogo Point
C_POINTS_2D-RSN-(Ramset Nail)-TXT	Ramset Nail - Point Label
C_POINTS_2D-RSP-(Rail Signal Pole)-PT	Rail Signal Pole - Cogo Point
C_POINTS_2D-RSP-(Rail Signal Pole)-TXT	Rail Signal Pole - Point Label
C_POINTS_2D-RSV-(Recycle Water Stop Valve)-PT	Recycle Water Stop Valve - Cogo Point
C_POINTS_2D-RSV-(Recycle Water Stop Valve)-TXT	Recycle Water Stop Valve - Point Label
C_POINTS_2D-RTP-(Recycle Water Tap)-PT	Recycle Water Tap - Cogo Point
C_POINTS_2D-RTP-(Recycle Water Tap)-TXT	Recycle Water Tap - Point Label
C_POINTS_2D-RW-(Retaining Wall)-PT	Retaining Wall - Cogo Point
C_POINTS_2D-RW-(Retaining Wall)-TXT	Retaining Wall - Point Label
C_POINTS_2D-RWM-(Recycle Water Meter)-PT	Recycle Water Meter - Cogo Point
C_POINTS_2D-RWM-(Recycle Water Meter)-TXT	Recycle Water Meter - Point Label
C_POINTS_2D-S-(Spot Level)-PT	Spot Level - Cogo Point
C_POINTS_2D-S-(Spot Level)-TXT	Spot Level - Point Label
C_POINTS_2D-SD-(Slippery Dip)-PT	Slippery Dip - Cogo Point
C_POINTS_2D-SD-(Slippery Dip)-TXT	Slippery Dip - Point Label
C_POINTS_2D-SEAT-(Seat)-PT	Seat - Cogo Point
C_POINTS_2D-SEAT-(Seat)-TXT	Seat - Point Label
C_POINTS_2D-SEP-(Septic Tank)-PT	Septic Tank - Cogo Point
C_POINTS_2D-SEP-(Septic Tank)-TXT	Septic Tank - Point Label
C_POINTS_2D-SEWER-(Sewer)-PT	Sewer - Cogo Point
C_POINTS_2D-SEWER-(Sewer)-TXT	Sewer - Point Label
C_POINTS_2D-SF-(Safety Fence)-PT	Safety Fence - Cogo Point
C_POINTS_2D-SF-(Safety Fence)-TXT	Safety Fence - Point Label
C_POINTS_2D-SFP-(Subsoil Flushing Point)-PT	Subsoil Flushing Point - Cogo Point
C_POINTS_2D-SFP-(Subsoil Flushing Point)-TXT	Subsoil Flushing Point - Point Label
C_POINTS_2D-SHD-(Shed)-PT	Shed - Cogo Point
C_POINTS_2D-SHD-(Shed)-TXT	Shed - Point Label
C_POINTS_2D-SHRUB-(Shrub)-PT	Shrub - Cogo Point
C_POINTS_2D-SHRUB-(Shrub)-TXT	Shrub - Point Label
C_POINTS_2D-SHRUB1-(Shrub)-PT	Shrub - Cogo Point
C_POINTS_2D-SHRUB1-(Shrub)-TXT	Shrub - Point Label
C_POINTS_2D-SIN-(Sign)-PT	Sign - Cogo Point
C_POINTS_2D-SIN-(Sign)-TXT	Sign - Point Label
C_POINTS_2D-SIP-(Star Iron Post)-PT	Star Iron Post - Cogo Point
C_POINTS_2D-SIP-(Star Iron Post)-TXT	Star Iron Post - Point Label

C_POINTS_2D-SJB-(Traffic Signal Junction Box)-PT	Traffic Signal Junction Box - Cogo Point
C_POINTS_2D-SJB-(Traffic Signal Junction Box)-TXT	Traffic Signal Junction Box - Point Label
C_POINTS_2D-SLH-(Sewer Lamp Hole)-PT	Sewer Lamp Hole - Cogo Point
C_POINTS_2D-SLH-(Sewer Lamp Hole)-TXT	Sewer Lamp Hole - Point Label
C_POINTS_2D-SLR-(Solar)-PT	Solar - Cogo Point
C_POINTS_2D-SLR-(Solar)-TXT	Solar - Point Label
C_POINTS_2D-SMH-(Sewer Manhole)-PT	Sewer Manhole - Cogo Point
C_POINTS_2D-SMH-(Sewer Manhole)-TXT	Sewer Manhole - Point Label
C_POINTS_2D-SP-(Sprinkler head)-PT	Sprinkler head - Cogo Point
C_POINTS_2D-SP-(Sprinkler head)-TXT	Sprinkler head - Point Label
C_POINTS_2D-SPL-(Stay Pole)-PT	Stay Pole - Cogo Point
C_POINTS_2D-SPL-(Stay Pole)-TXT	Stay Pole - Point Label
C_POINTS_2D-SQP-(Square Post)-PT	Square Post - Cogo Point
C_POINTS_2D-SQP-(Square Post)-TXT	Square Post - Point Label
C_POINTS_2D-SSM-(State Survey Mark)-PT	State Survey Mark - Cogo Point
C_POINTS_2D-SSM-(State Survey Mark)-TXT	State Survey Mark - Point Label
C_POINTS_2D-STN-(Station)-PT	Station - Cogo Point
C_POINTS_2D-STN-(Station)-TXT	Station - Point Label
C_POINTS_2D-SVP-(Sewer Vent)-PT	Sewer Vent - Cogo Point
C_POINTS_2D-SVP-(Sewer Vent)-TXT	Sewer Vent - Point Label
C_POINTS_2D-SWG-(Swing)-PT	Swing - Cogo Point
C_POINTS_2D-SWG-(Swing)-TXT	Swing - Point Label
C_POINTS_2D-T-(Tree)-PT	Tree - Cogo Point
C_POINTS_2D-T-(Tree)-TXT	Tree - Point Label
C_POINTS_2D-T1-(Tree)-PT	Tree - Cogo Point
C_POINTS_2D-T1-(Tree)-TXT	Tree - Point Label
C_POINTS_2D-T3-(Tree Coconut)-PT	Tree Coconut - Cogo Point
C_POINTS_2D-T3-(Tree Coconut)-TXT	Tree Coconut - Point Label
C_POINTS_2D-T4-(Tree Palm)-PT	Tree Palm - Cogo Point
C_POINTS_2D-T4-(Tree Palm)-TXT	Tree Palm - Point Label
C_POINTS_2D-TAP-(Tap)-PT	Tap - Cogo Point
C_POINTS_2D-TAP-(Tap)-TXT	Tap - Point Label
C_POINTS_2D-TB-(Top of Bank)-PT	Top of Bank - Cogo Point
C_POINTS_2D-TB-(Top of Bank)-TXT	Top of Bank - Point Label
C_POINTS_2D-TC-(Top Cutting)-PT	Top Cutting - Cogo Point
C_POINTS_2D-TC-(Top Cutting)-TXT	Top Cutting - Point Label
C_POINTS_2D-TCM-(Telstra Cable Marker)-PT	Telstra Cable Marker - Cogo Point
C_POINTS_2D-TCM-(Telstra Cable Marker)-TXT	Telstra Cable Marker - Point Label
C_POINTS_2D-TD-(Table Drain)-PT	Table Drain - Cogo Point
C_POINTS_2D-TD-(Table Drain)-TXT	Table Drain - Point Label
C_POINTS_2D-TEP-(Telstra Pillar)-PT	Telstra Pillar - Cogo Point

C_POINTS_2D-TEP-(Telstra Pillar)-TXT	Telstra Pillar - Point Label
C_POINTS_2D-TK-(Top Kerb)-PT	Top Kerb - Cogo Point
C_POINTS_2D-TK-(Top Kerb)-TXT	Top Kerb - Point Label
C_POINTS_2D-TM-(Top of Median)-PT	Top of Median - Cogo Point
C_POINTS_2D-TM-(Top of Median)-TXT	Top of Median - Point Label
C_POINTS_2D-TMP-(Telstra Standard 1.1 Main Pit)-PT	Telstra Standard 1.1 Main Pit - Cogo Point
C_POINTS_2D-TMP-(Telstra Standard 1.1 Main Pit)-TXT	Telstra Standard 1.1 Main Pit - Point Label
C_POINTS_2D-TNK-(Tank)-PT	Tank - Cogo Point
C_POINTS_2D-TNK-(Tank)-TXT	Tank - Point Label
C_POINTS_2D-TPL-(Telstra Pole)-PT	Telstra Pole - Cogo Point
C_POINTS_2D-TPL-(Telstra Pole)-TXT	Telstra Pole - Point Label
C_POINTS_2D-TPT-(Telstra Pit)-PT	Telstra Pit - Cogo Point
C_POINTS_2D-TPT-(Telstra Pit)-TXT	Telstra Pit - Point Label
C_POINTS_2D-TR-(Tree)-PT	Tree - Cogo Point
C_POINTS_2D-TR-(Tree)-TXT	Tree - Point Label
C_POINTS_2D-TSC-(Traffic Signal Controller)-PT	Traffic Signal Controller - Cogo Point
C_POINTS_2D-TSC-(Traffic Signal Controller)-TXT	Traffic Signal Controller - Point Label
C_POINTS_2D-TSP-(Traffic Signal Post)-PT	Traffic Signal Post - Cogo Point
C_POINTS_2D-TSP-(Traffic Signal Post)-TXT	Traffic Signal Post - Point Label
C_POINTS_2D-TTP-(Twin Telstra Pit)-PT	Twin Telstra Pit - Cogo Point
C_POINTS_2D-TTP-(Twin Telstra Pit)-TXT	Twin Telstra Pit - Point Label
C_POINTS_2D-TW-(Top of Wall)-PT	Top of Wall - Cogo Point
C_POINTS_2D-TW-(Top of Wall)-TXT	Top of Wall - Point Label
C_POINTS_2D-TXP-(Telstra Single Pit)-PT	Telstra Single Pit - Cogo Point
C_POINTS_2D-TXP-(Telstra Single Pit)-TXT	Telstra Single Pit - Point Label
C_POINTS_2D-UP-(Underground Pipeline)-PT	Underground Pipeline - Cogo Point
C_POINTS_2D-UP-(Underground Pipeline)-TXT	Underground Pipeline - Point Label
C_POINTS_2D-VA-(Valve)-PT	Valve - Cogo Point
C_POINTS_2D-VA-(Valve)-TXT	Valve - Point Label
C_POINTS_2D-VT-(Vehicular Track)-PT	Vehicular Track - Cogo Point
C_POINTS_2D-VT-(Vehicular Track)-TXT	Vehicular Track - Point Label
C_POINTS_2D-WC-(Water Course)-PT	Water Course - Cogo Point
C_POINTS_2D-WC-(Water Course)-TXT	Water Course - Point Label
C_POINTS_2D-WGS-(Wings at 90 degs)-PT	Wings at 90 degs - Cogo Point
C_POINTS_2D-WGS-(Wings at 90 degs)-TXT	Wings at 90 degs - Point Label
C_POINTS_2D-WGSS-(Wings x 3 to point)-PT	Wings x 3 to point - Cogo Point
C_POINTS_2D-WGSS-(Wings x 3 to point)-TXT	Wings x 3 to point - Point Label
C_POINTS_2D-WHY-(Water Hydrant)-PT	Water Hydrant - Cogo Point
C_POINTS_2D-WHY-(Water Hydrant)-TXT	Water Hydrant - Point Label
C_POINTS_2D-WMH-(Stormwater Water Manhole)-PT	Stormwater Water Manhole - Cogo Point
C_POINTS_2D-WMH-(Stormwater Water Manhole)-TXT	Stormwater Water Manhole - Point Label

C_POINTS_2D-WMP-(Water Marker Post)-PT	Water Marker Post - Cogo Point
C_POINTS_2D-WMP-(Water Marker Post)-TXT	Water Marker Post - Point Label
C_POINTS_2D-WMR-(Water Meter)-PT	Water Meter - Cogo Point
C_POINTS_2D-WMR-(Water Meter)-TXT	Water Meter - Point Label
C_POINTS_2D-WSV-(Water Stop Valve)-PT	Water Stop Valve - Cogo Point
C_POINTS_2D-WSV-(Water Stop Valve)-TXT	Water Stop Valve - Point Label
C_POINTS_2D-WTP-(Water Tap)-PT	Water Tap - Cogo Point
C_POINTS_2D-WTP-(Water Tap)-TXT	Water Tap - Point Label
C_POINTS_2D-WW-(Wing Wall)-PT	Wing Wall - Cogo Point
C_POINTS_2D-WW-(Wing Wall)-TXT	Wing Wall - Point Label
C_POINTS_3D-PT	3D – Cogo Point
C_POINTS_3D-TXT	3D - Point Label

Additional Layers in the Numeric Survey Template:

<i>Layer Name</i>	<i>Description</i>
001_Permanent_Survey_Mark_Cogo Point	Permanent Survey Mark Cogo Point
001_Permanent_Survey_Mark_Point Label	Permanent Survey Mark Point Label
002_Bench_Mark_Cogo Point	Bench Mark Cogo Point
002_Bench_Mark_Point Label	Bench Mark Point Label
003_Title_Peg_Cogo Point	Title Peg Cogo Point
003_Title_Peg_Point Label	Title Peg Point Label
004_Instrument_Station_Cogo Point	Instrument Station Cogo Point
004_Instrument_Station_Point Label	Instrument Station Point Label
005_Survey_Mark_Cogo Point	Survey Mark Cogo Point
005_Survey_Mark_Point Label	Survey Mark Point Label
006_Photo_Control_Point_Cogo Point	Photo Control Point Cogo Point
006_Photo_Control_Point_Point Label	Photo Control Point Point Label
007_Check_Profile_Cogo Point	Check Profile Cogo Point
007_Check_Profile_Point Label	Check Profile Point Label
008_Trig_Point_Cogo Point	Trig Point Cogo Point
008_Trig_Point_Point Label	Trig Point Point Label
009_Rivet_Cogo Point	Rivet Cogo Point
009_Rivet_Point Label	Rivet Point Label
010_Pin_Cogo Point	Pin Cogo Point
010_Pin_Point Label	Pin Point Label
011_Check_Measurement_Cogo Point	Check Measurement Cogo Point
011_Check_Measurement_Point Label	Check Measurement Point Label
012_General_Reference_Mark_Cogo Point	General Reference Mark Cogo Point
012_General_Reference_Mark_Point Label	General Reference Mark Point Label
013_Reference_Mark_Rod_Cogo Point	Reference Mark Rod Cogo Point
013_Reference_Mark_Rod_Point Label	Reference Mark Rod Point Label

014_Reference_Mark_Pipe_Cogo Point	Reference Mark Pipe Cogo Point
014_Reference_Mark_Pipe_Point Label	Reference Mark Pipe Point Label
015_Reference_Mark_Star_Picket_Cogo Point	Reference Mark Star Picket Cogo Point
015_Reference_Mark_Star_Picket_Point Label	Reference Mark Star Picket Point Label
016_Dumpy_Cogo Point	Dumpy Cogo Point
016_Dumpy_Point Label	Dumpy Point Label
017_Nail_Cogo Point	Nail Cogo Point
017_Nail_Point Label	Nail Point Label
018_Spike_Cogo Point	Spike Cogo Point
018_Spike_Point Label	Spike Point Label
100_Contour-Edge_Cogo Point	Contour-Edge Cogo Point
100_Contour-Edge_Point Label	Contour-Edge Point Label
101_Contour-Standard_Cogo Point	Contour-Standard Cogo Point
101_Contour-Standard_Point Label	Contour-Standard Point Label
102_Bank-Top_Cogo Point	Bank-Top Cogo Point
102_Bank-Top_Point Label	Bank-Top Point Label
103_Bank-Toe_Cogo Point	Bank-Toe Cogo Point
103_Bank-Toe_Point Label	Bank-Toe Point Label
104_Spot_Height_(Natural_Surface)_Cogo Point	Spot Height (Natural Surface) Cogo Point
104_Spot_Height_(Natural_Surface)_Point Label	Spot Height (Natural Surface) Point Label
105_Spot_Height_(Existing_Surface)_Cogo Point	Spot Height (Existing Surface) Cogo Point
105_Spot_Height_(Existing_Surface)_Point Label	Spot Height (Existing Surface) Point Label
106_Change_of_Grade_Cogo Point	Change of Grade Cogo Point
106_Change_of_Grade_Point Label	Change of Grade Point Label
107_Floor_Level_Cogo Point	Floor Level Cogo Point
107_Floor_Level_Point Label	Floor Level Point Label
108_Roof_Level_Cogo Point	Roof Level Cogo Point
108_Roof_Level_Point Label	Roof Level Point Label
108-Roof Level - String	Roof Level - String
109_Ground_String-Profile_Cogo Point	Ground String-Profile Cogo Point
109_Ground_String-Profile_Point Label	Ground String-Profile Point Label
109-Ground String-Profile - String	Ground String-Profile - String
110_Ground_String-Breakline_Cogo Point	Ground String-Breakline Cogo Point
110_Ground_String-Breakline_Point Label	Ground String-Breakline Point Label
110-Ground String-Breakline - String	Ground String-Breakline - String
111_Relief-Unclassified_Cogo Point	Relief-Unclassified Cogo Point
111_Relief-Unclassified_Point Label	Relief-Unclassified Point Label
201_Tree_Cogo Point	Tree Cogo Point
201_Tree_Point Label	Tree Point Label
202_Plantation_Cogo Point	Plantation Cogo Point
202_Plantation_Point Label	Plantation Point Label

203_Edge_of_Vegetation_Cogo Point	Edge of Vegetation Cogo Point
203_Edge_of_Vegetation_Point Label	Edge of Vegetation Point Label
203-Edge of Vegetation - String	Edge of Vegetation - String
204_Single_Shrub_Cogo Point	Single Shrub Cogo Point
204_Single_Shrub_Point Label	Single Shrub Point Label
204-Single Shrub - String	Single Shrub - String
205_Conifer_Cogo Point	Conifer Cogo Point
205_Conifer_Point Label	Conifer Point Label
205-Conifer - String	Conifer - String
206_Dead_Tree_Cogo Point	Dead Tree Cogo Point
206_Dead_Tree_Point Label	Dead Tree Point Label
206-Dead Tree - String	Dead Tree - String
207_Garden_Bed_Cogo Point	Garden Bed Cogo Point
207_Garden_Bed_Point Label	Garden Bed Point Label
207-Garden Bed - String	Garden Bed - String
208_Sprinkler_Head_Cogo Point	Sprinkler Head Cogo Point
208_Sprinkler_Head_Point Label	Sprinkler Head Point Label
208-Sprinkler Head - String	Sprinkler Head - String
230_Tree-Top_Cogo Point	Tree-Top Cogo Point
230_Tree-Top_Point Label	Tree-Top Point Label
230-Tree-Top - String	Tree-Top - String
301_Drain-Concrete_Earth_Cogo Point	Drain-Concrete Earth Cogo Point
301_Drain-Concrete_Earth_Point Label	Drain-Concrete Earth Point Label
301-Drain-Concrete Earth - String	Drain-Concrete Earth - String
302_Watercourse_Cogo Point	Watercourse Cogo Point
302_Watercourse_Point Label	Watercourse Point Label
302-Watercourse - String	Watercourse - String
303_Pondage_Cogo Point	Pondage Cogo Point
303_Pondage_Point Label	Pondage Point Label
303-Pondage - String	Pondage - String
304_Drain-RCP_Cogo Point	Drain-RCP Cogo Point
304_Drain-RCP_Point Label	Drain-RCP Point Label
304-Drain-RCP - String	Drain-RCP - String
305_Box_Culvert_Cogo Point	Box Culvert Cogo Point
305_Box_Culvert_Point Label	Box Culvert Point Label
305-Box Culvert - String	Box Culvert - String
306_Round_Culvert_Cogo Point	Round Culvert Cogo Point
306_Round_Culvert_Point Label	Round Culvert Point Label
306-Round Culvert - String	Round Culvert - String
307_Drain-Under_Ground_Cogo Point	Drain-Under Ground Cogo Point
307_Drain-Under_Ground_Point Label	Drain-Under Ground Point Label

307-Drain-Under Ground - String	Drain-Under Ground - String
308_Drain-SEP_Cogo Point	Drain-SEP Cogo Point
308_Drain-SEP_Point Label	Drain-SEP Point Label
308-Drain-SEP - String	Drain-SEP - String
309_Drain-GP_Cogo Point	Drain-GP Cogo Point
309_Drain-GP_Point Label	Drain-GP Point Label
309-Drain-GP - String	Drain-GP - String
310_Drain-JP_Cogo Point	Drain-JP Cogo Point
310_Drain-JP_Point Label	Drain-JP Point Label
310-Drain-JP - String	Drain-JP - String
311_Drain-DP_Cogo Point	Drain-DP Cogo Point
311_Drain-DP_Point Label	Drain-DP Point Label
311-Drain-DP - String	Drain-DP - String
312_Drain-Unclassified_Cogo Point	Drain-Unclassified Cogo Point
312_Drain-Unclassified_Point Label	Drain-Unclassified Point Label
312-Drain-Unclassified - String	Drain-Unclassified - String
313_Watercourse-Dry_Cogo Point	Watercourse-Dry Cogo Point
313_Watercourse-Dry_Point Label	Watercourse-Dry Point Label
313-Watercourse-Dry - String	Watercourse-Dry - String
314_Watercourse-Perennial_Cogo Point	Watercourse-Perennial Cogo Point
314_Watercourse-Perennial_Point Label	Watercourse-Perennial Point Label
314-Watercourse-Perennial - String	Watercourse-Perennial - String
315_Swamp_Cogo Point	Swamp Cogo Point
315_Swamp_Point Label	Swamp Point Label
315-Swamp - String	Swamp - String
316_Wing_Wall-Right_Cogo Point	Wing Wall-Right Cogo Point
316_Wing_Wall-Right_Point Label	Wing Wall-Right Point Label
316-Wing Wall-Right - String	Wing Wall-Right - String
317_Wing_Wall-Left_Cogo Point	Wing Wall-Left Cogo Point
317_Wing_Wall-Left_Point Label	Wing Wall-Left Point Label
317-Wing Wall-Left - String	Wing Wall-Left - String
318_End_Wall_Cogo Point	End Wall Cogo Point
318_End_Wall_Point Label	End Wall Point Label
318-End Wall - String	End Wall - String
319_Flusher_Pit_Cogo Point	Flusher Pit Cogo Point
319_Flusher_Pit_Point Label	Flusher Pit Point Label
320_Rock_Beaching_Cogo Point	Rock Beaching Cogo Point
320_Rock_Beaching_Point Label	Rock Beaching Point Label
320-Rock Beaching - String	Rock Beaching - String
321_Invert-Pipe_or_Pit_Cogo Point	Invert-Pipe or Pit Cogo Point
321_Invert-Pipe_or_Pit_Point Label	Invert-Pipe or Pit Point Label

322_Water_Level_Cogo Point	Water Level Cogo Point
322_Water_Level_Point Label	Water Level Point Label
322-Water Level - String	Water Level - String
323_Weir_Cogo Point	Weir Cogo Point
323_Weir_Point Label	Weir Point Label
323-Weir - String	Weir - String
330_Pipe-UG_Cogo Point	Pipe-UG Cogo Point
330_Pipe-UG_Point Label	Pipe-UG Point Label
330-Pipe-UG - String	Pipe-UG - String
401_Bitumen-CL_Cogo Point	Bitumen-CL Cogo Point
401_Bitumen-CL_Point Label	Bitumen-CL Point Label
401-Bitumen-CL - String	Bitumen-CL - String
402_Bitumen-Spot_Cogo Point	Bitumen-Spot Cogo Point
402_Bitumen-Spot_Point Label	Bitumen-Spot Point Label
402-Bitumen-Spot - String	Bitumen-Spot - String
403_Bitumen-Edge_Cogo Point	Bitumen-Edge Cogo Point
403_Bitumen-Edge_Point Label	Bitumen-Edge Point Label
403-Bitumen-Edge - String	Bitumen-Edge - String
404_Formation-CL_Cogo Point	Formation-CL Cogo Point
404_Formation-CL_Point Label	Formation-CL Point Label
404-Formation-CL - String	Formation-CL - String
405_Formation-Edge_Cogo Point	Formation-Edge Cogo Point
405_Formation-Edge_Point Label	Formation-Edge Point Label
405-Formation-Edge - String	Formation-Edge - String
406_Kerb-Lip_Cogo Point	Kerb-Lip Cogo Point
406_Kerb-Lip_Point Label	Kerb-Lip Point Label
406-Kerb-Lip - String	Kerb-Lip - String
407_Kerb-Invert_Cogo Point	Kerb-Invert Cogo Point
407_Kerb-Invert_Point Label	Kerb-Invert Point Label
407-Kerb-Invert - String	Kerb-Invert - String
408_Kerb-Back_Cogo Point	Kerb-Back Cogo Point
408_Kerb-Back_Point Label	Kerb-Back Point Label
408-Kerb-Back - String	Kerb-Back - String
409_Kerb-Top_Cogo Point	Kerb-Top Cogo Point
409_Kerb-Top_Point Label	Kerb-Top Point Label
409-Kerb-Top - String	Kerb-Top - String
410_Footpath_Cogo Point	Footpath Cogo Point
410_Footpath_Point Label	Footpath Point Label
410-Footpath - String	Footpath - String
411_Driveway_Cogo Point	Driveway Cogo Point
411_Driveway_Point Label	Driveway Point Label

411-Driveway - String	Driveway - String
412_Track_Cogo Point	Track Cogo Point
412_Track_Point Label	Track Point Label
412-Track - String	Track - String
413_Road-Unclassified_Cogo Point	Road-Unclassified Cogo Point
413_Road-Unclassified_Point Label	Road-Unclassified Point Label
413-Road-Unclassified - String	Road-Unclassified - String
414_Detector_Pad_Cogo Point	Detector Pad Cogo Point
414_Detector_Pad_Point Label	Detector Pad Point Label
415_Lane_Marks_Cogo Point	Lane Marks Cogo Point
415_Lane_Marks_Point Label	Lane Marks Point Label
415-Lane Marks - String	Lane Marks - String
416_Delineators_Cogo Point	Delineators Cogo Point
416_Delineators_Point Label	Delineators Point Label
416-Delineators - String	Delineators - String
417_Line_Marking_Cogo Point	Line Marking Cogo Point
417_Line_Marking_Point Label	Line Marking Point Label
417-Line Marking - String	Line Marking - String
418_Parking_Bays_Cogo Point	Parking Bays Cogo Point
418_Parking_Bays_Point Label	Parking Bays Point Label
418-Parking Bays - String	Parking Bays - String
419_Concrete-Edge_Cogo Point	Concrete-Edge Cogo Point
419_Concrete-Edge_Point Label	Concrete-Edge Point Label
419-Concrete-Edge - String	Concrete-Edge - String
420_Traffic_Arrow_Cogo Point	Traffic Arrow Cogo Point
420_Traffic_Arrow_Point Label	Traffic Arrow Point Label
420-Traffic Arrow - String	Traffic Arrow - String
421_Paving-Edge_Cogo Point	Paving-Edge Cogo Point
421_Paving-Edge_Point Label	Paving-Edge Point Label
421-Paving-Edge - String	Paving-Edge - String
422_Crossing_Cogo Point	Crossing Cogo Point
422_Crossing_Point Label	Crossing Point Label
422-Crossing - String	Crossing - String
501_Guardrail_Cogo Point	Guardrail Cogo Point
501_Guardrail_Point Label	Guardrail Point Label
501-Guardrail - String	Guardrail - String
502_Km_Post_Cogo Point	Km Post Cogo Point
502_Km_Post_Point Label	Km Post Point Label
503_Sign_Cogo Point	Sign Cogo Point
503_Sign_Point Label	Sign Point Label
504_Letter_Box_Cogo Point	Letter Box Cogo Point

504_Letter_Box_Point Label	Letter Box Point Label
505_Traffic-Signal_Pole_Cogo Point	Traffic-Signal Pole Cogo Point
505_Traffic-Signal_Pole_Point Label	Traffic-Signal Pole Point Label
506_Traffic-Signal_Box_Cogo Point	Traffic-Signal Box Cogo Point
506_Traffic-Signal_Box_Point Label	Traffic-Signal Box Point Label
507_Traffic-Signal_Pit_Cogo Point	Traffic-Signal Pit Cogo Point
507_Traffic-Signal_Pit_Point Label	Traffic-Signal Pit Point Label
508_Emergency_Phone_Cogo Point	Emergency Phone Cogo Point
508_Emergency_Phone_Point Label	Emergency Phone Point Label
509_Road_Furn-Unclassified_Cogo Point	Road Furn-Unclassified Cogo Point
509_Road_Furn-Unclassified_Point Label	Road Furn-Unclassified Point Label
510_Monument_Cogo Point	Monument Cogo Point
510_Monument_Point Label	Monument Point Label
511_Joint_Use_Pole_Cogo Point	Joint Use Pole Cogo Point
511_Joint_Use_Pole_Point Label	Joint Use Pole Point Label
512_Cable_Pit_Cogo Point	Cable Pit Cogo Point
512_Cable_Pit_Point Label	Cable Pit Point Label
513_Detector_Pit_Cogo Point	Detector Pit Cogo Point
513_Detector_Pit_Point Label	Detector Pit Point Label
514_Red_Light_Camera_Cogo Point	Red Light Camera Cogo Point
514_Red_Light_Camera_Point Label	Red Light Camera Point Label
515_Security_Camera_Cogo Point	Security Camera Cogo Point
515_Security_Camera_Point Label	Security Camera Point Label
516_Sign-Side_Mounted_Cogo Point	Sign-Side Mounted Cogo Point
516_Sign-Side_Mounted_Point Label	Sign-Side Mounted Point Label
517_Sign-Centre_Mounted_Cogo Point	Sign-Centre Mounted Cogo Point
517_Sign-Centre_Mounted_Point Label	Sign-Centre Mounted Point Label
518_Sign-Multiple_Mounted_Cogo Point	Sign-Multiple Mounted Cogo Point
518_Sign-Multiple_Mounted_Point Label	Sign-Multiple Mounted Point Label
519_Sign-Curved_Cogo Point	Sign-Curved Cogo Point
519_Sign-Curved_Point Label	Sign-Curved Point Label
520_Traffic-Signal_Wiring_Cogo Point	Traffic-Signal Wiring Cogo Point
520_Traffic-Signal_Wiring_Point Label	Traffic-Signal Wiring Point Label
521_Bollard_Cogo Point	Bollard Cogo Point
521_Bollard_Point Label	Bollard Point Label
522_Rubbish_Bin_Cogo Point	Rubbish Bin Cogo Point
522_Rubbish_Bin_Point Label	Rubbish Bin Point Label
523_Guide_Post_Cogo Point	Guide Post Cogo Point
523_Guide_Post_Point Label	Guide Post Point Label
524_Seat_Cogo Point	Seat Cogo Point
524_Seat_Point Label	Seat Point Label

524-Seat - String	Seat - String
525_Train_Stop_Cogo Point	Tram Stop Cogo Point
525_Train_Stop_Point Label	Tram Stop Point Label
525-Train Stop - String	Tram Stop - String
526_Bus_Stop_Cogo Point	Bus Stop Cogo Point
526_Bus_Stop_Point Label	Bus Stop Point Label
526-Bus Stop - String	Bus Stop - String
527_Parking_Meter_Cogo Point	Parking Meter Cogo Point
527_Parking_Meter_Point Label	Parking Meter Point Label
531-KerbSpecial - String	KerbSpecial - String
531-KerbSpecial_Cogo Point	KerbSpecial Cogo Point
531-KerbSpecial_Point Label	KerbSpecial Point Label
601_House_Cogo Point	House Cogo Point
601_House_Point Label	House Point Label
601-House - String	House - String
602_Minor_Building_(Shed)_Cogo Point	Minor Building (Shed) Cogo Point
602_Minor_Building_(Shed)_Point Label	Minor Building (Shed) Point Label
602-Minor Building (Shed) - String	Minor Building (Shed) - String
603_Building_Cogo Point	Building Cogo Point
603_Building_Point Label	Building Point Label
603-Building - String	Building - String
604_Verandah_Cogo Point	Verandah Cogo Point
604_Verandah_Point Label	Verandah Point Label
604-Verandah - String	Verandah - String
605_Bridge-Abutment_Cogo Point	Bridge-Abutment Cogo Point
605_Bridge-Abutment_Point Label	Bridge-Abutment Point Label
605-Bridge-Abutment - String	Bridge-Abutment - String
606_Bridge-Edge_Cogo Point	Bridge-Edge Cogo Point
606_Bridge-Edge_Point Label	Bridge-Edge Point Label
606-Bridge-Edge - String	Bridge-Edge - String
607_Bridge-Underside_Cogo Point	Bridge-Underside Cogo Point
607_Bridge-Underside_Point Label	Bridge-Underside Point Label
607-Bridge-Underside - String	Bridge-Underside - String
608_Pier_Column_Cogo Point	Pier Column Cogo Point
608_Pier_Column_Point Label	Pier Column Point Label
609_Retaining_Wall_Cogo Point	Retaining Wall Cogo Point
609_Retaining_Wall_Point Label	Retaining Wall Point Label
609-Retaining Wall - String	Retaining Wall - String
610_Structure_Cogo Point	Structure Cogo Point
610_Structure_Point Label	Structure Point Label
610-Structure - String	Structure - String

611_Swimming_Pool_Cogo Point	Swimming Pool Cogo Point
611_Swimming_Pool_Point Label	Swimming Pool Point Label
611-Swimming Pool - String	Swimming Pool - String
612_Stock_Pile_Cogo Point	Stock Pile Cogo Point
612_Stock_Pile_Point Label	Stock Pile Point Label
613_Bore_Cogo Point	Bore Cogo Point
613_Bore_Point Label	Bore Point Label
614_Windmill_Cogo Point	Windmill Cogo Point
614_Windmill_Point Label	Windmill Point Label
615_Quarry_Cogo Point	Quarry Cogo Point
615_Quarry_Point Label	Quarry Point Label
615-Quarry - String	Quarry - String
616_Sports_Arena_Cogo Point	Sports Arena Cogo Point
616_Sports_Arena_Point Label	Sports Arena Point Label
616-Sports Arena - String	Sports Arena - String
617_Wall_Cogo Point	Wall Cogo Point
617_Wall_Point Label	Wall Point Label
617-Wall - String	Wall - String
618_Chimney_Cogo Point	Chimney Cogo Point
618_Chimney_Point Label	Chimney Point Label
619_Retaining_Wall-Crib_Cogo Point	Retaining Wall-Crib Cogo Point
619_Retaining_Wall-Crib_Point Label	Retaining Wall-Crib Point Label
619-Retaining Wall-Crib - String	Retaining Wall-Crib - String
620_Retaining_Wall-Rock_Cogo Point	Retaining Wall-Rock Cogo Point
620_Retaining_Wall-Rock_Point Label	Retaining Wall-Rock Point Label
620-Retaining Wall-Rock - String	Retaining Wall-Rock - String
621_Retaining_Wall-Concrete_Cogo Point	Retaining Wall-Concrete Cogo Point
621_Retaining_Wall-Concrete_Point Label	Retaining Wall-Concrete Point Label
621-Retaining Wall-Concrete - String	Retaining Wall-Concrete - String
622_Retaining_Wall-Wood_Cogo Point	Retaining Wall-Wood Cogo Point
622_Retaining_Wall-Wood_Point Label	Retaining Wall-Wood Point Label
622-Retaining Wall-Wood - String	Retaining Wall-Wood - String
623_Garage_Cogo Point	Garage Cogo Point
623_Garage_Point Label	Garage Point Label
624_Petrol_Bowser_Cogo Point	Petrol Bowser Cogo Point
624_Petrol_Bowser_Point Label	Petrol Bowser Point Label
625_Fuel_Tank-Above_Ground_Cogo Point	Fuel Tank-Above Ground Cogo Point
625_Fuel_Tank-Above_Ground_Point Label	Fuel Tank-Above Ground Point Label
625-Fuel Tank-Above Ground - String	Fuel Tank-Above Ground - String
626_Fuel_Tank-Under_Ground_Cogo Point	Fuel Tank-Under Ground Cogo Point
626_Fuel_Tank-Under_Ground_Point Label	Fuel Tank-Under Ground Point Label

626-Fuel Tank-Under Ground - String	Fuel Tank-Under Ground - String
627_Petrol_Valve_Cogo Point	Petrol Valve Cogo Point
627_Petrol_Valve_Point Label	Petrol Valve Point Label
628_Pump_Cogo Point	Pump Cogo Point
628_Pump_Point Label	Pump Point Label
630_Ladder_Cogo Point	Ladder Cogo Point
630_Ladder_Point Label	Ladder Point Label
631_Steps_Cogo Point	Steps Cogo Point
631_Steps_Point Label	Steps Point Label
640_House_Floor_Level_Cogo Point	House Floor Level Cogo Point
640_House_Floor_Level_Point Label	House Floor Level Point Label
641_Door_Cogo Point	Door Cogo Point
641_Door_Point Label	Door Point Label
642_Window_Cogo Point	Window Cogo Point
642_Window_Point Label	Window Point Label
643_Eve_Cogo Point	Eve Cogo Point
643_Eve_Point Label	Eve Point Label
644_Roof_Apex_Cogo Point	Roof Apex Cogo Point
644_Roof_Apex_Point Label	Roof Apex Point Label
644-Roof Apex - String	Roof Apex - String
645_Down_Pipe_Cogo Point	Down Pipe Cogo Point
645_Down_Pipe_Point Label	Down Pipe Point Label
645-Down Pipe - String	Down Pipe - String
710_Electricity-Cabinet_Cogo Point	Electricity-Cabinet Cogo Point
710_Electricity-Cabinet_Point Label	Electricity-Cabinet Point Label
710-Electricity-Cabinet - String	Electricity-Cabinet - String
711_Light_Pole_Cogo Point	Light Pole Cogo Point
711_Light_Pole_Point Label	Light Pole Point Label
712_Electricity-Pole_Cogo Point	Electricity-Pole Cogo Point
712_Electricity-Pole_Point Label	Electricity-Pole Point Label
712-Electricity-Pole - String	Electricity-Pole - String
713_Electricity-Pole_with_Light_Cogo Point	Electricity-Pole with Light Cogo Point
713_Electricity-Pole_with_Light_Point Label	Electricity-Pole with Light Point Label
713-Electricity-Pole with Light - String	Electricity-Pole with Light - String
714_Electricity-Transmission_Tower_Cogo Point	Electricity-Transmission Tower Cogo Point
714_Electricity-Transmission_Tower_Point Label	Electricity-Transmission Tower Point Label
714-Electricity-Transmission Tower - String	Electricity-Transmission Tower - String
715_Electricity-Unclassified_Cogo Point	Electricity-Unclassified Cogo Point
715_Electricity-Unclassified_Point Label	Electricity-Unclassified Point Label
715-Electricity-Unclassified - String	Electricity-Unclassified - String
716_Electricity-Pit_Cogo Point	Electricity-Pit Cogo Point

716_Electricity-Pit_Point Label	Electricity-Pit Point Label
716-Electricity-Pit - String	Electricity-Pit - String
717_Electricity-Over_Head_Cogo Point	Electricity-Over Head Cogo Point
717_Electricity-Over_Head_Point Label	Electricity-Over Head Point Label
717-Electricity-Over Head - String	Electricity-Over Head - String
718_Electricity-Under_Ground_Cogo Point	Electricity-Under Ground Cogo Point
718_Electricity-Under_Ground_Point Label	Electricity-Under Ground Point Label
718-Electricity-Under Ground - String	Electricity-Under Ground - String
720_Optus_Pit_Cogo Point	Optus Pit Cogo Point
720_Optus_Pit_Point Label	Optus Pit Point Label
721_Telstra-Pit_Cogo Point	Telstra-Pit Cogo Point
721_Telstra-Pit_Point Label	Telstra-Pit Point Label
722_Telstra-Pillar_Cogo Point	Telstra-Pillar Cogo Point
722_Telstra-Pillar_Point Label	Telstra-Pillar Point Label
723_Telstra-Marker_Post_Cogo Point	Telstra-Marker Post Cogo Point
723_Telstra-Marker_Post_Point Label	Telstra-Marker Post Point Label
724_Telstra-Pole_Cogo Point	Telstra-Pole Cogo Point
724_Telstra-Pole_Point Label	Telstra-Pole Point Label
725_Phone_Box_Cogo Point	Phone Box Cogo Point
725_Phone_Box_Point Label	Phone Box Point Label
726_Telstra-Pit_Large_Cogo Point	Telstra-Pit Large Cogo Point
726_Telstra-Pit_Large_Point Label	Telstra-Pit Large Point Label
727_Communications-Over_Head_Cogo Point	Communications-Over Head Cogo Point
727_Communications-Over_Head_Point Label	Communications-Over Head Point Label
727-Communications-Over Head - String	Communications-Over Head - String
728_Communications-Under_Ground_Cogo Point	Communications-Under Ground Cogo Point
728_Communications-Under_Ground_Point Label	Communications-Under Ground Point Label
728-Communications-Under Ground - String	Communications-Under Ground - String
731_Gas-Valve_Cogo Point	Gas-Valve Cogo Point
731_Gas-Valve_Point Label	Gas-Valve Point Label
732_Gas-Marker_Post_Cogo Point	Gas-Marker Post Cogo Point
732_Gas-Marker_Post_Point Label	Gas-Marker Post Point Label
732-Gas-Marker Post - String	Gas-Marker Post - String
733_Gas-Unclassified_Cogo Point	Gas-Unclassified Cogo Point
733_Gas-Unclassified_Point Label	Gas-Unclassified Point Label
733-Gas-Unclassified - String	Gas-Unclassified - String
734_Gas-Under_Ground_Cogo Point	Gas-Under Ground Cogo Point
734_Gas-Under_Ground_Point Label	Gas-Under Ground Point Label
734-Gas-Under Ground - String	Gas-Under Ground - String
741_Sewer-Pit_Cogo Point	Sewer-Pit Cogo Point
741_Sewer-Pit_Point Label	Sewer-Pit Point Label

742_Sewer-Unclassified_Cogo Point	Sewer-Unclassified Cogo Point
742_Sewer-Unclassified_Point Label	Sewer-Unclassified Point Label
742-Sewer-Unclassified - String	Sewer-Unclassified - String
743_Sewer-Under_Ground_Cogo Point	Sewer-Under Ground Cogo Point
743_Sewer-Under_Ground_Point Label	Sewer-Under Ground Point Label
743-Sewer-Under Ground - String	Sewer-Under Ground - String
744_Sewer-Vent_Cogo Point	Sewer-Vent Cogo Point
744_Sewer-Vent_Point Label	Sewer-Vent Point Label
750_Drinking_Fountain_Cogo Point	Drinking Fountain Cogo Point
750_Drinking_Fountain_Point Label	Drinking Fountain Point Label
751_Stop_Valve_Cogo Point	Stop Valve Cogo Point
751_Stop_Valve_Point Label	Stop Valve Point Label
752_Fire_Plug_Cogo Point	Fire Plug Cogo Point
752_Fire_Plug_Point Label	Fire Plug Point Label
753_Fire_Hydrant_Cogo Point	Fire Hydrant Cogo Point
753_Fire_Hydrant_Point Label	Fire Hydrant Point Label
754_Water-Meter_Cogo Point	Water-Meter Cogo Point
754_Water-Meter_Point Label	Water-Meter Point Label
755_Water-Unclassified_Cogo Point	Water-Unclassified Cogo Point
755_Water-Unclassified_Point Label	Water-Unclassified Point Label
755-Water-Unclassified - String	Water-Unclassified - String
756_Water-UG_Cogo Point	Water-UG Cogo Point
756_Water-UG_Point Label	Water-UG Point Label
756-Water-UG - String	Water-UG - String
757_Water-Marker_Post_Cogo Point	Water-Marker Post Cogo Point
757_Water-Marker_Post_Point Label	Water-Marker Post Point Label
758_Tap_Cogo Point	Tap Cogo Point
758_Tap_Point Label	Tap Point Label
759_Electrolysis_Point_Cogo Point	Electrolysis Point Cogo Point
759_Electrolysis_Point_Point Label	Electrolysis Point Point Label
760_Tank_Cogo Point	Tank Cogo Point
760_Tank_Point Label	Tank Point Label
761_Stay_Cogo Point	Stay Cogo Point
761_Stay_Point Label	Stay Point Label
762_Pit-Unclassified_Cogo Point	Pit-Unclassified Cogo Point
762_Pit-Unclassified_Point Label	Pit-Unclassified Point Label
763_Pole-Unclassified_Cogo Point	Pole-Unclassified Cogo Point
763_Pole-Unclassified_Point Label	Pole-Unclassified Point Label
764_Utility-Unclassified_Cogo Point	Utility-Unclassified Cogo Point
764_Utility-Unclassified_Point Label	Utility-Unclassified Point Label
764-Utility-Unclassified - String	Utility-Unclassified - String

765_High_Pressure_Oil_and_Gas_Pipe_Cogo Point	High Pressure Oil and Gas Pipe Cogo Point
765_High_Pressure_Oil_and_Gas_Pipe_Point Label	High Pressure Oil and Gas Pipe Point Label
765-High Pressure Oil and Gas Pipe - String	High Pressure Oil and Gas Pipe - String
766_Oil_Pipe_Marker_Post_Cogo Point	Oil Pipe Marker Post Cogo Point
766_Oil_Pipe_Marker_Post_Point Label	Oil Pipe Marker Post Point Label
767_Air_Conditioning_Cogo Point	Air Conditioning Cogo Point
767_Air_Conditioning_Point Label	Air Conditioning Point Label
768_Trough_Cogo Point	Trough Cogo Point
768_Trough_Point Label	Trough Point Label
769_Pole-Top_Cogo Point	Pole-Top Cogo Point
769_Pole-Top_Point Label	Pole-Top Point Label
771_Cabinet_Cogo Point	Cabinet Cogo Point
771_Cabinet_Point Label	Cabinet Point Label
801_Rail-Line_Cogo Point	Rail-Line Cogo Point
801_Rail-Line_Point Label	Rail-Line Point Label
801-Rail-Line - String	Rail-Line - String
802_Rail-Boom_Gate_Cogo Point	Rail-Boom Gate Cogo Point
802_Rail-Boom_Gate_Point Label	Rail-Boom Gate Point Label
803_Rail-Signal_Pole_Cogo Point	Rail-Signal Pole Cogo Point
803_Rail-Signal_Pole_Point Label	Rail-Signal Pole Point Label
804_Rail-Signal_Box_Cogo Point	Rail-Signal Box Cogo Point
804_Rail-Signal_Box_Point Label	Rail-Signal Box Point Label
805_Rail-Stanchion-R_Cogo Point	Rail-Stanchion-R Cogo Point
805_Rail-Stanchion-R_Point Label	Rail-Stanchion-R Point Label
806_Rail-Unclassified_Cogo Point	Rail-Unclassified Cogo Point
806_Rail-Unclassified_Point Label	Rail-Unclassified Point Label
807_Tram-Pole_Cogo Point	Tram-Pole Cogo Point
807_Tram-Pole_Point Label	Tram-Pole Point Label
808_Tram-Unclassified_Cogo Point	Tram-Unclassified Cogo Point
808_Tram-Unclassified_Point Label	Tram-Unclassified Point Label
809_Tram-Line_Cogo Point	Tram-Line Cogo Point
809_Tram-Line_Point Label	Tram-Line Point Label
809-Tram-Line - String	Tram-Line - String
810_Tram-Shelter_Cogo Point	Tram-Shelter Cogo Point
810_Tram-Shelter_Point Label	Tram-Shelter Point Label
810-Tram-Shelter - String	Tram-Shelter - String
811_Rail-Stanchion-L_Cogo Point	Rail-Stanchion-L Cogo Point
811_Rail-Stanchion-L_Point Label	Rail-Stanchion-L Point Label
812_Rail-Platform_Cogo Point	Rail-Platform Cogo Point
812_Rail-Platform_Point Label	Rail-Platform Point Label
812-Rail-Platform - String	Rail-Platform - String

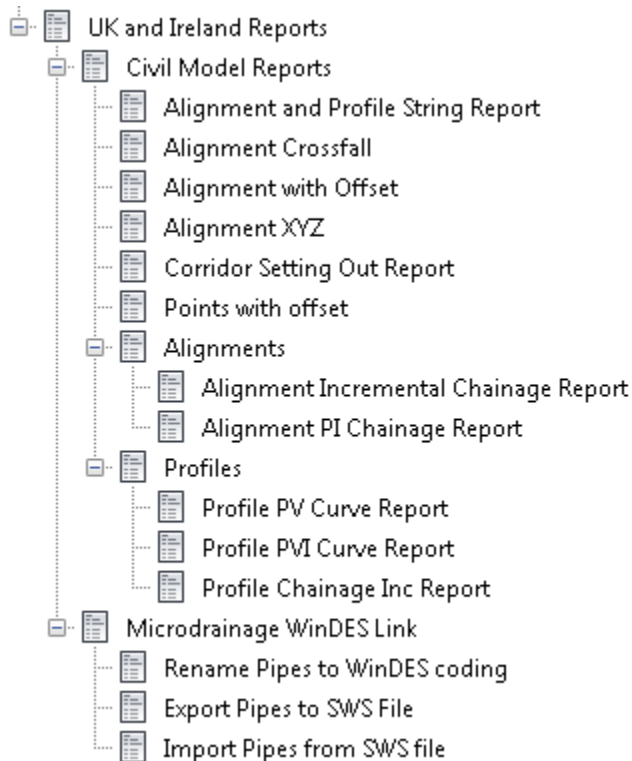
813_Relay_Cogo Point	Relay Cogo Point
813_Relay_Point Label	Relay Point Label
814_Train_Stop_Cogo Point	Train Stop Cogo Point
814_Train_Stop_Point Label	Train Stop Point Label
815_Control_Cabinet_Cogo Point	Control Cabinet Cogo Point
815_Control_Cabinet_Point Label	Control Cabinet Point Label
820_Rail-Catenery_Wire_Cogo Point	Rail-Catenery Wire Cogo Point
820_Rail-Catenery_Wire_Point Label	Rail-Catenery Wire Point Label
820-Rail-Catenery Wire - String	Rail-Catenery Wire - String
821_Rail-Contact_Wire_Cogo Point	Rail-Contact Wire Cogo Point
821_Rail-Contact_Wire_Point Label	Rail-Contact Wire Point Label
821-Rail-Contact Wire - String	Rail-Contact Wire - String
830_Rail-Line-V_Nose_Cogo Point	Rail-Line-V Nose Cogo Point
830_Rail-Line-V_Nose_Point Label	Rail-Line-V Nose Point Label
830-Rail-Line-V Nose - String	Rail-Line-V Nose - String
831_Rail-Line-Blade_Cogo Point	Rail-Line-Blade Cogo Point
831_Rail-Line-Blade_Point Label	Rail-Line-Blade Point Label
831-Rail-Line-Blade - String	Rail-Line-Blade - String
901_Boundary_Cogo Point	Boundary Cogo Point
901_Boundary_Point Label	Boundary Point Label
901-Boundary - String	Boundary - String
902_Boundary-Intersection_Cogo Point	Boundary-Intersection Cogo Point
902_Boundary-Intersection_Point Label	Boundary-Intersection Point Label
902-Boundary-Intersection - String	Boundary-Intersection - String
903_Fence_Cogo Point	Fence Cogo Point
903_Fence_Point Label	Fence Point Label
903-Fence - String	Fence - String
904_Gate_Cogo Point	Gate Cogo Point
904_Gate_Point Label	Gate Point Label
905_Round_Post_Cogo Point	Round Post Cogo Point
905_Round_Post_Point Label	Round Post Point Label
906_Square_Post_Cogo Point	Square Post Cogo Point
906_Square_Post_Point Label	Square Post Point Label
907_Steel_Post_Cogo Point	Steel Post Cogo Point
907_Steel_Post_Point Label	Steel Post Point Label
908_Star_Post_Cogo Point	Star Post Cogo Point
908_Star_Post_Point Label	Star Post Point Label
909_Brick_or_Concrete_Corner_Cogo Point	Brick or Concrete Corner Cogo Point
909_Brick_or_Concrete_Corner_Point Label	Brick or Concrete Corner Point Label
910_Post_Cogo Point	Post Cogo Point
910_Post_Point Label	Post Point Label

911_Paling_Cogo Point	Paling Cogo Point
911_Paling_Point Label	Paling Point Label

4 Reports

The extra reports in the ANZ Country kit have been adopted from the UK/IE template by Jack Strongitharm

It is strongly recommended to install the UK/IE kit to experiment with other styles.



Report Name	Description
Civil Model Reports	
Alignment Incremental Chainage Report	Creates a report at chainages specified of the alignment and profile geometry with levels and bearings
Alignment PI Chainage Report	Reports the intersection points of alignments
Alignment Superelevation Crossfall Report	Superelevation data from an alignment
Profile PV Curve Report	Reports the vertical profile point information
Profile PVI Curve Report	Reports the vertical profile point information
Profile Chainage Inc. Report	Reports the profile data at a chainage interval
Geometry Detailed Report	Coordinates, levels, bearings and element types along an alignment and profile
Geometry Simple Report	Coordinates and levels along an alignment and profile
Corridor Setting Out Report	Reports a corridor for offset and slope
Points Offsets from an Alignment Report	Will report the offset and chainage value of COGO points from an Alignment

Surface Sampling along an Alignment Report	Require sample lines and will read a surface at 5m interval offsets

5 Drawing Settings > Object Layers

Object	Default Layer
Alignment	C-ALIGNMENTS
Alignment-Labeling	C-LABELS_Alignment_General
Alignment Table	C-TABLES
Assembly	C-ASSEMBLIES
Building Site	C-BUILDINGSITES
Corridor	C-CORRIDORS
Corridor Section	C-CORRIDORS
Feature Line	C-FEATURELINES
General Note Label	C-LABELS
General Segment Label	C-LABELS
Grading	C-GRADINGS
Grading-Labeling	C-LABELS
Grid Surface	C-SURFACES
Grid Surface-Labeling	C-LABELS_Surfaces
Interference	C-PIPE_Interference Clash Detection
Mass Haul Line	C-MASSHAUL
Mass Haul View	C-MASSHAUL
Match Line	C-VIEWFRAMES
Match Line-Labeling	C-VIEWFRAMES
Material Section	C-SECTIONS
Material Table	C-SECTIONS
Parcel	C-PARCELS
Parcel-Labeling	C-LABELS_Parcels
Parcel Segment	C-PARCELS
Parcel Segment-Labeling	C-LABELS_Parcels
Parcel Table	C-TABLES
Pipe	C-PIPES
Pipe-Labeling	C-LABELS_Pipe
Pipe and Structure Table	C-TABLES
Pipe Network Section	C-PIPES
Pipe or Structure Profile	C-PIPES
Point Table	C-TABLES
Profile	C-PROFILES
Profile-Labeling	C-LABELS_Profile
Profile View	C-PROFILEVIEWS
Profile View-Labeling	C-LABELS_Profile

Sample Line	C-SECTIONS
Sample Line-Labeling	C-LABELS_Section
Section	C-SECTIONS
Section-Labeling	C-LABELS_Section
Section View	C-SECTIONVIEWS
Section View-Labeling	C-LABELS_Section
Section View Quantity Takeoff Table	C-TABLES
Sheet	C-VIEWFRAMES
Structure	C-PIPES
Structure-Labeling	C-LABELS_Pipe
Subassembly	C-SUBASSEMBLIES
Surface Legend Table	C-TABLES
Survey Figure	C-SURVEY_Figures
Survey Network	C-SURVEY
Tin Surface	C-SURFACES
Tin Surface-Labeling	C-LABELS_Surfaces
View Frame	C-VIEWFRAMES
View Frame-Labeling	C-LABELS

5.1 Ambient Settings
















The following are the new drawing level ambient settings introduced in Tuckerman.







Node	Screen grab / DWF / DWG																												
General	<table border="1"> <thead> <tr> <th>Property</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td> General</td> <td></td> </tr> <tr> <td>Plotted Unit Display Type</td> <td>decimal</td> </tr> <tr> <td>Set AutoCAD Units</td> <td>No</td> </tr> <tr> <td>Save Command Changes to Settings</td> <td>No</td> </tr> <tr> <td>Show Event Viewer</td> <td>No</td> </tr> <tr> <td>Show Tooltips</td> <td>Yes</td> </tr> <tr> <td>Imperial to Metric conversion</td> <td>Use International Foot</td> </tr> <tr> <td>New Entity Tooltip State</td> <td>On</td> </tr> <tr> <td>Driving Direction</td> <td>Left Side of the Road</td> </tr> <tr> <td>Drawing Unit</td> <td>meter</td> </tr> <tr> <td>Drawing Scale</td> <td>0.500</td> </tr> <tr> <td>Scale Inserted Objects</td> <td>No</td> </tr> <tr> <td>Independent Layer On</td> <td>Yes</td> </tr> </tbody> </table>	Property	Value	General		Plotted Unit Display Type	decimal	Set AutoCAD Units	No	Save Command Changes to Settings	No	Show Event Viewer	No	Show Tooltips	Yes	Imperial to Metric conversion	Use International Foot	New Entity Tooltip State	On	Driving Direction	Left Side of the Road	Drawing Unit	meter	Drawing Scale	0.500	Scale Inserted Objects	No	Independent Layer On	Yes
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	+	Labeling			
	-	Unitless			
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		Rounding	round normal		
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Distance	Property		Value	Override	Child Override
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	+	Labeling			
	+	Unitless			
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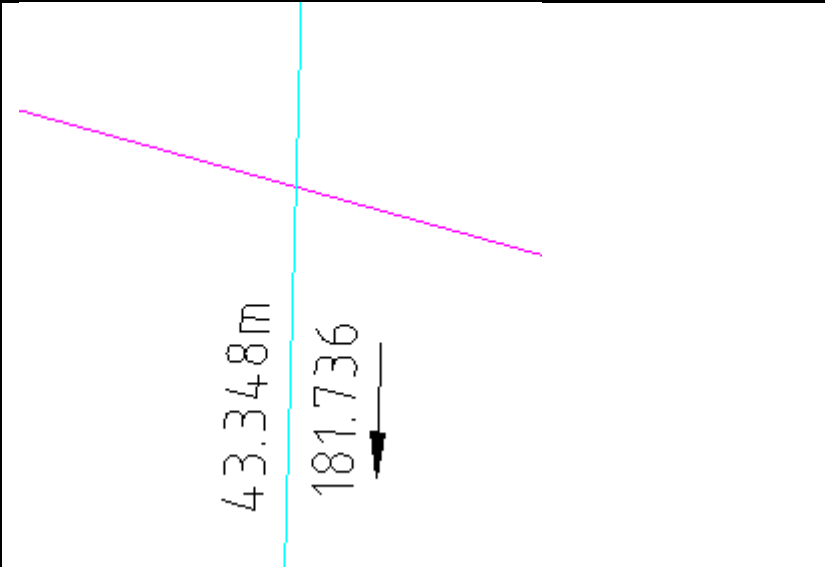
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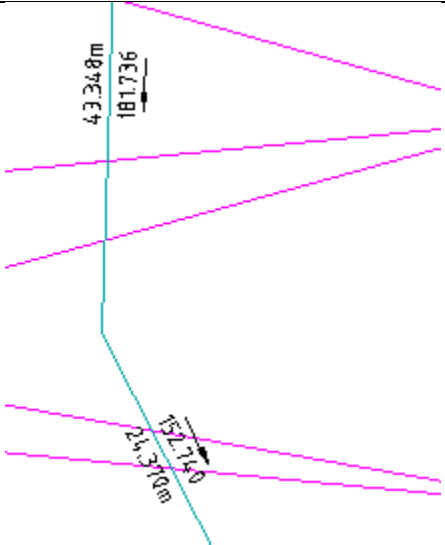
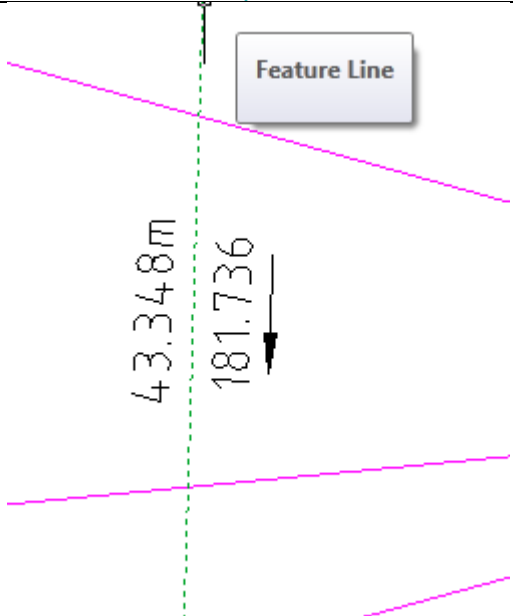
<p>Station</p>	<table border="1"> <tr> <td colspan="2"> Station</td> </tr> <tr> <td>Unit</td> <td>meter</td> </tr> <tr> <td>Format</td> <td>decimal</td> </tr> <tr> <td>Precision</td> <td>3</td> </tr> <tr> <td>Rounding</td> <td>round normal</td> </tr> <tr> <td>Sign</td> <td>sign negative '-'</td> </tr> <tr> <td>Station Delimiter Character</td> <td>plus sign '+'</td> </tr> <tr> <td>Station Delimiter Position</td> <td>1+00</td> </tr> <tr> <td>Drop Decimal for Whole Numbers</td> <td>no</td> </tr> <tr> <td>Drop Leading Zeros Right of Station C...</td> <td>yes</td> </tr> <tr> <td>Minimum Display Width</td> <td>0</td> </tr> </table>	 Station		Unit	meter	Format	decimal	Precision	3	Rounding	round normal	Sign	sign negative '-'	Station Delimiter Character	plus sign '+'	Station Delimiter Position	1+00	Drop Decimal for Whole Numbers	no	Drop Leading Zeros Right of Station C...	yes	Minimum Display Width	0
 Station																							
Unit	meter																						
Format	decimal																						
Precision	3																						
Rounding	round normal																						
Sign	sign negative '-'																						
Station Delimiter Character	plus sign '+'																						
Station Delimiter Position	1+00																						
Drop Decimal for Whole Numbers	no																						
Drop Leading Zeros Right of Station C...	yes																						
Minimum Display Width	0																						
<p>Transparent Commands</p>	<table border="1"> <tr> <td colspan="2"> Transparent Commands</td> </tr> <tr> <td>Prompt for 3D Points</td> <td>False</td> </tr> <tr> <td>Prompt for Y before X</td> <td>False</td> </tr> <tr> <td>Prompt for Easting then Northing</td> <td>True</td> </tr> <tr> <td>Prompt for Longitude then Latitude</td> <td>False</td> </tr> </table>	 Transparent Commands		Prompt for 3D Points	False	Prompt for Y before X	False	Prompt for Easting then Northing	True	Prompt for Longitude then Latitude	False												
 Transparent Commands																							
Prompt for 3D Points	False																						
Prompt for Y before X	False																						
Prompt for Easting then Northing	True																						
Prompt for Longitude then Latitude	False																						

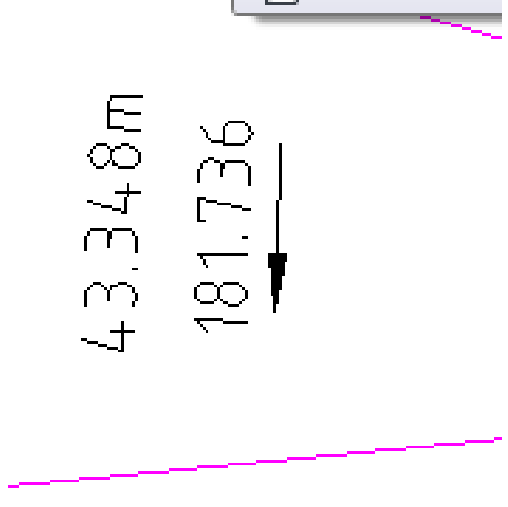
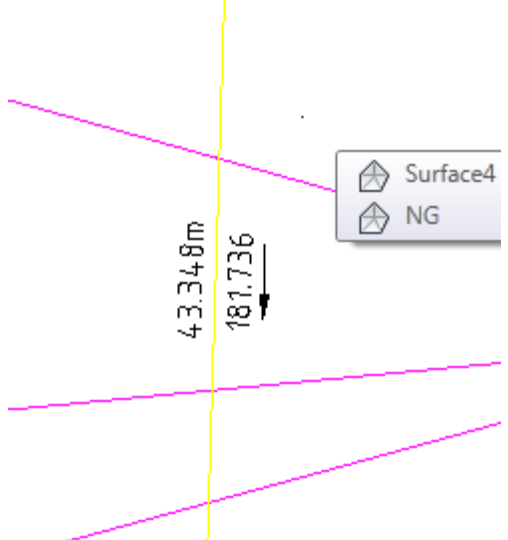
6 Object Styles

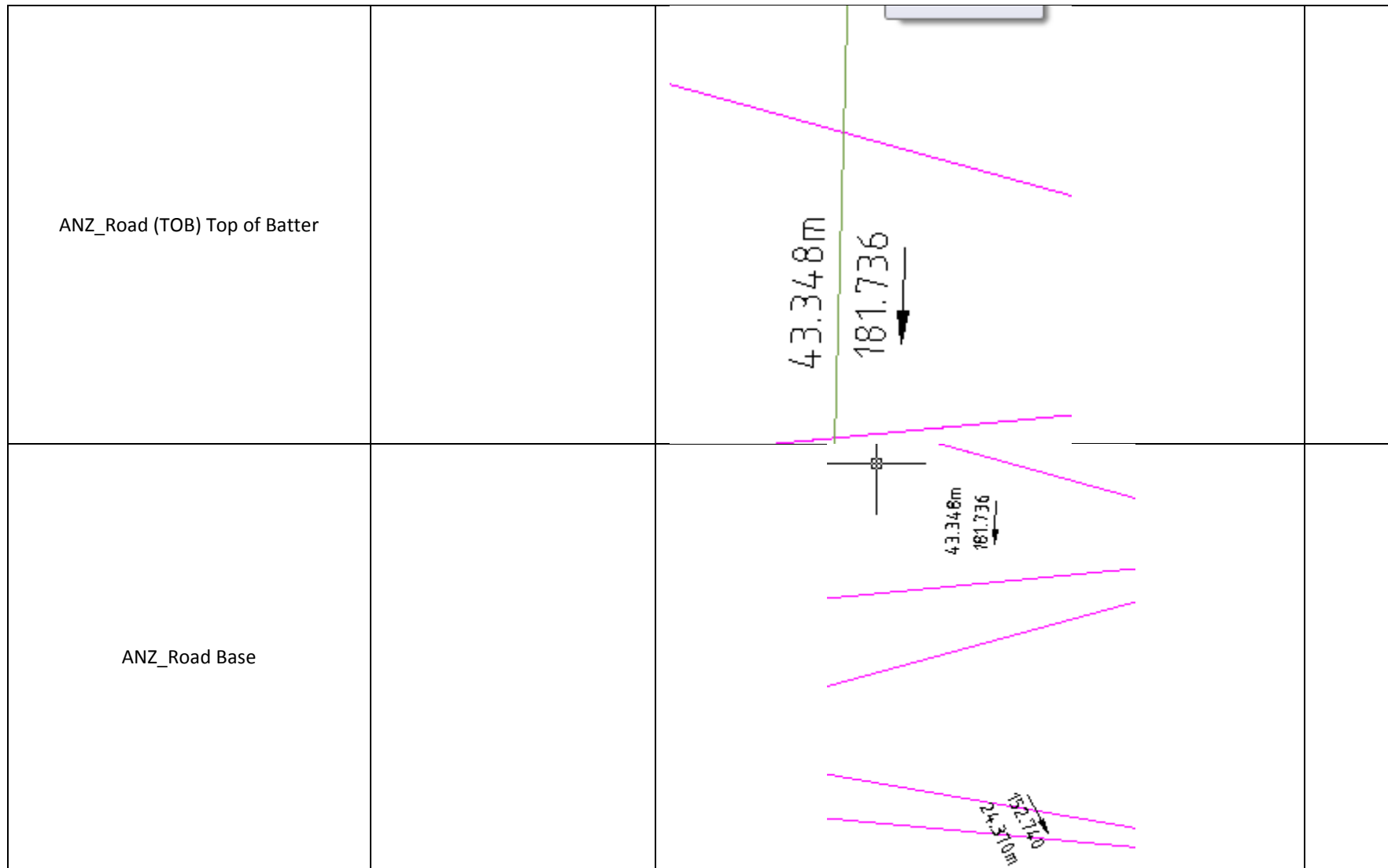
6.1 Multi-purpose Styles

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

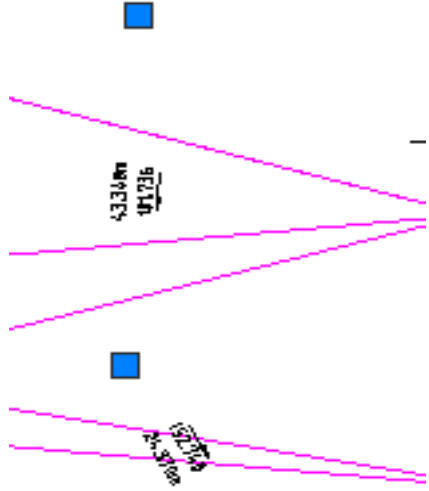
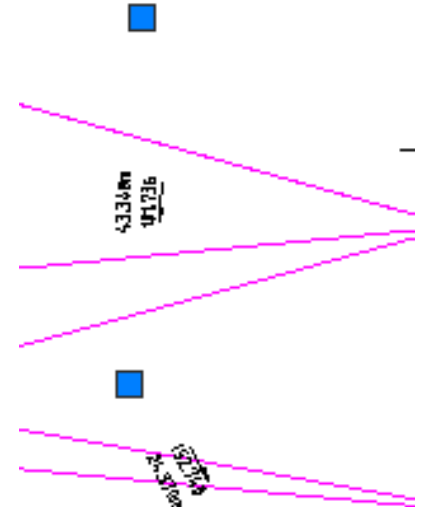
Feature Line Styles	Description	Screen grab / DWF / DWG	Default
ANZ_From Corridor			

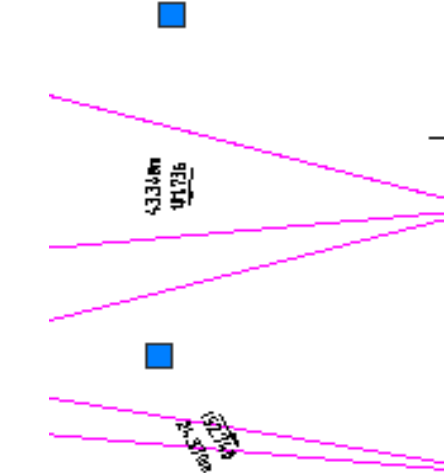
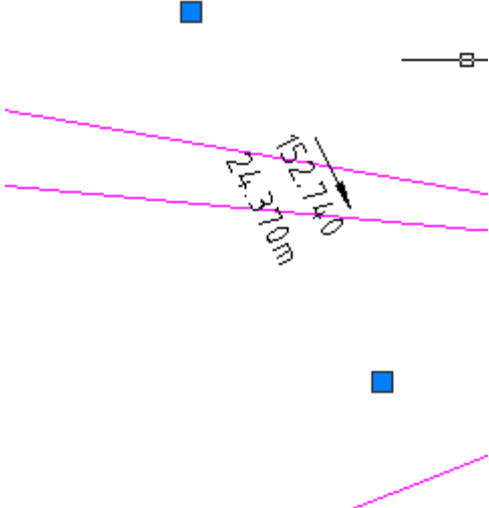
<p>ANZ_Generic Link</p>			
<p>ANZ_Grading</p>			

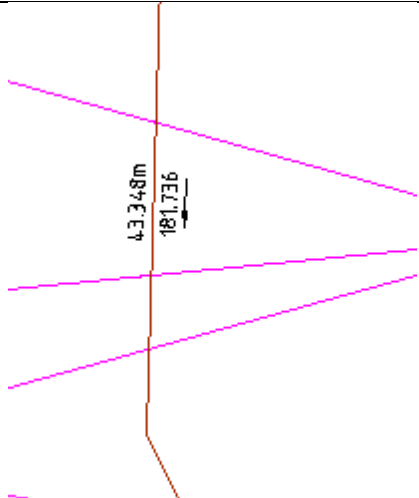
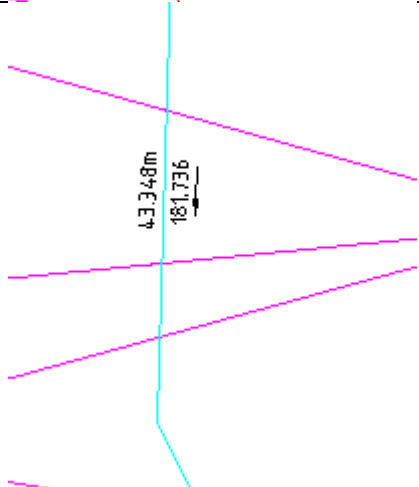
<p>ANZ_No Display</p>		 <p>43.348m 181.736</p>	
<p>ANZ_Road (BOB) Bottom of Batter</p>		 <p>43.348m 181.736</p> <p>Surface4 NG</p>	

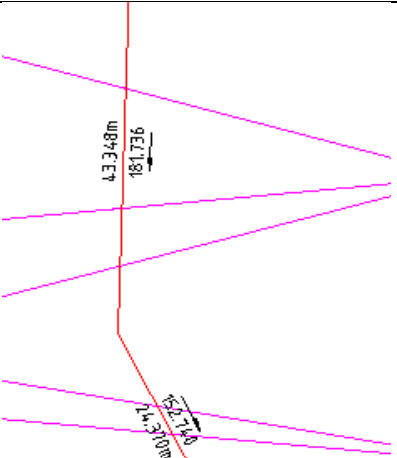
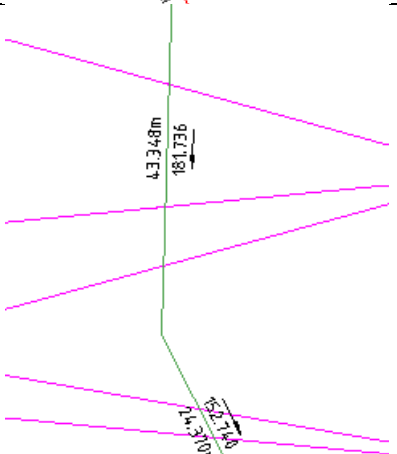




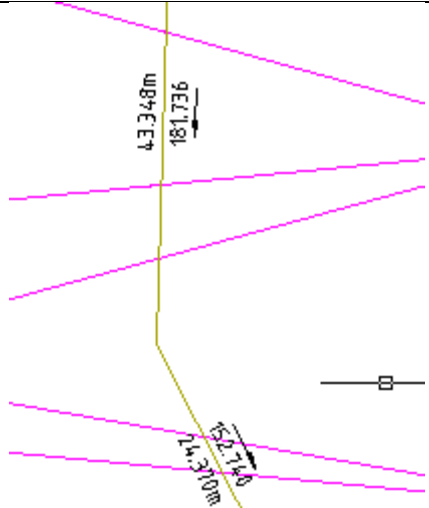
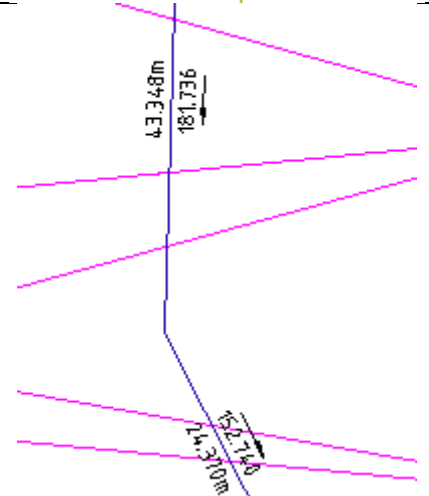
<p>ANZ_Road Pave 1</p>		 <p>The diagram shows a road paving layout with two blue square markers. The top marker is at the top center. Below it, a road section is defined by magenta lines that converge to a point on the right. A vertical dimension line indicates a distance of 43.348m. Below this, another road section is shown with magenta lines that also converge to a point on the right. A second blue square marker is located between the two road sections. A vertical dimension line indicates a distance of 43.348m. At the bottom, a third road section is shown with magenta lines converging to a point on the right. A third blue square marker is located below this section. A vertical dimension line indicates a distance of 43.348m.</p>	
<p>ANZ_Road Pave 2</p>		 <p>The diagram shows a road paving layout with two blue square markers. The top marker is at the top center. Below it, a road section is defined by magenta lines that converge to a point on the right. A vertical dimension line indicates a distance of 43.348m. Below this, another road section is shown with magenta lines that also converge to a point on the right. A second blue square marker is located between the two road sections. A vertical dimension line indicates a distance of 43.348m. At the bottom, a third road section is shown with magenta lines converging to a point on the right. A third blue square marker is located below this section. A vertical dimension line indicates a distance of 43.348m.</p>	

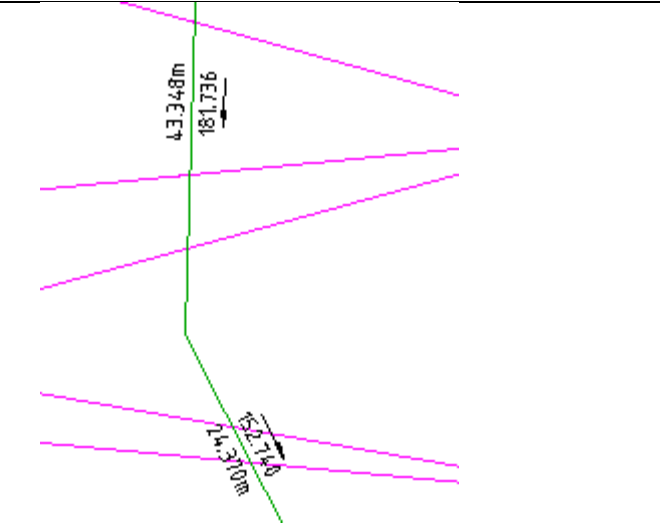
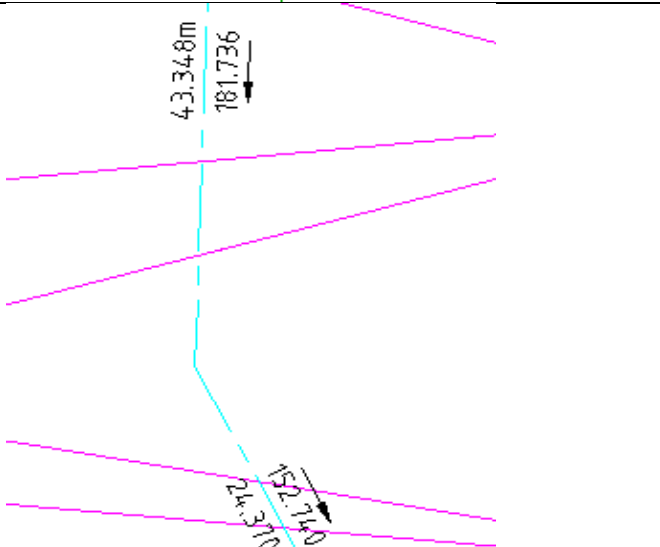
<p>ANZ_Road STRING (From Marked Point)</p>			
<p>ANZ_Road Sub</p>			

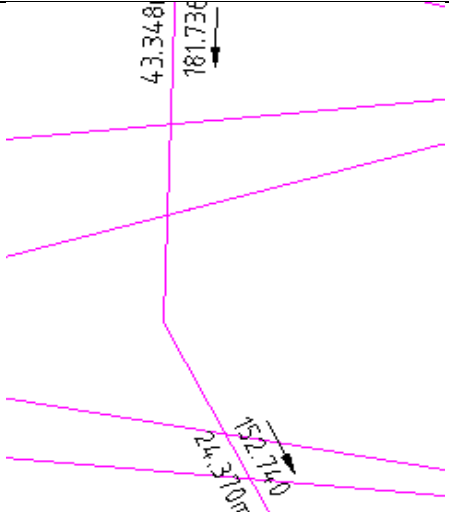
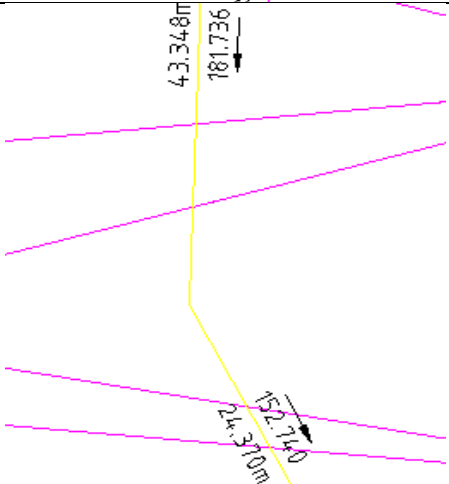
ANZ_Road_BK			
ANZ_Road_EB			

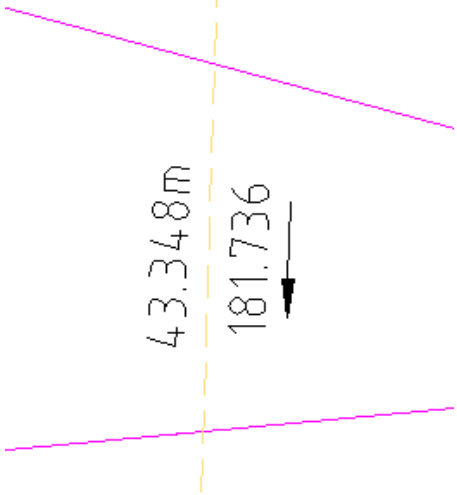
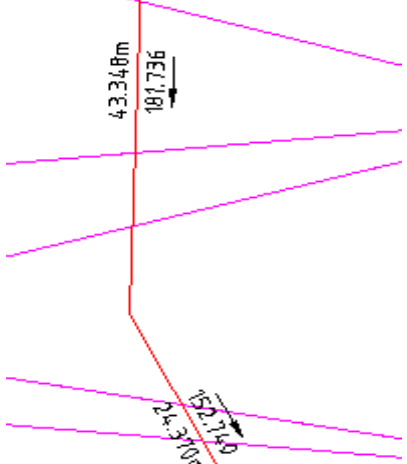
ANZ_Road_FP			
ANZ_Road_INV			

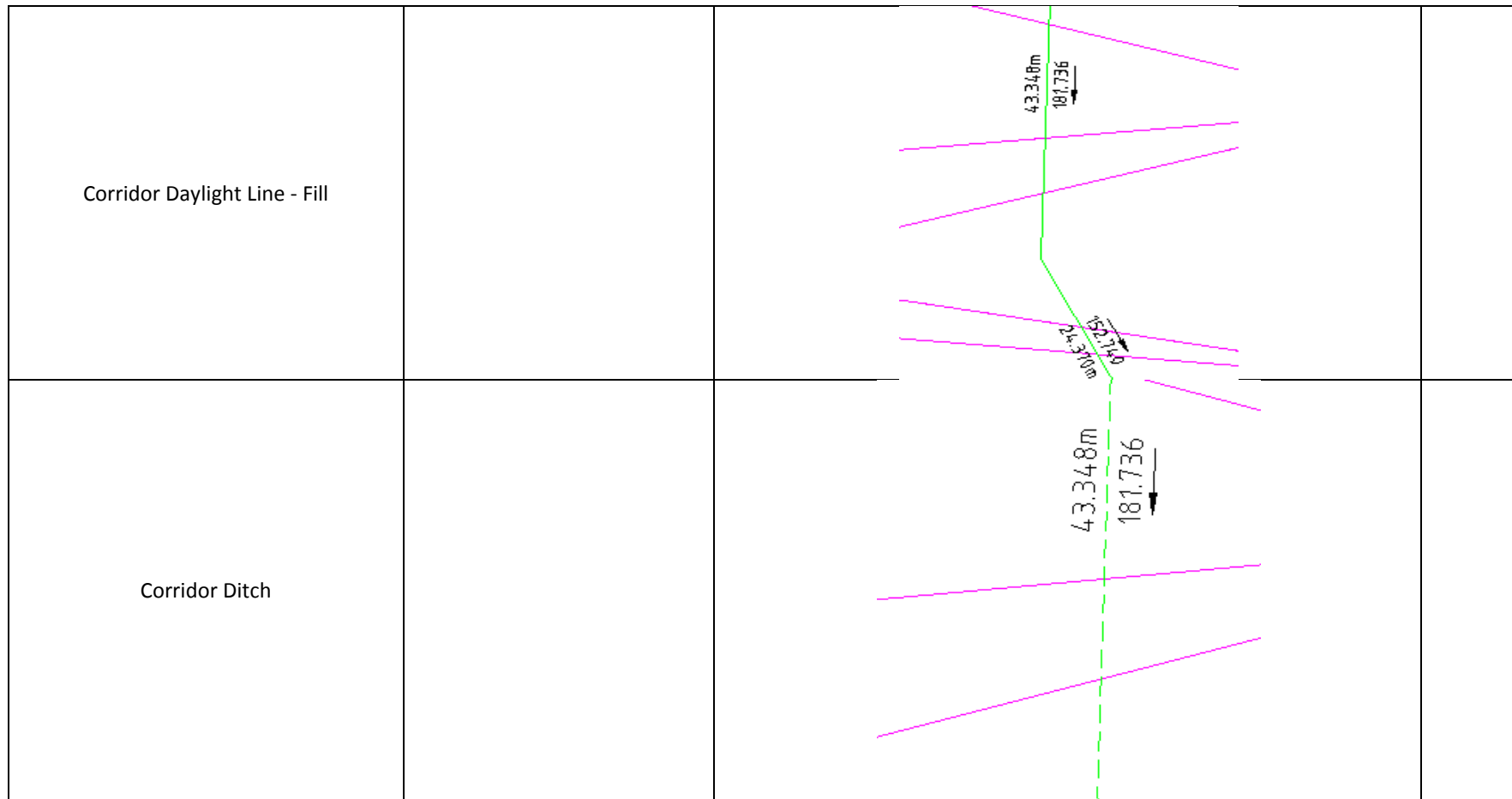
<p>ANZ_Road_TK</p>			
<p>Back of Footpath</p>			

Back of kerb			
Basic			

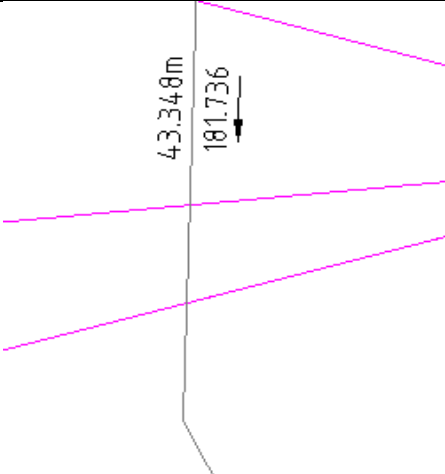
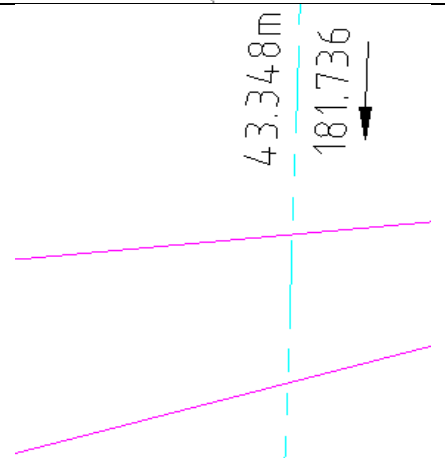
<p>Basic Feature Line</p>		 <p>The diagram shows a green line representing the Basic Feature Line. It starts with a horizontal segment of 43.348m, followed by a vertical segment of 181.736m, then a diagonal segment of 152.710m, and finally a diagonal segment of 214.370m. The line is surrounded by several magenta lines representing boundaries or features.</p>	
<p>Corridor Crown</p>		 <p>The diagram shows a cyan dashed line representing the Corridor Crown. It follows the same path as the Basic Feature Line, with segments of 43.348m, 181.736m, 152.710m, and 214.370m. The line is surrounded by several magenta lines representing boundaries or features.</p>	

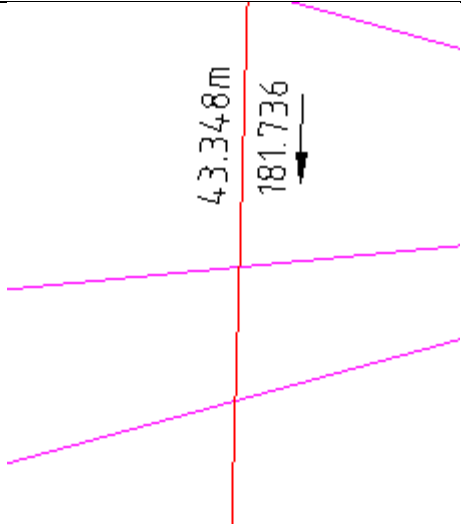
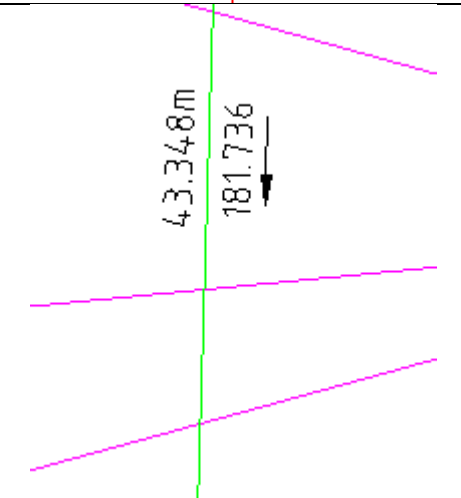
<p>Corridor Curb Line</p>			
<p>Corridor Daylight</p>			

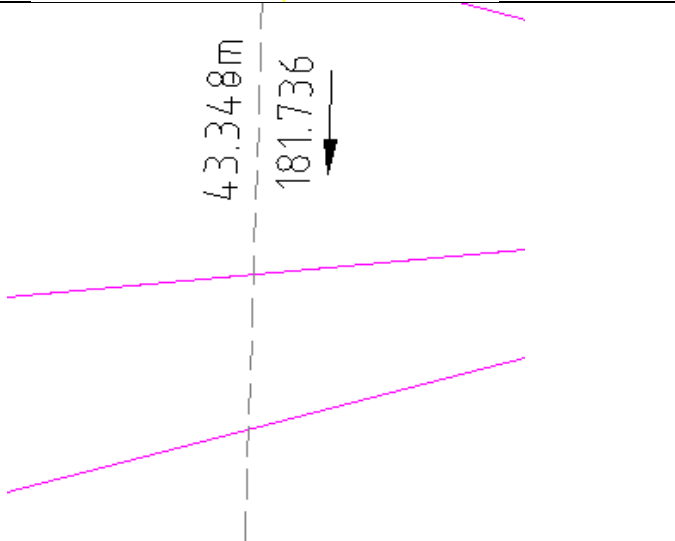
<p>Corridor Daylight - Subgrade</p>			
<p>Corridor Daylight Line - Cut</p>			

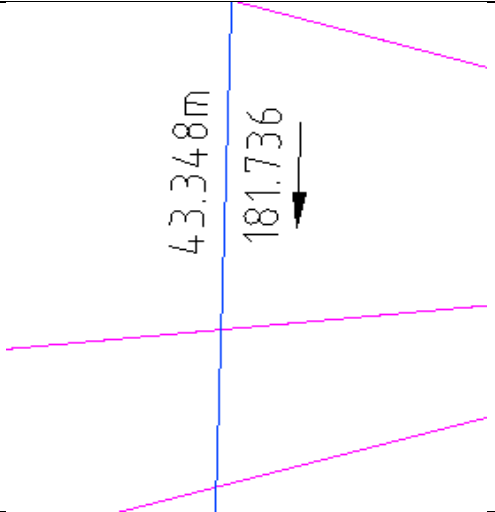
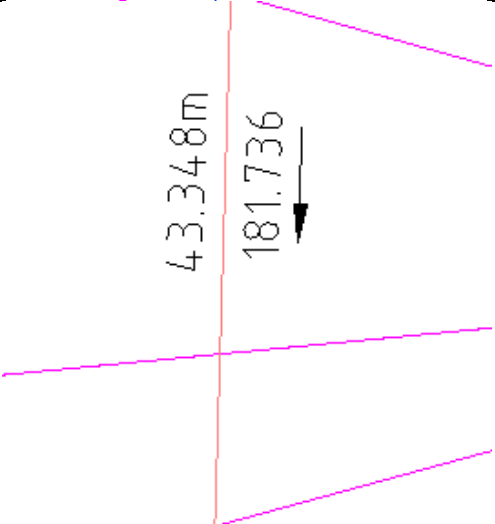


<p>Corridor Edge of Paved Shoulder</p>		 <p>43.348m 181.736</p>	
<p>Corridor Edge of Travel Way</p>		 <p>43.348m 181.736</p>	

<p>Corridor Edge of Unpaved Shoulder</p>		 <p>The diagram shows a vertical line representing the edge of an unpaved shoulder. To the right of this line, there are two parallel lines sloping downwards from left to right. A vertical dimension line is drawn to the right of the vertical line, with the value '43.348m' written vertically. A horizontal dimension line is drawn below the vertical line, with the value '181.736' written horizontally. An arrow points downwards from the horizontal line to the vertical line.</p>	
<p>Corridor Flowline</p>		 <p>The diagram shows a vertical dashed line representing the flowline of a corridor. To the right of this line, there are two parallel lines sloping downwards from left to right. A vertical dimension line is drawn to the right of the dashed line, with the value '43.348m' written vertically. A horizontal dimension line is drawn below the vertical line, with the value '181.736' written horizontally. An arrow points downwards from the horizontal line to the dashed line.</p>	

<p>Corridor Hinge - Cut Slope</p>		 <p>The diagram shows a vertical red line representing a cut slope. To the left of the line, the horizontal distance is labeled as 43.348m. To the right of the line, the vertical drop is labeled as 181.736m with a downward-pointing arrow. The slope is shown as a series of magenta lines that are slightly angled to the right.</p>	
<p>Corridor Hinge - Fill Slope</p>		 <p>The diagram shows a vertical green line representing a fill slope. To the left of the line, the horizontal distance is labeled as 43.348m. To the right of the line, the vertical drop is labeled as 181.736m with a downward-pointing arrow. The slope is shown as a series of magenta lines that are slightly angled to the right.</p>	

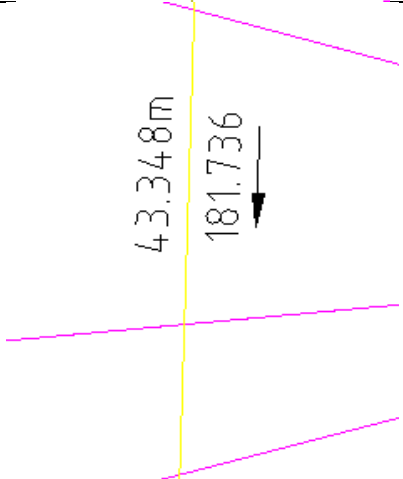
<p>Corridor Hinge - Top Slope</p>		 <p>43.348m 181.736</p>	
<p>Corridor Lane Break</p>		 <p>43.348m 181.736</p>	

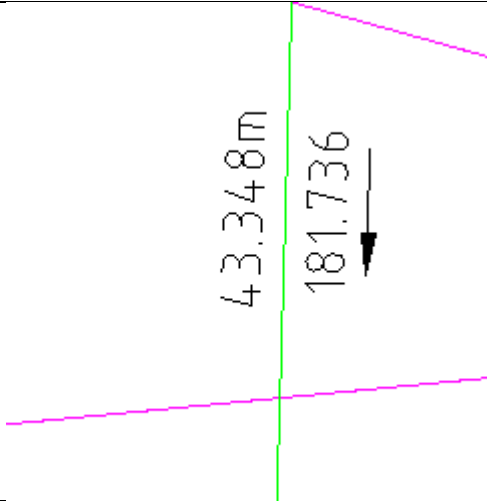
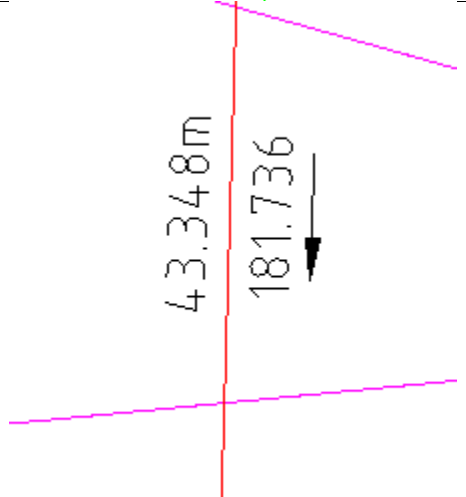
<p>Corridor SubLayer - Feature Line</p>		 <p>The diagram shows a vertical blue line representing the feature line. To its right, a magenta line represents the ground surface. The vertical distance between the blue line and the magenta line is labeled as 43.348m. A horizontal dimension line with an arrow pointing right is labeled 181.736.</p>	
<p>Corridor Top Soil - Feature Line</p>		 <p>The diagram shows a vertical red line representing the feature line. To its right, a magenta line represents the ground surface. The vertical distance between the red line and the magenta line is labeled as 43.348m. A horizontal dimension line with an arrow pointing right is labeled 181.736.</p>	

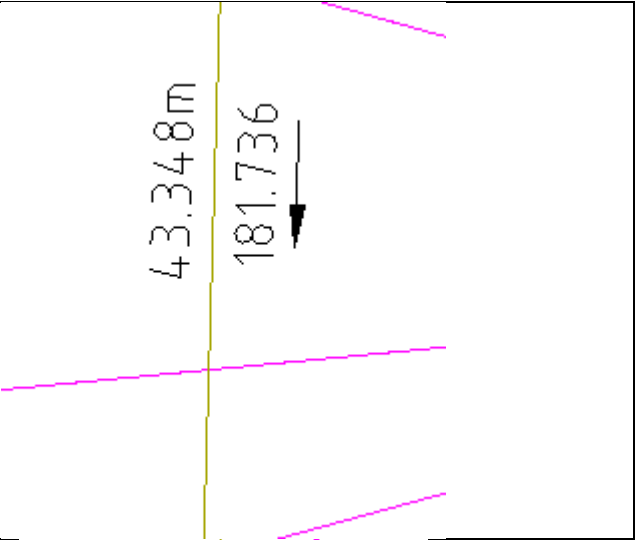
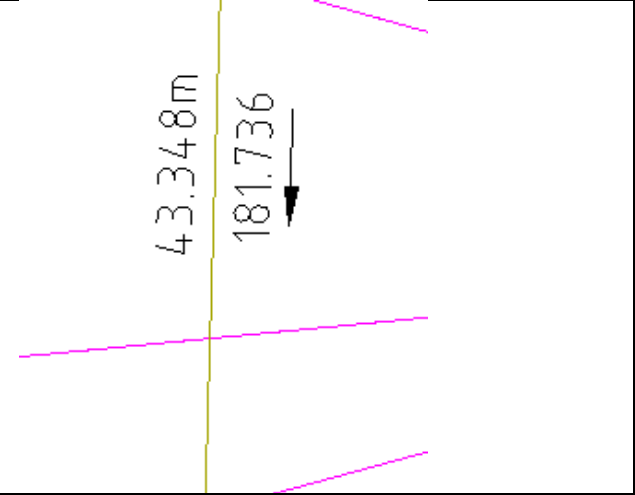
Crown			
Daylight			

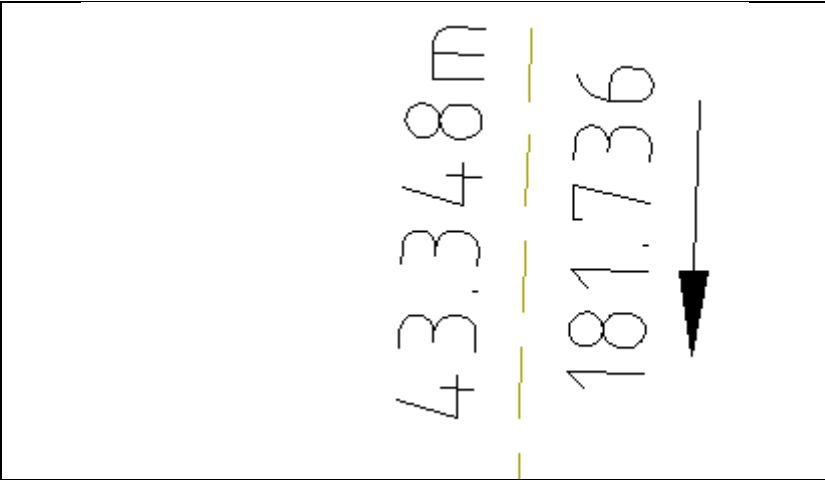
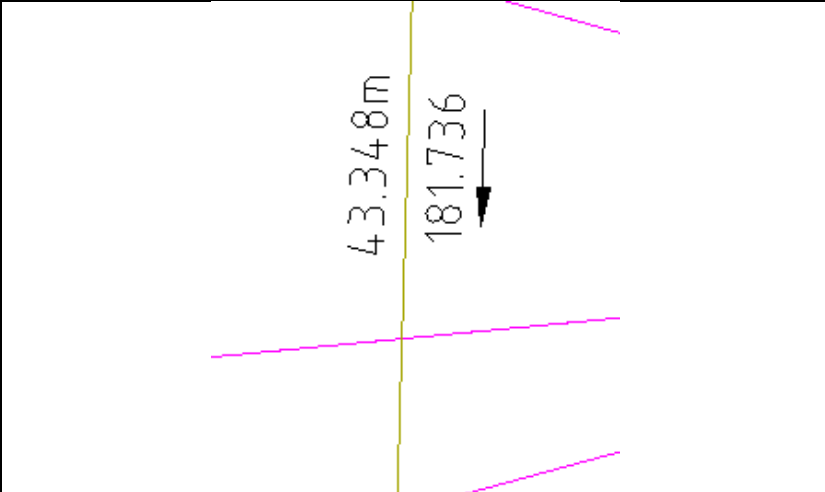
Ditch			
Edge of Carriageway			



Edge of Paved Shoulder			
Flange			

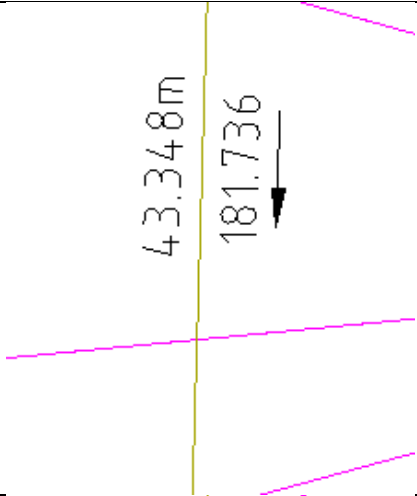
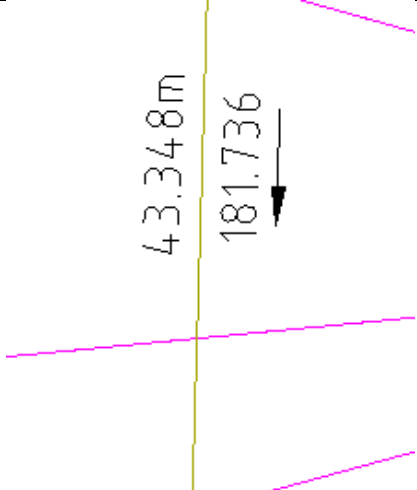
Flowline			
Grading Daylight			

Grading Ditch			
Hinge - Cut Slope			

<p>Hinge - Fill Slope</p>			
<p>Top Slope</p>			

Lane break			
Standard			

Standard Frozen temp		 <p>43.348m 181.736</p>	
SubLayer		 <p>43.348m 181.736</p>	

<p>Top of Kerb</p>			
<p>Top Soil</p>			

Code Set Styles	Description	Screen grab / DWF / DWG	Default
_ANZ_Corr (2D&3D) All Linework - No Shading (Default)			
_ANZ_Corr (2D&3D) Strings & Top Links Only			
_ANZ_Corr Plotting (2D&3D) Strings Only - No			

Sections (Links)			
_ANZ_Corr Plotting (2D:Paved Area Hatched) (3D:Render)			
_ANZ_Corr Plotting (2D:Solid Hatching) (3D:Render)			
_ANZ_SECTION EDITOR			
_ANZ_Subassemblies & Assemblies			
_ANZ_X Section Plotting (Lables & Full Subassemblies) With Hatching			
_ANZ_X Section Plotting (Lables & Full Subassemblies) Without Hatching			
_ANZ_X Section Plotting (Lables & Top Links Only)			
_ANZ_X Section Plotting (Lables Only)			
3D Render Basic Plan			
All Codes			
All Codes with Hatching			

All Codes with No Shading			
ANZ_Default			
Basic			
Codes with labels			
Standard			

Marker Styles	Description	Screen grab / DWF / DWG	Default
_No Markers			
Alignment Geometry			
All off			
ANZ_All Off			
ANZ_Marked Point			
ANZ_Marked Point String			
ANZ_Projected Section (0.225m diam)			
ANZ_Subassembly Marker Circle (Magenta)			
ANZ_Subassembly Marker Grey			
ANZ_Surface Marker (blank)			
ANZ_Surface Marker (Plus Symbol)			
ANZ_Surface Marker (X Symbol)			
ANZ_X-Section_Original CL			
ANZ_X-Section_PGL_BDY-left			
ANZ_X-Section_PGL_BDY-right			
ANZ_X-Section_Shifted CL			
Basic			

Basic Circle with Cross			
Basic Square			
Basic Triangle			
Basic X			
Bench Point			
Channel			
Crown			
Curb			
Daylight			
Daylight - Subgrade			
Ditch Bottom			
Ditch Extents			
Edge of Carriageway			
Edge of Paved Shoulder			
Edge of Travel Way			
Edge of Unpaved Shoulder			
Flange			
Footpath			
Gutter			
Hinge			
Kerb			
Lane Break			
Marked point			
PI Point			
Sidewalk			
Slope Stake - Fill			
Standard			
Standard – empty temp			

Subassemblies			
SubLayer			
Survey Known Point			
Survey Sideshot			
Survey Unknown Point			
Uncoded			
Water			

Link Styles	Description	Screen grab / DWF / DWG	Default
ANZ_Corr_Datum			
ANZ_Corr_Pave (2D & 3D Display)			
ANZ_Corr_Pave (3D Display only)			
ANZ_Corr_Sub-Strata			
ANZ_Corr_Sub-Strata_Pave2			
ANZ_Corr_Top			
ANZ_Cross Section Plotting (General)			
ANZ_Cross Section Plotting (TOP)			
ANZ_Empty			
ANZ_No Codes			
ANZ_Subassembly Linework			
ANZ_Subassembly Linework (Daylight - CUT)			
ANZ_Subassembly Linework (Daylight - FILL)			
ANZ_Subassembly Linework (TOP)			
Barrier			
Base			
Basic			
Channel			
Curb-Top			

Datum			
Daylight			
Daylight-Cut			
Daylight-fill			
Footpath			
Grass Areas			
Gravel			
Kerb-Top			
Lot			
Mill			
Pave			
Pave1			
Pave2			
Sidewalk			
Standard			
Strip			
Subbase			
Top			
Uncoded			
Verge			

Shape Styles	Description	Screen grab / DWF / DWG	Default
_No Shading			
ANZ_Blank			
ANZ_Hatch_Plan View (Ansi 132)			
ANZ_Hatch_Plan View (Ansi 134)			
ANZ_Hatch_Plan View (Ansi 137)			
ANZ_Hatch_Plan View (Solid) Daylight Area			

ANZ_Hatch_Plan View (Solid) Footpath Area			
ANZ_Hatch_Plan View (Solid) Kerbed Area			
ANZ_Hatch_Plan View (Solid) Paved Area			
ANZ_Hatch_Subassembly (Ansi 134) BLUE			
ANZ_Hatch_Subassembly (Ansi 134) colour 134 degrees			
ANZ_Hatch_Subassembly (Ansi 134) CYAN			
ANZ_Hatch_Subassembly (Ansi 134) GREEN			
ANZ_Hatch_Subassembly (Ansi 134) GREY			
ANZ_Hatch_Subassembly (Ansi 134) GREY 90 degrees			
ANZ_Hatch_Subassembly (Ansi 134) MAGENTA			
ANZ_Hatch_Subassembly (Ansi 134) RED			
ANZ_Hatch_Subassembly (Ansi 134) YELLOW			
ANZ_Hatch_Subassembly (Ansi 137) BLUE			
ANZ_Hatch_Subassembly (Ansi 137) colour 63			
ANZ_Hatch_Subassembly (Ansi 137) CYAN			
ANZ_Hatch_Subassembly (Ansi 137) GREEN			
ANZ_Hatch_Subassembly (Ansi 137) GREY			
ANZ_Hatch_Subassembly (Ansi 137) GREY			
ANZ_Hatch_Subassembly (Ansi 137) RED			
ANZ_Hatch_Subassembly (Ansi 137) YELLOW			
ANZ_Hatch_Subassembly (Solid) BLUE			
ANZ_Hatch_Subassembly (Solid) Colour 63			
ANZ_Hatch_Subassembly (Solid) Colour 144			
ANZ_Hatch_Subassembly (Solid) CYAN			
ANZ_Hatch_Subassembly (Solid) GREEN			
ANZ_Hatch_Subassembly (Solid) GREY			

ANZ_Hatch_Subassembly (Solid) MAGENTA			
ANZ_Hatch_Subassembly (Solid) RED			
ANZ_Hatch_Subassembly (Solid) YELLOW			
ANZ_Profile_Cut (Solid)			
ANZ_Profile_Hatching (ANSI)			
Ballast			
Barrier			
Base			
Basic			
Bridge			
Concrete Hatch			
Curb			
Cut Material			
Fill Material			
Footpath			
Girder			
Grass			
Grass Hatch			
Gravel			
Hatch Ansi 31			
Hatch Ansi 31 Large Scale			
Hatch Ansi 32			
Hatch Ansi 32 Large Scale			
kerb			
Milling			
Multiple Boundary Material			
Overlay			
Pave			

Pave Hatch			
Pave1			
Pave2			
Rail			
Sidewalk			
Standard			
Strip Hatch			
SubBase			
Uncoded			

Slope Pattern Style	Description	Screen grab / DWF / DWG	Default
Basic			
Fixed Length			
Slope Schemes			
Standard			
Tadpoles			
Triangles			

Multipurpose Label Styles	Description	Screen grab / DWF / DWG	Default
Note			
ANZ_Note (no border no masking)			
ANZ_Note (rounded border - background masking)			
General Note			
Standard			
Line			
ANZ_Featureline Vertex Level - Above the line			
ANZ_Featureline Vertex Level - Below the line			
ANZ_Featureline Vertex Level - Below the line			
ANZ_Featureline Vertex Level Object Rotation - Above the line			
ANZ_Featureline Vertex Object Rotation - Below the line			





ANZ_Length and Angle			
ANZ_Length and Slope			
Bearing and Distance			
Bearing Only			
Bearing Over Distance			
Distance Only			
Geodetic Azimuth over Distance			
Grade Only			
Grade over Distance			
Slope Only			
Slope over Distance			
Standard			
Curve			
ANZ_Curve Length and Radius			
Distance-Radius and Delta			
Distance Only			
Distance over Radius			
Grade Only			
Grade over Distance			
Radius Only			
Slope Only			
Slope over Distance			
Standard			
Marker			
ANZ_MP			
ANZ_Offset & Level			
Offset Elevation			
Standard			
Link			
ANZ_Length & Slope (Percent)			
ANZ_Length & Slope (Percent) Section Editor			
ANZ_Percent Slopes			
ANZ_Percent Slopes with Direction Arrow			
ANZ_Rise : Run Slopes (1:x)			
ANZ_Rise : Run Slopes (1:x) with Direction Arrow			
ANZ_Run : Rise Slopes			

Flat Grades			
Percent Slopes			
Rise : Run Slopes (1:x)			
Standard			
Steep Grades			
Shape			
ANZ_Shape Area and Name			
ANZ_Shape Code			
Pavement Structure			
Standard			

6.2 Points

ANZ DESIGN Template


Point Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> BB 		1 ✕ 0.000 Description	<input type="checkbox"/>
<ul style="list-style-type: none"> BK 		1 ✕ 0.000 Description	<input type="checkbox"/>
<ul style="list-style-type: none"> CL 		1 ✕ 0.000 Description	<input type="checkbox"/>



<ul style="list-style-type: none"> • EB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Standard 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TK 		<p>1  0.000 Description</p>	<input type="checkbox"/>

Additional Point in the ANZ Survey Alpha Codes Template:






Point Styles	Description	Screen grab / DWF / DWG	Default
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




<ul style="list-style-type: none"> AG 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> All Off 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> AWN 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> BA 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> BB 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	

<ul style="list-style-type: none"> • BBQ 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> • BC 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> • BD 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> • BDA 		<p>1  0.000 Description</p> <input type="checkbox"/>	
<ul style="list-style-type: none"> • BDY 		<p>1 X 0.000 Description</p> <input type="checkbox"/>	






<ul style="list-style-type: none"> • BE 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BG 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BIN 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BK 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BL 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • BLT 		<p>1 ⊗ 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BM 		<p>1 ▲ 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BOL 		<p>1 ● Bol 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BORE 		<p>1 ⊗ 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BS 		<p>1 ✗ 0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • BSH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BU 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BUS 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • BW 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • C 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • CAM 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CC 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CP 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • CR 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CROSS 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • CULV 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • D 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DD 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • DH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DHW 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DJP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DP 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • DPY 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • DR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • ECM 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EF 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • EG 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EM 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EP 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EPG 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EPIL 		<p>1 ⊗ 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> EPL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> EPT 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> ES 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> ET 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> ETC 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • ETR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • EUR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • F 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FHD 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • FL 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FLR 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FP 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FPIT 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • FPL 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> FPLUG 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> G 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> GAS 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> GATE 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> GIN 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> GIP 		<p>1  0.000 Description <input type="checkbox"/></p>	
<ul style="list-style-type: none"> GMP 		<p>1  0.000 Description <input type="checkbox"/></p>	
<ul style="list-style-type: none"> GP 		<p>1  0.000 Description <input type="checkbox"/></p>	
<ul style="list-style-type: none"> GR 		<p>1  0.000 Description <input type="checkbox"/></p>	
<ul style="list-style-type: none"> GRAV 		<p>1  0.000 Description <input type="checkbox"/></p>	






<ul style="list-style-type: none"> • GRID 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • GUL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • GV 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • HW 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • HWB 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • HWT 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • INV 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • JBX 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • K 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • KI 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • KL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • KP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • L 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • LB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • LPL 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • MB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • MBR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • MBX 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • MH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • MO 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • NS 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • OBV 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • OPT 		<p>1 <input type="checkbox"/> OPTUS 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • P 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PB 		<p>1 <input type="checkbox"/> FUEL 0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • PBOX 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PBX 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PEG 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PIT 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • PLP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PM 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PMP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PMT 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • POLE 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • PPL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PTH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PTR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • PV 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> PX 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> RFP 		<p>1 ⊗ 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> RHY 		<p>1 ▽ 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> RKR 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> RLC 		<p>1 □ 0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • RSB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • RSN 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • RSP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • RSV 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • RTP 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • RW 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • RWM 		<p>1 <input type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • S 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SD 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SEAT 		<p>1 SEAT 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • SEP 		<p>1 ST 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SEWER 		<p>1 SEW 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SF 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SFP 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SHD 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • SHRUB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SHRUB1 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SIN 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SIP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SJB 		<p>1  0.000 Description</p>	<input type="checkbox"/>


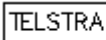



<ul style="list-style-type: none"> • SLH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SLR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SMH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SPL 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • SQP 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • SSM 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • STANDARD 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • STN 			<input type="checkbox"/>
<ul style="list-style-type: none"> • SVP 		<p>1 <input checked="" type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • SWG 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • T 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • T1 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • T3 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • T4 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> TAP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> TB 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> TC 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> TCM 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> TD 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • TEP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TK 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TM 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TMP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TNK 		<p>1  0.000 Description</p>	<input type="checkbox"/>

<ul style="list-style-type: none"> • TPL 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TPT 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TSC 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TSP 		<p>1  0.000 Description</p>	<input type="checkbox"/>





<ul style="list-style-type: none"> • TTP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TW 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • TXP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • UP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • VA 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • VT 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WC 		<p>1 X 0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WGS 			<input type="checkbox"/>
<ul style="list-style-type: none"> • WGSS 			<input type="checkbox"/>
<ul style="list-style-type: none"> • WHY 		<p>1 <input type="checkbox"/> 0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • WMH 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WMP 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WMR 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WSV 		<p>1  0.000 Description</p>	<input type="checkbox"/>
<ul style="list-style-type: none"> • WTP 		<p>1  0.000 Description</p>	<input type="checkbox"/>






<ul style="list-style-type: none"> • WW 		<p>1  0.000 Description</p> <input type="checkbox"/>	
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Additional Point in the ANZ Survey Numeric Codes Template:

Point Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> • 1 		<p>1  0.000 Description</p> <input type="checkbox"/>	
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




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



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
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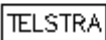




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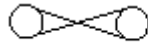

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<ul style="list-style-type: none"> • 809 		<p>1 X 0.000 <input type="checkbox"/> Description</p>	
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<ul style="list-style-type: none"> • 812 		<p>1 X 0.000 <input type="checkbox"/> Description</p>	
<ul style="list-style-type: none"> • 813 		<p>1 X 0.000 <input type="checkbox"/> Description</p>	

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<ul style="list-style-type: none"> • 821 		<p>1 ✕ 0.000 <input type="checkbox"/></p> <p>Description</p>	
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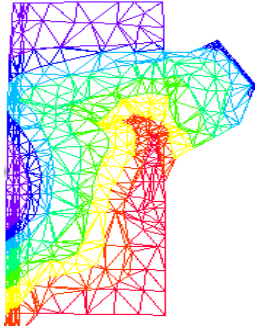
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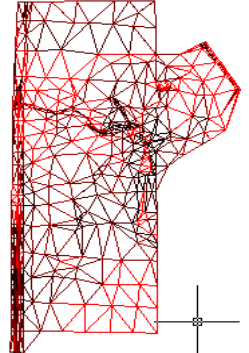
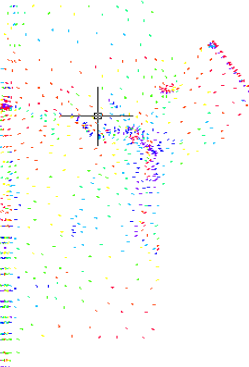
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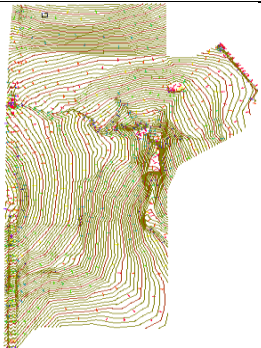
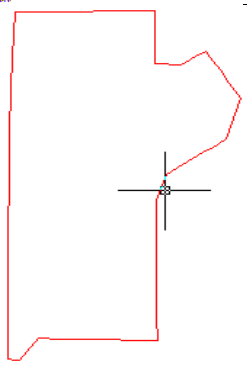

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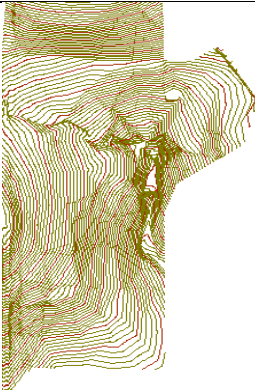
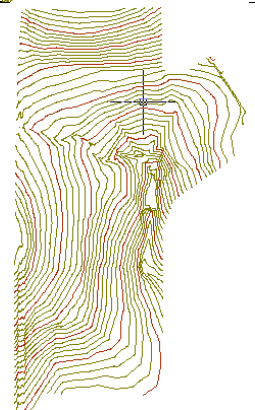
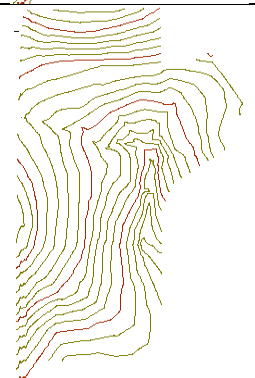
6.3 Surfaces

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt


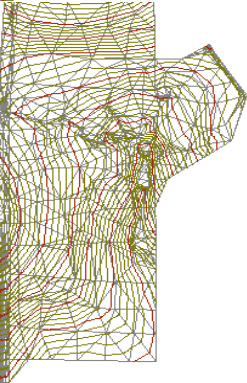
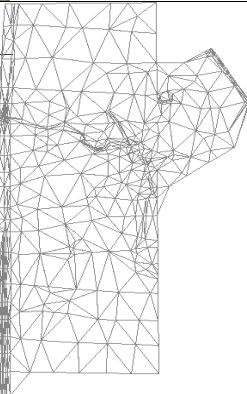
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ANZ_Analysis - Elevation (2D)			
ANZ_Analysis - Elevation (3D)			

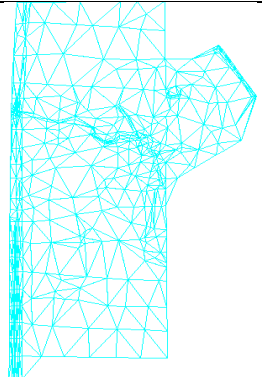
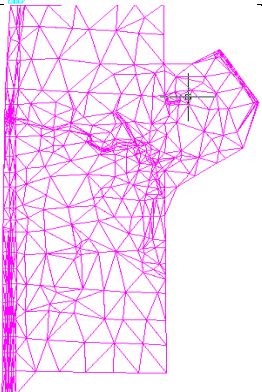

ANZ_Analysis - Slope (2D)			
ANZ_Analysis - Slope (3D)			
ANZ_Analysis - Slope Arrows			

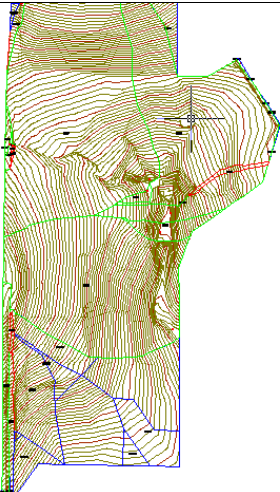
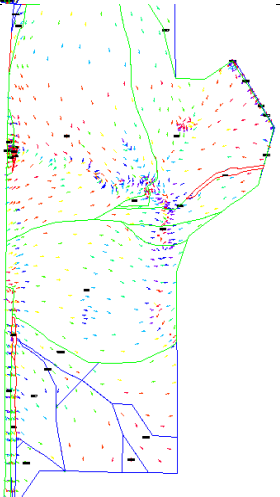
ANZ_Analysis - Slope Arrows & Contours (.5m)			
ANZ_Border (2D - Elevation 0)			
ANZ_Conts (.1m)			


ANZ_Conts (.5m)			
ANZ_Conts (1m)			
ANZ_Conts (2m)			

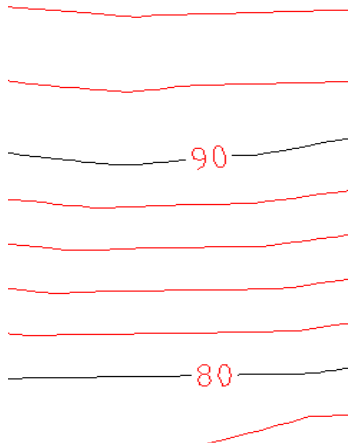
ANZ_Conts (5m)			
ANZ_Conts + Triangles (.1m)			
ANZ_Conts + Triangles (.2m)			

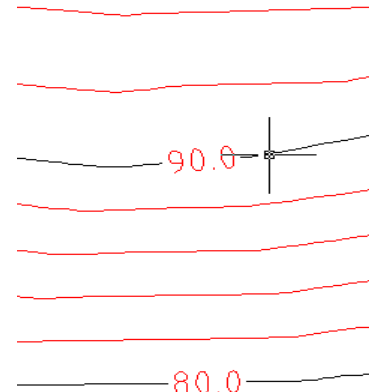
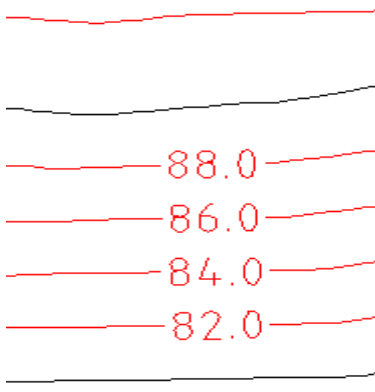
ANZ_Conts + Triangles (.5m)			
ANZ_Conts + Triangles (1m)			
ANZ_Triangulation			

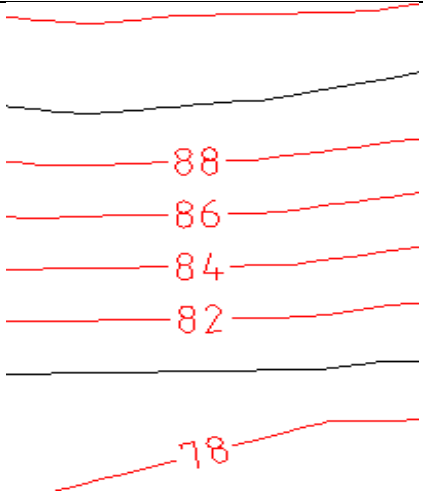
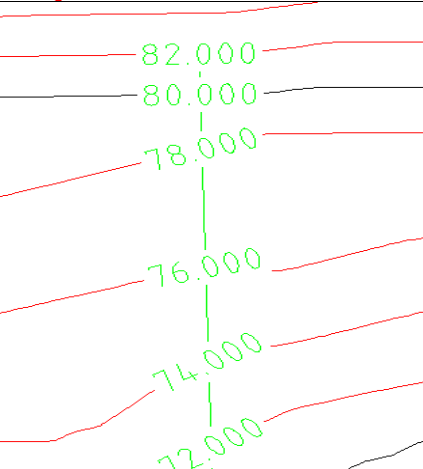
ANZ_Triangulation (Cyan)			
ANZ_Triangulation (magenta)			
ANZ_Watersheds			

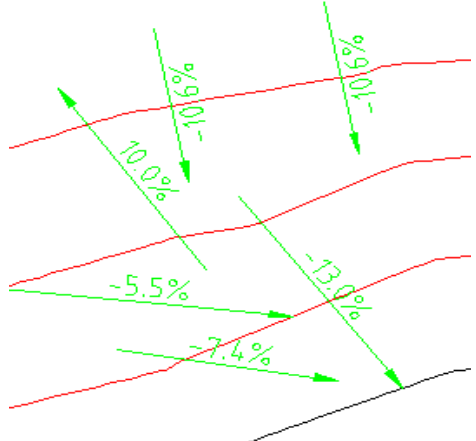
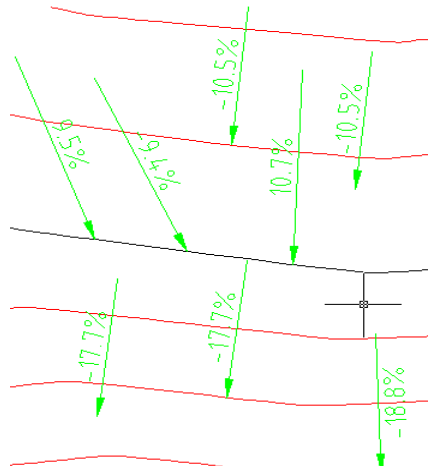
ANZ_Watersheds + Conts (.5m)			
ANZ_Watersheds + Slope Arrows			

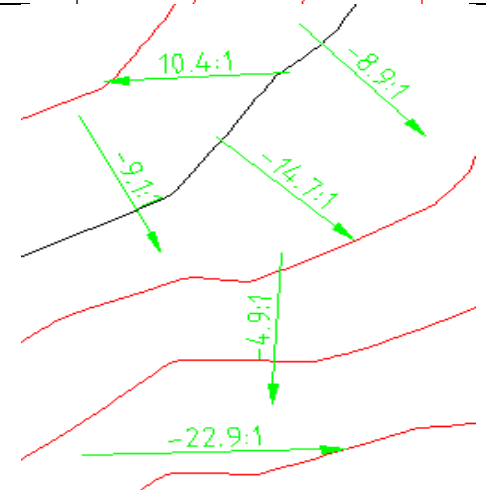
Standard			
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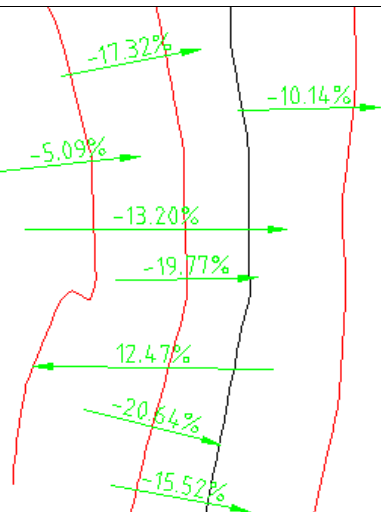
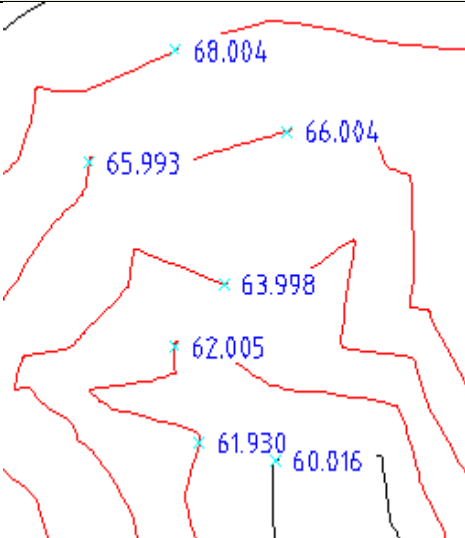
Surface Label Styles Name/Type	Description	Screen grab / DWF / DWG	Default
Contour			
ANZ_Design Contour Major (Precision 1m)			


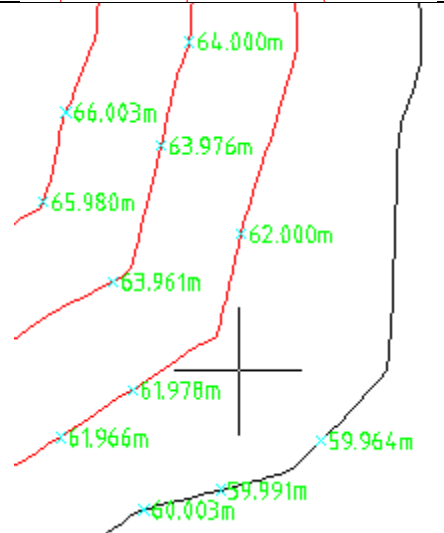
ANZ_Design Contour Major (Precision 0.1m)		 <p>The diagram shows a series of horizontal contour lines. A black contour line is labeled '90.0' and has a crosshair symbol. Below it, a red contour line is labeled '80.0'. Other red contour lines are present but unlabeled.</p>	
ANZ_Design Contour Minor (Precision 0.1m)		 <p>The diagram shows a series of horizontal contour lines. A black contour line is at the top. Below it, four red contour lines are labeled '88.0', '86.0', '84.0', and '82.0' from top to bottom.</p>	

ANZ_Design Contour Minor (Precision 1m)			
Standard			
Slope			





































<p>ANZ_Slope Percent (precision 0.1)</p>			
<p>ANZ_Slope Percent (precision 0.1) - Always Downstream</p>			





































ANZ_Slope Rise:Run (1:x)		 <p>A diagram showing a terrain profile with several slope segments. The slopes are indicated by green arrows with labels: 1:15.8, -1:12.6, -1:8.9, -1:8.7, -1:9.6, and -1:7.7. The profile is drawn with red lines on a white background.</p>	
ANZ_Slope Run:Rise (x:1)		 <p>A diagram showing a terrain profile with several slope segments. The slopes are indicated by green arrows with labels: 10.4:1, -8.9:1, -9.7:1, -14.7:1, -4.9:1, and -22.9:1. The profile is drawn with red lines on a white background.</p>	


































Standard			
Spot Elevation			
ANZ_Cut Fill (Red Blue)			

























ANZ_Spot Level & Coordinates		 <p>Topographic map showing spot levels and coordinates for a terrain profile. The map features a red line representing the terrain profile. Two specific points are highlighted with their coordinates and elevations:</p> <ul style="list-style-type: none">Point 1: E: 58.018m, X: 2912.824, Y: 702.154Point 2: E: 52.010m, X: 2938.467, Y: 677.508 <p>Other points on the profile include:</p> <ul style="list-style-type: none">E: 58.001m, X: 2913.308, Y: 665.891																																					
ANZ_Spot Level (precision 0.001)		 <p>Detailed topographic map showing spot levels with 0.001m precision. The map features a red line representing the terrain profile. A central crosshair is present. The following table lists the spot levels and their corresponding X and Y coordinates:</p> <table border="1"><thead><tr><th>Spot Level (m)</th><th>X</th><th>Y</th></tr></thead><tbody><tr><td>64.000</td><td></td><td></td></tr><tr><td>66.003</td><td></td><td></td></tr><tr><td>63.976</td><td></td><td></td></tr><tr><td>65.980</td><td></td><td></td></tr><tr><td>62.000</td><td></td><td></td></tr><tr><td>63.961</td><td></td><td></td></tr><tr><td>61.978</td><td></td><td></td></tr><tr><td>61.966</td><td></td><td></td></tr><tr><td>59.964</td><td></td><td></td></tr><tr><td>59.991</td><td></td><td></td></tr><tr><td>60.003</td><td></td><td></td></tr></tbody></table>	Spot Level (m)	X	Y	64.000			66.003			63.976			65.980			62.000			63.961			61.978			61.966			59.964			59.991			60.003			
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Standard			
Watershed			
ANZ_Watershed Label Style			
Standard			

Surface Table Styles Name/Type	Description	Screen grab / DWF / DWG	Default																												
Direction																															
ANZ_Direction Ranges		<table border="1"> <thead> <tr> <th colspan="4">Surface Analysis: Directions</th> </tr> <tr> <th>Number</th> <th>Color</th> <th>Minimum Direction</th> <th>Maximum Direction</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>000° 00' 00"</td> <td>057° 17' 45"</td> </tr> <tr> <td>2</td> <td></td> <td>057° 17' 45"</td> <td>114° 35' 30"</td> </tr> <tr> <td>3</td> <td></td> <td>114° 35' 30"</td> <td>171° 53' 14"</td> </tr> <tr> <td>4</td> <td></td> <td>171° 53' 14"</td> <td>229° 10' 59"</td> </tr> <tr> <td>5</td> <td></td> <td>229° 10' 59"</td> <td>343° 46' 29"</td> </tr> </tbody> </table>	Surface Analysis: Directions				Number	Color	Minimum Direction	Maximum Direction	1		000° 00' 00"	057° 17' 45"	2		057° 17' 45"	114° 35' 30"	3		114° 35' 30"	171° 53' 14"	4		171° 53' 14"	229° 10' 59"	5		229° 10' 59"	343° 46' 29"	
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Elevation																															
ANZ_Elevation Ranges & 2D Areas		<table border="1"> <thead> <tr> <th colspan="5">Surface Analysis: Elevation Ranges</th> </tr> <tr> <th>Number</th> <th>Color</th> <th>Minimum Elevation (m)</th> <th>Maximum Elevation (m)</th> <th>2D Area (m²)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>50.514</td> <td>58.900</td> <td>27734.7</td> </tr> <tr> <td>2</td> <td></td> <td>58.900</td> <td>63.100</td> <td>22061.5</td> </tr> </tbody> </table>	Surface Analysis: Elevation Ranges					Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	2D Area (m ²)	1		50.514	58.900	27734.7	2		58.900	63.100	22061.5									
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ANZ_Elevation Ranges & 2D Areas & Volumes		<table border="1"> <thead> <tr> <th colspan="6">Surface Analysis: Elevation Ranges</th> </tr> <tr> <th>Number</th> <th>Color</th> <th>Minimum Elevation (m)</th> <th>Maximum Elevation (m)</th> <th>2D Area (m²)</th> <th>Volume (m³)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>50.514</td> <td>58.900</td> <td>27734.7</td> <td>1582073.1</td> </tr> <tr> <td>2</td> <td></td> <td>58.900</td> <td>63.100</td> <td>22061.5</td> <td>667382.1</td> </tr> </tbody> </table>	Surface Analysis: Elevation Ranges						Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	2D Area (m ²)	Volume (m ³)	1		50.514	58.900	27734.7	1582073.1	2		58.900	63.100	22061.5	667382.1	
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ANZ_Elevation Ranges only		<table border="1"> <thead> <tr> <th colspan="4">Surface Analysis: Elevation Ranges</th> </tr> <tr> <th>Number</th> <th>Color</th> <th>Minimum Elevation (m)</th> <th>Maximum Elevation (m)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>50.514</td> <td>58.900</td> </tr> <tr> <td>2</td> <td></td> <td>58.900</td> <td>63.100</td> </tr> </tbody> </table>	Surface Analysis: Elevation Ranges				Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	1		50.514	58.900	2		58.900	63.100									
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Slope																											
ANZ_Slope Ranges (%)		<table border="1"> <thead> <tr> <th colspan="4">Surface Analysis: Slope Ranges</th> </tr> <tr> <th>Number</th> <th>Color</th> <th>Minimum Slope</th> <th>Maximum Slope</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>0.0%</td> <td>10.0%</td> </tr> <tr> <td>2</td> <td></td> <td>10.0%</td> <td>20.0%</td> </tr> <tr> <td>3</td> <td></td> <td>20.0%</td> <td>30.0%</td> </tr> <tr> <td>4</td> <td></td> <td>30.0%</td> <td>760.0%</td> </tr> </tbody> </table>	Surface Analysis: Slope Ranges				Number	Color	Minimum Slope	Maximum Slope	1		0.0%	10.0%	2		10.0%	20.0%	3		20.0%	30.0%	4		30.0%	760.0%	
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6.4 Parcels

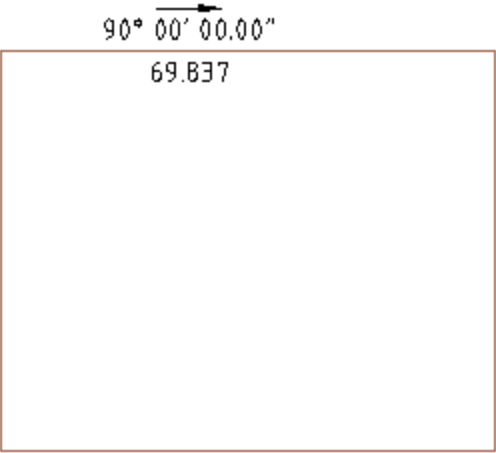
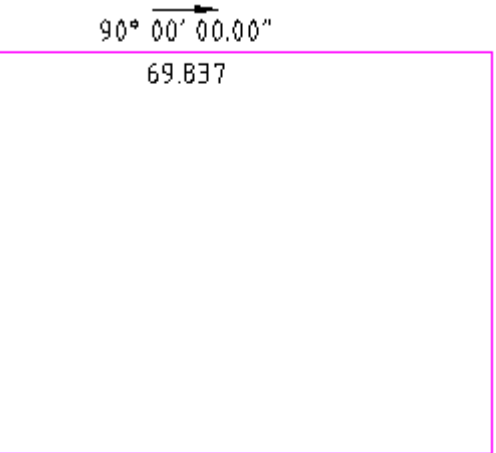
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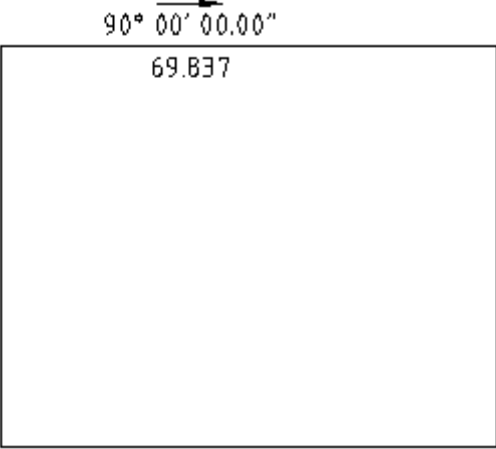
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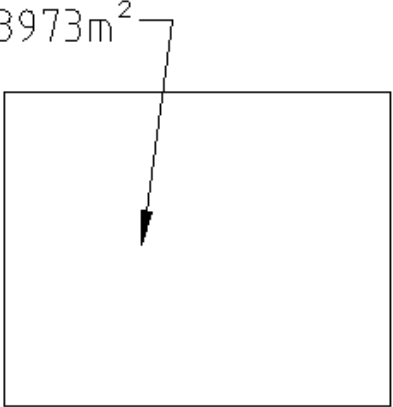
Parcel Styles	Description	Screen grab / DWF / DWG	Default
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L		 <p>90° 00' 00.00" 69.837</p>	

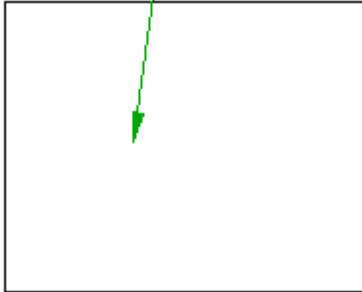
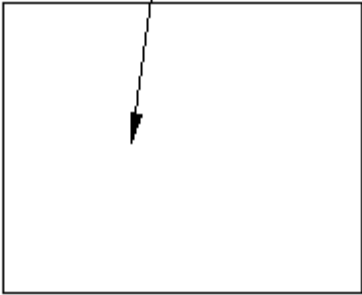
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Property		<p>90° 00' 00.00" 69.837</p>	

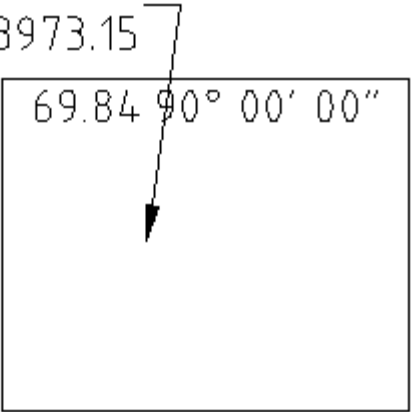
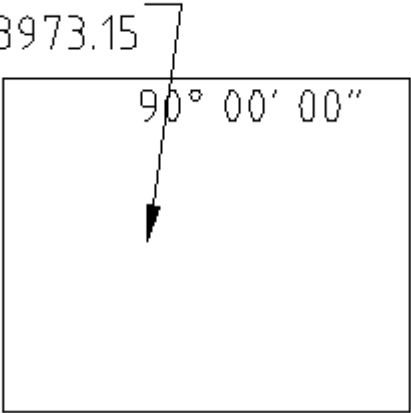
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Single-Family		 <p>90° 00' 00.00" 69.837</p>	

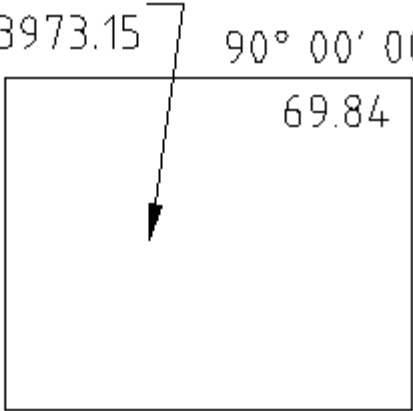
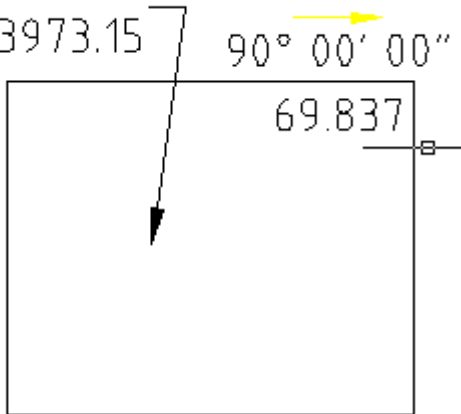
Standard		 <p>90° 00' 00.00" 69.837</p>	
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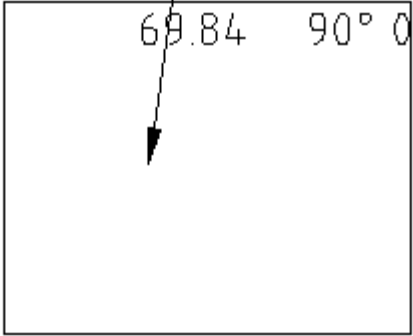
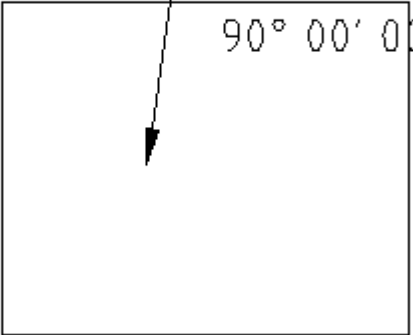
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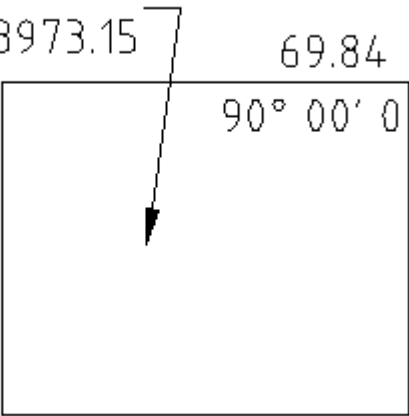
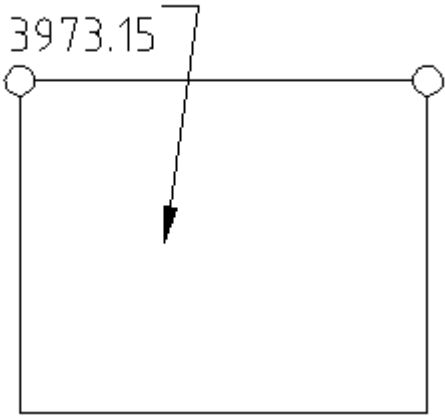
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Name Area & Perimeter		<p>SITE 1 Area: 0.98 AC Perimeter: 831.55'</p> 	
Name Square Foot & Acres		<p>SITE 1 42766.59 SQ FT 0.98 ACRES</p> 	

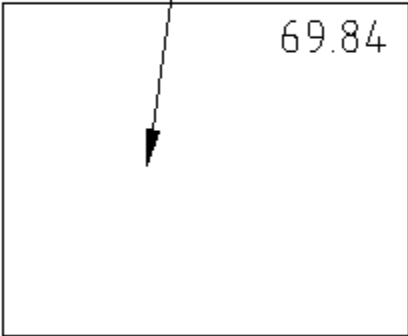
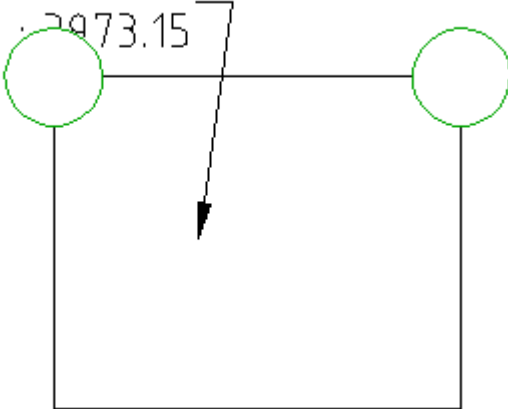
Parcel Number			
Standard		<p data-bbox="1136 574 1394 667">Site 1 Area : 3973.15</p> 	
Line			

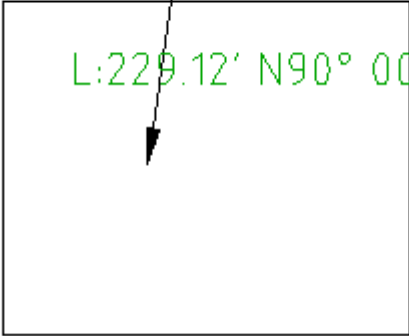
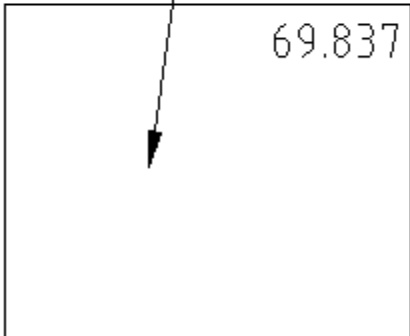
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ANZ_Bearing Dist		<p>Site 1 Area : 3973.15</p>  <p>90° 00' 00" 69.84</p>	

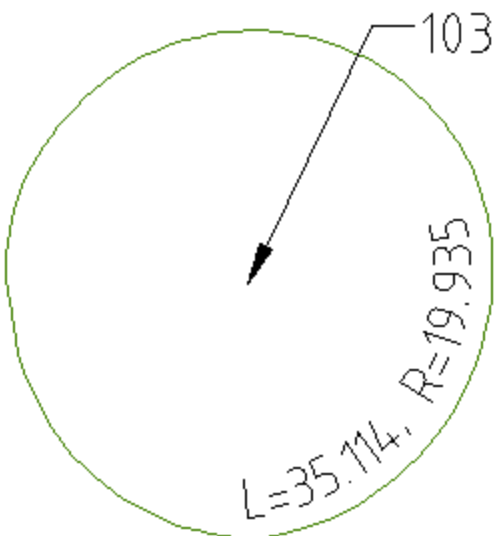
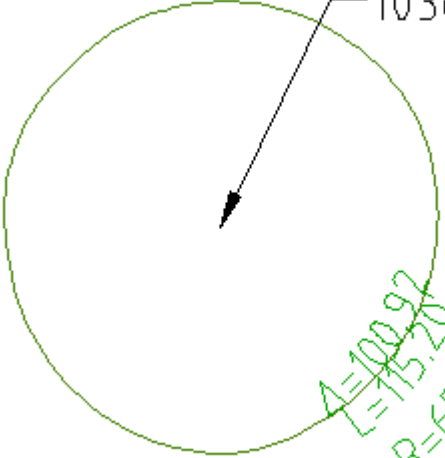
ANZ_Bearing over Dist		<p>Site 1 Area : 3973.15</p>  <p>90° 00' 00" 69.84</p>	
ANZ_Bearing over Distance		<p>Site 1 Area : 3973.15</p>  <p>90° 00' 00" 69.837</p>	

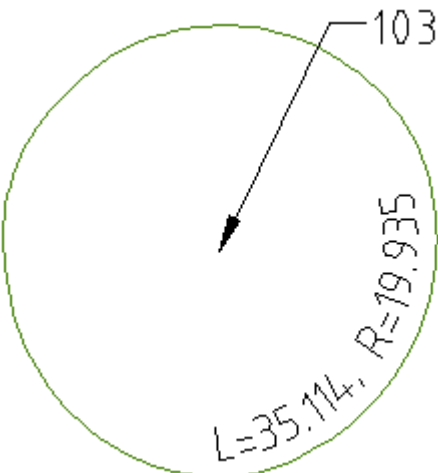
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ANZ_Distance over Bearing		<p>Site 1 Area : 3973.15</p>  <p>69.84 90° 00' 00"</p>	


ANZ_Line		<p>Site 1 Area : 3973.15</p>  <p>69.84 90° 00' 00"</p>	
ANZ_node marker		<p>Site 1 Area : 3973.15</p> 	

ANZ_Span multiple Bearing over Dist		<p>Site 1 Area : 3973.15 90° 00' 00"</p> 	
Iron Pipe Node Label		<p>Site 1 Area : 3973.15</p> 	

Overall Distance and Bearing		<p>Site 1 Area : 3973.15</p>  <p>L:229.12' N90° 00' 00.00"E</p>	
Standard		<p>Site 1 Area : 3973.15</p>  <p>N90° 00' 00.00"E 69.837</p>	
Curve			

ANZ_Curve		 <p>A diagram of a circle with a center point. A line with an arrowhead at the center is labeled 1036m^2. Inside the circle, the text $L=35.714, R=19.935$ is written.</p>	
Delta over Length and Radius		 <p>A diagram of a circle with a center point. A line with an arrowhead at the center is labeled 1036m^2. Inside the circle, the text $L=100.92, R=65.40$ is written.</p>	

Standard			
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Parcel Table Styles	Description	Screen grab / DWF / DWG	Default
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ANZ_Line			

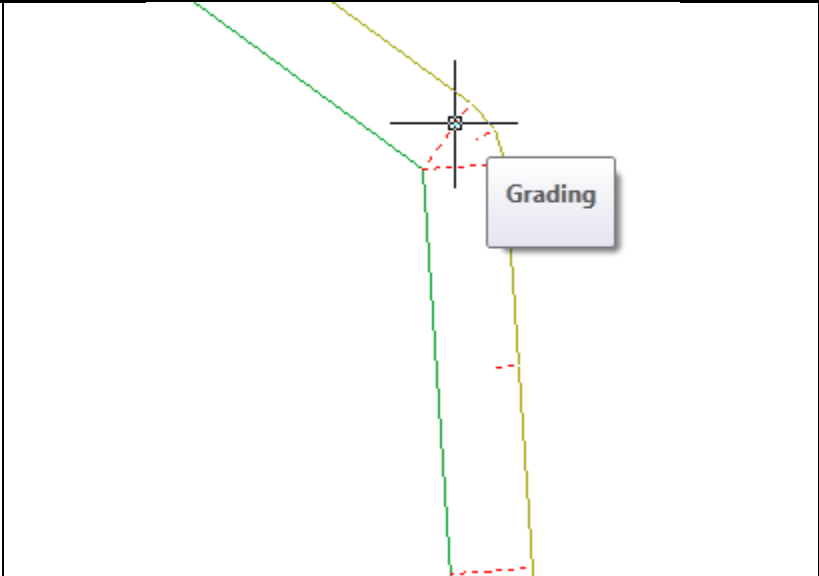
Length & Direction		<table border="1" style="margin: auto;"> <thead> <tr> <th colspan="3" style="text-align: center;">Parcel Line Table</th> </tr> <tr> <th style="text-align: center;">Line #</th> <th style="text-align: center;">Length</th> <th style="text-align: center;">Direction</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">L1</td> <td style="text-align: center;">229.12</td> <td style="text-align: center;">N90° 00' 00.00"E</td> </tr> </tbody> </table>	Parcel Line Table			Line #	Length	Direction	L1	229.12	N90° 00' 00.00"E										
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Curve ANZ_Curve		<table border="1" style="margin: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">Curve Table</th> </tr> <tr> <th style="text-align: center;">Curve #</th> <th style="text-align: center;">Length</th> <th style="text-align: center;">Radius</th> <th style="text-align: center;">Delta</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">C1</td> <td style="text-align: center;">35.114</td> <td style="text-align: center;">19.935</td> <td style="text-align: center;">100.9217</td> </tr> </tbody> </table>	Curve Table				Curve #	Length	Radius	Delta	C1	35.114	19.935	100.9217							
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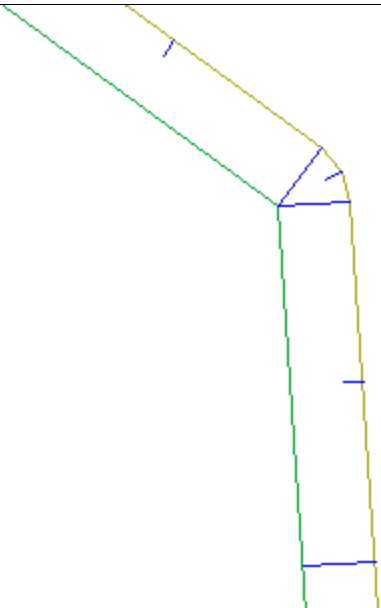
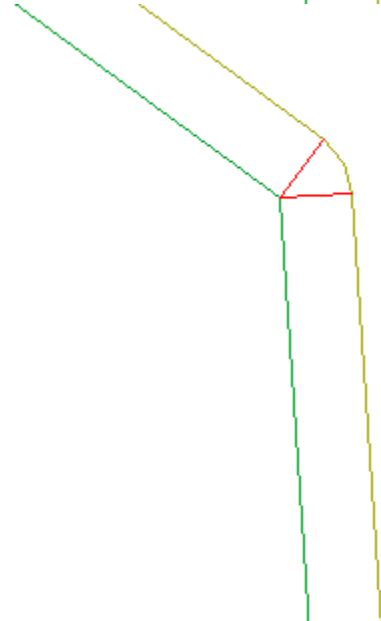
Standard			Curve Table					
			Curve #	Length	Radius	Delta		
			C1	35.114	19.935	100.9217		
Segment			Parcel Table					
ANZ_Segment			Line #/Curve #	Length	Direction/Delta	Radius		
			L1	69.837	90° 00' 00.00"			
			C1	35.114	100.9217	19.935		
Length & Bearing or Delta & Radius			Parcel Line and Curve Table					
			Line #/Curve #	Length	Bearing/Delta	Radius		
			L1	229.12	N90° 00' 00.00"E			
			C1	115.20	100.92	65.40		

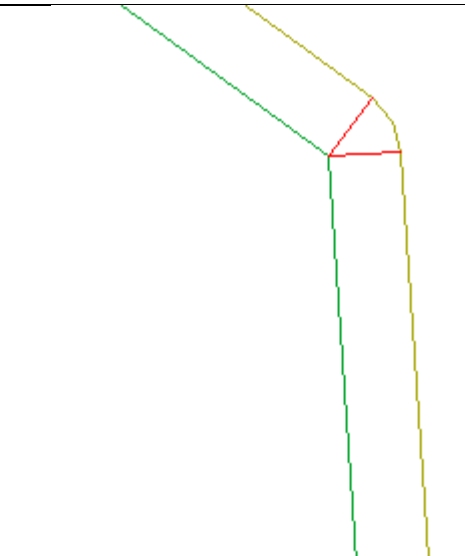
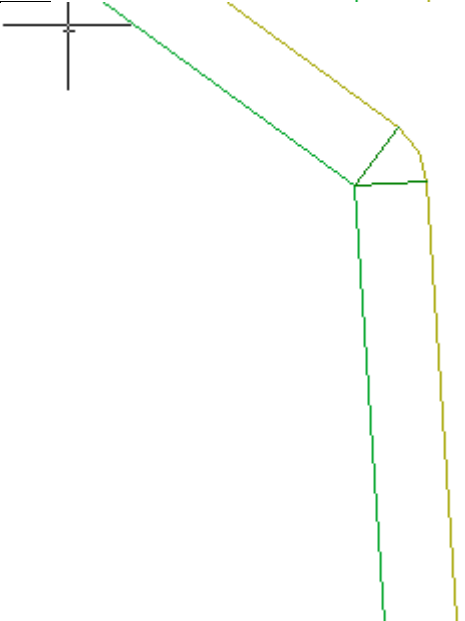
Standard		<table border="1"> <thead> <tr> <th colspan="4">Parcel Table</th> </tr> <tr> <th>Line #/Curve #</th> <th>Length</th> <th>Direction/Delta</th> <th>Radius</th> </tr> </thead> <tbody> <tr> <td>L1</td> <td>69.837</td> <td>N90° 00' 00.00"E</td> <td></td> </tr> <tr> <td>C1</td> <td>35.114</td> <td>100.9217</td> <td>19.935</td> </tr> </tbody> </table>	Parcel Table				Line #/Curve #	Length	Direction/Delta	Radius	L1	69.837	N90° 00' 00.00"E		C1	35.114	100.9217	19.935
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ANZ_Area		<table border="1"> <thead> <tr> <th colspan="5">Parcel Table</th> </tr> <tr> <th>Parcel #</th> <th>Area</th> <th>Perimeter</th> <th>Segment Lengths</th> <th>Segment Bearings</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>1036.117</td> <td>114.202</td> <td>15.577 36.330 35.114 27.181</td> <td>15° 36' 57.99" 98° 15' 20.65" 210° 35' 38.55" 311° 41' 39.37"</td> </tr> </tbody> </table>	Parcel Table					Parcel #	Area	Perimeter	Segment Lengths	Segment Bearings	2	1036.117	114.202	15.577 36.330 35.114 27.181	15° 36' 57.99" 98° 15' 20.65" 210° 35' 38.55" 311° 41' 39.37"	
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Area Perimeter Length and Bearing		<table border="1"> <thead> <tr> <th colspan="5">Parcel Area Table</th> </tr> <tr> <th>Parcel #</th> <th>Area</th> <th>Perimeter</th> <th>Segment Lengths</th> <th>Segment Bearings</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>11152.67</td> <td>374.68</td> <td>61.10 119.19 115.20 89.18</td> <td>N15° 36' 57.99"E S81° 44' 39.35"E S30° 35' 38.55"W N48° 18' 20.63"W</td> </tr> </tbody> </table>	Parcel Area Table					Parcel #	Area	Perimeter	Segment Lengths	Segment Bearings	2	11152.67	374.68	61.10 119.19 115.20 89.18	N15° 36' 57.99"E S81° 44' 39.35"E S30° 35' 38.55"W N48° 18' 20.63"W	
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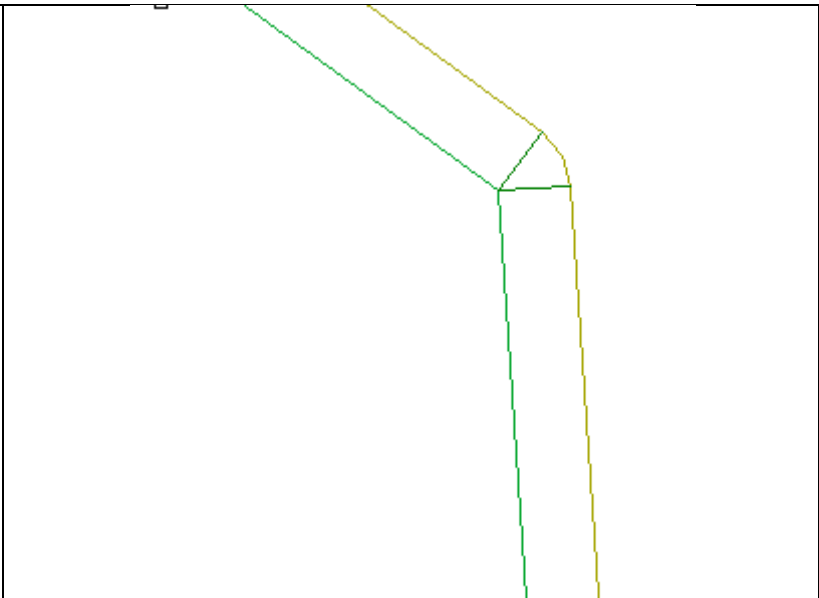
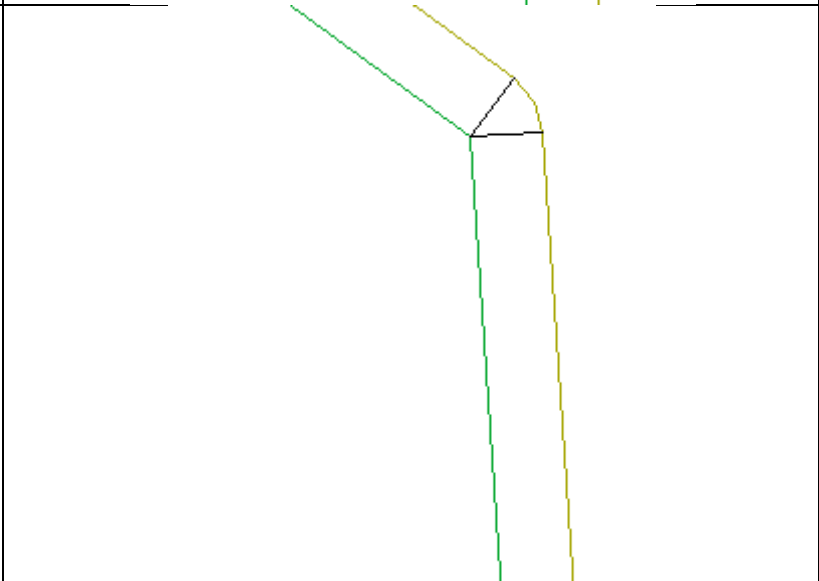
6.5 Grading

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

Grading Styles	Description	Screen grab / DWF / DWG	Default
ANZ_Cut			

ANZ_Fill			
ANZ_Offset			

Cut Slope Display			
Fill Slope Display			

Residential Grading Display			
Standard			

Grading Criteria Sets	Description	Screen grab / DWF / DWG	Default
ANZ			
Basic Set			
Standard Set			

6.6 Alignments

DESIGN Template ANZ

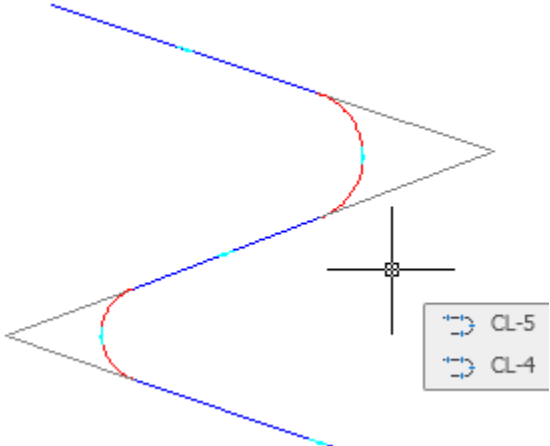
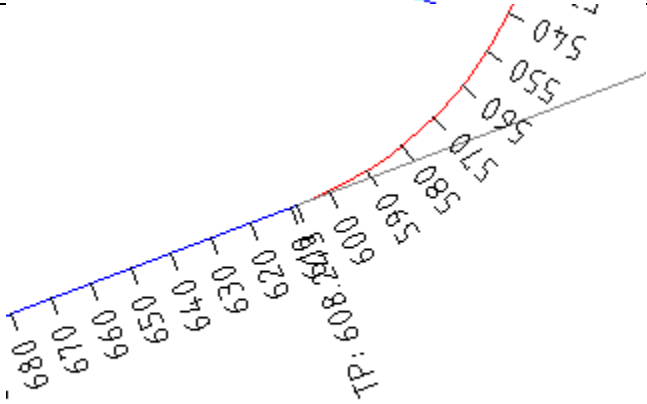
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• ANZ_Design			
• ANZ_Design_LWT			
• ANZ_Offsets			
• ANZ_Pipe CL			
• ANZ_Plotting Kerb Returns			
• ANZ_Plotting Main Strings			
• ANZ_Plotting Offset Strings			
• Basic			
• Existing			
• Intersection Basic			
• Layout			
• Offsets			
• Proposed			
• Standards			

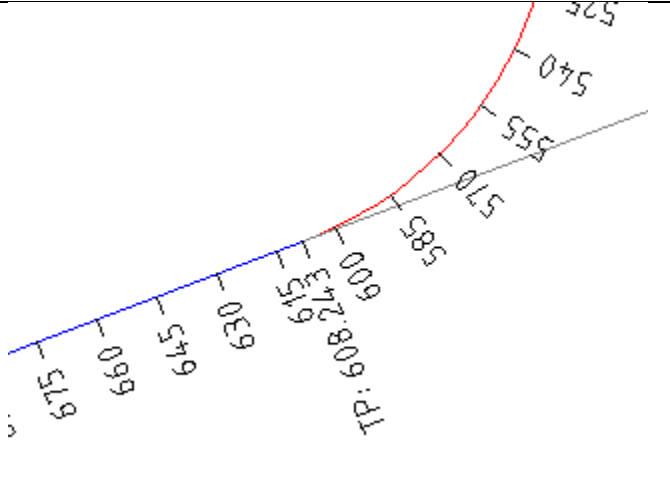
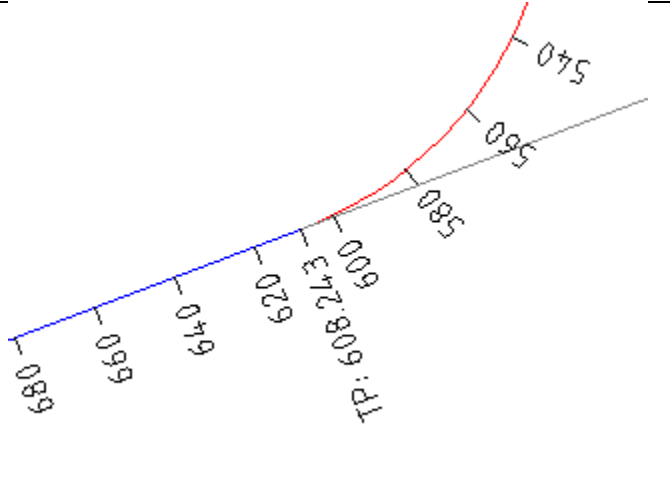
Alignment Design Checks	Description	Screen grab / DWF / DWG	Default
Design Check Sets			
• ANZ_Max Tangent Length			
• ANZ_Spiral Curve Spiral			
• Basic			
• Standard			
Line			
• Max Tangent Length			
• Subdivision Street			
Curve			
• Min Arc Length between Spirals			

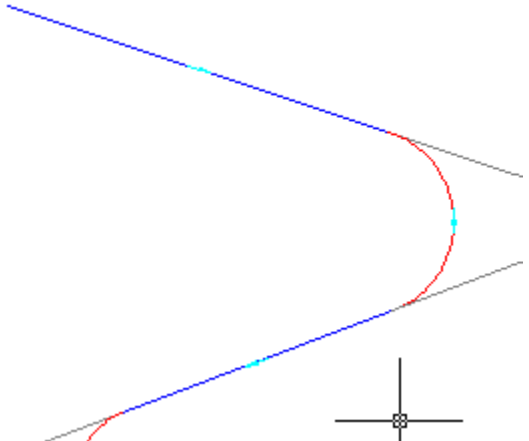
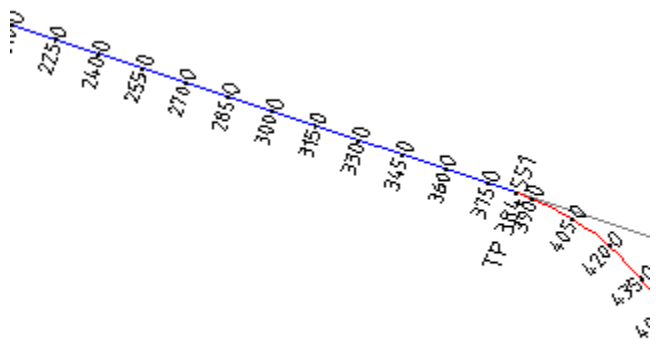
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Spiral			
<ul style="list-style-type: none"> A Parameter Spiral out 			
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<ul style="list-style-type: none"> $R/3 < A < R$ 			
Tangent Intersection			

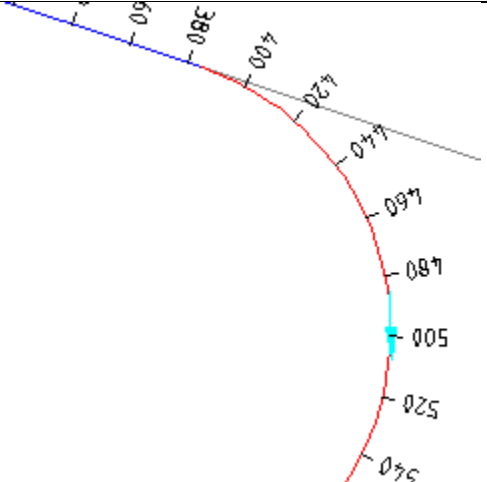
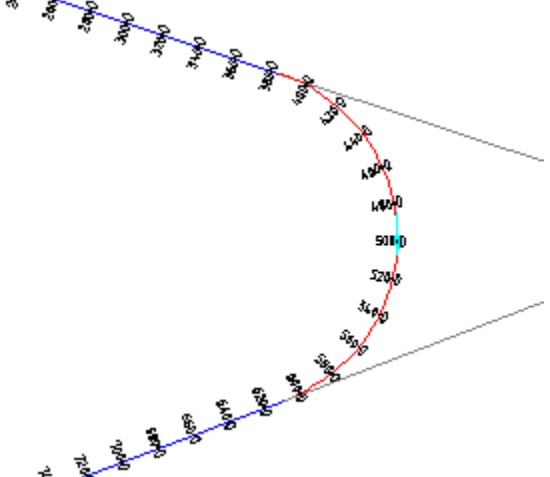
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Alignment Label Sets			
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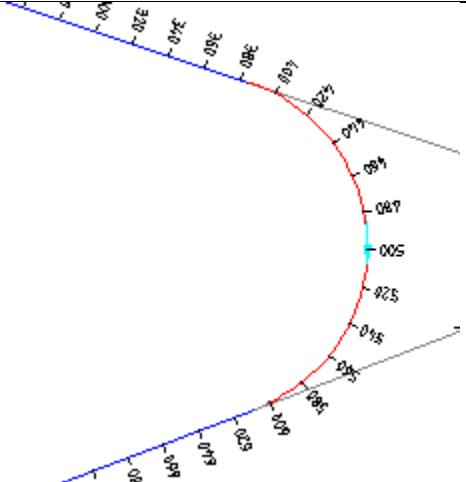
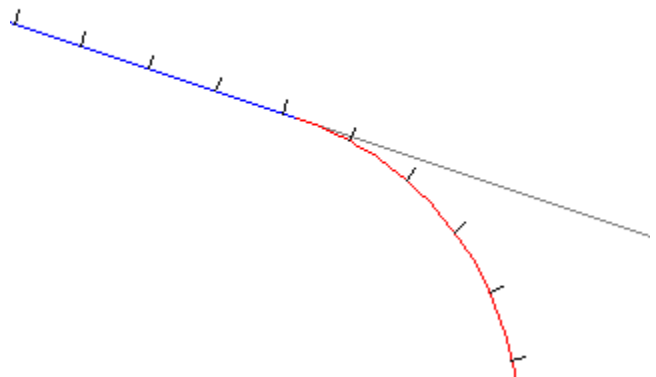
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<ul style="list-style-type: none"> • ANZ_Kerb Returns 		<table border="1" data-bbox="1549 971 1801 1052"> <tr> <td>↪</td> <td>CL-5</td> <td>SO</td> <td>516.3</td> </tr> <tr> <td>↪</td> <td>CL-4</td> <td>SO</td> <td>343.3</td> </tr> </table>	↪	CL-5	SO	516.3	↪	CL-4	SO	343.3	
↪	CL-5	SO	516.3								
↪	CL-4	SO	343.3								

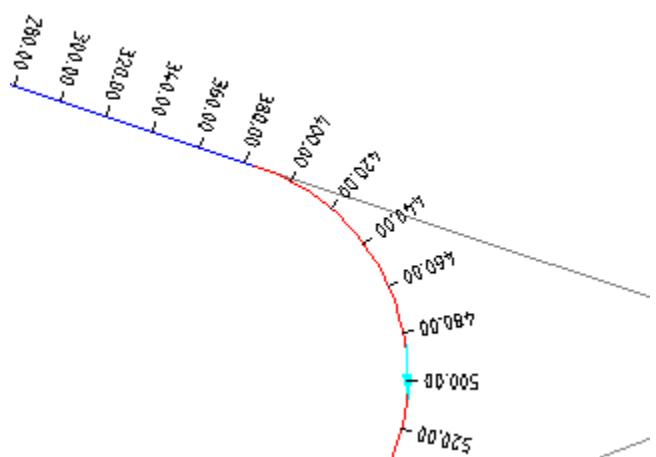
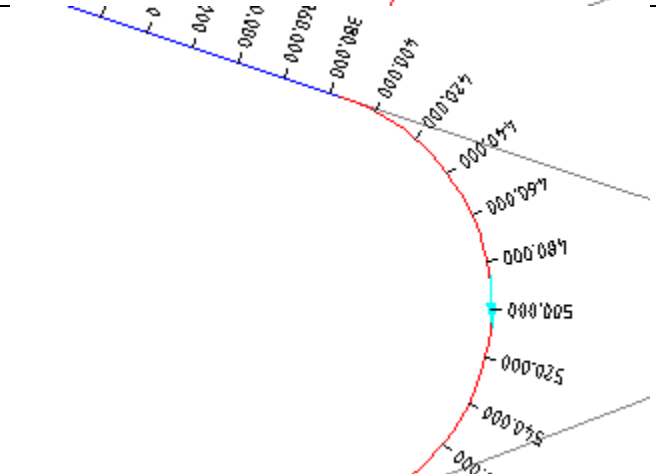
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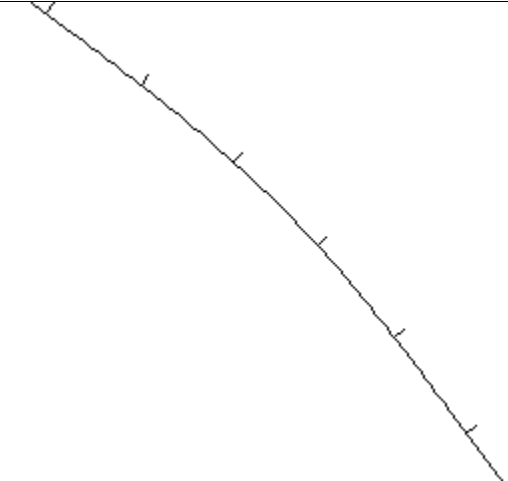
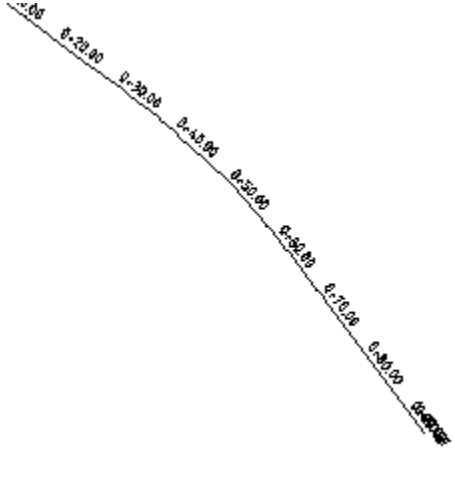
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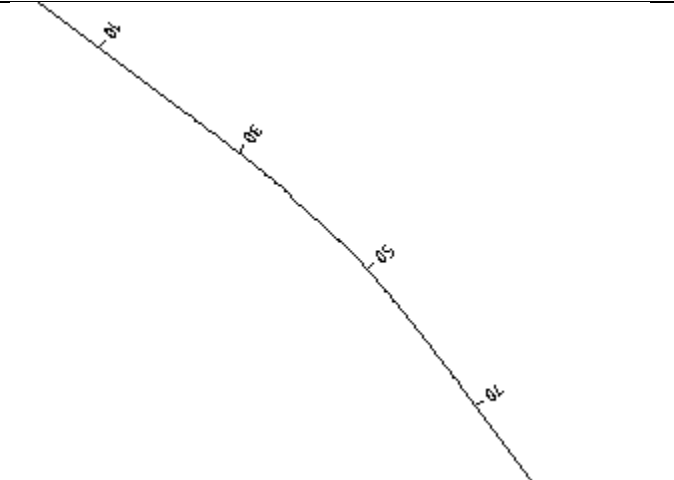
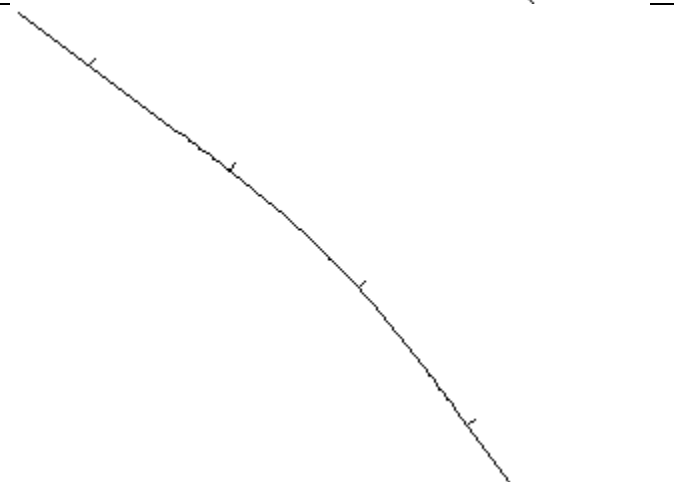
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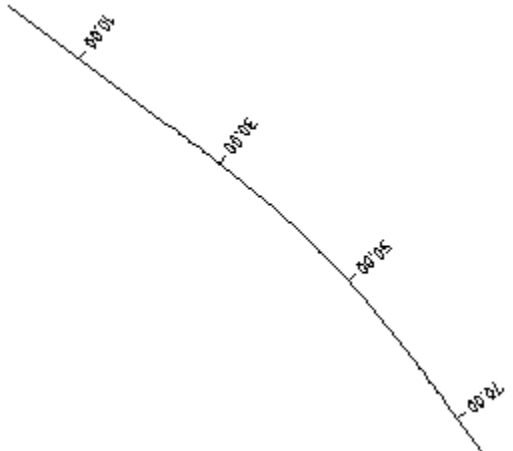
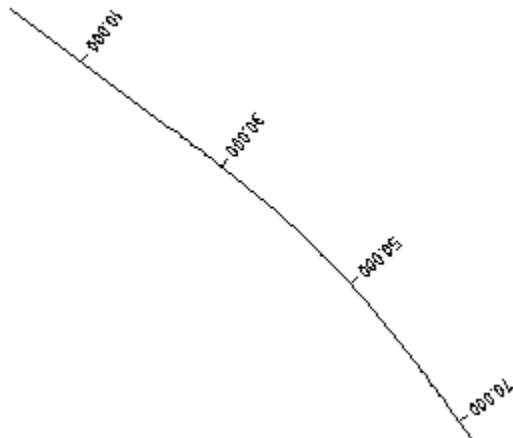
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<ul style="list-style-type: none"> ANZ_Landmark plan readable 			

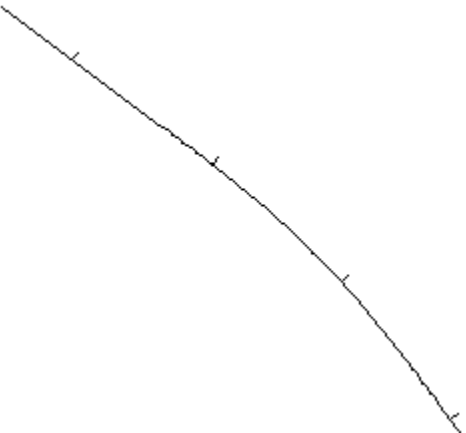
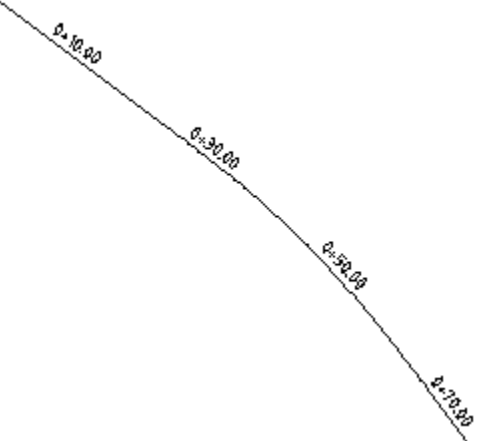
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<ul style="list-style-type: none">• ANZ_Perp with tick (Left) (Precision 0.1m)			

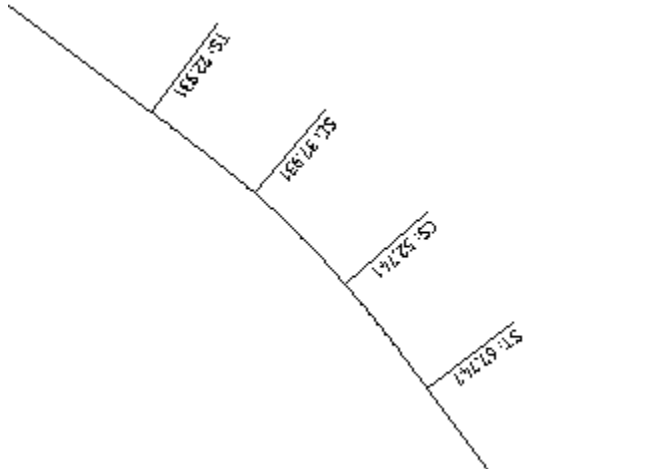
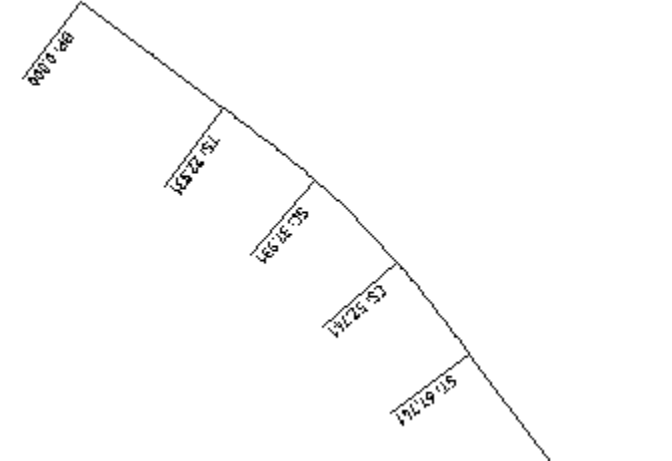
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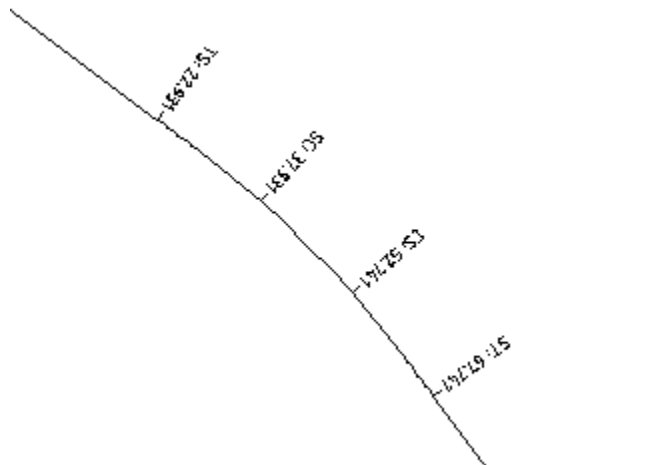
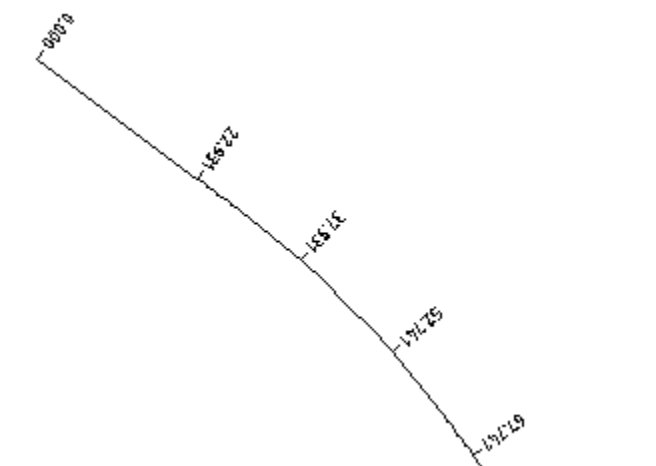
<ul style="list-style-type: none"> • ANZ_Tick only 			
<ul style="list-style-type: none"> • Standard 			
<ul style="list-style-type: none"> • Expressions 			
<p>Minor Station</p>	<p>Label at Minor Stations</p>		

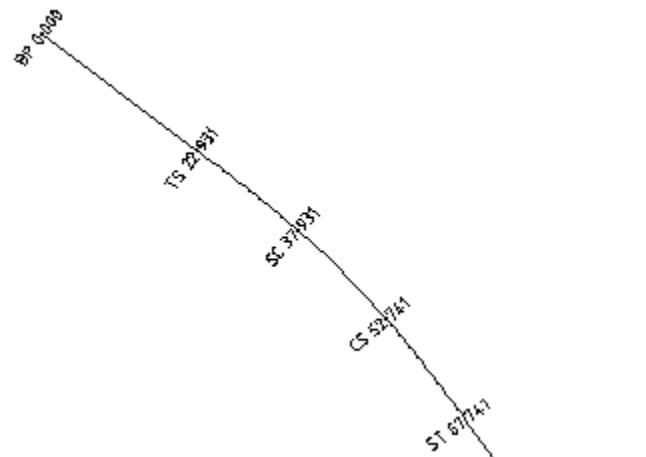
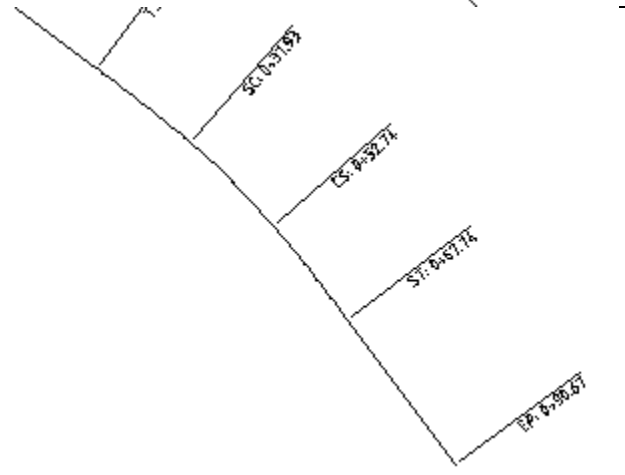
<ul style="list-style-type: none">• ANZ_Perp with tick (Left) (Precision 1m)		 A diagram showing a curved line sloping downwards from left to right. The line has four tick marks pointing to the left, with labels '40', '30', '20', and '10' positioned to the right of each tick mark. The line starts at the top left and ends at the bottom right.	
<ul style="list-style-type: none">• ANZ_Perp with tick (Left) (Precision 0.1m)		 A diagram showing a curved line sloping downwards from left to right, similar to the one above. It has several tick marks pointing to the left, but they are not labeled with numbers.	

<ul style="list-style-type: none">• ANZ_Perp with tick (Left) (Precision 0.01m)			
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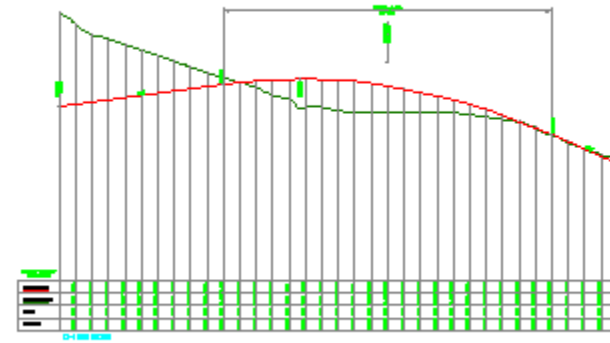
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<ul style="list-style-type: none"> • Standard 			
<ul style="list-style-type: none"> • Expressions 			
<p>Geometry Point</p>	<p>Label at Geometry Points</p>		

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<ul style="list-style-type: none">• ANZ_GP Data (Offset to Right)			

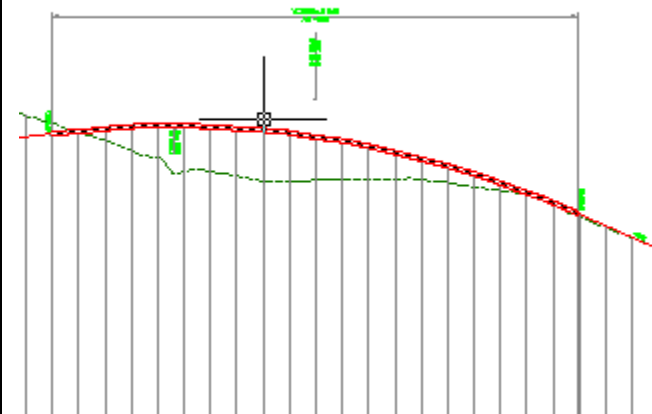
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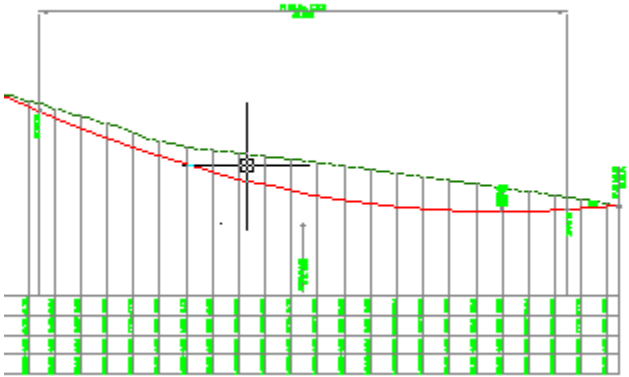
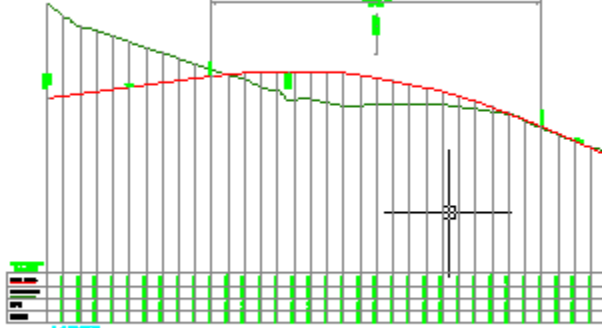
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Profile Geometry Point	Labels at the profile geometry points on the alignment		

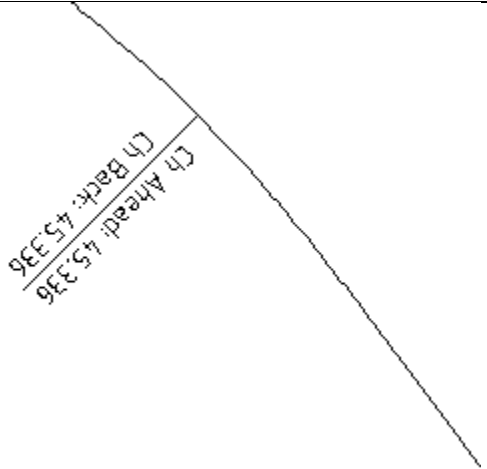
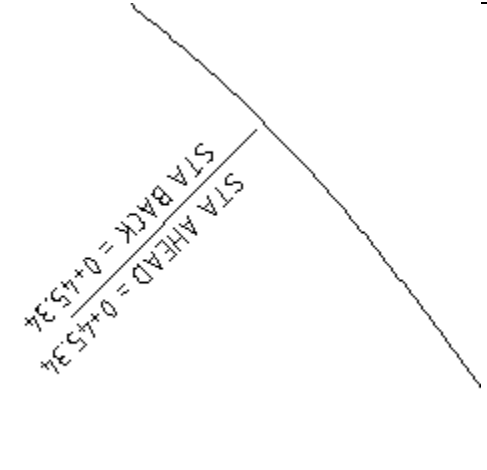
- ANZ_Instantaneous Grade

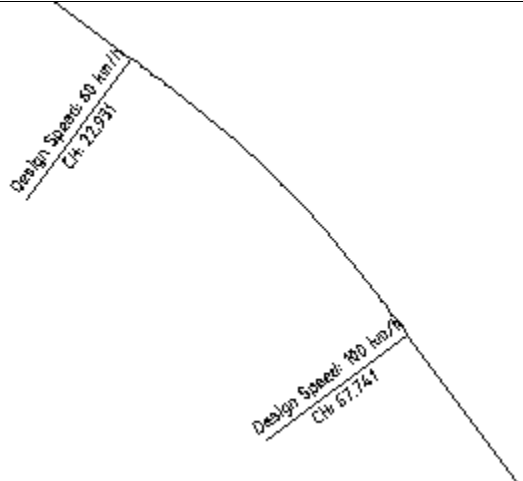
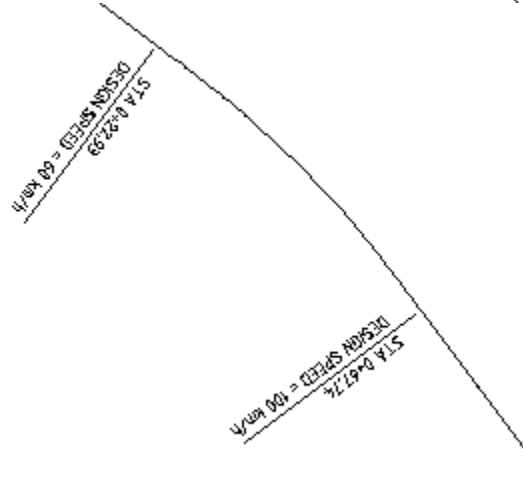


- ANZ_VC High Points

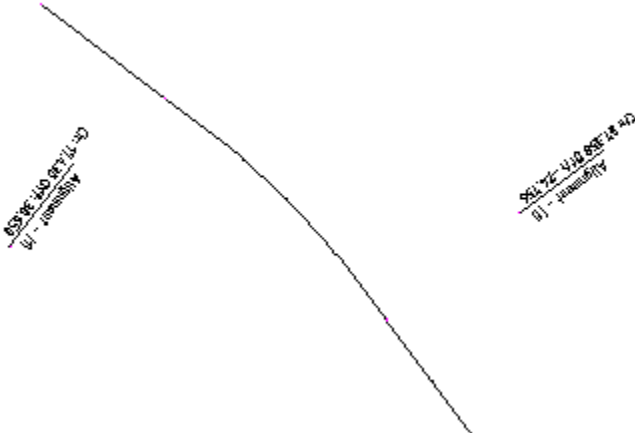
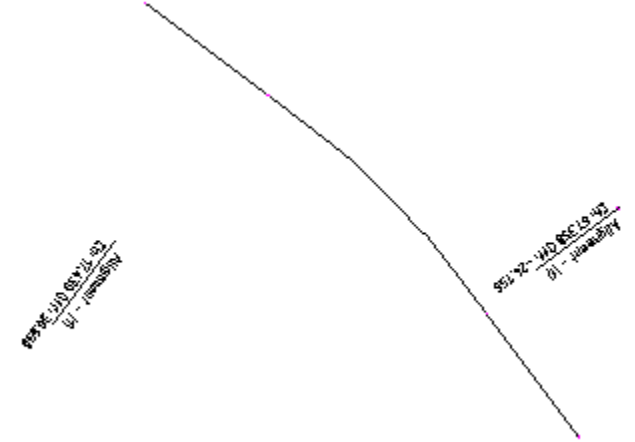


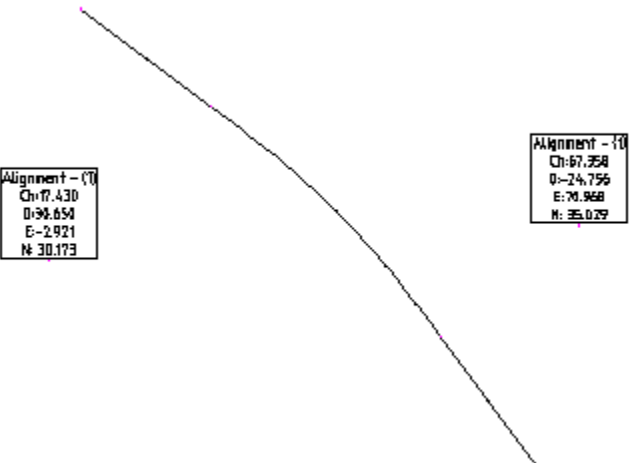
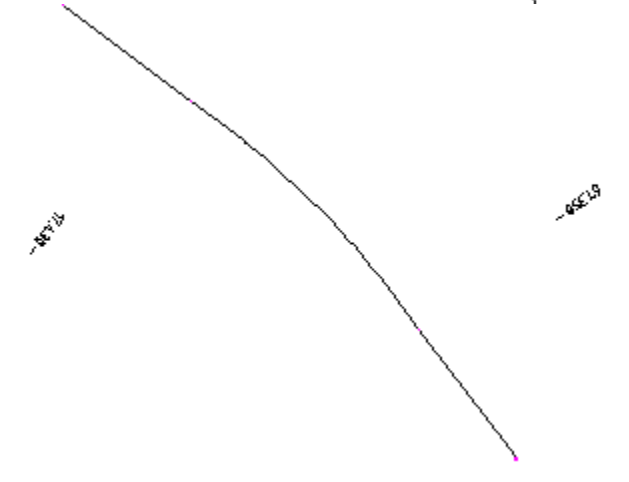
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<ul style="list-style-type: none"> • Expressions 			
<p>Station Equation</p>	<p>Station equation Labels</p>		

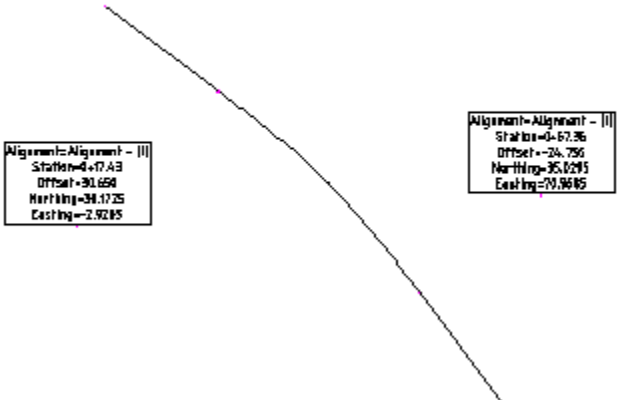
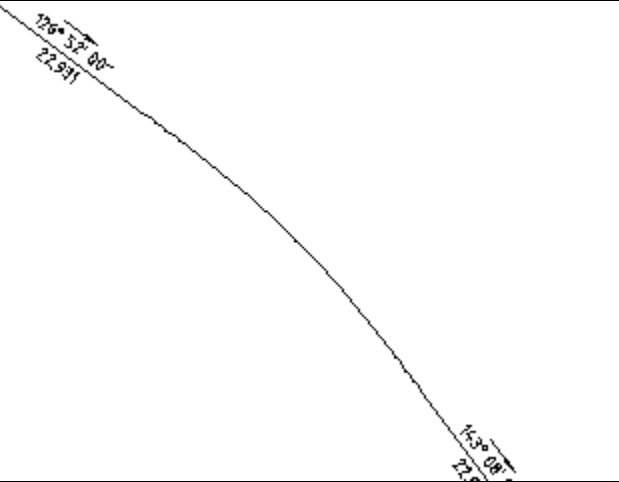
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Design Speed	Design Speed labels		

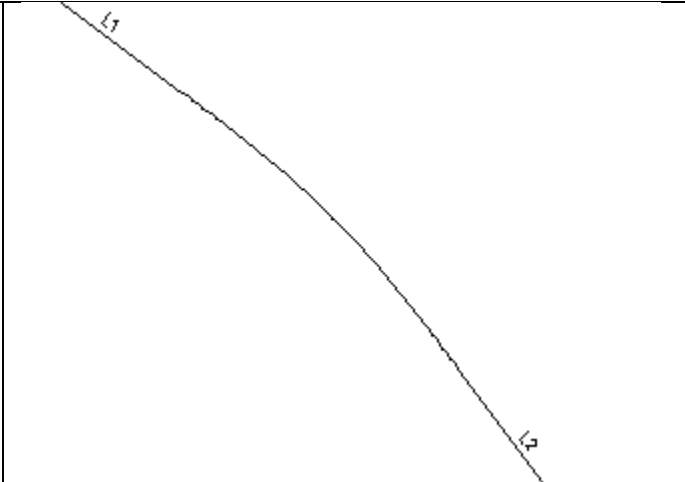
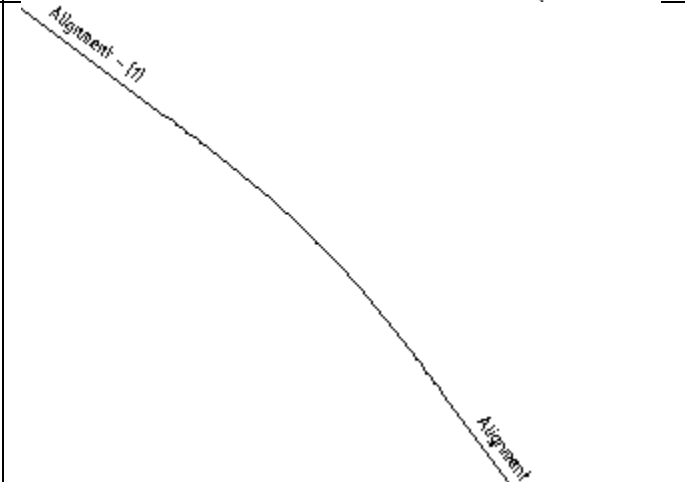
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Station Offset	Station Offset Labels		

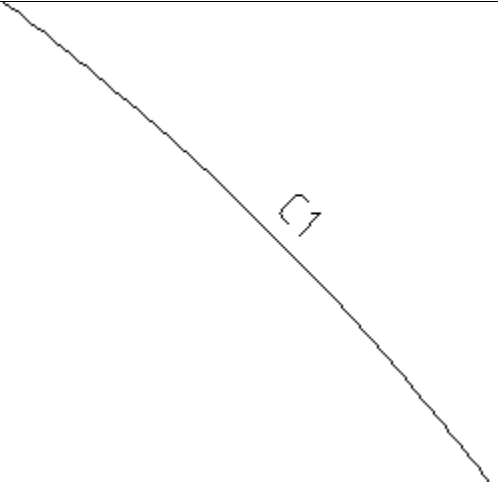

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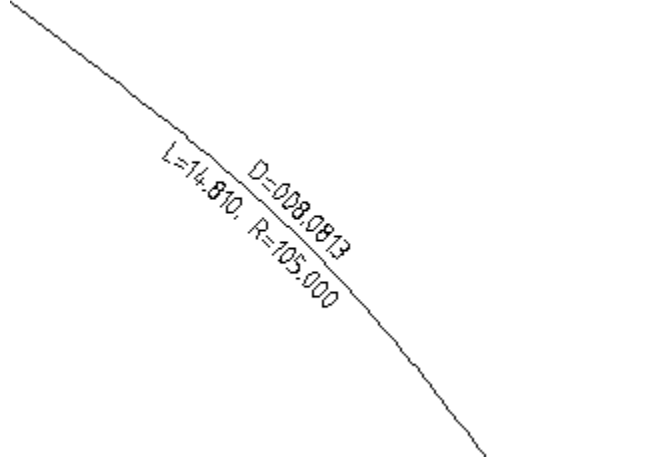
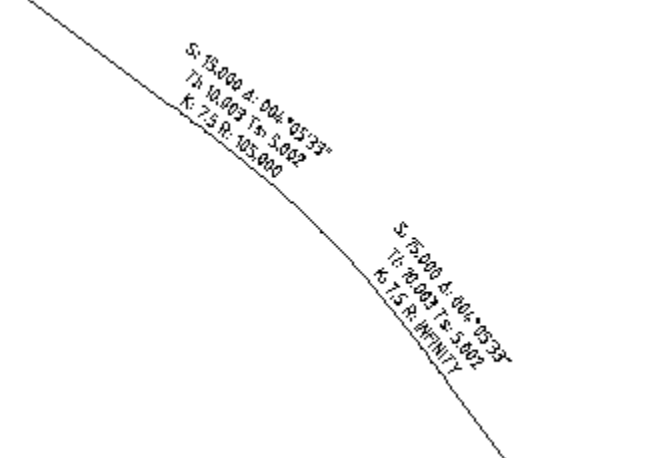
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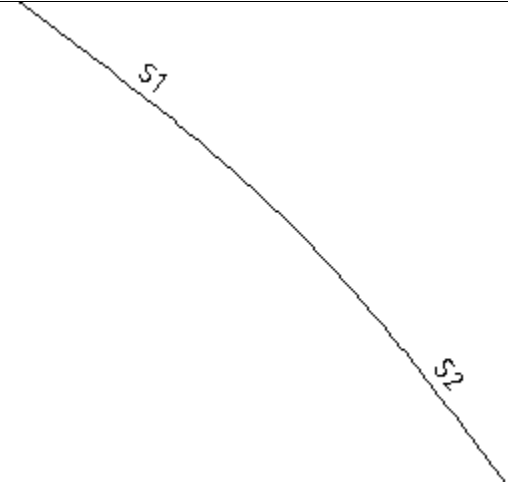
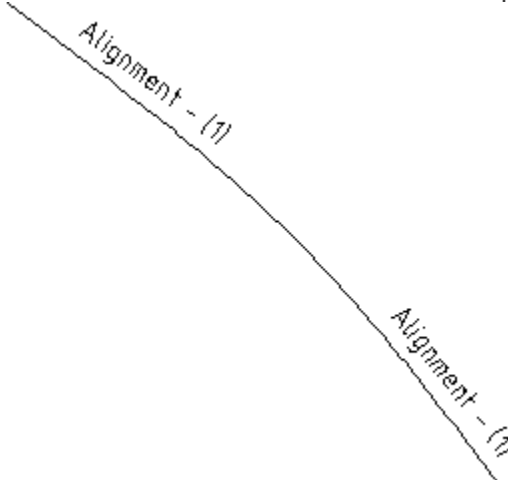
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Line	Tangent labels		
<ul style="list-style-type: none"> ANZ_Line Design Data 			

<ul style="list-style-type: none">• ANZ_Line Design Data.Tag.1		 A diagram showing a curved line that starts at the top left and curves downwards to the right. The line is labeled 'L1' at the top left end and 'L2' at the bottom right end.	
<ul style="list-style-type: none">• ANZ_Line Name Only		 A diagram showing a curved line that starts at the top left and curves downwards to the right. The line is labeled 'Alignment - (1)' at the top left end and 'Alignment' at the bottom right end.	

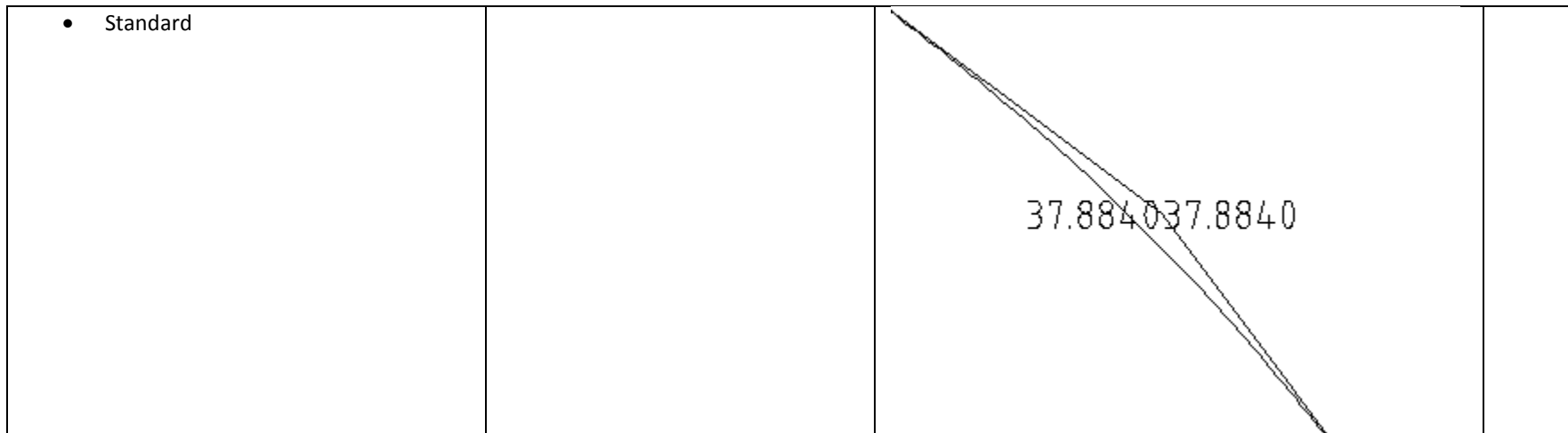
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Curve	Arc Labels		
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<ul style="list-style-type: none">• ANZ_Curve Name Only		 A diagram showing a downward-sloping curve labeled 'Alignment - (1)'. The curve starts at the top left and ends at the bottom right of the cell.	

<ul style="list-style-type: none">Standard		 <p>L=14.810, D=008.0813, R=105.000</p>	
Spiral	Spiral Labels		
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Tangent Intersection	PI Labels		
<ul style="list-style-type: none"> ANZ_IP Details 			



Alignment Table Type/Name	Description	Screen grab / DWF / DWG	Default																																																																														
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S7	CL-4	111.246	In: 103.0 Out: 103.0	90.000	Start: 130° 15' 11" End: 133° 32' 03"	(1028.006,840.680)	(1291.671,785.504)																																																																																														
S1	CL-4	111.246	In: 118.0 Out: 118.0	90.000	Start: 205° 45' 11" End: 208° 12' 10"	(1319.340,1190.261)	(1041.924,1054.702)																																																																																														
S2	CL-4	111.246	In: 153.0 Out: 153.0	90.000	Start: 220° 09' 10" End: 215° 04' 10"	(1435.394,1163.366)	(1358.178,1118.446)																																																																																														
S3	CL-4	111.246	In: 118.0 Out: 118.0	90.000	Start: 103° 07' 31" End: 111° 31' 57"	(1524.998,1438.392)	(1448.900,1411.591)																																																																																														
C1	CL-4	???	In: 111 Out: 111	237.854	Start: 228° 05' 10" End: 205° 05' 05"	(1241.924,1054.702)	(1221.006,840.681)																																																																																														
C2	CL-4	???	In: 111 Out: 111	289.145	Start: 174° 58' 57" End: 208° 03' 10"	(1403.900,1410.591)	(1435.394,1163.366)																																																																																														
L5	CL-4	???	In: 111 Out: 111	154.402	Start: 111 End: 111	(1298.671,785.504)	(1429.147,712.794)																																																																																														
L1	CL-4	???	In: 111 Out: 111	43.050	Start: 111 End: 111	(1358.178,1118.446)	(1318.140,1100.261)																																																																																														
L2	CL-4	???	In: 111 Out: 111	349.855	Start: 111 End: 111	(1064.282,1518.830)	(1324.998,1438.392)																																																																																														
S8	CL-4	111.246	In: 103.0 Out: 103.0	90.000	Start: 130° 15' 11" End: 133° 32' 03"	(1028.006,840.680)	(1291.671,785.504)																																																																																														
<ul style="list-style-type: none"> Standard 																																																																																																					
Segment	Line, curve or spiral element in a single table																																																																																																				

<ul style="list-style-type: none"> ANZ_Line 	Set Out Table for CL-4							
	TAG		CHAINAGE	EASTING	NORTHING	LENGTH	RADIUS	BEARING
	L4	BP	0.000	984.282	1518.838	349.855		143° 07' 31"
		EP	349.855	1324.998	1439.392			
	L2	BP	0.000	984.282	1518.838	349.855		143° 07' 31"
		EP	349.855	1324.998	1439.392			
	S6	BP	349.855	1324.998	1439.392	90.000	INFINITY 753.0	163.1483
		EP	439.855	1409.900	1470.591			
	S3	BP	349.855	1324.998	1439.392	90.000	INFINITY 753.0	163.1483
		EP	439.855	1409.900	1470.591			
C4	TP	439.855	1409.900	1470.591	289.045	753.0	174° 05' 53.60"	
	IP	651.381	1806.978	1327.007				
	TP	728.901	1435.394	1163.966				
C2	TP	439.855	1409.900	1470.591	289.045	753.0	174° 05' 53.60"	
	IP	651.381	1806.978	1327.007				
	TP	728.901	1435.394	1163.966				
<ul style="list-style-type: none"> Standard 								

6.7 Profiles

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

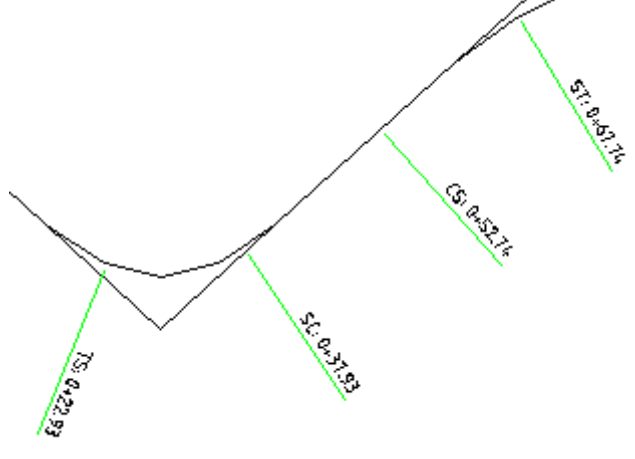
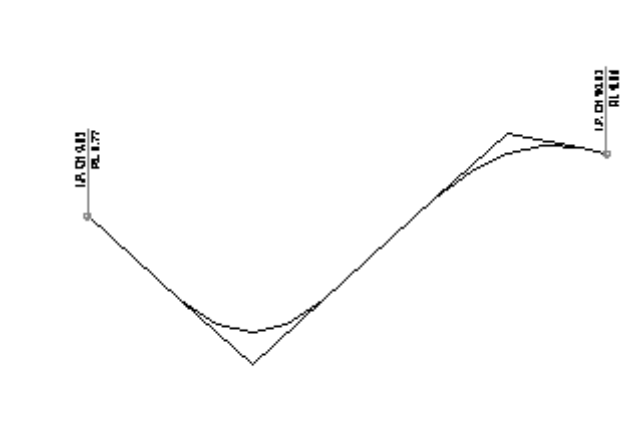
Profile Style	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_Design Plotting (by layer) 			
<ul style="list-style-type: none"> ANZ_Design_Conceptual 			
<ul style="list-style-type: none"> ANZ_Design_Conceptual_LWT 			
<ul style="list-style-type: none"> ANZ_Design_Superimposed 			
<ul style="list-style-type: none"> ANZ_Reference Planes 1% 			
<ul style="list-style-type: none"> ANZ_Reference Planes 2% 			
<ul style="list-style-type: none"> ANZ_Reference Planes 3% 			
<ul style="list-style-type: none"> ANZ_Reference Planes 4% 			
<ul style="list-style-type: none"> ANZ_Reference Planes 5% 			
<ul style="list-style-type: none"> ANZ_Reference Planes Extend Grade 			

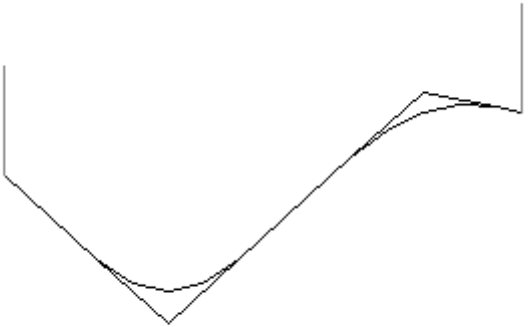
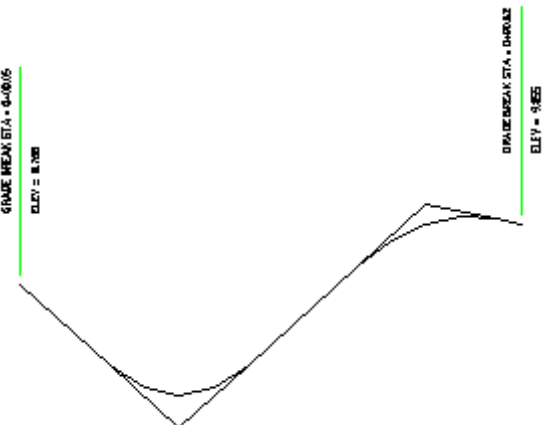
• ANZ_Reference Planes Extend Grade			
• ANZ_Surface Existing			
• ANZ_Surface Rock			
• ANZ_Surface_01 (Additional)			
• ANZ_Surface_02 (Additional)			

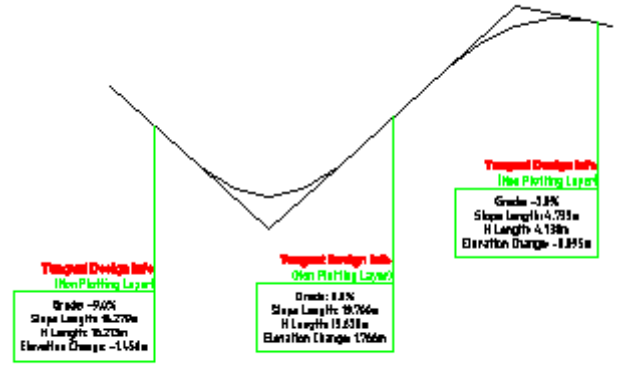

Profile Design Checks	Description	Screen grab / DWF / DWG	Default
Design Check Sets			
• ANZ_Austrroads - Length of Crest VC – Appearance Criterion when S < L			
• ANZ_Austrroads - Maximum Grade Mountaineous Terrain			
• ANZ_Austrroads - Maximum Grade Flat Terrain			
• ANZ_Austrroads - Maximum Grade Rolling Terrain			
Line			
• ANZ_Austrroads Max Grade - flat terrain			
• ANZ_Austrroads Max Grade - Rolling Terrain			
• ANZ_Austrroads Max Grade Mountaineous Terrain			
Curve			
• ANZ_Austrroads Crest VC Length - [Copy]			

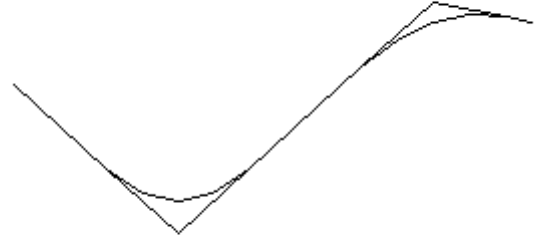
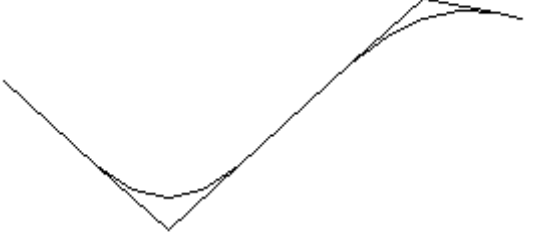
Profile Label Type/Name	Description	Screen grab / DWF / DWG	Default
Profile Label Sets			
• ANZ Default			
• ANZ_Empty			
• ANZ_Lines on Bottom			
• ANZ_Lines on Bottom (with Design Info)			
• ANZ_Ordinate Lines Only			
• ANZ_Ordinate Lines Only (Grade Breaks - 100m)			
• ANZ_Ref Planes Name			
Major Station			

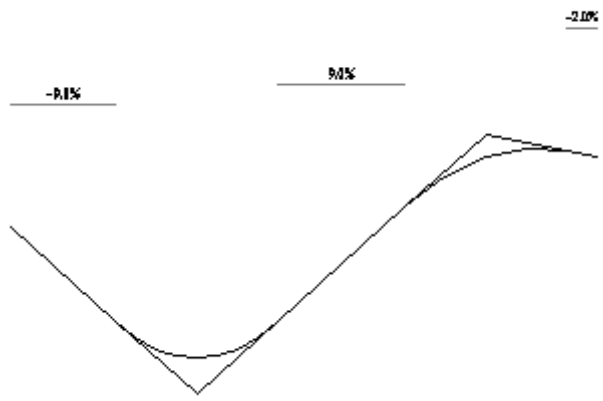
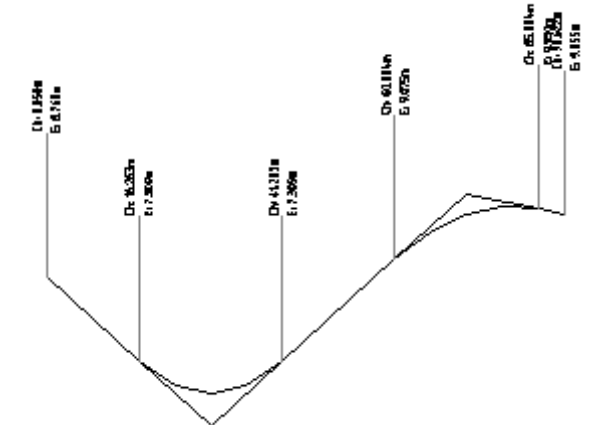
<ul style="list-style-type: none"> Standard 			
Minor Station			
<ul style="list-style-type: none"> Standard 			
Horizontal Geometry Point			

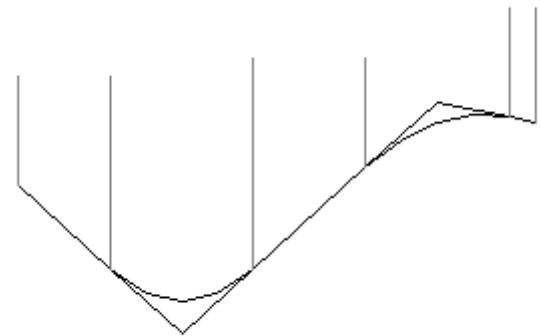
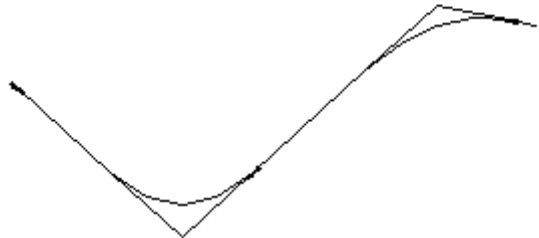
<ul style="list-style-type: none">• Standard			
Grade Breaks			
<ul style="list-style-type: none">• ANZ_Grade Break Labels (Vertical with line)			


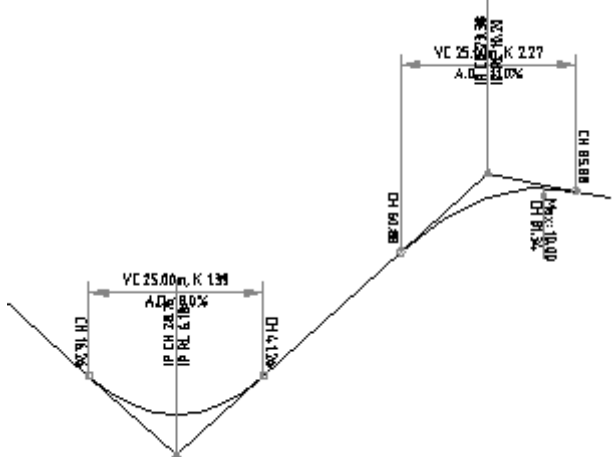
<ul style="list-style-type: none">• ANZ_Ordinate Lines (Grade Breaks)			
<ul style="list-style-type: none">• Standard			
Line	Tangent Labels		

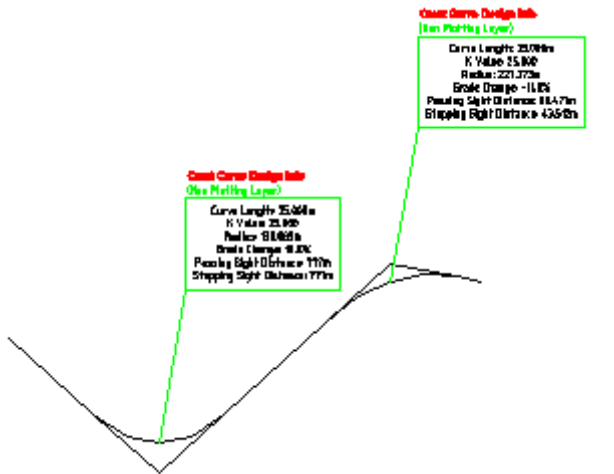
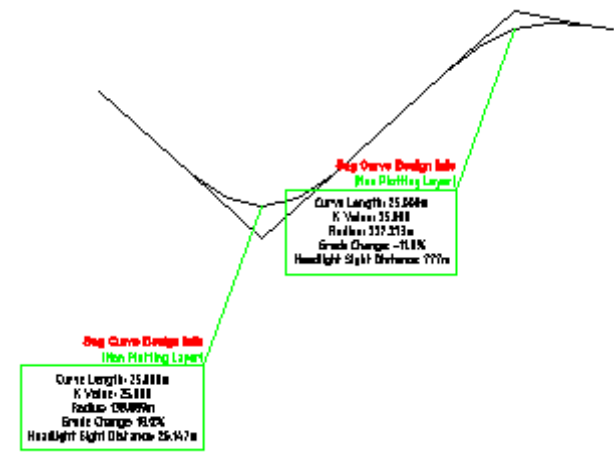
<ul style="list-style-type: none"> ANZ_Design info Tangents (Non plotting Layer) 		 <p>Tangent Design Info (Non Plotting Layer) Grade: -9.0% Slope Length: 16.270m H Length: 16.270m Elevation Change: -1.454m</p> <p>Tangent Design Info (Non Plotting Layer) Grade: 8.8% Slope Length: 19.766m H Length: 19.638m Elevation Change: 1.766m</p> <p>Tangent Design Info (Non Plotting Layer) Grade: -1.8% Slope Length: 4.793m H Length: 4.138m Elevation Change: -0.895m</p>	
<ul style="list-style-type: none"> ANZ_Design Tangent Grade 		 <p>-9.0%</p> <p>8.8%</p> <p>-2.0%</p>	

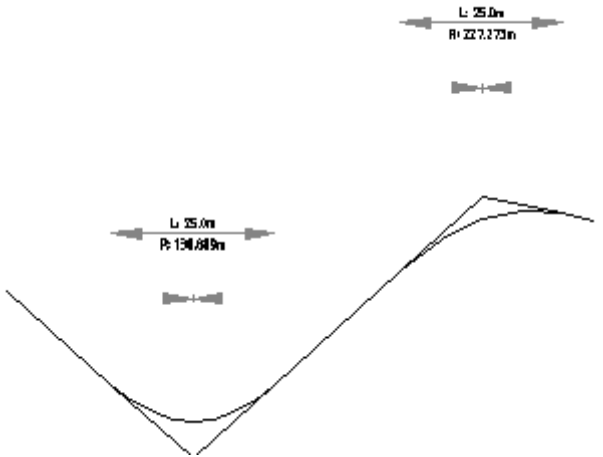
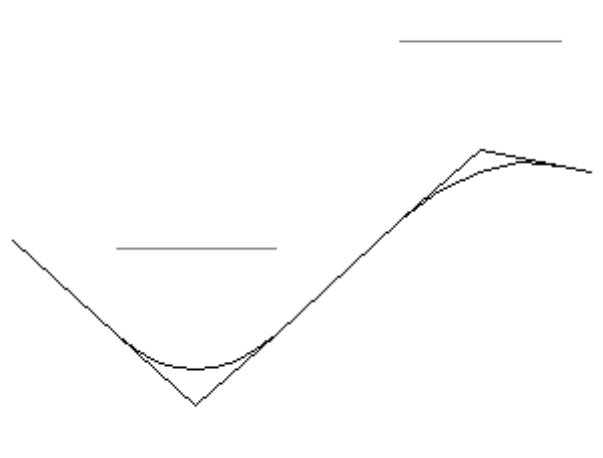
<ul style="list-style-type: none">• ANZ_Labels Bottom Arrow End			
<ul style="list-style-type: none">• ANZ_Labels Bottom Arrow Start			

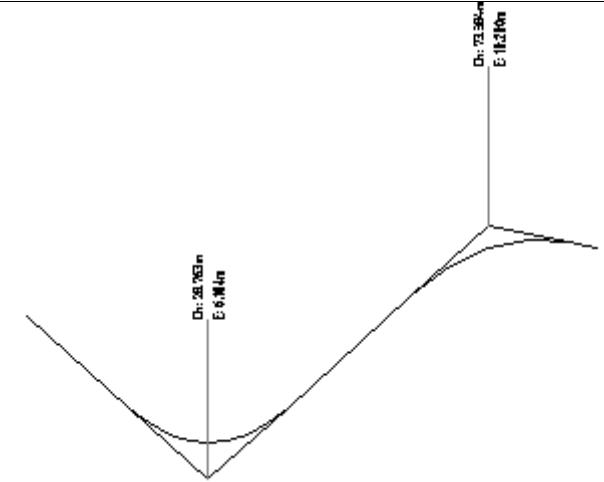
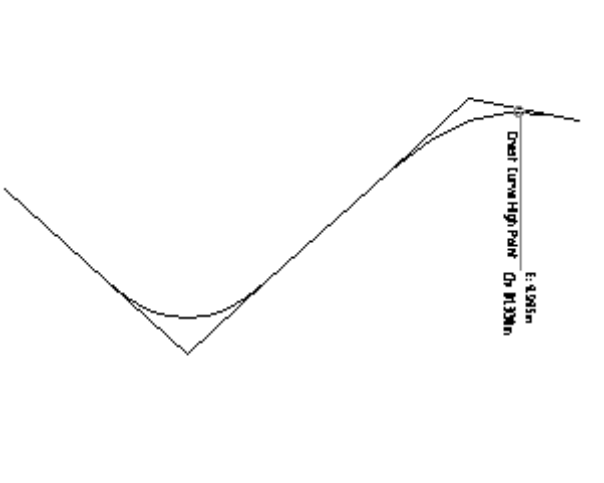
<ul style="list-style-type: none">• ANZ_Labels Bottom Lines		 <p>A profile view showing two lines representing different elevations. The top line is a smooth curve, and the bottom line is a piecewise linear approximation. Slope labels are placed above the lines: -0.1% on the left, 0.0% in the middle, and -2.0% on the right.</p>	
<ul style="list-style-type: none">• ANZ_Labels Profile Tangent (Ch + Elev)		 <p>A profile view showing two lines representing different elevations. The top line is a smooth curve, and the bottom line is a piecewise linear approximation. Vertical labels are placed at various points along the lines, indicating stationing and elevation data. The labels are: Ch: 1354m, E: 6.711m; Ch: 4325m, E: 7.306m; Ch: 4321m, E: 7.306m; Ch: 4311m, E: 7.675m; Ch: 4311m, E: 7.725m; Ch: 4311m, E: 4.155m.</p>	

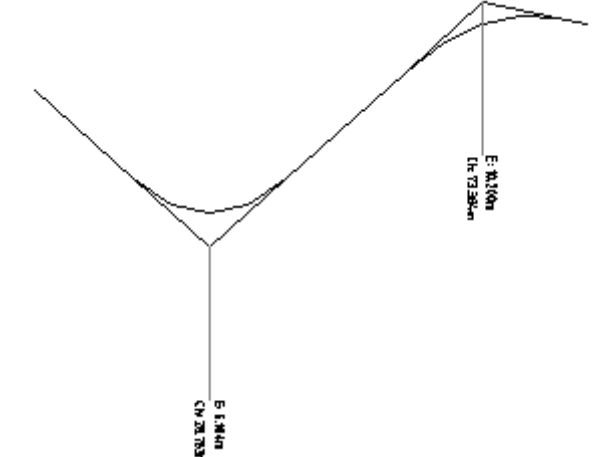
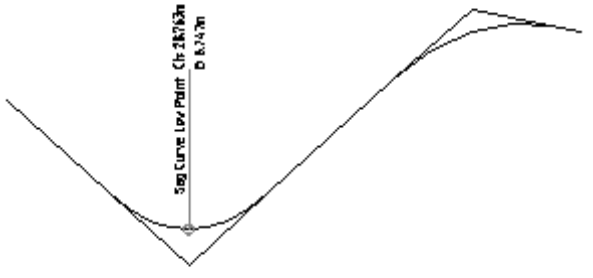
<ul style="list-style-type: none">• ANZ_Ordinate Lines		 A technical drawing of a cross-section profile. It features a central curve representing a valley or channel. Several vertical lines are drawn from the top edge of the profile down to the curve, representing ordinates. The profile rises on both sides, with a slight peak on the right side.	
<ul style="list-style-type: none">• ANZ_Profile Name (NO PLOT)		 A technical drawing of a cross-section profile, similar to the one above, but without the vertical ordinate lines. It shows a central curve representing a valley or channel, rising on both sides with a slight peak on the right.	

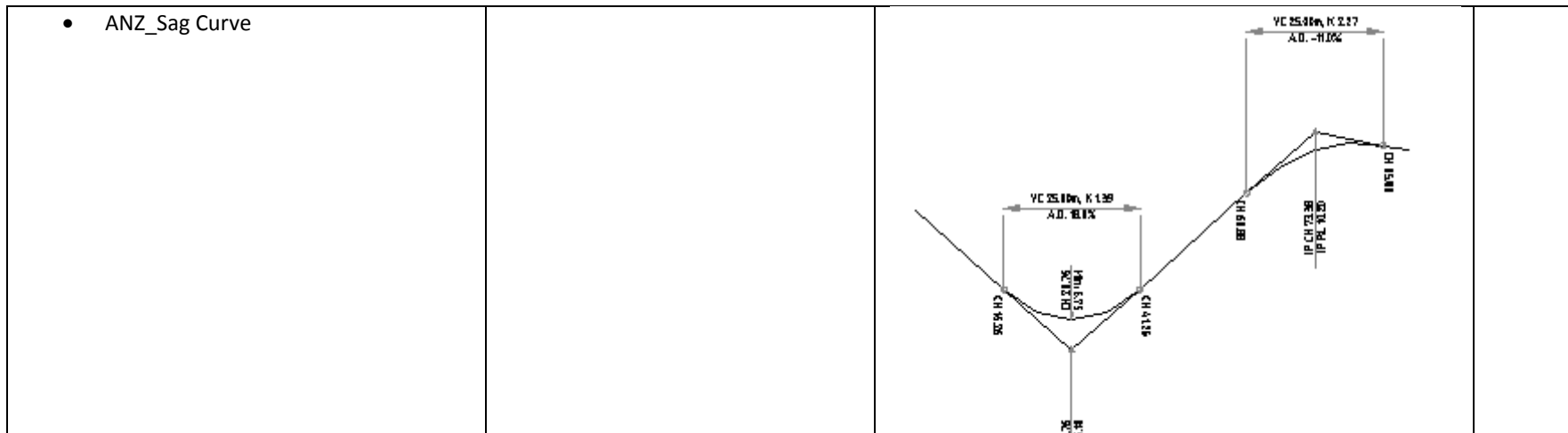
<ul style="list-style-type: none"> Standard 			
Curve			
<ul style="list-style-type: none"> ANZ_Crest Curve 			

<ul style="list-style-type: none"> ANZ_Design Info Crest Curves (Non Plotting Layer) 		 <p>Crest Curve Design Info (Non Plotting Layer)</p> <p>Curve Length: 25.000m K Value: 25.000 Radius: 251.000m Grade Change: -11.00%</p> <p>Crest Curve Design Info (Non Plotting Layer)</p> <p>Curve Length: 25.000m K Value: 25.000 Radius: 251.000m Grade Change: -11.00%</p> <p>Passing Sight Distance: 114.7m Stopping Sight Distance: 43.50m</p>	
<ul style="list-style-type: none"> ANZ_Design Info Sag Curves (Non Plotting Layer) 		 <p>Sag Curve Design Info (Non Plotting Layer)</p> <p>Curve Length: 25.000m K Value: 25.000 Radius: 251.000m Grade Change: -11.00%</p> <p>Headlight Sight Distance: 114.7m</p> <p>Sag Curve Design Info (Non Plotting Layer)</p> <p>Curve Length: 25.000m K Value: 25.000 Radius: 251.000m Grade Change: -11.00%</p> <p>Headlight Sight Distance: 114.7m</p>	

<ul style="list-style-type: none">• ANZ_Labels Bottom Curves		 <p>The diagram shows a curve with a length $L = 25.0m$ and a radius $R = 227.73m$. The curve is shown as a solid line and a dashed line. A horizontal line is drawn above the curve, and a vertical line is drawn from the center of the curve to the horizontal line. The curve is labeled with $L = 25.0m$ and $R = 227.73m$.</p>	
<ul style="list-style-type: none">• ANZ_Labels Bottom Lnes (to curve centres)		 <p>The diagram shows a curve with a length $L = 25.0m$ and a radius $R = 136.689m$. The curve is shown as a solid line and a dashed line. A horizontal line is drawn above the curve, and a vertical line is drawn from the center of the curve to the horizontal line. The curve is labeled with $L = 25.0m$ and $R = 136.689m$.</p>	

<ul style="list-style-type: none">• ANZ_Labels Profile Curves (Crest)		 <p>A profile curve diagram showing a crest. The curve starts on the left, dips to a minimum, rises to a peak, and then dips again. A vertical line points to the peak with the label "D=72.96m" and "E=14.30m".</p>	
<ul style="list-style-type: none">• ANZ_Labels Profile Curves (Crest) High Point		 <p>A profile curve diagram showing a crest. The curve starts on the left, dips to a minimum, rises to a peak, and then dips again. A vertical line points to the peak with the label "Crest Curve High Point", "D=72.96m", and "E=14.30m".</p>	

<ul style="list-style-type: none">• ANZ_Labels Profile Curves (Sag)		 <p>The diagram shows a sag curve profile. A vertical line from the peak of the curve to the low point is labeled 'E 1.1814m Ch 73.280m'. Another vertical line from the low point to the peak is also labeled 'E 1.1814m Ch 73.280m'.</p>	
<ul style="list-style-type: none">• ANZ_Labels Profile Curves (Sag) Low Point		 <p>The diagram shows a sag curve profile. A vertical line from the peak of the curve to the low point is labeled 'Sag Curve Low Point: Ch 287.63m D: 8.147m'.</p>	



Profile View Type/Name	Description	Screen grab / DWF / DWG	Default
• ANZ_1x Exaggeration			
• ANZ_5x Exaggeration			
• ANZ_10x Exaggeration			
• ANZ_Pipe 1x Exaggeration			
• ANZ_Pipe 5x Exaggeration			
• ANZ_Pipe 10x Exaggeration			
• ANZ_Quick Profile (5x)			
• ANZ_Split_1x Exaggeration			
• ANZ_Split_5x Exaggeration			
• ANZ_Split_10x Exaggeration			
• ANZ_Split_Pipe 1x Exaggeration			
• ANZ_Split_Pipe 5x Exaggeration			
• ANZ_Split_Pipe 10x Exaggeration			

Profile View Label Type/Name	Description	Screen grab / DWF / DWG	Default
Station Elevation			

<ul style="list-style-type: none"> ANZ_Chainage Elev 			
<p>Depth</p> <ul style="list-style-type: none"> ANZ_Depth 			
<p>Projection</p>			

<ul style="list-style-type: none"> ANZ_Projection (Profiles) 			
<ul style="list-style-type: none"> ANZ_Projection (Profiles) Road Crossing Point 			

Profile Band Type/Name	Description	Screen grab / DWF / DWG	Default
Profile Band Set			
<ul style="list-style-type: none"> ANZ_Basic 			
<ul style="list-style-type: none"> ANZ_Pipes 			
<ul style="list-style-type: none"> ANZ_Road 			
<ul style="list-style-type: none"> ANZ_Road All Bands 			
<ul style="list-style-type: none"> ANZ_Road_Geometry Details 			

• ANZ_Road_Geometry Details & Superelevation			
• ANZ_Volumes			
Profile Data			
• ANZ_Chainage			
• ANZ_Depth (P1-P2)			
• ANZ_Design (P1)			
• ANZ_NS (P2)			
• ANZ_PROFILE TITLE			
• ANZ_Surface (P2) - Additional 1			
• ANZ_Surface (P2) - Additional 2			
• ANZ_Surface (P2) - Rock			
Vertical Geometry			
• ANZ_Vertical			
Horizontal Geometry			
• ANZ_Horizontal			
Superelevation Data			
• ANZ_Super			
Sectional Data			
• ANZ_Vols CUT (Cumulative)			
• ANZ_Vols FILL (Cumulative)			
• ANZ_Vols NET (Cumulative)			
Pipe Network			
• ANZ INVERT LEVELS			
• ANZ_(P2) Existing Surface			
• ANZ_Capacity			
• ANZ_Chainage (PIPE)			
• ANZ_Cover			
• ANZ_Design Elev at MH CL			
• ANZ_ELEV (pipe method)			
• ANZ_Grade % (schematic)			
• ANZ_HGL & FLOW			
• ANZ_Junction Loss			
• ANZ_Pipe Details			
• ANZ_Pit Name (Top of Band)			

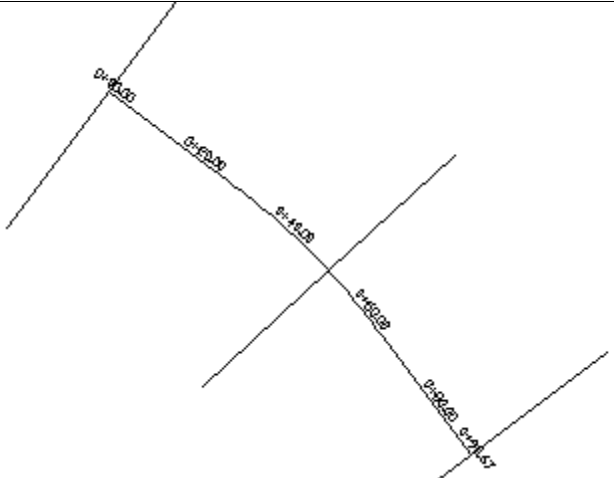
•			
Superelevation View	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_Superelevation Graph Vertical Ex 5 			

6.8 Sections

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

Sample Line Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_Sample Lines 			
<ul style="list-style-type: none"> ANZ_Sample Lines (NO DISPLAY) 			

Sample Line Label Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_Chainage 			


<ul style="list-style-type: none"> • ANZ_No Labels 			
---	--	---	--

Section Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> • ANZ_Surface Design 			
<ul style="list-style-type: none"> • ANZ_Surface Existing 			
<ul style="list-style-type: none"> • ANZ_Surface Rock 			
<ul style="list-style-type: none"> • ANZ_Surface_01 (Additional) 			
<ul style="list-style-type: none"> • ANZ_Surface_02 (Additional) 			

Section Label Styles	Description	Screen grab / DWF / DWG	Default
Label Sets			
<ul style="list-style-type: none"> • ANZ_EG Sections Labels 			
<ul style="list-style-type: none"> • ANZ_FG Sections Labels 			
<ul style="list-style-type: none"> • ANZ_Major & Minor Offsets 			
<ul style="list-style-type: none"> • ANZ_No Labels 			
<ul style="list-style-type: none"> • ANZ_Ordinate Lines (No Weeding 0.0) 			
<ul style="list-style-type: none"> • ANZ_Ordinate Lines (Weeding .5m) 			
<ul style="list-style-type: none"> • ANZ_Ordinate Lines (Weeding .7m) 			
<ul style="list-style-type: none"> • ANZ_Ordinate Lines (Weeding 1.0m) 			
<ul style="list-style-type: none"> • ANZ_Ordinates (EXISTING SURFACE - end points) 			
Major Offset			

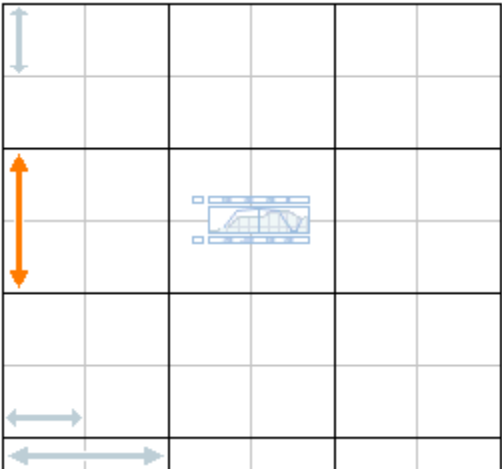
<ul style="list-style-type: none"> • ANZ_Major Offset 			
<ul style="list-style-type: none"> • ANZ_Ordinates 			
<p>Minor Offset</p>			

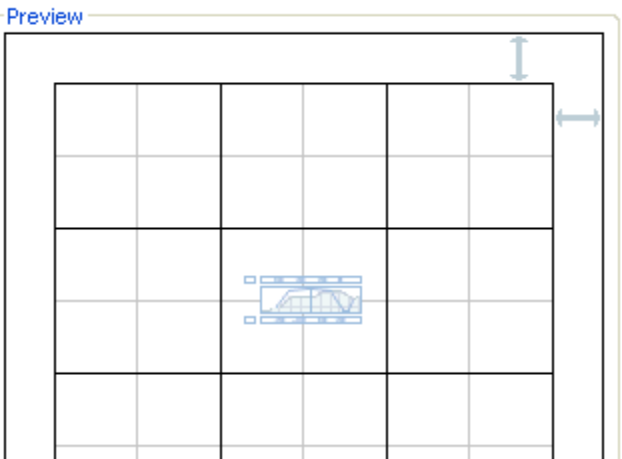
<ul style="list-style-type: none"> ANZ_Minor Offset 		<p style="text-align: center;"> OFF: -25.000 LVL: 0.000 </p> <p style="text-align: center;"> OFF: -15.000 LVL: 0.043 </p> <p style="text-align: center;"> OFF: -10.000 LVL: 0.086 </p> <p style="text-align: center;"> OFF: -5.000 LVL: 0.131 </p> <p style="text-align: center;"> OFF: 5.000 LVL: 0.316 </p> <p style="text-align: center;"> OFF: 10.000 LVL: 0.194 </p> <p style="text-align: center;"> OFF: 15.000 LVL: 0.280 </p> <p style="text-align: center;"> OFF: 25.000 LVL: 0.650 </p>	
Grade Break			
<ul style="list-style-type: none"> ANZ_EG Sections 		<p style="text-align: center;"> <u>LVL = 0.041</u> <u>OFFSET = -30.000</u> </p> <p style="text-align: center;"> <u>LVL = 7.981</u> <u>OFFSET = -23.142</u> </p> <p style="text-align: center;"> <u>LVL = 0.075</u> <u>OFFSET = -0.355</u> </p> <p style="text-align: center;"> <u>LVL = 0.228</u> <u>OFFSET = 0.000</u> </p> <p style="text-align: center;"> <u>LVL = 0.217</u> <u>OFFSET = 13.296</u> </p> <p style="text-align: center;"> <u>LVL = 0.724</u> <u>OFFSET = 23.624</u> </p> <p style="text-align: center;"> <u>LVL = 0.349</u> <u>OFFSET = 30.000</u> </p>	

<ul style="list-style-type: none"> ANZ_FG Sections 		<pre> LVL = 8041 P CODE = 117 OFFSET = -3140 LVL = 3981 P CODE = 117 OFFSET = -23162 LVL = 8075 P CODE = 117 OFFSET = -2355 LVL = 8228 P CODE = 117 OFFSET = 0.000 LVL = 8277 P CODE = 117 OFFSET = 13296 LVL = 8228 P CODE = 117 OFFSET = 23162 LVL = 8281 P CODE = 117 OFFSET = 36410 </pre>	
<ul style="list-style-type: none"> ANZ_Ordinate Line to Band 			
<p>Segment</p>			

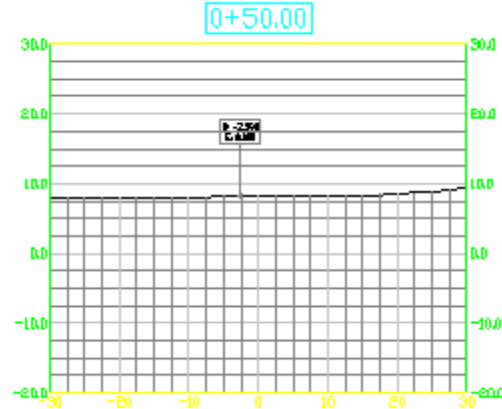
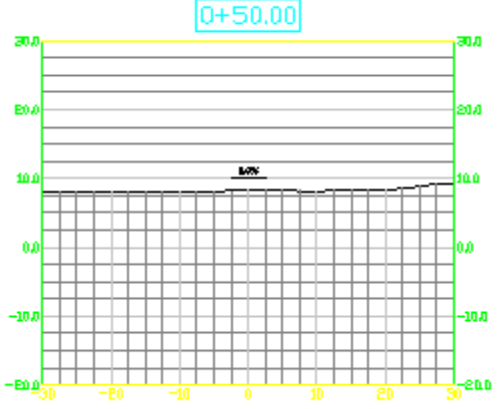
<ul style="list-style-type: none"> ANZ_FG Section Segments 		<pre> GRADE BREAK OFFSET = -30.000 ELEV = 80.000 GRADE BREAK OFFSET = -23.142 ELEV = 79.81 GRADE BREAK OFFSET = -12.355 ELEV = 80.75 GRADE BREAK OFFSET = 0.000 ELEV = 81.228 GRADE BREAK OFFSET = 13.296 ELEV = 81.217 GRADE BREAK OFFSET = 23.624 ELEV = 81.224 GRADE BREAK OFFSET = 30.000 ELEV = 81.309 </pre>	
---	--	--	--

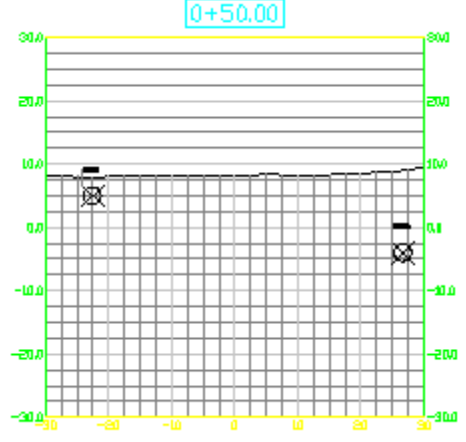
Section View Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_(Rd) X Section plot 1X - (No Vertical Ex) 			
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<ul style="list-style-type: none"> ANZ_(Rd) X Section plot 5X Vert Ex 			
<ul style="list-style-type: none"> ANZ_Rural Road 			
<ul style="list-style-type: none"> ANZ_X Section plot 1X Vert Ex (Maj & Min) 			
<ul style="list-style-type: none"> ANZ_X Section plot 1X Vert Ex (Maj Only) 			
<ul style="list-style-type: none"> ANZ_X Section plot 2X Vert Ex (Maj & Min) 			
<ul style="list-style-type: none"> ANZ_X Section plot 2X Vert Ex (Maj Only) 			
<ul style="list-style-type: none"> ANZ_X Section plot 5X Vert Ex (Maj & Min) 			
<ul style="list-style-type: none"> ANZ_X Section plot 5X Vert Ex (Maj Only) 			
<ul style="list-style-type: none"> 			
<ul style="list-style-type: none"> 			

Group Plot Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> ANZ_Sections Sheet 			

Sheet Styles	Description	Screen grab / DWF / DWG	Default
<ul style="list-style-type: none"> Standard 			

Label Styles	Description	Screen grab / DWF / DWG	Default
Offset Elevation			

<ul style="list-style-type: none"> ANZ_Offset Elevation (Vertical Leader (up)) 			
<p>Grade ANZ_Grade</p>			
<p>Projection</p>			

<ul style="list-style-type: none"> ANZ_Projection 			
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Section Band Styles	Description	Screen grab / DWF / DWG	Default
Band Sets			
<ul style="list-style-type: none"> ANZ_(Road) (0.0 Weeding) (Design & NS & Difference) by Surfaces 			
<ul style="list-style-type: none"> ANZ_(Road) (0.5 Weeding) (Design & NS & Difference) by Surfaces 			
<ul style="list-style-type: none"> ANZ_(Road) (0.7 Weeding) (Design & NS & Difference) by Surfaces 			
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<ul style="list-style-type: none"> ANZ_General (5 Surfaces) (Maj & Min) 			
<ul style="list-style-type: none"> ANZ_General (5 Surfaces) (Maj Only) 			
<ul style="list-style-type: none"> 			
<ul style="list-style-type: none"> 			
<ul style="list-style-type: none"> 			
Section Data			
<ul style="list-style-type: none"> ANZ_(Rd) - (S1-S2) Level Difference (Grade Breaks) 			
<ul style="list-style-type: none"> ANZ_(Rd) - (S1) Design Surface (Grade Breaks) 			
<ul style="list-style-type: none"> ANZ_(Rd) - (S2) Existing Surface 			

(Grade Breaks)			
• ANZ_(Rd) - Offsets (Grade Breaks)			
• ANZ_(S1) Additional 01 (Maj & Min)			
• ANZ_(S1) Additional 01 (Maj Only)			
• ANZ_(S1) Additional 02 (Maj & Min)			
• ANZ_(S1) Additional 02 (Maj Only)			
• ANZ_(S1) Design Surface (Maj & Min)			
• ANZ_(S1) Design Surface (Maj Only)			
• ANZ_(S1) Existing Surface (Maj & Min)			
• ANZ_(S1) Existing Surface (Maj Only)			
• ANZ_(S1) Rock (Maj & Min)			
• ANZ_(S1) Rock (Maj Only)			
• TITLE - CH			
• TITLE - CHAINAGE			


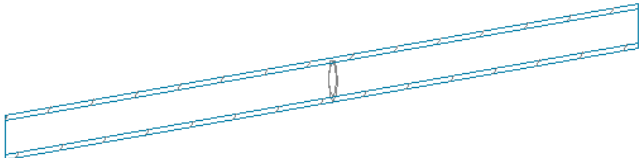


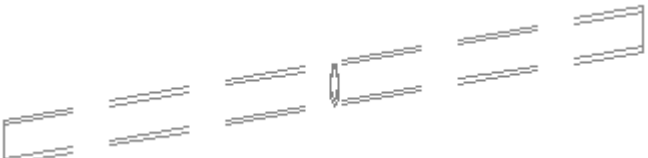
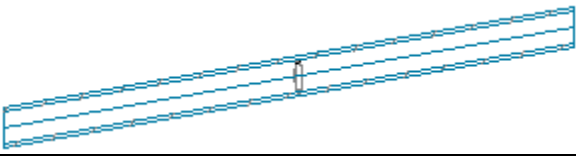
Section Table Styles	Description	Screen grab / DWF / DWG	Default
Total Volume			
• ANZ_Vol			
• ANZ_Vol (No Lines)			
Material			
• ANZ_Vol (Material)			
• ANZ_Vol (Material) - No Lines			

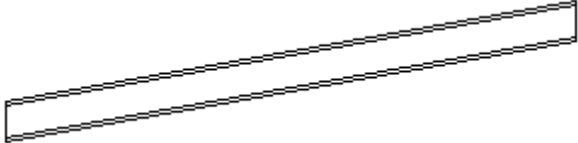
6.9 Pipe Networks

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

Parts Lists	Description	Screen grab / DWF / DWG	Default

Interference Styles	Description	Screen grab / DWF / DWG	Default


Pipe Styles	Description	Screen grab / DWF / DWG	Default
_ANZ Sanitary Sewer Pipe			
_ANZ Standard Pipe			
ANZ_Crossing Service - Profile- (X Section) only			
ANZ_Crossing Service - Profile- (X Section)&(Full Pipe)			
ANZ_Crossing Service - Profile - (Full Pipe) only			
ANZ_Storm			

Standard			
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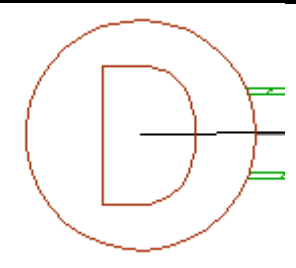
Pipe Rule Set	Description	Screen grab / DWF / DWG	Default
_ANZ Sanitary Sewer Pipes		<ul style="list-style-type: none"> [-] Cover And Slope <ul style="list-style-type: none"> Maximum Cover 3.000m Maximum Slope 10.00% Minimum Cover 0.500m Minimum Slope 1.00% [-] Length Check <ul style="list-style-type: none"> Maximum Length 30.000m Minimum Length 1.000m [-] Pipe to Pipe Match <ul style="list-style-type: none"> Match Location Invert Drop Value 0.000m 	
_ANZ Storm Drainage Pipes		<ul style="list-style-type: none"> [-] Length Check <ul style="list-style-type: none"> Maximum Length 50.000m Minimum Length 1.000m [-] Cover and Slope <ul style="list-style-type: none"> Maximum Cover 3.000m Maximum Slope 10.00% Minimum Cover 0.750m Minimum Slope 1.00% [-] Pipe to Pipe Match <ul style="list-style-type: none"> Match Location Invert Drop Value 0.000m 	
Basic			

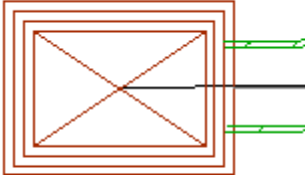
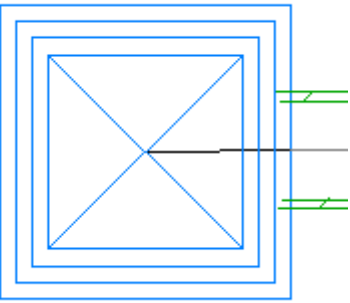
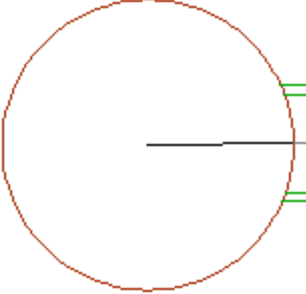
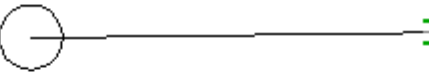
Standard	Cover and Slope	
	Maximum Cover	10.000m
	Maximum Slope	8.00%
	Minimum Cover	3.000m
	Minimum Slope	1.00%
	Length Check	
	Maximum Length	200.000m
	Minimum Length	1.000m

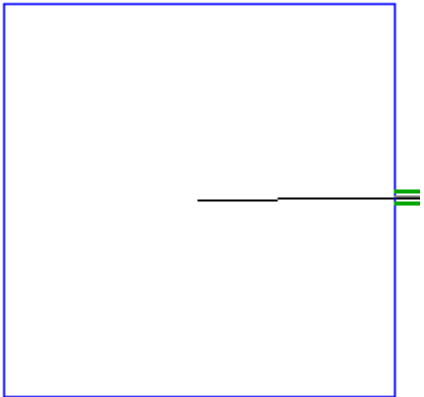
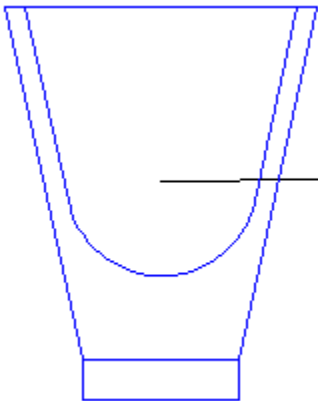
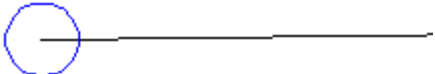
Pipe Label Styles	Description	Screen grab / DWF / DWG	Default
Plan Profile			
_ANZ Pipe Data			
_ANZ Pipe Name			


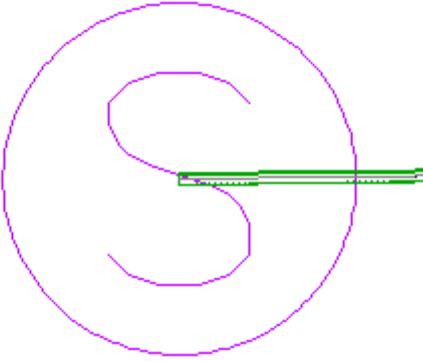
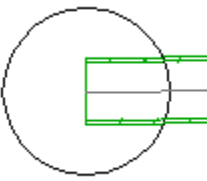
Standard			
Crossing Section			

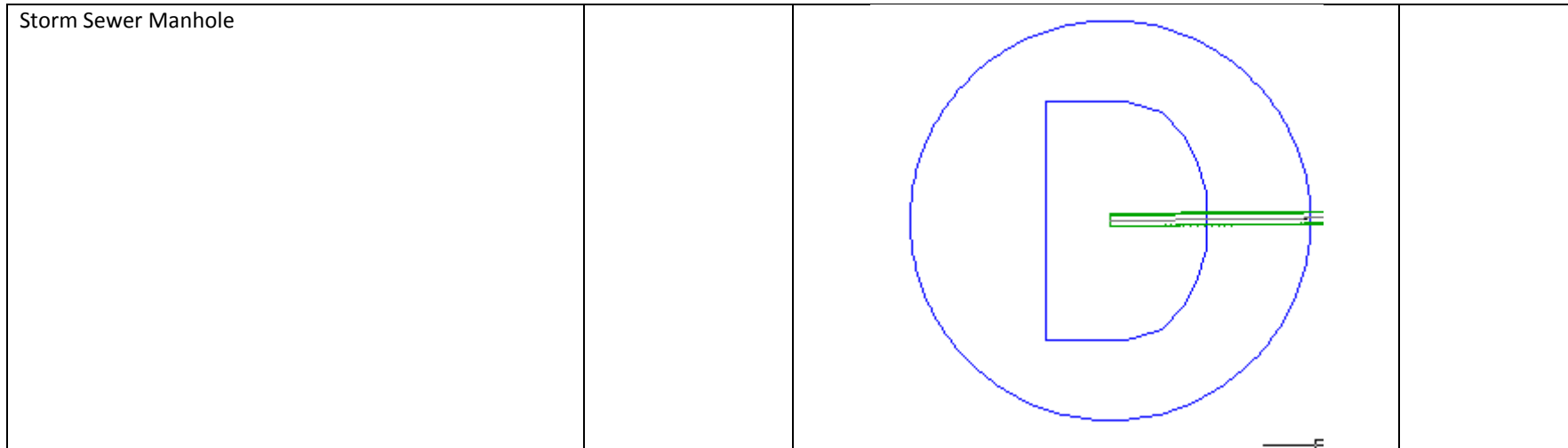
Pipe Table Styles	Description	Screen grab / DWF / DWG	Default																																							
_ANZ Pipe Schedule		<table border="1"> <thead> <tr> <th colspan="13">PIPE SCHEDULE FOR: R-16</th> </tr> <tr> <th>NAME</th> <th>PIPE TYPE</th> <th>PIPE Ø [mm]</th> <th>3D LENGTH</th> <th>SLOPE</th> <th>MANNINGS</th> <th>U/S PIT</th> <th>D/S PIT</th> <th>U/S INV</th> <th>D/S INV</th> <th>MAX COVER</th> <th>MIN COVER</th> <th>PIPE DROP</th> </tr> </thead> <tbody> <tr> <td>R-16P28</td> <td>Reinforced Concrete</td> <td>Ø 222</td> <td>59.08</td> <td>1:8</td> <td>0.0000</td> <td>R-16N41</td> <td>R-16N42</td> <td>76.245</td> <td>63.25</td> <td>0.48</td> <td>-0.15</td> <td>7.00</td> </tr> </tbody> </table>	PIPE SCHEDULE FOR: R-16													NAME	PIPE TYPE	PIPE Ø [mm]	3D LENGTH	SLOPE	MANNINGS	U/S PIT	D/S PIT	U/S INV	D/S INV	MAX COVER	MIN COVER	PIPE DROP	R-16P28	Reinforced Concrete	Ø 222	59.08	1:8	0.0000	R-16N41	R-16N42	76.245	63.25	0.48	-0.15	7.00	
PIPE SCHEDULE FOR: R-16																																										
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Standard		<table border="1"> <thead> <tr> <th colspan="4">Pipe Table</th> </tr> <tr> <th>Pipe Name</th> <th>Size</th> <th>Length</th> <th>Slope</th> </tr> </thead> <tbody> <tr> <td>R-16P28</td> <td>222.000</td> <td>59.164</td> <td>11.83%</td> </tr> </tbody> </table>	Pipe Table				Pipe Name	Size	Length	Slope	R-16P28	222.000	59.164	11.83%																												
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Pipe Name	Size	Length	Slope																																							
R-16P28	222.000	59.164	11.83%																																							

Structure Styles	Description	Screen grab / DWF / DWG	Default
_ANZ Pit			

<p>_ANZ SEP</p>			
<p>_ANZ SEP [Square]</p>			
<p>_ANZ Wingwall</p>			
<p>Basic</p>			


Catch Basin			
Flared End Section			
Headwall			



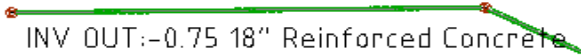

Null			
Sanitary Sewer Manhole			
Standard			






Structure Rule Styles	Description	Screen grab / DWF / DWG	Default																					
_ANZ Manholes		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Parameter</th> <th style="text-align: left;">Value</th> <th style="text-align: left;">Structure Value</th> </tr> </thead> <tbody> <tr> <td>[-] Pipe Drop Across Structure</td> <td></td> <td></td> </tr> <tr> <td> Drop Reference Location</td> <td>Invert</td> <td></td> </tr> <tr> <td> Drop Value</td> <td>0.000m</td> <td></td> </tr> <tr> <td> Maximum Drop Value</td> <td>2.000m</td> <td></td> </tr> <tr> <td>[-] Set Sump Depth</td> <td></td> <td></td> </tr> <tr> <td> Sump Depth</td> <td>0.000m</td> <td>0.000m</td> </tr> </tbody> </table>	Parameter	Value	Structure Value	[-] Pipe Drop Across Structure			Drop Reference Location	Invert		Drop Value	0.000m		Maximum Drop Value	2.000m		[-] Set Sump Depth			Sump Depth	0.000m	0.000m	
Parameter	Value	Structure Value																						
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Drop Reference Location	Invert																							
Drop Value	0.000m																							
Maximum Drop Value	2.000m																							
[-] Set Sump Depth																								
Sump Depth	0.000m	0.000m																						
_ANZ Pits																								
_ANZ Wingwalls		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Parameter</th> <th style="text-align: left;">Value</th> <th style="text-align: left;">Structure Value</th> </tr> </thead> <tbody> <tr> <td>[-] Set Sump Depth</td> <td></td> <td></td> </tr> <tr> <td> Sump Depth</td> <td>0.000m</td> <td>0.000m</td> </tr> </tbody> </table>	Parameter	Value	Structure Value	[-] Set Sump Depth			Sump Depth	0.000m	0.000m													
Parameter	Value	Structure Value																						
[-] Set Sump Depth																								
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Basic		<table border="1"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>[-] Pipe Drop Across Structure</td> <td></td> </tr> <tr> <td> Drop Reference Location</td> <td>Invert</td> </tr> <tr> <td> Drop Value</td> <td>0.100m</td> </tr> <tr> <td> Maximum Drop Value</td> <td>3.000m</td> </tr> <tr> <td>[-] Maximum pipe size check</td> <td></td> </tr> <tr> <td> Maximum pipe diameter or wi...</td> <td>4.000m</td> </tr> </tbody> </table>	Parameter	Value	[-] Pipe Drop Across Structure		Drop Reference Location	Invert	Drop Value	0.100m	Maximum Drop Value	3.000m	[-] Maximum pipe size check		Maximum pipe diameter or wi...	4.000m		
Parameter	Value																	
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Standard		<table border="1"> <thead> <tr> <th>Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>[-] Maximum pipe size check</td> <td></td> </tr> <tr> <td> Maximum pipe diameter or wi...</td> <td>4.000m</td> </tr> <tr> <td>[-] Pipe Drop Across Structure</td> <td></td> </tr> <tr> <td> Drop Reference Location</td> <td>Invert</td> </tr> <tr> <td> Drop Value</td> <td>0.100m</td> </tr> <tr> <td> Maximum Drop Value</td> <td>3.000m</td> </tr> </tbody> </table>	Parameter	Value	[-] Maximum pipe size check		Maximum pipe diameter or wi...	4.000m	[-] Pipe Drop Across Structure		Drop Reference Location	Invert	Drop Value	0.100m	Maximum Drop Value	3.000m		
Parameter	Value																	
[-] Maximum pipe size check																		
Maximum pipe diameter or wi...	4.000m																	
[-] Pipe Drop Across Structure																		
Drop Reference Location	Invert																	
Drop Value	0.100m																	
Maximum Drop Value	3.000m																	

Structure Label Styles	Description	Screen grab / DWF / DWG	Default
_ANZ Pit Data		<p>R-19N48 1,200 dia ANZ Concrete Manhole CH: ??? OFFSET: ??? ??? RIM: 0.57 DEPTH: 0.80 Inv Out: -0.23 / R-19N49</p> 	

<p>_ANZ Pit Name</p>			
<p>Data with Connected Pipes (Sanitary)</p>		<p>R-19N48 STA:??? OFF:?????? RIM:1.86 SUMP:-0.75 INV OUT:-0.75 18" Reinforced Concrete</p> 	
<p>Data with Connected Pipes (Storm)</p>		<p>R-19N48 STA:??? OFF:?????? RIM:1.86 SUMP:-0.75 INV OUT:-0.75 18" Reinforced Concrete</p> 	
<p>empty</p>			

Name Only (Sanitary)		R-19N48 	
Name Only (Storm)		R-19N48 	
Standard		1,200 dia Concrete Manhole 	

Structure Table Styles	Description	Screen grab / DWF / DWG	Default																																																		
_ANZ Pit Schedule		<p style="text-align: center;">PIT SCHEDULE FOR: R-19</p> <table border="1"> <thead> <tr> <th>PIT NAME</th> <th>PIT TYPE</th> <th>SETOUT COORDS</th> <th>INTERNAL DIM [mm]</th> <th>INLET ϕ [mm]</th> <th>INLET INV [m]</th> <th>OUTLET ϕ [mm]</th> <th>OUTLET INV [m]</th> <th>PIT FINAL</th> <th>PIT DEPTH [m]</th> </tr> </thead> <tbody> <tr> <td>R-19N48</td> <td>Reinforced Concrete</td> <td>E: 901.323 N: 1298.928</td> <td>W: ??? L: ???</td> <td></td> <td></td> <td></td> <td></td> <td>0.000</td> <td>0.795</td> </tr> <tr> <td>R-19N49</td> <td>Reinforced Concrete</td> <td>E: 951.566 N: 1203.430</td> <td>W: 777 L: ???</td> <td>ϕ 457</td> <td>-0.228</td> <td>ϕ 457</td> <td>-0.978</td> <td>0.566</td> <td>0.795</td> </tr> <tr> <td>R-19N50</td> <td>Reinforced Concrete</td> <td>E: 961.528 N: 1187.664</td> <td>W: 777 L: ???</td> <td>ϕ 457</td> <td>-0.978</td> <td>ϕ 457</td> <td>-1.728</td> <td>0.000</td> <td>0.978</td> </tr> <tr> <td>R-19N51</td> <td>Reinforced Concrete</td> <td>E: 1032.778 N: 1205.795</td> <td>W: ??? L: ???</td> <td>ϕ 457</td> <td>-1.728</td> <td></td> <td></td> <td>0.000</td> <td>1.728</td> </tr> </tbody> </table>	PIT NAME	PIT TYPE	SETOUT COORDS	INTERNAL DIM [mm]	INLET ϕ [mm]	INLET INV [m]	OUTLET ϕ [mm]	OUTLET INV [m]	PIT FINAL	PIT DEPTH [m]	R-19N48	Reinforced Concrete	E: 901.323 N: 1298.928	W: ??? L: ???					0.000	0.795	R-19N49	Reinforced Concrete	E: 951.566 N: 1203.430	W: 777 L: ???	ϕ 457	-0.228	ϕ 457	-0.978	0.566	0.795	R-19N50	Reinforced Concrete	E: 961.528 N: 1187.664	W: 777 L: ???	ϕ 457	-0.978	ϕ 457	-1.728	0.000	0.978	R-19N51	Reinforced Concrete	E: 1032.778 N: 1205.795	W: ??? L: ???	ϕ 457	-1.728			0.000	1.728	
PIT NAME	PIT TYPE	SETOUT COORDS	INTERNAL DIM [mm]	INLET ϕ [mm]	INLET INV [m]	OUTLET ϕ [mm]	OUTLET INV [m]	PIT FINAL	PIT DEPTH [m]																																												
R-19N48	Reinforced Concrete	E: 901.323 N: 1298.928	W: ??? L: ???					0.000	0.795																																												
R-19N49	Reinforced Concrete	E: 951.566 N: 1203.430	W: 777 L: ???	ϕ 457	-0.228	ϕ 457	-0.978	0.566	0.795																																												
R-19N50	Reinforced Concrete	E: 961.528 N: 1187.664	W: 777 L: ???	ϕ 457	-0.978	ϕ 457	-1.728	0.000	0.978																																												
R-19N51	Reinforced Concrete	E: 1032.778 N: 1205.795	W: ??? L: ???	ϕ 457	-1.728			0.000	1.728																																												
Basic		<table border="1"> <thead> <tr> <th colspan="2">Structure Table</th> </tr> <tr> <th>Structure Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>R-19N49</td> <td>RIM = 1.859 SUMP = -0.750 INV IN = -0.750 INV OUT = -3.210</td> </tr> </tbody> </table>	Structure Table		Structure Name	Details	R-19N49	RIM = 1.859 SUMP = -0.750 INV IN = -0.750 INV OUT = -3.210																																													
Structure Table																																																					
Structure Name	Details																																																				
R-19N49	RIM = 1.859 SUMP = -0.750 INV IN = -0.750 INV OUT = -3.210																																																				

Standard	Structure Table			
	Structure Name		Structure Details	
	R-19N49		RIM = 0.566 SUMP = -0.228 R-19P29 INV IN = -0.228 R-19P30 INV OUT = -0.978	
Structure with Pipes	STRUCTURE TABLE			
	STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT:
	R-19N49	47" RIM = 1.86 SUMP = -0.7 INV IN = -0.228 INV OUT = -0.978	R-19P29, 18" REINFORCED CONCRETE INV IN = -0.76	R-19P30, 18" REINFORCED CON

6.10 Corridors

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

Corridor Styles	Description	Screen grab / DWF / DWG	Default
ANZ_Corridor			
Basic			
Standard			

Assembly Styles	Description	Screen grab / DWF / DWG	Default
ANZ_Assembly default			
Basic			
Standard			

Quantity Takeoff Criteria	Description	Screen grab / DWF / DWG	Default
_ANZ Cut Fill			
_ANZ Earthworks			
_ANZ Paving Materials			
ANZ_Earthworks			
ANZ_Footpaths			
ANZ_Road Construction			
ANZ_Road Construction Complete			
ANZ_Road Narrow Widening			

ANZ_Road Overlay			
ANZ_Road Planing			
ANZ_Two Surfaces			
Cut and Fill			
Earthworks			
Material List			
Standard			

QTO Table Styles	Description	Screen grab / DWF / DWG	Default
Total Volume			
Material			

6.11 Plan and Profile Sheets

Design Template: _AutoCAD Civil3D 2012 ANZ Design_ANZ.dwt

View Frame Styles	Description	Screen grab / DWF / DWG	Default

View Frame Label Styles	Description	Screen grab / DWF / DWG	Default

Match Line Styles	Description	Screen grab / DWF / DWG	Default

Match Line Label Styles	Description	Screen grab / DWF / DWG	Default
Match Line Left			
Match Line Right			

6.12 General - Multipurpose Styles – Shape Styles

Display Component	Visible	Layer	Color	Linetype	LTScale	Lineweight	Plot Style
All View Directions:							
Shape Border Line	On	C-ROAD-SHAP	Blue	ByLayer	1.0000	ByLayer	NA
Shape Area Fill	On	C-ROAD-SHAP-PATT	Blue	ByLayer	1.0000	ByLayer	NA

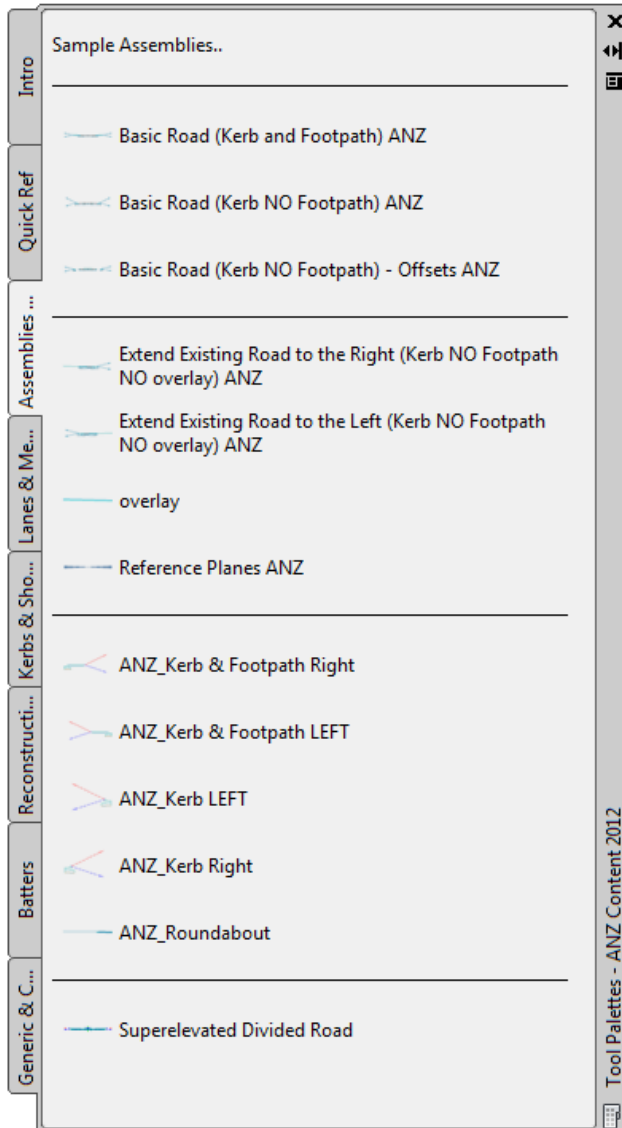
Hatch Display Component Type	Pattern	Angle	Scale
All View Directions:			
Shape Area Fill	ANSI31	0	1.7500

7 Tool palette(s)

7.1 Subassemblies and assemblies

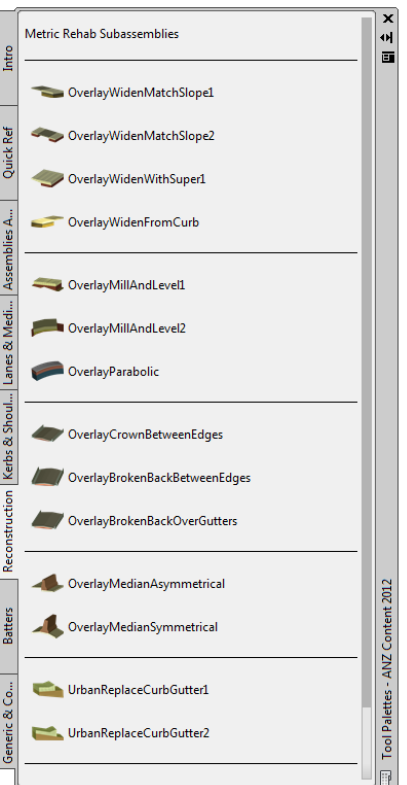
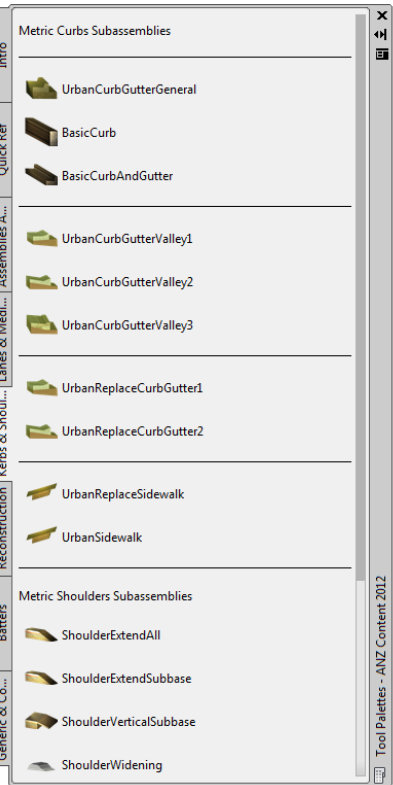
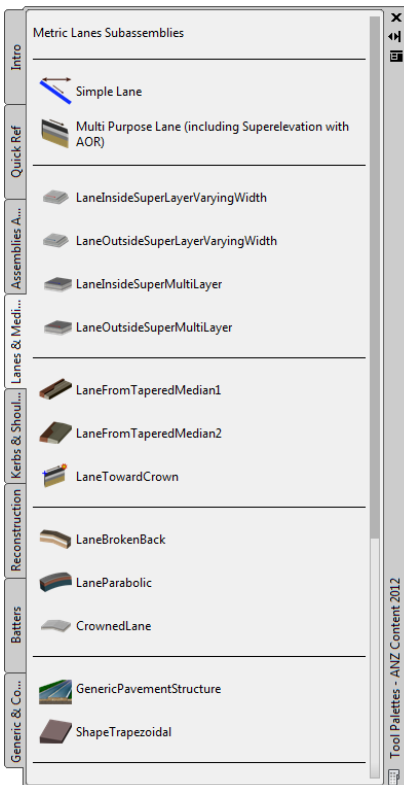
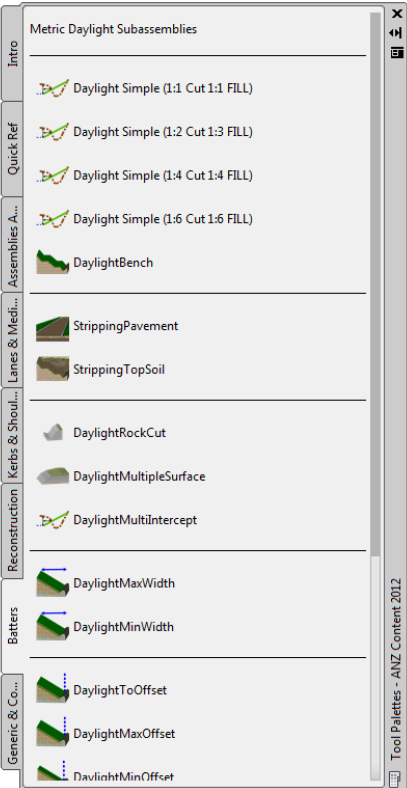
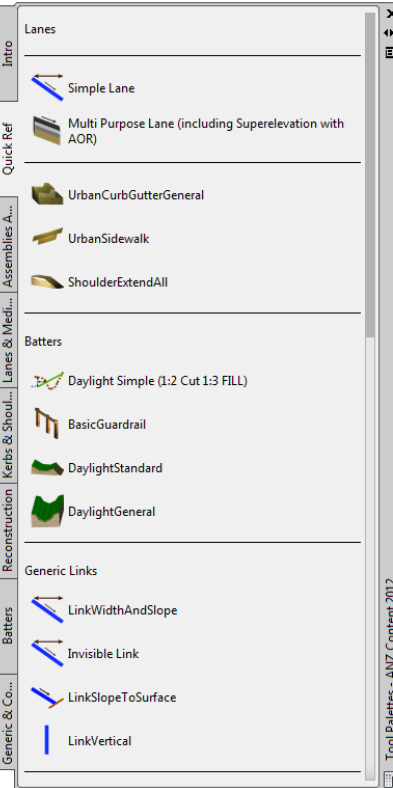
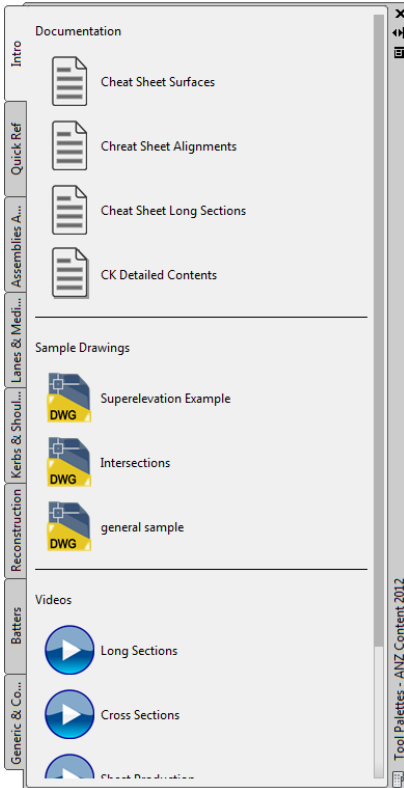
The ANZ Tool Palette has specific assemblies for typical designs in Australia and New Zealand

These are listed in the screen capture below.



The existing subassemblies have been rearranged into a more logical order with some minor edits.

The most regularly used subassemblies are in the "Quick Ref" palette to enable designers to access the information without searching through individual palettes.



8 Pipe and Structure Catalogs

ANZ Concrete Pipe RCRRJ CLASS 2

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
30.00	222.00	225 NB RCRRJ CLASS 2
32.00	305.00	300 NB RCRRJ CLASS 2
32.00	381.00	375 NB RCRRJ CLASS 2
38.00	457.00	450 NB RCRRJ CLASS 2
41.00	533.00	525 NB RCRRJ CLASS 2
51.00	610.00	600 NB RCRRJ CLASS 2
48.00	686.00	675 NB RCRRJ CLASS 2
51.00	762.00	750 NB RCRRJ CLASS 2
54.00	838.00	825 NB RCRRJ CLASS 2
64.00	914.00	900 NB RCRRJ CLASS 2
70.00	991.00	975 NB RCRRJ CLASS 2
76.00	1067.00	1050 NB RCRRJ CLASS 2
76.00	1219.00	1200 NB RCRRJ CLASS 2
76.00	1372.00	1350 NB RCRRJ CLASS 2
76.00	1524.00	1500 NB RCRRJ CLASS 2
82.00	1589.00	1600 NB RCRRJ CLASS 2
83.00	1676.00	1650 NB RCRRJ CLASS 2
101.00	1804.00	1800 NB RCRRJ CLASS 2
102.00	2032.00	1950 NB RCRRJ CLASS 2
125.00	2100.00	2100 NB RCRRJ CLASS 2
125.00	2250.00	2250 NB RCRRJ CLASS 2
175.00	2400.00	2400 NB RCRRJ CLASS 2
175.00	2550.00	2550 NB RCRRJ CLASS 2
175.00	2700.00	2700 NB RCRRJ CLASS 2

ANZ Concrete Pipe RCRRJ CLASS 3

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
30.00	222.00	225 NB RCRRJ CLASS 3
32.00	305.00	300 NB RCRRJ CLASS 3
32.00	381.00	375 NB RCRRJ CLASS 3
38.00	457.00	450 NB RCRRJ CLASS 3
41.00	533.00	525 NB RCRRJ CLASS 3
49.00	600.00	600 NB RCRRJ CLASS 3
51.00	680.00	675 NB RCRRJ CLASS 3
54.00	756.00	750 NB RCRRJ CLASS 3
57.00	832.00	825 NB RCRRJ CLASS 3
64.00	914.00	900 NB RCRRJ CLASS 3
70.00	991.00	975 NB RCRRJ CLASS 3
76.00	1067.00	1050 NB RCRRJ CLASS 3
76.00	1219.00	1200 NB RCRRJ CLASS 3
82.00	1360.00	1350 NB RCRRJ CLASS 3
86.00	1504.00	1500 NB RCRRJ CLASS 3
88.00	1577.00	1600 NB RCRRJ CLASS 3
93.00	1656.00	1650 NB RCRRJ CLASS 3
101.00	1804.00	1800 NB RCRRJ CLASS 3
110.00	2016.00	1950 NB RCRRJ CLASS 3
125.00	2100.00	2100 NB RCRRJ CLASS 3
125.00	2250.00	2250 NB RCRRJ CLASS 3
175.00	2400.00	2400 NB RCRRJ CLASS 3
175.00	2550.00	2550 NB RCRRJ CLASS 3
175.00	2700.00	2700 NB RCRRJ CLASS 3

ANZ Concrete Pipe RCRRJ CLASS 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
30.00	222.00	225 NB RCRRJ CLASS 4
32.00	305.00	300 NB RCRRJ CLASS 4
32.00	375.00	375 NB RCRRJ CLASS 4

41.00	451.00	450 NB RCRRJ CLASS 4
48.00	520.00	525 NB RCRRJ CLASS 4
56.00	586.00	600 NB RCRRJ CLASS 4
60.00	662.00	675 NB RCRRJ CLASS 4
67.00	730.00	750 NB RCRRJ CLASS 4
70.00	806.00	825 NB RCRRJ CLASS 4
73.00	896.00	900 NB RCRRJ CLASS 4
79.00	973.00	975 NB RCRRJ CLASS 4
86.00	1047.00	1050 NB RCRRJ CLASS 4
92.00	1187.00	1200 NB RCRRJ CLASS 4
96.00	1332.00	1332 NB RCRRJ CLASS 4
104.00	1468.00	1500 NB RCRRJ CLASS 4
108.00	1537.00	1600 NB RCRRJ CLASS 4
111.00	1620.00	1650 NB RCRRJ CLASS 4
120.00	1767.00	1800 NB RCRRJ CLASS 4
140.00	1956.00	1950 NB RCRRJ CLASS 4
125.00	2100.00	2100 NB RCRRJ CLASS 4
125.00	2250.00	2250 NB RCRRJ CLASS 4
175.00	2400.00	2400 NB RCRRJ CLASS 4
175.00	2550.00	2550 NB RCRRJ CLASS 4
175.00	2700.00	2700 NB RCRRJ CLASS 4

**ANZ Concrete Pipe
RCFJ CLASS 2**

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
44.00	610.00	600 NB RCFJ CLASS 2
49.00	685.00	675 NB RCFJ CLASS 2
51.00	762.00	750 NB RCFJ CLASS 2
57.00	914.00	900 NB RCFJ CLASS 2
64.00	1067.00	1050 NB RCFJ CLASS 2
70.00	1219.00	1200 NB RCFJ CLASS 2
76.00	1372.00	1350 NB RCFJ CLASS 2
76.00	1524.00	1500 NB RCFJ CLASS 2
83.00	1676.00	1650 NB RCFJ CLASS 2
89.00	1828.00	1800 NB RCFJ CLASS 2
102.00	2032.00	1950 NB RCFJ CLASS 2
102.00	2032.00	2050 NB RCFJ CLASS 2

127.00	2312.00	2300 NB RCFJ CLASS 2
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**ANZ Concrete Pipe
RCFJ CLASS 3**

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
49.00	600.00	600 NB RCFJ CLASS 3
49.00	685.00	675 NB RCFJ CLASS 3
54.00	756.00	750 NB RCFJ CLASS 3
64.00	900.00	900 NB RCFJ CLASS 3
70.00	1054.00	1050 NB RCFJ CLASS 3
76.00	1207.00	1200 NB RCFJ CLASS 3
83.00	1358.00	1300 NB RCFJ CLASS 3
86.00	1504.00	1500 NB RCFJ CLASS 3
93.00	1656.00	1650 NB RCFJ CLASS 3
99.00	1808.00	1800 NB RCFJ CLASS 3
110.00	2016.00	1950 NB RCFJ CLASS 3
102.00	2032.00	2050 NB RCFJ CLASS 3
140.00	2286.00	2300 NB RCFJ CLASS 3

**ANZ Concrete Pipe
RCFJ CLASS 4**

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
56.00	586.00	600 NB RCFJ CLASS 4
49.00	685.00	675 NB RCFJ CLASS 4
67.00	730.00	750 NB RCFJ CLASS 4
73.00	883.00	900 NB RCFJ CLASS 4
84.00	1026.00	1050 NB RCFJ CLASS 4
90.00	1179.00	1200 NB RCFJ CLASS 4
96.00	1332.00	1350 NB RCFJ CLASS 4
104.00	1468.00	1500 NB RCFJ CLASS 4
111.00	1620.00	1650 NB RCFJ CLASS 4
117.00	1772.00	1800 NB RCFJ CLASS 4
140.00	1956.00	1950 NB RCFJ CLASS 4

102.00	2032.00	2050 NB RCFJ CLASS 4
140.00	2286.00	2300 NB RCFJ CLASS 4

ANZ Concrete Pipe

RCP CLASS 2

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
35.00	225.00	225 NB RCP CLASS 2
35.00	300.00	300 NB RCP CLASS 2
35.00	375.00	375 NB RCP CLASS 2
40.00	450.00	450 NB RCP CLASS 2
45.00	525.00	525 NB RCP CLASS 2
50.00	600.00	600 NB RCP CLASS 2

ANZ Concrete Pipe

RCP CLASS 3

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
35.00	225.00	225 NB RCP CLASS 3
35.00	300.00	300 NB RCP CLASS 3
35.00	375.00	375 NB RCP CLASS 3
40.00	450.00	450 NB RCP CLASS 3
45.00	525.00	525 NB RCP CLASS 3
50.00	600.00	600 NB RCP CLASS 3

ANZ Concrete Pipe

RCP CLASS 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
35.00	225.00	225 NB RCP CLASS 4
35.00	300.00	300 NB RCP CLASS 4
35.00	375.00	375 NB RCP CLASS 4
40.00	450.00	450 NB RCP CLASS 4
45.00	525.00	525 NB RCP CLASS 4
50.00	600.00	600 NB RCP CLASS 4

ANZ Concrete Pipe

RCSRJ CLASS 2

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
115.00	770.00	750 NB RCSRJ CLASS 2
135.00	1030.00	1050 NB RCSRJ CLASS 2
140.00	1960.00	1950 NB RCSRJ CLASS 2
140.00	2100.00	2100 NB RCSRJ CLASS 2
225.00	2250.00	2300 NB RCSRJ CLASS 2
150.00	2550.00	2550 NB RCSRJ CLASS 2
200.00	3050.00	3050 NB RCSRJ CLASS 2

ANZ Concrete Pipe

RCSRJ CLASS 3

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
140.00	1981.00	1950 NB RCSRJ CLASS 3
140.00	2082.00	2100 NB RCSRJ CLASS 3
225.00	2250.00	2300 NB RCSRJ CLASS 3
150.00	2550.00	2550 NB RCSRJ CLASS 3
200.00	3050.00	3050 NB RCSRJ CLASS 3

ANZ Concrete Pipe

RCSRJ CLASS 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
140.00	1981.00	1950 NB RCSRJ CLASS 4
206.00	2088.00	2100 NB RCSRJ CLASS 4
225.00	2250.00	2300 NB RCSRJ CLASS 4
190.00	2470.00	2550 NB RCSRJ CLASS 4
260.00	3000.00	3050 NB RCSRJ CLASS 4

ANZ Concrete Pipe

RCBJ CLASS 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
80.00	375.00	375 NB RCBJ CLASS 4
80.00	450.00	450 NB RCBJ CLASS 4
80.00	622.00	600 NB RCBJ CLASS 4
90.00	900.00	900 NB RCBJ CLASS 4
115.00	1080.00	1200 NB RCBJ CLASS 4
120.00	1284.00	1300 NB RCBJ CLASS 4

ANZ uPVC Pipe

PN 6

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.40	45.20	40NB UPVC PN 6
1.60	56.80	50 NB UPVC PN 6
2.00	71.00	65 NB UPVC PN 6
2.20	80.00	75 NB UPVC PN 6
2.40	83.70	80 NB UPVC PN 6
2.70	95.00	90 NB UPVC PN 6
3.00	107.80	100 NB UPVC PN 6
3.70	132.20	125 NB UPVC PN 6
4.20	151.30	150 NB UPVC PN 6
5.40	213.80	200 NB UPVC PN 6
6.00	237.70	225NB UPVC PN 6
6.70	266.20	250 NB UPVC PN 6
7.50	299.50	300 NB UPVC PN 6
9.50	380.30	375 NB UPVC PN 6

ANZ uPVC Pipe

PN 9

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.40	30.50	25 NB UPVC PN 9
1.70	38.50	32 NB UPVC PN 9

1.90	44.10	40NB UPVC PN 9
2.40	55.20	50 NB UPVC PN 9
3.00	68.90	65 NB UPVC PN 9
3.30	78.00	75 NB UPVC PN 9
3.50	81.30	80 NB UPVC PN 9
4.00	92.00	90 NB UPVC PN 9
4.50	104.60	100 NB UPVC PN 9
5.50	128.40	125 NB UPVC PN 9
6.30	146.90	150 NB UPVC PN 9
6.90	208.50	200 NB UPVC PN 9
8.80	231.70	225NB UPVC PN 9
9.90	259.40	250 NB UPVC PN 9
11.10	292.00	300 NB UPVC PN 9
14.10	370.70	375 NB UPVC PN 9

ANZ uPVC Pipe

PN 12

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.40	23.70	20 NB UPVC PN 12
1.70	29.80	25 NB UPVC PN 12
2.20	37.50	32 NB UPVC PN 12
2.50	42.80	40NB UPVC PN 12
3.10	53.70	50 NB UPVC PN 12
3.90	67.00	65 NB UPVC PN 12
4.30	76.00	75 NB UPVC PN 12
4.60	79.00	80 NB UPVC PN 12
5.30	91.00	90 NB UPVC PN 12
5.90	101.70	100 NB UPVC PN 12
7.20	124.90	125 NB UPVC PN 12
8.30	142.70	150 NB UPVC PN 12
10.50	203.10	200 NB UPVC PN 12
11.60	225.80	225NB UPVC PN 12
13.00	252.90	250 NB UPVC PN 12
14.70	284.50	300 NB UPVC PN 12
18.60	361.20	375 NB UPVC PN 12

ANZ uPVC Pipe

PN 15

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.40	18.30	15 NB UPVC PN 15
1.70	23.00	20 NB UPVC PN 15
2.10	29.00	25 NB UPVC PN 15
2.70	36.40	32 NB UPVC PN 15
3.10	41.60	40NB UPVC PN 15
3.80	52.20	50 NB UPVC PN 15
4.80	65.10	65 NB UPVC PN 15
5.40	72.00	75 NB UPVC PN 15
5.70	76.70	80 NB UPVC PN 15
6.40	87.00	90 NB UPVC PN 15
7.30	98.80	100 NB UPVC PN 15
8.90	121.30	125 NB UPVC PN 15
10.20	138.70	150 NB UPVC PN 15
12.90	198.00	200 NB UPVC PN 15
14.40	220.00	225NB UPVC PN 15
16.10	246.40	250 NB UPVC PN 15
18.10	277.30	300 NB UPVC PN 15
23.00	352.00	375 NB UPVC PN 15

ANZ uPVC Pipe

PN 18

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.60	17.80	15 NB UPVC PN 15
2.00	22.40	20 NB UPVC PN 15
2.50	28.10	25 NB UPVC PN 15
3.20	35.40	32 NB UPVC PN 15
3.60	40.50	40NB UPVC PN 15
3.60	50.50	50 NB UPVC PN 15
5.70	63.20	65 NB UPVC PN 15
6.40	71.01	75 NB UPVC PN 15
6.70	74.60	80 NB UPVC PN 15
8.20	84.00	90 NB UPVC PN 15
8.60	96.00	100 NB UPVC PN 15

10.60	117.70	125 NB UPVC PN 15
12.10	134.70	150 NB UPVC PN 15
15.30	192.90	200 NB UPVC PN 15
17.00	214.40	225NB UPVC PN 15
19.10	240.10	250 NB UPVC PN 15
21.50	270.20	300 NB UPVC PN 15
27.30	343.00	375 NB UPVC PN 15

ANZ mPVC Pipe

PN 6

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
2.30	109.50	100 NB MPVC PN 6
2.70	119.60	125 NB MPVC PN 6
3.00	154.00	150 NB MPVC PN 6
3.80	192.40	175 NB MPVC PN 6
4.20	216.60	200 NB MPVC PN 6
4.70	240.60	225 NB MPVC PN 6
5.30	269.40	250 NB MPVC PN 6
5.90	303.20	300 NB MPVC PN 6
7.50	385.00	375 NB MPVC PN 6

ANZ mPVC Pipe

PN 9

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
3.20	107.70	100 NB MPVC PN 9
4.00	117.00	125 NB MPVC PN 9
4.40	151.20	150 NB MPVC PN 9
5.60	188.80	175 NB MPVC PN 9
6.30	212.40	200 NB MPVC PN 9
6.90	236.20	225 NB MPVC PN 9
7.80	264.40	250 NB MPVC PN 9
8.70	297.60	300 NB MPVC PN 9
11.10	377.80	375 NB MPVC PN 9

ANZ mPVC Pipe

PN 12

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
4.20	105.70	100 NB MPVC PN 12
5.30	114.40	125 NB MPVC PN 12
5.90	148.20	150 NB MPVC PN 12
7.30	185.40	175 NB MPVC PN 12
8.20	208.60	200 NB MPVC PN 12
9.20	231.60	225 NB MPVC PN 12
10.30	259.40	250 NB MPVC PN 12
11.50	292.00	300 NB MPVC PN 12
14.30	370.60	375 NB MPVC PN 12
16.00	445.00	450 NB MPVC PN 12

ANZ mPVC Pipe

PN 15

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
5.20	103.70	100 NB MPVC PN 15
6.40	112.20	125 NB MPVC PN 15
7.20	145.60	150 NB MPVC PN 15
9.10	181.80	175 NB MPVC PN 15
10.20	204.60	200 NB MPVC PN 15
11.30	227.40	225 NB MPVC PN 15
12.50	254.80	250 NB MPVC PN 15
14.30	286.40	300 NB MPVC PN 15
18.20	363.60	375 NB MPVC PN 15

ANZ mPVC Pipe

PN 20

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
7.30	107.10	100 NB MPVC PN 20
10.60	155.90	150 NB MPVC PN 20
13.90	204.10	200 NB MPVC PN 20

ANZ oPVC Pipe

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
7.80	100.00	100 NB OPVC PN

ANZ PE80 Pipe

PN 10

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80 PN10
1.90	25.00	25 OD PE80 PN10
2.20	32.00	32 OD PE80 PN10
2.80	40.00	40 OD PE80 PN10
3.40	50.00	50 OD PE80 PN10
4.30	63.00	63 OD PE80 PN10
5.10	75.00	75 OD PE80 PN10
6.10	90.00	90 OD PE80 PN10
7.40	110.00	110 OD PE80 PN10
8.30	125.00	125 OD PE80 PN10
9.30	140.00	140 OD PE80 PN10
10.60	160.00	160 OD PE80 PN10
11.90	180.00	180 OD PE80 PN10
13.20	200.00	200 OD PE80 PN10
14.90	225.00	225 OD PE80 PN10
16.40	250.00	250 OD PE80 PN10
18.40	280.00	280 OD PE80 PN10
20.70	315.00	315 OD PE80 PN10
23.40	355.00	355 OD PE80 PN10
26.20	400.00	400 OD PE80 PN10
29.50	450.00	450 OD PE80 PN10
32.70	500.00	500 OD PE80 PN10
36.70	560.00	560 OD PE80 PN10
41.20	630.00	630 OD PE80 PN10
46.50	710.00	710 OD PE80 PN10
52.30	800.00	800 OD PE80 PN10
65.40	1000.00	1,000 OD PE80 PN10

ANZ PE80 Pipe

PN 12.5

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80 PN12.5
1.90	25.00	25 OD PE80 PN12.5
2.20	32.00	32 OD PE80 PN12.5
2.80	40.00	40 OD PE80 PN12.5
3.40	50.00	50 OD PE80 PN12.5
4.30	63.00	63 OD PE80 PN12.5
5.10	75.00	75 OD PE80 PN12.5
6.10	90.00	90 OD PE80 PN12.5
7.40	110.00	110 OD PE80 PN12.5
8.30	125.00	125 OD PE80 PN12.5
9.30	140.00	140 OD PE80 PN12.5
10.60	160.00	160 OD PE80 PN12.5
11.90	180.00	180 OD PE80 PN12.5
13.20	200.00	200 OD PE80 PN12.5
14.90	225.00	225 OD PE80 PN12.5
16.40	250.00	250 OD PE80 PN12.5
18.40	280.00	280 OD PE80 PN12.5
20.70	315.00	315 OD PE80 PN12.5
23.40	355.00	355 OD PE80 PN12.5
26.20	400.00	400 OD PE80 PN12.5
29.50	450.00	450 OD PE80 PN12.5
32.70	500.00	500 OD PE80 PN12.5
36.70	560.00	560 OD PE80 PN12.5
41.20	630.00	630 OD PE80 PN12.5
46.50	710.00	710 OD PE80 PN12.5
52.30	800.00	800 OD PE80 PN12.5
65.40	1000.00	1,000 OD PE80 PN12.5

ANZ PE80 Pipe

PN 16

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80 PN16
1.90	25.00	25 OD PE80 PN16

2.20	32.00	32 OD PE80 PN16
2.80	40.00	40 OD PE80 PN16
3.40	50.00	50 OD PE80 PN16
4.30	63.00	63 OD PE80 PN16
5.10	75.00	75 OD PE80 PN16
6.10	90.00	90 OD PE80 PN16
7.40	110.00	110 OD PE80 PN16
8.30	125.00	125 OD PE80 PN16
9.30	140.00	140 OD PE80 PN16
10.60	160.00	160 OD PE80 PN16
11.90	180.00	180 OD PE80 PN16
13.20	200.00	200 OD PE80 PN16
14.90	225.00	225 OD PE80 PN16
16.40	250.00	250 OD PE80 PN16
18.40	280.00	280 OD PE80 PN16
20.70	315.00	315 OD PE80 PN16
23.40	355.00	355 OD PE80 PN16
26.20	400.00	400 OD PE80 PN16
29.50	450.00	450 OD PE80 PN16
32.70	500.00	500 OD PE80 PN16
36.70	560.00	560 OD PE80 PN16
41.20	630.00	630 OD PE80 PN16
46.50	710.00	710 OD PE80 PN16
52.30	800.00	800 OD PE80 PN16
65.40	1000.00	1,000 OD PE80 PN16

ANZ PE80B Pipe

PN 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80B PN4
1.90	25.00	25 OD PE80B PN4
2.20	32.00	32 OD PE80B PN4
2.80	40.00	40 OD PE80B PN4
3.40	50.00	50 OD PE80B PN4
4.30	63.00	63 OD PE80B PN4
5.10	75.00	75 OD PE80B PN4
6.10	90.00	90 OD PE80B PN4

7.40	110.00	110 OD PE80B PN4
8.30	125.00	125 OD PE80B PN4
9.30	140.00	140 OD PE80B PN4
10.60	160.00	160 OD PE80B PN4
11.90	180.00	180 OD PE80B PN4
13.20	200.00	200 OD PE80B PN4
14.90	225.00	225 OD PE80B PN4
16.40	250.00	250 OD PE80B PN4
18.40	280.00	280 OD PE80B PN4
20.70	315.00	315 OD PE80B PN4
23.40	355.00	355 OD PE80B PN4
26.20	400.00	400 OD PE80B PN4
29.50	450.00	450 OD PE80B PN4
32.70	500.00	500 OD PE80B PN4
36.70	560.00	560 OD PE80B PN4
41.20	630.00	630 OD PE80B PN54
46.50	710.00	710 OD PE80B PN4
52.30	800.00	800 OD PE80B PN4
65.40	1000.00	1,000 OD PE80B PN4

ANZ PE80B Pipe

PN 5

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80B PN5
1.90	25.00	25 OD PE80B PN5
2.20	32.00	32 OD PE80B PN5
2.80	40.00	40 OD PE80B PN5
3.40	50.00	50 OD PE80B PN5
4.30	63.00	63 OD PE80B PN5
5.10	75.00	75 OD PE80B PN5
6.10	90.00	90 OD PE80B PN5
7.40	110.00	110 OD PE80B PN5
8.30	125.00	125 OD PE80B PN5
9.30	140.00	140 OD PE80B PN5
10.60	160.00	160 OD PE80B PN5
11.90	180.00	180 OD PE80B PN5

13.20	200.00	200 OD PE80B PN5
14.90	225.00	225 OD PE80B PN5
16.40	250.00	250 OD PE80B PN5
18.40	280.00	280 OD PE80B PN5
20.70	315.00	315 OD PE80B PN5
23.40	355.00	355 OD PE80B PN5
26.20	400.00	400 OD PE80B PN5
29.50	450.00	450 OD PE80B PN5
32.70	500.00	500 OD PE80B PN5
36.70	560.00	560 OD PE80B PN5
41.20	630.00	630 OD PE80B PN5
46.50	710.00	710 OD PE80B PN5
52.30	800.00	800 OD PE80B PN5
65.40	1000.00	1,000 OD PE80B PN5

ANZ PE80B Pipe

PN 6.3

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80B PN6.3
1.90	25.00	25 OD PE80B PN6.3
2.20	32.00	32 OD PE80B PN6.3
2.80	40.00	40 OD PE80B PN6.3
3.40	50.00	50 OD PE80B PN6.3
4.30	63.00	63 OD PE80B PN6.3
5.10	75.00	75 OD PE80B PN6.3
6.10	90.00	90 OD PE80B PN6.3
7.40	110.00	110 OD PE80B PN6.3
8.30	125.00	125 OD PE80B PN6.3
9.30	140.00	140 OD PE80B PN6.3
10.60	160.00	160 OD PE80B PN6.3
11.90	180.00	180 OD PE80B PN6.3
13.20	200.00	200 OD PE80B PN6.3
14.90	225.00	225 OD PE80B PN6.3
16.40	250.00	250 OD PE80B PN6.3
18.40	280.00	280 OD PE80B PN6.3

20.70	315.00	315 OD PE80B PN6.3
23.40	355.00	355 OD PE80B PN6.3
26.20	400.00	400 OD PE80B PN6.3
29.50	450.00	450 OD PE80B PN6.3
32.70	500.00	500 OD PE80B PN6.3
36.70	560.00	560 OD PE80B PN6.3
41.20	630.00	630 OD PE80B PN6.3
46.50	710.00	710 OD PE80B PN6.3
52.30	800.00	800 OD PE80B PN6.3
65.40	1000.00	1,000 OD PE80B PN6.3

ANZ PE80B Pipe

PN 8

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE80B PN8
1.90	25.00	25 OD PE80B PN8
2.20	32.00	32 OD PE80B PN8
2.80	40.00	40 OD PE80B PN8
3.40	50.00	50 OD PE80B PN8
4.30	63.00	63 OD PE80B PN8
5.10	75.00	75 OD PE80B PN8
6.10	90.00	90 OD PE80B PN8
7.40	110.00	110 OD PE80B PN8
8.30	125.00	125 OD PE80B PN8
9.30	140.00	140 OD PE80B PN8
10.60	160.00	160 OD PE80B PN8
11.90	180.00	180 OD PE80B PN8
13.20	200.00	200 OD PE80B PN8
14.90	225.00	225 OD PE80B PN8
16.40	250.00	250 OD PE80B PN8
18.40	280.00	280 OD PE80B PN8
20.70	315.00	315 OD PE80B PN8
23.40	355.00	355 OD PE80B PN8
26.20	400.00	400 OD PE80B PN8
29.50	450.00	450 OD PE80B PN8
32.70	500.00	500 OD PE80B PN8

36.70	560.00	560 OD PE80B PN8
41.20	630.00	630 OD PE80B PN8
46.50	710.00	710 OD PE80B PN8
52.30	800.00	800 OD PE80B PN8
65.40	1000.00	1,000 OD PE80B PN8

ANZ PE100 Pipe

PN 4

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN4
1.90	25.00	25 OD PE100 PN4
2.20	32.00	32 OD PE100 PN4
2.80	40.00	40 OD PE100 PN4
3.40	50.00	50 OD PE100 PN4
4.30	63.00	63 OD PE100 PN4
5.10	75.00	75 OD PE100 PN4
6.10	90.00	90 OD PE100 PN4
7.40	110.00	110 OD PE100 PN4
8.30	125.00	125 OD PE100 PN4
9.30	140.00	140 OD PE100 PN4
10.60	160.00	160 OD PE100 PN4
11.90	180.00	180 OD PE100 PN4
13.20	200.00	200 OD PE100 PN4
14.90	225.00	225 OD PE100 PN4
16.40	250.00	250 OD PE100 PN4
18.40	280.00	280 OD PE100 PN4
20.70	315.00	315 OD PE100 PN4
23.40	355.00	355 OD PE100 PN4
26.20	400.00	400 OD PE100 PN4
29.50	450.00	450 OD PE100 PN4
32.70	500.00	500 OD PE100 PN4
36.70	560.00	560 OD PE100 PN4
41.20	630.00	630 OD PE100 PN4
46.50	710.00	710 OD PE100 PN4
52.30	800.00	800 OD PE100 PN4
65.40	1000.00	1,000 OD PE100 PN4

ANZ PE100 Pipe

PN 6.3

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN6.3
1.90	25.00	25 OD PE100 PN6.3
2.20	32.00	32 OD PE100 PN6.3
2.80	40.00	40 OD PE100 PN6.3
3.40	50.00	50 OD PE100 PN6.3
4.30	63.00	63 OD PE100 PN6.3
5.10	75.00	75 OD PE100 PN6.3
6.10	90.00	90 OD PE100 PN6.3
7.40	110.00	110 OD PE100 PN6.3
8.30	125.00	125 OD PE100 PN6.3
9.30	140.00	140 OD PE100 PN6.3
10.60	160.00	160 OD PE100 PN6.3
11.90	180.00	180 OD PE100 PN6.3
13.20	200.00	200 OD PE100 PN6.3
14.90	225.00	225 OD PE100 PN6.3
16.40	250.00	250 OD PE100 PN6.3
18.40	280.00	280 OD PE100 PN6.3
20.70	315.00	315 OD PE100 PN6.3
23.40	355.00	355 OD PE100 PN6.3
26.20	400.00	400 OD PE100 PN6.3
29.50	450.00	450 OD PE100 PN6.3
32.70	500.00	500 OD PE100 PN6.3
36.70	560.00	560 OD PE100 PN6.3
41.20	630.00	630 OD PE100 PN6.3
46.50	710.00	710 OD PE100 PN6.3
52.30	800.00	800 OD PE100 PN6.3
65.40	1000.00	1,000 OD PE100 PN6.3

ANZ PE100 Pipe

PN 8

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN8
1.90	25.00	25 OD PE100 PN8
2.20	32.00	32 OD PE100 PN8
2.80	40.00	40 OD PE100 PN8
3.40	50.00	50 OD PE100 PN8
4.30	63.00	63 OD PE100 PN8
5.10	75.00	75 OD PE100 PN8
6.10	90.00	90 OD PE100 PN8
7.40	110.00	110 OD PE100 PN8
8.30	125.00	125 OD PE100 PN8
9.30	140.00	140 OD PE100 PN8
10.60	160.00	160 OD PE100 PN8
11.90	180.00	180 OD PE100 PN8
13.20	200.00	200 OD PE100 PN8
14.90	225.00	225 OD PE100 PN8
16.40	250.00	250 OD PE100 PN8
18.40	280.00	280 OD PE100 PN8
20.70	315.00	315 OD PE100 PN8
23.40	355.00	355 OD PE100 PN8
26.20	400.00	400 OD PE100 PN8
29.50	450.00	450 OD PE100 PN8
32.70	500.00	500 OD PE100 PN8
36.70	560.00	560 OD PE100 PN8
41.20	630.00	630 OD PE100 PN8
46.50	710.00	710 OD PE100 PN8
52.30	800.00	800 OD PE100 PN8
65.40	1000.00	1,000 OD PE100 PN8

ANZ PE100 Pipe

PN 10

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN10

1.90	25.00	25 OD PE100 PN10
2.20	32.00	32 OD PE100 PN10
2.80	40.00	40 OD PE100 PN10
3.40	50.00	50 OD PE100 PN10
4.30	63.00	63 OD PE100 PN10
5.10	75.00	75 OD PE100 PN10
6.10	90.00	90 OD PE100 PN10
7.40	110.00	110 OD PE100 PN10
8.30	125.00	125 OD PE100 PN10
9.30	140.00	140 OD PE100 PN10
10.60	160.00	160 OD PE100 PN10
11.90	180.00	180 OD PE100 PN10
13.20	200.00	200 OD PE100 PN10
14.90	225.00	225 OD PE100 PN10
16.40	250.00	250 OD PE100 PN10
18.40	280.00	280 OD PE100 PN10
20.70	315.00	315 OD PE100 PN10
23.40	355.00	355 OD PE100 PN10
26.20	400.00	400 OD PE100 PN10
29.50	450.00	450 OD PE100 PN10
32.70	500.00	500 OD PE100 PN10
36.70	560.00	560 OD PE100 PN10
41.20	630.00	630 OD PE100 PN10
46.50	710.00	710 OD PE100 PN10
52.30	800.00	800 OD PE100 PN10
65.40	1000.00	1,000 OD PE100 PN10

ANZ PE100 Pipe

PN 12.5

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN12.5
1.90	25.00	25 OD PE100 PN12.5
2.20	32.00	32 OD PE100 PN12.5
2.80	40.00	40 OD PE100 PN12.5

3.40	50.00	50 OD PE100 PN12.5
4.30	63.00	63 OD PE100 PN12.5
5.10	75.00	75 OD PE100 PN12.5
6.10	90.00	90 OD PE100 PN12.5
7.40	110.00	110 OD PE100 PN12.5
8.30	125.00	125 OD PE100 PN12.5
9.30	140.00	140 OD PE100 PN12.5
10.60	160.00	160 OD PE100 PN12.5
11.90	180.00	180 OD PE100 PN12.5
13.20	200.00	200 OD PE100 PN12.5
14.90	225.00	225 OD PE100 PN12.5
16.40	250.00	250 OD PE100 PN12.5
18.40	280.00	280 OD PE100 PN12.5
20.70	315.00	315 OD PE100 PN12.5
23.40	355.00	355 OD PE100 PN12.5
26.20	400.00	400 OD PE100 PN12.5
29.50	450.00	450 OD PE100 PN12.5
32.70	500.00	500 OD PE100 PN12.5
36.70	560.00	560 OD PE100 PN12.5
41.20	630.00	630 OD PE100 PN12.5
46.50	710.00	710 OD PE100 PN12.5
52.30	800.00	800 OD PE100 PN12.5
65.40	1000.00	1,000 OD PE100 PN12.5

ANZ PE100 Pipe

PN 16

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.90	20.00	20 OD PE100 PN16
1.90	25.00	25 OD PE100 PN16
2.20	32.00	32 OD PE100 PN16
2.80	40.00	40 OD PE100 PN16
3.40	50.00	50 OD PE100 PN16
4.30	63.00	63 OD PE100 PN16
5.10	75.00	75 OD PE100 PN16

6.10	90.00	90 OD PE100 PN16
7.40	110.00	110 OD PE100 PN16
8.30	125.00	125 OD PE100 PN16
9.30	140.00	140 OD PE100 PN16
10.60	160.00	160 OD PE100 PN16
11.90	180.00	180 OD PE100 PN16
13.20	200.00	200 OD PE100 PN16
14.90	225.00	225 OD PE100 PN16
16.40	250.00	250 OD PE100 PN16
18.40	280.00	280 OD PE100 PN16
20.70	315.00	315 OD PE100 PN16
23.40	355.00	355 OD PE100 PN16
26.20	400.00	400 OD PE100 PN16
29.50	450.00	450 OD PE100 PN16
32.70	500.00	500 OD PE100 PN16
36.70	560.00	560 OD PE100 PN16
41.20	630.00	630 OD PE100 PN16
46.50	710.00	710 OD PE100 PN16
52.30	800.00	800 OD PE100 PN16
65.40	1000.00	1,000 OD PE100 PN16

ANZ DUCTILE IRON PIPE

PN 20

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
5.00	100.00	100 NB DI PN20
5.00	125.00	125 NB DI PN20
5.00	150.00	150 NB DI PN20
5.00	160.00	160 NB DI PN20
5.00	200.00	200 NB DI PN20
5.20	225.00	225 NB DI PN20
5.60	250.00	250 NB DI PN20
6.30	280.00	280 NB DI PN20
6.30	300.00	300 NB DI PN20
6.30	315.00	315 NB DI PN20
6.30	350.00	350 NB DI PN20
5.10	375.00	375 NB DI PN20
5.60	400.00	400 NB DI PN20

5.60	450.00	450 NB DI PN20
6.00	500.00	500 NB DI PN20
6.80	600.00	600 NB DI PN20
6.80	630.00	630 NB DI PN20
7.90	750.00	750 NB DI PN20

ANZ DUCTILE IRON PIPE

PN 35

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
5.00	100.00	100 NB DI PN35
5.00	125.00	125 NB DI PN35
5.00	150.00	150 NB DI PN35
5.00	160.00	160 NB DI PN35
5.00	200.00	200 NB DI PN35
5.20	225.00	225 NB DI PN35
5.60	250.00	250 NB DI PN35
6.30	280.00	280 NB DI PN35
6.30	300.00	300 NB DI PN35
6.30	315.00	315 NB DI PN35
6.30	350.00	350 NB DI PN35
5.10	375.00	375 NB DI PN35
5.60	400.00	400 NB DI PN35
5.60	450.00	450 NB DI PN35
6.00	500.00	500 NB DI PN35
6.80	600.00	600 NB DI PN35
6.80	630.00	630 NB DI PN35
7.90	750.00	750 NB DI PN35

ANZ DUCTILE IRON PIPE

FLANGE CLASS

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
5.00	100.00	100 NB DI FLANGE CLASS
5.00	125.00	125 NB DI FLANGE CLASS
5.00	150.00	150 NB DI FLANGE CLASS
5.00	160.00	160 NB DI FLANGE CLASS

5.00	200.00	200 NB DI FLANGE CLASS
5.20	225.00	225 NB DI FLANGE CLASS
5.60	250.00	250 NB DI FLANGE CLASS
6.30	280.00	280 NB DI FLANGE CLASS
6.30	300.00	300 NB DI FLANGE CLASS
6.30	315.00	315 NB DI FLANGE CLASS
6.30	350.00	350 NB DI FLANGE CLASS
5.10	375.00	375 NB DI FLANGE CLASS
5.60	400.00	400 NB DI FLANGE CLASS
5.60	450.00	450 NB DI FLANGE CLASS
6.00	500.00	500 NB DI FLANGE CLASS
6.80	600.00	600 NB DI FLANGE CLASS
6.80	630.00	630 NB DI FLANGE CLASS
7.90	750.00	750 NB DI FLANGE CLASS

ANZ SPIRAL WELDED STEEL PIPE (SWP)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
10.20	100.00	121.9 OD x 3.2 SWP
10.20	100.00	121.9 OD x 4.8 SWP
11.80	150.00	177.3 OD x 3.2 SWP
11.80	150.00	177.3 OD x 4.8 SWP
14.80	200.00	232.2 OD x 3.2 SWP
14.80	200.00	232.2 OD x 4.8 SWP
14.80	225.00	259.1 OD x 3.2 SWP
14.80	225.00	259.1 OD x 4.8 SWP
14.80	250.00	286.0 OD x 3.2 SWP
14.80	250.00	286.0 OD x 4.8 SWP
14.80	300.00	345.4 OD x 3.2 SWP
14.80	300.00	345.4 OD x 4.8 SWP
14.80	300.00	345.4 OD x 6.4 SWP
17.80	375.00	426.2 OD x 4.8 SWP
17.80	375.00	426.2 OD x 6.4 SWP
19.40	400.00	457.2 OD x 4.8 SWP
19.40	400.00	457.2 OD x 6.4 SWP
19.40	450.00	508.0 OD x 4.8 SWP
19.40	450.00	508.0 OD x 6.4 SWP
19.40	500.00	558.8 OD x 4.8 SWP
19.40	500.00	558.8 OD x 6.4 SWP
19.40	550.00	587.2 OD x 4.8 SWP

19.40	550.00	587.2 OD x 6.4 SWP
19.40	600.00	650.2 OD x 4.8 SWP
19.40	600.00	650.2 OD x 6.4 SWP
19.40	650.00	667.0 OD x 4.8 SWP
19.40	650.00	667.0 OD x 6.4 SWP
25.50	700.00	746.8 OD x 6.4 SWP
25.50	700.00	746.8 OD x 9.5 SWP
25.50	750.00	812.8 OD x 6.4 SWP
25.50	750.00	812.8 OD x 9.5 SWP
25.50	800.00	863.6 OD x 6.4 SWP
25.50	800.00	863.6 OD x 9.5 SWP
25.50	850.00	914.4 OD x 6.4 SWP
25.50	850.00	914.4 OD x 9.5 SWP
25.50	900.00	965.2 OD x 6.4 SWP
25.50	900.00	965.2 OD x 9.5 SWP
28.00	950.00	1016.0 OD x 9.5 SWP
28.00	950.00	1016.0 OD x 12.0 SWP
28.00	1000.00	1066.8 OD x 9.5 SWP
28.00	1000.00	1066.8 OD x 12.0 SWP
28.00	1050.00	1117.6 OD x 9.5 SWP
28.00	1050.00	1117.6 OD x 12.0 SWP
28.00	1150.00	1219.2 OD x 9.5 SWP
28.00	1150.00	1219.2 OD x 12.0 SWP
28.00	1300.00	1371.6 OD x 9.5 SWP
28.00	1300.00	1371.6 OD x 12.0 SWP
28.00	1500.00	1524.0 OD x 9.5 SWP
28.00	1500.00	1524.0 OD x 12.0 SWP
28.00	1600.00	1676.4 OD x 9.5 SWP
28.00	1600.00	1676.4 OD x 12.0 SWP
28.00	1800.00	1828.8 OD x 9.5 SWP
28.00	1800.00	1828.8 OD x 12.0 SWP
28.00	1900.00	1981.2 OD x 9.5 SWP
28.00	1900.00	1981.2 OD x 12.0 SWP

ANZ SPIRAL WELDED STEEL PIPE (CLMS)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
10.20	100.00	121.9 OD x 3.2 CLMS
10.20	100.00	121.9 OD x 4.8 CLMS

11.80	150.00	177.3 OD x 3.2 CLMS
11.80	150.00	177.3 OD x 4.8 CLMS
14.80	200.00	232.2 OD x 3.2 CLMS
14.80	200.00	232.2 OD x 4.8 CLMS
14.80	225.00	259.1 OD x 3.2 CLMS
14.80	225.00	259.1 OD x 4.8 CLMS
14.80	250.00	286.0 OD x 3.2 CLMS
14.80	250.00	286.0 OD x 4.8 CLMS
14.80	300.00	345.4 OD x 3.2 CLMS
14.80	300.00	345.4 OD x 4.8 CLMS
14.80	300.00	345.4 OD x 6.4 CLMS
17.80	375.00	426.2 OD x 4.8 CLMS
17.80	375.00	426.2 OD x 6.4 CLMS
19.40	400.00	457.2 OD x 4.8CLMS
19.40	400.00	457.2 OD x 6.4 CLMS
19.40	450.00	508.0 OD x 4.8 CLMS
19.40	450.00	508.0 OD x 6.4 CLMS
19.40	500.00	558.8 OD x 4.8 CLMS
19.40	500.00	558.8 OD x 6.4 CLMS
19.40	550.00	587.2 OD x 4.8 CLMS
19.40	550.00	587.2 OD x 6.4 CLMS
19.40	600.00	650.2 OD x 4.8 CLMS
19.40	600.00	650.2 OD x 6.4 CLMS
19.40	650.00	667.0 OD x 4.8 CLMS
19.40	650.00	667.0 OD x 6.4 CLMS
25.50	700.00	746.8 OD x 6.4 CLMS
25.50	700.00	746.8 OD x 9.5 CLMS
25.50	750.00	812.8 OD x 6.4 CLMS
25.50	750.00	812.8 OD x 9.5 CLMS
25.50	800.00	863.6 OD x 6.4 CLMS
25.50	800.00	863.6 OD x 9.5 CLMS
25.50	850.00	914.4 OD x 6.4 CLMS
25.50	850.00	914.4 OD x 9.5 CLMS
25.50	900.00	965.2 OD x 6.4 CLMS
25.50	900.00	965.2 OD x 9.5 CLMS
28.00	950.00	1016.0 OD x 9.5 CLMS
28.00	950.00	1016.0 OD x 12.0 CLMS
28.00	1000.00	1066.8 OD x 9.5 CLMS

28.00	1000.00	1066.8 OD x 12.0 CLMS
28.00	1050.00	1117.6 OD x 9.5 CLMS
28.00	1050.00	1117.6 OD x 12.0 CLMS
28.00	1150.00	1219.2 OD x 9.5 CLMS
28.00	1150.00	1219.2 OD x 12.0 CLMS
28.00	1300.00	1371.6 OD x 9.5 CLMS
28.00	1300.00	1371.6 OD x 12.0 CLMS
28.00	1500.00	1524.0 OD x 9.5 CLMS
28.00	1500.00	1524.0 OD x 12.0 CLMS
28.00	1600.00	1676.4 OD x 9.5 CLMS
28.00	1600.00	1676.4 OD x 12.0 CLMS
28.00	1800.00	1828.8 OD x 9.5 CLMS
28.00	1800.00	1828.8 OD x 12.0 CLMS
28.00	1900.00	1981.2 OD x 9.5 CLMS
28.00	1900.00	1981.2 OD x 12.0 CLMS

ANZ CORRUGATED PIPE (ALUFLO)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	300.00	300 NB ALUFLO
1.30	375.00	375 NB ALUFLO
1.30	450.00	450 NB ALUFLO
1.30	525.00	525 NB ALUFLO
1.30	600.00	600 NB ALUFLO
1.30	675.00	675 NB ALUFLO
1.30	750.00	750 NB ALUFLO
1.30	825.00	825 NB ALUFLO
1.30	900.00	900 NB ALUFLO
1.30	1050.00	1,050 NB ALUFLO
1.60	1200.00	1,200 NB ALUFLO
1.93	1350.00	1,350 NB ALUFLO
2.17	1500.00	1,500 NB ALUFLO
3.45	1650.00	1,650 NB ALUFLO
4.20	1800.00	1,800 NB ALUFLO
4.20	1950.00	1,950 NB ALUFLO
4.20	2100.00	2,100 NB ALUFLO
4.20	2250.00	2,250 NB ALUFLO
4.20	2400.00	2,400 NB ALUFLO

4.20	2550.00	2,550 NB ALUFLO
4.20	2700.00	2,700 NB ALUFLO
4.20	2850.00	2,850 NB ALUFLO
4.20	3000.00	3000 NB ALUFLO
4.20	3150.00	3,150 NB ALUFLO
4.20	3300.00	3,300 NB ALUFLO
4.20	3450.00	3,450 NB ALUFLO
4.20	3600.00	3,600 NB ALUFLO

ANZ CORRUGATED PIPE (HELCOR)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	300.00	300 NB HELCOR
1.30	375.00	375 NB HELCOR
1.30	450.00	450 NB HELCOR
1.30	525.00	525 NB HELCOR
1.30	600.00	600 NB HELCOR
1.30	675.00	675 NB HELCOR
1.30	750.00	750 NB HELCOR
1.30	825.00	825 NB HELCOR
1.30	900.00	900 NB HELCOR
1.30	1050.00	1,050 NB HELCOR
1.60	1200.00	1,200 NB HELCOR
1.93	1350.00	1,350 NB HELCOR
2.17	1500.00	1,500 NB HELCOR
3.45	1650.00	1,650 NB HELCOR
4.20	1800.00	1,800 NB HELCOR
4.20	1950.00	1,950 NB HELCOR
4.20	2100.00	2,100 NB HELCOR
4.20	2250.00	2,250 NB HELCOR
4.20	2400.00	2,400 NB HELCOR
4.20	2550.00	2,550 NB HELCOR
4.20	2700.00	2,700 NB HELCOR
4.20	2850.00	2,850 NB HELCOR
4.20	3000.00	3000 NB HELCOR
4.20	3150.00	3,150 NB HELCOR
4.20	3300.00	3,300 NB HELCOR
4.20	3450.00	3,450 NB HELCOR
4.20	3600.00	3,600 NB HELCOR

ANZ CORRUGATED PIPE (SEWERBOSS SN8)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB SEWERBOSS SN8
1.30	300.00	300 NB SEWERBOSS SN8
1.30	375.00	375 NB SEWERBOSS SN8
1.50	400.00	400 NB SEWERBOSS SN8

ANZ CORRUGATED PIPE (SEWERBOSS SN16)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB SEWERBOSS SN16
1.30	300.00	300 NB SEWERBOSS SN16
1.30	375.00	375 NB SEWERBOSS SN16
1.50	400.00	400 NB SEWERBOSS SN16

ANZ CORRUGATED PIPE (SEWERBOSS SN20)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB SEWERBOSS SN16
1.30	300.00	300 NB SEWERBOSS SN16
1.30	375.00	375 NB SEWERBOSS SN16
1.50	400.00	400 NB SEWERBOSS SN16

ANZ CORRUGATED PIPE (STORMBOSS SN6)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB STORMBOSS SN6
1.30	300.00	300 NB STORMBOSS SN6
1.30	375.00	375 NB STORMBOSS SN6
1.50	400.00	400 NB STORMBOSS SN6

ANZ CORRUGATED PIPE (STORMBOSS SN8)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB STORMBOSS SN8
1.30	300.00	300 NB STORMBOSS SN8
1.30	375.00	375 NB STORMBOSS SN8
1.50	400.00	400 NB STORMBOSS SN8

ANZ CORRUGATED PIPE (STORMBOSS SN16)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
1.30	225.00	225 NB STORMBOSS SN16
1.30	300.00	300 NB STORMBOSS SN16
1.30	375.00	375 NB STORMBOSS SN16
1.50	400.00	400 NB STORMBOSS SN16

ANZ CONCRETE BOX CULVERT

Wall Thickness (mm)	Part Size Name
150.00	1,500 x 1,500 mm Concrete Box Culvert
150.00	1,500 x 2,000 mm Concrete Box Culvert
150.00	2,000 x 1,500 mm Concrete Box Culvert
150.00	2,000 x 2,000 mm Concrete Box Culvert
150.00	2,000 x 2,500 mm Concrete Box Culvert
200.00	2,500 x 1,500 mm Concrete Box Culvert
200.00	2,500 x 2,000 mm Concrete Box Culvert
200.00	2,500 x 2,500 mm Concrete Box Culvert
200.00	2,500 x 3,000 mm Concrete Box Culvert
200.00	3,000 x 1,500 mm Concrete Box Culvert
200.00	3,000 x 2,000 mm Concrete Box Culvert
200.00	3,000 x 2,500 mm Concrete Box Culvert
200.00	3,000 x 3,000 mm Concrete Box Culvert
200.00	3,000 x 3,500 mm Concrete Box Culvert
200.00	3,500 x 1,500 mm Concrete Box Culvert
200.00	3,500 x 2,000 mm Concrete Box Culvert
200.00	3,500 x 2,500 mm Concrete Box Culvert
200.00	3,500 x 3,000 mm Concrete Box Culvert
200.00	3,500 x 3,500 mm Concrete Box Culvert

225.00	3,500 x 4,000 mm Concrete Box Culvert
225.00	4,000 x 1,500 mm Concrete Box Culvert
225.00	4,000 x 2,000 mm Concrete Box Culvert
225.00	4,000 x 2,500 mm Concrete Box Culvert
225.00	4,000 x 3,000 mm Concrete Box Culvert
225.00	4,000 x 3,500 mm Concrete Box Culvert
225.00	4,000 x 4,000 mm Concrete Box Culvert

ANZ EARTHENWARE PIPE

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
20.00	100.00	100 NB EARTHENWARE
20.00	150.00	150 NB EARTHENWARE
20.00	200.00	200 NB EARTHENWARE
30.00	225.00	225 NB EARTHENWARE
30.00	250.00	250 NB EARTHENWARE
30.00	300.00	300 NB EARTHENWARE
30.00	375.00	375 NB EARTHENWARE
30.00	400.00	400 NB EARTHENWARE
40.00	450.00	450 NB EARTHENWARE
40.00	500.00	500 NB EARTHENWARE
40.00	600.00	600 NB EARTHENWARE

ANZ EARTHENWARE PIPE (VITCLAY)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
20.00	100.00	100 NB VITCLAY
20.00	150.00	150 NB VITCLAY
20.00	200.00	200 NB VITCLAY
30.00	225.00	225 NB VITCLAY
30.00	250.00	250 NB VITCLAY
30.00	300.00	300 NB VITCLAY
30.00	375.00	375 NB VITCLAY
30.00	400.00	400 NB VITCLAY
40.00	450.00	450 NB VITCLAY
40.00	500.00	500 NB VITCLAY
40.00	600.00	600 NB VITCLAY

ANZ EARTHENWARE PIPE (CERAMIC)

Wall Thickness (mm)	Inner Diameter (mm)	Part Size Name
20.00	100.00	100 NB CERAMIC
20.00	150.00	150 NB CERAMIC
20.00	200.00	200 NB CERAMIC
30.00	225.00	225 NB CERAMIC
30.00	250.00	250 NB CERAMIC
30.00	300.00	300 NB CERAMIC
30.00	375.00	375 NB CERAMIC
30.00	400.00	400 NB CERAMIC
40.00	450.00	450 NB CERAMIC
40.00	500.00	500 NB CERAMIC
40.00	600.00	600 NB CERAMIC

Describe additions and changes to pipe and structure catalogs here, with screen grabs.

9 Highway design check files

10 Quantity Take Off

10.1 Overview

QTO in the ANZ CK has samples of RTA NSW and Queensland Main Roads standards.

10.2 Codes

The following codes are from the RTA and QLD Main Roads manuals.

<i>Code</i>	<i>Description</i>
1101	Contractor's site facilities
1102	Contractor's camp
1201	Provision for traffic
1202	Traffic Management Plan
1203	Roadwork signing records
1211	Construction and removal of side track
1221	Supply of Temporary Barriers
1223	Installation of Temporary Barriers
1225	Supply of temporary barrier end treatments
1226	Installation of temporary barrier end treatments
1330	Environmental Inspections
1331	Develop Environmental Management Plan (Construction)
1332	Implement Environmental Management Plan (Construction)
1333	Environmental Licences, Permits and Approvals
1342	Environmental Rock Structures.
1343	Sand Bag Structures
1344	Silt / Sediment Fence
1345	Erosion Control Matting
1346	Erosion Control Blankets
2101	Removal or demolition of culverts, complete
2102	Removal or demolition of culvert end structures
2103	Removal or demolition of culverts, excluding end structures
2104	Removal or demolition of concrete kerb including kerb crossings
2105	Removal or demolition of concrete channel
2106	Removal or demolition of concrete kerb and channel including kerb crossings
2107	Removal or demolition of concrete slabs
2108	Removal or demolition of gullies
2109	Removal or demolition of access chambers

2201	Supply of concrete pipe culvert components, Class [class], [diameter] mm diameter
2202	Supply of fibre reinforced concrete pipe culverts, Class [class], [diameter] mm diameter
2203	Supply of concrete box culvert components, [size]
2204	Supply of concrete spanning slabs, [size]
2205	Supply of helical lock-seam corrugated steel pipe culvert components, [size]
2206	Supply of helical lock-seam corrugated aluminium pipe culvert components, [size]
2207	Supply of nestable corrugated steel pipe culvert components, [size]
2208	Supply of multiple plate corrugated steel pipe culvert components, [size]
2209	Supply of multiple plate corrugated steel pipe-arch culvert components, [size]
2211	Supply of multiple plate corrugated steel arch culvert components, [size]
2212	Supply of concrete pipe drainage trough components, [size]
2213	Supply of concrete box trough components, [size]
2214	Supply of nestable corrugated steel pipe drainage trough components, [size]
2221	Installation of concrete pipe culvert components, [diameter] mm diameter
2222	Installation of fibre reinforced concrete pipe culvert components, [diameter] mm diameter
2223	Installation of concrete box culvert components, [size]
2224	Installation of concrete spanning slabs,[size]
2225	Installation of helical lock-seam corrugated steel pipe culvert components, [size]
2226	Installation of helical lock-seam corrugated aluminium pipe culvert components, [size]
2227	Installation of nestable corrugated steel pipe culvert components, [size]
2228	Installation of multiple plate corrugated steel pipe culvert components, [size]
2229	Installation of multiple plate corrugated steel pipe-arch culvert components, [size]
2231	Installation of multiple plate corrugated steel arch culvert components, [size]

2232	Installation of concrete pipe drainage trough components, [size]
2233	Installation of concrete box trough components, [size]
2234	Installation of nestable corrugated steel pipe drainage trough components, [size]
2236	Installation of pipe culvert components using jacking methods, [diameter] mm diameter
2241	Supply and installation of concrete pipe culvert components, Class [class], [diameter] mm diameter
2242	Supply and installation of fibre reinforced concrete pipe culverts, Class [class], [diameter] mm diameter
2243	Supply and installation of concrete box culvert components, [size]
2244	Supply and installation of concrete spanning slabs,[size]
2245	Supply and installation of helical lock-seam corrugated steel pipe culvert components, [size]
2246	Supply and installation of helical lock-seam corrugated aluminium pipe culvert components, [size]
2247	Supply and installation of nestable corrugated steel pipe culvert components, [size]
2248	Supply and installation of multiple plate corrugated steel pipe culvert components, [size]
2249	Supply and installation of multiple plate corrugated steel pipe-arch culvert components, [size]
2251	Supply and installation of multiple plate corrugated steel arch culvert components, [size]
2252	Supply and installation of concrete pipe drainage trough components, [size]
2253	Supply and installation of concrete box trough components, [size]
2254	Supply and installation of nestable corrugated steel pipe drainage trough components, [size]
2256	Supply and installation of pipe culvert components using jacking methods, Class [class], [diameter] mm diameter
2301	Concrete end plugs for culverts

2302	Concrete bases in culverts
2303	Concrete footings in culverts
2304	Concrete infill floors in culverts
2305	Concrete abutments and piers in culverts
2306	Concrete slab decks and kerbs in culverts
2307	Concrete unitary box culverts
2308	End structures to culverts, reinforced concrete
2309	End structures to culverts, unreinforced concrete
2311	End structures to culverts, rock masonry
2312	End structures to culverts, concrete masonry
2313	Aprons to culverts, reinforced concrete
2314	Aprons to culverts, unreinforced concrete
2315	Aprons to culverts, grouted rock pitching
2316	Aprons to culverts, steel-wire mattresses
2317	Precast concrete end structures to culverts, [size]
2401	Concrete kerb, [type]
2402	Concrete kerb crossings, [type]
2403	Concrete channel, [type]
2404	Concrete kerb and channel, [type]
2405	Concrete kerb and channel crossings, [type]
2406	Precast concrete kerb blocks, [type]
2407	Precast concrete channel blocks, [type]
2408	Precast concrete kerb and channel blocks, [type]
2409	Shoulder dykes, concrete
2411	Shoulder dykes, asphalt
2412	Shoulder dykes, precast concrete blocks
2413	Concrete gullies, [size/description]
2414	Concrete access chambers, [size/description]
2415	Precast concrete access chambers, [size/description]
2416	Precast concrete side inlet gullies with precast shaft, [size/description]
2417	Precast concrete side inlet gullies with cast-in-place pit, [size/description]
2501	Subsoil drains, Type B, [size] mm diameter
2502	Subsoil drains, Type D
2503	Subsoil drain outlet connection, [size] mm diameter, [type]
2504	Subsoil drain clean-out, [size] mm diameter, [type]
2505	Sheet filter drains
2506	Strip filter drains

2507	Sheet or strip filter drain outlet connection, [type]
2511	Vertical wick filter drains, plastic core
2512	Vertical sand drains
2513	Granular working platform for stone columns
2514	Supply and installation of reinforcement geosynthetic material for stone columns
2515	Supply and installation of geotextile, Strength Class [strength class], Filtration Class [filtration class]
2516	Stone columns
2601	Concrete paved inverts in corrugated steel/aluminium culverts, [size]
2611	Linings in drains and channels, unreinforced concrete
2612	Linings in drains and channels, reinforced concrete
2613	Linings in drains and channels, grouted rock pitching
2614	Linings in drains and channels, steel-wire mattresses
2615	Berm drain, [width] mm wide
2621	Concrete margins
2622	Concrete batters
2623	Concrete rail track crossings
2624	Concrete machinery crossings
2631	Hand placed concrete paving, [thickness] mm thick
2632	Sprayed concrete paving, [thickness] mm thick
2633	Block paving, [thickness] mm thick
2641	Rock masonry
2642	Grouted rock pitching
2643	Rock protection
2644	Steel-wire gabion protection work
2645	Steel-wire mattress protection work
2646	Fabric encased concrete batter protection on batter faces
2647	Fabric encased concrete batter protection in cut-off walls
2651	Bridge abutment protection Type 1 - rock spillthrough, [location] abutment
2652	Bridge abutment protection Type 2 - reinforced concrete over road embankment spillthrough, [location] abutment

2653	Bridge abutment protection Type 3 - rockfill at toe of road embankment spillthrough, [location] abutment
2654	Bridge abutment protection Type 4 - rockwork over road embankment spillthrough, [location] abutment
2656	Bridge abutment protection Type 6 - interlocking blockwork over road embankment spillthrough, [location] abutment
2657	Shotcreting
2661	Silt fence
2662	Straw bales
2701	Concrete retaining wall, concrete in footing, [wall location / wall number]
2702	Concrete retaining wall, concrete in wall, [wall location / wall number]
2703	Concrete retaining wall, steel reinforcing bar, [wall location / wall number]
2711	Concrete masonry retaining wall, concrete in footing, [wall location / wall number]
2712	Concrete masonry retaining wall, masonry in wall, [wall location / wall number]
2713	Concrete masonry retaining wall, steel reinforcing bar, [wall location / wall number]
2721	Crib walls
2781	Design of Reinforced Soil Structure, [structure number]
2782	Reinforced Soil Structure materials, [structure number]
2783	Construction of Reinforced Soil Structure, [structure number]
2784	Designer's inspection and certification, [structure number]
3101	Clearing and grubbing
3102	Bridge site preparation
3104	Ground surface treatment under embankment, standard
3105	Ground surface treatment, special (square metres)
3106	Ground surface treatment, special (cubic metres)
3201	Road excavation, all materials
3202	Excavation to clear waterways at bridge abutments, all materials

3203	Excavation for culverts, pipe and conduit trenches, all materials [description]
3204	Excavation for structures, all materials [description]
3205	Excavation for diversion channels, all materials
3206	Excavation for diversion drains, all materials
3207	Excavation for catch drains, all materials
3208	Special excavation, all materials [description]
3213	Pre-splitting batters of rock cuttings
3221	Blinding concrete, [thickness] mm nominal thickness
3301	Road embankment
3302	Levees, catch banks and diversion blocks using clay fill material from all sources
3303	Special embankment [description] from all sources
3304	Supply and installation of geotextile, strength class [strength class], filtration class [filtration class]
3306	Road verges using general fill material
3501	Backfill with general backfill material to [description]
3502	Backfill with select backfill material to [description]
3503	Backfill with free draining granular material to [description]
3504	Backfill with sand to [description]
3505	Backfill with cement stabilised pavement material to [description]
3506	Backfill with stabilised sand to [description]
3507	Backfill with lean mix concrete to [description]
3508	Backfill with rock fill to [description]
3509	Backfill with material for steel culverts to [description]
3511	Bedding of [description]
3512	Haunch zone for [description]
3513	Side zone for [description]
3514	Overlay zone for [description]
3601	Turnouts
3602	Entrances to private property
3603	Stopping Places
3701	Widening of the existing formation
3702	Widening of the existing formation
3704	Fencing around vegetation

3705	Padding of trees and boarding of drip zones
3708	Preparation of a PMMP-C
3710	Screening of stripped site soil
3711	Amelioration of stripped site soil
3713	Loading, haulage and placement of site planting media
3714	Supply and placement of imported planting media
3715	Earth mounding
3719	Spreading of amelioration agent prior to ground preparation
3720	Roughening of batters - [cut batters fill batters]
3721	Ripping
3722	Ploughing
3723	Cultivation
3725	Excavation of subsoil
3729	Item description not found
3738	Slashing
3739	Brushcutting
3744	Timber garden edging
3745	Concrete garden edging
3746	Unit paver garden edging
3747	Rock garden edging
3752	Loading, haulage and placement of site organic mulch - [chipped site mulch tub ground site mulch other mulch]
3753	Supply and placement of imported organic mulch - [chipped mulch tub ground mulch Hoop Pine mulch other mulch]
3754	Loading, haulage and placement of site rock mulch - [type and size of rock]
3755	Supply and placement of imported rock mulch - [type and size of rock]
3756	Supply and / or blending and placement of organics blanket
3757	Supply and placement of filter sock - [200 mm 300 mm 450 mm]
3760	Environmental matting - [type] m2
3761	Plant mats - [type]
3766	Irrigation system, design
3767	Irrigation system, supply and installation
3768	Irrigation system, commissioning
3771	Harvesting of native seed

3772	Hydromulching - single pass [native seed mix grass seed mix]
3773	Hydromulching - double pass [native seed mix grass seed mix]
3774	Straw mulching [native seed mix grass seed mix]
3775	Drill seeding [native seed mix grass seed mix]
3776	Mechanical broadcast [native seed mix grass seed mix]
3777	Manual broadcast [native seed mix grass seed mix]
3779	Sample installation
3782	Turf [type]
3783	Reinforced Turf [type]
3787	Planting [viro-cell viro-tube ½ native tube (50 x 50 x 75 mm) full native tube stock (50 x 50 x 120 mm) 140 mm container 300 mm container 25 litre container 45 litre container 75 litre container 100 litre container 200 litre container]
3788	Planting ex-ground stock [container size]
3789	Harvesting and planting of site plant material [plant unit container size]
3790	site plant material [plant unit]
3791	Potting on
3795	LR Construction Establishment Period – Input Controlled
3797	LR Monitoring Period – Input Controlled
3798	LR Monitoring Period – Performance Based
4101	Base, unbound pavement, Type 1, Subtype [subtype], [location]
4102	Subbase, unbound pavement, Type 1, Subtype [subtype], [location]
4103	Base, unbound pavement, Type 2, Subtype [subtype], [location]
4104	Subbase, unbound pavement, Type 2, Subtype [subtype], [location]
4105	Base, unbound pavement, Type 3, Subtype [subtype], [location]
4106	Subbase, unbound pavement, Type 3, Subtype [subtype], [location]
4107	Base, unbound pavement, Type 4, Subtype [subtype], [location]

4108	Subbase, unbound pavement, Type 4, Subtype [subtype], [location]
4210	Pulverisation prior to insitu stabilisation
4211	Insitu stabilisation
4221	Supply of stabilising agent [description]
4231	Water curing
4246	Insitu stabilisation
4256	Supply of stabilising agent [description]
4275	Pulverisation prior to insitu stabilisation
4276	Insitu stabilisation
4281	Transport of Class 170 bitumen supplied by the Principal, from [supply location]
4286	Supply of secondary stabilising agent [description]
4296	Water curing
4301	Plant-mixed stabilised pavement
4321	Supply of stabilising agent
4331	Moist curing
4332	Curing coat
4333	Cover material
5011	Supply of cover aggregate [precoated unprecoated], [nominal size] mm nominal size
5012	Supply of cover aggregate [precoated unprecoated], [nominal size] mm nominal size
5013	Supply of prime cover material, [type of material]
5021	Transport of materials, [type of material]
5031	Construction of stockpile site
5101	Prime, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [including excluding] supply of additives, [location]
5102	Primerseal, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [including excluding] supply of additives, [location]
5103	Seal, class [class], spray rate [spray rate], [including excluding] supply of binder, [including excluding] supply of additives, [location]
5104	Reseal, class [class], spray rate [spray rate], [including excluding] supply of binder, [including excluding] supply of additives, [location]

5105	Enrichment, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [including excluding] supply of additives, [location]
5111	Spreading prime cover material [material], [spread rate], [location]
5112	Spreading cover aggregate [size], [spread rate], [location]
5121	Supply of bituminous material [material], [class / grade]
5131	Transport of bituminous material supplied by the Principal [material], from [supply location]
5132	Transport of aggregate supplied by the Principal [material], from [supply location]
5141	Sprayed bituminous surfacing, [including excluding] supply of binder, [including excluding] supply of additives, [including excluding] supply of cover aggregates, [location], refer to Clause 1 of Annexure MRS11.11.1
5151	Supply of Geotextile [grade] g/m2
5152	Transport of material supplied by the Principal [material], from [supply location]
5153	Placement of Paving Geotextile [nominal weight] g/m2
5201	Prime, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [location]
5202	Primerseal, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [location]
5203	Seal, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [location]
5204	Reseal, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [location]
5205	Enrichment, grade [grade], spray rate [spray rate], [including excluding] supply of binder, [location]
5211	Spreading prime cover material [material], [spread rate], [location]
5212	Spreading cover aggregate [size], [spread rate], [location]
5221	Supply of bituminous emulsion [material], [class / grade]
5231	Transport of bituminous emulsion supplied by the Principal [material], from [supply location]

5232	Transport of aggregate supplied by the Principal [material], from [supply location]
5241	Sprayed bituminous emulsion surfacing, [including excluding] supply of binder, [including excluding] supply of cover aggregates, [location], refer to Clause 1 of Annexure MRS11.12.1
5301	Preparation of existing surface
5311	Bituminous slurry seal, QS3
5312	Bituminous slurry seal, QS5
5313	Bituminous slurry seal, QS7
5314	Bituminous slurry micro-surfacing, QS5
5315	Bituminous slurry micro-surfacing, QS7
5316	Bituminous slurry micro-surfacing, QS10
5317	Bituminous slurry rut-filling
5401	Preparation of the existing surface
5404	Tack coat [application rate] litres/m2, residual bitumen
5405	Dense graded asphalt corrector course, DG [nominal size] mix
5501	Dense graded asphalt pavement, DG7 mix
5502	Dense graded asphalt pavement, DG10 mix
5503	Dense graded asphalt pavement, DG14 mix
5504	Dense graded asphalt pavement, DG20 mix
5505	Dense graded asphalt pavement, DG28 mix
5542	Open graded asphalt surfacing, OG10 mix
5543	Open graded asphalt surfacing, OG14 mix
5561	Fine gap graded asphalt corrector course, FGG7 mix
5562	Fine gap graded asphalt pavement, FGG7 mix
6101	Demolition of road furniture, as listed in Clause 2 of Annexure MRS11.14.1
6103	Removal and salvage of road furniture, as listed in Clause 3.1 of Annexure MRS11.14.1
6104	Removal and re-erection of road furniture, as listed in Clause 4 of Annexure MRS11.14.1
6111	Road edge guide posts
6121	Supply of regulatory, warning and hazard sign faces, as listed in Clause 6.2 of Annexure MRS11.14.1
6122	Supply of regulatory, warning and hazard sign faces, [sign type]
6123	Supply of direction and information sign faces, as listed in Clause 6.4 of Annexure MRS11.14.1

6124	Supply of direction and information sign faces, as listed in Clause 6.4 of Annexure MRS11.14.1
6131	Installation of regulatory, warning and hazard signs, as listed in Clause 6.2 of Annexure MRS11.14.1
6132	Installation of regulatory, warning and hazard signs, [number of posts]
6133	Installation of direction and information signs, as listed in Clause 6.4 of Annexure MRS11.14.1
6134	Installation of direction and information signs, [sign number]
6135	Installation of direction and information signs, [sign size]
6136	Supply, erection and removal of project signs
6141	Grid [type]
6142	Grid with vermin and dog fencing [type]
6151	Concrete traffic barrier, [type], [with without] conduit, [with without] dowels
6152	Concrete traffic barrier at wall or pier, [type], [with without] conduit, [with without] dowels
6153	Concrete traffic barrier median terminal, [type], [with without] conduit, [with without] dowels
6154	Galvanised cover assembly at opening for light pole
6155	Galvanised cover assembly at opening for cable pit, number [pit number / type]
6156	Split carriageway concrete traffic barrier, [type], [with without] conduit, [with without] dowels
6157	Precast concrete barrier
6161	Steel beam guardrail, w beam
6162	Steel beam guardrail, thrie beam
6163	Steel beam guardrail, terminal type [number]
6164	Steel beam guardrail, transition type [number]
6171	Tensioned wire rope barrier system
6175	Barrier end treatment
6181	Fencing, [height] mm high, [type]
6182	Gates, [height] mm high, [width] mm wide, [type]
6186	Steel traffic barriers
6211	Supply of noise barrier, [height] m high
6212	Construction of noise barrier, [height] m high
6213	Supply and construction of noise barrier, [height] m high

6214	Design, supply and construction of noise barrier, [height] m high
6215	Removal and salvage of existing noise barriers, [height] m high
6301	Spotting only for longitudinal lines
6311	Separation line, [broken unbroken] [width] mm wide, [line length] mm line length, [gap length] mm gap length, colour [colour], material [material]
6312	Barrier line, one direction, 80mm wide each line, 80mm lateral gap between lines, 3000 mm line length and 9000 mm gap length on broken side, colour [colour], material [material]
6313	Barrier line, both directions, 80 mm wide each line, 80 mm lateral gap between lines, colour [colour], material [material]
6314	Lane line, broken, [width] mm wide, [line length] mm line length, [gap length] mm gap length, colour [colour], material [material]
6315	Lane line, unbroken, [width] mm wide, colour [colour], material [material]
6316	Edge line, [width] mm wide, colour [colour], material [material]
6317	Continuity line, [width] mm wide, colour [colour], material [material]
6318	Turn line, [width] mm wide, colour [colour], material [material]
6319	Outline, [width] mm wide, colour [colour], material [material]
6321	Audio tactile line marking - Edge line, 150 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height, [with 1.5 m gap every 20 m for cyclists with no gaps for cyclists].
6322	Audio tactile line marking - Double barrier line, consisting of two barrier lines each 80 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height (applied to both lines).
6331	Transverse lines (stop lines, holding lines, markings at Stop and Give Way signs, pedestrian crosswalk lines, arrows, shapes, symbols and numerals), colour [colour], material [material]

6332	Transverse lines (diagonal and chevron markings, parking areas and kerb markings), colour [colour], material [material]
6341	Removal of existing longitudinal line, [width] mm wide, by [method of removal]
6342	Removal of existing transverse lines or shapes, by [method of removal]
6351	Retroreflective raised pavement markers
6352	Non-reflective raised pavement markers
6353	Temporary raised pavement markers
6354	Pavement bars
6355	Removal of existing raised pavement markers, by [method of removal]
6501	Supply of [diameter] mm, [material], [type] conduit
6502	Supply of [diameter] mm, [material], [type] conduit for boring or jacking
6503	Installation of [No.] of [diameter] mm, [material], [type] conduit(s), in [surface]
6504	Installation of [No.] of [diameter] mm, [material], [type] conduit(s) and [No.] of [diameter] mm, [material], [type] conduit(s), in a shared trench, in [surface]
6505	Installation of [diameter] mm, [material], [type] conduit, bored or jacked
6506	Supply and installation of [No.] of [diameter] mm, [material], [type] conduit(s), in [surface]
6507	Supply and installation of [No.] of [diameter] mm, [material], [type] conduit(s) and [No.] of [diameter] mm, [material], [type] conduit(s), in a shared trench, in [surface]
6508	Supply and installation of [diameter] mm, [material], [type] conduit, bored or jacked
6513	Installation of [No.] of [diameter] mm, [material], [type] conduit(s) in concrete structure / barrier
6516	Supply and installation of [No.] of [diameter] mm, [material], [type] conduit(s) in concrete structure / barrier
6521	Supply of [diameter] mm, [material], [type] conduit, suitable for mounting on a surface
6523	Installation of [No.] of [diameter] mm, [material], [type] conduit(s), surface mounted

6526	Supply and installation of [No.] of [diameter] mm, [material], [type] conduit(s), surface mounted
6531	Supply of Draw Rope
6532	Installation of draw rope in existing conduits
6533	Supply and installation of draw rope in existing conduits
6534	Flush and clear conduits (All types)
6535	Removal and transport of conduits, (All diameters, All materials, All types)
6536	Removal of cable joining pit(s) (All types)
6551	Supply of cable jointing pit(s) [type]
6552	Installation of cable jointing pit(s) [type]
6553	Supply and installation of cable jointing pit(s) [type]
6554	Construction of pit surround
6555	Supply of maintenance marker posts
6556	Installation of maintenance marker posts
6557	Supply and installation of maintenance marker posts
6601	Traffic signal post footing
6602	Traffic signal mast arm footing
6605	Traffic signal controller base
6611	Supply of traffic signal equipment, [description]
6612	Installation of traffic signal equipment, [description]
6613	Supply and installation of traffic signal equipment, [description]
6621	Supply of traffic signal post, [length] metres long, [with without] hinged baseplate
6622	Supply of traffic signal mast arm with a [length] metre long outreach arm, [without road lighting luminaire spigot with road lighting luminaire spigot and 1400 mm long luminaire transition piece with road lighting luminaire spigot and 2900 mm long luminaire transition piece with road lighting luminaire spigot and 4400 mm long luminaire transition piece]
6623	Supply of joint use traffic signal and road lighting pole, [length] metres long
6624	Supply of push button post, [length] metres long, [with without] hinged baseplate

6631	Installation of traffic signal post, [length] metres long, [with without] hinged baseplate
6632	Installation of traffic signal mast arm with a [length] metre long outreach arm, [without road lighting luminaire spigot with road lighting luminaire spigot and 1400 mm long luminaire transition piece with road lighting luminaire spigot and 2900 mm long luminaire transition piece with road lighting luminaire spigot and 4400 mm long luminaire transition piece]
6633	Installation of joint use traffic signal and road lighting pole, [length] metres long
6634	Installation of push button post, [length] metres long, [with without] hinged baseplate
6635	Supply and installation of traffic signal post, [length] metres long, [with without] hinged baseplate
6636	Supply and installation of traffic signal mast arm with a [length] metre long outreach arm, [without road lighting luminaire spigot with road lighting luminaire spigot and 1400 mm long luminaire transition piece with road lighting luminaire spigot and 2900 mm long luminaire transition piece with road lighting luminaire spigot and 4400 mm long luminaire transition piece]
6637	Supply and installation of joint use traffic signal and road lighting pole, [length] metres long
6638	Supply and installation of push button post, [length] metres long, [with without] hinged baseplate
6641	Supply of traffic signal lantern, [LED QH], [number of aspects] aspect, [diameter] mm aspect diameter
6642	Supply of pedestrian lantern, [LED QH]
6643	Supply of target board, [single double]
6644	Installation of [overhead mounted ground mounted] traffic signal lantern, [number of aspects] aspect, [diameter] mm aspect diameter
6645	Installation of pedestrian lantern
6646	Installation of target board, [single double]

6647	Supply and installation of [overhead mounted ground mounted] traffic signal lantern, [LED QH], [number of aspects] aspect, [diameter] mm aspect diameter, and [single double] target board
6648	Supply and installation of pedestrian lantern, [LED QH]
6651	Supply of traffic signal pedestrian push button, [standard audio-tactile]
6652	Installation of traffic signal pedestrian push button, [standard audio-tactile]
6653	Supply and installation of traffic signal pedestrian push button, [standard audio-tactile]
6661	Supply and installation of vehicle detector loops, [description]
6671	Supply of traffic signal controller
6672	Installation of traffic signal controller, [description of traffic signal site]
6673	Supply and installation of traffic signal controller, [description of traffic signal site]
6674	Modification to existing traffic signal controller, [description of traffic signal site]
6675	Supply and installation of Personality EPROM
6676	Commissioning and testing of Personality EPROM
6681	Removal of traffic signal equipment for salvage, [description]
6682	Removal of traffic signal equipment for disposal, [description]
6701	Road lighting pole footing, [diameter] mm diameter
6702	Road lighting pole footing in concrete median barrier, [diameter] mm diameter
6705	Construction of retaining wall around footing
6706	Removal of road lighting pole footing
6711	Supply of [fixed base slip base impact absorbent] road lighting pole, [height] mm vertical height
6712	Supply of [single double] road lighting outreach arm, [length] mm long
6713	Supply of road lighting outreach arm extension, 1.5 metres long
6714	Supply of road lighting luminaire headframe, [number of spigots] way headframe

6721	Supply of pedestrian crossing floodlight bracket, [length] mm long
6722	Supply of underbridge road lighting bracket, [height] mm high
6723	Supply of wall mounted road lighting bracket, [length] mm long
6731	Supply of road lighting luminaire, [name of manufacturer], [type of luminaire]
6732	Supply of pedestrian crossing floodlight, [with without] louvre, [name of manufacturer], [type of luminaire]
6741	Installation of [fixed base / slip base / impact absorbent] road lighting pole
6742	Installation of road lighting outreach arm
6743	Installation of road lighting outreach arm extension
6744	Installation of road lighting luminaire headframe
6751	Installation of pedestrian crossing floodlight mounting bracket
6752	Installation of underbridge road lighting bracket
6753	Installation of wall mounted road lighting bracket
6761	Installation of road lighting luminaire
6762	Installation of pedestrian crossing floodlight
6771	Supply and installation of [fixed base slip base impact absorbent] road lighting pole, [height] mm vertical height, [length] mm long [single double] outreach arm, [with without] outreach arm extension [with aerial supply with loop in loop out cabling]
6772	Supply and installation of [fixed base slip base impact absorbent] high mast road lighting pole, [height] mm vertical height, [number of spigots] way headframe, [with aerial supply with loop in loop out cabling]
6773	Supply and installation of pedestrian crossing floodlight mounting bracket
6774	Supply and installation of underbridge road lighting bracket, [height] mm high
6775	Supply and installation of wall mounted road lighting bracket, [length] mm long
6776	Supply and installation of road lighting luminaire, [name of manufacturer], [type of luminaire]

6777	Supply and installation of pedestrian crossing floodlight, [with without] louvre, [name of manufacturer], [type of luminaire]
6778	Supply and installation of cabling for luminaire on bridge balustrade with loop in, loop out supply
6781	Removal of road lighting equipment for salvage, [description]
6782	Removal of road lighting equipment for disposal, [description]
6783	Removal of road lighting luminaire
6784	Removal of pedestrian crossing floodlight
6801	Supply of URD pillar switchboard and ancillary components, [type]
6802	Supply of pole mounted switchboard and ancillary components, [type]
6803	Installation of URD pillar switchboard and ancillary components, [type]
6804	Installation of pole mounted switchboard and ancillary components, [type]
6811	Supply of underground road lighting cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6812	Supply of aerial road lighting cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6813	Supply of traffic signal cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6814	Supply of loop detector cable, [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6815	Supply of cable, [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6816	Supply of cable joint, [fused unfused]
6817	Supply of aerial cable strain clamp
6818	Supply of aerial cable connector, [type]
6819	Supply of right angle strain relief bushing (to suit 26 mm diameter hole)
6821	Installation, jointing and termination of underground road lighting cable, [cores]

6822	Installation, jointing and termination of traffic signal cable, [cores]
6823	Installation, jointing and termination of loop detector cable, [cores]
6824	Installation, jointing and termination of cable, [usage], [cores]
6825	Installation, jointing and termination of aerial road lighting cable, [cores]
6826	Removal of underground cable
6827	Removal of aerial cable
6831	Supply of mains connection equipment including the supply of mains connection cable, [length], [usage], [conductor size], [number of cores] cores, [core insulation], [sheath insulation], [conductor material]
6832	Installation of mains connection including mains connection cable
7001	Hardwood kerbs, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7002	Plywood kerbs, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7003	Hardwood decking, supply on Site, ([thickness] mm thick), [length] metres long
7004	Plywood deck sheets, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7005	Plywood deck sheets including coating, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7006	Hardwood spiking planks, supply on Site, ([width] mm wide, [thickness] mm thick)
7007	Hardwood end spiking plank, supply on Site, ([width] mm wide, [thickness] mm thick)
7008	Hardwood girders, round, supply on Site, ([diameter] mm diameter), [length] metres long
7009	Hardwood girders, octagonal, supply on Site, ([width] mm wide), [length] metres long
7010	Hardwood corbels, round, supply on Site, ([diameter] mm diameter), [length] metres long
7011	Hardwood corbels, octagonal, supply on Site, ([width] mm wide), [length] metres long
7012	Hardwood headstocks, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long

7013	Hardwood piles, supply on Site, ([diameter] mm diameter), [length] metres long
7014	Hardwood wales and braces, supply on Site, ([width] mm wide, [thickness] mm thick)
7015	Hardwood sill, round, supply on Site, ([diameter] mm diameter), [length] metres long
7016	Hardwood sill, rectangular, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7017	Hardwood struts and fenders, round, supply on Site, ([diameter] mm diameter), [length] metres long
7018	Hardwood struts and fenders, rectangular, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long
7019	Hardwood distributor planks, supply on Site, ([width] mm wide, [thickness] mm thick)
7020	Hardwood running planks, supply on Site, ([width] mm wide, [thickness] mm thick)
7021	Hardwood ballast boards, supply on Site, ([width] mm wide, [thickness] mm thick)
7022	Hardwood cover boards, supply on Site, ([width] mm wide, [thickness] mm thick)
7023	Hardwood backing slabs, supply on Site, ([width] mm wide, [thickness] mm thick)
7050	Steel bridge decking, supply on Site, ([depth] mm deep, [thickness] mm thick), [length] metres long
7051	Steel kerb, supply on Site, ([depth] mm deep, [thickness] mm thick), [length] metres long
7080	Precast prestressed concrete bridge decking, supply on Site, ([width] mm wide, [thickness] mm thick), [length] metres long, [clockwise skew anticlockwise skew square], [degrees] degrees skew
7101	Hardwood kerbs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
7102	Plywood kerbs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long

7103	Hardwood decking, transport to Site, ex Works/Stockpile [location], ([thickness] mm thick), [length] metres long
7104	Plywood deck sheets, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
7105	Plywood deck sheets, including coating, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
7106	Hardwood spiking planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7107	Hardwood end spiking planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7108	Hardwood girders, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
7109	Hardwood girders, octagonal, transport to Site, ex Works/Stockpile [location], ([width] mm wide), [length] metres long
7110	Hardwood corbels, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
7111	Hardwood corbels, octagonal, transport to Site, ex Works/Stockpile [location], ([width] mm wide), [length] metres long
7112	Hardwood headstocks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
7113	Hardwood piles, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
7114	Hardwood wales and braces, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7115	Hardwood sill, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
7116	Hardwood sill, rectangular, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long

7117	Hardwood struts and fenders, round, transport to Site, ex Works/Stockpile [location], ([diameter] mm diameter), [length] metres long
7118	Hardwood struts and fenders, rectangular, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick), [length] metres long
7119	Hardwood distributor planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7120	Hardwood running planks, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7121	Hardwood ballast boards, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7122	Hardwood cover boards, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7123	Hardwood backing slabs, transport to Site, ex Works/Stockpile [location], ([width] mm wide, [thickness] mm thick)
7150	Steel bridge decking, transport to Site, ex Works/Stockpile [location], ([depth] mm deep, [thickness] mm thick), [length] metres long
7151	Steel kerb, transport to Site, ex Works/Stockpile [location], ([depth] mm deep, [thickness] mm thick), [length] metres long
7180	Precast prestressed concrete bridge decking, transport to Site [ex Works or Stockpile], ([width] mm wide, [thickness] mm thick), [length] metres long, [clockwise skew anticlockwise skew square], [degrees] degrees skew
7190	Storage of timber bridge materials and components at Site
7301	Concrete Class [compressive strength] MPa/20 in pier footing
7302	Concrete Class [compressive strength] MPa/20 in pier pile cap
7303	Concrete Class [compressive strength] MPa/20 in pier above pile cap/cast-in-place pile/footing

7304	Concrete Class [compressive strength] MPa/20 in pier headstock
7305	Concrete Class [compressive strength] MPa/10 in pier pedestal
7311	Concrete Class [compressive strength] MPa/20 in abutment footing
7312	Concrete Class [compressive strength] MPa/20 in abutment pile cap
7313	Concrete Class [compressive strength] MPa/20 in abutment above cast-in-place pile / footing / pile cap excluding parapet terminal
7314	Concrete Class [compressive strength] MPa/20 in abutment headstock excluding parapet terminal
7315	Concrete Class [compressive strength] MPa/10 in abutment pedestal
7321	Steel reinforcing bar in piers and abutments including parapet terminals
7401	Reinforced concrete pipe liners, supply on Site [diameter]
7402	Handling and pitching of reinforced concrete pipe liners
7404	Steel pipe liners, supply on Site [diameter]
7405	Supply and fixing of stiffening bands
7406	Handling and pitching of steel liners
7411	Item description not found
7412	Item description not found
7413	Excavation to form bell enlargements below liners
7501	Prestressed concrete piles, supply on Site, [cross section size] mm [cross section shape]
7502	Transport to Site and storage of prestressed concrete piles, ex works [location]
7503	Handling and pitching of prestressed concrete piles, [cross section size] mm [cross section shape]
7505	Setting up for pre-boring for prestressed concrete piles
7506	Pre-boring for prestressed concrete piles
7507	Setting up for jetting for prestressed concrete piles
7508	Jetting for prestressed concrete piles
7509	Setting up for drilling and firing for prestressed concrete piles
7511	Drilling and firing for prestressed concrete piles

7512	Stripping of prestressed concrete pile head, [cross section size] mm [cross section shape]
7601	Steel piles, supply on Site
7602	Handling and pitching of steel piles
7604	Setting up for pre-boring for steel piles
7605	Pre-boring for steel piles
7606	Setting up for jetting for steel piles
7607	Jetting for steel piles
7608	Setting up for drilling and firing for steel piles
7609	Drilling and firing for steel piles
7612	Trimming of steel pile heads including welding of bond bars
7701	Bitumen slip layer on PSC piles
7702	Bitumen slip layer on steel piles
8101	Prestressed concrete deck and kerb unit, supply on Site, [depth] mm deep, [length] metres long
8102	Transverse stressing units, supply on Site
8103	Transport of prestressed concrete deck and kerb units to the Site, [depth] mm deep, [length] metres long, ex works [location]
8104	Transport of transverse stressing units to the Site, ex works [location]
8111	Single layer elastomeric bearings, [length] x [breadth] x [depth]
8112	Laminated elastomeric bearings, [length] x [breadth] x [depth]
8121	Erection of prestressed concrete deck and kerb units, [depth] mm deep, [length] metres long
8122	Erection of transverse stressing units
8131	Holding-down bolts for deck and kerb units, [length] mm
8132	Deck unit dowel bars, [length] mm long
8141	Transverse prestressing of deck
8201	Prestressed concrete I girders, supply on Site, [depth] mm deep, [length] metres long
8202	Transport of prestressed concrete I girders to the Site, [depth] mm deep, [length] metres long, ex works [location]
8203	Erection of prestressed concrete I girders, [depth] mm deep, [length] metres long

8211	Prestressed concrete T girders, supply on Site, [girder type], [depth] mm deep, [length] metres long
8212	Transport of prestressed concrete T girders to the Site, [girder type], [depth] mm deep, [length] metres long, ex works [location]
8213	Erection of prestressed concrete T girders, girder [type], [depth] mm deep, [length] metres long
8221	Laminated elastomeric bearings, [length] x [breadth] x [depth]
8222	Pot-type bearings, [rated load capacity], [fixed / sliding]
8231	Girder restraints
8251	Steel girders, supply on Site, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long
8252	Steel cross bracing, supply on Site
8253	Transport of steel girders to the Site, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long
8254	Transport of steel cross bracing to the Site, ex works [location]
8255	Erection of steel girders, [section] / ([flange width] mm wide, [depth]) mm deep, [length] metres long
8256	Erection of steel cross bracing
8257	Installation of bearings for rolled steel girders
8261	Supply and installation of laminated elastomeric bearings, [length] x [breadth] x [depth]
8262	Supply and installation of pot-type bearings, [rated load capacity], [fixed / sliding]
8271	Supply and installation of girder restraints
8301	Concrete Class [compressive strength] MPa/20 in cross girder
8302	Concrete Class [compressive strength] MPa/20 in deck
8303	Concrete Class [compressive strength] MPa/20 in in situ kerb
8304	Concrete Class [compressive strength] MPa/20 in parapet and parapet terminal
8305	Concrete Class [compressive strength] MPa/20 in median

8306	Concrete Class [compressive strength] MPa/20 in relieving slab
8311	Reinforcing steel in decks, cross girders, kerbs and parapets, excluding parapet terminals
8312	Reinforcing steel in medians, in situ kerbs and parapets
8313	Reinforcing steel in relieving slabs
8314	Bar grip coupler fittings for future widening, [diameter] mm diameter
8315	Bar grip coupler, [diameter] mm diameter
8316	Bar grip coupler for bar extension, [diameter] mm diameter
8321	Evaporative retarding curing compound
8331	Anchors for bridge rail
8332	Anchors for guardrail terminals
8333	Anchors for road lighting brackets
8334	Sockets for expansion joint
8341	Date plate
8342	Permanent survey mark
8343	PVC scupper and spout, [diameter] mm diameter
8351	Bridging strips, compressible fillers and isolation inserts
8352	Joint sealants
8361	Expansion joint cover plates, stainless steel
8362	Junction box cover plates, stainless steel
8371	Stabilised sand in footway
8372	Precast concrete footway slab
8381	Electrical conduit in footway, [diameter] mm diameter, [use]
8382	Flexible electrical conduit
8383	Lamp standard brackets
8384	Navigation markers
8391	Concrete Class [compressive strength] MPa/20 in slab deck/superstructure
8392	Anchorage Type [type]
8393	Ducts, [diameter] mm diameter
8394	Strand tendons, [Number], [Size] mm diameter
8395	Post-tensioned stressing bar units, [Size] mm diameter
8396	Stressing bars/tendons Type [type]
8397	Grouting duct, [diameter] mm diameter
8398	Capping anchorage recesses and anchorage

8401	Supply and fabrication of bridge traffic rail, steel
8402	Supply and fabrication of bridge balustrade, steel
8403	Supply and fabrication of bridge safety rail, steel
8404	Transport and erection of bridge traffic rail, steel
8405	Transport and erection of bridge balustrade, steel
8406	Transport and erection of bridge safety rail, steel
8411	Supply and fabrication of bridge traffic rail, aluminium
8412	Supply and fabrication of bridge balustrade, aluminium
8413	Supply and fabrication of bridge safety rail, aluminium
8414	Transport and erection of bridge traffic rail, aluminium
8415	Transport and erection of bridge balustrade, aluminium
8416	Transport and erection of bridge safety rail, aluminium
8451	Bolted-in aluminium bridge deck expansion joints
8452	Cast-in aluminium bridge deck expansion joints
8453	Fibre reinforced concrete bridge deck expansion joints
8501	Anti-graffiti protection coating, non-sacrificial
8502	Anti-graffiti protection coating, sacrificial
8601	Bituminous waterproof membrane for bridges
8602	Dense graded asphalt corrector course, DG [nominal size] mm mix
8603	Dense graded asphalt surfacing layer, DG [nominal size] mm mix
8604	Stone mastic asphalt surfacing layer, SM [nominal size] mm mix
8605	Open graded asphalt surfacing layer, OG [nominal size] mm mix
8606	Tack Coat, 0.2 litres/m ² residual bitumen
8651	Survey for removal of Deck Wearing Surface
8652	Removal of Deck Wearing Surface
8801	Removal of existing bridge rails and posts
8802	Breaking back existing concrete
8803	Removal of existing rubble masonry at abutments
8804	Installation of steel reinforcing bars in existing concrete
8805	Installation of dowel bars

8806	Scabbling concrete faces
8807	Temporary barrier guardrail
9000	Non-standard item 0
9001	Non-standard item 1
9002	Non-standard item 2
9003	Non-standard item 3
9004	Non-standard item 4
9005	Non-standard item 5
1227P	Supply of anti-gawking screens (Provisional Quantity, if ordered)
1228P	Installation of anti-gawking screens (Provisional Quantity, if ordered)
1231P	Supply and installation of temporary road lighting including connection to Electricity Supply Authority's network (Provisional Quantity, if ordered)
1341P	Water quality monitoring, if ordered (Provisional Quantity)
1351P	Cultural Heritage Management, if ordered (Provisional Quantity)
1355P	Noise monitoring, if ordered (Provisional Quantity)
1361P	Condition survey and vibration monitoring, if ordered (Provisional Quantity)
1365P	Air quality monitoring, if ordered (Provisional Quantity)
1371P	Management of contaminated sites, if ordered (Provisional Quantity)
1375P	Fauna management, if ordered (Provisional Quantity)
1381P	Pest Control, if ordered (Provisional Quantity)
2731P	Soil nailing (Provisional Quantity)
2741P	Passive rock dowels (Provisional Quantity)
2751P	Active rock bolts (Provisional Quantity)
3103P	Stripping of topsoil (Provisional Quantity as directed)
3107P	Ground surface treatment, in situ treatment of acid sulphate soils with lime (Provisional Quantity if ordered)
3108P	Excavation and disposal of Unsuitable Material with individual excavation <= 10 m3 (Provisional Quantity as directed)

3109P	Excavation and disposal of Unsuitable Material with individual excavation > 10 m ³ (Provisional Quantity as directed)
3111P	Supply and storage of agricultural lime (Provisional Quantity as directed)
3112P	Quantitative laboratory testing of actual or potential acid sulphate soils (Provisional Quantity if ordered)
3113P	Treatment of water contaminated by acid sulphate soil (Provisional Quantity if ordered)
3211P	Excavation of non-rippable material in road excavation, rate additional to rate for Work Item 3201 (Provisional Quantity)
3212P	Excavation of non-rippable material in confined excavation, rate additional to rates for Work Items 3203 to 3207 inclusive (Provisional Quantity)
3215P	Excavation and disposal of Unsuitable Material in and below confined excavations (Provisional Quantity as directed)
3216P	Excavation and disposal of Unsuitable Material within lines of cuttings, rate additional to rate for Work Item 3201 (Provisional Quantity as directed)
3305P	Addition of lime to embankment materials to neutralise acid sulphate soils, rate additional to rates for Work Items 3301 to 3303 (Provisional Quantity as directed)
3401P	Testing of existing material below subgrade level in cuttings (Provisional Quantity if ordered)
3402P	Subgrade treatment Type A in cuttings and in embankments (Provisional Quantity if ordered)
3403P	Subgrade in cuttings, subgrade treatment Type B, replace with subgrade fill material (Provisional Quantity if ordered)
3404P	Subgrade in cuttings, subgrade treatment Type C, replace with unbound pavement material (Provisional Quantity if ordered)
3405P	Subgrade in cuttings, subgrade treatment Type D, in situ stabilise existing (Provisional Quantity if ordered)
3406P	Subgrade in cuttings, subgrade treatment Type E, replace with plant-mixed stabilised material (Provisional Quantity if ordered)

3407P	Subgrade in cuttings, subgrade treatment Type F, replace with plant mixed stabilised and unbound drainage layers (Provisional Quantity if ordered)
3408P	Subgrade in cuttings, subgrade treatment Type G, replace with in situ stabilised drainage layer (Provisional Quantity if ordered)
3409P	Subgrade in cuttings, subgrade treatment Type H, replace with plant-mixed stabilised drainage layer (Provisional Quantity if ordered)
3411P	Subgrade in cuttings, subgrade treatment Type I, [description] (Provisional Quantity if ordered)
3412P	Excavation of non-rippable material in road excavation, rate additional to rate for Work Items 3406, 3407, 3408 and 3409 (Provisional Quantity)
3413P	Supply of stabilising agent, lime (Provisional Quantity as directed)
3414P	Supply of stabilising agent, Type GB cement (Provisional Quantity as directed)
3521P	Addition of lime to backfill material in Acid Sulphate Soil areas (Provisional Quantity as directed)
3728P	Pest and Disease Control Proposal - Provisional (if ordered)
3729P	Mechanical herbicide application [knock-down residual]
3730P	Manual herbicide application [knock-down residual]
3731P	Hand removal of weeds
3732P	Target herbicide application [additional rate to items 3729 3730]
3733P	Mechanical or manual pesticide application [pesticide type]
3799P	Watering of plant material during LR monitoring period - Provisional (if ordered)
4201P	Excavation and disposal of material not suitable for stabilisation, [type of material] (Provisional Quantity)
4202P	Additional material for shape correction, [type of material], if ordered (Provisional Quantity)
4203P	New material to replace material not suitable for stabilisation [type of new material], if ordered (Provisional Quantity)

4235P	Excavation and disposal of overlying material [type of material] (Provisional Quantity)
4236P	Excavation and disposal of material not suitable for stabilisation [type of material] (Provisional Quantity)
4238P	New material to replace material not suitable for stabilisation [type of new material], if ordered (Provisional Quantity)
4266P	Excavation and disposal of material not suitable for stabilisation [type of material] (Provisional Quantity)
4267P	Additional material for shape correction [type of new material] (Provisional Quantity)
4268P	New material to replace material not suitable for stabilisation [type of new material], if ordered (Provisional Quantity)
5402P	Crack filling (Provisional Quantity)
5403P	Stress absorbing fabric strips (Provisional Quantity)
6603P	Traffic signal mast arm footing extension for poor soil, 300 mm long , if ordered (Provisional Quantity)
6604P	Excavation in excessively hard material, rate additional to rate for Work Items 6601, 6602 and 6603P (Provisional Quantity)
6703P	Road lighting pole footing extension in poor soil, 400 mm long, [diameter] mm diameter, if ordered (Provisional Quantity)
6704P	Excavation in excessively hard material, rate additional to rate for Work Items 6701, 6702 and 6703P (Provisional Quantity)
7403P	Sinking reinforced concrete pipe liners (Provisional Quantity)
7407P	Driving steel liners (Provisional Quantity)
7408P	Extension of steel liners (Provisional Quantity)
7414P	Drilling of test holes (Provisional Quantity)
7421P	Concrete Class [compressive strength] MPa/20 in abutment lined pile (Provisional Quantity)
7422P	Concrete Class [compressive strength] MPa/20 in pier lined pile (Provisional Quantity)
7423P	Concrete Class [compressive strength] MPa/20 in abutment bored pole (Provisional Quantity)

7424P	Concrete Class [compressive strength] MPa/20 in pier bored pile (Provisional Quantity)
7425P	Steel reinforcing bar in lined and bored piles (Provisional Quantity)
7504P	Driving prestressed concrete piles, [cross section size] mm [cross section shape] (Provisional Quantity)
7513P	Extension of prestressed concrete piles, [cross section shape] (Provisional Quantity)
7514P	Setting up for re-driving of prestressed concrete piles (Provisional Quantity)
7603P	Driving steel piles (Provisional Quantity)
7611P	Splicing steel piles (Provisional Quantity)
7613P	Setting up for re-driving of steel piles (Provisional Quantity)
7801P	Establishment of equipment on the Site for dynamic testing of piles (Provisional Quantity)
7802P	Dynamic testing of pile to determine load capacity (Provisional Quantity)
7803P	Dynamic testing of pile in difficult conditions to determine final set for subsequent piles (Provisional Quantity)
8711P	Micaceous iron oxide, full re-coat (Provisional Quantity)
8712P	Micaceous iron oxide, top coating (Provisional Quantity)
8715P	Full coating systems on steelwork with 30 year design life (Provisional Quantity)
8716P	Top coat of existing Zinga Liquid Galvanizing with 30 year design life (Provisional Quantity)
8717P	Full coating system on steelwork with 15 year design life (Provisional Quantity)
8718P	Top coat of existing ZingaMetall Acryltop with 15 year design (Provisional Quantity)
8721P	Full paint coating (Provisional Quantity)
G001P1	<Item Description>
G004P1	Principal's Project Accommodation
G010P1	Control of Traffic
G035P1	Building Condition Inspections
G035P2(a)	Water Quality
G035P2(b)	Air Pollution
G035P2(c)	Noise

G035P2(d)	Ground Vibration
G038P1.1	Basin No.
G038P2	Inlets, Spillways and Low Flow Outlets for Operational Basins
G038P3	Drop Inlet Sediment Traps and Inlet Control Banks
G038P4	Cleaning of Permanent Operational Basins (Item with provisional quantity)
G038P5.1	Basin No. xxx (Item with provisional quantity)
G038P6	Removal of Drop Inlet Sediment Traps and Inlet Control Banks (Item with provisional quantity)
G038P7	Site Water Quality Monitoring
G039P1	Drop Inlet Sediment Traps and Inlet Control Banks
G039P2	Removal of Drop Inlet Sediment Traps and Inlet Control Banks (Item with provisional quantity)
G040P1	Clearing and Grubbing
G040P2	Production and Stockpiling of Mulch
R011P1	Diversion Banks
R011P2a	Reinforced Concrete and Fibre Reinforced Concrete Pipes
R011P2b	Precast Reinforced Box Culverts
R011P2c	Other Drainage Structures
R011P3	Excavation for Open Drains
R011P4	Unsuitable Material under Drainage Structures and Open Drains (Item with provisional quantity)
R011P5.1	Diameter - Class - Joint
R011P6.1	No of Cells / Span (mm) x Height (mm) x Length (m)
R011P7.1	Type
R011P8	Concrete Lining of Open Drains
R015P1.1	Type
R022P1(a)	Corrugated Metal Structures
R022P1(b)	Other Access Way Structures
R022P2	Unsuitable Material (Item with provisional quantity)
R022P3.1	Diameter
R022P4	Access Way Structure Components Other Than Corrugated Metal Structures
R023P1	Excavation for Plastic Flexible Pipes
R023P2	Unsuitable Material (Item with provisional quantity)
R023P3.1	Diameter ? Class - Joint
R033P1	Excavation

R033P2.1	Steep Batter Outlet
R033P2.2	Flat Batter Outlet
R033P2.3	100 mm Dia Unslotted Corrugated Plastic Drainage Pipe
R033P2.4	Unslotted Geocomposite Plastic Strip Filter
R033P3.1	100 mm Dia Corrugated Perforated Plastic Drainage Pipe
R033P3.2	Slotted Geocomposite Plastic Strip Filter
R033P4	Type A - Aggregate Filter Material Backfill
R033P5	Type S - Sand Filter Material Backfill
R033P6	Filter Material - No Fines Concrete
R033P7	Supply and Installation of Geotextile
R033P8.1	Cleanouts and Inspection Structures (Permanent)
R033P8.2	Cleanouts and Inspection Structures (Temporary)
R037P1.1	'V' Shaped Trench
R037P2.1	Steep Batter Outlet
R037P2.2	Flat Batter Outlet
R037P3	Unslotted Fibre Reinforced Concrete Pipe
R037P4	Slotted Fibre Reinforced Concrete Pipe
R037P5.1	Cleanouts and Inspection Structures (Permanent)
R037P5.2	Cleanouts and Inspection Structures (Temporary)
R037P6	Supply and Installation of Geotextile
R038P1	Excavation
R038P2.1	Steep Batter Outlet
R038P2.2	Flat Batter Outlet
R038P2.3	Connection to a Trench Drain Outlet
R038P2.4	65mm Dia Unslotted Corrugated Plastic Drainage Pipe
R038P2.5	100mm Dia Unslotted Corrugated Plastic Drainage Pipe
R038P2.6	Unslotted Geocomposite Plastic Strip Filter
R038P3.1	65mm Dia Corrugated Perforated Plastic Drainage Pipe
R038P3.2	100mm Dia Corrugated Perforated Plastic Drainage Pipe
R038P3.3	Geocomposite Plastic Strip Filter
R038P4.1	Cleanouts (Permanent)
R038P4.2	Cleanouts (Temporary)
R038P5	Aggregate Type A - Aggregate Filter Material Backfill
R038P6	Filter Material - No Fines Concrete
R038P7	Graded Macadam Base

R038P8	Supply and Installation of Geotextile
R039P1	Drainage Mats
R044P1	Removal and Stockpiling of Topsoil
R044P2	General Earthworks (Cut/Fill)
R044P3	Imported or Borrowed Material
R044P4	Unsuitable Material (Item with provisional quantity)
R044P5.1	Selected Material from cuttings in the Works area
R044P5.2	Selected Material Imported from beyond the Works area
R044P5.3	Verge Material from cuttings in the Works area
R044P5.4	Verge Material Imported from beyond the Works area
R044P6.1	Haulage of Spoil
R044P6.2	Treatment and disposal of Contaminated materials (Item with provisional quantity)
R044P7.1	Treatment Type E1 and Cutting Type C1-Loosen and Recompact
R044P7.2(a)	Material obtained from excavations within the Works
R044P7.2(b)	Imported Material
R044P7.3(a)	Geotextile
R044P7.3(b)	Geogrid
R044P7.4(a)	Drainage Blanket Material obtained from excavations within the Works
R044P7.4(b)	Imported Drainage Blanket Material
R049P1	Supply and Place Verge Material and Removal of Earth Dyke
R050P1.1	Quicklime
R050P1.2	Hydrated Lime
R050P1.3	Slag/Lime blend
R050P1.4	Cement
R050P2.1	Quicklime
R050P2.2	Hydrated Lime
R050P2.3	Slag/Lime Blend
R050P2.4	Cement
R050P3.1	Quicklime
R050P3.2	Hydrated Lime
R050P3.3	Slag/Lime Blend
R050P3.4	Cement
R055P1	Rock Filled Gabions
R055P2	Rock Filled Wire Mattresses

R055P3	Terramesh Panels
R055P4	Select Backfill for Terramesh Panels
R055P5	Excavation for Gabions and Mattresses.
R056P1	Test Anchors
R056P10a	Non-restressable Anchors
R056P10b	Monitorable, Restressable and/or Destressable Anchors
R056P11	Monitoring of Anchors (Item with provisional quantity)
R056P12	Provision of Load Cells
R056P2	Drilling Holes
R056P3	Drilling Below Contract Level (Item with provisional quantity)
R056P4	Casing of Holes in OTR
R056P5	Water Proofing (Item with provisional quantity)
R056P6	Supply, Assembly and Installation of Anchors
R056P7	Grouting
R056P8	Supply and Installation of Anchorages
R056P9a	Anchors Subject to Proving Test
R056P9b	Anchors Subject to Suitability Test
R056P9c	Anchors Subject to Acceptance Test
R057P1	Design of Reinforced Soil Walls
R058P1	Supply of Components
R058P2	Preparation of Foundation
R058P3	Base/Concrete Strip Footings
R058P4	RSW Erection
R058P5	Filters and Drainage
R058P6	Capping
R058P7	Reinforced Fill Material
R071P1	Subbase Course
R071P2	Base Course
R073P1	Supply Binder, Mix, Spread and Compact Subbase/Base Course
R073P2	Prime or Prime Seal
R075P1	In Situ Stabilisation
R075P2	Supply and Spread New Pavement material
R075P3	Prime or Prime Seal
R082P1	Supply and Place Concrete in Subbase
R082P2	Finish and Cure Subbase
R082P3	Surface Debonding Treatment
R082P4	Subgrade Beams

R083P1	Supply and Place Concrete in Base
R083P12	Provision of Base Protective Covers (Item with provisional quantity)
R083P2	Finish, Cure and Texture Base
R083P3	Supply and Place Wire Reinforcing Fabric
R083P4	Supply and Place Steel Bar Reinforcement
R083P5	Longitudinal Joints
R083P6	Expansion Joints and Isolation Joints
R083P7	Transverse Contraction Joints
R083P8	Slab Anchors
R083P9	Bridge Approach Slabs
R084P1	Supply and Place Concrete in Base
R084P12	Provision of Base Protective Covers (Item with provisional quantity)
R084P2	Finish, Cure and Texture Base
R084P3	Supply and Place Wire Reinforcing Fabric
R084P4	Supply and Place Steel Bar Reinforcement
R084P5	Longitudinal Joints
R084P6	Expansion Joints and Isolation Joints
R084P7	Transverse Contraction Joints
R084P8	Terminal and Slab Anchors
R084P9	Bridge Approach Slabs
R101P1.1	Depth
R101P2.1	Depth
R101P3	Texturing Surface (Asphalt and Base Course Material)
R101P4	Texturing Surface (Cement Concrete Material)
R101P5.1	Affected Area Up to 10 Square Metres
R101P5.2	Affected Area Over 10 and Up to 25 Square Metres
R101P5.3	Affected Area Over 25 and Up to 50 Square Metres
R101P5.4	Affected Area Over 50 Square Metres
R101P6.1	Affected Area Up to 10 Square Metres
R101P6.2	Affected Area Over 10 and Up to 25 Square Metres
R101P6.3	Affected Area Over 25 and Up to 50 Square Metres
R101P6.4	Affected Area Over 50 Square Metres
R103P1	High Pressure Waterblasting
R106P1.1	AMC00
R106P1.10	Field Cutback Primer/Primerbinder
R106P1.2	AMC0
R106P1.3	AMC1
R106P1.4	AMC2

R106P1.5	AMC3
R106P1.6	AMC4
R106P2	Supply and Spray Binder - Class 170 Bitumen (Including Adhesion Agent where required and Preparation of Surface)
R106P3	Supply and Spray Binder - Class 320 Bitumen (Including Adhesion Agent where required and Preparation of Surface)
R106P4	Supply and Spray Binder ? Multigrade 600/170 Bitumen (Including Adhesion Agent where required and Preparation of Surface)
R106P5	Supply, Incorporate and Spray Cutter Oil in Binder
R106P6	Supply, Incorporate and Spray Flux Oil in Binder
R106P7.1	5mm Aggregate (Precoated)
R106P7.2	7mm Aggregate (Precoated)
R106P7.3	10mm Aggregate (Precoated)
R106P7.4	14mm Aggregate (Precoated)
R106P8	Geotextile
R107P1	Supply and Spray Polymer Modified Bitumen (including Adhesion Agent where required and Preparation of Surface)
R107P2	Supply, Incorporate And Spray Cutter Oil in Binder
R107P3	Supply and Spray Binder - Class 170 Bitumen (Including Adhesion Agent where required and Preparation of Surface)
R107P4.1	5mm Aggregate (Precoated)
R107P4.2	7mm Aggregate (Precoated)
R107P4.3	10mm Aggregate (Precoated)
R107P4.4	14mm Aggregate (Precoated)
R107P5	Supply and Incorporate Geotextile
R109P1	Surface Preparation
R109P2.1	3mm Nominal Size
R109P2.2	4mm Nominal Size
R109P2.3	5mm Nominal Size
R109P2.4	7mm Nominal Size
R109P2.5	10mm Nominal Size
R109P3.1	3mm Nominal Size
R109P3.2	4mm Nominal Size
R109P3.3	5mm Nominal Size
R109P3.4	7mm Nominal Size
R109P3.5	10mm Nominal Size
R110P1.1	Preparation of Surface

R110P2.1	Red
R110P2.2	Green
R111P1.1	(Reserved)
R111P1.2	(Reserved)
R111P1.3	Seal or Reseal
R111P1.4	Curing Membrane
R111P2.1	5mm Aggregate (Precoated)
R111P2.2	7mm Aggregate (Precoated)
R111P2.3	10mm Aggregate (Precoated)
R111P2.4	14mm Aggregate (Precoated)
R112P1.1	AMC00
R112P1.2	AMC0
R112P1.3	AMC1
R112P1.4	AMC2
R112P1.5	AMC3
R112P2	Supply and Spray Binder - Class 170 Bitumen (Including Preparation of Surface)
R112P3	Supply and Spray Bitumen Emulsion (Including Preparation of Surface)
R112P4	Supply, Incorporate and Spray Cutter Oil in Binder
R112P5	Supply and Spray Rejuvenating Agent (Including Preparation of Surface)
R112P6	Supply, Apply and Incorporate Sand
R113P1	Supply and Spray Emulsion Binder (Including Preparation of Surface and Incorporation of Fibre Reinforcement)
R113P2.1	5mm Aggregate (Precoated)
R113P2.2	7mm Aggregate (Precoated)
R113P2.3	10mm Aggregate (Precoated)
R113P2.4	14mm Aggregate (Precoated)
R116P1	Supply and Application of Tack Coat (Including Preparation of Surface)
R116P10.1	10mm Nominal Size
R116P10.2	14mm Nominal Size
R116P12.1	Wheel Tracking Test
R116P2.1	5mm Nominal Size
R116P2.2	10mm Nominal Size
R116P2.3	14mm Nominal Size
R116P2.4	20mm Nominal Size
R116P3.1	10mm Nominal Size, xxx mm thick
R116P3.2	14mm Nominal Size, xxx mm thick
R116P3.3	20mm Nominal Size, xxx mm thick

R116P3.4	28mm Nominal Size, xxx mm thick
R116P3.5	40mm Nominal Size, xxx mm thick
R116P4.1	5 mm Nominal Size, xxx mm thick
R116P4.2	10 mm Nominal Size, xxx mm thick
R116P4.3	14 mm Nominal Size, xxx mm thick
R116P5.1	5mm Nominal Size
R116P5.2	10mm Nominal Size
R116P5.3	14mm Nominal Size
R116P6.1	5mm Nominal Size
R116P6.2	10mm Nominal Size
R116P6.3	14mm Nominal Size
R116P7.1	10mm Nominal Size, xxx mm thick
R116P7.2	14mm Nominal Size, xxx mm thick
R116P8.1	28mm Nominal Size, xxx mm thick
R116P8.2	40mm Nominal Size, xxx mm thick
R116P9.1	10mm Nominal Size
R116P9.2	14mm Nominal Size
R121P1	Preparation of Surface
R121P2.1	10mm Nominal Size
R121P2.2	14mm Nominal Size
R123P1	Preparation of Surface
R123P2.1	10mm Nominal Size
R131P1	Supply and Installation of Guide Posts
R131P2	Removal of Existing Guide Posts
R132P1	Removal of Safety Barriers
R132P2	Removal of Terminals and Transitions
R132P3	Construction of Post and Rail Safety Barriers
R132P4	Post Holes at 400mm Diameter (Item with provisional quantity)
R132P5	Construction of Wire Rope Safety Barrier Systems
R132P6	Construction of Plastic Safety Barriers
R132P7	Construction of Concrete Safety Barrier Systems
R132P8	Construction of Terminals
R132P9	Construction of Transitions
R141P1.1	Type
R141P10	Trowelled, Screeded or Extruded Two part Cold-applied Pavement Marking Material - Transverse Lines and Other Markings
R141P11	Sprayed Two Part Cold-applied Pavement Marking Material - Transverse Lines and Other Markings
R141P12.1	Type

R141P13.1	Type
R141P14	Pavement Marking Tape - Transverse Lines and Other Markings
R141P15	Removal of Longitudinal Linemarking, Transverse Lines and Other Symbols
R141P2	Water Borne Paint - Transverse Lines and Other Markings
R141P3.1	Type
R141P4	Solvent Based Paint - Transverse Lines and Other Markings
R141P5.1	Type
R141P6	Screeded or Sprayed Nonprofile Thermoplastic Pavement Marking Material - Transverse Lines and Other Markings
R141P7	Pre-formed Nonprofile Thermoplastic Pavement Marking Material - Transverse Lines and Other Markings
R141P8.1	Type
R141P9.1	Type
R142P2	Installation of Retroreflective Raised Pavement Markers
R142P3	Removal of Raised Pavement Markers
R143P1.1	Type
R143P2	Manufacture and Delivery of Sign Support Structures
R143P3	Erection of Sign Structures (Standard Round Galvanised Posts)
R143P4	Erection of Sign Structures (Standard Modular)
R143P6	Erection of Signs
R143P7	Modification of Existing Signs and Support Structures
R14610.1	Type
R146P1.1	Type
R146P11	Removal of Longitudinal Linemarking Transverse Lines and Other Markings.
R146P2	Water Borne Paint - Other Markings
R146P3.1	Type
R146P4	Nonprofile Thermoplastic Pavement Marking Material - Other Markings.
R146P5.1	Type
R146P6	Pre-formed Nonprofile Thermoplastic Pavement Marking Material - Other Markings.

R146P7.1	Type
R146P8	Two part Cold-applied Pavement Marking Material - Other Markings
R151P1	Supply and Lay - mm Diameter UPVC Conduit
R151P2	Cable Pits
R151P3	Control Cabinets
R151P4	Concrete Plinth for Lighting Column
R151P5	Lighting Columns - Metre High
R151P6	Lightings and Light Fittings - Watts
R152P1	Supply and Lay - mm Diameter UPVC Conduit
R152P2	Cable Pits
R152P3	Concrete Plinth and Telephone Pillar
R161P1	Controlled Access Rural Road Fencing - Wire
R161P10	Excavation and Backfill for Fence Posts in Rock
R161P11	Remove Existing Fencing
R161P12	Erection of Controlled Access Rural Road Gates
R161P13	Erection of Manproof Gates
R161P14	Flood Gates ? Small Watercourses
R161P15	Flood Gates ? Gully and Creek
R161P16.1	Type
R161P2	Controlled Access Rural Road Fencing - Cattle
R161P3	Controlled Access Rural Road Fencing ? Rabbit Proof Netting on Ground
R161P4	Controlled Access Rural Road Fencing ? Rabbit Proof Buried Netting
R161P5	Controlled Access Rural Road Fencing ? Horse Proof
R161P6	Controlled Access Urban Road Fencing
R161P7	Temporary Fencing
R161P8	Manproof Fencing
R161P9	Pedestrian Fencing
R173P1.1	Thickness ? Reinforcement
R173P2	Tactile Indicators
R178P1	Spraying Weeds with Herbicide
R178P10	Supply and Erection of Information Signs
R178P11	Topsoiling Open Drains Using Site Material Including Surface Preparation and Screening of Topsoil Stockpiles
R178P12	Topsoiling Open Drains Using Imported Material Including Surface Preparation
R178P13	Hydroseeding of Open Drains
R178P14	Hydromulching of Open Drains

R178P15	Sowing Open Drains by Hand
R178P16	Spray Open Drains with Bitumen Emulsion
R178P17	Lining Open Drains with Organic Fibre Mat
R178P18	Turfing
R178P19	Watering
R178P2.1	Areas with a slope of 5 to 1 or flatter.
R178P2.2	Areas steeper than 5 to 1 except stepped batters.
R178P2.3	Stepped Batters
R178P20	Recultivating and Resowing
R178P21	Mowing
R178P3	Topsoiling Using Imported Material Including Surface Preparation
R178P4	Dry Sowing
R178P5	Hand Sowing
R178P6	Preparation of Surface for Areas Not Requiring Topsoiling
R178P7	Hydroseeding
R178P8	Hydromulching
R178P9	Straw mulching

11 Superelevation standards

Previous versions of the Superelevation XML files needed entries for each Transition variation so the relevant percentages could be triggered. In 2012, this can be achieved from the front end so the attainment formulas were adjusted in the design files and the superfluous information was removed.

There are 3 separate XML files in the CK:

- _Austroads_Absolute Min Radius Tables_ANZ.xml
- _Austroads_Desirable Min Radius Tables_ANZ.xml
- _TRANSIT NZ_Highway Design Manual MINIMUM RADII VALUES_ANZ.xml

The first 2 use table methods for widening and the NZ version uses formulas.

The general Superelevation Attainment method needs to have the 'p' parameter added – otherwise the values in the dialogue box above will not be used.

```
<TransitionFormula type="NCtoLC" formula="{t}*{c}/{e}"/>
<TransitionFormula type="LCtoRC" formula="{t}*{c}/{e}"/>
<TransitionFormula type="LCtoFS" formula="{t}*{p}"/>
<TransitionFormula type="LCtoBC" formula="{t}*{p}"/>
<TransitionFormula type="NStoNC" formula="{t}*({s}-{c})/{e}"/>
```

The widening process by table is shown below. The design speed is set to "all" and the order is set to higher radii first. These tables are from the Austroads standards for Absolute Min Radius Tables and Desirable Min Radius Tables.

```
<WideningTypeByTable TableType="Standard" StandardName="Prime Mover or Semi Trailer"
NumberOfLanes="1">
  <LaneWidth width="3">
    <WideningDesignSpeed speed="All">
      <IncreasedWidth radius="300" dWidth="0.23"/>
      <IncreasedWidth radius="250" dWidth="0.29"/>
      <IncreasedWidth radius="200" dWidth="0.35"/>
      <IncreasedWidth radius="180" dWidth="0.42"/>
      <IncreasedWidth radius="160" dWidth="0.49"/>
      <IncreasedWidth radius="140" dWidth="0.56"/>
      <IncreasedWidth radius="120" dWidth="0.63"/>
      <IncreasedWidth radius="100" dWidth="0.71"/>
      <IncreasedWidth radius="90" dWidth="0.81"/>
      <IncreasedWidth radius="80" dWidth="0.91"/>
      <IncreasedWidth radius="70" dWidth="1.03"/>
      <IncreasedWidth radius="60" dWidth="1.27"/>
    </WideningDesignSpeed>
  </LaneWidth>
</WideningTypeByTable>
```

The Widening process by formula is shown below.

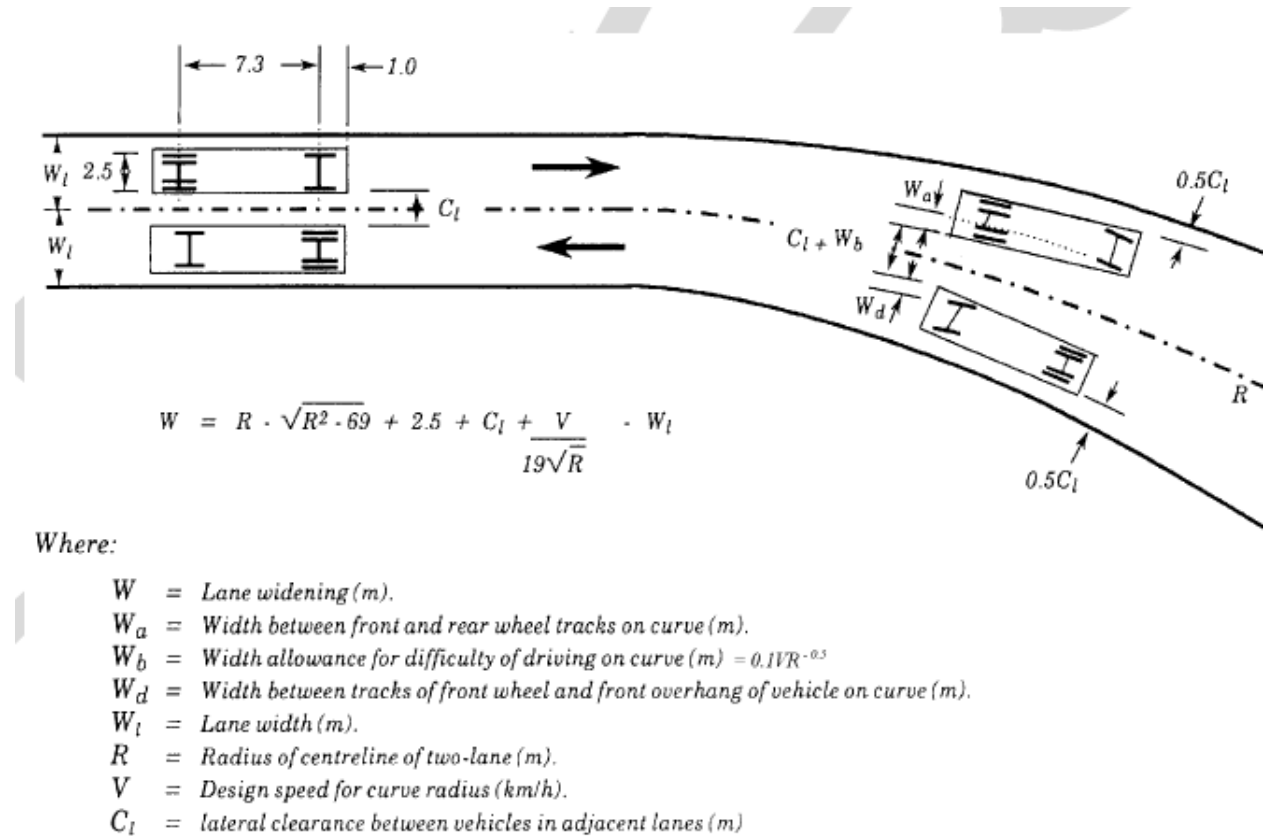


Figure 4.5: Lane Widening on Horizontal Curves

The formula used in the XML file was modified to incorporate the number of lanes using a similar method to the AASHTO standards.

```
<WideningMethod name="Modified NZ Transit Manual - Figure 4.5">
  <WideningTypeByFormula>
    <WideningFormula roundingFactor="0.1" formula="{n}*({r}-sqrt({r}^2-69))+2.5+{c}+{v}/sqrt({r})/19- {tw}" />
    <WideningConstants>
      <WideningConstant name="c" value="0.6" />
    </WideningConstants>
  </WideningTypeByFormula>
</WideningMethod>
```

12 Intersection feature – Styles, Names and Assembly sets

Name	DWT Value	Comments	Screengrab/DWG/DWF
Offset Alignment Style	Design		
Curb Return Alignment Style	Basic		
Offset Profile Style	Design Profile		
Curb Return Profile Style	Design Profile		
Offset Alignment Label Set	Major and Minor Only		
Curb Return Alignment Label Set	Major and Minor Only		
Offset Profile Label Set	_No Labels		
Curb Return Profile Label Set	_No Labels		
Intersection Name Format	(Intersection) - (Next Counter)		
Intersection Quadrant Name Format	(Intersection Name) – (Quadrant Location) – QUADRANT		
Offset Alignment Name Format	(Parent Alignment Name) – (Side) – (Offset Distance)		
Curb Return Alignment Name Format	(Intersection Name) – (Intersection Quadrant Name)		
Offset Profile Name Format	(Parent Alignment Name) – (Side) – (Offset Profile Nominal Cross Slope)		
Curb Return Profile Name Format	(Parent Alignment Name) - (Intersection Name) – (Intersection Quadrant Name)		
Corridor Region Name Format	(Intersection Name) – (Baseline Name) – (Assembly Name)		

See section 5.4 of content spec for instructions on developing an assembly set for the intersection feature.