

CITY OF VANCOUVER CADD STANDARDS FOR CONTRACTORS



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Digital CADD Data Specifications for City of Vancouver

Contractors

1 Introduction

Digital spatial data specifications and standards are defined to provide corporate structure to data files. Adherence to these standards will assist in the preparation of drawing files and decrease the amount of verification necessary. In addition, these standards are designed to facilitate transfer of spatial data between branches of the City of Vancouver, software packages, projects, contractors, GIS and general users of the City of Vancouver's digital data. The ability to communicate effectively regarding digital data requires a common understanding regarding current data standards.

1.1 Purpose

The purpose of this manual is to provide guidance to the basic procedures for Computer Aided Design and Drafting (CADD) at the City of Vancouver. These procedures and guidelines are to ensure consistent products, appearance and accuracy. This document is meant to be neither static nor all inclusive, but improved and updated where appropriate.

1.2 Roles and Responsibilities

Engineering Information Services is responsible for maintaining standard bases and supporting standard layouts, templates, devices, symbols and server processes on the City of Vancouver's Engineering CADD server (ENCAD). ENCAD clients are responsible for maintaining the integrity of ENCAD base, supporting information and server environment. ENCAD clients are responsible for the maintenance of base information as input to the COV GIS for their specific program areas.

2 General Data Specifications

2.1 Projection

Universal Transverse Mercator projection (UTM) is the standard projection used by the City of Vancouver.

2.1.1 UTM Zone

The City of Vancouver is in UTM Zone 10.

2.1.2 Origin

The standard origin for all digital spatial data files for the City of Vancouver will be located at X=0, Y=0, Z=0.

2.1.3 Units of Resolution

Meters (m) is the resolution for digital data in the City of Vancouver

2.1.4 Horizontal Datum

North American Datum of 1983(NAD 83) GVRD HPN

2.1.5 Standard Units

Metric where possible, the City of Vancouver is implementing a migration to metric standards.

2.1.6 Coordinate System

Eastings and Northings will be used for coordinate location references. Autodesk Map UTM83-10 is the assigned coordinate system for all City of Vancouver.

2.1.7 Spheroid

WGS 84

3 Survey Monuments

3.1 Grid Coordinates

Grid coordinates are preferred for electronic as-built submissions. If grid coordinates are not supplied, the ground transformation formula is required.

3.2 Tablet Marking

All surveys will note the tablet markings (i.e. V-2166) of monuments referenced from the City of Vancouver Integrated Survey Area No. 31.

3.3 Vertical Datum

The vertical datum used in the survey is required.

4 Security

4.1 Virus checking

All files from external sources will be scanned for viruses prior to opening or executing on ENCAD.

5 General File Specifications

5.1 AutoCAD

AutoCAD DWG (2010 format preferred) is the standard file format for City of Vancouver CADD files.

5.2 Layer driven features

All element specifications will be determined by layer (i.e. colour, line weight). All elements on a layer will conform to the standards and specifications for that layer (see Layers).

5.3 Use of external references (X-ref)

Insertion points for x-ref files shall be X=0, Y=0, Z=0. X-ref files shall be inserted on layer "XREFLAYER" (see Layers) with a scale factor = 1.

5.4 Use of paper space/model space

All drawings should be using Paper and Model Space. All working entities are drawn in Model Space. All title blocks are in Paper Space and at a plot scale of 1=1. 'UCSICON' should always be on in AutoCAD.

All Objects associated to one another should be in the same space (i.e. All titleblock notes and objects are in Paper Space; all annotations are to be in the same space as the objects that they annotate).

5.5 Drawing orientation

All drawings, with the exception of site plans, will use project north alignment rather than true north. True north may be indicated with a north arrow based on current declination to indicate potential view rotation.

5.6 Use of AutoCAD 'Dview' command

Use the AutoCAD Command 'Dview - TWist' rather than 'Rotate' for drawing orientation. Rotating the objects can destroy the spatial references.

5.7 Topological validation

The standards for topology must be met. Digital data must be vector and poly clean. The following errors are unacceptable: dangling nodes, undershoots, intersection errors, loops, open polygons, slivers and zero area polygons. ENCAD base layers are topologically valid.

6 Drawing Templates

Located: <ROOT>:\templates\CADD_template.dwt

This file will contain recommended specifications for plan drawings including projection and datum information. Templates are developed for:

- AutoCAD
- AutoCAD Map
- Civil 3D
- Land Development Desktop
- Contractor's template

7 Plotting and Layout Specifications

- Standard layout blocks are included in <ROOT>:\templates\CADD_template.dwt
- Layouts, map surrounds and plot files are to include:
 - Title
 - Legend

- North arrow
- Scale
- Date
- Datum
- Projection
- Author
- Plot files are HP-GL/2 compatible.
- Layouts are used for City of Vancouver plotting.
- Object colour and line weight are to be used for plotting, when possible. These parameters are controlled by layer.
- Colour-dependent plot style table (.ctb) files^{*} are located in:
<ROOT>:\plot\Plot Styles
 - plotbyobject.ctb for WYSIWYG colour
 - plotobjectblack.ctb for black
- Plotter configuration (.pc3) files, defined by business unit devices, are located in:
<ROOT>:\plot\plotters[†]
 - e.g. "CR55_Plotter1_7th.pc3")

^{*} The plot styles will use the layer or object properties to plot.

[†] "Standard" plotter configurations will be located in the networked location, while user-specific configurations will be located on the client computer.

8 Blocks

Blocks shall be used when duplicate entities are within a drawing. Attributes shall be created if text is used within a block. With few exceptions, all entities within the block shall be created on layer "0". Base points should be the most logical insertion location used.

The CADD_template.dwt will contain most standard blocks for the City of Vancouver (see Symbols). In addition, <ROOT>:\blocks will contain many standard stamp blocks.

9 Line Styles

Line Styles are controlled by layer. Only standard AutoCAD line styles are supplied. Custom line styles are currently created on a per project basis.

10 Text Styles and Sizes

The CADD_template.dwt file will contain all text styles (fonts) used at the City of Vancouver. Text should be inserted on the layer associated with the object layer with a *txt* extension (e.g. P_PROP_LINE and P_PROP_LINE_TXT). Microsoft Windows TrueType fonts may also be used, provided they are fonts included in the City's standard computer image.

Text Styles
L100
L120
L140
L175
L200
L240
L290
L350
L40
L425
L50
L500
L60
L80
ROMANC
ROMAND
ROMANS
ROMANT
SANSERIF
STANDARD

11 Scales

Drawing Type	Metric Scale
Site Plans	1:250 1:500 1:1000 1:1500 1:2000
Civil Plan and Profile	1:250(horizontal) 1:50(vertical)
Cross Sections	1:50 1:100 1:200
Detail	1:5 1:10 1:25 1:50
City	1:30000 1:25000 1:17000

General Drawing scales

12 Dimension Styles

- ISO-25 (or develop department specific) dimension styles as included in the CADD template will be used. All dimensions are meters where possible. Standard Layer for Dimensions is DIMENSION (see Layers).
- Use associative dimensioning when possible to allow for ease of editing and updating. Do not explode or override the text of associative dimensions.
- Precision is based upon functional requirement.

13 Base Content

BASE DRAWING FILE	DESCRIPTION
City_line.dwg	Vancouver city boundary
contour.dwg	Contours
COV_facet.dwg	Facet grid
Harbour_hlin.dwg	harbour headline
Linemap_stnames.dwg	linemap 30 street names
peatareas.dwg	peat areas
Shoreline.dwg	Shoreline
soils_files_keymap.dwg	Soil Records exist in Materials Branch
p_address.dwg	Addresses
p_annotation.dwg	district lot
p_easement.dwg	Easements
p_lot_line.dwg	lot lines with dimensions
p_lot_number.dwg	legal lot numbers
p_monument.dwg	survey monuments (original with names)
p_property_lbl.dwg	property dimensions (from legal plan)

BASE DRAWING FILE	DESCRIPTION
p_property_line.dwg	property lines
p_tie_lines.dwg	Property tie lines
s_catchment.dwg	Sewer catchment areas
s_main3dwatt.dwg	Sewer main (3D) with attributes
s_mainwatt.dwg	sewer main with attributes
s_main_lbl.dwg	Sewer main labels
s_manholewatt.dwg	sewer manholes with attributes
s_manhole_lbl.dwg	Sewer manhole labels
s_symbol.dwg	sewer symbols
sl_electrical.dwg	Street Lighting electrical
st_node.dwg	Street nodes
st_segment.dwg	street centerline segments
st_segmentwatt.dwg	Street centerline segments with attributes
st_segment_lbl.dwg	street names for every street segment
st_street_width.dwg	Street width labels
u_corridor.dwg	Reserved utility corridors
u_gas_classifiedwatt.dwg	Terasen Gas classified by status with attributes
u_gaswatt.dwg	Terasen Gas with attributes
u_gas_offsets.dwg	Terasen Gas offset labels.
u_hydrowatt	Hydro with attributes
u_steam_pipewatt	Steam Pipe with attributes(downtown)
u_telcowatt.dwg	Telephone and Cable with attributes
u_telco_classifiedwatt.dwg	Telephone and Cable classified by owner with attributes
w_symbolwatt.dwg	Water symbols with attributes
w_mainwatt.dwg	water mains and services with attributes

Layer standards within these files are defined in Layers (Section 15).

Object data is defined by *watt* layer name suffix. This is primary attribute data from GIS. This data can be used in queries or viewed per object (use the Properties window or the ADEEDITDATA command).

13.1 Branch specific bases

Located in:

<ROOT>:\base\<branch>_base.

These bases are maintained and update by the branch. Data Specifications (2.0) must be met for these base layers to be updated to GIS or used in CADD projects for other branches and departments in the COV.

13.2 Files

All files on ENCAD are the responsibility of those who use them.

13.3 Corruption

Corruption of this information is possible, do not delete, add to save set or update standard CADD information.

13.4 Update

City of Vancouver CADD base files will be updated daily, where applicable (some base information is static) or when a request to update is made. Timing this update for periods of decreased network traffic is preferable.

14 CADD base file and layers Naming Convention.

Branch files and layers - these layers are prefixed with the following conventions:

p = property
s = sewer
sl = street lighting
st = streets
u = utility
w = water

These layers will be suffixed with the equivalent GIS feature code where one exists.

15 Layers

15.1 CADD Layers naming conventions

CADD Layers naming conventions have been developed to facilitate transfer of projects and facilitate communication regarding COV CADD base and project information.

Layer names that follow are considered to represent “existing” assets. Layers suffixed with _ex are also considered existing. Layers suffixed with _rm represent assets that are to be removed during construction. Layers for proposed assets are suffixed with “pr” or “design”. Therefore, proposed curbs are to be stored on layer “st_curb_pr”.

15.2 Standard City of Vancouver Base and Project Layers

Layer name	Line type	Colour	Description
COV_FACET_GRID	CONTINUOUS	6	Facet grid
COV_FACET_GRID_TEXT	CONTINUOUS	80	Facet alphanumeric
DIMENSION	CONTINUOUS	WHITE	Dimensions
PEAT	CONTINUOUS	124	Peat Areas
ARCHAEOLOGICAL	CONTINUOUS	200	Archaeological
SOIL_LIQUEFACTION_POTENTIAL	CONTINUOUS	252	Soil Liquefaction Potential
SOIL_UNSTABLE	CONTINUOUS	44	Soil Unstable
SOILS FILE	CONTINUOUS	31	
SHORELINE	CONTINUOUS	BLUE	Shorelines and water bodies
SP_PARK	CONTINUOUS	GREEN	Stanley Park boundary
SP_PATH	CONTINUOUS		Stanley Park path
SP_ROAD	CONTINUOUS		Stanley Park road
VIEWPORT	CONTINUOUS	WHITE	Current layer for mview command in layout
TEXT	CONTINUOUS	WHITE	Drawing text general (more layers for different text should be created)
VIEWPORT	CONTINUOUS	WHITE	Paperspace Viewport
XREFLAYER	CONTINUOUS	WHITE	Xref insertion layer

15.3 Greenway Base Layers

Layer Name	Linetype	Colour	Description
G_ART	CONTINUOUS	white	Greenways Art
G_BENCH	CONTINUOUS	44	Bench
G_BIKE_RACK	CONTINUOUS	blue	Bike Rack
G_BOLLARD	CONTINUOUS	white	Bollard
G_BOULDER	CONTINUOUS	251	Boulder
G_BUILDING	CONTINUOUS	blue	Building
G_CONTOURS	DASHED	41	Contours
G_CROSSING	CONTINUOUS	white	Crossing
G_CURB	CONTINUOUS	white	Curb
G_CURB_GRANITE	CONTINUOUS	magenta	Granite Curb
G_DIMENSION	CONTINUOUS	24	Dimension
G_EOP	CONTINUOUS	8	Edge of Pavement
G_FENCE	DASHDOT2	42	Fence
G_GARDEN_EDGE	CONTINUOUS	33	Edge of Garden
G_GRAVEL	DASHED	white	Gravel
G_GUTTER	CONTINUOUS	cyan	Gutter
G_LAND_FEATURE_1	CONTINUOUS	cyan	misc feature
G_LAND_FEATURE_2	CONTINUOUS	cyan	misc feature
G_LANE	CONTINUOUS	10	Lane
G_LEADER	CONTINUOUS	24	Leader
G_MISCELLANEOUS	CONTINUOUS	white	misc feature
G_OLS	CONTINUOUS	cyan	Ornamental or Outdoor Lamp Standard
G_PAINT_WHITE	CONTINUOUS	magenta	White traffic paint lines
G_PAINT_YELLOW	CONTINUOUS	yellow	Yellow traffic paint lines
G_PARKING	CONTINUOUS	magenta	Parking
G_PARKING_REGS	CONTINUOUS	white	Parking Regulatory information
G_PATHS	CONTINUOUS	152	Path
G_PAVER	CONTINUOUS	white	Pavers
G_PAVER_2	CONTINUOUS	253	Pavers
G_PAVING_1	CONTINUOUS	254	Pavers
G_PAVING_2	CONTINUOUS	253	Pavers
G_PAVING_3	CONTINUOUS	252	Pavers
G_PEOPLE	CONTINUOUS	white	People
G_PHOTO	CONTINUOUS	white	Photos
G_PIPE	CONTINUOUS	40	Pipes
G_POLE	CONTINUOUS	white	Poles
G_RAINBARREL	CONTINUOUS	blue	Rainbarrels
G_RAMP	CONTINUOUS	white	Ramps
G_RETW	CONTINUOUS	200	Retaining Wall
G_SAND	CONTINUOUS	253	Sand
G_SECTION	CONTINUOUS	white	Sections
G_SHRUB	CONTINUOUS	74	Shrubs
G_SIDEWALK	CONTINUOUS	white	Sidewalk
G_SIDEWALK_SCORE	CONTINUOUS	254	Sidewalk
G_SIGN	CONTINUOUS	white	Sign

Layer Name	Linetype	Colour	Description
G_SOIL_LINE	DASHED2	35	Soil Line
G_SPEEDHUMP	CONTINUOUS	yellow	Speed Hump
G_STREETLIGHT	CONTINUOUS	white	Street Light
G_STRUCTURES	CONTINUOUS	red	Structure
G_TEXT	CONTINUOUS	white	Text
G_TRASH_RECEPTACLE	CONTINUOUS	blue	Trash
G_TREE	CONTINUOUS	green	Tree
G_VEGETATION_EX	CONTINUOUS	60	Vegetation
G_VEHICLE	CONTINUOUS	blue	Vehicle
G_VIEWPOINT	CONTINUOUS	white	Viewpoint
G_WATER_FIRE_HYDRANT	CONTINUOUS	red	Fire Hydrant
G_WOOD_EDGE	CONTINUOUS	34	Edge of Wood

15.4 Property Base Layers

Layer name	Line type	Colour	Description
P_ADDRESS	CONTINUOUS	6	Street addresses
P_ASSESSMENT_CODE	CONTINUOUS	6	Coding Numbers
P_BLOCK_NUMBER	CONTINUOUS	144	Block numbers
P_DISTRICT_LOT_NUMBER	CONTINUOUS	144	District lot number
P_DISTRICT_LOT_LINE	CONTINUOUS	144	District lot boundary
P_EASEMENT	DASHEDX2	111	Easements
P_LOT_LINE	CONTINUOUS	76	Lot line
P_LOT_LINE_LBL	CONTINUOUS	WHITE	Lot line survey plan dimensions
P_LOT_NUMBER	CONTINUOUS	144	Lot number
P_PARK_ANNOTATION	CONTINUOUS	117	Park and School names
P_PLAN_NUMBER	CONTINUOUS	144	Survey Plan numbers
P_PROPERTY_LINE	CONTINUOUS	80	Property lines
P_PROPERTY_LINE_LBL	CONTINUOUS	WHITE	Property line survey plan dimensions

15.5 Streets Layers

Layer name	Line type	Colour	Description
ST_APRON	CONTINUOUS	8	Apron
ST_ASPH_CURB	CONTINUOUS	8	Asphalt Curb
ST_ASPH_GUT	DASHED2	111	Asphalt Gutter
ST_ASPH_PAD	CONTINUOUS	8	Asphalt Pad
ST_ASPH_WALK	CONTINUOUS	8	Asphalt Walk
ST_BANK	DASHED	34	Bank (Top or Bottom)
ST_BASELINE	PHANTOM2	6	Baseline
ST_BG	CONTINUOUS	4	Building Grade
ST_BG_POLY	CONTINUOUS	4	Building Grade Polygon
ST_BLV	CONTINUOUS	114	Boulevard (Edge)
ST_BRICK_PAVERS	CONTINUOUS	253	Brick Pavers
ST_BRICK_WALK	CONTINUOUS	253	Brick Walk
ST_CB	CONTINUOUS	110	Catch Basin
ST_CL	CENTER2	121	Centerline
ST_COBBLESTONE	CONTINUOUS	253	Cobblestone

Layer name	Line type	Colour	Description
ST_CONC_AGG	CONTINUOUS	253	Exposed Aggregate
ST_CONC_BARRIER	CONTINUOUS	152	Concrete Barrier
ST_CONC_BOX	CONTINUOUS	134	Concrete Box
ST_CONC_EXP_JNT	CONTINUOUS	1	Concrete Expansion Joint
ST_CONC_PAD	CONTINUOUS	134	Concrete Pad
ST_CONC_PAVERS	CONTINUOUS	253	Concrete Pavers
ST_CONC_PAVMT	CONTINUOUS	134	Concrete Pavement
ST_CONC_SIGN	CONTINUOUS	10	Concrete Sign Base
ST_CONC_STAMPED	CONTINUOUS	253	Concrete Stamped
ST_CONC_WALK	CONTINUOUS	140	Concrete Walk
ST_CONSTRUCT	CONTINUOUS	21	Construction (linework)
ST_CONSTRUCT_BASE	CONTINUOUS	241	Construction Base (linework)
ST_CULVERT	HIDDEN	110	Culvert
ST_CURB	CONTINUOUS	20	Curb
ST_DESIGN_CB	CONTINUOUS	110	Design Catch Basin
ST_DESIGN_CONC_WALK	CONTINUOUS	6	Design Concrete Walk
ST_DESIGN_CURB	CONTINUOUS	4	Design Curb
ST_DESIGN_GUTTER	CONTINUOUS	4	Design Gutter
ST_DIMENSIONS	CONTINUOUS	8	Dimensions
ST_DISTRICTS	CONTINUOUS	62	Districts
ST_DITCH	DASHDOT2	15	Ditch
ST_DOWNPIPE	CONTINUOUS	110	Downpipe
ST_DWAY	CONTINUOUS	130	Driveway
ST_ENTW	CONTINUOUS	140	Entrance Walk
ST_EOP	DASHEDX2	8	Edge of Pavement
ST_FENCE	DASHDOT2	42	Fence
ST_FIX_BENCH	CONTINUOUS	42	Fixture Bench
ST_FIX_BIKERACK	CONTINUOUS	5	Fixture Bikerack
ST_FIX_BOLLARD	CONTINUOUS	1	Fixture Bollard
ST_FIX_BUS_SHELTER	CONTINUOUS	162	Fixture Bus Shelter
ST_FIX_FLAGPOLE	CONTINUOUS	212	Fixture Flagpole
ST_FIX_GARBAGE_BIN	CONTINUOUS	42	Fixture Garbage Bin
ST_FIX_GUARDRAIL	CONTINUOUS	5	Fixture Guardrail
ST_FIX_PATIO	CONTINUOUS	32	Fixture Patio
ST_FIX_PLANTER	CONTINUOUS	110	Fixture Planter
ST_GRASS	CONTINUOUS	76	Grass
ST_GRAVEL	DASHED	8	Gravel
ST_GUTTER	CONTINUOUS	112	Gutter
ST_LANELINE	DASHED	52	Laneline
ST_MISC	CONTINUOUS	2	Miscellaneous
ST_OFFSET	HIDDEN	21	Offset (Staking)
ST_PL	CONTINUOUS	83	Property Line (Streets)
ST_RETW	CONTINUOUS	200	Retaining Wall
ST_SCRW_CL	CENTER2	52	Screening Walk
ST_SCRW_EDGE	HIDDEN	52	Screening Walk Edge
ST_SEGMENT	CONTINUOUS	WHITE	GIS Street Centerline
ST_SEGMENT_LBL	CONTINUOUS	WHITE	Street Name
ST_STATION	CONTINUOUS	183	Station

Layer name	Line type	Colour	Description
ST_STEPS	CONTINUOUS	140	Steps
ST_STONEW	CONTINUOUS	145	Stone Wall
ST_TRAFFIC_CIRCLE	CONTINUOUS	20	Traffic Circle
ST_TREE	CONTINUOUS	111	Tree
ST_WCURB	CONTINUOUS	42	Wood Curb
ST_WHEELCHAIR_RAMP	CONTINUOUS	232	Wheelchair Ramp
ST_WHLCHAIR	CONTINUOUS	232	Wheelchair
ST_XING	CONTINUOUS	20	Crossing
ST_ALBL	CONTINUOUS	140	Station Label
ST_APTS	CONTINUOUS	140	Station Points

15.6 Street Lighting Base Layers

Layer name	Line type	Colour	Description
SL_BOX_PULL	CONTINUOUS	WHITE	Pull Box
SL_BOX_SPLICE	CONTINUOUS	WHITE	Splice Box
SL_CROSSING	CONTINUOUS	WHITE	Crossing
SL_DUCT_DIRECT	DOT2	WHITE	Direct Duct
SL_DUCT_DIRECT_LABEL	CONTINUOUS	WHITE	Direct Duct Label
SL_DUCT_FIBRE	FIBRE	6	Fibre Duct
SL_DUCT_FIBRE_LABEL	CONTINUOUS	6	Fibre Duct Label
SL_DUCT_KORDUCT	KORDUCT	6	Korduct Duct
SL_DUCT_KORDUCT_LABEL	CONTINUOUS	6	Korduct Duct Label
SL_DUCT_NONMETALLIC	DASHED2	3	Non Metallic Duct
SL_DUCT_NONMETALLIC_LABEL	CONTINUOUS	3	Non Metallic Duct Label
SL_DUCT_OVERHEAD	OVERHEAD	WHITE	Overhead Duct
SL_DUCT_OVERHEAD_LABEL	CONTINUOUS	WHITE	Overhead Duct Label
SL_DUCT_POLY	POLY	RED	Poly Duct
SL_DUCT_POLY_LABEL	CONTINUOUS	RED	Poly Duct
SL_DUCT_RIGID	CONTINUOUS	RED	Rigid Duct
SL_DUCT_RIGID_LABEL	CONTINUOUS	RED	Rigid Duct
SL_NODE_OTHER	CONTINUOUS	WHITE	Misc Pole
SL_NODE_POLE_COMBO_30	CONTINUOUS	WHITE	30 ft Combo Pole
SL_NODE_POLE_DAVIT_25	CONTINUOUS	WHITE	25 ft Davit Pole
SL_NODE_POLE_DAVIT_30	CONTINUOUS	WHITE	30 ft Davit Pole
SL_NODE_POLE_DECORATIVE	CONTINUOUS	WHITE	Decorative Pole
SL_NODE_POLE_TROLLEY	CONTINUOUS	WHITE	Trolley Pole
SL_NODE_POLE_WOOD	CONTINUOUS	WHITE	Wood Pole
SL_NODE_POWERSOURCE	CONTINUOUS	WHITE	Powersource
SL_OFFSET	CONTINUOUS	162	Offset
SL_OLS	CONTINUOUS	10	Ornamental Lamp Standard
SL_SERVICEPANEL	CONTINUOUS	WHITE	Service Panel
SL_SRVPNL_LBL	CONTINUOUS	162	Service Panel label

15.7 Sewer Base Layers

Layer name	Line type	Colour	Description
S_CASINGPIPE	CASING PIPE	203	SEWER CASINGPIPE
S_CASINGPIPE_LBL	CONTINUOUS	203	SEWER CASINGPIPE LABEL

Layer name	Line type	Colour	Description
S_COMBINED_ANNOTATION_LEFTARROW	CONTINUOUS	magenta	SEWER COMBINED ANNOTATION LEFTARROW
S_COMBINED_ANNOTATION_RIGHTARROW	CONTINUOUS	magenta	SEWER COMBINED ANNOTATION RIGHTARROW
S_COMBINED_ANNOTATION_STRAIGHTARROW	CONTINUOUS	magenta	SEWER COMBINED ANNOTATION STRAIGHTARROW
S_COMBINED_CATCHBASIN_SUMP	CONTINUOUS	magenta	SEWER COMBINED CATCHBASIN SUMP
S_COMBINED_CATCHBASIN_SUMP_LBL	CONTINUOUS	magenta	SEWER COMBINED CATCHBASIN SUMP LABEL
S_COMBINED_CATCHMENT	CONTINUOUS	magenta	SEWER COMBINED CATCHMENT
S_COMBINED_CHAMBER_ENERGYDISSIPATOR	CONTINUOUS	magenta	SEWER COMBINED CHAMBER ENERGYDISSIPATOR
S_COMBINED_CHAMBER_GRIT	CONTINUOUS	magenta	SEWER COMBINED CHAMBER GRIT
S_COMBINED_CHAMBER_JUNCTION	CONTINUOUS	magenta	SEWER COMBINED CHAMBER JUNCTION
S_COMBINED_CHAMBER_SEPARATOR	CONTINUOUS	magenta	SEWER COMBINED CHAMBER SEPARATOR
S_COMBINED_CHANGE OF GRADE	CONTINUOUS	magenta	SEWER COMBINED CHANGE OF GRADE
S_COMBINED_CHANGE OF MATERIAL	CONTINUOUS	magenta	SEWER COMBINED CHANGE OF MATERIAL
S_COMBINED_CONNECTION	CONTINUOUS	magenta	SEWER COMBINED CONNECTION
S_COMBINED_CONNECTION_LBL	CONTINUOUS	magenta	SEWER COMBINED CONNECTION LABEL
S_COMBINED_CROSSOVER	CONTINUOUS	magenta	SEWER COMBINED CROSSOVER
S_COMBINED_DUMMYNODE	CONTINUOUS	magenta	SEWER COMBINED DUMMYNODE
S_COMBINED_FITTING_BEND	CONTINUOUS	magenta	SEWER COMBINED FITTING BEND
S_COMBINED_FITTING_BEND_LBL	CONTINUOUS	magenta	SEWER COMBINED FITTING BEND LABEL
S_COMBINED_FITTING_OUTFALL	CONTINUOUS	magenta	SEWER COMBINED FITTING OUTFALL
S_COMBINED_FITTING_OUTFALL_LBL	CONTINUOUS	magenta	SEWER COMBINED FITTING OUTFALL LABEL
S_COMBINED_FITTING_PLUG	CONTINUOUS	magenta	SEWER COMBINED FITTING PLUG
S_COMBINED_FITTING_REDUCER	CONTINUOUS	magenta	SEWER COMBINED FITTING REDUCER
S_COMBINED_FLOW_BOTTOMARROW	CONTINUOUS	magenta	SEWER COMBINED FLOW BOTTOMARROW
S_COMBINED_FLOW_LEFTARROW	CONTINUOUS	magenta	SEWER COMBINED FLOW LEFTARROW
S_COMBINED_FLOW_RIGHTARROW	CONTINUOUS	magenta	SEWER COMBINED FLOW RIGHTARROW
S_COMBINED_FLOW_TOPARROW	CONTINUOUS	magenta	SEWER COMBINED FLOW TOPARROW
S_COMBINED_MAIN	CONTINUOUS	magenta	SEWER COMBINED MAIN
S_COMBINED_MAIN_LBL	CONTINUOUS	magenta	SEWER COMBINED MAIN LABEL
S_COMBINED_MANHOLE	CONTINUOUS	magenta	SEWER COMBINED MANHOLE
S_COMBINED_MANHOLE_CLEANOUT	CONTINUOUS	magenta	SEWER COMBINED MANHOLE CLEANOUT
S_COMBINED_MANHOLE_CLEANOUT_LBL	CONTINUOUS	magenta	SEWER COMBINED MANHOLE CLEANOUT LABEL
S_COMBINED_MANHOLE_LAMPHOLE	CONTINUOUS	magenta	SEWER COMBINED MANHOLE LAMPHOLE
S_COMBINED_MANHOLE_LAMPHOLE_LBL	CONTINUOUS	magenta	SEWER COMBINED MANHOLE LAMPHOLE LABEL
S_COMBINED_MANHOLE_LBL	CONTINUOUS	magenta	SEWER COMBINED MANHOLE LABEL
S_COMBINED_RAMP	CONTINUOUS	magenta	SEWER COMBINED RAMP
S_COMBINED_RAMP_LBL	CONTINUOUS	magenta	SEWER COMBINED RAMP LABEL
S_COMBINED_VALVE_AIR	CONTINUOUS	magenta	SEWER COMBINED VALVE AIR
S_COMBINED_VALVE_BACKWATER	CONTINUOUS	magenta	SEWER COMBINED VALVE BACKWATER
S_COMBINED_VALVE_CHECK	CONTINUOUS	magenta	SEWER COMBINED VALVE CHECK
S_COMBINED_VALVE_FLAPGATE	CONTINUOUS	magenta	SEWER COMBINED VALVE FLAPGATE
S_COMBINED_VALVE_GATE	CONTINUOUS	magenta	SEWER COMBINED VALVE GATE
S_COMBINED_VALVE_HTCTANK	CONTINUOUS	magenta	SEWER COMBINED VALVE HTCTANK
S_COMBINED_VALVE_TIDEGATE	CONTINUOUS	magenta	SEWER COMBINED VALVE TIDEGATE
S_DIMENSION	CONTINUOUS	white	SEWER DIMENSION
S_DIMENSION_LEADER	CONTINUOUS	45	SEWER DIMENSION LEADER
S_PUMP_STATION	CONTINUOUS	cyan	SEWER PUMP STATION
S_PUMP_STATION_LBL	CONTINUOUS	cyan	SEWER PUMP STATION LABEL
S_SANITARY_ANNOTATION_LEFTARROW	CONTINUOUS	red	SEWER SANITARY ANNOTATION LEFTARROW
S_SANITARY_ANNOTATION_RIGHTARROW	CONTINUOUS	red	SEWER SANITARY ANNOTATION RIGHTARROW
S_SANITARY_ANNOTATION_STRAIGHTARROW	CONTINUOUS	red	SEWER SANITARY ANNOTATION STRAIGHTARROW
S_SANITARY_CATCHBASIN_SUMP	CONTINUOUS	red	SEWER SANITARY CATCHBASIN SUMP

Layer name	Line type	Colour	Description
S_SANITARY_CATCHBASIN_SUMP_LBL	CONTINUOUS	red	SEWER SANITARY CATCHBASIN SUMP LABEL
S_SANITARY_CHAMBER_ENERGYDISSIPATOR	CONTINUOUS	red	SEWER SANITARY CHAMBER ENERGYDISSIPATOR
S_SANITARY_CHAMBER_GRIT	CONTINUOUS	red	SEWER SANITARY CHAMBER GRIT
S_SANITARY_CHAMBER_JUNCTION	CONTINUOUS	red	SEWER SANITARY CHAMBER JUNCTION
S_SANITARY_CHAMBER_SEPARATOR	CONTINUOUS	red	SEWER SANITARY CHAMBER SEPARATOR
S_SANITARY_CHANGEOFGRADE	CONTINUOUS	red	SEWER SANITARY CHANGEOFGRADE
S_SANITARY_CHANGEOFMATERIAL	CONTINUOUS	red	SEWER SANITARY CHANGEOFMATERIAL
S_SANITARY_CONNECTION	CONTINUOUS	red	SEWER SANITARY CONNECTION
S_SANITARY_CONNECTION_LBL	CONTINUOUS	red	SEWER SANITARY CONNECTION LABEL
S_SANITARY_CROSSOVER	CONTINUOUS	red	SEWER SANITARY CROSSOVER
S_SANITARY_DUMMYNODE	CONTINUOUS	red	SEWER SANITARY DUMMYNODE
S_SANITARY_FITTING_BEND	CONTINUOUS	red	SEWER SANITARY FITTING BEND
S_SANITARY_FITTING_BEND_LBL	CONTINUOUS	red	SEWER SANITARY FITTING BEND LABEL
S_SANITARY_FITTING_PLUG	CONTINUOUS	red	SEWER SANITARY FITTING PLUG
S_SANITARY_FITTING_REDUCER	CONTINUOUS	red	SEWER SANITARY FITTING REDUCER
S_SANITARY_MAIN	CONTINUOUS	red	SEWER SANITARY MAIN
S_SANITARY_MAIN_LBL	CONTINUOUS	red	SEWER SANITARY MAIN LABEL
S_SANITARY_MANHOLE	CONTINUOUS	red	SEWER SANITARY MANHOLE
S_SANITARY_MANHOLE_CLEANOUT	CONTINUOUS	red	SEWER SANITARY MANHOLE CLEANOUT
S_SANITARY_MANHOLE_CLEANOUT_LBL	CONTINUOUS	red	SEWER SANITARY MANHOLE CLEANOUT LABEL
S_SANITARY_MANHOLE_LAMPHOLE	CONTINUOUS	red	SEWER SANITARY MANHOLE LAMPHOLE
S_SANITARY_MANHOLE_LAMPHOLE_LBL	CONTINUOUS	red	SEWER SANITARY MANHOLE LAMPHOLE LABEL
S_SANITARY_MANHOLE_LBL	CONTINUOUS	red	SEWER SANITARY MANHOLE LABEL
S_SANITARY_RAMP	CONTINUOUS	red	SEWER SANITARY RAMP
S_SANITARY_RAMP_LBL	CONTINUOUS	red	SEWER SANITARY RAMP LABEL
S_SANITARY_VALVE_AIR	CONTINUOUS	red	SEWER SANITARY VALVE AIR
S_SANITARY_VALVE_BACKWATER	CONTINUOUS	red	SEWER SANITARY VALVE BACKWATER
S_SANITARY_VALVE_CHECK	CONTINUOUS	red	SEWER SANITARY VALVE CHECK
S_SANITARY_VALVE_FLAPGATE	CONTINUOUS	red	SEWER SANITARY VALVE FLAPGATE
S_SANITARY_VALVE_GATE	CONTINUOUS	red	SEWER SANITARY VALVE GATE
S_SANITARY_VALVE_HTCTANK	CONTINUOUS	red	SEWER SANITARY VALVE HTCTANK
S_SANITARY_VALVE_TIDEGATE	CONTINUOUS	red	SEWER SANITARY VALVE TIDEGATE
S_STORM_ANNOTATION_LEFTARROW	CONTINUOUS	green	SEWER STORM ANNOTATION LEFTARROW
S_STORM_ANNOTATION_RIGHTARROW	CONTINUOUS	green	SEWER STORM ANNOTATION RIGHTARROW
S_STORM_ANNOTATION_STRAIGHTARROW	CONTINUOUS	green	SEWER STORM ANNOTATION STRAIGHTARROW
S_STORM_CATCHBASIN	CONTINUOUS	green	SEWER STORM CATCHBASIN
S_STORM_CATCHBASIN_LBL	CONTINUOUS	green	SEWER STORM CATCHBASIN LABEL
S_STORM_CATCHBASIN_SUMP	CONTINUOUS	green	SEWER STORM CATCHBASIN SUMP
S_STORM_CATCHBASIN_SUMP_LBL	CONTINUOUS	green	SEWER STORM CATCHBASIN SUMP LABEL
S_STORM_CHAMBER_ENERGYDISSIPATOR	CONTINUOUS	green	SEWER STORM CHAMBER ENERGYDISSIPATOR
S_STORM_CHAMBER_GRIT	CONTINUOUS	green	SEWER STORM CHAMBER GRIT
S_STORM_CHAMBER_JUNCTION	CONTINUOUS	green	SEWER STORM CHAMBER JUNCTION
S_STORM_CHAMBER_SEPARATOR	CONTINUOUS	green	SEWER STORM CHAMBER SEPARATOR
S_STORM_CHANGEOFGRADE	CONTINUOUS	green	SEWER STORM CHANGEOFGRADE
S_STORM_CHANGEOFMATERIAL	CONTINUOUS	green	SEWER STORM CHANGEOFMATERIAL
S_STORM_CONNECTION	CONTINUOUS	green	SEWER STORM CONNECTION
S_STORM_CONNECTION_LBL	CONTINUOUS	green	SEWER STORM CONNECTION LABEL
S_STORM_CROSSOVER	CONTINUOUS	green	SEWER STORM CROSSOVER
S_STORM_DUMMYNODE	CONTINUOUS	green	SEWER STORM DUMMYNODE
S_STORM_FITTING_BEND	CONTINUOUS	green	SEWER STORM FITTING BEND
S_STORM_FITTING_BEND_LBL	CONTINUOUS	green	SEWER STORM FITTING BEND LABEL

Layer name	Line type	Colour	Description
S_STORM_FITTING_OUTFALL	CONTINUOUS	green	SEWER STORM FITTING OUTFALL
S_STORM_FITTING_OUTFALL_LBL	CONTINUOUS	green	SEWER STORM FITTING OUTFALL LABEL
S_STORM_FITTING_PLUG	CONTINUOUS	green	SEWER STORM FITTING PLUG
S_STORM_FITTING_REDUCER	CONTINUOUS	green	SEWER STORM FITTING REDUCER
S_STORM_MAIN	CONTINUOUS	green	SEWER STORM MAIN
S_STORM_MAIN_LBL	CONTINUOUS	green	SEWER STORM MAIN LABEL
S_STORM_MANHOLE	CONTINUOUS	green	SEWER STORM MANHOLE
S_STORM_MANHOLE_CLEANOUT	CONTINUOUS	green	SEWER STORM MANHOLE CLEANOUT
S_STORM_MANHOLE_CLEANOUT_LBL	CONTINUOUS	green	SEWER STORM MANHOLE CLEANOUT LABEL
S_STORM_MANHOLE_LAMPHOLE	CONTINUOUS	green	SEWER STORM MANHOLE LAMPHOLE
S_STORM_MANHOLE_LAMPHOLE_LBL	CONTINUOUS	green	SEWER STORM MANHOLE LAMPHOLE LABEL
S_STORM_MANHOLE_LBL	CONTINUOUS	green	SEWER STORM MANHOLE LABEL
S_STORM_RAMP	CONTINUOUS	green	SEWER STORM RAMP
S_STORM_RAMP_LBL	CONTINUOUS	green	SEWER STORM RAMP LABEL
S_STORM_VALVE_AIR	CONTINUOUS	green	SEWER STORM VALVE AIR
S_STORM_VALVE_BACKWATER	CONTINUOUS	green	SEWER STORM VALVE BACKWATER
S_STORM_VALVE_CHECK	CONTINUOUS	green	SEWER STORM VALVE CHECK
S_STORM_VALVE_FLAPGATE	CONTINUOUS	green	SEWER STORM VALVE FLAPGATE
S_STORM_VALVE_GATE	CONTINUOUS	green	SEWER STORM VALVE GATE
S_STORM_VALVE_HTCTANK	CONTINUOUS	green	SEWER STORM VALVE HTC TANK
S_STORM_VALVE_TIDEGATE	CONTINUOUS	green	SEWER STORM VALVE TIDEGATE

15.8 Water Base Layers

Layer name	Line type	Colour	Description
W_ABANDONED_CHAMBER	DASHED	WHITE	Abandoned Chamber
W_ABANDONED_LATERAL_HYDRANTFEEDER	DASHED	WHITE	Abandoned Hydrant Feeder
W_ABANDONED_LATERAL_SERVICE	DASHED	WHITE	Abandoned Water Service
W_ABANDONED_MAIN	DASHED	WHITE	Abandoned Water Main
W_DFPS_CONTROLVALVE_HYDRANTFEEDER	DASHED	9	DFPS Control Valve
W_DFPS_CONTROLVALVE_LARGE	DASHED	9	DFPS Large Control Valve
W_DFPS_FIREHYDRANT	DASHED	9	DFPS Fire Hydrant
W_DFPS_FITTING_BEND	DASHED	9	DFPS Bend
W_DFPS_FITTING_REDUCER	DASHED	9	DFPS Reducer
W_DFPS_LATERAL_HYDRANTFEEDER	CONTINUOUS	9	DFPS Hydrant Feeder
W_DFPS_MAIN	CONTINUOUS	9	Distribution Water Main
W_DISTRIBUTION_CHAMBER	CONTINUOUS	BLUE	Distribution Chamber
W_DISTRIBUTION_CONTROLVALVE_HYDRANTFEEDER	CONTINUOUS	BLUE	Distribution Control Valve for Hydrant Feeder
W_DISTRIBUTION_CONTROLVALVE_SERVICE	CONTINUOUS	BLUE	Distribution Control Valve for Service
W_DISTRIBUTION_CONTROLVALVE_SMALL	CONTINUOUS	BLUE	Small Distribution Control Valve
W_DISTRIBUTION_FIREHYDRANT	CONTINUOUS	BLUE	Distribution Fire Hydrant
W_DISTRIBUTION_FITTING_BEND	CONTINUOUS	BLUE	Distribution Bend
W_DISTRIBUTION_FITTING_REDUCER	CONTINUOUS	BLUE	Distribution Reducer
W_DISTRIBUTION_LATERAL_HYDRANTFEEDER	CONTINUOUS	BLUE	Distribution Lateral Hydrant Feeder
W_DISTRIBUTION_LATERAL_SERVICE	CONTINUOUS	BLUE	Distribution Lateral Service
W_DISTRIBUTION_MAIN	CONTINUOUS	BLUE	Distribution Water Main
W_DISTRIBUTION_METER	CONTINUOUS	BLUE	Distribution Meter
W_DISTRIBUTION_PIGOUT	CONTINUOUS	BLUE	Distribution Pigout
W_DISTRIBUTION_SAMPLINGSTATION	CONTINUOUS	BLUE	Distribution Sampling Station
W_PRESSURE_ZONE	CONTINUOUS	BLUE	Water Pressure Zone

Layer name	Line type	Colour	Description
W_TRANSMISSION_AIRVALVE	CONTINUOUS	BLUE	Transmission Air Valve
W_TRANSMISSION_BACKFLOWPREVENTION	CONTINUOUS	BLUE	Transmission Backflow Prevention
W_TRANSMISSION_BLOWOFF	CONTINUOUS	BLUE	Transmission Blowoff
W_TRANSMISSION_CASINGPIPE	CONTINUOUS	BLUE	Transmission Casing Pipe
W_TRANSMISSION_CHAMBER_DOUBLECHECK	CONTINUOUS	BLUE	Transmission Chamber Double Check Valve
W_TRANSMISSION_CHAMBER_LARGE_VALVE	CONTINUOUS	BLUE	Large Transmission Chamber Valve
W_TRANSMISSION_CHAMBER_METER	CONTINUOUS	BLUE	Transmission Chamber Meter
W_TRANSMISSION_CHAMBER_PRVSTATION	CONTINUOUS	BLUE	Transmission Chamber PRV Station
W_TRANSMISSION_CHAMBER_RECHLORINATION	CONTINUOUS	BLUE	Transmission Re-chlorination Chamber
W_TRANSMISSION_CONTROLVALVE_HYDRANTFEEDER	CONTINUOUS	BLUE	Transmission Control Valve for Hydrant Feeder
W_TRANSMISSION_CONTROLVALVE_LARGE	CONTINUOUS	BLUE	Large Transmission Control Valve
W_TRANSMISSION_CONTROLVALVE_SERVICE	CONTINUOUS	BLUE	Transmission Service Control Valve
W_TRANSMISSION_FIREHYDRANT	CONTINUOUS	BLUE	Transmission Fire Hydrant
W_TRANSMISSION_FITTING_BEND	CONTINUOUS	BLUE	Transmission Bend
W_TRANSMISSION_FITTING_REDUCER	CONTINUOUS	BLUE	Transmission Reducer
W_TRANSMISSION_LATERAL_HYDRANTFEEDER	CONTINUOUS	BLUE	Transmission Hydrant Feeder
W_TRANSMISSION_LATERAL_SERVICE	CONTINUOUS	BLUE	Transmission Service
W_TRANSMISSION_MAIN	CONTINUOUS	BLUE	Transmission Main
W_TRANSMISSION_PRVSTATION	CONTINUOUS	BLUE	Transmission PRV Station

15.9 Transportation Base Layers

Layer name	LineType	Colour	Description
T_BOLLARD	CONTINUOUS	BLACK	Bollard
T_CB	CONTINUOUS	110	Catch Basin
T_CROSSING	CONTINUOUS	BLACK	Crossing
T_DWAY	CONTINUOUS	130	Driveway
T_EASE	CONTINUOUS	111	Easement
T_EOP	CONTINUOUS	8	Edge of Pavement
T_FENCE	DASHDOT2	42	Fence
T_GUTTER	CONTINUOUS	CYAN	Gutter
T_HYDRANT	CONTINUOUS	BLUE	Hydrant
T_PAINT_WHITE	CONTINUOUS	6	White Paint
T_PAINT_YELLOW	CONTINUOUS	2	Yellow Paint
T_PAINT_rm	CONTINUOUS	RED	Paint to be removed
T_PARKING_REGS	CONTINUOUS	BLACK	Parking Regulations
T_POLE	CONTINUOUS	BLACK	Pole
T_PROP_LINE	CONTINUOUS	80	Property Line
T_RAMP	CONTINUOUS	BLACK	Curb Ramp
T_RETW	CONTINUOUS	200	Retaining Wall
T_SIGN	CONTINUOUS	BLACK	Sign
T_SPEEDHUMP	CONTINUOUS	110	Speedhump
T_SW	CONTINUOUS	140	Sidewalk
T_TREE	CONTINUOUS	BLACK	Tree

15.10 Utility Base Layers

Layer Name	Linetype	Colour	Description
U_GAS_MAIN	CONTINUOUS	WHITE	Terasen Gas Main

Layer Name	Linetype	Colour	Description
U_GAS_MAIN_ABANDONED	CONTINUOUS	WHITE	Abandoned Gas Main
U_HYDRO_DISTRIBUTION_BOX	CONTINUOUS	241	Hydro Distribution Box
U_HYDRO_DISTRIBUTION_DUCT	CONTINUOUS	241	Hydro Distribution Duct
U_HYDRO_DISTRIBUTION_MANHOLE	CONTINUOUS	241	Hydro Distribution Manhole
U_HYDRO_DISTRIBUTION_POLE	CONTINUOUS	241	Hydro Distribution Pole
U_HYDRO_DISTRIBUTION_STUB	CONTINUOUS	241	Hydro Distribution Stub
U_HYDRO_DUCT_ABANDONED	CONTINUOUS	241	Abandoned Hydro Distribution Duct
U_HYDRO_SUBSTATION	CONTINUOUS	241	Hydro Substation
U_HYDRO_TRANSMISSION_DUCT	CONTINUOUS	241	Hydro Transmission Duct
U_RESERVED_CORRIDOR	CONTINUOUS	80	Utility Reserved Corridor
U_STEAMHEAT_CHAMBER	CONTINUOUS	113	Steamheat Chamber
U_STEAMHEAT_MANHOLE	CONTINUOUS	113	Steamheat Manhole
U_STEAMHEAT_PIPE	CONTINUOUS	113	Steamheat Pipe
U_TELCO_BOX_SHAW_CABLE	CONTINUOUS	40	Shaw Cable Box
U_TELCO_BOX_TELUS	CONTINUOUS	40	Telus Box
U_TELCO_BOX_UNITEL	CONTINUOUS	40	Unitel Box
U_TELCO_BOX_URBAN_NETWORKS	CONTINUOUS	40	Urban Networks Box
U_TELCO_DUCT_360NETWORKS	CONTINUOUS	40	360 Networks Duct
U_TELCO_DUCT_ABANDONED	CONTINUOUS	40	Abandoned Duct
U_TELCO_DUCT_ALL_STREAM	CONTINUOUS	40	All Stream Duct
U_TELCO_DUCT_BELL_WEST	CONTINUOUS	40	Bell West Duct
U_TELCO_DUCT_LONDON_CONNECT	CONTINUOUS	40	London Connect Duct
U_TELCO_DUCT_NOVUS	CONTINUOUS	40	Novus Duct
U_TELCO_DUCT_SHAW_CABLE	CONTINUOUS	40	Shaw Cable Duct
U_TELCO_DUCT_TELUS	CONTINUOUS	40	Telus Duct
U_TELCO_DUCT_TERASPAN	CONTINUOUS	40	Teraspan Duct
U_TELCO_DUCT_URBAN_NETWORKS	CONTINUOUS	40	Urban Networks Duct
U_TELCO_MANHOLE_360_NETWORKS	CONTINUOUS	40	360 Networks Duct
U_TELCO_MANHOLE_ALL_STREAM	CONTINUOUS	40	All Stream Manhole
U_TELCO_MANHOLE_NOVUS	CONTINUOUS	40	Novus Manhole
U_TELCO_MANHOLE_SHAW_CABLE	CONTINUOUS	40	Shaw Cable Manhole
U_TELCO_MANHOLE_TELUS	CONTINUOUS	40	Telus Manhole
U_TELCO_MANHOLE_UNITEL	CONTINUOUS	40	Unitel Manhole
U_TELCO_MANHOLE_URBAN_NETWORKS	CONTINUOUS	40	Urban Networks Manhole
U_TELCO_POLE_SHAW_CABLE	CONTINUOUS	40	Shaw Cable Pole
U_TELCO_POLE_TELUS	CONTINUOUS	40	Telus Pole

15.11 Information Services

Layer name	Line type	Colour	Description
GEO_LANE_3D	CONTINUOUS	9	3D Lane Centerlines
GEO_STREET_3D	CONTINUOUS	WHITE	3d Street Centerlines

15.12 Point Layers for Land Development Desktop / Civil 3D

Point Layer	Symbol	Symbol Layer	Description
PT_ABUTMENT			ABUTMENT+
PT_AIRON	AIRON	P_AIRON	AIRON
PT_ALPOST	ALPOST	P_ALPOST	ALPOST

Point Layer	Symbol	Symbol Layer	Description
PT_APRON			APRON+
PT_ASPHCURB			ASPHCURB+
PT_ASPHGUT			ASPHGUT+
PT_ASPHPAD			ASPHPAD+
PT_ASPHW			ASPHWALK+
PT_BACKSTOP			BACKSTOP+
PT_BARRIER			BARRIER+
PT_BASELINE			BASELINE+
PT_BBANK			BBANK+
PT_BENCH	BENCHL	ST_FIX_BENCH	BENCH
PT_BENCH	BENCHR	ST_FIX_BENCH	BENCH
PT_BG			BG
PT_BIKERACK	BIKERAKL	ST_FIX_BIKERACK	BIKERACK
PT_BIKERACK	BIKERAKR	ST_FIX_BIKERACK	BIKERACK
PT_BLDG			BLDG+
PT_BLVD			BLVD+
PT_BOLLARD	BOLLARDL	ST_FIX_BOLLARD	BOLLARD
PT_BOLLARD	BOLLARDR	ST_FIX_BOLLARD	BOLLARD
PT_BUS			BUS_SHLTR
PT_CAPPOST	CAPPOSTF	P_CAPPOST	CPOST
PT_CB	CB	ST_CB	CB
PT_CB	CBL	ST_CB	CB+
PT_CB	CBR	ST_CB	CB+
PT_CB_DESIGN	CBDL	ST_DESIGN_CB	DESIGNCB
PT_CB_DESIGN	CBDR	ST_DESIGN_CB	DESIGNCB
PT_CL			CL+
PT_CNTRMON	CNTRMON	P_CNTRMON	\$*
PT_COLUMN			COLUMN+
PT_COMPOST			COMPOST
PT_CONCBOX			CONCBOX
PT_CONCPAD			CONCPAD+
PT_CONCSIGN			CONCSIGN
PT_CONTROL	STA	P_CONTROL_PNT	*
PT_CPOST	CAPPOSTP	P_CAPPOST	CPOST
PT_CULVERT			CULVERT
PT_CURB			CURB+
PT_CW			BW+
PT_CW			FW+
PT_DITCH			DITCH+
PT_DLSIPOST	DLSIPOST	P_DLSIPOST	DLSIP
PT_DOWNPIPE			DOWNPIPE
PT_DUGOUT			DUGOUT+
PT_DWAY			DWAY+
PT_ENTW			ENTW+
PT_ENTW			STEPS
PT_EOP			EOP+
PT_FENCE			FENCE+
PT_FLAGPOLE	TPOLEL	ST_FIX_FLAGPOLE	FLAGPOLE

Point Layer	Symbol	Symbol Layer	Description
PT_FLAGPOLE	TPOLER	ST_FIX_FLAGPOLE	FLAGPOLE
PT_FOOTING			FOOTING+
PT_GARAGE			GARAGE+
PT_GARBAGE			GARBAGE_BIN
PT_GAS_RECTIFIER			GAS_R_STA+
PT_GRAVEL			GRAVEL+
PT_GROUNDPOINT			GP+
PT_GUARDR			GUARDRAIL
PT_GUTTER			GUTTER+
PT_GVRD_METER			GVRD_METER+
PT_HEDGE			HEDGE+
PT_HYD	HYDL	W_HYD	HYD
PT_HYD	HYDR	W_HYD	HYD
PT_IRON_P	IRON_P	P_IRON_P	IRON_P
PT_IRON_P	IRON_PP	P_IRON_P	IRON_P
PT_JBOX	E_JBOX	E_JBOX	JBOX
PT_JBOX	E_JBOXR	E_JBOX	JBOX
PT_KIOSK			\$*
PT_LANE LINE			LANEL+
PT_LEAD_P	LEAD_P	P_LEAD_P	LEAD_P
PT_LEAD_P	LEAD_PP	P_LEAD_P	LEAD_P
PT_MH_GVRD	MH	GVRD_MH	GVRD_MH+
PT_MH_H	MH	H_MH	H_MH+
PT_MH_S	MH	S_MH	S_MH+
PT_MH_T	MH	T_MH	T_MH+
PT_MH_W	MH	W_MH	W_MH+
PT_MON	MON	P_MON	\$*
PT_NSRIPOST	NSRIPOST	P_NSRIPOST	NSRIP
PT_NSSIPOST	NSSIPOST	P_NSSIPOST	NSSIP
PT_OFFSET			\$*+
PT_OLS	OLSL	SL_OLS	LAMP STANDARD
PT_OLS	OLSR	SL_OLS	LAMP STANDARD
PT_PATIO			PATIO
PT_PCON	PCONF	P_PCON	PCON
PT_PCON	PCONP	P_PCON	PCON
PT_PEDPOLE	PEDPOLEL	E_PEDPOLE	PEDPOLE
PT_PEDPOLE	PEDPOLER	E_PEDPOLE	PEDPOLE
PT_PI			PI+
PT_PL			PL+
PT_PLANTER			PLANTER
PT_POLE	PANCHOR	H_POLE	PANCHOR
PT_POLE	POLEL	H_POLE	POLE
PT_POLE	POLER	H_POLE	POLE
PT_POST	WPOSTP	P_WPOST	WPOST
PT_PRKMETER	PMETERDL	TR_PRKMETER	PMETER_D
PT_PRKMETER	PMETERDR	TR_PRKMETER	PMETER_D
PT_PRKMETER	PMETERSL	TR_PRKMETER	PMETER_S
PT_PRKMETER	PMETERSR	TR_PRKMETER	PMETER_S

Point Layer	Symbol	Symbol Layer	Description
PT_PROCK	PROCKF	P_PROCK	PROCK
PT_PROCK	PROCKP	P_PROCK	PROCK
PT_RETW			RETW_B+
PT_RETW			RETW_T+
PT_RRPOLE	TSIGNL	RR_POLE	RRPOLE
PT_RRPOLE	TSIGNR	RR_POLE	RRPOLE
PT_SANDBOX			SANDBOX
PT_SCRW			SCRW+
PT_SHORE			SHORE+
PT_TBANK			TBANK+
PT_TPOLE	TPOLEL	H_TPOLE	TPOLE
PT_TPOLE	TPOLER	H_TPOLE	TPOLE
PT_TR_CIRCLE			TR_CIRCLE+
PT_TRACKS			RRTRACKS+
PT_TRAIL			TRAIL+
PT_TRAVHUB	TRAVHUB	P_TRAVHUB	TRAVHUB
PT_TRAVHUB	TRAVHUBP	P_TRAVHUB	TRAVHUB
PT_TREE	BUSHL	ST_TREE	BUSH
PT_TREE	BUSHR	ST_TREE	BUSH
PT_TREE	TREEL	ST_TREE	TREE
PT_TREE	TREER	ST_TREE	TREE
PT_TSIGN	TSIGNL	TR_TSIGN	TSIGN
PT_TSIGN	TSIGNR	TR_TSIGN	TSIGN
PT_UNMRKPNT	UNMRKPNT	P_UNMRKPNT	UNMRKPNT
PT_VALVE_G	VALVE	G_VALVE	VALVEG
PT_VALVE_W	VALVE	W_VALVE	VALVEW
PT_VENTSTK_GVRD	VENTGL	GVRD_VENTSTK	GVRD_VENT
PT_VENTSTK_GVRD	VENTGR	GVRD_VENTSTK	GVRD_VENT
PT_VENTSTK_W	VENTWL	W_VENTSTK	W_VENT
PT_VENTSTK_W	VENTWR	W_VENTSTK	W_VENT
PT_W_CHAMBER	WCHMBR	W_CHAMBER	W_CHAMBER
PT_WCURB			WCURB+
PT_WHLCHR			WHLCHR_R+
PT_WOODWALK			WOODBW+
PT_WPOST	WPOSTF	P_WPOST	WPOST
PT_WTMAIN			WTMAIN
PT_XING			XING+

15.13 Landfill Point Layers

Point Layer	Point Style	Point Label Style	Description
PT_ASBESTOS	ASBESTOS	ASBESTOS	ASBESTOS+
PT_ASPHCURB	ASPHCURB	ASPHCURB	ASPHCURB+
PT_ASPHGUT	ASPHGUT	ASPHGUT	ASPHGUT+
PT_AIRON	AIRON	AIRON	AIRON
PT_ALPOST	ALPOST	ALPOST	ALPOST
PT_APRON	APRON	APRON	APRON+
PT_ASPHPAD	ASPHPAD	ASPHPAD	ASPHPAD+
PT_ASPHW	ASPHWALK	ASPHWALK	ASPHWALK+

Point Layer	Point Style	Point Label Style	Description
PT_G_BEND	G_BEND	G_BEND	\$*
PT_G_BALL_VALVE	G_BALL_VALVE	G_BALL_VALVE	G_BALL_VLV
PT_G_BRANCH_SADDLE_CONNECTION	G_BRANCH_SADDLE	G_BRANCH_SADDLE	G_BRH_SADDLE
PT_BARRIER	BARRIER	BARRIER	BARRIER+
PT_BASELINE	BASELINE	BASELINE	BASELINE+
PT_BLDG	BLDG	BLDG	BLDG+
PT_BENCH	BENCHL	BENCHL	BENCH
PT_BENCH	BENCHR	BENCHR	BENCH
PT_BBANK	BBANK	BBANK	BBANK+
PT_BOLLARD	BOLLARDL	BOLLARDL	BOLLARD
PT_BOLLARD	BOLLARDR	BOLLARDR	BOLLARD
PT_BRICK	BRICKPAVERS	BRICKPAVERS	BRICKPAVERS+
PT_BIKERACK	BIKERACKL	BIKERACKL	BIKERACK
PT_BIKERACK	BIKERACKR	BIKERACKR	BIKERACK
PT_TREE	BUSHL	BUSHL	BUSH
PT_TREE	BUSHR	BUSHR	BUSH
PT_CW	BW	BW	BW+
PT_G_CI_BUTTERFLY_VALVE	G_CI_BUTTERFLY_VALVE	G_CI_BUTTERFLY_VALVE	G_CI_BFLY_VLV
PT_G_CTRAP	G_CTRAP	G_CTRAP	G_CTRAP+
PT_G_DESIGN_CTRAP	G_DESIGN_CTRAP	G_DESIGN_CTRAP	DS_G_CTRAP+
PT_CB	CB	CB	CB
PT_CB_DESIGN	CBDL	CBDL	DESIGNCB
PT_CB_DESIGN	CBDR	CBDR	DESIGNCB
PT_CB	CBL	CBL	CB+
PT_CONCBOX	CONCBOX	CONCBOX	CONCBOX
PT_CB	CBR	CBR	CB+
PT_CB	CBSM	CBSM	CBSMALL
PT_CHAMBER	CHAMBER_FIG	CHAMBER_FIG	CHAMBER
PT_CHAMBER	CHAMBER	CHAMBER	CHAMBER
PT_CL	CL	CL	CL+
PT_CNTRMON	CNTRMON	CNTRMON	\$*
PT_CONCPAD	CONCPAD	CONCPAD	CONCPAD+
PT_COMPOST	COMPOST	COMPOST	COMPOST
PT_CONTROL	CNTRPT	CNTRPT	\$*
PT_CURB	CURB	CURB	CURB+
PT_CULVERT	CULVERT	CULVERT	CULVERT
PT_G_DRAINAGE_PIPE	G_DRAINAGE_PIPE	G_DRAINAGE_PIPE	G_DRAIN_PIPE
PT_G_DESIGN_DRAINAGE_PIPE	G_DESIGN_DRAINAGE_PIPE	G_DESIGN_DRAINAGE_PIPE	DS_G_DRAIN_PIPE
PT_DITCH	DITCH	DITCH	DITCH+
PT_DLSIPOST	DLSIP	DLSIP	DLSIP
PT_DWAY	DRIVEWAY	DRIVEWAY	DWAY+
PT_G_END_CAP	G_END_CAP	G_END_CAP	G_END_CAP
PT_EOP	EOP	EOP	EOP+
PT_ENTW	ENTW	ENTW	ENTW+
FG_POINT	<default>	<default>	\$*
PT_G_FLANGE	G_FLANGE	G_FLANGE	\$*
PT_G_FLANGE_NITRILE_GASKET	G_FLANGE_NITRILE_GASKET	G_FLANGE_NITRILE_GASKET	G_FLNG_NTRL_GSKT
PT_CAPPOST	CAPPOSTF	CAPPOSTF	CPOST
PT_FENCE	FENCE	FENCE	FENCE+
PT_HYD	HYDL	HYDL	HYD
PT_HYD	HYDR	HYDR	HYD
PT_FLAGPOLE	FLAGPOLEL	FLAGPOLEL	FLAGPOLE

Point Layer	Point Style	Point Label Style	Description
PT_FLAGPOLE	FLAGPOLER	FLAGPOLER	FLAGPOLE
PT_FOOTING	FOOTING	FOOTING	FOOTING+
PT_CW	FW	FW	FW+
PT_G_WELL	G_WELL	G_WELL	G_WELL
PT_G_WELL_DESIGN	G_DESIGN_WELL	G_DESIGN_WELL	DS_G_WELL
PT_G_GATE_VALVE	G_GATE_VALVE	G_GATE_VALVE	G_GATE_VLV
PT_G_PIPE	G_PIPE	G_PIPE	G_PIPE
PT_G_DESIGN_PIPE	G_DESIGN_PIPE	G_DESIGN_PIPE	DS_G_PIPE
PT_GARAGE	GARAGE	GARAGE	GARAGE+
PT_GAS_RECTIFIER	GAS_R_STA	GAS_R_STA	GAS_R_STA+
PT_GARBAGE	GARBAGE_BIN	GARBAGE_BIN	GARBAGE_BIN
PT_GROUND_PNT	GP	GP	GP+
PT_GRAVEL	GRAVEL	GRAVEL	GRAVEL+
PT_GUTTER	GUTTER	GUTTER	GUTTER+
PT_GVRD_METER	GVRD_METER	GVRD_METER	GVRD_METER+
PT_HEDGE	HEDGE	HEDGE	HEDGE+
PT_IRON_P	IP	IP	IRON_P
PT_IRON_P	IPP	IPP	IRON_P
PT_JBOX	JBOX	JBOX	JBOX
PT_JBOX	JBOXR	JBOXR	JBOX
PT_KIOSK	KIOSK	KIOSK	KIOSK
PT_KIOSK	KIOSKL	KIOSKL	KIOSK
PT_KIOSK	KIOSKR	KIOSKR	KIOSK
PT_G_LEACHATE_PIPE	G_LEACHATE_PIPE	G_LEACHATE_PIPE	G_LEACH_PIPE
PT_G_DESIGN_LEACHATE_PIPE	G_DESIGN_LEACHATE_PIPE	G_DESIGN_LEACHATE_PIPE	DS_G_LEACH_PIPE
PT_G_LABCOCK	G_LABCOCK	G_LABCOCK	G_LABCOCK
PT_LEAD_P	LP	LP	LEAD_P
PT_LEAD_P	LPP	LPP	LEAD_P
PT_MH_GVRD	GVRD_MH	GVRD_MH	GVRD_MH+
PT_MH_H	MHH	MHH	H_MH+
PT_MH_S	MHS	MHS	SMH+
PT_MH_T	MHT	MHT	T_MH+
PT_MH_W	MHW	MHW	W_MH+
PT_MON	MONUMENT	MONUMENT	\$*
PT_NSRIPOST	NSRIP	NSRIP	NSRIP
PT_NSSIPOST	NSSIP	NSSIP	NSSIP
PT_OFFSET	OS	OS	\$*+
PT_G_PITOT_TUBE	G_PITOT_TUBE	G_PITOT_TUBE	G_PITOT_TUBE
PT_POLE	PANCH	PANCH	PANCHOR
PT_PCON	PCON	PCON	PCON
PT_PCON	PCONP	PCONP	PCON
PT_CAPPOST	PCP	PCP	CPOST
PT_PI	PI	PI	PI+
PT_PK	PARKINGLOT	PARKINGLOT	PARKINGLOT+
PT_PL	PL	PL	PL+
PT_POLE	POLEL	POLEL	POLE
PT_POLE	POLER	POLER	POLE
PT_PROCK	PROCK	PROCK	PROCK
PT_PROCK	PROCKP	PROCKP	PROCK
PT_PLANTER	PLANTER	PLANTER	PLANTER
PT_G_REDUCER	G_REDUCER	G_REDUCER	G_REDUCER
PT_RETW	RETW_B	RETW_B	RETW_B+

Point Layer	Point Style	Point Label Style	Description
PT_RETW	RETW_T	RETW_T	RETW_T+
LF_S	<default>	<default>	0
PT_G_SAMPLE_PORT	G_SAMPLE_PORT	G_SAMPLE_PORT	G_SAMPLE_PORT
PT_G_SPACER	G_SPACER	G_SPACER	G_SPACER
PT_SCRW	SCREENWALK	SCREENWALK	SCRW+
PT_ENTW	STEPS	STEPS	STEPS
PT_G_TEE	G_TEE	G_TEE	G_TEE
PT_TRAVHUB	TRAVHUB	TRAVHUB	TRAVHUB
PT_TRAVHUB	TRAVHUBP	TRAVHUBP	TRAVHUB
PT_TBANK	TBANK	TBANK	TBANK+
PT_TRAIL	TRAIL	TRAIL	TRAIL+
PT_TREE	TREEL	TREEL	TREE
PT_TREE	TREER	TREER	TREE
PT_TSIGN	TSIGNL	TSIGNL	TSIGN
PT_TSIGN	TSIGNR	TSIGNR	TSIGN
PT_UNMRKPNT	UNMRKPNT	UNMRKPNT	UNMRKPNT
PT_VALVE_W	VALVE_W	VALVE_W	VALVE_W
PT_VENTSTK_GVRD	GVRD_VENTL	GVRD_VENTL	GVRD_VENT
PT_VENTSTK_GVRD	GVRD_VENTR	GVRD_VENTR	GVRD_VENT
PT_VENTSTK_W	W_VENTL	W_VENTL	W_VENT
PT_VENTSTK_W	W_VENTR	W_VENTR	W_VENT
PT_W_CHAMBER	W_CHAMBER	W_CHAMBER	W_CHAMBER
PT_WCURB	WCURB	WCURB	WCURB+
PT_WHLCHR	WHLCHR_R	WHLCHR_R	WHLCHR_R+
PT_WPOST	WPOST	WPOST	WPOST
PT_WPOST	WPOSTP	WPOSTP	WPOST
PT_WTMAIN	WTMAIN	WTMAIN	WTMAIN

16 Symbols














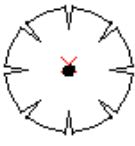









16.1 Survey Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES SURVEY SYMBOLS			
DESC. KEY	SYMBOL	SYMBOL NAME	DESCRIPTION
PCON		PCONF	STANDARD CONCRETE POST (FOUND)
PCONP		PCONP	STANDARD CONCRETE POST (PLACED)
PROCK		PROCKF	STANDARD ROCK POST (FOUND)
PROCKP		PROCKP	STANDARD ROCK POST (PLACED)
LP		LEAD_P	LEAD PLUG (FOUND)
LPP		LEAD_PP	LEAD PLUG (PLACED)
FCP		CAPPOSTF	STANDARD CAPPED POST (FOUND)
PCP		CAPPOSTP	STANDARD CAPPED POST (PLACED)
IP		IRON_P	STANDARD IRON POST (FOUND)
IPP		IRON_PP	STANDARD IRON POST (PLACED)
WO		WPOSTF	STANDARD WOODEN POST (FOUND)
WOP		WPOSTP	STANDARD WOODEN POST (PLACED)
CM*		CNTRLMON	CONTROL MONUMENT
DLSIP		DLSIPOST	OLD PATTERN DOMINION IRON POST
NSSIP		NSSIPOST	NON-STANDARD SQUARE IRON POST
NSRIP		NSRIPOST	NON-STANDARD ROUND POST
AI		AIRON	ANGLE IRON
AP		ALPOST	ALUMINUM POST
TH		TRAVHUBF	TRAVERSE HUB (FOUND)
THP		TRAVHUBP	TRAVERSE HUB (PLACED)
UMP		UNMRKPNT	UNMARKED MEASURED POINT
		MON_CAP	MONUMENT CAP
































16.2 Streets Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES STREETS SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	BENCHL	BENCH
	BENCHR	BENCH
	BOLLARDL	BOLLARD LEFT
	BOLLARDR	BOLLARD RIGHT
	BIKERAKL	BIKE RACK
	BIKERAKR	BIKE RACK
	BUSHL	BUSH LEFT
	BUSHR	BUSH RIGHT
	CB	CATCH BASIN
	CBDL	CATCH BASIN (DESIGN) LEFT
	CBDR	CATCH BASIN (DESIGN) RIGHT
	CBL	CATCH BASIN LEFT
	CBR	CATCH BASIN RIGHT
	STA	CONTROL POINT
	HYDL	HYDRANT LEFT
	HYDR	HYDRANT RIGHT
	TPOLEL	FLAGPOLE LEFT
	TPOLEL	FLAGPOLE RIGHT
	E_JBOX	JUNCTION BOX
	E_JBOXR	JUNCTION BOX
	MH	GVRD MH
	MH	HYDRO MH
	MH	SEWER MH
	MH	TEL MH
	MH	WATER MH
	MON	SURVEY MONUMENT (STS)
	QLSL	ORNAMENTAL LAMP STANDARD LEFT
	QLSR	ORNAMENTAL LAMP STANDARD RIGHT
	PANCHOR	UTILITY POLE ANCHOR

CITY OF VANCOUVER, ENGINEERING SERVICES
STREETS SYMBOLS

SYMBOL	SYMBOL NAME	DESCRIPTION
	PMETERDL	PMETER DBL_L
	PMETERDR	PMETER DBL_R
	PMETERSL	PMETER SNGL_L
	PMETERSR	PMETER SNGL_R
	POLEL	UTILITY POLE LEFT
	POLER	UTILITY POLE RIGHT
	PEDPOLEL	PEDESTRIAN POLE
	PEDPOLER	PEDESTRIAN POLE
	TSIGNL	RRPOLEL
	TSIGNR	RRPOLER
	TPOLEL	TROLLEY POLE LEFT
	TPOLER	TROLLEY POLE RIGHT
	TREEL	TREE LEFT
	TREER	TREE RIGHT
	TSIGNL	TRAFFIC SIGN LEFT
	TSIGNR	TRAFFIC SIGN RIGHT
	VALVE	VALVEG
	VALVE	VALVEW
	VENTGL	GVRD_VENT
	VENTGR	GVRD_VENT
	VENTWL	WATER_VENT
	VENTWR	WATER_VENT
	WCHMBR	WATER_CHAMBER

16.3 Water Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES WATER SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	w_aiv	AIR VALVE
	w_backflow_prevention	BACKFLOW PREVENTION
	w_blowoff	BLOW OFF VALVE
	v_blowoff_flush	BLOW OFF FLUSH
	w_changeofmaterial	CHANGE OF MATERIAL
	w_chamber_doublecheck	DOUBLE CHECK VALVE
	w_cp_anode	CATHODIC PROTECTION ANODE
	w_cp_insco	CATHODIC PROTECTION INSULATED COUPLING
	w_cp_testpoint	CATHODIC PROTECTION TESTPOINT
	w_ctiv_hydrant_feeder	HYDRANT FEEDER VALVE
	w_ctiv_large_closed	LARGE CLOSED VALVE
	w_ctiv_large_open	LARGE OPEN VALVE
	w_ctiv_service	SERVICE VALVE
	w_ctiv_service_closed	SERVICE CLOSED VALVE
	w_ctiv_small	SMALL VALVE
	w_ctiv_small_closed	SMALL CLOSED VALVE
	v_crossover	CROSSOVER
	w_ftg_bend	BEND FITTING
	w_ftg_cross	CROSSING FITTING
	w_ftg_clamp	CLAMP FITTING
	w_ftg_pipeend	PLUG FITTING
	w_ftg_reducer	REDUCER FITTING
	w_ftg_tee	EXISTING TEE FITTING
	w_hydrant	COMPRESSION HYDRANT
	w_hyd_fireuseonly	FIRE USE ONLY HYDRANT
	w_meter	METER BOX
	w_pigout	PIGOUT
	w_pressure	PRESSURE VALVE
	w_pumpstation	PUMP STATION
	w_samplingstation	SAMPLING STATION
	w_scada_sensor	SCADA SENSOR

16.4 Sewer Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES SEWER SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	S_Arrow	DIRECTION ARROW
	S_ArrowLt_Combine	ARROW LEFT COMBINE
	S_ArrowLt_FM	ARROW LEFT FORCED MAIN
	S_ArrowLt_Sanitary	ARROW LEFT SANITARY
	S_ArrowLt_Storm	ARROW LEFT STORM
	S_ArrowRt_Combine	ARROW RIGHT COMBINE
	S_ArrowRt_FM	ARROW RIGHT FORCED MAIN
	S_ArrowRt_Sanitary	ARROW RIGHT SANITARY
	S_ArrowRt_Storm	ARROW RIGHT STORM
	S_ArrowSt_Combine	ARROW STRAIGHT COMBINE
	S_ArrowSt_CSI	ARROW STRAIGHT COMBINE SIPHON
	S_ArrowSt_FM	ARROW STRAIGHT FORCED MAIN
	S_ArrowSt_Sanitary	ARROW STRAIGHT SANITARY
	S_ArrowSt_SANSI	ARROW STRAIGHT SANITARY SIPHON
	S_ArrowSt_Storm	ARROW STRAIGHT STORM
	S_ChngGrBot_Combine	CHANGE OF GRADE BOTTOM COMBINE
	S_ChngGrBot_FM	CHANGE OF GRADE BOTTOM FORCED MAIN
	S_ChngGrBot_NoType	CHANGE OF GRADE BOTTOM NO TYPE SPECIFIED
	S_ChngGrBot_Sanitary	CHANGE OF GRADE BOTTOM SANITARY
	S_ChngGrBot_Storm	CHANGE OF GRADE BOTTOM STORM
	S_ChngGrTop_Combine	CHANGE OF GRADE TOP COMBINE
	S_ChngGrTop_CSI	CHANGE OF GRADE TOP COMBINE SIPHON
	S_ChngGrTop_FM	CHANGE OF GRADE TOP FORCED MAIN
	S_ChngGrTop_NoType	CHANGE OF GRADE TOP NO TYPE SPECIFIED
	S_ChngGrTop_Sanitary	CHANGE OF GRADE TOP SANITARY
	S_ChngGrTop_Storm	CHANGE OF GRADE TOP STORM
	S_ChngMat_Combine	CHANGE OF MATERIAL COMBINE
	S_ChngMat_FM	CHANGE OF MATERIAL FORCED MAIN
	S_ChngMat_NoType	CHANGE OF MATERIAL NO TYPE SPECIFIED
	S_ChngMat_Sanitary	CHANGE OF MATERIAL SANITARY
	S_ChngMat_Storm	CHANGE OF MATERIAL STORM












CITY OF VANCOUVER, ENGINEERING SERVICES
SEWER SYMBOLS

SYMBOL	SYMBOL NAME	DESCRIPTION
	S_Crossover_Combine	CROSSOVER COMBINE
	S_Crossover_FM	CROSSOVER FORCED MAIN
	S_Crossover_NoType	CROSSOVER NO TYPE SPECIFIED
	S_Crossover_Sanitary	CROSSOVER SANITARY
	S_Crossover_Storm	CROSSOVER STORM
	S_Fit_Bend_Combine	BEND FITTING COMBINE
	S_Fit_Bend_FM	BEND FITTING FORCED MAIN
	S_Fit_Bend_Sanitary	BEND FITTING SANITARY
	S_Fit_Bend_Storm	BEND FITTING STORM
	S_Fit_CB_Combine	CATCH BASIN FITTING COMBINE
	S_Fit_CB_FM	CATCH BASIN FITTING FORCED MAIN
	S_Fit_CB_Sanitary	CATCH BASIN FITTING SANITARY
	S_Fit_CB_Storm	CATCH BASIN FITTING STORM
	S_Fit_Clean_Combine	CLEANOUT FITTING COMBINE
	S_Fit_Clean_CSI	CLEANOUT FITTING COMBINE SIPHON
	S_Fit_Clean_FM	CLEANOUT FITTING FORCED MAIN
	S_Fit_Clean_Sanitary	CLEANOUT FITTING SANITARY
	S_Fit_Clean_Storm	CLEANOUT FITTING STORM
	S_Fit_Plug_Combine	PLUG FITTING COMBINE
	S_Fit_Plug_FM	PLUG FITTING FORCED MAIN
	S_Fit_Plug_Sanitary	PLUG FITTING SANITARY
	S_Fit_Plug_Storm	PLUG FITTING STORM
	S_Fit_Reduce_Combine	REDUCER FITTING COMBINE
	S_Fit_Reduce_FM	REDUCER FITTING FORCED MAIN
	S_Fit_Reduce_Sanitary	REDUCER FITTING SANITARY
	S_Fit_Reduce_Storm	REDUCER FITTING STORM
	S_Fit_Tee_Combine	TEE FITTING COMBINE
	S_Fit_Tee_Sanitary	TEE FITTING SANITARY
	S_Fit_Tee_Storm	TEE FITTING STORM
	S_Fit_Valve1_Combine	VALVE FITTING # 1 COMBINE
	S_Fit_Valve1_FM	VALVE FITTING # 1 FORCED MAIN

CITY OF VANCOUVER, ENGINEERING SERVICES
SEWER SYMBOLS

SYMBOL	SYMBOL NAME	DESCRIPTION
	S_Fit_Valve1_Sanitary	VALVE FITTING # 1 SANITARY
	S_Fit_Valve1_Storm	VALVE FITTING # 1 STORM
	S_Fit_Valve2_Combine	VALVE FITTING # 2 COMBINE
	S_Fit_Valve2_FM	VALVE FITTING # 2 FORCED MAIN
	S_Fit_Valve3_FM	VALVE FITTING # 3 FORCED MAIN
	S_Fit_Valve4_Combine	VALVE FITTING # 4 COMBINE
	S_Fit_Valve4_FM	VALVE FITTING # 4 FORCED MAIN
	S_FlowBot	FLOW DIRECTION ARROW LEG AT BOTTOM
	S_FlowLt	FLOW DIRECTION LEFT ARROW
	S_FlowRt	FLOW DIRECTION RIGHT ARROW
	S_FlowTop	FLOW DIRECTION ARROW LEG AT TOP
	S_Manhole_Combine	MANHOLE COMBINE
	S_Manhole_FM	MANHOLE FORCED MAIN
	S_Manhole_NoType	MANHOLE No Type Specified
	S_Manhole_Sanitary	MANHOLE SANITARY
	S_Manhole_Storm	MANHOLE STORM
	S_MH_Clean_Combine	MANHOLE CLEANOUT COMBINE
	S_MH_Clean_NoType	MANHOLE CLEANOUT No Type Specified
	S_MH_Clean_Sanitary	MANHOLE CLEANOUT SANITARY
	S_MH_Clean_Storm	MANHOLE CLEANOUT STORM
	S_MH_Lamphole_Combine	MANHOLE LAMPHOLE COMBINE
	S_MH_Lamphole_FM	MANHOLE LAMPHOLE FORCED MAIN
	S_MH_Lamphole_NoType	MANHOLE LAMPHOLE No Type Specified
	S_MH_Lamphole_Sanitary	MANHOLE LAMPHOLE SANITARY
	S_MH_Lamphole_Storm	MANHOLE LAMPHOLE STORM
	S_MH_Sump_Combine	MANHOLE SUMP COMBINE
	S_MH_Sump_Sanitary	MANHOLE SUMP SANITARY
	S_MH_Sump_Storm	MANHOLE SUMP STORM
	S_OutFall_Combine	OUTFALL COMBINE
	S_OutFall_NoType	OUTFALL No Type Specified
	S_OutFall_Storm	OUTFALL STORM

16.5 Street Lighting Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES STREET LIGHTING SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	sl_access	ACCESS AREA
	sl_adapter	CONDUIT ADAPTER
	sl_bct_rmh	B.C. TEL MANHOLE
	sl_bus	LIGHT BUS SHELTER
	sl_con_pb	CONCRETE PULL BOX
	sl_con_ap	CONCRETE SPLICE BOX
	sl_ext_slv	EXTRA SLEEVE
	sl_fl_fl	FIRE FLASHER
	sl_fl_fl_ind	FIRE FLASHER INDICATOR
	sl_fire_alm	FIRE ALARM CALL BOX
	sl_fl_cont	FLASHER CONTROLLER
	sl_flash	FLASHER
	sl_offaet	CONDUIT OFFSETS
	sl_pb_meter	PARKS BOARD METER
	sl_pole	STREET LIGHTING POLE
	sl_pullbox	PULL BOX
	sl_quartz	QUARTZ LIGHTING
	sl_aer_pan	STREET LIGHTING SERVICE PANEL
	sl_sign	ILLUMINATED SIGN
	sl_sprinkler	SPRINKLER CONTROLLER
	sl_tr_cont	TRAFFIC SIGNAL CONTROLLER
	sl_tr_pipe	TRAFFIC SIGNAL PIPE STANDARD
	sl_trolley	TROLLEY POLE









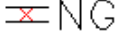









16.6 Street Furniture Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES STREET FURNITURE SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	SF_BENCH	STREET FURNITURE BENCH
	SF_BIKERACK	STREET FURNITURE BIKE RACK
	SF_ELECTRICBOX	STREET FURNITURE ELECTRICAL BOX
	SF_DRINKINGFOUNTAIN	STREET FURNITURE DRINKING FOUNTAIN
	SF_LITTERBIN	STREET FURNITURE LITTER BIN
	SF_NEWSBOX	STREET FURNITURE NEWS PAPER BOX
	SF_BUS_SHELTER	STREET FURNITURE SHELTER
	SF_SIDEWALK_CAFÉ	STREET FURNITURE SIDE WALK CAFÉ
	SF_TELEPHONE_BOOTH	STREET FURNITURE TELEPHONE BOOTH
	SF_TRANSLINK_BOOTH	STREET FURNITURE TRANSLINK BOOTH

16.7 Utility Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES HYDRO / TELCO SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	u_hydro_pole	B.C. Hydro Pole
	u_hydro_box	B.C. Hydro Splice Box
	u_hydro_stub	B.C. Hydro Stub
	u_hydro_manhole	B.C. Hydro Manhole
	u_hydro_substation	B.C. Hydro Substation
	u_telco_box	Telco Box
	u_telco_can	Telco Can
	u_telco_manhole	Telco Manhole
	u_telco_pole	Telco Pole
	u_telco_sacpad	Telco Sacpad
	u_telco_stub	Telco Stub

16.8 Landfill Symbols

CITY OF VANCOUVER, ENGINEERING SERVICES LANDFILL SYMBOLS		
SYMBOL	SYMBOL NAME	DESCRIPTION
	g_ball_valve	Gas Ball Valve
	g_bend	Bend
	g_branch_saddle	Gas Branch Saddle
	g_butterfly_valve	Gas Butterfly Valve
	g_ctrapp	Gas Condensate Trap
	g_ctrapp_design	Gas Condensate Trap (Design)
	g_end_cap	Gas End Cap
	g_flange	Flange
	g_flange_nitrile_gasket	Gas Nitrile Gasket Flange
	g_gate_valve	Gas Gate Valve
	g_labcock	Gas Labcock
	g_pitot_tube	Gas Pitot Tube
	g_reducer	Gas Reducer
	g_sample_port	Gas Sample Port
	g_spacer	Gas Spacer
	g_tee	Gas Tee
	g_well	Gas Well
	g_well_design	Gas Well (Design)