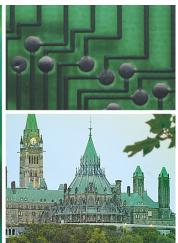
PWGSC National CADD Standard





Computer Assisted Drafting and Design

Corrected Edition – may 2007

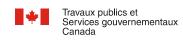




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1.0 Introduction

Computer Aided Design and Drafting (CADD) is an integral component of information management for Public Works and Government Services Canada (PWGSC). The production of digital files by CADD is an important corporate asset. The greatest payback for CADD and related technology is in the reuse of the digital data for facilities management and as a foundation for future projects. If CADD files are to be an effective source of information, they must adhere to a standardized set of criteria, which all CADD users will understand.

As an ongoing effort to keep up with changing technology we are pleased to introduce the second edition of the PWGSC national CADD Standards. A concerted effort was made to simplify standards in some areas, but also, to reinforce the standard requirements in areas we feel are critical to our goals. In addition, some of the regions have developed a regional standard, which is to be used as a complement to this national standard.

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For the list of regional contacts, you can also visit the PWGSC CADD Standard Web site at:

http://www.pwgsc.gc.ca/cadd-standards/text/index-e.html

1.1 Quality Assurance of CADD Data

PWGSC will carry out Quality Assurance of the delivered CADD data files and printed drawing plans.

The Drafting Quality Assurance Check is a two-part process consisting of the following:

- Digital file review: CADD file is checked for adherence to PWGSC Standards.
- Print mark-up: Hard Copy Print is marked up to relay Design or Drafting related problems that must be corrected.

PWGSC has jurisdiction on all drafting related aspects of the final drawings including but not limited to drawing content, Title Block layout, symbols and font usage continuity throughout a drawing set. All drawings must be completed to the satisfaction of PWGSC.

In the absence of a drawing submission schedule, PWGSC reserves the right to request CADD data files at the midpoint (50%) of the scheduled work to conduct a CADD drafting review.

Note that the content of the digital CADD data file is just as important as the printed content and no drawing will be accepted as final until all issues are resolved. Delivered work that fails to meet any requirement in any of these areas will result in the work being deemed unacceptable. The Consultant/Drafting Service will be required to correct the problem(s) at their cost. Furthermore, PWGSC will exercise its option to withhold payment of the contracted work as set out in the contract terms until the work is made right. Alternatively, PWGSC may, if the Consultant/Drafting Service refuses to correct the problem, make the corrections to the CADD data files and printed drawing plans and deduct the cost thereof from the Consultant/Drafting Service's fee. The Consultant/Drafting Service grants to PWGSC an irrevocable license to make such corrections and use the corrected CADD data files and printed drawing plans as it sees fit. Furthermore, PWGSC reserves the right to make use of the printed drawing plans resulting from the CADD data files with no obligation for payment until the CADD data files are corrected.

1.1.1 Digital File Review

The Lead Technologist will check the digital CADD file to assure adherence to the CADD Standards.

Layer Management

PWGSC Layer Standard must be used. (See 3.2.)

Standard Layer Names must be used.

Entities must be on correct layers.

Color Assignment

PWGSC Colour/Line Weight assignment must be used. (See 3.2.5.)

Textstyle Management

Only Standard AutoCAD® SHX fonts or TTF fonts can be used. (See 3.4.)

• Dimensions Style Management

PWGSC naming convention must be used. (See 3.5.)

Associative Dimensions must be used.

Linetype Management

Only Standard AutoCAD® and/or PWGSC linetypes can be used. (See 3.6.)

Linetype display variables must be used correctly.

External Referencing

The use of external references will be authorized only if certain conditions are met. (see 1.2.1)

• PWGSC Title Blocks and Graphic Scales

PWGSC Title blocks must be used properly if provided

Title blocks must contain the minimum information (See 3.7.) if no PWGSC Title block is provided Graphic Scales or written scale must accompany all Plans, Sections, Details and Elevations, etc.

• 1:1 Metric Model

Drawing must be modeled at full-size using metric units.

Real World Coordinate System

Maintain Coordinate systems integrity for 2D drawings.

1.1.2 Print Mark-Up

Hard Copies made from the digital files will be marked-up, where required, in red by the Project Manager, Engineer, Architect, Project Drawing Coordinator, Interior Designer and/or Spatial Technologist, etc. and returned to the Consultant/Drafting Service for revision to plans. All marked up items must be corrected.

1.2 Drawing File Format

PWGSC requires all files to be compatible with Microsoft® Operating Systems. The CADD drawing format required for drawings is the AutoCAD® native format DWG file, i.e. they may not be submitted in Adobe® PDF, Autodesk® DWF or other simplified format unless specified in the contract. PWGSC will not supply or accept version formats that are no longer supported by Autodesk®.

1.2.1 External references (XREF)

The use of the external references will be conditionally authorized if the regional appendix of the CADD standard where the work is being performed permits the use of xrefs. When this condition is met, xrefs may only be used in conjunction with the "Sheet Set Manager" to support the transmission of drawing files in a compressed format.

In all the other cases, external references must be converted into blocks (Do not BIND XREFs, instead use BIND INSERT). In no circumstance shall a drawing contain referenced symbols; they must be inserted as blocks.

1.2.2 Raster images

When separate raster images are included in a drawing, all related files containing images and information on coordinates, rotation angles, scaling, etc. (TFW, JGW, SID, etc.) are to be provided. These files are essential for their georeferencing.

1.2.3 Vertical products

Where AutoCAD® objects are used in vertical products such as Autodesk® Architectural Desktop, Autodesk® Building Systems, Autodesk Map® or Autodesk® Land Desktop, appropriate 'object enablers' must be provided to view and manipulate the objects.

1.3 Files delivery

The file transfer must adhere to the following rules:

Submission and transfer of drawing files will be through E-mail where possible. Where file
size exceeds the limit of E-mail, files can be posted to a FTP site or, as a last resort
compact disks (CD's) can be delivered to the designated contact person. The predetermined
PWGSC public FTP site is:

ftp://ftp.tpsgc.gc.ca/pub/incoming

Note that these ftp sites are not secure; therefore, sensitive files must be password protected through a file compression utility such as WinZip or similar compression utility program. After file uploading, email the designated contact person with the following information:

Project Location:

Project Name:

Project Number:

URL/File Name(s):

Zip File Password:

All files are deleted from site every second day. Timely notification is required to ensure file retrieval.

- No files are to be presented as an executable (.exe extension).
- The files should not be protected by a password except in the case of compressed files transmitted via the ftp site as described above.
- The files should not contain any electronic signature.
- The drawing should not contain hyperlinks.

2.0 Project Delivery

2.1 Project Start-up

All project drawings must be created using the standards contained herein. To ensure this, PWGSC will assign a Lead Technologist for each project to provide drawing coordination and Quality Assurance.

Where CADD services will be provided externally, PWGSC requirements will be conveyed to the consultant or CADD service. Pertinent CADD and legacy drawings for the related facility, as well as this document will be provided.

2.1.1 CADD Master File Use

The CADD Master files maintained by PWGSC were drawn from building space measurement surveys. The intent is to use the files for project drawings, and then PWGSC will be in charge of updating the Master files once the project is completed and the area affected is re-measured.

Existing digital information, when available, is used to form the foundation for new project drawings. Any areas critical to the project should be verified by field checking. New digital drawing files created must be modified to include the most up-to-date information to the standards contained herein. Older legacy CADD data, used in new drawing files, must be updated to current standards. The extent of verification/updating of the existing digital files should be addressed at the start-up meeting. All new work must meet this standard irrespective of the condition of any existing files provided at the outset of work. See section 4 for information on file naming.

2.1.2 Template Drawing

The template drawing is set for the default metric units, text styles and dimension styles. Recognizing the differences between engineering drawings and architectural drawings, the templates are provided with dimension styles, lettering for multiple disciplines.

2.2 Work in Progress

All work in progress shall be backed up daily. PWGSC draft services must copy the local project directory to a network server project directory daily at minimum.

Digital files of drawings developed through consultants or other external CADD services shall be saved to working directories by the Lead Technologist at time of receipt and reviewed for compliance with the standards contained in this document. The CADD service shall maintain the drawings in their own project directory until all drawings for the project are completed, verified and accepted by PWGSC.

2.3 Production of Contract Drawings

The following formats should be applied if no provincial laws are applicable.

Drawing sheet size will conform to the following:

Sheet Designation	Overall Size (mm)
B1	707 x 1000
A0	841 x 1189
A1	594 x 841
A2	420 x 594
A3 (11x17 Tabloi	d) 297 x 420
A4 (Letter Landso	cape) 210 x 297
A4 (Letter Portrai	t) 297 x 210

NOTE: The paper size naming may vary depending on printer drivers.

NOTE: When drawings larger than 860×1120 or A0 are required, it is recommended that drawings be used having a width of 860 or 841 and a length in increments of 150. Digital files of standard PWGSC or Client Title Block formats will be provided in required standard sizes and must not be altered or modified without authorization.

2.4 Copyright

The Copyright Act protects all works (including drawings, charts, photos, etc.) from being copied without permission. Copying a work is called 'copyright infringement'. Copying including 'cutting and pasting', reproducing, publishing or transmitting) any work without permission *by any means* is considered copyright infringement. All work is copyright protected even if it does not explicitly say so.

Without prejudice to any rights or privileges of the Crown, where any work is, or has been, prepared or published by or under the direction or control of Her Majesty or any government department, the copyright in the work shall, subject to any agreement with the author, belong to Her Majesty. The copyrights ownership can also be transferred to the client by written contract. Use of any PWGSC content without permission, in whole or in part, is strictly forbidden.

3.0 PWGSC Computer Aided Drafting Standards

The standards described in this section are general standards and, in the context of a request for proposal, specific instructions can be added or can modify these.

3.1 File Presentation

Files presented must conform to the following rules:

- A drawing must be purged of all definitions that are not used such as: layer names, text styles, dimension styles, layer filters, blocks, etc.
- A drawing must not contain any object definitions without geometry such as, for example, empty text or blocks without objects.
- No objects should reside on layer "0" or DEFPOINTS except for objects contained in a block definition and the dimensions.
- A drawing must not contain any errors that are detectable using the Audit command.

All presented files must also adhere to the following rules of best practice:

- When appropriate to the type of drawing, lines must be drawn in an orthogonal mode.
- All vectors must be drawn with closed corners.
- The drawing must be saved such as to be printed without any page setup. The main layout must be active and all the viewports adjusted and locked to the correct scale.

3.2 Layering Standards

See Annex A for the complete layer list.

See Annex B for extension descriptions.

3.2.1 Sorting Graphic Data into Related Data Groups

Layers are used to sort the data types being depicted by the line work (Not to sort lineweights, linetypes, colours or other schemes). This is the only way to identify what entities on a graphic screen are supposed to represent without resorting to annotations. (i.e. does a rectangle represent a building outline, a concrete pad, a storage tank or is it an annotation box?). The PWGSC Layering Standards must be used to create the layers to accommodate these groupings of related data.

To simplify the Layering, drawing data can be broken into two major groupings, Principal Data and Supporting Data. The level of complexity and number of layers required for the two groups is significantly different.

3.2.2 Principal Data

Principal Data is contained mainly on the plan views of the facility, i.e., Base Plan, Floor Plan, Site Plan, etc. This type of data requires strict adherence to layer naming and proper grouping of data. The line work that is used to depict facility components must always be drawn using the most upto-date accurate information available. Line work depicting objects must be placed on the proper standard layer according to the data type being represented by the line work. For example, on a Floor Plan, the walls, doors, windows, and bathroom fixtures must have separate layers.

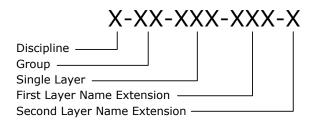
3.2.3 Supporting Data

Supporting Data is made up of Sections, Details, Elevations, Schedules and Legends, Title Blocks, etc. This type of data requires minimal layering breakdown. Line work in a detail representing different components does not need to be placed on separate layers. For example, a building construction detail can be drawn with a foundation wall, frame wall, floors, and roof line work on a single layer, although the dimensions, annotation and hatching should be separated.

3.2.4 Layering Naming Convention

Layering of CADD information must adhere to the following Layering Naming Convention. The layer is the basic tool for organizing and managing graphic information. Layers are used to sort graphic objects into groupings of related data. PWGSC has developed a modular, alphanumeric layer nomenclature format that is designed to sort this data in a specific manner.

The layer name structure consists of 5 fields separated by hyphens. The first 3 fields, consisting of the discipline, group and single layer fields, are mandatory while the last 2 are optional fields allowing a more precise identification where necessary. See Annex B for Field Descriptions.



Discipline Field X-XX-XXX

The Discipline Field identifies the discipline responsible for the layer content. Where an object cannot be associated with a specific discipline, or is applicable to all disciplines, the special General Information Field "G" may be used.

Discipline Fields:

- A Architecture
- B Bridge Engineering
- C Civil Engineering, Site work and Landscaping
- E Electrical Systems
- G General Information
- H Mechanical
- I Interior Design
- L Legal Surveys
- M Marine
- Real Property Space Management
- S Structure

Group Field X-XX-XXX

The Group Field identifies groupings of common types of drawing information relevant to each discipline. The Group Fields defined for each Discipline Field are listed in the Standard Layer List found in Annex A. A detailed list of the group fields is also described in Annex B. In addition to the Group Fields defined in the Standard Layer List there are some common Group Fields to place supporting graphic data such as sections and details, etc.

Common Group Fields for all disciplines

DT	Details
EV	Elevations
GL	Global
GR	Grid Lines, Grid Marks
LG	Legend
PL	Plan
SC	Schedules
ST	Sections
TL	Title Blocks

Single Layer Field X-XX-XXX

The Single Layer Field subdivides the classifications created by the Discipline and Group Fields to identify each layer more precisely. The Single Layer Fields defined for Group Fields under each Discipline Field are listed in the Standard Layer List (see Annex A) and described in the Layer Field Description (see Annex B).

First Layer Name Extension X-XX-XXX-X

The First Layer Name Extension allows information pertaining to Physical Properties, Materials, Graphics and Text to be included. The extensions may be used with any valid layer from the Standard Layer List. They may also be used as a Single Layer Field value where appropriate.

Common Group Fields for all disciplines

Physical Properties:

ABV	Above Ground, Above Grade
EME	Emergency
EQP	Equipment
EXT	Exterior
HOR	Horizontal
INT	Interior
NOD	Node, Horizontal Reference Point
OPN	Opening
UND	Underground, Below Grade
VER	Vertical

Materials:	
ASP	Asphalt
BLK	Block
BRK	Brick
CAR	Carpet
CON	Concrete
FIN	Finish
INS	Insulation
STL	Steel
STO	Stone
TIM	Timber
TIL	Tile
Graphics:	
3DM	3D Model Components of 2D Symbols
CLN	Construction Lines, Temporary Aids
CLR	Colors
DIG	Digitized or Vectorized from Scanned Image
HAT	Hatching
LIN	Line work
OLN	Outlines
PRO	Profiles
SPC	Special
SYM	Symbols, Bubbles, Detail Notation, Bar Scales
TAB	Tables
TMP	Temporary
Texts:	
ATT	Attributes
DIM	Dimensions
IDN	Identification Numbers or Names
RME	Read-Me Files
SPT	Spot Elevations
TXT	Text, Notations

Second Layer Name Extension



The Second Layer Name Extension allows information pertaining to Geometry, Construction, Status, Second Language and Numerical Options to be included. The extensions may be used with any valid layer from the Standard Layer List.

Valid Layer Name Formats

Only 4 variants of the layer name format will be accepted, as indicated below:

Required: Discipline Field: Architecture Group Field: Walls Single Layer Field or First Layer Name Extension: Exterior **Optional:** A-WL-EXT Second Layer Name Extension: Brick A-WL-EXT-BRK Existing First Layer Name Extension: A-WL-EXT-E -_ Second Layer Name Extension: Existing A-WL-EXT-BRK-E -

Note: Add an underscore character at the end of a valid layer name to append free text to the layer name e.g.

M-SN-SPT_-1.0 Soundings at -1.0m depth
M-SN-HWL_January 14, 1990 High Water Line at specific date

Note: Where plans are specifically titled "New" (or "Existing) the N (or E) Construction Status Extension layer modifier may be omitted, but all disparate Construction Status Extensions must be included.

Existing Floor Plan Example:

Architectural Wall Interior New A-WL-INT-N Interior Walls New A-WL-INT-X Architectural Wall Interior Remove Interior Walls To Be Removed A-WL-OLN Architectural Wall Outline Exterior Building Outline (Existing Implied) A-DR-INT Architectural Door Interior Interior Doors (Existing Implied) A-DR-INT-N Architectural Door Interior New Interior Doors New Exterior Windows (Existing Implied) A-WD-EXT Architectural Window Exterior H-PF-FIX Mechanical Plumbing Fixtures Toilets, Bathtubs, etc. (Existing Implied) Note: When a symbol is placed to represent an object, it must be placed on a symbol layer, as in

Note: When a symbol is placed to represent an object, it must be placed on a symbol layer, as in the following examples.

Symbols Example:

E-SD-SYM Electrical-Site-Dist. Symbols Power Pole Symbol, Luminary Symbol, etc. **G-GL-SYM** General-Global-Symbols Symbols, key plan, north arrow, bar scale

Note: Dimensions, annotation and hatching should be separated as indicated in the example below. Colour should be set "bylayer" for the majority of entities on a layer and specifically where necessary to obtain varying line weights in that layer.

Detail Example:

A-DT-LIN	Architectural-Detail-Line work	Wall, Floor and Roof Line work
A-DT-TXT	Architectural-Detail-Text	Annotations, Title, Graphic Scale, etc.
A-DT-DIM	Architectural-Detail-Dimensions	Dimensions
A-DT-HAT	Architectural-Detail-Hatching	Hatching - Insulation, Wood Grain, etc.

Schedule Example:

A-SC-LIN Architectural-Schedule-Line work Schedule Grid or Line work

A-SC-TXT Architectural-Schedule-Text Schedule Data, Annotation

Supporting Data can also appear on plan views:

H-PL-TXT Mechanical-Plan-Text Titles, Graphic Scale, Annotation Bubbles

S-PL-DIM Structural-Plan-Dimensions Dimensions

3.2.5 Colour Assignment Standard: Layer Colours and Pen Weights

Colour is to be used as a method of defining line weight to the plotter. Layers must be assigned appropriate colours and entities should be created with colour "bylayer" where possible, except as provided for in the creation of symbols.

Suggested Line Weight Settings:

Extra Thin - 0.100mm

Centre Lines / Axis

Grid Lines

Thin - 0.15 to 0.250mm

Dimension Lines Phantom Lines Intermediate Contour Lines
Hatching Text - Normal Leader and Extension Lines

Medium - 0.300mm to 0.500mm

Hidden Lines Text - Sub Headings
Index Contour Line Visible Object Outlines

Thick - 0.700mm Cutting/

Cutting/ Match Lines/ Section Lines

Viewing Planes Reference Lines Text - Titles/Major Headings

Extra Thick - 1.000mm

Title Sheet Border

3.2.6 Provision for Creation of New Layers

As all possibilities are not covered in the existing layer list, it is possible (and necessary) to create new layer names for some objects. As in the preceding example for E-SD-SYM, a quick look in the Electrical Layers list would indicate that this layer is invalid, however; it was acceptably created by adding an existing *First Layer Name Extension* to an existing *Discipline-Group Field* The rules for creation of new layers are:

- a) Proper Standard Layer for object must not already exist
- b) Must follow standard format

c) Must use existing Discipline Groupd) Must use existing Group fieldE-SD-SYM

e) Must use existing 3 character grouping from

Single Layer Field or First Layer Name Extension E-SD-**SYM**

3.3 Blocks Standards

AutoCAD® blocks are used to group entities. These graphic blocks shall **not** be exploded. Blocks representing simple objects or simple symbols shall not contain nested blocks (blocks made of blocks). The use of groups is preferable when grouping blocks together, for example, a table with chairs around. Most symbols should be created with linetype and colour "Byblock". This allows complete control over the appearance of the symbol. By default the symbol will take on the properties of the layer it is placed on but it can be changed to suit requirements independent of the layer settings.

There is two different ways for creation and insertion of AutoCAD® blocks with basic rules for creating each:

- 1. Simple blocks with one data type, e.g., toilet fixtures, furniture
 - a) Created on layer "0"
 - b) Must be inserted on proper layer, e.g., toilet block inserted on layer H-PF-FIX
- 2. Complex graphics requiring use of multiple data types
 - a) Each data type is created on its' proper layer
 - b) Colour and linetype must be "Bylayer" or "Byblock" so that colour and linetype may be assigned to the symbol regardless of the layer properties the symbol is inserted on, e.g. title blocks created with objects on different layers

There are also three different types of objects that could be represented by AutoCAD® blocks: real, common and symbol.

3.3.1 Real Blocks Object

They are AutoCAD® blocks that are dimensionally accurate pictorial representations of real objects. A real object block may be a simplified representation of a building component or assembly such a desk or chair, etc. Basic rules for the creation of real block must be followed:

- a) Objects must be created full size
- b) Blocks must be inserted with 1 by 1 scale into model space

Drawing scale does not affect insertion of real blocks as they are created at full size and inserted into full size drawings.

3.3.2 Common Block Objects

They are AutoCAD® blocks that also represent real objects but they could be scaled to represent different size objects such doors, round tables, etc. Basic rules for the creation of common block must be followed:

- a) Objects must be created inside a 1 by 1 square
- b) Blocks must be inserted using the real dimensions of the objects they represent into model space.

Drawing scale does not affect insertion of common blocks, as they are inserted full size.

3.3.3 Symbol Objects

Symbols are AutoCAD® blocks that are pictorial representations of objects not drawn to scale, such as an electrical outlet symbol. Drawing scale affects symbols in the same manner as annotation and therefore must be inserted into a working drawing at a scale factor corresponding to the drawing or plot scale as required.

Basic rules for the creation of symbols must be followed:

- a) Symbols should be drawn at actual plotted size and not smaller than 2.5mm
- b) Symbols should be inserted using the plotted scale if they are inserted in model space and 1 if they are inserted in paper space (layout) i.e. 50x on a 1:50 floor plan in model space or 1x on a 1:1 drawing sheet in paper space.

3.3.4 Block Library

Taking into account the specific needs of each project and the huge diversity, there is no national block library.

- a) If a block library is provided with a project, the consultant/draft service must use it.
- b) All the blocks should be created respecting the rules described.
- c) Use of blocks should be uniform throughout each project drawing set.
- d) If no blocks are provided, the consultant/draft service must get their library pre-approved by the Lead Technologist.

3.3.5 Block Naming

A good structure for block naming is very important to allow the creation of schedules, inventories, legends, etc. If the consultant/draft services use their own library, they have to use a pertinent naming convention that must be pre-approved by the Lead Technologist.

3.4 Text Style Standards

Text styles for use in drawings must be created using Standard AutoCAD® SHX or TTF font files. Text style usage should be uniform throughout each project drawing set and will be determined in collaboration with the Lead Technologist.

Height of these text styles must be set to 0 (not fixed) so it could be changed to suit different scaling requirements.

All French characters should be accented whether upper or lower case.

3.4.1 Text Styles Naming

Text style names should reflect the information below:

- Usage
- Font name
- Any other special effects (if required)

Examples:

NOTES_SIMPLEX Text style with SIMPLEX used for notes

TITLE_ARIAL_WF-1.2 Text style with ARIAL and width factor 1.2 used for titles

SPECIAL_SIMPLEX_OA-20 Text style with SIMPLEX, oblique angle 20 used for special notes

3.4.2 Text height

Standard text height for:

Notes, dimensions, annotations, etc. 2.5mm

Major headings 5.0mm

Sub headings 3.5mm.

Text smaller than 2.5mm can only be used under special conditions and must have PWGSC approval. See table 3.8.1.

3.5 Dimension Styles Standards

All dimensioning must be created on entities in model space with associative dimensions. Two dimensioning formats are used to cover most applications for PWGSC projects:

- a) Engineering with arrowheads for dimension terminators.
- b) Architectural with ticks for dimension terminators.

3.5.1 Dimension Style Naming

Dimension style usage should be uniform throughout each project drawing set. Using dimensions styles reduces the time necessary to create, edit and maintain dimensions. Dimension styles are created by specifying values for a number of dimension variables and saving the style with a unique name. The dimension style controls the appearance of all the dimensions created while the dimension style is active. Changes to the dimension style will automatically be reflected in the associated dimensions.

Using of override properties is not allowed and the dimensions must be associative. A new dimension style should be created to work with different properties.

The dimension style names have the following format:

Examples:

A_50MM Normal Architectural dimension for floor plans

A_50MM_0 Architectural dimension with no extension lines to dimension to grid lines

E_1000M Normal Engineering dimension for site plans with metres as base unit

3.6 Linetype Standards

The appearance of linetypes in the drawing is determined by the system variables LTSCALE, PSLTSCALE, and MEASUREMENT.

The MEASUREMENT variable determines which linetype description file to use for linetype loading:

- "1" sets the default file to the metric unit file acadiso.lin.
- "0" sets the default file to the **imperial** unit file **acad.lin** and must not be used.
- The LTSCALE variable sets the global linetype scale factor.

The PSLTSCALE controls linetype appearance in paper space.

For consistent linetype appearance and plotting results, the required values for the variables are as follows:

- 1. Final Drawings: Title sheet in Paper Space with multiple, variously scaled, VIEWPORTS.
 - a) MEASUREMENT=1
 - b) LTSCALE= approximately 1 (see note 1)
 - c) PSLTSCALE=1 (On)
- 2. In Progress: Work from Model Space (not to be used for final Drawing Submission)
 - a) MEASUREMENT = 1
 - b) LTSCALE= Plot scale value for final drawing (see note 2)

```
PSLTSCALE=0 (Off)
```

Do not set Linetype scale at the entity level. The *Current Object Scale* in the Linetype Properties dialog box (System Variable CELTSCALE) must be set to 1.0 to ensure that the creation of new entities do not have entity level linetype scaling.

Note 1: The LTSCALE value should be equal to 1 while printing in paper space but it could be slightly higher or lower if the linetypes provided are too large or too small.

Note 2: The LTSCALE value should be equal to the plot scale while working in model space but it could be slightly higher or lower if the linetypes provided are too large or too small.

Drawings must not contain linetypes or complex linetypes other than those defined in the ACADISO.LIN file supplied with AutoCAD® or other linetypes supplied by PWGSC. The linetypes contained in the ACAD.LIN file should not be used because they are drawn to be used with imperial drawings.

3.7 Title Blocks and Graphic Scales

3.7.1 Title Block Set-up

Completed Drawings must adhere to the following composition standard:

- a) Drawings are to be modeled at full scale (real world units) in Model Space, with text, symbols, hatch patterns and line widths adjusted by scale factor required.
- b) Title Block sheets must always be inserted in a Layout (Paper Space) at 0,0,0 with scale factor of 1 and rotation angle of 0.
- c) Model Space graphics must appear in the layout in correctly scaled VIEWPORTS
- d) Only one (1) Title Block per Layout.
- e) Titleblock is not to be exploded. The titleblock information is entered as prompted through the attribute dialog box or prompts.

3.7.2 Information in Title Blocks

All project drawings must be compiled on standard sheets and must be in accordance with the PWGSC corporate identity. The Lead Technologist for each project will coordinate the size of the sheet to be used, provide a standard Title Block and the content of the title block fields.

Each title block must contain the information below:

- a) Project name
- b) Address
- c) Drawing name e.g. Floor plan, building
- d) Measured or Designed by and date
- e) Drawn by and date
- f) Approved by and date
- g) Project manager
- h) Project number
- i) Tender
- j) Drawing number
- k) Revision chart
- Consultant or draft service identification
- m) North arrow
- n) Site plan (if pertinent)

3.7.3 Drawing Scales

To facilitate scaling from reduced or enlarged reproductions, each plan, section, detail, elevation, profile, etc., on a completed drawing sheet shall be accompanied by a Graphic Scale or text that specifies the scale e.g. 1:100. The graphic scale shall be located immediately below the pertinent heading in Model space.

3.8 Systems of Measurement and Preferred Scales

The International System of Units (S.I.) must be used to prepare all drawings. The unit for linear dimensioning is the millimetre, except where the scope of the drawing requires the use of the metre, such as in site plans. Integers shall indicate millimetres, e.g., 435, 4300, etc.; and decimal numbers with three decimal places shall indicate metres, e.g., 5.435, 4.300, etc. All other dimensions and notations should be followed by the unit symbol.

3.8.1 Drawing scales examples

	Text	Sizes	LTSCALE	LTSCALE
Plot Scale	Notes Headings Suggested DIMSCA		(Approx. Suggested value) DIMSCALE (Model Space)	(Paper Space)
1:1	2.5	5	1	1
1:2	5	10	2	1
1: 5	12.5	25	5	1
1:10	25	50	10	1
1:20	50	100	20	1
1:25	62.5	125	25	1
1:50	125	250	50	1
1:100	250	500	100	1
1:200	500	1000	200	1
1:250	625	1250	250	1
1:500	1250	2500	500	1
1:1000	2500	5000	1000	1
1:2000	5000	10000	2000	1
1:5000	12500	25000	5000	1

4.0 Drawing File Naming Conventions

All CADD information submitted must be arranged in a logical format so it can be easily accessed and modified by the user. This standard provides a framework for the information and will assist in data entry, manipulation, storage and retrieval at different stages of the design and operation of the facility over its life cycle.

A pertinent file naming structure has to be use throughout each project drawing set.

Example:

Architectural master plans

<u>C</u>	ON 0	<u>1</u> <u>B</u> <u>0</u>	<u>3</u> . <u>DWG</u>
Building or Site Name			
2. Floor Name or Sheet Number			
3. Discipline Code (see Layer Naming Convention)		
4. Revision Number or Propositio	n Numl	ber —	

Site master plans

	350 KED	_MA_20050)329.DWG
Building or Site Name Master Plans Date			

Annex A – CADD Layers

ARCHITECTURAL		
English Abbv.	Description	French Abbv.
A-CI	Circulation	A-CI
A-CI-CVY	Horizontal conveyors, moving sidewalks	A-CI-HOR
A-CI-ELE	Elevators	A-CI-ELE
A-CI-ELE-BRF	Lift platforms for barrier-free access	A-CI-ELE-ACF
A-CI-RMP	Ramps	A-CI-RAM
A-CI-RMP-BRF	Barrier-free ramps	A-CI-RAM-ACF
A-CI-STR	Stairs, stair wells, and ladders	A-CI-ESC
A-CI-STR-ESC	Escalators	A-CI-ESC-ROU
A-CL	Ceilings	A-PF
A-CL-BKH	Bulkheads	A-PF-GYP
A-CL-FIN	Finishes	A-PF-FIN
A-CL-GRD	Physical ceiling grid	A-PF-TRA
A-CL-GRD-SCD	Planning grid lines	A-PF-TRA-SCD
A-CL-OPN	Openings, penetrations, skylights	A-PF-OUV
A-DR	Doors	A-PO
A-DR-EXT	Exterior doors, jambs, casework, swings	A-PO-EXT
A-DR-EXT-IDN	Exterior doors identification numbers	A-PO-EXT-NUI
A-DR-INT	Interior doors, jambs, casework, swings	A-PO-INT
A-DR-INT-IDN	Interior doors identification numbers	A-PO-INT-NUI
A-DR-INT-PAR	Interior doors in a partition wall	A-PO-INT-CLS
		*
A-EM	Emergency Consider batching	A-UR COR UAC
A-EM-COR-HAT	Corridor hatching	A-UR-COR-HAC
A-EM-COR-OLN A-EM-OLN	Constal publics	A-UR-CON-CON
	General batching	A-UR-CON HAG
A-EM-OLN-HAT A-EM-STR-HAT	General hatching Staircase hatching	A-UR-CON-HAC A-UR-ESC-HAC
A-EM-STR-OLN	Staircase natching Staircase outline	A-UR-ESC-CON
A-EM-TXT	Text	A-UR-TEX
A-EM-WAL-HAT	Wall hatching	A-UR-MUR-HAC
A-EM-WAL-OLN	Wall outline	A-UR-MUR-CON
A-FL CTD	Floors	A-PC
A-FL-CTP-DAP	Counter tops	A-PC-CMP
A-FL-CTP-PAR A-FL-FIN	Counter tops on partitions Floor finishes	A-PC-CMP-CLS
A-FL-FIN-IDN	Floor finishes description	A-PC-FIN
A-FL-FIN-IDN A-FL-LEV	Floor level changes, ramps, truck wells	A-PC-FIN-NUI A-PC-NIV
A-FL-MIL	Architectural specialties, casework and millwork	A-PC-NIV A-PC-EBE
A-FL-MIL A-FL-OPN	Openings, floor hatching	A-PC-EBE A-PC-OUV
		A-PC-UUV A-PC-SUS
A-FL-RAS	Overhead items, skylights, overhangs, soffits Raised floors	A-PC-SUR
A I L-NAS	IVAISEU IIUUIS	A-FC-JUK

A-GL	General	A-GL
A-GL-ATT	Attributes	A-GL-ATT
A-GL-CLN	Under construction lines, temporary aids	A-GL-TEM
A-GL-DIM	General architectural dimensions	A-GL-DIM
A-GL-IDN	Identification, elevation points	A-GL-NUI
A-GL-RME	Read Me general drawing info.	A-GL-LIS
A-GL-TXT	General text (street names)	A-GL-TEX
A-PL	Plan Information	A-PN
A-PL-OLN	Open-to-Below plan information outline	A-PN-CON
A-RF	Roofs	A-TO
A-RF-OLN	Roofs edge and features	A-TO-CON
A-RF-OPN	Roof openings for fans, stacks and ducts	A-TO-OUV
A-RF-OVH	Overhead items, roof above, canopies, soffits	A-TO-SUR
A-RF-WLK	Roof boardwalks, catwalks	A-TO-PAS
A-WD	Windows	A-FN
A-WD-EXT	Exterior window panes and frames	A-FN-EXT
A-WD-INT	Interior window panes and frames, side windows	A-FN-INT
A-WD-INT-PAR	Interior windows in a partition wall	A-FN-INT-CLS
A-WD-OVH	Overhead windows, skylights	A-FN-SUR
A-WD-SIL	Window sills	A-FN-ALL
A-WL	Non-Structural Walls	A-MU
A-WL-ACC	Architectural or protection elements, guards	A-MU-ACC
A-WL-ACC-BRF	Barrier-free accessories (grab bars, etc.)	A-MU-ACC-ACF
A-WL-EXT	Exterior walls	A-MU-EXT
A-WL-EXT-HAT	Exterior walls hatching	A-MU-EXT-HAC
A-WL-FIN	Wall finishes	A-MU-FIN
A-WL-HED	Door and window headers	A-MU-LIN
A-WL-HED-PAR	Door and window headers on partition	A-MU-LIN-CLS
A-WL-INT	Interior walls	A-MU-INT
A-WL-INT-LOW	Interior walls - low walls	A-MU-INT-BAS
A-WL-INT-LOW-PAR	Interior partitions - low walls	A-MU-INT-BAS-CLS
A-WL-INT-PAR	Interior partition walls	A-MU-INT-CLS
A-WL-OLN	Wall outlines, building footprints, sheds, etc.	A-MU-CON
A-WL-WRM	Washroom partitions	A-MU-SAB

BRIDGE ENGINEERING **Layer Name Description** B-AP **Approach Slabs** B-DA B-AP-PLN Approach slabs in plan view B-DA-PLN B-DK **Bridge deck and components** B-TA B-DK-BAR Barriers, railings B-TA-BAR **B-DK-CRB** Curbs, sidewalks B-TA-BOR B-DK-DDR Deck drains B-TA-AVT **B-DK-DEK** Deck plan B-TA-PLN B-DK-EXJ Expansion joints B-TA-JOC B-DK-REB Deck reinforcing B-TA-ACR **B-DK-STG** Steel grating B-TA-GRI General B-GL B-GL B-GL-DIM Dimensions **B-GL-DIM B-GL-HAT** Hatching B-GL-HAC **B-GL-LAY** Layout line work **B-GL-TRI B-GL-TXT** B-GL-TEX Text B-SB Substructure B-SO B-SB-ABU Abutments B-SO-CUL B-SB-APR Approach slabs B-SO-APR **B-SB-BRG** Bearing B-SO-POR B-SB-FTG Footing B-SO-SEM B-SB-LIN Bearing plan line work B-SO-TRI B-SB-PIR Piers B-SO-PIL B-SB-REB Substructure reinforcing B-SO-ACR B-SR **Scour Protection** B-PA B-SR-GAB Gabions B-PA-GAB B-SR-RRP Riprap B-PA-PIR B-SS Superstructure B-SP **B-SS-BEM** Beams B-SP-POU **B-SS-BRC** Bracing **B-SP-ENT B-SS-CAT** Catwalks B-SP-PAS **B-SS-REB** Superstructure reinforcing B-SP-ACR **B-SS-SNL** Stringers B-SP-LON

CIVIL ENGINEER	ING	
English Abbv.	Description	French Abbv.
С-ВН	Borehole Data (geotechnical)	С-FO
C-BH-IDN	Borehole identification numbers	C-FO-NUI
C-BH-LOG	Borehole logs and data	C-FO-SCH
C-BH-MON	Geotechnical monitoring wells	C-FO-PUA
C-BH-SMP	Soil sample locations	C-FO-SON
C-BH-STP	Stratigraphic profiles	C-FO-STR
C-GF	Gases and Fuels	C-GC
C-GF-DPI	Diesel fuel pipelines	C-GC-PIP-DIE
C-GF-DSE	Diesel fuel valves, manholes, meters, storage	C-GC-EQU-DIE
C-GF-NPI	Natural gas pipelines	C-GC-PIP-GAN
C-GF-NSE	Natural gas valves, manholes, meters, storage	C-GC-EQU-GAN
C-GF-OPI	Oil pipelines	C-GC-PIP-PET
C-GF-OSE	Oil valves, manholes, meters, storage	C-GC-EQU-PET
C-GF-PPI	Propane pipelines	C-GC-PIP-PRO
C-GF-PSE	Propane valves, manholes, meters, storage	C-GC-EQU-PRO
C-GF-TXT	Gas and oil text, description	C-GC-TEX
C-GL	General	C-GL
C-GL-PIC	Inserted pictures	C-GL-IMA
C-HY	Hydrology	С-НҮ
C-HY-CAT	Catchments area	C-HY-BAV
C-HY-DRA	Drainage area	C-HY-DRA
C-HY-FLO	Flow, discharge	C-HY-ECO
C-HY-ICE	Ice thickness	C-HY-GLA
C-LD	Landscaping	C-AX
C-LD-ART	Artwork, special features	C-AX-OBA
C-LD-FLG	Flagpoles	C-AX-MAT
C-LD-FTN	Fountains, pools	C-AX-BSN
C-LD-FUR	Site furnishings, benches, garbage cans, etc.	C-AX-MOB
C-LD-LWN	Lawn area	C-AX-PEL
C-LD-PLT	Plant materials	C-AX-PLT
C-LD-SPO	Equipment, sports facilities, goal nets, shooting targets, etc.	C-AX-EQU
C-LD-TER	Terraces, courtyards, patios	C-AX-TER
C-LD-TXT	Descriptive information text	C-AX-TEX
C-PR	Profile Data	C-PR
C-PR-HOR	Horizontal profiles	C-PR-HOR
C-PR-VER	Vertical profiles	C-PR-VER

C-RO	Roads	C-RO
C-RO-ACR	Fire department access routes	C-RO-URG
C-RO-ALI	Alignment	C-RO-TRC
C-RO-BRG	Bridges, overpasses, etc.	C-RO-PON
C-RO-CLI	Road centreline	C-RO-MED
C-RO-CON	Highway construction staging	C-RO-OCC
C-RO-CRB	Curbs	C-RO-BOR
C-RO-GRL	Guides, guard rails, median dividers, bollards	C-RO-PRT
C-RO-GUT	Gutter lines	C-RO-CAN
C-RO-HWY	Highway plan	C-RO-TRR
C-RO-MRK	Markings and road striping	C-RO-MAC
C-RO-MSH	Mass hauling diagrams	C-RO-SCH
C-RO-RMP	Ramps, on-ramps, loading docks, etc.	C-RO-RAM
C-RO-ROD	Drivable road limits (asphalt) road, lots	C-RO-LIM
C-RO-ROD-APP	Drivable road limits' approximate location	C-RO-LIM-APP
C-RO-STG	Staging layout plan	C-RO-PHA
C-RO-STR	Bridge abutments and piers, and supports	C-RO-PIL
C-RO-TUN	Road tunnels, underpasses, etc.	C-RO-TUN
C-RO-TXT	Road description, information text	C-RO-TEX
C-RW	Railways	C-CF
C-RW-ALI	Alignment	C-CF-TRC
C-RW-BRG	Bridges	C-CF-PON
C-RW-CLI	Rail centrelines	C-CF-MED
C-RW-RAI	Railway lines, switches	C-CF-DIA
C-RW-RMP	Ramps	C-CF-RAM
C-RW-STR	Bridge abutments, piers, trestles and supports	C-CF-PIL
C-RW-TUN	Tunnels	C-CF-TUN
C-SA	Sanitary Sewer	C-ES
C-SA-ABN	Abandoned sanitary sewer lines	C-ES-ABN
C-SA-CMB-MLI	Combined main sewer lines	C-ES-CMB-PRI
C-SA-CMB-SLI	Combined service sewer lines	C-ES-CMB-SEV
C-SA-DRA	Drainage catch areas	C-ES-BAV
C-SA-IOT	Sanitary inlet outlet structure	C-ES-SES
C-SA-JUN	Junction symbols	C-ES-SYM
C-SA-JUN-IDN	Text description - type of junction	C-ES-SYM-TEX
C-SA-MAN	Sewer manholes, catch basins, pumping stations	C-ES-PUA
C-SA-MAN-IDN	Text regarding t/g elevation, inverts elevation, etc.	C-ES-PUA-TEX
C-SA-MLI	Sanitary main sewer lines	C-ES-PRI
C-SA-SEW	Sanitary sewer	C-ES-EGO
C-SA-SLI	Sanitary service sewer lines	C-ES-SEV
C-SA-TMT	Sewage treatment areas	C-ES-TEU
C-SA-TXT	General text: length of sewer, slope, material, etc.	C-ES-TEX

C-SF	Site Features	C-CS
C-SF-ARM	Erosion control, armourstone, riprap	C-CS-PIR
C-SF-BRG	Foot bridges	C-CS-PAS
C-SF-CON	Concrete features, slabs	C-CS-GRA
C-SF-DBR	Debris, rubble, loose rock and soil	C-CS-DEB
C-SF-FEN	Fencing	C-CS-CLO
C-SF-MAR	Marshes, wetlands	C-CS-TEH
C-SF-RWL	Retaining walls	C-CS-SOU
C-SF-STR	Stairs not attached to buildings	C-CS-ESC
C-SF-SWK	Sidewalks	C-CS-TRO
C-SF-TRE	Trees, tree lines	C-CS-ARB
C-SF-TRE-TXT	Text describing trees	C-CS-ARB-TEX
C-SF-TRL	Trails, footpaths	C-CS-SEN
C-SF-TUN	Utility, pedestrian service tunnels	C-CS-TUN
C-SF-TXT	Site feature description text	C-CS-TEX
C-SF-WTR	Watercourses, shorelines	C-CS-LBM
C-SI	Signs and Guideposts	C-SI
C-SI-GDP	Guideposts	C-SI-POT
C-SI-SGL	Sign layouts and details	C-SI-DET
C-SI-SGN	Signs	C-SI-ECR
C-SI-TXT	Signage text	C-SI-TEX
C-SM	Storm Drainage & Systems	C-EP
C-SM-ABN	Abandoned storm sewer lines	C-EP-EGO-ABN
C-SM-CUL	Culverts	C-EP-PON
C-SM-DCL	Ditch centre lines	C-EP-MED
C-SM-DRA	Drainage catchments areas	C-EP-BAV
C-SM-IOT	Storm inlet outlet structure	C-EP-SES
C-SM-JUN	Junction symbols	C-EP-SYM
C-SM-JUN-IDN	Junction description text	C-EP-SYM-TEX
C-SM-MAN	Catch basins, manholes, pumping stations	C-EP-PUA
C-SM-MAN-IDN	Manhole description text; elevation, direction	C-EP-PUA-TEX
C-SM-MLI	Storm main sewer lines	C-EP-EGO-PRI
C-SM-MNG	Storm water management pond	C-EP-BSN
C-SM-SEW	Storm sewer	C-EP-EGO
C-SM-SLI	Storm service sewer lines	C-EP-EGO-SEV
C-SM-SUB		0 27 200 027
	Subdrains	C-EP-DRA
C-SM-TXT		
C-SM-TXT	Subdrains	C-EP-DRA
	Subdrains Text describing length of sewer, slopes, material	C-EP-DRA C-EP-TEX
C-SV	Subdrains Text describing length of sewer, slopes, material Survey Control, Non Legal	C-EP-DRA C-EP-TEX C-LV
C-SV C-SV-BEN	Subdrains Text describing length of sewer, slopes, material Survey Control, Non Legal Local bench marks	C-EP-DRA C-EP-TEX C-LV C-LV-RNL
C-SV C-SV-BEN C-SV-BND	Subdrains Text describing length of sewer, slopes, material Survey Control, Non Legal Local bench marks Non-legal boundaries	C-EP-DRA C-EP-TEX C-LV C-LV-RNL C-LV-LIP
C-SV C-SV-BEN C-SV-BND C-SV-CHN	Subdrains Text describing length of sewer, slopes, material Survey Control, Non Legal Local bench marks Non-legal boundaries Chainage	C-EP-DRA C-EP-TEX C-LV C-LV-RNL C-LV-LIP C-LV-CHI
C-SV C-SV-BEN C-SV-BND C-SV-CHN C-SV-CTL	Subdrains Text describing length of sewer, slopes, material Survey Control, Non Legal Local bench marks Non-legal boundaries Chainage Control points	C-EP-DRA C-EP-TEX C-LV C-LV-RNL C-LV-LIP C-LV-CHI C-LV-POA

C-SV-LIM	Limits of contract, non legal	C-LV-LIM
C-SV-LIN	Survey feature connectivity line work	C-LV-TRI
C-SV-MON	Found legal monuments	C-LV-RAR-TRV
C-SV-PAR	Parcel line work	C-LV-PAC
C-SV-PAR-TXT	Parcel text	C-LV-TEX
C-SV-PNT	Survey points	C-LV-POL
C-SV-SEL	Super elevation	C-LV-SUE
C-SV-SET	Setbacks	C-LV-MAR
C-SV-STA-EQU	Station equation labels	C-LV-STA
C-SV-STA-LBL	Station labels	C-LV-STA-NUI
C-SV-STA-PTS	Station points	C-LV-STA-PTS
C-SV-TRA	Traverse line work	C-LV-LCH
C-SV-VER	Vertical alignment	C-LV-VER
C-SV-VPT	Vertical control points	C-LV-PAV

С-ТР	Topographical Information	C-TG
C-TP-BNK	Top of bank	C-TG-RIV
C-TP-MAJ	Major contours	C-TG-COP
C-TP-MIN	Minor contours	C-TG-COS
C-TP-SPT	Spot elevation	C-TG-POC
C-TP-SRF	Surface model line work	C-TG-MNT
C-TP-SRF-BRK	Surface model break lines	C-TG-MNT-LCO
C-TP-SRF-TXT	Surface calculation text	C-TG-MNT-TEX

C-WM	Water and Fire	C-CE
C-WM-FHY	Fire hydrants	C-CE-BOI
C-WM-FRL	Fire lines	C-CE-CAX
C-WM-IRP	Irrigation system piping	C-CE-TUY
C-WM-IRR	Irrigation heads, controls, valves	C-CE-CTI
C-WM-JUN	Junction symbols	C-CE-SYM
C-WM-JUN-IDN	Text describing type of junction	C-CE-SYM-TEX
C-WM-MAN	Manholes, pumping stations, storage, valves	C-CE-PUA
C-WM-MAN-IDN	Text describing; t/g elevation, t/pipe elevation	C-CE-PUA-TEX
C-WM-MLI	Water main	C-CE-CPE
C-WM-RAW	Raw water lines	C-CE-CEN
C-WM-SLI	Water service line	C-CE-CSE
C-WM-TXT	Water main descriptive text	C-CE-TEX
C-WM-WTR	Water wells	C-CE-PUE

ELECTRICAL SYS	TEMS	
English Abbv.	Description	French Abbv.
E-CK	Clock Systems	Е-НО
E-CK-CLK	Clock locations	E-HO-PRS
E-CK-EQP	Clock equipment	E-HO-EQU
E-CK-WRG	Wiring	E-HO-CAB
E-DA	Data Systems	E-DN
E-DA-EQP	Data equipment	E-DN-EQU
E-DA-OUT	Data outlets, jacks	E-DN-PRS
E-DA-WRG	Wiring	E-DN-CAB
E-EG	Emergency Generation	E-AS
E-EG-COD	Conduits	E-AS-COD
E-EG-EQP	Emergency power generation equipment	E-AS-EQU
E-EG-GEN	Generators, control switchboards	E-AS-GEN
E-EL	Emergency Lighting	E-EU
E-EL-ESG	Exit signs	E-EU-SOS
E-EL-LCM	Emergency luminaries ceiling mounted	E-EU-LUP
E-EL-LWS	Emergency luminaries wall mounted	E-EU-LUM
E-EL-OLB	Emergency outside luminaries attached to buildings, poles	E-EU-LUE
E-EP	Emergency Power Equipment	E-RU
E-EP-CTL	Motors and controls	E-RU-MOC
E-EP-DCB	DC battery systems	E-RU-ACU
E-EP-REC	Receptacles	E-RU-PRS
E-EP-TEN	Special tenant systems	E-RU-LOC
E-EP-UPS	UPS and conditioned power	E-RU-ASC
E-EW	Emergency Power Wiring and Cabling	E-CU
E-EW-CBT	Cable trays, ducts and raceways	E-CU-CCC
E-EW-CLT	Control wiring for emergency lighting	E-CU-CCE
E-EW-EXP	Exposed inside/outside wiring	E-CU-CAP
E-EW-HVC	High voltage in ceiling space	E-CU-HTE
E-EW-LVC	Low voltage in ceiling space	E-CU-BTE
E-EW-LVF	Low voltage under floor	E-CU-BTS
E-EW-UPS	Ups and conditioned power	E-CU-ASC
E-EW-WCL	Ceiling mounted wiring	E-CU-CPL
E-FR	Electrical Fire Protection	E-AI
E-FR-AEP	Alarm and annunciator panels, buzzer, bells	E-AI-PAA
E-FR-AID	Alarm initiation devices: pull stations, heat, smoke detectors	E-AI-DDA
E-FR-ELD	Electromagnetic locking devices	E-AI-DVE
E-FR-EQP	Equipment	E-AI-EQU
E-FR-MFP	Master fire warning panel	E-AI-PPA
E-FR-SIG	Signalling devices	E-AI-SIG
E-FR-VCE	Emergency voice communication	E-AI-CVU
E-FR-VCW	Emergency voice communication wiring	E-AI-CCU

E-FW-CBL Flat wiring cable location		Flat Wiring	E-CP
E-GD Grounding E-MT E-GD-WRG Wiring, rods, bus plates E-MT-EQU E-LP Lightning Protection E-PT E-LP-WRG Devices, equipment and wiring E-PT-EQU E-NG Normal Power Generation E-AN E-NG-COD Conduits E-AN-COD E-NG-EQP Normal power generation equipment E-AN-EQU E-NG-GEN Generators, control switchboard E-AN-GEN E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-EN-COM E-NL-CTL Lighting controls E-EN-LUP E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-US Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-FW-CBL		E-CP-CAB
E-GD-WRG Wiring, rods, bus plates E-LP Lightning Protection E-LP-WRG Devices, equipment and wiring E-NG Normal Power Generation E-NG-COD Conduits E-NG-EQP Normal power generation equipment E-NG-GEN Generators, control switchboard E-NL Normal Lighting E-NL-CTL Lighting controls E-NL-CTL Lighting controls E-NL-LCM Luminaries ceiling mounted E-NL-LWS Luminaries in workspace and wall mounted E-NL-OLB Outside luminaries attached to buildings, poles E-RN E-NP Normal Power Equipment E-RN E-RN	E-FW-CNB		E-CP-BOJ
E-GD-WRG Wiring, rods, bus plates E-LP Lightning Protection E-LP-WRG Devices, equipment and wiring E-NG Normal Power Generation E-NG-COD Conduits E-NG-EQP Normal power generation equipment E-NG-GEN Generators, control switchboard E-NL Normal Lighting E-NL-CTL Lighting controls E-NL-CTL Lighting controls E-NL-LCM Luminaries ceiling mounted E-NL-LWS Luminaries in workspace and wall mounted E-NL-OLB Outside luminaries attached to buildings, poles E-RN E-RN E-RN E-RN	E-GD	Grounding	E-MT
E-LP-WRG Devices, equipment and wiring E-NG Normal Power Generation E-NG-COD Conduits E-NG-EQP Normal power generation equipment E-NG-GEN Generators, control switchboard E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-NL-LCM Luminaries ceiling mounted E-NL-LWS Luminaries in workspace and wall mounted E-NL-UP E-NL-OLB Outside luminaries attached to buildings, poles E-RN E-RN E-NL-UP E-NP Normal Power Equipment E-RN			***
E-NG Normal Power Generation E-NG-COD Conduits E-NG-EQP Normal power generation equipment E-NG-GEN Generators, control switchboard E-NL Normal Lighting E-NL-CTL Lighting controls E-NL-CTL Lighting controls E-NL-LCM Luminaries ceiling mounted E-NL-LWS Luminaries in workspace and wall mounted E-NL-OLB Outside luminaries attached to buildings, poles E-RN E-NP Normal Power Equipment E-RN	E-LP	Lightning Protection	E-PT
E-NG-COD Conduits E-AN-COD E-NG-EQP Normal power generation equipment E-AN-EQU E-NG-GEN Generators, control switchboard E-AN-GEN E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-EN-COM E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-LP-WRG	Devices, equipment and wiring	E-PT-EQU
E-NG-EQP Normal power generation equipment E-AN-EQU E-NG-GEN Generators, control switchboard E-AN-GEN E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-EN-COM E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-NN-UE E-NP Normal Power Equipment E-RN	E-NG	Normal Power Generation	E-AN
E-NG-GEN Generators, control switchboard E-AN-GEN E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-EN-COM E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-NG-COD	Conduits	E-AN-COD
E-NL Normal Lighting E-EN E-NL-CTL Lighting controls E-EN-COM E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-NG-EQP	Normal power generation equipment	E-AN-EQU
E-NL-CTL Lighting controls E-EN-COM E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-NG-GEN	Generators, control switchboard	E-AN-GEN
E-NL-LCM Luminaries ceiling mounted E-EN-LUP E-NL-LWS Luminaries in workspace and wall mounted E-EN-LUM E-NL-OLB Outside luminaries attached to buildings, poles E-EN-LUE E-NP Normal Power Equipment E-RN	E-NL	Normal Lighting	E-EN
E-NL-LWS Luminaries in workspace and wall mounted E-NL-OLB Outside luminaries attached to buildings, poles E-NP Normal Power Equipment E-RN	E-NL-CTL	Lighting controls	E-EN-COM
E-NL-OLB Outside luminaries attached to buildings, poles <i>E-EN-LUE</i> E-NP Normal Power Equipment <i>E-RN</i>	E-NL-LCM	Luminaries ceiling mounted	E-EN-LUP
E-NP Normal Power Equipment E-RN	E-NL-LWS	Luminaries in workspace and wall mounted	E-EN-LUM
	E-NL-OLB	Outside luminaries attached to buildings, poles	E-EN-LUE
E-NP-CTL Motors and controls <i>E-RN-MOC</i>	E-NP	Normal Power Equipment	E-RN
	E-NP-CTL	Motors and controls	E-RN-MOC
E-NP-EQP Normal power equipment - ceiling fans, etc. E-RN-EQU	E-NP-EQP	Normal power equipment - ceiling fans, etc.	E-RN-EQU
E-NP-HVD High voltage distribution <i>E-RN-DHT</i>	E-NP-HVD	High voltage distribution	E-RN-DHT
E-NP-LVD Low voltage distribution <i>E-RN-DBT</i>	E-NP-LVD	Low voltage distribution	E-RN-DBT
E-NP-MEC Electrical connections to mechanical equipment E-RN-MEC	E-NP-MEC	Electrical connections to mechanical equipment	E-RN-MEC
E-NP-RAD Radiant heating panels E-RN-RAD	E-NP-RAD	Radiant heating panels	E-RN-RAD
E-NP-OUT Outlets, receptacles <i>E-RN-PRS</i>	E-NP-OUT	Outlets, receptacles	E-RN-PRS
E-NP-TEN Special tenant systems <i>E-RN-LOC</i>	E-NP-TEN	Special tenant systems	E-RN-LOC
E-NW Normal Power Wiring and Cabling E-CN	E-NW	Normal Power Wiring and Cabling	E-CN
E-NW-CBT Cable trays, ducts and raceways E-CN-CCC	E-NW-CBT	Cable trays, ducts and raceways	E-CN-CCC
E-NW-CTL Control wiring lighting E-CN-CCE	E-NW-CTL	Control wiring lighting	E-CN-CCE
E-NW-EXP Exposed inside/outside wiring E-CN-CAP	E-NW-EXP	Exposed inside/outside wiring	E-CN-CAP
E-NW-HVW High voltage wiring in ceiling space <i>E-CN-HTE</i>	E-NW-HVW	High voltage wiring in ceiling space	E-CN-HTE
E-NW-LVC Low voltage wiring in ceiling space <i>E-CN-BTE</i>	E-NW-LVC	Low voltage wiring in ceiling space	E-CN-BTE
E-NW-LVF Low voltage under floor <i>E-CN-BTS</i>	E-NW-LVF	Low voltage under floor	E-CN-BTS
E-NW-LVW Low voltage in workspace <i>E-CN-BPT</i>	E-NW-LVW	Low voltage in workspace	E-CN-BPT
E-NW-PST Power poles with receptacles <i>E-CN-COL</i>	E-NW-PST	Power poles with receptacles	E-CN-COL
E-NW-TEN Tenant systems in workspace <i>E-CN-RPT</i>	E-NW-TEN	Tenant systems in workspace	E-CN-RPT
E-NW-UPS Ups and conditioned power <i>E-CN-ASC</i>	E-NW-UPS	Ups and conditioned power	E-CN-ASC
E-PA Sound and PA Systems E-SV	E-PA	Sound and PA Systems	E-SV
E-PA-EME Emergency <i>E-SV-URG</i>	E-PA-EME	Emergency	E-SV-URG
E-PA-EQP Sound equipment <i>E-SV-EQU</i>	E-PA-EQP	Sound equipment	E-SV-EQU
E-PA-OUT Outlets <i>E-SV-PRS</i>	E-PA-OUT	Outlets	E-SV-PRS
E-PA-SYM Symbols <i>E-SV-SYM</i>	E-PA-SYM	Symbols	E-SV-SYM
E-PA-WRG Wiring E-SV-CAB		Wiring	F-SV-CAB

E-PH	Telephone Systems	E-TE
E-PH-EQP	Equipment	E-TE-EQU
E-PH-OUT	Outlets	E-TE-PRS
E-PH-PAN	Telephone panel	E-TE-PAN
E-PH-WRG	Wiring	E-TE-CAB
E-SD	Site Distribution and Electrical Equipment	E-DS
E-SD-COD	Conduits	E-DS-COD
E-SD-COM-ABV	Communication lines - above grade - phone, video	E-DS-AER
E-SD-COM-UND	Communication lines - below grade - phone, video	E-DS-SOU
E-SD-DUC	Concrete ducts	E-DS-CBE
E-SD-EQP	Site distribution equip; transformers, pedestals	E-DS-EQU
E-SD-HVO-ABV	High voltage distribution - above grade	E-DS-HTE-AER
E-SD-HVO-UND	High voltage distribution - below grade	E-DS-HTE-SOU
E-SD-LTG-ABV	Lighting and wiring - above grade	E-DS-ECL-AER
E-SD-LTG-UND	Lighting and wiring - below grade	E-DS-ECL-SOU
E-SD-LVO-ABV	Low voltage distribution - above grade	E-DS-DIS-AER
E-SD-LVO-UND	Low voltage distribution - below grade	E-DS-DIS-SOU
E-SD-MAN	Manhole, handwells (electrical, communication)	E-DS-THO
E-SD-MAN-IDN	Text describing; t/g elevation, line elevation	E-DS-THO-IDN
E-SD-MUN	Municipal and utility services	E-DS-MUN
E-SD-POL	Poles and towers (electrical, communication)	E-DS-POT
E-SD-SUB	Substations	E-DS-SST
E-SD-TXT	Text describing type of distribution system	E-DS-TEX
E-SE	Security Systems	E-SS
E-SE-ALM	Intrusion alarms	E-SS-SAA
E-SE-CTL	Intrusion controls and controllers	E-SS-COT
E-SE-ELK	Electrical security locks	E-SS-VEE
E-SE-LAN	Intrusion system lan	E-SS-REL
E-SE-SEN	Intrusion sensors	E-SS-DEI
E-SE-VCL	Video controllers (digital)	E-SS-COM
E-SE-VCM	Video cameras and monitors	E-SS-EQU
E-SE-WRG	Intrusion controller wiring	E-SS-CAB
E-SG	Signal Systems	E-SI
E-SG-EQP	Equipment	E-SI-EQU
E-SG-OUT	Outlets	E-SI-SOR
E-SG-WRG	Wiring	E-SI-CAB
E-SM	Electrical Schematics	E-SE
E-SM-CLK	Clock system schematics	E-SE-HOL
E-SM-DAS	Data systems schematics	E-SE-DAT
E-SM-EFP	Electrical fire protection schematics	E-SE-ALI
E-SM-ELT	Emergency lighting schematics	E-SE-ECU
E-SM-EPR	Emergency power wiring & equipment	E-SE-EQU
E-SM-EPR-MAX	Maximo numbers for emergency equipment	E-SE-SGN-EQU
E-SM-EPR-TXT	Text for emergency equipment	E-SE-SGN-TEX
E-SM-EQP	Switch board & equipment outlines	E-SE-TCE

E-SM-EWR	Emergency wiring schematics	E-SE-CAU
E-SM-GEN	Emergency generation schematics	E-SE-ALU
E-SM-GND	Grounding schematics	E-SE-MIT
E-SM-HVW	High voltage (>750v) wiring & equipment	E-SE-HTE
E-SM-HVW-MAX	Maximo numbers for high voltage equipment	E-SE-SGN-HTE
E-SM-HVW-TXT	Text for high voltage equipment	E-SE-HTE-TEX
E-SM-KRK	Kirk key interlocks	E-SE-KRK
E-SM-LAN	Local area network schematics	E-SE-REL
E-SM-LGT	Lighting control schematics and diagrams	E-SE-COE
E-SM-LTP	Lightning protection schematics	E-SE-PRF
E-SM-MTR	Metering wiring & equipment	E-SE-ECC
E-SM-MTR-TXT	Metering wiring & equipment text	E-SE-ECC-TEX
E-SM-NEO	Neoc wiring and equipment	E-SE-MNO
E-SM-NEO-MAX	Maximo for neoc equipment	E-SE-SGN-CNO
E-SM-NLT	Normal lighting schematics	E-SE-ECN
E-SM-NPR	Normal power schematics, risers	E-SE-ANV
E-SM-NPR-MAX	Maximo tag numbers (00-00-00)	E-SE-ANV-MAX
E-SM-NPR-TXT	Text for low voltage equipment	E-SE-ANV-TEX
E-SM-PAS	Public address system schematics	E-SE-COV
E-SM-SGN	Signal schematic	E-SE-SGN
E-SM-TEL	Telephone schematics	E-SE-TEL
E-SM-VID	Video system schematics	E-SE-VID
E-SY	Electricity on Screening Systems	E-EA
E-SY-LAN	Lan network jack	E-EA-REL
E-SY-LTG	Normal powered lighting	E-EA-LUM
E-SY-OUT	Electrical outlet	E-EA-PRS
E-SY-PST	Screen electrical posts, poles	E-EA-COL
E-SY-TEL	Telephone outlet	E-EA-TEL
E-VD	Video Conferencing Systems	E-VD
E-VD-EQP	Equipment	E-VD-EQU
E-VD-OUT	Outlets	E-VD-PRS
E-VD-WRG	Wiring	E-VD-CAB

GENERAL INFORMATION			
English Abbv.	Description	French Abbv.	
G-LG	Legend Information	G-LE	
G-LG-LIN	Symbol legend line work	G-LE-TRI	
G-LG-TXT	Symbol legend text	G-LE-TEX	
G-GL	General	G-GL	
G-GL-CAL	Callout blocks	G-GL-BUF	
G-GL-SYM	Symbols, key plan, north arrow, bar scale	G-GL-SYM	
G-GL-TXT	Text	G-GL-TEX	
G-GL-TXT-E	English text	G-GL-TEX-A	
G-GL-TXT-F	French text	G-GL-TEX-F	
G-GL-XRE	External reference	G-GL-XRE	
G-TL	Title Block	G-CT	
G-TL-ATT	Attributes for title block	G-CT-ATT	
G-TL-LAY	Paper space metaview boundaries	G-CT-MET	
G-TL-LIN	Line work for title block	G-CT-CON	
G-TL-LOG	Logos	G-CT-LOG	
G-TL-TIL	Title Block Insertion Layer	G-CT-CAR	
G-TL-RME	Title block Read Me layer	G-CT-LIS	
G-TL-TXT	Text for title block	G-CT-TEX	

MECHANICAL		
MECHANICAL English Abbv.	Description	French Abbv.
H-CS	Control Systems	H-SC
H-CS-AIR	Control air piping	H-SC-AIR
H-CS-DAM	Damper actuators, controllers	H-SC-CPR
H-CS-EQP	Energy management systems	H-SC-ENE
H-CS-THR	Thermostats, humidistats, sensors	H-SC-THE
H-CS-VAV	Valve actuators, controllers	H-SC-CPV
H-DD	Ductwork Distribution	H-RC
H-DD-COA	Combustion air ductwork	H-RC-ACO
H-DD-EXH	Exhaust air ductwork	H-RC-AEV
H-DD-FLU	Flue, vent, breaching	H-RC-ECF
H-DD-INS	Duct insulation, acoustical lining	H-RC-ISO
H-DD-OUT	Outside air ductwork	H-RC-AEX
H-DD-RET	Return ductwork	H-RC-REP
H-DD-SUP	Supply ductwork	H-RC-AMA
H-DE	Ductwork Equipment	H-EC
H-DE-EXH	Exhaust grilles	H-EC-GEV
H-DE-FAN	Fans, dampers, coils, filters and equipment	H-EC-EQU
H-DE-OUT	Outside air grilles	H-EC-GAE
H-DE-RET	Return grills	H-EC-GRR
H-DE-SUP	Supply diffusers, grills, vents	H-EC-DIF
H-DE-VAV	Variable air volume boxes	H-EC-DAV
H-EQ	Equipment	H-EQ
H-EQ-ACE	Air conditioning equipment	H-EQ-COA
H-EQ-CMA	Compressed air equipment	H-EQ-AIC
H-EQ-CNV	Convectors	H-EQ-CNV
H-EQ-FEQ	Fuel equipment	H-EQ-COB
H-EQ-HYD	Hydronic equipment	H-EQ-HYD
H-EQ-REF	Refrigerant equipment	H-EQ-FRI
H-EQ-STM	Steam equipment	H-EQ-EVA
H-EQ-WPM	Domestic water tanks, pumps, water softeners	H-EQ-RED
H-FD	Fire Protection Distribution	H-PI
H-FD-CEX	Chemical extinguishing piping	H-PI-EXC
H-FD-FEX	Foamed extinguishing piping	H-PI-EXM
H-FD-SPP	Sprinkler piping	H-PI-GIC
H-FD-STP	Standpipe piping	H-PI-CMG
H-FE	Fire Protection Equipment	H-RI
H-FE-CAB	Fire hose cabinets	H-RI-ARI
H-FE-CEX	Chemical extinguishing equipment	H-RI-EXC
H-FE-EPE	Explosion-proof equipment	H-RI-EQA
H-FE-EXG	Fire extinguishers	H-RI-EIN
H-FE-FDP	Fire dampers	H-RI-RCF
H-FE-FEX	Foamed extinguishing equipment	H-RI-EXM
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H-FE-FHY	Building fire hydrants	H-RI-PII
H-FE-FIT	Sprinklers	H-RI-GIC
H-FE-SMC	Smoke control equipment	H-RI-ECF
H-FE-SPE	Sprinkler equipment	H-RI-EQU
H-FE-SPH	Sprinkler heads	H-RI-TEG
H-FE-SSZ	Sprinkler system zones	H-RI-ZOG
H-FE-STE	Standpipe equipment	H-RI-CMG
H-FP	Fuel and Process Piping	н-тс
H-FP-MAN	Manholes, valves, meters and fueling stations	H-TC-PUA
H-FP-SER	Fuel and process piping	H-TC-TUY
H-FP-TNK	Fuel tanks	H-TC-RCO
H-PD	Piping Distribution	H-TU
H-PD-CHR	Chilled water return	H-TU-RER
H-PD-CHS	Chilled water supply	H-TU-AEE
H-PD-CMA	Compressed air	H-TU-AAC
H-PD-DCW	Domestic cold water	H-TU-AEF
H-PD-DHR	Domestic hot water recirculation	H-TU-RCD
H-PD-DHW	Domestic hot water	H-TU-ACD
H-PD-DRA	Drainage waste and vents	H-TU-DRA
H-PD-FIT	Fittings	H-TU-RAC
H-PD-FOR	Fuel oil return	H-TU-RHC
H-PD-FOS	Fuel oil supply	H-TU-AHC
H-PD-GLR	Glycol return	H-TU-REG
H-PD-GLS	Glycol supply	H-TU-ALG
H-PD-HWR	Heating water return	H-TU-REC
H-PD-HWS	Heating water supply	H-TU-AEC
H-PD-MAN	Access holes	H-TU-RES
H-PD-NGA	Natural gas	H-TU-GAN
H-PD-PGA	Propane gas	H-TU-GAP
H-PD-RAD	Radiant heat tubing	H-TU-TCR
H-PD-RFG	Refrigerant gas	H-TU-VAF
H-PD-RFL	Refrigerant liquid	H-TU-FLF
H-PD-SAN	Sanitary	H-TU-SAN
H-PD-STC	Steam condensate	H-TU-VAC
H-PD-STM	Steam	H-TU-ALV
H-PF	Plumbing Fixtures	H-PB
H-PF-BIB	Hose bib connectors	H-PB-RAC
H-PF-FDR	Floor drains	H-PB-DRP
H-PF-FIX	Plumbing fixtures	H-PB-APP
H-PF-FIX-PAR	Plumbing fixtures on partition	H-PB-APP-CLS
H-PF-RDR	Roof drains	H-PB-DRT
H-SM	Mechanical Schematics and Riser Diagrams	H-SM
H-SM-CSY	Control system schematics	H-SM-COM
H-SM-DRS	Duct riser diagrams	H-SM-CMC
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Duct schematic diagrams

H-SM-DUC

H-SM-COD

H-SM-PIP	Piping schematic diagrams	H-SM-TUY
H-SM-PRS	Piping riser diagrams	H-SM-CMT
H-SM-WST	Waste schematics	H-SM-EEU

INTERIOR DESIG	GN	
English Abbv.	Description	French Abbv.
I-BP	Blocking Plan	I-BE
I-BP-OLN	Sector outlines	I-BE-CON
I-BP-DIM	Dimensions	I-BE-DIM
I-BP-TXT	Text, notes	I-BE-TEX
I-EI	Employee Information	I-EM
I-EI-IDN	Employee identification	I-EM-NUI
I-EQ	Equipment	I-EQ
I-EQ-CMP	Computers	I-EQ-ORD
I-EQ-OEQ	Office equipment	I-EQ-EXI
I-EQ-SPC	Special equipment	I-EQ-SPE
I-FU	Furniture	I-MO
I-FU-ACC	Accessories, coat trees, racks	I-MO-ACC
I-FU-ART	Artwork	I-MO-ART
I-FU-CAB	Storage cabinets, files	I-MO-RAG
I-FU-CLR	Furniture color	I-MO-COU
I-FU-DSK	Desks, work surfaces, tables	I-MO-SUT
I-FU-NOF	Non-office furniture, first aid room beds, etc.	I-MO-APE
I-FU-PLT	Plants	I-MO-PLT
I-FU-SHL	Shelving	I-MO-ETA
I-FU-SET	Seating	I-MO-SIE
I-FU-TAB	Tables	I-MO-TAB
I-FU-TXT	Annotations, Text furniture	I-MO-TEX
I-FU-SIZ	Furniture size	I-MO-DIM
I-SI	Signage	I-SI
I-SI-EQP	Barrier-free signs	I-SI-ACF
I-SI-OFF	Office signage	I-SI-BUR
I-SI-SPC	Special signage	I-SI-SPE
I-SY	Screening Systems	I-EA
I-SY-CLR	Screen color	I-EA-COU
I-SY-OVH	Screen over-head storage, etc.	I-EA-SUR
I-SY-SCR	Screens	I-EA-ECA
I-SY-SIZ	Screening sizes	I-EA-DIM
I-SY-SUR	Work surfaces, D-tops, P-tops, etc.	I-EA-SUT

LEGAL SURVEY		
English Abbv.	Description	French Abby.
L-AZ	·	
L-AZ-ZNP	Airport Zoning Proposed new zoning	L-ZA L-ZA-NZP
L-AZ-ZNS	Zoning surfaces, runway strips, centrelines	L-ZA-NZF
L-GL	General	L-GL
L-GL-TXT	General text	L-GL-TEX
L-PL	Legal Survey Plan	L-AF
L-PL-BDY	Legal limits, fee simple, admin., control	L-AF-LIF
L-PL-BND	Legal boundaries	L-AF-LDF
L-PL-CEN	Provincial, national coordinates of parcel centroid	L-AF-CEP
L-PL-DIM	General measurements, dimensions, etc.	L-AF-DIM
L-PL-FEA	Physical site features; fences, buildings, walls, etc.	L-AF-CAS
L-PL-FEA-TXT	Text describing physical site features	L-AF-CAS-TEX
L-PL-LIM	Limited interest estate: easement, right-of-way	L-AF-DRO
L-PL-LIM-IDN	Ident. text for limited interest estate: easement, right-of-way	L-AF-DRO-TEX
L-PL-NAT	Natural boundaries, watercourses, shorelines	L-AF-LIT
L-PL-PAR	Parcel line work	L-AF-PAC
L-PL-PAR-IDN	Parcel identification	L-AF-PAC-NUI
L-PL-PAR-TXT	Parcel text	L-AF-PAC-TEX
L-PL-PPR-IDN	Owner identification	L-AF-LIF-NUI
L-PL-SET	Setbacks	L-AF-MAR
L-PL-UCD	Underlying cadastral fabric; deeds, lots, plans	L-AF-CAD
L-SP	Legal Site Plan	L-PS
L-SP-CAN	Canadian boundaries	L-PS-FCN
L-SP-CLS	CLSR boundaries, reserves, parks	L-PS-RTC
L-SP-PRO	Provincial boundaries	L-PS-PRV
L-SP-REG	Regional and municipality boundaries	L-PS-MUN
L-SV	Legal Survey	L-LT
L-SV-BEN	Local bench marks	L-LT-RNL
L-SV-BEN-IDN	Identification text for local bench marks	L-LT-RNL-TEX
L-SV-CHN	Chainage	L-LT-CHI
L-SV-CLN	Radial ties, traverse lines, control lines	L-LT-LGC
L-SV-CTL	Control points	L-LT-POA
L-SV-CTL-F	Found control points	L-LT-POA-TRV
L-SV-CTL-GPS	GPS control points	L-LT-POA-GPS
	Identification text for GPS control points	L-LT-POA-GPS-TEX
L-SV-CTL-IDN	Identification text for control points	L-LT-POA-TEX
L-SV-CTL-IDN-F	Identification text for found control points	L-LT-POA-TRV-TEX
L-SV-GRD	Survey grid	L-LT-QUA
L-SV-HOR	Horizontal alignment	L-LT-HOR
L-SV-HPT	Horizontal control points	L-LT-PAP
L-SV-HPT-IDN	Identification text for horizontal control points	L-LT-PAP-TEX
L-SV-LIN	Survey feature connectivity line work	L-LT-LEV
L-SV-MON	Legal monuments, horizontal / vertical control	L-LT-RAR
L JV PIOIN	Legar monuments, nonzontar / vertical Control	L-LI-NAN

L-SV-MON-F	Found legal monuments, horizontal/vertical control	L-LT-RAR-TRV
L-SV-MON-IDN	Identification text for legal monuments	L-LT-RAR-TEX
L-SV-MON-IDN-F	Identification text for found legal monuments	L-LT-RAR-TRV-TEX
L-SV-PNT	Survey points	L-LT-POL
L-SV-PNT-GEO	Geodetic survey points	L-LT-POG
L-SV-STA-EQU	Station equation labels	L-LT-STA
L-SV-STA-LBL	Station labels	L-LT-STA-NUI
L-SV-STA-PTS	Station points	L-LT-STA-PTS
L-SV-TRA	Traverse line work	L-LT-LCH
L-SV-VER	Vertical alignment	L-LT-VER
L-SV-VPT	Vertical control points	L-LT-PCA

L-TP	Topographical Information	L-TG
L-TP-BNK	Top of bank	L-TG-HAT
L-TP-MAJ	Major contours	L-TG-COP
L-TP-MIN	Minor contours	L-TG-COS
L-TP-SPT	Spot elevation	L-TG-POC
L-TP-SRF	Surface model line work	L-TG-MNT
L-TP-SRF-BRK	Surface model break lines	L-TG-MNT-LCO
L-TP-SRF-TXT	Surface model text	L-TG-MNT-TEX

MARINE		
English Abbv.	Description	French Abbv.
M-BW	Breakwater Features	M-BL
M-BW-BRM	Crest of breakwater, berms	M-BL-CBL
M-BW-OLN	Breakwater outline	M-BL-CON
M-BW-TOE	Toe of breakwater	M-BL-BBL
M-DM	Dams	M-BR
M-DM-ABU	Abutments	M-BR-PLC
M-DM-APR	Approach slabs	M-BR-APR
M-DM-BAR	Barriers, Railings	M-BR-GAC
M-DM-BRG	Bearing	M-BR-DER
M-DM-DDR	Deck Drains	M-BR-AVT
M-DM-DEK	Deck Plan	M-BR-PLB
M-DM-EXJ	Expansion Joints	M-BR-JOC
M-DM-FTG	Footing	M-BR-SEM
M-DM-GAB	Gabions	M-BR-GAB
M-DM-PIR	Piers	M-BR-PIL
M-DM-REB	Deck Reinforcing	M-BR-ACR
M-DM-STG	Steel Grating	M-BR-GRI
M-GL	General	M-GL
M-GL-DIM	Dimensions	M-GL-DIM
M-GL-HAT	Hatching	M-GL-HAC
M-GL-LAY	Layout line work	M-GL-TRI
M-GL-TXT	Text	M-GL-TEX
M-NV	Navigation	M-NA
M-NV-BUO	Buoys	M-NA-BOU
M-NV-CAR	Cards	M-NA-SYM
M-NV-COR	Navigation corridors, channels	M-NA-TVN
M-NV-EQP	Floating aids, marker buoys, fog horns	M-NA-EQU
M-NV-SPA	Spars	M-NA-MAT
M-SK	Skid-way, Haul-outs, Slipways	M-CA
M-SK-BED	Vessel beds	M-CA-PLF
M-SK-BLK	Anchor blocks, haul out blocks	M-CA-BLA
M-SK-FTG	Footings	M-CA-SOA
M-SK-GUA	Guards	M-CA-GUA
M-SK-OLN	Skid-way outline	M-CA-CON
M-SK-RAI	Railway	M-CA-TRC
M-SK-SKD	Skid timbers, skid poles	M-CA-POU
M-SK-SLB	Concrete slabs, precast panels	M-CA-DPP
M-SK-SSP	Steel sheet piling	M-CA-PAL
M-SN	Hydrographic Survey Information, Non Legal	M-RH
M-SN-DAT	Chart datum contour, 0.00 m	M-RH-PFM
M-SN-DRG	Dredged area or limits	M-RH-LID
M-SN-HNT	High normal tide	M-RH-MHN

M-SN-HWL	High water lines	M-RH-LHM
M-SN-LNT	Low normal tide	M-RH-MBN
M-SN-LWL	Low water lines	M-RH-LBM
M-SN-MAJ	Major sea bottom contours	M-RH-CON
M-SN-MIN	Minor sea bottom contours	M-RH-CON-SCD
M-SN-SPT	Soundings, spot elevations	M-RH-SON
M-SN-TID	Tide gauges, tidal equipment, tide datum	M-RH-EQU

M-WF	Wharf Features	M-CQ
M-WF-BRC	Bracing, wale	M-CQ-ENT
M-WF-CAI	Caissons	M-CQ-FLO
M-WF-CAT	Catwalks	M-CQ-PAS
M-WF-CRB	Cribwork, ballast floor	M-CQ-CCV
M-WF-CRW	Crown slopes, crowns	M-CQ-SOM
M-WF-CWL	Cope walls, cope beams	M-CQ-MPC
M-WF-DRK	Derricks, cranes, gallows	M-CQ-GRU
M-WF-DRN	Drains, scuppers	M-CQ-DRA
M-WF-FND	Fenders	M-CQ-DEF
M-WF-FST	Floating wharfs	M-CQ-QUF
M-WF-FTG	Footings, mattresses, deck substructures	M-CQ-SEM
M-WF-FWL	Fire walls	M-CQ-MCF
M-WF-GUA	Guards	M-CQ-GUA
M-WF-GWY	Gangways	M-CQ-PAE
M-WF-JNT	Construction, control joints	M-CQ-JOC
M-WF-LAD	Ladders	M-CQ-ECH
M-WF-MOR	Mooring cleats, bollards	M-CQ-TAA
M-WF-OLN	Wharf and dolphin outlines	M-CQ-CON
M-WF-PIL	Piles and bents	M-CQ-PIL
M-WF-SSP	Steel sheet piling	M-CQ-PAL
M-WF-TIE	Tie rods, anchor blocks, tie back walls	M-CQ-TBA

REAL PROPERTY	SPACE MANAGEMENT	
English Abbv.	Description	French Abbv.
R-BC	Building Common Areas "Accessory B"	R-CB
R-BC-COR	Shared public corridors	R-CB-COR
R-BC-OLN	General shared building outline	R-CB-CON
R-BC-RMS	Shared rooms	R-CB-SAL
R-BS	Building Service Areas	R-SB
R-BS-OLN	General building service outline	R-SB-CON
R-BS-RMS	Building service rooms	R-SB-SAL
R-BS-SFT	Vertical shafts, elevators, stairs (Takes walls over RMS)	R-SB-PUV
R-EX	Exterior Site Areas	R-EX
R-EX-OLN	Exterior site areas	R-EX-CON
R-FC	Floor Common Areas	R-AE
R-FC-AWR	Accessible washrooms	R-AE-SAT-ACF
R-FC-CNV	Convectors (baseboard, radiators)	R-AE-CNV
R-FC-COL	Building structure, columns (interior and perimeter)	R-AE-COL
R-FC-COR	Primary circulation	R-AE-COC
R-FC-ENC	Encroachments (unusable space)	R-AE-EMP
R-FC-FIR	Fire egress cross over areas, fire refuge areas	R-AE-SOS
R-FC-LOB	Floor elevator lobbies	R-AE-HAL
R-FC-OLN	General outline of floor common areas	R-AE-CON
R-FC-RMS	Electrical, telecom, janitor's closets	R-AE-SAL
R-FC-WSR	Washrooms	R-AE-SAT
R-GA R-GA-EXT	Gross Area Exterior gross area	R-AB R-AB-EXT
R-GA-INT	Interior gross area	R-AB-INT
<u> </u>		
R-GL	General	R-GL
R-GL-TXT	Street names for Space Audit	R-GL-TEX
R-PK	Parking	R-ST
R-PK-0000-DEP	Parking number - department name (Special use only)	R-ST-0000-ACF
R-PK-0000-BRF-DEP	Barrier free parking	R-ST-0000-MIN
R-PK-DIV	Parking divisions	R-ST-DIV
R-PK-EXT	Exterior parking (Special use only)	R-ST-EXT
R-PK-IDN	Parking identification numbers	R-ST-NUI
R-PK-INT	Interior parking (Special use only)	R-ST-INT
R-PK-OLN	Outlines	R-ST-CON
R-PK-SPC	Special parking	R-ST-SPE
R-SU	Surface Maintenance Building	R-SU
R-SU-CLG	Ceiling finishes	R-SU-RPL
R-SU-COR	Primary corridors	R-SU-COC
R-SU-DEP	Space allocation by department	R-SU-MIN
R-SU-DIV	Division of area	R-SU-DIV
R-SU-EXT	Exterior finishes	R-SU-EXT
R-SU-FLR	Floor finishes	R-SU-RPC

R-SU-FLR-HIG	High traffic area		R-SU-RPC-ELV
R-SU-FLR-LOW	Low traffic area		R-SU-RPC-BAS
R-SU-GRP	Space allocation by group / branch		R-SU-GRP
R-SU-IDN	Surface identification number		R-SU-NUI
R-SU-OLN	Outlines		R-SU-CON
R-SU-RMS	Rooms		R-SU-SAL
R-SU-SFT	Shafts		R-SU-PUV
R-SU-SPC	Special surfaces		R-SU-SPE
R-SU-WAL	Walls		R-SU-MUR
R-SU-WIN	Windows		R-SU-FEN
R-UC	User Common		R-AC
R-UC-COR	Shared public corridors		R-AC-COR
R-UC-OLN	General shared user outline		R-AC-CON
R-UC-RMS	Shared rooms		R-AC-SAL
R-US	Usable		R-AU
R-US R-US-001, 002	Usable Usable area polygons by location		R-AU R-AU-001, 002
		(Special use only)	
R-US-001, 002	Usable area polygons by location	(Special use only) (Special use only)	R-AU-001, 002
R-US-001, 002 R-US-COR	Usable area polygons by location Primary circulation areas		R-AU-001, 002 R-AU-COR
R-US-001, 002 R-US-COR R-US-DEP	Usable area polygons by location Primary circulation areas Space allocation by department		R-AU-001, 002 R-AU-COR R-AU-MIN
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas	(Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch	(Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers	(Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN R-US-OLN	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers General usable outlines	(Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI R-AU-CON
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN R-US-OLN R-US-RMS	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers General usable outlines Room identification numbers	(Special use only) (Special use only) (Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI R-AU-CON R-AU-SAL-NUI
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN R-US-OLN R-US-RMS R-US-UNT	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers General usable outlines Room identification numbers Space allocation by units	(Special use only) (Special use only) (Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI R-AU-CON R-AU-SAL-NUI R-AU-UNI
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN R-US-OLN R-US-RMS R-US-UNT	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers General usable outlines Room identification numbers Space allocation by units Zoning	(Special use only) (Special use only) (Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI R-AU-CON R-AU-SAL-NUI R-AU-UNI
R-US-001, 002 R-US-COR R-US-DEP R-US-DIV R-US-GRP R-US-IDN R-US-OLN R-US-RMS R-US-UNT R-ZN R-ZN-CLN	Usable area polygons by location Primary circulation areas Space allocation by department Division of areas Space allocation by group / branch Location identification numbers General usable outlines Room identification numbers Space allocation by units Zoning Cleaning zoning	(Special use only) (Special use only) (Special use only) (Special use only)	R-AU-001, 002 R-AU-COR R-AU-MIN R-AU-DIV R-AU-GRP R-AU-NUI R-AU-CON R-AU-SAL-NUI R-AU-UNI R-ZO R-ZO-NET

STRUCTURE		
English Abbv.	Description	French Abbv.
S-CL	Ceilings	S-PF
S-CL-BEM	Ceiling beams	S-PF-POU
S-FL	Floors	S-PC
S-FL-BEM	Floor beams	S-PC-POU
S-FL-BRC	Bracing	S-PC-ENT
S-FL-DEK	Decking, waffle	S-PC-PLA
S-FL-FRM	Framing	S-PC-CHR
S-FL-JNT	Joints, expansion, construction	S-PC-JOC
S-FL-JST	Joists	S-PC-PLP
S-FL-OLN	Floor outlines	S-PC-CON
S-FL-OPN	Floor openings	S-PC-OUV
S-FL-SLB	Floor slabs	S-PC-DPP
S-FL-STR	Structural landings	S-PC-ESC
S-FN	Foundations	S-FD
S-FN-FIL	Backfill, soil line	S-FD-REM
S-FN-FTG	Footings	S-FD-SEM
S-FN-OLN	Foundation outlines	S-FD-CON
S-FN-PIL	Piles, caissons, piers	S-FD-PIE
c en	Characterist and d	
S-GR	Structural grid	S-QU
S-GR-EXT	Structural grid lines outside building	S-QU S-QU-AXE-EXT
S-GR-EXT	Structural grid lines outside building	S-QU-AXE-EXT
S-GR-EXT S-GR-INT	Structural grid lines outside building Structural grid lines inside building	S-QU-AXE-EXT S-QU-AXE-INT
S-GR-EXT S-GR-INT	Structural grid lines outside building Structural grid lines inside building Roofs	S-QU-AXE-EXT S-QU-AXE-INT
S-GR-EXT S-GR-INT S-RF S-RF-BEM	Structural grid lines outside building Structural grid lines inside building Roofs Beams	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM S-RF-JNT	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM S-RF-JNT S-RF-JST	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM S-RF-JNT S-RF-JST S-RF-OLN	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-JENT S-RF-JENT S-RF-JENT S-RF-JENT S-RF-JENT S-RF-OPN	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM S-RF-JNT S-RF-JNT S-RF-JST S-RF-OLN S-RF-OPN S-RF-SLB	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings Roof slabs	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV S-TO-OUP
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-JNT S-RF-JNT S-RF-JST S-RF-OLN S-RF-OPN S-RF-SLB	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings Roof slabs Walls, Columns	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV S-TO-OUV S-TO-DPP
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-JNT S-RF-JNT S-RF-JNT S-RF-OLN S-RF-OPN S-RF-SLB S-WL S-WL-BRC	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings Roof slabs Walls, Columns Cross bracing	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV S-TO-DPP S-MU S-MU-ENT
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-FRM S-RF-JNT S-RF-JNT S-RF-OLN S-RF-OLN S-RF-OPN S-RF-SLB S-WL S-WL-BRC S-WL-BRG	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings Roof slabs Walls, Columns Cross bracing Bearing walls	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV S-TO-OUV S-TO-DPP S-MU S-MU-POR
S-GR-EXT S-GR-INT S-RF S-RF-BEM S-RF-BRC S-RF-DEK S-RF-JNT S-RF-JNT S-RF-JST S-RF-OLN S-RF-OPN S-RF-SLB S-WL S-WL-BRC S-WL-BRG S-WL-COL	Structural grid lines outside building Structural grid lines inside building Roofs Beams Bracing Decking, waffle Framing, roof trusses Joints, expansion, construction Joists Roof outlines Roof openings Roof slabs Walls, Columns Cross bracing Bearing walls Columns	S-QU-AXE-EXT S-QU-AXE-INT S-TO S-TO-POU S-TO-ENT S-TO-PLA S-TO-CHR S-TO-JOC S-TO-PLP S-TO-CON S-TO-OUV S-TO-OUV S-TO-DPP S-MU S-MU-ENT S-MU-POR S-MU-COL

Ext. Description Ext. Description

Annex B – Layer Fields Description

Group Fields

AP Approach Slabs AZ Airport Zoning BC Building Common Areas Accessory B BH Borehole Data (geotechnical) BP Blocking Plan BS Building Service Areas BW Breakwater Features CI Circulation CK Clock Systems CL Ceilings CS Control Systems DA Data Systems DD Ductwork Distribution DE Ductwork Equipment DK Bridge deck and components DM Dams DR Doors DT Details EG Emergency Generation EI Employee Information EI Employee Information EI Emergency Lighting EM Emergency Power Equipment EV Elevations EW Emergency Power Wiring and Cabling EX Exterior Site Areas FD Fire Protection Distribution FE Fire Protection Equipment FI Floors FN Foundations FP Fuel and Process Piping FR Electrical Fire Protection FU Furniture FW Flat Wiring GA Gross Area GD Grounding GF Gases and Fuels GL Legend LP Lightning Protection CN Normal Power Generation EX Lightning Protection EX Gases and Fuels EX Legend EX Legend EX Lightning Protection	Navigation Normal Power Wiring and Cabling Sound and PA Systems Piping Distribution Plumbing Fixtures Telephone Systems Parking Plan Profile Data Roofs Roads Railways Sanitary Sewer Substructure Schedules Site Distribution and Electrical Equipment Security Systems Site Features Signal Systems Signage Skid-way, Haul-outs, Slipways Schematics Storm Drainage & Systems Hydrographic Survey Information, Non Legal Legal Site Plan Scour Protection Superstructure Sections Surface Maintenance Building Survey Screening Systems Title Blocks Topographical Information User Common Usable Video Conferencing Systems Windows Wharf Features Walls Water and Fire
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Ext. Description Ext. Description

Single Layer Field and First Extension

3DM	3D Model Components of 2D Symbols	CLN	Construction Lines, Temporary Aids
ABN	Abandoned	CLN	Control lines
ABU	Abutments	CLR	Colors
ABV	Above Ground, Above Grade	CLS	
			CLSR boundaries, reserves, parks
ACC	Accessories	CLT	Control wiring for emergency lighting
ACE	Air conditioning equipment	CMA	Compressed air
ACR	Fire department access routes	CMP	Computers
AEP	Alarm and annunciator panels,	CNB	Flat wiring connection boxes
	buzzer, bells	CNV	Convectors
AID	Alarm initiation devices: pull stations,	COA	Combustion air ductwork
	heat/smoke detector	COD	Conduits
AIR	Control air piping	COL	Columns
ALI	Alignment	CON	Concrete
ALM	Intrusion alarms	CON	Construction
APR	Approach slabs	COR	Corridors
ARM	• •	CRB	Cribwork, ballast floor
	Erosion control, armourstone, riprap		
ART	Artwork	CRB	Curbs
ASP	Asphalt	CRW	Crown slopes, crowns
ATT	Attributes	CSY	Control system schematics
AWR	Accessible washrooms	CTL	Controls
BAR	Barriers, railings	CTP	Counter tops
BDY	Legal limits, fee simple, admin.,	CUL	Culverts
	control	CVY	Horizontal conveyors, moving
BED	Vessel beds		sidewalks
BEM	Beams	CWL	Cope walls, cope beams
BEN	Local bench marks	DAM	Damper actuators, controllers
BIB	Hose bib connectors	DAS	Data systems schematics
BKH	Bulkheads	DAT	Chart datum contour, 0.00 m
BLK	Block	DBR	Debris, rubble, loose rock and soil
BND	Boundaries	DCB	DC battery systems
		_	
BNK	Top of bank	DCL	Ditch centre lines
BRC	Bracing	DCW	Domestic cold water
BRG	Bearing	DDR	Deck drains
BRG	Bridges	DEK	Deck
BRK	Brick	DEP	Space allocation by department
BRM	Crest of breakwater, berms	DHR	Domestic hot water recirculation
BUO	Buoys	DHW	Domestic hot water
CAB	Cabinet	DIG	Digitized or Vectorized from Scanned
CAI	Caissons		Image
CAL	Callout blocks	DIM	Dimensions
CAN	Canadian boundaries	DIV	Divisions
CAR	Cards	DPI	Diesel fuel pipelines
CAR	Carpet	DRA	Drainage
CAT	Catchments area	DRG	Dredged area or limits
CAT	Catwalks	DRK	Derricks, cranes, gallows
			, , ,
CBL	Flat wiring cable location	DRN	Drains, scuppers
CBT	Cable trays, ducts and raceways	DRS	Duct riser diagrams
CEN	Provincial, national coordinates of	DSE	Diesel fuel valves, manholes, meters,
	parcel centroid		storage
CEX	Chemical extinguisher	DSK	Desks, work surfaces, tables
CHN	Chainage	DUC	Ducts
CHR	Chilled water return	EFP	Electrical fire protection schematics
CHS	Chilled water supply	ELD	Electromagnetic locking devices
CLG	Ceiling finishes	ELE	Elevators
CLI	Centrelines	ELK	Electrical security locks
CLK	Clock	ELT	Emergency lighting schematics
CLN	Cleaning	EME	Emergency
CLI •	Cicarining		zma gana,

ENC	Encroachments (unusable space)	HVC	High voltage in ceiling space
EPE	Explosion-proof equipment	HVD	High voltage distribution
EPR	Emergency power wiring &	HVW	High voltage wiring
LIIX		HWL	
FOR	equipment		High water lines
EQP	Equipment	HWR	Heating water return
ESG	Exit signs	HWS	Heating water supply
EWR	Emergency wiring schematics	HWY	Highway plan
EXG	Fire extinguishers	HYD	Hydronic equipment
EXH	Exhaust	ICE	Ice thickness
EXJ	Expansion joints	IDN	Identification
_			
EXP	Exposed inside/outside wiring	INS	Insulation
EXT	Exterior	INT	Interior
FAN	Fans, dampers, coils, filters and	IOT	Inlet outlet
	equipment	IRP	Irrigation system piping
FDP	Fire dampers	IRR	Irrigation heads, controls, valves
FDR	Floor drains	JNT	Joints
FEA	Physical site features; fences,	JST	Joists
ILA			
	buildings, walls, etc.	JUN	Junction symbols
FEN	Fencing	KRK	Kirk key interlocks
FEQ	Fuel equipment	LAD	Ladders
FEX	Foamed extinguisher	LAN	Local area network
FHY	Fire hydrants	LAY	Layout line work
FIL	Backfill, soil line	LAY	Paper space metaview boundaries
			Luminaries ceiling mounted
FIN	Finishes	LCM	
FIR	Fire egress	LEV	Floor level changes, ramps, truck
FIT	Fittings		wells
FIX	Plumbing fixtures	LGT	Lighting control schematics and
FLG	Flagpoles		diagrams
FLO	Flow, discharge	LIM	Limits
FLR	Floor finishes	LIN	Line work
FLU	Flue, vent, breaching	LNT	Low normal tide
FND	Fenders	LOB	Floor elevator lobbies
FOR	Fuel oil return	LOG	Borehole logs and data
FOS	Fuel oil supply	LOG	Logos
FRL	Fire lines	LTG	Normal powered lighting
FRM	Framing	LTP	Lightning protection schematics
FST	Floating wharfs	LVC	Low voltage
FTG	Footing	LVD	Low voltage distribution
FTN	Fountains, pools	LVF	Low voltage under floor
FUR	Site furnishings, benches, garbage	LVW	Low voltage in workspace
	cans, etc.	LWL	Low water lines
FWL	Fire walls	LWN	Lawn area
GAB	Gabions	LWS	Luminaries wall mounted
GDP	Guideposts	MAJ	Major contours
GEN	Generators	MAN	Manholes
GLR	Glycol return	MAR	Marshes, wetlands
GLS	Glycol supply	MEC	Electrical connections to mechanical
GND	Grounding schematics		equipment
GRD	Grid	MFP	Master Fire Warning Panel
GRL	Guides, guard rails, median dividers,	MIL	Architectural specialties, casework
0.12	bollards		and millwork
GRP	Space allocation by group / branch	MINI	Minor contours
	Space allocation by group / branch	MIN	
GUA	Guards	MLI	Main sewer lines
GUT	Gutter lines	MNG	Storm water management pond
GWY	Gangways	MON	Monitoring
HAT	Hatching	MON	Monuments
HED	Door and window headers	MOR	Mooring cleats, bollards
HNT	High normal tide	MRK	Markings and road striping
HOR	Horizontal	MSH	Mass hauling diagrams
HPT	Horizontal control points	MTR	Metering wiring & equipment

MUN	Municipal and utility services	RMS	Rooms
NAT	Natural boundaries, watercourses,	ROD	Drivable road limits (asphalt) road,
		ROD	
	shorelines		lots
NEO	Neoc wiring and equipment	RRP	Riprap
NGA	Natural gas	RWL	Retaining walls
NLT		SAN	
	Normal lighting schematics		Sanitary
NOD	Node, Horizontal Reference Point	SCR	Screens
NOF	Non-office furniture, first aid room	SEC	Security zoning
	beds, etc.	SEL	Super elevation
NIDT			
NPI	Natural gas pipelines	SEN	Intrusion sensors
NPR	Normal power schematics, risers	SER	Fuel and process piping
NSE	Natural gas valves, manholes,	SET	Seating
		SET	Setbacks
	meters, storage	_	
OEQ	Office equipment	SEW	Sewer
OFF	Office signage	SFT	Shafts
OLB	Outside luminaries attached to	SGL	Sign layouts and details
OLB			
	building	SGN	Signs
OLN	Outlines	SHL	Shelving
OPI	Oil pipelines	SIG	Signalling devices
OPN	Openings	SIL	Window sills
OSE	Oil valves, manholes, meters,	SIZ	Size
	storage	SKD	Skid timbers, skid poles
OUT	Outlets	SLB	Slabs
OUT	Outside air	SLI	Sewer lines
OVH	Overhead	SMC	Smoke control equipment
PAN	Telephone panel	SMP	Soil sample locations
PAR	Parcel line work	SNL	Stringers
			5
PAS	Public address system schematics	SPA	Spars
PGA	Propane gas	SPC	Special
PIC	Inserted pictures	SPE	Sprinkler equipment
PIL	Piles	SPH	Sprinkler heads
			·
PIP	Piping schematic diagrams	SPO	Equipment, sports facilities, goal
PIR	Piers		nets, shooting targets, etc.
PLN	Approach slabs in plan view	SPP	Sprinkler piping
PLT	Plants	SPT	Spot elevation
PNT	Survey points	SPT	Spot Elevations
POL	Poles and towers (electrical,	SRF	Surface model line work
	communication)	SSP	Steel sheet piling
PPI	Propane pipelines	SSZ	Sprinkler system zones
PRO	Profiles	STC	Steam condensate
PRO	Provincial boundaries	STE	Standpipe equipment
PRS	Piping riser diagrams	STG	Staging layout plan
PSE		STG	
PSE	Propane valves, manholes, meters,		Steel grating
	storage	STL	Steel
PST	Posts	STM	Steam
RAD	Radiant heat	STO	Stone
RAI	Railway	STP	Standpipe piping
RAS	Raised floors	STP	Stratigraphic profiles
RAW	Raw water lines	STR	Stairs
RDR	Roof drains	SUB	Sub
REB	Reinforcing	SUP	Supply
REC	Receptacles	SUR	Work surfaces, D-tops, P-tops, etc.
REF	Refrigerant equipment	SWK	Sidewalks
REG	Regional and municipality boundaries	SYM	Symbols
RET	Retaining walls	TAB	Tables
RET	Return	TEL	Telephone
RFG	Refrigerant gas	TEN	Tenant
RFL	Refrigerant liquid	TER	Terraces
RME	Read Me info	THR	Thermostats
RMP	Ramps		

TID	Tide gauges, tidal equipment, tide
TIE	datum Tie rods, anchor blocks, tie back
TIL TIL TIM TMP TMT TNK TOE TRA TRE TRL	walls Tile Title Block Insertion Layer Timber Temporary Sewage treatment areas Fuel tanks Toe of breakwater Traverse line work Trees Trails
TUN TXT	Tunnels Text
UCD	"Underlying cadastral fabric; deeds,
UND UNT UPS VAV VAV VCE VCL VCM VCW VER VID VPT WAL WCL WIN WLK WPM	lots, plans" Underground, Below Grade Space allocation by units Ups and conditioned power Valve actuators, controllers Variable air volume boxes Emergency voice communication Video controllers (digital) Video cameras and monitors Emergency voice communication wiring Vertical Video system schematics Vertical control points Walls Ceiling mounted wiring Windows Roof boardwalks, catwalks Domestic water tanks, pumps, water
WRG WRM WSR WST WTR ZRE ZNP ZNS	softeners Wiring Washroom partitions Washrooms Waste schematics Water External reference Proposed new zoning Zoning surfaces, runway strips, centrelines

Second Extension

- 1 to 9 Options or phases 1 to 9 A English Text (Anglais)
- B Bottom
 C Centre
 E Existing
 F French Text
- L Left
- M To be moved or relocated
- N New
- P Planned or Proposed
- R Right
 S Base
 T Top
- X To Be Removed

Annex C - Glossary

"As-Built" shall mean a set of construction drawings reflecting on-site changes required during the project as well as the original design intent.

"AutoCAD®" shall mean the CADD software developed by Autodesk® Inc.

"Base Plan" shall mean a clean, two dimensional floor plans of a building drawn from field surveys containing all pertinent graphic information. The intent is to use Base Plan files for project drawings, then update them once a project is complete and the area affected is re-measured.

"CADD" shall mean Computer Aided Design and Drafting.

"CAFM" shall mean Computer Aided Facilities Management.

"DOS" shall mean the Disk Operating System which manages the flow of information to and from various parts of the Personal Computer system.

"DM-5" shall mean Enterprise Document and Record Management. This is a PWGSC internal electronic document filing system (Formally known as EDRM or TIDIS).

"Layers" shall mean the AutoCAD® system of dividing drawing elements.

"Legacy Drawings" shall mean older hard copy drawings, microfiche aperture card not in digital format or older CADD files not to present standards.

"PWGSC" shall mean the Department of Public Works and Government Services Canada.

"RPB" shall mean Real Property Branch, a branch of PWGSC.

"SDIM" shall mean Spatial Data Information Management, a general term for managing CADD/CAFM/GIS drawings.