

		National Defence Défense Nationale	Back to the DID List
DATA ITEM DESCRIPTION - DESCRIPTION DE DONNÉES			
1. TITLE – TITRE		2. IDENTIFICATION NUMBER - NUMÉRO D'IDENTIFICATION	
CADD Master Drawing Files		DID 15.9.4	
3. DESCRIPTION / PURPOSE – DESCRIPTION / OBJET			
<p>The purpose of CADD Master Drawing Files is to capture design and record drawings for retention in electronic format..</p>			
4. APPROVAL DATE DATE D'APPROBATION	5. OFFICE OF PRIMARY INTEREST (OPI) BUREAU DE PREMIERE RESPONSABILITÉ (BPR)	6. GIDEP APPLICABLE D'ÉCHANGE DE DONNÉES PERTINENT	
TBD	NWSO Technical Authority (TA)	N/A	
7. APPLICATION / INTERRELATIONSHIP – APPLICATION / INTERDÉPENDANCE			
<p>Related CDRL 15.9.4 and SOW paragraph 15.9.4 refer. This DID contains the format and content preparation instructions for preparation and submission of CADD Master Drawing Files as described in the NWS O&M SOW.</p>			
8. ORIGINATOR - AUTEUR		9. APPLICABLE FORMS - FORMULES PERTINENTES	
NWSO TA		NIL	
10. PREPARATION INSTRUCTIONS – INSTRUCTIONS SUR LA PRÉSENTATION DES DONNÉES			
10.1 Provide CADD Master Drawing Files for all capital construction projects and submit in a format as requested by the RP-TSA.			
10.2 Prepare drawings in accordance with applicable DND standards and as requested by the RP-TA, or otherwise in accordance with Canadian Standards Association CSA B78.5-93: Computer-Aided Design Drafting (Buildings). Drawing must also meet the following criteria: <ul style="list-style-type: none"> • dimensions must be in metric only (no dual dimensioning); • no trade names present on any drawings; and • no specification-type notes are on any drawing. 			
10.3 Drawings must be prepared in accordance with accepted DND standards and the Canadian Standards Association CSA B78.5-93: Computer-Aided Design Drafting (Buildings).			
10.4 Drawing must also meet the following criteria: <ul style="list-style-type: none"> • dimensions must be in metric only (no dual dimensioning); • no trade names present on any drawings; and • no specification-type notes are on any drawing. 			
10.4 Drawings should show the quantities of the elements, the configuration of the project, the dimensions, and details of how the Work is constructed. There should be no references to future Work or information that will be changed by future addenda. The scope of Work should be clearly detailed, and elements not in the Contract should be eliminated or kept to an absolute minimum.			
10.5 Included Title Blocks and Revision Notes for drawings and sketches (including addenda) and the percent of drawing completion in the revision notes. Revision notes must be inputted during design development, but cleared for 100% complete drawing (ready for tender or construction as applicable).			

10.6 Number drawings in sets according to the type of drawing and the discipline involved as indicated in the following table otherwise as requested.

Discipline	Drawing
Demolition	D01, D02, etc.
Architecture	A01, A02, etc.
Civil	C01, C02, etc.
Landscaping	L01, L02, etc.
Mechanical	M01, M02, etc.
Electrical	E01, E02, etc.
Structural	S01, S02, etc.
Interior Design	ID01, ID02, etc.

10.7 Present the drawings in sets, providing the applicable demolition, site plan, civil, landscaping, architecture, structural, mechanical, and electrical drawings in that order. All drawings should be of uniform standard size. Provide a legend of symbols, abbreviations, references, etc., on the front sheet of each set of drawings, or in the case of large sets of drawings, provided the legend immediately after the title sheet and index sheets.

10.8 Where schedules or tables occupy entire sheets, locate them at the back of each set of drawings for convenient reference. Include a north arrow on all plans. Orient all plans in the same direction for easy cross-referencing. Wherever possible, lay out plans so that the north point is at the top of the sheet. Follow generally accepted drawing conventions, understandable by the construction trades.

10.9 As-built drawings are official record drawings and must represent as constructed conditions including location and size of equipment, devices, plumbing lines, mechanical and electrical equipment, structural elements etc. As-built drawings must be updated in CADD, handwritten notes are not acceptable.

10.10 Submission Format.

Unless otherwise requested by the RP-TA, drawing submissions must be in electronic and hard copy format. Drawing submitted in hard copy must be:

- printed to scale with black lines on white paper;
- bound with staple or other means into sets, where presentations exceed 50 sheets, the drawings for each discipline may be bound separately for convenience and ease of handling; and
- of a paper size as agreed to with the RP-TA.

Drawings submitted electronically must be provided:

- without password protection or printing restrictions;
- in two formats:
 - PDF/E-1 (in compliance with ISO 24517-1); and
 - .dwg format.

10.11 Building Information Modelling (BIM)

DND is committed to using non-proprietary or “OpenBIM” standards. As such, the Contractor is not required to use any specific proprietary software format. For the sake of legacy information quality, the Contractor must use the international standards of interoperability for BIM (IFC) in all cases where models are submitted. Contractors must to Work with software that is compliant to this standard.

Where used, BIM must not replace the submission requirements outlined by this document. Rather, the Contractor

must submit models in addition requirements outlined herein. Where BIM is used, models and modelled information must be submitted in the following two formats:

- .native (whichever format is native to the Modelling software used by the Contractor);
- .ifc (Industry Foundation Classification – IFC4 – ISO 16739:2013); and All Modelled Information, and Model Information Exchanges must conform to:
- Project-specific requirements, such as agreed with the RP-TA; and
- Specific project-identified BIM Standards & Guidelines.