

Figure 5. Model file naming convention

Project Code, the first two-character field represents the *Discipline Designator*. The allowable characters for the first character in the Discipline Designator are listed in Table 3. The second character of the Discipline Designator field is always a hyphen "-". The next two-character field represents the *Model File Type* (Table 4). The final four-character field is user-definable.

Note: If the Workspace and Checker are being implemented, all eight of the mandatory characters in the model file name must be used and in the correct sequence. If all of the User Definable characters are not needed, placeholders must be used for the Workspace to function properly.

Example: The model file name for a project at Engineer Research and Development Center (ERDC), Building 8000, 1st floor, Architectural Floor Plan could be:

ERDC8000A-FPF1XX.dgn/dwg

where ERDC8000 is the Project Code, A- is the Discipline Designator, FP is the Model File Type (Floor Plan), and F1 is a user-definable set of characters for Floor 1. Since all the user definable characters were not used, the characters XX were used as placeholders.

Table 3	
Discipline Designators	
Discipline	Designator
General	G
Hazardous Materials	Н
Survey/Mapping	V
Geotechnical	В
Civil Works	W
Civil	С
Landscape	L
Structural	S
Architectural	А
Interiors	I
Equipment	Q
Fire Protection	F
Plumbing	Р
Process	D
Mechanical	M
Electrical	E
Telecommunications	Т
Resource	R
Other Disciplines	X
Contractor/Shop Drawings	Z
Operations	0

Existing/Demolition model file naming.

There are instances when a facility is being renovated and the as-built designs need to be revised to show demolition and new items.

Table 4 Model File Types				
Discipline	Code	Definition		
General				
	BS*	Border Sheet		
	KP*	Keyplan		
Hazardous N	/aterials	1		
	DT	Detail		
	EL	Elevation		
	LG*	Legend		
	PP*	Pollution Prevention Plan		
	SC	Section		
	XD*	Existing/Demolition Plan		
Survey/Mapp	oing	<u>'</u>		
	AL*	Existing Airfield Lighting Plan		
	CP*	Existing Communication Plan		
	EU*	Existing Electrical Utilities Plan		
	FU*	Existing Liquid Fuel Utilities Plan		
	HP*	Hydrographic Survey Plan		
	HT*	Existing HTCW Utilities Plan		
	IW*	Existing Industrial Waste Water Plan		
	LG*	Legend		
	NG*	Existing Natural Gas Utilities Plan		
	PB*	Project Boundary		
	PR*	Existing Profile		
	SC	Existing Section		
	SP*	Survey and Mapping Plan		
	SS*	Existing Sanitary Sewer Plan		
	ST*	Existing Storm Sewer Plan		
	WA*	Existing Domestic Water Plan		
Geotechnica	ı I	•		
_	BL*	Boring Location Plan		
	LB*	Boring Log		
	LG*	Legend		
	SH	Schedule		
Civil				
_	AF*	Airfield Plan		
	AM*	Airfield Pavement Marking Plan		
	CP*	Channel Plan		
	DT	Detail		
	EC*	Erosion Control Plan		

Table 4 (Continued)			
Discipline	Code	Definition	
Civil (Continued)			
	EL	Elevation	
	FU*	Liquid Fuel Utilities Plan	
	GP*	Grading Plan	
IP*		Installation Plan/Base Map	
	IW*	Industrial Waste Water Plan	
	JP*	Joint Layout Plan	
	KP*	Staking Plan	
	LG*	Legend	
	NG*	Natural Gas Utilities Plan	
	PL*	Project Location Map	
	PR*	Profile	
	SC	Section	
	SH	Schedule	
	SP	Site Plan	
	SS*	Sanitary Sewer Plan	
	ST*	Storm Sewer Plan	
	TS*	Transportation Site Plan	
WA* Do		Domestic Water Plan	
	XD*	Existing/Demolition Plan	
Landscape			
	DT	Detail	
	EL	Elevation	
	IP*	Irrigation Plan	
LG* Legend		Legend	
	LP* Landscape Plan		
	SC	Section	
	SH	Schedule	
	XD*	Existing/Demolition Plan	
Structural			
	3D	Isometric/3D	
	CP*	Column Plan	
	DT	Detail	
	EL	Elevation	
	EP*	Enlarged Plan	
	FP*	Framing Plan	
	LG*	Legend	
	NB*	Non-Building Structures Plan	
	NP*	Foundation Plan	

Table 4 (Continued)				
Discipline	Code	Definition		
Structural (Continued)				
	SC	Section		
	SH	Schedule		
	XD*	Existing/Demolition Plan		
Architectural				
	3D	Isometric/3D		
	AC*	Area Calculations/Occupancy Plan		
	CP*	Reflected Ceiling Plan		
	DT	Detail		
	EL	Elevation		
	EP*	Enlarged Plan		
	FP	Floor Plan		
	LG*	Legend		
	QP	Equipment Plan		
	RP*	Roof Plan		
	SC	Section		
	SH	Schedule		
	XD*	Existing/Demolition Plan		
Interiors				
	3D	Isometric/3D		
	DT	Detail		
EL		Elevation		
EP*		Enlarged Plan		
	LG*	Legend		
	QP	Equipment Plan		
	RP*	Furniture Plan		
	SC	Section		
	SH	Schedule		
	SP*	Signage Placement Plan		
	WP*	System/Prewired Workstation Plan		
	XD*	Existing/Demolition Plan		
Fire Protection	on			
	DG	Diagram		
	DT	Detail		
	FA*	Fire Alarm/Detection Plan		
	FP*	Fire Suppression Plan		
	LG*	Legend		

Table 4 (Continued)			
Discipline	Code	Definition	
	LP*	Life Safety Plan	
	SH	Schedule	
	XD*	Existing/Demolition Plan	
Plumbing			
	DG	Diagram	
	DT	Detail	
	EL	Elevation	
	EP*	Enlarged Plan	
	LG*	Legend	
	PP*	Piping Plan	
	SH	Schedule	
	XD*	Existing/Demolition Plan	
Mechanical			
	3D	Isometric/3D	
	DG	Diagram	
	DT	Detail	
	EL	Elevation	
	EP*	Enlarged Plan	
	HP*	HVAC Plan	
	HT*	HTCW Utilities Plan	
	LG*	Legend	
	MD*	Machine Design Plan	
	MH*	Material Handling Plan	
	PP*	Piping Plan	
	QP	Equipment Plan	
	SC	Section	
	SH	Schedule	
	SP*	Specialty Piping Plan	
	XD*	Existing/Demolition Plan	
Electrical			
	AL*	Airfield Lighting Plan	
	AP*	Auxiliary Power Plan	
	CP*	Exterior Communication Systems Plan	
	DG	Diagram	
	DT	Detail	
	EU*	Electrical Utilities Plan	
	GP*	Grounding System Plan	
	LG*	Legend	

Table 4 (Concluded)			
Discipline	Code	Definition	
Electrical (Co	ntinued)		
	LP*	Lighting Plan	
	PP*	Power Plan	
	SH	Schedule	
	SS*	Special Systems Plan	
	XD*	Existing/Demolition Plan	
Telecommuni	ications		
	DG	Diagram	
	DT	Detail	
	LG*	Legend	
	SH	Schedule	
	TP*	Telephone/Data Plan	
	XD*	Existing/Demolition Plan	
* = Not in NCS 2.0			

These revisions would not be made on existing as-built model files, but on copies to ensure the original as-builts are not modified.

A new model file type, Existing/Demolition (XD*, where * means this type is not in NCS 2.0), has been added to the standard to allow users to make revisions to as-built files. This model file type is used to aid users in separating existing to remain items from items that will be demolished (for more information on the demolition levels/layers, see Chapter 4, "Demolition levels/layers").

Example: An Architect has an existing asbuilt Floor Plan model file for Building 1000, 2nd floor. For the current project, walls will be demolished and new walls constructed on the 2nd floor. First, a copy would be made of the original as-built file (B1000A-FPF2XX.dgn/dwg), which would be renamed to B1000RENA-XDF2XX.dgn/dwg (B1000REN is the Project Code, A- is the Discipline Designator, XD is the Model File Type (Existing/Demolition), and F2XX are user definable characters (F2=Floor 2)). The architect would open this file and move all demolition items to the first demolition

level/layer at that level/layer's correct symbology (if phased demolition is involved, the other levels/layers would be used). When the new items are drawn, the architect would open a new model file called something like

B1000RENA-FPF2XX.dgn/dwg

(B1000REN is the Project Code, A- is the Discipline Designator, FP is the Model File Type (Floor Plan), and F2XX are user definable characters (F2=Floor 2)). The file

B1000RENA-XDF2XX.dgn/dwg

would be referenced in with the Demolition levels/layers turned off. The architect would then use the Floor Plan active levels/layers to construct the new items for that project.

Sheet file naming convention

The sheet file naming convention (Figure 6) has one optional field, followed by four mandatory fields. Similar to the format for model file naming, the first field is optional, while the remaining fields must be used and in the correct sequence.

The first field is entirely optional and can be used for a 0 to 20-character *Project Code* (see "Model File naming convention"). The next two characters are the *Discipline Designator with Level 2 Designator* (see Table 5). The next character is the *Sheet Type Designator* (see Table 6) followed by a two-character *Sheet Sequence Number* (01-99). The remaining three characters are user-definable.

Discipline	Designator	Description	Content
General	1 11 3		
<u> </u>			
	G-	All General	All or any portion of subjects in the following Level 2 Designators
	GI	General Informational	Drawing index, code summary, symbol legend, orientation maps
	GC	General Contractual	Phasing, schedules, contractor staging areas, fencing, haul routes erosion control, temporary and special requirements
	GR	General Resource	Photographs, soil borings
Hazardous Ma	terials		
	H-	All Hazardous Materials	All or any portion of subjects in the following Level 2 Designators
	HA	Asbestos	Asbestos abatement, identification, or containment
	HC	Chemicals	Toxic chemicals handling, removal or storage
	HL	Lead	Lead piping or paint removal
	HP	PCB	PCB containment and removal
	HR	Refrigerants	Ozone depleting refrigerants
Survey/Mappir	na	<u> </u>	
- 7 - 1-1-			
	V-	All Survey/Mapping	All or any portion of subjects in the following Level 2 Designators
	VA	Aerial Survey	
	VF	Field Survey	
	VH*	Hydrographic Survey	
	VI	Digital Survey Combined Utilities	
	VO	Combined Offilities	
Geotechnical			
	B-	All Geotechnical	
Civil Works			
	W-	All Civil Works	
Civil		<u> </u>	
	C-	All Civil	All or any portion of subjects in the following Level 2 Designators
	CD	Civil Demolition	Structure removal and site clearing
	CS	Civil Site	Plats, dimension control
	CG	Civil Grading	Excavation, grading , drainage, erosion control
	СР	Civil Paving	Roads, driveways, parking lots
	CI	Civil Improvements	Pavers, flagstone, exterior tile, furnishings, retaining walls, and water features
	СТ	Civil Transportation	Waterways, wharves, docks, trams, railways, airfields, and peopl movers
	CU	Civil Utilities	Water, sanitary sewer, storm sewer, power, communications, fibe optic, telephone, cable television, natural gas, and steam systems

Table 5 (Co	ntinued)		
Discipline	Designator	Description	Content
Landscape			
	L-	All Landscape	All or any portion of subjects in the following Level 2 Designators
	LD	Landscape Demolition	Protection and removal of existing landscaping
	LI	Landscape Irrigation	
	LP	Landscape Planting	
Structural	•	•	
	S-	All Structural	All or any portion of subjects in the following Level 2 Designators
	SD	Structural Demolition	Protection and removal
	SS	Structural Site	
	SB	Structural Substructure	Foundations, piers, slabs, and retaining walls
	SF	Structural Framing	Floors and roofs
Architectural		<u> </u>	1
	A-	All Architectural	All or any portion of subjects in the following Level 2 Designators
	AD	Architectural Demolition	Protection and removal
	AS	Architectural Site	
	AE	Architectural Elements	General architectural
	Al	Architectural Interiors	
	AF	Architectural Finishes	
	AG	Architectural Graphics	
Interiors		1	
	I-	All Interiors	All or any portion of subjects in the following Level 2 Designators
	ID	Interior Demolition	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	IN	Interior Design	
	IF	Interior Furnishings	
	IG	Interior Graphics	Murals and visuals
Equipment		- Copino	
-40161110111		All Estimate	All and a second of the best of the first of the second of
	Q- QA	All Equipment Athletic Equipment	All or any portion of subjects in the following Level 2 Designators Gymnasium, exercise, aquatic, and recreational
	QA	Bank Equipment	Vaults, teller units, ATMs, drive-through
	QC	Dry Cleaning Equipment	Washers, dryers, ironing, and dry cleaning
	QD	Detention Equipment	Prisons and jails
	QE	Educational Equipment	Chalkboards, library
	QF	Food Service Equipment	Kitchen, bar, service, storage, and processing
	QH	Hospital Equipment	Medical, exam, and treatment
	QL	Laboratory Equipment	Science labs, planetariums, observatories
	QM	Maintenance Equipment	Housekeeping, window washing, and vehicle servicing
	QP	Parking Lot Equipment	Gates, ticket, and card access

Table 5 (Co	ntinued)		
Discipline	Designator	Description	Content
Equipment (Co	ntinued)		
	QR	Retail Equipment	Display, vending, and cash register
	QS	Site Equipment	Bicycle racks, benches, playgrounds
	QT	Theatrical Equipment	Stage, movie, rigging systems
	QV	Video/Photographic Equipment	Television, darkroom, and studio
	QY	Security Equipment	Access control and monitoring, surveillance
Fire Protection			
	F-	All Fire Protection	All or any portion of subjects in the following Level 2 Designators
	FA	Fire Detection and Alarm	
	FX	Fire Suppression	Fire extinguishing systems and equipment
Plumbing			
	P-	All Plumbing	All or any portion of subjects in the following Level 2 Designators
	PD	Plumbing Demolition	Protection, termination, and removal
	PS	Plumbing Site	Extensions and connections to Civil Utilities
	PP	Plumbing Piping	Piping, valves, and insulation
	PQ	Plumbing Equipment	Pumps and tanks
Process			
	D-	All Process	All or any portion of subjects in the following Level 2 Designators
	DD	Process Demolition	Protection, termination, and removal
	DS	Process Site	Extension and connection to civil utilities
	DL	Process Liquids	Liquid process systems
	DG	Process Gases	Gaseous process systems
	DP	Process Piping	Piping, valves, insulation, tanks pumps, etc.
	DQ	Process Equipment	Systems and equipment for thermal, electrical, materials handling, assembly and manufacturing, nuclear, power generation, chemical, refrigeration, and industrial processes
	DE	Process Electrical	Electrical exclusively associated with a process and not the facility
	DI	Process Instrumentation	Instrumentation, measurement, recorders, devices and controllers (electrical and mechanical)
Mechanical		•	
	M-	All Mechanical	All or any portion of subjects in the following Level 2 Designators
	MD	Mechanical Demolition	Protection, termination, and removal
	MS	Mechanical Site	Utility tunnels and piping between facilities
	MH	Mechanical HVAC	Ductwork, air devices, and equipment
	MP	Mechanical Piping	Chilled and heated water, steam
	MI	Mechanical Instrumentation	Instrumentation and controls

Discipline	Designator	Description	Content
Electrical			
	E-	All Electrical	All or any portion of subjects in the following Level 2 Designators
	EA*	Electrical Airfield Lighting and Navaids	Visual air navigation systems
	ED	Electrical Demolition	Protection, termination, and removal
	ES	Electrical Site	Exterior electrical systems (power, lighting, telecommunications, auxiliary)
	EP	Electrical Interior Power	Interior power
	EL	Electrical Interior Lighting	Interior lighting
	El	Electrical Instrumentation	Controls, relays, instrumentation, and measurement devices
	ET	Electrical Interior Telecommunications	Interior telecommunications (telephone, network, voice and data cables)
	EY	Electrical Interior Auxiliary Systems	Interior auxiliary (alarms, nurse call, security, CCTV, PA, music, clock, and program)
Telecommunicati	ons		
	T-	All Telecommunications	All or any portion of subjects in the following Level 2 Designators
	TD*	Telecommunications Demolition	Protection, termination, and removal
	TN	Data Networks	Network cabling and equipment
	TT	Telephone	Telephone systems, wiring, and equipment
Resource			
	R-	All Resource	All or any portion of subjects in the following Level 2 Designators
	RC	Resource Civil	Surveyor's information and existing civil drawings
	RS	Resource Structural	Existing facility structural drawings
	RA	Resource Architectural	Existing facility architectural drawings
	RM	Resource Mechanical	Existing facility mechanical drawings
	RE	Resource Electrical	Existing facility electrical drawings
Other Disciplines	Х		
Contractor/Shop Drawings	Z		

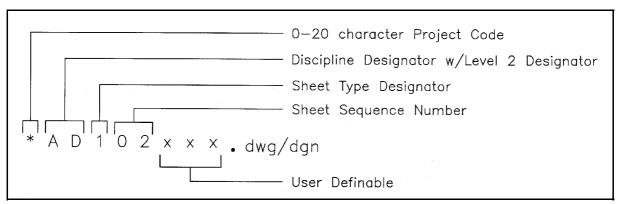


Figure 6. Sheet file naming convention

Table 6 Sheet Type Designators			
Sheet Type	Designator		
General (symbols legend, notes, etc.)	0		
Plans (horizontal views)	1		
Elevations (vertical views)	2		
Sections (sectional views)	3		
Large Scale Views (plans, elevations, or sections that are not details)	4		
Details	5		
Schedules and Diagrams	6		
User Defined	7		
User Defined	8		
3D Representations (isometrics, perspectives, photographs)	9		

Note: If the sheet sequence number goes above 99 sheets for a particular discipline, the first character in the User Definable field could be used to expand the limit of sheets per discipline to 999. However, if more than 99 sheets are required for one discipline's drawings, the user might want to consider using the Level 2 Designator in the Discipline Designator to further subdivide the discipline (see Table 5).

Note: Occasionally, more than one Sheet Type (e.g., plan, elevation, detail) will be represented in one sheet file. If this is the case, the dominant sheet type determines the Sheet Type Designator.

Example: The sheet file name for a project at ERDC, Building 8000, 1st floor, Quadrant B, Architectural Floor Plan, sheet sequence 02 could be:

ERDC8000A-102F1B.dgn/dwg

where ERDC8000 is the Project Code, A- is the Discipline Designator, 1 is the Sheet Type Designator (Plan), 02 is the Sheet Sequence Number, and F1B is a user-definable set of characters for Floor 1, Quadrant B.

Coordination Between Sheet File Name and Sheet Identifier

In assigning a sheet identifier (for use in the sheet identification block, reference bubbles, etc.), the user should coordinate with the name assigned to the electronic sheet file. The sheet identifier should consist of the discipline designator, sheet type designator, and the sheet sequence number (Figure 7).

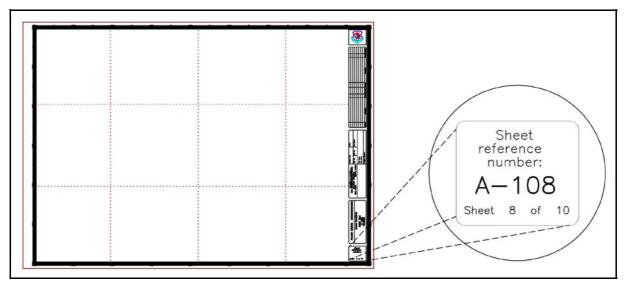


Figure 7. Typical border sheet title block with sheet identification block

As far as the sequence of the discipline designators in a drawing set, the National CAD Standard mandates that the disciplines follow the order as shown in Table 3.