

# UNIVERSITY OF MIAMI

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## **CAD Drawing and Layering Standards**

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## 1. Drawing Specifications

- 1.1. All drawings must be delivered in AutoCAD format, release 2006 or higher, and adhere to the specified layers and guidelines as shown in Appendix B. All electronic drawings shall be drawn in a 1:1 format in model space with all entities having a "Z" elevation of zero (0). The drawings shall have no external references. All unused blocks, layers, line types and text styles shall be purged from the final drawings.
- 1.2. Polylines: The Bidder must provide the area identification of space through the construction of polylines for the gross floor area and each individual room as specified for use in the University's future space management system. All polylines must be constructed in accordance with 2006 edition of the Postsecondary Education Facilities Inventory and Classification Manual (FICM). The gross floor area polyline will be on a separate and distinct layer from the individual room polylines, as specified in the layering standards in Appendix B.
- 1.3. Line Work: All lines are to form true intersections where appropriate. There shall be no line on top of lines within the same layer. All lines shall be continuous as opposed to segmented lines.
- 1.4. Blocks: All blocks are to be made using entities drawn on layer "0". Blocks are to be inserted on the appropriate layer and shall be inserted and/or bound to the drawing.
- 1.5. Text Styles: Text height shall be 1'-6". In small rooms where the size might not fit the space the text shall be placed nearby with a leader line going to the room, but in no circumstances outside the walls of the building. Text width factor shall equal 1 (one). Text font shall be ROMANS.SHX. Text is to be center-aligned within the walls of the rooms (except when using leader lines as above) and readable from the bottom of the drawing. All text shall be on the correct text layer, as specified in the University's standard layer format (Appendix B).
- 1.6. Border: All electronic drawings shall be made visible in paper space in the University's furnished border found on the University's standard drawing template, which will be provided to the Bidder. The Bidder will add building name, number and floor, scale, file name and date created to the border. All electronic drawings shall be centered within the border. For each building, the floor plans shall all have identical scale and orientation. The preferred scale is 1/8"=1'-0" though 1/16"=1'-0" or 1/32"=1'-0" can also be used to best fit the drawing in the viewable area. If none of these scales allow the building to fit into the border, then the Bidder shall seek advice from the University to choose an appropriate scale.
- 1.7. State Plane Coordinate System: All drawings shall be referenced to and tie-in with the state plane coordinate system, with a Florida East Projection, and a North American Datum 1983/1990 (NAD 83/90 datum), and with United States Survey Feet (USFEET) units, as established by a registered Florida surveyor and mapper.
- 1.8. Room Numbers: Room numbers shall be on a separate room number layer, as specified in the University's standard layer format provided in Appendix B.
- 1.9. Floors: Each floor of a structure shall be represented by a single drawing, regardless of floor plate size.
- 1.10. Building Connections: Doors, walkways, bridges, and tunnels, which lead between two structures, shall be clearly labeled with the name of the structure it leads to and an arrow.

- 1.11. Shared Structural Walls: If two buildings share a structural wall, wholly or in part, the gross polyline should go to the midpoint of that wall so as not to “double dip” on the gross area.

## **2. File and Folder Naming Specification**

- 2.1. Folder Names: All electronic floor plans for each building shall be stored in an electronic folder named according to the following designation:

Folder Name for each building - "Building Number-Building Name"

"Building Number" shall be a 4 digit number. The University will provide a list of building numbers and names.

EXAMPLE: 0101-MacArthur Engineering Building

- 2.2. File Names: Each individual floor plan shall be saved as a single file, using the following file naming convention:

XXXX-YY.dwg, where:

XXXX = Building number, as 4 digit number  
and

YY = Floor designation, based on the following assignment:

## = Floor numbers, as two-number designations (ex: 01, 12)

B1 = Basement

SB = Sub-Basement

#M = Mezzanine, where # is the number of the floor below the mezzanine (i.e. a mezzanine that sits between floors 2 and 3 would be designated as 2M)

RF = Roof

RV = Receiving

VT = Vault

EXAMPLE: 0101-02.dwg

## **3. Layering Standards**

- 3.1. All drawings shall conform to the layering standards found below.

## CAD LAYERING STANDARDS

### Architecture, Interiors, Facilities

<b>Layer Name</b>	<b>Layer Description</b>
F-FIN	Paving, Tile and Carpet Patterns
F-NOTE	Finish Plan Notes
FE-FURN	Furniture, Chairs and Other Seating, File Cabinets, Freestanding Furniture (Desks, Credenzas, etc.)
FE-NOTE	Furniture Notes
FE-PATT	Finish Patterns
FE-PLANTS	Plants
FE-PNLS	Furniture System Panels
FE-IDEN	Furniture Numbers, & Information
I-DET	Details
I-EQUIP	Equipment Identification Numbers
I-NOTE	Area Calculation, Floor Information
I-RMHAME	Occupant Names
I-WIND	Window Number
MATCHLINE	Building Boundary
MATCLINE-TEXT	Building Boundary Text
R-CLG	Ceiling and Roof Penetrations, Ceiling Patterns, Suspended Elements
R-GRID	Ceiling Grid, Main Tees
R-HEADER	Door and Window Headers (Shown on Reflected Ceiling Plans)
R-NOTE	Ceiling Information

## **Architecture, Interiors, Facilities (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
RoomID-Box	Room Number Pillbox
RoomID-Door	Door Number, Hardware Group, etc.
RoomID-Room Number	Room Number
S-TEXT	Model Space Drawing Title
SP-PLAREA	University Room Poly Line (Room Square Footage)
U-BPOLY	University Building Poly Line (Gross Square Footage)
U-SPCS	University State Plane Coordinate System

**Note:** All the prefixes may be followed by a numbering system such as 14, 18, these numbers are to depict the individual scale such as 1/4" = 1-0" & 1/8" = 1-0" respectively) this allows control of notes, dimensions & titles etc... which occur on a plan or elevation which may be plotted at two different scales.

## Architecture, Interiors, Facilities (continued)

<b>Layer Name</b>	<b>Layer Description</b>
A-ABOVE	Lights and Overhangs (Usually Dashed Lines), Items found above floor plan (Hidden Lines)
A-APPL	Appliances
A-BELOW	Items found below floor plan (Hidden Lines)
A-CABINET	Casework (Manufactured Cabinets), Architectural Woodwork (Field - Built Cabinets and Counters), Wall - Mounted Casework
A-DET-HATCH	Textures and Hatch Patterns
A-DETL-MBND	Material beyond Section Cut
A-DETL-MCUT	Material Cut by Section
A-DOOR	Doors
A-ELEV	Interior and Exterior Elevations
A-ELEV-HATCH	Textures and Hatch Patterns
A-ELEV-IDEN	Component Identification Numbers
A-ELEV-SIGN	Signage
A-EQUIP	Equipment
A-ELEVATOR	Elevator Cars and Equipment
A-EQPM-NIC	Equipment Not in Contract
A-FENCE	Fence
A-FILL	Area Cross-hatching
A-FIN	Finishes, Woodwork, and Trim
A-FIXT	Miscellaneous Fixtures, Toilet Room Accessories
A-FLOR-HATCH	Floor Cross-hatching
A-HEADER	Door & Window Headers not shown on Reflected Ceiling Plans (Hidden)
A-INSUL	Wall Insulation
A-JAMB	Door and Window Jambs (Not on Reflected Ceiling Plans)
A-MPART	Movable Partitions
A-PART	Fixed Partitions
A-PRHGT	Partial Height Walls (Not on Reflected Ceiling Plans)
A-RAIL	Hand Rail
A-ROOF	Roof
A-SHBD	Sheet Borders and Title Block Line Work
A-SHBD-LOGO	Project or Office Logo
A-SHBD-TEXT	Project Title Block and Project Name
A-SHBD-VIEW	Viewport
A-SLAB	Slab
A-STAIR	Stair and Balcony Handrails and Guard Rails, Stair Risers, Stair Treads, Escalators, and Ladders
A-TPART	Toilet Partitions
A-WALL	Walls
A-WALL-ELEV	3D Views
A-WIND	Glazing and Mullions (Elevation Views), Windows, Window Walls, Curtain Walls, Glazed Partitions
A-WIND-CLERESTORY	High Window
A-WIND-SILL	Window Sills
AR-APPLIANCE	Appliances: Refrigerators, Ovens, Stoves, etc.

## Civil Engineering and Site Work

<b>Layer Name</b>	<b>Layer Description</b>
C-BLDG	Proposed Building Footprints
C-BLDG-DEMO	Footprints of Existing Buildings to Be Demolished
C-BLDG-EXST	Footprints of Existing Buildings to Remain
C-COMM	Site Communication (Telephone Poles, Boxers, Towers)
C-COMM-OVHD	Overhead Communication Lines
C-COMM-UNDER	Underground Communication Lines
C-DETL	Details
C-DETL-IDEN	Identification Numbers
C-DETL-MBND	Material beyond Section Cut
C-DETL-MCUT	Material Cut by Section
C-DETL-PATT	Textures and hatch Patterns
C-ECTR	Site Electrical Substations and Poles
C-ECTR-LITE	Site Lighting
C-ECTR-OVHD	Overhead Lines
C-ECTR-POLE	Electric Poles
C-ECTR-UNDER	Underground Electrical Lines
C-ELEV	Elevations
C-ELEV-IDEN	Identification Numbers
C-ELEV-OTLN	Building Outlines
C-ELEV-PATT	Textures and Hatch Patterns
C-FIRE	Fire Protection Hydrants and Connections
C-FIRE-UNDR	Fire Protection (Underground Lines)
C-NGAS	Natural Gas manholes, Meters, and Storage Tanks
C-NGAS-UNDER	Natural Gas (Underground Lines)
C-PKNG	Parking Lots
C-PKNG-CARS	Graphic Illustration of Cars
C-PKNG-DEMO	Existing Parking Lots to be Demolished
C-PKNG-DRAN	Parking Lot Drainage Slope Indications
C-PKNG-EXST	Existing Parking Lots to Remain
C-PKNG-ISLD	Parking Islands
C-PKNG-STRP	Parking Lot Striping and Handicapped Symbol
C-PROP	Property Lines and Survey Benchmarks
C-PROP-BRNG	Bearings and Distance Labels
C-PROP-CONS	Construction Controls
C-PROP-ESMT	Easements, Right-of-ways, and Setback Lines
C-ROAD	Roads
C-ROAD-CNTR	Center Lines
C-ROAD-CURB	Curbs
C-ROAD-DEMO	Existing Road to be Demolished
C-ROAD-EXST	Existing Parking Road to Remain
C-SECT	Sections
C-SECT-IDEN	Identification Numbers
C-SECT-MBND	Material beyond Section Cut
C-SECT-MCUT	Material Cut by Section
C-SECT-PATT	Texture and Hatch Patterns
C-SSWR	Sanitary Sewer (Manholes, Pumping Stations)

**Civil Engineering and Site Work (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
C-SSWR	Sanitary Sewer (Underground Lines)
C-STRM	Storm Drainage Catch basins and Manholes
C-STRM-UNDR	Storm Drainage Pipe (Underground)
C-TOPO	Proposed Contour Lines and Elevations
C-TOPO-BORE	Test Borings
C-TOPO-DEMO	Existing Contour Lines and Elevations to be Changed
C-TOPO-EXST	Existing Contour Lines and Elevations to Remain
C-TOPO-RTWL	Retaining Wall
C-TOPO-SPOT	Spot Elevations
C-WATR	Domestic Water (Manholes, Pumping stations, Storage Tanks)
C-WATR-UNDR	Domestic Water (Underground Lines)
C-DETL	Details
C-ELEV	Elevations
C-P***	Other Site, Landscape, or Civil Plans
C-PELC	Site Electrical Systems Plan
C-PGRD	Grading Plan
C-PPAV	Paving Plan
C-PSIT	Site Plan
C-PUTL	Site Utility Plan
C-SCHD	Schedules and Title Block Sheets
C-SECT	Sections
C-SHBD	Sheet Borders and Title Block Line Work
C-SHBD-LOGO	Project or Office Logo
C-SHBD-TTLB	Project Title Block and Project Name
C-SHBD-VIEW	Viewport
C-****	(can be used with any minor group)
C-****-DIMS	Dimensions
C-****-NOTE	Notes, Call-outs, and Key Notes
C-****-NPLT	Nonplot Information and Construction Lines
C-****-PATT	Cross-hatching and Poche
C-****-PLOT	Plotting Targets and Windows
C-****-SYMB	Symbols, Bubbles, and Targets
C-****-TEXT	General Notes and Specification
C-****-TTLB	Sheet Name and Number



## Electrical

<b>Layer Name</b>	<b>Layer Description</b>
E-ALRM	Miscellaneous Alarm System
E-AUXL	Auxiliary Systems
E-BELL	Bell Systems
E-CCTV	Closed Circuit TV
E-CLOK	Clock System
E-COMM	Telephone and Communication Outlets
E-CTRL	Electric Control Systems
E-CTRL-DEVC	Control System Devices
E-CTRL-WIRE	Control System Wiring
E-DATA	Data Outlets
E-DETL	Details
E-DETL-IDEN	Identification Numbers
E-DETL-MBND	Material beyond Section Cut
E-DETL-MCUT	Material Cut by Section
E-DETL-PATT	Textures and Hatch Patterns
E-DICT	Central Dictation System
E-ELEV	Elevations
E-ELEV-IDEN	Identification Number
E-ELEV-OTLN	Building Outlines
E-ELEV-PATT	Textures and Hatch Patterns
E-FIRE	Fire Alarm and Fire Extinguishers
E-GRND	Ground System
E-GRND-CIRC	Ground System Circuits
E-GRND-DIAG	Ground System Diagram
E-GRND-EQUI	Equipotential Ground System
E-GRND-REFR	Reference Ground System
E-SECT	Sections
E-SECT-IDEN	Identification Numbers
E-SECT-MBND	Material beyond Section Cut
E-SECT-MCUT	Material Cut by Section
E-SECT-PATT	Textures and Hatch Patterns
E-SERT	Security

## Electrical (continued)

<b>Layer Name</b>	<b>Layer Description</b>
E-SOUN	Sound or PA System
E-TVAN	TV Antenna System
E-****	(can be used with any minor group)
E-****-CIRC	Circuit Information
E-****-CLNG	Ceiling-mounted Device Layout
E-****-DEVC	Utilization Device Layout
E-****-DGDM	Interconnection Diagram
E-****-EQPM	Equipment Layout
E-****-FLOR	Floor-mounted Device Layout
E-****-IDEN	Identification Test
E-****-NUMB	Numbers for System (Zones, etc.)
E-****-WALL	Wall-mounted Device Layout
E-****-WIRE	Wiring Line Work and Information
E-INTC	Intercom System
E-LITE	Lighting
E-LITE-CIRC	Lighting Circuits
E-LITE-CLNG	Ceiling-mounted Lighting
E-LITE-EMER	Emergency Lighting
E-LITE-EXIT	Exit Lighting
E-LITE-FLOR	Floor-mounted Lighting
E-LITE-IDEN	Luminaire Identification and Test
E-LITE-NUMB	Lighting Circuit Numbers
E-LITE-OTLN	Lighting Outline for Background (Optional)
E-LITE-ROOF	Roof Lighting
E-LITE-SITE	Site Lighting (see also Civil Group)
E-LITE-SPCL	Special Lighting
E-LITE-SWCH	Lighting Switches
E-LITE-WALL	Wall-mounted Lighting
E-LTNG	Lightning Protection System
E-NURS	Nurse Call System
E-PGNG	Paging System
E-POWR	Power
E-POWR-BUSW	Busways
E-POWR-CABL	Cable Trays
E-POWR-CIRC	Power Circuits
E-POWR-CLNG	Power Ceiling Receptacles and Devices
E-POWR-EQPM	Power Equipment
E-POWR-FEED	Feeders
E-POWR-IDEN	Power Identification and Text

## **Electrical (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
E-POWR-NUMB	Power Circuit Numbers
E-POWR-OTLN	Power Outline for Backgrounds
E-POWR-PANL	Power Panels
E-POWR-ROOF	Roof Power
E-POWR-SITE	Site Power (see also Civil Group)
E-POWR-SWBD	Power Switchboards
E-POWR-UPCT	Under Carpet Wiring
E-POWR-URAC	Under Floor Raceways
E-POWR-WALL	Power Wall Outlets and Receptacles
E-ILIN	One Line Diagrams
E-DETL	Details
E-ELEV	Elevations
E-LEGN	Legend of Symbols
E-P***	Other Electrical Plans
E-PAUX	Auxiliary Systems Plan
E-PCOM	Communication Systems Plan
E-PLIT	Lighting Plan
E-PPOW	Power Plan
E-PROF	Electrical Roof Plan
E-RISR	Riser Diagram
E-SCHD	Schedules and Title Block Sheets
E-SECT	Sections
E-SHBD	Sheet Border and Title Block Line Work
E-SHBD-LOGO	Project or Office Logo
E-SHBD-TTLB	Project Title Block and Project Name
E-SHBD-VIEW	Viewport
E-****	(can be used with any minor group)
E-****-DIMS	Dimensions
E-****-NOTE	Notes, Call-outs, and Key Notes
E-****-NPLT	Nonplot Information and Construction Lines
E-****-PATT	Cross-hatching and Poche
E-****-PLOT	Plotting Targets and Windows
E-****-SYMB	Symbols, Bubbles, and Targets
E-****-TEXT	General Notes and Specifications
E-****-TTLB	Sheet Name and Number

## **Mechanical**

<b>Layer Name</b>	<b>Layer Description</b>
M-BRIN H-BRIN-EQPM H-BRIN-PIPE	Brine Systems Brine Systems Equipment Brine System Piping
N-CHIN	Prefabricated Chimneys
H-CMPA M-CMPA-CEQP M-CMPA-CPIP H-CMPA-PEQP M-CMPA-PPIP	Compressed Air Systems Compressed Air Equipment Compressed Air Piping Process Air Equipment Process Air Piping
M-CONT H-CONT-THER M-CONT-WIRE	Controls and Instruments Thermostats Low Voltage Wiring
M-CWTR M-CWTR-EQPM H-CWTR-PIPE	Chilled Water Systems Chilled Water Equipment Chilled Water Piping
M-DETL M-DETL-IDEN M-DETL-MBND M-DETL-MCUT M-DETL-PATT	Details Identification Numbers Material beyond Section Cut Material Cut by Section Textures and Hatch Patterns
M-DUST M-DUST-DUCT M-DUST-EQPM	Dust and Fume Collection System Dust and Fume Ductwork Dust and Fume Collection Equipment
M-ELEV M-ELEV-IDEN M-ELEV-OTLN M-ELEV-PATT	Elevations Identification Numbers Building Outlines Textures and Hatch Patterns
M-ELHT M-ELHT-EQPM	Electric Heat Electric Heat Equipment
M-ENER M-ENER-EQPM M-ENER-WIRE	Energy Management System Energy Management Equipment Energy Management Wiring
M-EXHS N-EXHS-DUCT M-EXHS-EQPM H-EXHS-RFEQ	Exhaust System Exhaust System Ductwork Exhaust System Equipment Rooftop Exhaust Equipment

## **Mechanical (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
H-FUEL N-FUEL-GGEP M-FUEL-GPRP M-FUEL-OGEP M-FUEL-OPRP	Fuel System Piping Fuel Gas General Piping Fuel Gas Process Piping Fuel Oil General Piping Fuel Oil Process Piping
M-HOTW M-HOTW-EQPM M-HOTW-PIPE	Hot Water Heating System Hot Water Equipment Hot Water Piping
N-HVAC M-HVAC-CDFF N-HVAC-DUCT M-HVAC-EQPM M-HVAC-ODFF	HVAC System HVAC Ceiling Diffusers HVAC Ductwork HVAC Equipment HVAC Other Diffusers
M-MACH	Machine Shop Equipment
M-MDGS M-MDGS-EQPM N-MDGS-PIPE	Medical Gas System Medical Gas Equipment Medical Gas Piping
M-PROC H-PROC-EQPM M-PROC-PIPE	Process Systems Process Equipment Process Piping
H-REFG M-REFG-EQPM M-REFG-PIPE	Refrigeration Systems Refrigeration Equipment Refrigeration Piping
M-SECT M-SECT-IDEN M-SECT-MBND M-SECT-MCUT M-SECT-PATT	Sections Identification Numbers Material beyond Section Cut Material Cut by Section Textures and Hatch Patterns
M-SPCL M-SPCL-EQPM M-SPCL-PIPE	Special Systems Special Systems Equipment Special Systems Piping
M-STEM M-STEM-CONP M-STEM-EQPM M-STEM-HPIP N-STEM-LPIP	Steam Systems Steam Systems Condensate Piping Steam Systems Equipment High Pressure Steam Piping Low Pressure Steam Piping
M-TEST	Test Equipment

## **Mechanical (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
M-DETL	Details
H-ELEV	Elevations
M-P***	Other Mechanical Plans
M-PCON	Controls Plan
M-PDUC	Duct Plan
M-PEXD	Exhaust Duct Plan
M-PHVA	HVAC Plan
N-PMED	Special Medical Process - Piping Plan
M-PPIP	Piping Plan
M-PSTM	Steam Piping Plan
M-PWCH	Chilled Water Piping Plan
M-SCHD	Schedules and Title Block Sheets
M-SECT	Sections
M-SHBD	Sheet Border and Title Block Line Work
M-SHBD-LOGO	Project or Office Logo
M-SHBD-TTLB	Project Title Block and Project Name
M-SHBD-VIEW	Viewport
M-****	(can be used with various minor groups)
M-****-DIMS	Dimensions
M-****-NOTE	Notes, Calls-outs, and Key Notes
M-****-NPLT	Nonplot Information and Construction Lines
M-****-PATT	Cross-hatching and Poche
M-****-PLOT	Plotting Targets and Windows
M-****-SYMP	Symbols, Bubbles, and Targets
M-****-TEXT	General Notes and Specifications
M-****-TTLB	Sheet Name and Number

## **Plumbing**

<b>Layer Name</b>	<b>Layer Description</b>
P-ACID P-ACID-PIPE	Acid, Alkaline, and Oil Waste Systems Acid, Alkaline, and Oil Waste Piping
P-DETL P-DETL-IDEN P-DETL-MBND P-DETL-MCUT P-DETL-PATT	Details Identification Numbers Material beyond Section Cut Material Cut by Section Textures and Hatch Patterns
P-DOMW P-DOMW-EQPM P-DOMW-PIPE P-DOMW-RISR	Domestic Hot and Cold Water Systems Domestic Hot and Cold Water Equipment Domestic Hot and Cold Water Piping Domestic Hot and Cold-Water Risers
P-ELEV P-ELEV-IDEN P-ELEV-OTLN P-ELEV-PATT	Elevations Identification Numbers Building Outlines Textures and Hatch Patterns
P-EQPM	Plumbing Miscellaneous Equipment
P-FIXT	Plumbing Fixtures
P-SANR P-SANR-FIXT P-SANR-FLDR P-SANR-PIPE P-SANR-RISR	Sanitary Drainage Plumbing Fixtures Floor Drains Sanitary Piping Sanitary Risers
P-SECT P-SECT-IDEN P-SECT-MBND P-SECT-MCUT P-SECT-PATT	Sections Identification Numbers Material beyond Section Cut Material Cut by Section Textures and Hatch Patterns
P-STRM P-STRM-PIPE P-STRM-RFDR P-STRM-RISR	Storm Drainage System Storm Drain Piping Roof Drains Storm Drain Risers
P-DETL	Details
P-ELEV	Elevations
P-P***	Other Plumbing Plans
P-PDRA	Storm Drainage

## **Plumbing (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
P-PPLM	Plumbing Plan
P-PSAN	Sanitary Drainage Plan
P-RISR	Plumbing Riser Diagram
P-SCHD	Schedules and Title Block Sheets
P-SECT	Sections
P-SHBD	Sheet Border and Title Block Line Work
P-SHBD-LOGO	Project of Office Logo
P-SHBD-TTLB	Project Title Block and Project Name
P-SHBD-VIEW	Viewport
P_****	(can be used with various minor groups)
P_****-DIMS	Dimensions
P_****-NOTE	Notes, Call-outs, and Key Notes
P_****-NPLT	Nonplot Information and Construction Lines
P_****-PATT	Cross-hatching and Poche
P_****-PLOT	Plotting Targets and Windows
P_****-SYMB	Symbols, Bubbles, and Targets
P_****-TEXT	General notes and Specifications
P_****-TTLB	Sheet Name and Number



## **Structural**

<b>Layer Name</b>	<b>Layer Description</b>
S-ABLT	Anchor Bolts
S-COLS	Columns
S-DETL	Details
S-DETL-IDEN	Identification Numbers
S-DETL-MBND	Material beyond Section Cut
S-DETL-MCUT	Material Cut by Section
S-DETL-PATT	Textures and Hatch Patterns
S-ELEV	Elevations
S-ELEV-IDEN	Identification Numbers
S-ELEV-OTLN	Building Outlines
S-ELEV-PATT	Textures and Hatch Patterns
S-FNDN	Foundation
S-FNDN-PILE	Piles and Drilled Piers
S-FNDN-RBAR	Foundation Reinforcing
S-FRAM	Framing Plan (Beams, Joists)
S-FRAM-BEAM	Beams
S-FRAM-DECK	Structural Floor Deck
S-FRAM-JOIS	Joists
S-GRID	Column Grid
S-GRID-IDEN	Column Grid Tags
S-METL	Miscellaneous Metal
S-SECT	Sections
S-SECT-IDEN	Identification Numbers
S-SECT-MBND	Material beyond Section Cut
S-SECT-MCUT	Material Cut by Section
S-SECT-PATT	Textures and Hatch Patterns
S-SLAB	Slab
S-SLAB-EDGE	Edge of Slab
S-SLAB-JOIN	Slab Control Joints
S-SLAB-RBAR	Slab Reinforcing
S-WALL	Structural Bearing or Shear Walls
S-DETL	Details
S-ELEV	Elevations
S-P***	Other Structural Plans
S-PCOL	Column Plan

## **Structural (continued)**

<b>Layer Name</b>	<b>Layer Description</b>
S-PFND	Foundation Plan
S-PSFR	Structural Framing Plan
S-SCHD	Schedules and Title Block Sheets
S-SECT	Sections
S-SHBD	Sheet Border and Title Block Line Work
S-SHBD-LOGO	Project or Office Logo
S-SHBD-TTLB	Project Title Block and Project Name
S-SHBD-VIEW	Viewport
S_****	(can be used with various minor groups)
S_****-DIMS	Dimensions
S_****-NOTE	Notes, Call-outs and Key Notes
S_****-NPLT	Non plot Information and Construction Lines
S_****-PATT	Cross-hatching and Poche
S_****-PLOT	Plotting Targets and Windows
S_****-SYMB	Symbols, Bubbles, and Targets
S_****-TEXT	General Notes and Specifications
S_****-TTLB	Sheet Name and Number

## Landscape Architecture

<b>Layer Name</b>	<b>Layer Description</b>
L-DETL	Details
L-DETL-IDEN	Identification Numbers
L-DETL-MBND	Material beyond Section Cut
L-DETL-MCUT	Material Cut by Section
L-DETL-PATT	Textures and Hatch Patterns
L-ELEV	Elevations
L-ELEV-IDEN	Identification Numbers
L-ELEV-OTLN	Building Outlines
L-ELEV-PATT	Textures and Hatch Patterns
L-IRRG	Irrigation System
L-IRRG-COVR	Irrigation Coverage
L-IRRG-EQPT	Irrigation Equipment
L-IRRG-PIPE	Irrigation Piping
L-IRRG-SPKL	Irrigation Sprinklers
L-PLNT	Plant and Landscape Materials
L-PLNT-BEDS	Rock, Bark, and Other Landscaping Beds
L-PLNT-GRND	Grounds Covers and Vines
L-PLNT-PLAN	Schematic Planting Plans
L-PLNT-TDMO	Existing Trees to be Removed
L-PLNT-TREE	New Trees
L-PLNT-TURF	Lawn Areas
L-PLNT-TXST	Existing Trees to Remain
L-SECT	Sections
L-SECT-IDEN	Identification Numbers
L-SECT-MBND	Material beyond Section Cut
L-SECT-MCUT	Material Cut by Section
L-SECT-PATT	Textures and Hatch Patterns
L-SITE	Site Improvements
L-SITE-BRDG	Bridges
L-SITE-DECK	Decks
L-SITE-FENC	Fencing
L-SITE-FURN	Site Furnishings
L-SITE-PLAY	Play Structures
L-SITE-POOL	Pools and Spas
L-SITE-RAIL	Hand Rail
L-SITE-SPRT	Sports Fields
L-SITE-STEP	Steps
L-SITE-WALL	Walls
L-WALK	Walks and Steps
L-WALK-PATT	Walks and Steps Cross-hatch Patterns

## Landscape Architect (continued)

<b>Layer Name</b>	<b>Layer Description</b>
L-DETL	Details
L-ELEV	Elevations
L-P***	Other Landscape Plan
L-PIRR	Irrigation Drawings
L-PPLA	Planting Drawings
L-PSIT	Site Plan
L-PWLK	Walks and Paving Plan
L-SCHD	Schedules and Title Block Sheets
L-SECT	Sections
L-SHBD	Sheet Border and Title Block Line work
L-SHBD-LOGO	Project or Office Logo
L-SHBD-TTLB	Project Title Block and Project Name
L-SHBD-VIEW	Viewport
L_****	(can be used with any minor group)
L-****-DIMS	Dimensions
L-****-NOTE	Notes, Call-outs, and Key Notes
L-****-NPLT	Nonplot Information and Construction Lines
L-****-PATT	Cross-hatching and Poche
L-****-PLOT	Plotting Targets and Windows
L-****-SYMB	Symbols, Bubbles, and Targets
L-****-TEXT	General Notes and Specifications
L-****-TTLB	Sheet Name and Number