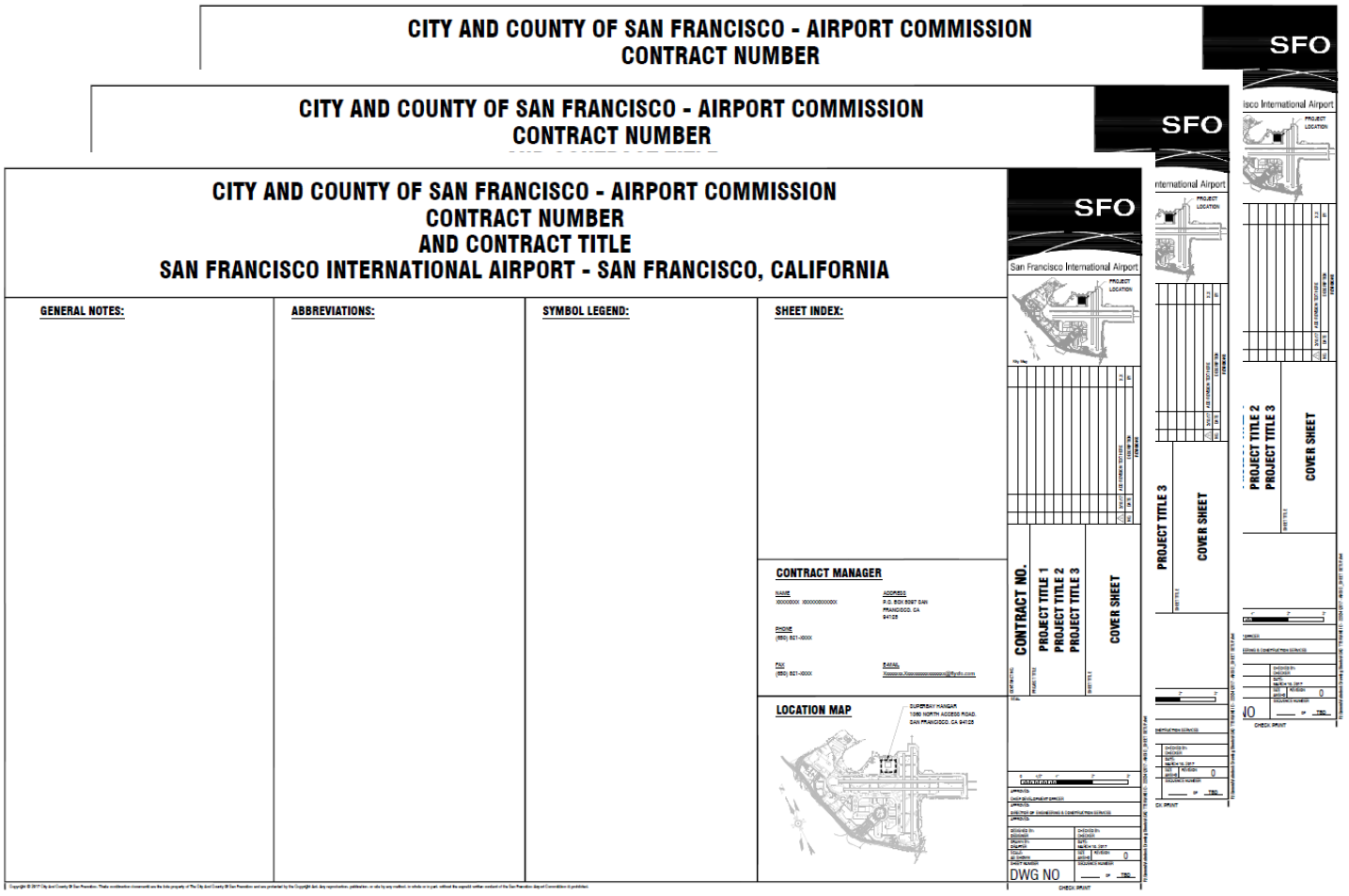
San Francisco International Airport

Sheet Numbering Guidelines

Version: December 2018



SFO SHEET NUMBERING GUIDE

San Francisco International Airport operates and manages a host of facilities across our campus. Many entities will access drawings during the life of a facility. A common sheet numbering process makes accessing information easier for all the entities that will have need to access the information within. While every project will have a sheet index, the goal of this standard is to provide consistency across the airport to facilitate ease of access.

This standard is organized as follows:

- Sheet Numbering organization
- Discipline Designator
- Series Designator
- Level Designator
- Area Designator
- Sheet Sequence Designator
- Sample project

The development of this document was based on traditional industry standards (AIA sheet numbering standard and US National CAD Standard) and the existing SFO Sheet Numbering Guide and the Appendix D of the SFO CAD Standard. Every effort was made to align these standards to meet the needs of SFO. This document was further refined based on input from representative members of the Planning Design and Construction division of SFO.

PART I: SHEET NUMBERING ORGANIZATION

Sheet numbers are composed of five components:

- Discipline
- Series
- Level – when applicable
- Area – when applicable
- Sequence

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There is a decimal between

- Series and Level
- Between Level or Area and Sequence

To further clarify at which asset or building a project takes place, a building number prefix may be used. If drawings within a set refer solely to one building, we suggest that the prefix be external to the sheet number as a separate entity on the sheet set.

Since both the level designator and the area designator are used only when applicable, sheets where level or area are irrelevant can omit those designations and have only one decimal in the sheet number (AA#.##).

PART II: DISCIPLINE DESIGNATOR

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The discipline codes are unique to each entity producing the work documents relative to that specific scope.

Discipline Code: Designation of the discipline responsible for a specific scope of work. Generally, the discipline represents the work of a single design entity.

Discipline Sequence: The sequence of discipline designation in the document set is roughly the order in which work would proceed. The table within this section represents the order of disciplines within the sheet set.

Optional Discipline Code Designation: There are times when a single entity is creating drawings within a single discipline, but the nature of the project may require different bid packages for specific subdisciplines. An example of this may include an electrical engineering firm producing telecommunication and fire alarm drawings. These might be bid at different at times to different trades. Consequently, the team may wish to designate different discipline codes to clearly group the scopes within the design package.

Another example for using the optional discipline code may be when different design firms are creating the design for different elements of what may be considered the same scope of work and may or may not be bid by the same contractors. An example of this could be if a project had one architect for the core and shell portion of a building and another architect for the interior design.

How to choose when to use a single generic discipline code or more specific optional discipline codes:

Method of use of multiple discipline codes is a project decision. The decision will be based on one of three factors:

- Is a single design entity responsible for multiple design scopes?
- Is a single design entity responsible for multiple scopes that will be bid separately and need to be packaged accordingly?
- Are multiple design firms working on multiple scopes?

An example of how this may present itself in the sheet set can be seen in this example:

Different design firms are responsible for core and shell construction drawings, interior design, and furniture selection, and like details, schedules and plans need to be grouped, the sub-discipline can be utilized. Likewise, if the same design firm is doing all this work but for bidding purposes each of these scopes needs to be group, the subdiscipline codes can be used:

- A2.02.00 – second floor architectural floor plan
- I2.02.00 – second floor interior floor plan
- FF2.02.00 – second floor furniture layout plan
- FN2.02.00 – second floor finish plan

Different option for organization when one design firm is responsible for multiple subdisciplines: There may arise a reason when a single design firm wants to systematically distinguish between separate scopes of work but still group them under one discipline code. In this case the team may choose to use sheet sequence numbers to distinguish between sub-disciplines. AA#.##A.##

In this example, a single design firm is responsible for the architectural core and shell floor plan, the interior design, the furniture layout plan, and the finish plan. Perhaps the airport is planning to bid these scopes of work out at different times but still wants them grouped together throughout the sheet series. In this case the tens digit of the sheet sequence numbers can be used. For example:

- A2.02.00 – second floor architectural floor plan
- A2.02.20 – second floor interior floor plan (if needed)
- A2.02.30 – second floor furniture layout plan
- A2.02.40 – second floor finish plan

PROJECTS NEED TO DETERMINE WHICH OF THE THREE OPTIONS THEY WILL FOLLOW FOR A PARTICULAR SCOPE AND ADHERE TO THAT SELECTION.

If shop drawings are to be included in the drawing set at conclusion of the project. Shop drawings based on discipline drawings will have the prefix Z-.

DISCIPLINE CODES:

DISCIPLINE CODE	DISCIPLINE	OPTIONAL NUMERIC CODE SUB-DESIGNATION
G	General	
H	Hazardous Material	
V	Surveys and Mapping	
B	Geotechnical	
C	Civil	C#.XX.##
TR[1]	*Traffic*	C#.XX.9#
U[2]	Utilities	
L	Landscape	
S	Structural	
A	Architectural	A#.XX.1#
I[3]	Interior Design	A#.XX.2#
FF[3]	Furniture	A#.XX.3#
FN[3]	Finishes	A#.XX.4#
SG[3]	Signage	A#.XX.5#
QD[3]	Food Service Design	A#.XX.6#
QF	Food Service Equipment Design	
M	Mechanical	M#.XX.##
MP[4]	Mechanical Piping	M#.XX.9#
E	Electrical (Power)	E#.XX.1#
LT[5]	Lighting	E#.XX.2#
AV[5]	Audio Visual	E#.XX.3#
T[5]	Telecommunications	E#.XX.4#
FA[5]	Fire Alarm	E#.XX.5#
SC[5]	Security	E#.XX.6#
P	Plumbing	P#.XX.##
FP[6]	Fire Protection	P#.XX.9#
Q	Other Equipment	
BH	Baggage Handling	
BB	Boarding Bridges	
N	Intelligent Building Systems	
R	Reference/Resource Documentation	
O	Operations	
-Z	Contractor Shop Drawings	

XX = Where applicable: see Level and Area Designation requirements

Color codes represent grouped responsibilities for like consultants and trades:

- Civil: Yellow
- Architectural: Light Green
- Blue: Mechanical
- Light Blue: Electrical
- Orange: Plumbing

[1] If traffic drawings are created by the primary Civil Engineer of the project, C or TR may be used. If the scope requires separation from the main Civil drawings due to separate bidding dates or complexity of the project, TR should be used. If C is used but further clarity is required, the .5 decimal designation may be used in the sheet sequence designation shown in the chart above. If a separate consultant is creating the traffic drawings, an R should be used.

[2] There are several sub-discipline elements to utilities such as Water, Sanitary Sewer, Storm Drainage, Industrial Waste, Reclaimed Water, Aviation Fuel, and Natural Gas which may need to be segregated within the Utilities discipline. This can be done using the sheet sequence. For details see sheet sequence.

[3] If all Architectural based drawings are by the same design entity, a simply A may be used. If additional clarity is required, Interiors, Furniture, Finishes, Signage and Food Service Design can be further clarified using the decimal system in the sheet sequence designation indicated in the chart above. If the scope requires separation of each sub-discipline due to separate biding dates or complexity of the drawings, or if different design entities are responsible for different scopes of work, the designations for each sub-discipline can simply be I, FF, FN SG and QD respectively (see chart).

[4] If all Mechanical based drawings are by the same design entity, a simply M may be used. If additional clarity is required to distinguish sheet metal scope from wet-side mechanical scope, sheets can be further clarified using the decimal system in the sheet sequence designation indicated in the chart above. If the scope requires separation of each sub-discipline due to separate biding dates or complexity of the drawings, or if different design entities are responsible for different scopes of work, the designations for each sub-discipline can simply be M or MP respectively (see chart).

[5] If all Electrical based drawings are by the same design entity, a simply E may be used. If additional clarity is required, Lighting, Audio Visual, Telecommunications, Fire Alarm and Security Systems can be further clarified using the decimal system in the sheet sequence designation indicated in the chart above. If the scope requires separation of each sub-discipline due to separate biding dates or complexity of the drawings, or if different design entities are responsible for different scopes of work, the designations for each sub-discipline can simply be LT, AV, T, FA and SC respectively (see chart).

[6] If all Plumbing based drawings are by the same design entity, a simply P may be used. If additional clarity is required, Fire Protection can be further clarified using the decimal system in the sheet sequence designation indicated in the chart above. If the scope requires the separation of Fire Protection due to separate biding dates or complexity of the drawings, or if a different design is responsible for Fire Protection, the designations can simply be F for Fire Protection (see chart).

PART III: SERIES DESIGNATOR

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Series designators should be consistent across disciplines wherever possible. Civil plans and Architectural site plans should both be in the 1 series. Plumbing, Mechanical, Electrical risers should likewise all be in the 5 series. All discipline's schedules should be in the 8 series. A complete breakdown follows:

Sheet Series Number	General Sheet Organization		Civil Specific Sheet Organization	
	Content	Description	Content	Description
G0 sheets	General	• Cover Sheet • Index – (entire project) • General Notes – Entire project • Code Analysis o Architect driven base code analysis: ▪ Fire Life Safety ▪ Accessibility ▪ LEED documentation ▪ Other code sheets managed by architecture • Existing conditions photographs and other non-discipline specific existing condition documentation (If there is significant documentation, use the R series provided in the Discipline code)		
0 – All other discipline sheets	General	• Index - (If necessary for discipline) • General Notes - Discipline specific • Code Analysis specific to particular discipline • All Schedules	General	• Same
1	Site and Demo Drawings	• Site Demolition Plans • Site Plans • Demolition Plans • Demolition Elevations • Phasing Plans	Site and Phasing Plans	• Same
2	Plans (New Construction)	• Floor Plans • Floor Area Plans • Roof Plans • Zone Plans	Existing and New plans	• Utility, Drainage, Raising and Lowering Utilities, Paving, Striping (see sequence numbers)
3	Reflected Ceiling Plans	• Reflected Ceiling Plans	Profiles	• Profiles • Cross Sections • Piping Profiles
4	Elevations, Sections, Axonometric and 3D views	• Building Elevations • Building Sections • Building 3D Views and Axonometric Views • Enlarged Exterior Wall Elevations • Enlarged Exterior Wall Sections • Enlarged Exterior Wall 3D Views Axon Cutaway Views		
5	Enlarged Plans	• Enlarged Plans • Typical Layout Plans • Enlarged RCPs • Typical Layout RCPS		
6	Interior Elevations and Riser Diagrams	• Interior Elevations (architecture) • Systems Riser Diagrams • Other Diagrams		
7	Vertical Circulations	• Stairs • Escalators • Elevators		
8	Exterior Details			• Same (see sequence numbers)
9	Interior Details			

PART IV: LEVEL DESIGNATOR

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Levels are designated with one or two digits. Nomenclature for levels are based on the Building Level & Space Numbering Guidelines. The following definitions and diagrams are in the March 2017 version. **Please make sure you reference the latest version of the document**.

Levels are for use where the level or floor needs to be indicated. They are for use only where understanding the level is important for understanding the view. Sheet number level designator will be used for sheets in the following sheet series, 1, 2, 6.

There may arise reason to use them in other sheet series. If that is the case, use the level only to clarify the views on the sheet. If more than one floor is on the sheet use the lower level on the sheet or do not use the level designator at all. In cases where some views in the series have level indications and others don't, use the last series of numbers (sequence series) to differentiate the types of drawings and for sequencing the sheets. Sheet series where level indications are optional include 0, 4, 5.

For sheet series where level is not required omit the level and area indication. This will keep our callout lengths to a minimum. Sheet series where this is always true include 3, 7, 8, 9.

1. **Floor Level Designation:** Main Levels: The Airport has designated each building level with a Floor Level Code(FLC). Whole levels are numbered using a digit standard starting with '1' for the first floor and continue up for every floor above (e.g., '2'=second floor, '3'=third floor). Levels may be referred to as 'arrival' and 'departure', but for purposes of formal naming and recording, levels will be known by the 1-digit FLC standard. If a space exists outside or (in special circumstance) independent of a structure, and is at ground level, it shall assume a FLC of '1'. Trailers and storage boxes that sit at ground level shall assume a FLC of '1'.

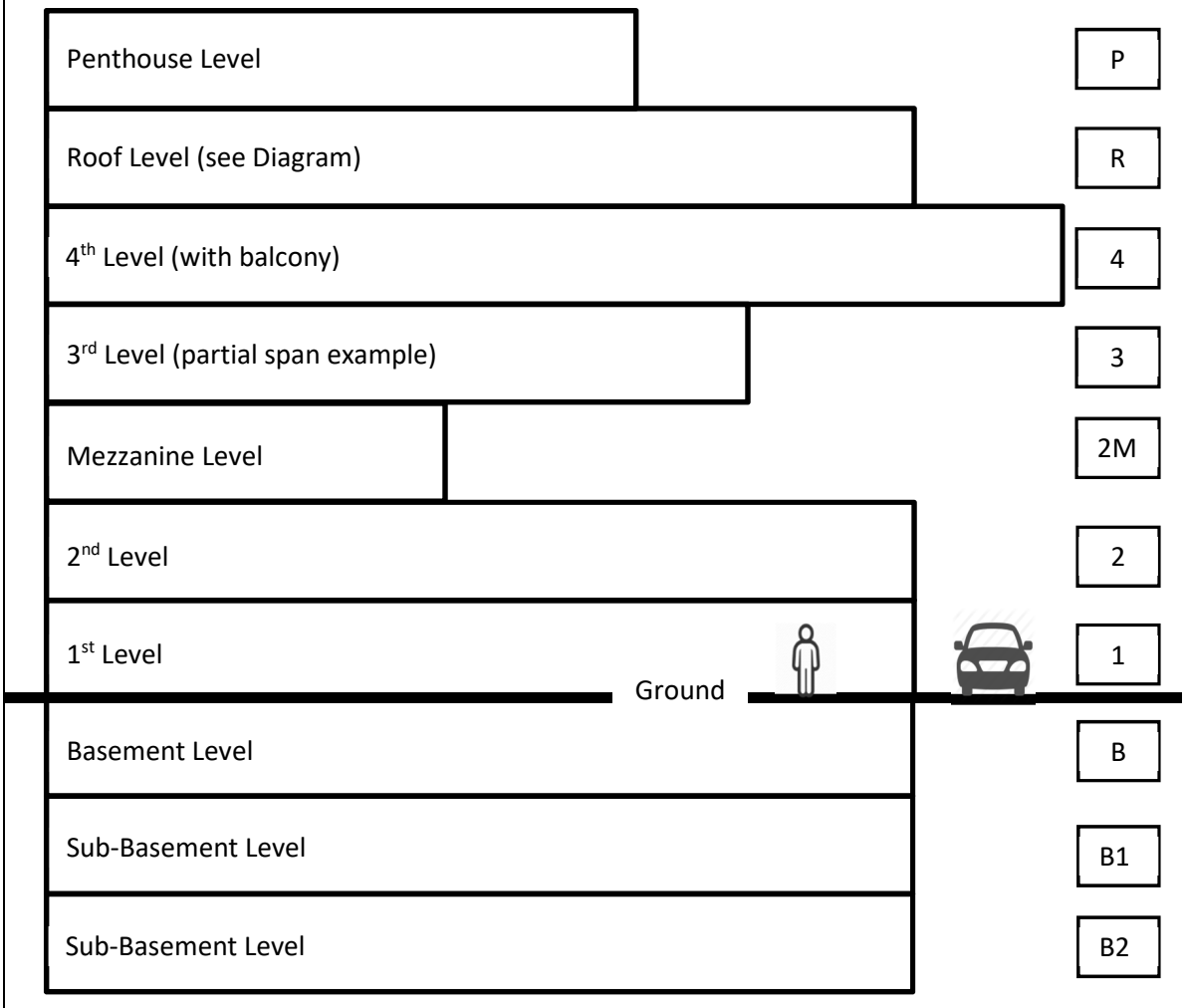
    a. **Special Cases**: In the event that a space spans between building levels, that space shall adopt the highest level which it serves. Example: A pedestrian walkway which spans from level 3 of the international terminal building to Level 2 of Terminal 3. In this scenario, the entire walkway space will be known as a Level 3 space from one end to the other. The adjoining or adjacent spaces on Level 2 shall remain as Level 2 spaces.

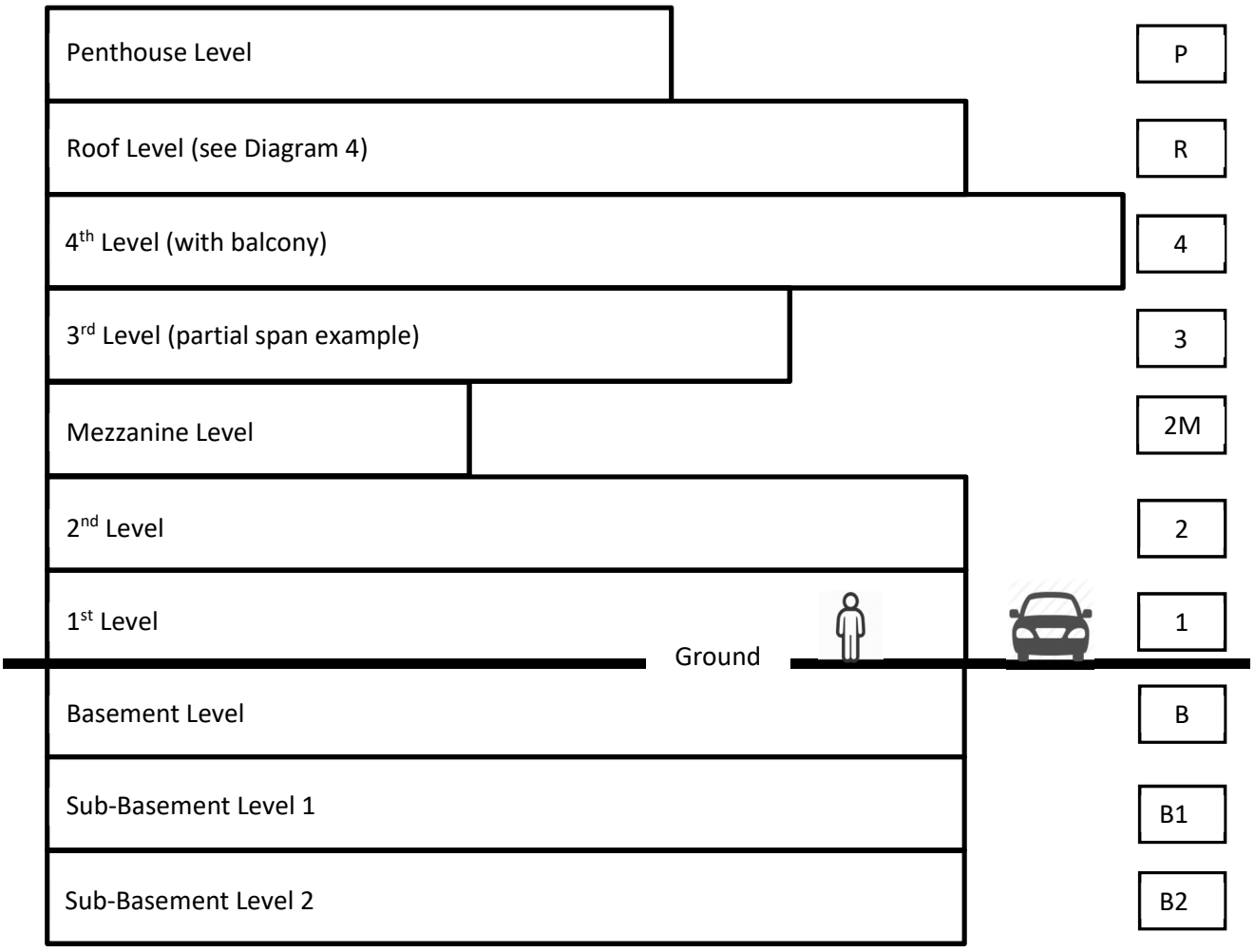
    b. **Basements, Sub-Basements, Tunnels, Utilidor**: Levels beneath Level 1 are designated as basement or sub-basement levels. Basements will be designated a FLC of 'B' and sub-basements will be designated by 'B1' and will continue down for every level below. Tunnels and Utilidor spaces should be considered as part of the basement level(s). (e.g. 'B2', 'B3', 'B'4).

    c. **Mezzanines:** Mezzanine levels will assume a 'M' suffix, preceded by the Level number of the level it is directly above. Example: A mezzanine level directly above Level 1 will be '1M', above Level 2 will be '2M'). If a mezzanine level does not have an entire level below, but rather another mezzanine level, or multiple levels or mezzanines on top of each other, then the first mezzanine will set the level number

and continue in an ascending fashion for each consecutive mezzanine above. Example: If the first mezzanine starts at Level 2, then it will be called '2M', then the next mezzanine as '3M', '4M', etc.).

d. **Roof Levels:** Roof top levels will be designated by the letter 'R' and all roof spaces above the 'R' level will be designated by 'R1' and continue up for every level above. Example: 'R', 'R2', 'R3', etc. For structures with multiple roofs at multiple elevations, the lowest roof shall be designated "R" and subsequent roofs, based on ascending elevation, will be named "R2", "R3", and so on in a similar, ascending fashion. Any roofs sharing the same elevation on a structure, even if not connected or related otherwise, shall share the same naming designation





Building Level & Space Numbering Guidelines (Version Date: March 2017, pages 7 and 8)

PART V: AREA DESIGNATOR

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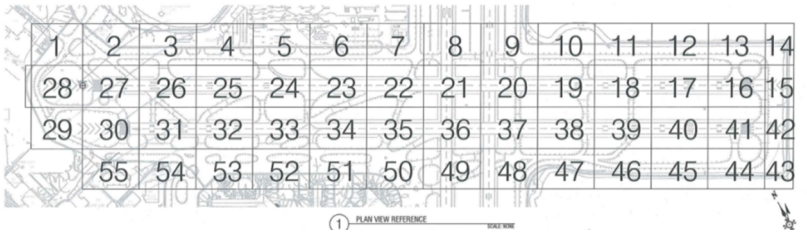
For buildings with larger footprints it may be necessary to subdivide the drawing set into area designations. In these cases, a letter suffix is required to indicate the area of the plan each sheet represents. Every project where an area designation is utilized must include a key plan in the title block to orient the viewer as to where the specific area is located.

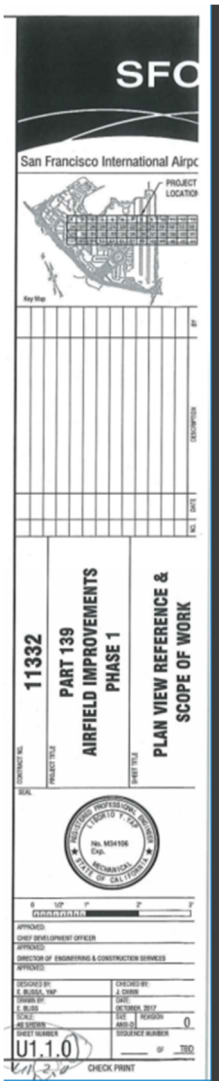
In the event that a project has in excess of 26 zones, the area designator can be a double alpha symbol. AA#.##**AA**.## In this case, the first zone is AA. When AZ is reached, the sequence begins again with BA, BB and so on.

For projects that are solely site and civil work where a floor designation is not needed, projects may resort to a two digit numeric zone system and omit the floor designation entirely. AA#.**##**.##



Sample of numeric number layout for taxiway project

Sample of title block with key plan



PART VI: SHEET SEQUENCE

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The final numeric spaces in the sheet sequence are the sequence numbers. These two numbers represent the sequence of sheets within the unique Discipline and Series designation. Each combination of discipline and series designation creates the collection of sheets specific to that scope and information type. Within that unique collection these two digits indicate the sequence used in the index.

Generally speaking, these numbers are simply sequential. Where there are groups of sheets that have similar content within a unique Discipline/Sheet Series set, a distinction can be drawn by separating groups out by tens. This will also allow for additional sheets to be added if needed.

An example of this may be structural details of different materiality. It is common to group all wood, masonry, steel, and reinforced concrete together with like details. Below is a sample of how such a collection of details might be group:

S9.00	Steel Connection Details
S9.01	Steel Connection Details
S9.02	Steel Connection Details
S9.10	Concrete Details
S9.11	Concrete Details
S9.20	Wood Connection Details
S9.21	Wood Connection Details

In Part I: Discipline Code, the standard left open the possibility to group sub-disciplines within a single discipline code. If the team decides to use such an organizational principal but still wants like views to sort together, this is the location of the sheet number to accommodate that classification. The table on discipline designation indicates the numeric sequence to be used in lieu of discipline codes and is restated here.

Civil has an additional level of granularity indicated in this table as well

DISCIPLINE CODE	DISCIPLINE	OPTIONAL SHEET SUQUENCE SUBDISCIPLINE CODE DESIGNATION
C	Civil	
	Exiting / Demolition Drainage	C#.XX.1#
	New Drainage Plan	C#.XX.2#
	Existing Topography Plan	C#.XX.3#
	Existing Paving Plan	C#.XX.4#
	Paving Plan	C#.XX.5#
	Grading Plan	C#.XX.6#
	Striping Plan	C#.XX.7#
	Grooving Plan	C#.XX.8#
	Traffic Signage and Signaling Plan	C#.XX.9#

U	Utilities	
	Water	U#.XX.1#
	Sanitary Sewer	U#.XX.2#
	Storm Drainage	U#.XX.3#
	Industrial Waste	U#.XX.4#
	Reclaimed Water	U#.XX.5#
	Aviation Fuel	U#.XX.6#
	Natural Gas	U#.XX.7#
A	Architectural	A#.XX.##
	Interior Design	A#.XX.2#
	Furniture	A#.XX.3#
	Finishes	A#.XX.4#
	Signage	A#.XX.5#
	Food Service Design	A#.XX.6#
M	Mechanical	M#.XX.##
	Mechanical Piping	M#.XX.9#
E	Electrical Power	E#.XX.1X
	Lighting	E#.XX.2#
	Audio Visual	E#.XX.3#
	Telecommunications	E#.XX.4#
	Fire Alarm	E#.XX.5#
	Security Systems	E#.XX.6#
P	Plumbing	P#.XX.##
	Fire Protection	P#.XX.9#

XX = Where applicable: see Level and Area Designation requirements

The following is an example for electrical plans if subdiscipline codes are not desired and sheet sequence subdiscipline code designation is utilized.

E2.01.11	Level 1 Power Plan
E2.01.21	Level 1 Lighting Plan
E2.01.31	Level 1 Audio Visual Plan
E2.02.12	Level 2 Power Plan
E2.02.22	Level 2 Lighting Plan
E2.02.32	Level 2 Audio Visual Plan
E2.03.13	Level 3 Power Plan
E2.03.23	Level 3 Lighting Plan
E2.03.33	Level 3 Audio Visual Plan

SAMPLE INDEX

GENERAL	
G0.00	Cover Sheet
G0.01	Sheet Issue Matrix
G0.02	Graphic Symbols
G0.03	Code Analysis
G0.04	Egress Plan
G0.10	C-8 Form/LEED Checklist
G0.11	Calgreen Checklist
G0.12	Calgreen Checklist
G0.13	Calgreen Checklist
G0.14	Calgreen Checklist
G0.15	Calgreen Acoustic Report
CIVIL	
C0.00	General Notes
C1.10	Site Dimensioning Plan
C2.10	Site Demolition Plan
C2.20	Site Improvement Plan
C2.21	Site Alternate Paving Plan
C2.22	Site Erosion Control Notes
C2.23	Site Erosion Control Plan
C2.30	Site Survey
C2.60	Site Fine Grading Plan
C3.10	Typical Site Cross Sections
C8.01	Civil Details
C8.02	Civil Details
C8.03	Erosion Control Details
UTILTIES	
U2.01	Composite Utility Plan
U2.10	Water System Plans
U2.20	Sanitary Sewer Plans
U2.30	Storm Drain System Plans
U3.30	Storm Drain Profile
U8.01	Utility Details
U8.02	Utility Details
U8.03	Utility Details
U8.40	Industrial Waste System Details
TRAFFIC	
R1.01	Site Traffic Striping and Signage
R8.01	Signing and Striping Details
ARCHITECTURE	
A0.01	Storefront/Curtainwall/Window Schedules
A0.02	Finish Schedule
A0.03	Door Schedule
A0.04	Partition Schedule
A1.00	Site Vicinity Plan
A1.01	Site Plan
A1.02	Enlarged Site Plan
A2.00.01	Slab Plan
A2.01.01	First Floor Plan
A2.01.02	First Floor Finish Plan
A2.01.03	First Floor Furniture Plan
A2.R1.01	Roof Plan
A3.01.01	First Floor Reflected Ceiling Plan

A4.01	Building Elevations
A4.02	Building Sections
A4.03	Building Sections
A4.10	Exterior Wall Sections
A4.11	Exterior Wall Sections
A4.12	Exterior Wall Sections
A5.01	Enlarged Plans
A6.01	Interior Elevations - Restrooms
A6.02	Interior Elevations
A6.03	Interior Elevations
A7.01	Stair Detail
A8.01	Exterior Details
A8.02	Exterior Details
A8.03	Exterior Details
A8.04	Exterior Details
A9.01	Wall Types
A9.02	Interior Details
A9.03	Interior Details
A9.04	Interior Ceiling Details
A9.05	Casework Details
A9.06	Case Work Details
A9.07	Accessibility Details
STRUCTURAL	
S0.00	General Notes
S0.01	General Notes
S2.01.01	Piles & Grade Beam Foundation Plan
S2.01.02	Ground Floor Slab Plan
S2.02.01	Roof Framing Plan
S4.01	Building Elevations
S4.02	Building Elevations
S4.10	Steel Sections and Details
S4.11	Steel Sections and Details
S8.01	Typical Details – Concrete
S8.02	Typical Details – Concrete
S8.10	Typical Details – Steel
S8.11	Typical Details – Steel
S8.20	Pile Details
S8.30	Grade Beam Details
Mechanical	
M0.00	Legend, Abbreviation & General Notes
M0.10	Title 24 Compliance Documentations
M0.11	Title 24 Compliance Documentations
M0.12	Title 24 Compliance Documentations
M0.13	Title 24 Compliance Documentations
M0.14	Title 24 Compliance Documentations
M0.15	Title 24 Compliance Documentations
M0.16	Title 24 Compliance Documentations
M0.17	Title 24 Compliance Documentations
M0.18	Title 24 Compliance Documentations
M0.19	Title 24 Compliance Documentations
M0.20	Title 24 Compliance Documentations
M0.30	Schedules - Mechanical
M0.31	Schedules - Mechanical
M0.32	Schedules - Mechanical

M2.01.01	First Floor Plan – HVAC
M2.01.02	First Floor Plan – HVAC Piping
M2.R1.01	Roof Plan – HVAC
M6.01	VRV System Piping Diagram – Mechanical
M6.02	VRV System Controls Wiring Diagram
M6.10	Controls Diagram
M6.11	Controls Diagram
M6.12	Controls Diagram
M6.13	Controls Diagram & Sequence of Operations
M6.14	Controls Diagram & Sequence of Operations
M6.20	DDC/BAS Systems Architecture
M9.01	Details – Mechanical
M9.02	Details – Mechanical
M9.03	Details – Mechanical
M9.04	Details – Mechanical
Plumbing	
P0.00	Legend Abbreviations and General Notes
P2.U1.01	Underground Plan – Plumbing
P2.01.02	First Floor Plan – Plumbing
P2.R1.03	Roof Plan – Plumbing
P4.01	Partial Floor Plans and Section
P4.02	Partial Floor Plans
P5.01	Piping Diagrams – Plumbing
P5.02	Piping Diagrams – Sanitary Sewer and Industrial Waste
P5.03	Piping Diagrams – Fire Protection
P9.01	Details – Plumbing
Electrical	
E0.00	Symbols Legends & Abbreviations
E0.01	General Notes
E0.10	Panel Schedules
E0.11	Panel Schedules
E1.01	Site Demolition & Detail
E1.02	Single Line Diagram – Demolition
E1.10	Site Plan - Electrical Power
E1.20	Site Plan - Lighting
E1.40	Site Plan - Telecommunications
E2.01.10	First Floor Power & Mech Rm Pln - Lighting
E2.01.20	First Floor Plan – Side Lit Zone
E2.01.21	Lutron QS System Requirements
E2.01.40	First Floor Plan – Telecommunication System
E2.01.50	First Floor Plan – Fire Alarm System
E2.01.60	First Floor Plan – Security System
E4.30	Voice and Data Rack Elevations
E4.31	Voice and Data Rack Diagrams
E5.10	Enlarged Plans – Mech Room, Electric Room, SSR
E5.02	Enlarged Mechanical Room Plan - HVAC
E5.03	Mechoshades Electrical Plan
E6.10	Single Line Diagram “A”
E6.11	Single Line Diagram “B”
E6.20	Lighting Control Diagrams
E6.21	Lutron Installation Requirements
E9.01	Door Hardware Details AC
E9.02	Door Hardware Details AQ
E9.03	Door Hardware Details BQ
E9.10	Details & Diagrams
E9.11	Details & Diagrams
E9.12	Details & Diagrams
E9.13	Details & Diagrams