

Code Summary Requirements and Worksheet (New Construction)

The Clark County Building Safety program requires all commercial building plans include a code summary section that details how Fire, Life Safety, and other listed code requirements are being complied with. This code summary is intended to be an integral part of the plans and those specific pages shall be designated as **CS** (Code Summary) sheets or **FLS** (Fire and Life Safety) sheets.

Section I - Governing Codes

1. **List all applicable codes and standards used.** 2012 IBC with WAC 51-50, 2012 IMC with WAC 51-52, 2012 UPC with WAC 51-56 and 51-57, NFPA 54 or 2012 IFGC, Washington State Energy Code 2012 WAC 51-11 (WSEC), current NFPA 13, current NFPA 72, current ANSI A117.1, ASCE 7 '05 Ed. etc.

Section II - Building "Construction" Data

1. List the **type of construction** in accordance with IBC, Section 602.1. List all types if more than one is used in the building design.
2. List the proposed building's **height**.
3. List the **maximum allowable height** under the IBC.
4. List the proposed building's **number of stories**.
5. List the **maximum number of stories** allowed under the IBC.
6. Indicate whether there is a **basement** or there is **no basement**.
7. List the **floor area for each floor**. Break down the floor area for each occupancy type.
8. List the total **floor area of the building**.
9. List the **minimum fire resistivity required for structural elements** adjacent to the property line. If less than the minimum indicated in the IBC, Table 601, provide the code section(s) that allow the reduction.
10. List the **opening protection required** in walls adjacent to the property line. If less than the minimum indicated in the IBC, Tables 715.4 and 715.5, provide the code section(s) that allow the reduction.
11. List the percentage of unprotected and protected openings required due to location on property per Table 705.8, IBC. Provide calculations where using both unprotected and protected openings to meet section 705.8.

Section III - Building "Occupancy" Data

1. List the **occupancy classification group(s) in the building**. List all the different groups if more than one group is to occupy the building.
2. List the **occupancy classification group(s) floor by floor**.
3. List the **occupancy classification groups in each room or area**.

Revised 7/1/13



Community Development
1300 Franklin Street, Vancouver, Washington
Phone: (360) 397-2375 Fax: (360) 397-2011
www.clark.wa.gov/development



For an alternate format,
contact the Clark County
ADA Compliance Office.
Phone: (360)397-2025
Relay: (800) 833-6384
E-mail: ADA@clark.wa.gov

4. List the occupancy separations required or determine through calculation if non-separated uses are allowed.
5. List the **total occupant load floor by floor**.
6. List the **occupant load for each area or room on each floor** (per Section 1004 & Table 1004.1).
7. List the **total occupant load for each different occupancy group**.

Section IV - Building Area Data “Actual” And “Allowable”

1. If there is more than one occupancy group in the building provide a **Sum of the Ratios** calculation to show that the proposed building is not over area. Clearly show on the plans calculations in the format identified in IBC, Section 506 identifying the allowable area per floor.
2. List the proposed buildings **actual area**.
3. List the proposed buildings **tabular allowable area**.
4. List the **number of yards** and the **width of each yard**. Show the yards on the site plans.
5. List the **actual area of the proposed building using yards**. Show the calculations.
6. If the building is fully sprinkled, list the **maximum allowable base area using yards and sprinklers**. Show the calculations.
7. If the building is sprinkled, list the proposed building’s **actual area using yards and sprinklers**. Show the calculations.
8. If there are no usable yards and if the building is fully sprinkled, list the **maximum allowable area using sprinklers alone**. Show the calculations.
9. If there are no yards usable and if the building is fully sprinkled, list the proposed building’s **actual area using sprinklers alone**. Show the calculations.

Section V - “Fire Resistive” Building Elements

1. List the **fire resistive rating for the proposed building’s individual structural elements** based on Table 601 in the IBC. If any of the proposed building’s structural elements have a lower fire resistivity than the minimum indicated in the IBC, Table 601, provide the code section(s) that allow the reduction.
2. List the **fire resistive rating of all fire barriers**, both horizontal and vertical.
3. List the proposed building’s **actual area of openings** in each fire barrier.
4. List the maximum **allowable area of openings** in each fire barrier.
5. List the **fire resistive rating of the opening protection** required for each fire barrier.
6. List the **fire resistive rating of all fire walls**.
7. List the proposed building’s **actual area of openings** in each fire wall.
8. List the maximum **allowable area of openings** in each fire wall.
9. List the **fire resistive rating of the opening protection** required for each fire wall.
10. List all **other rated assemblies and the rating of each**.

Section VI - Building “Exiting”

1. List the square footage, occupant load and the maximum floor area allowance per occupant for each room as per IBC, Table 1004.1.1.
2. List the number of **exits provided** in each room or area.
3. List the number of **exits required on a floor by floor** basis. Label the required exits as such on the plans.

4. List the number of **exits provided on a floor by floor** basis.
5. List the minimum **exit width required per exit on a floor by floor** basis.
6. List the **exit width provided for each exit on a floor by floor** basis.
7. List the required exit access **travel distance** per IBC Table 1016.1.
8. List and identify the common path of travel per 1014.
9. If the proposed building has a corridor(s), list the **minimum corridor exit width required**. Identify on the plans if the corridor is a non-rated corridor or a rated corridor, and if rated, label the rating on the plans.
10. Provide an **emergency exit illumination** plan to meet requirements of IBC, Section 1006. The plan shall include a floor plan (including moveable furniture and fixtures) depicting the emergency exit path, including minimum exit path width.
11. Provide an **exit sign layout plan** that meets the requirements of the IBC, Section 1011.

Section VII - Building "Fire Detection and Suppression"

1. Indicate whether or not a **smoke detection or fire alarm system is required**.
2. Indicate whether or not a **smoke detection or fire alarm system is provided**.
3. If the smoke detection or fire alarm system is required, indicate whether or not a **total area smoke detection system is required**.
4. If the smoke detection or fire alarm system is required, indicate whether or not a **total area smoke detection system is provided**.
5. If a smoke detection or fire alarm system is provided and it is not required throughout the building, list **the areas in the building where it is provided**.
6. List the **type of smoke detection or fire alarm system** provided.
7. Indicate whether or not a **sprinkler system is required**.
8. Indicate whether or not a **sprinkler system is provided**.
9. If a sprinkler system is provided, list the **areas in the building where it is provided**.
10. List the **type of sprinkler system** provided.
11. Indicate whether or not a **standpipe system is required**.
12. Indicate whether or not a **standpipe system is provided**.
13. If a standpipe system is provided, list the **areas in the building where it is provided**.
14. List the **class of standpipe system** provided.
15. List the number of **fire department vehicular accesses provided** to the site.
16. On the FLS or Code Summary plans, provide a plan view of all fire extinguishers (FE). If they are not required by the fire code, state so in the code summary. Provide all pertinent FE information such as type and size.

Section VIII - Occupancy Ventilation Requirements

1. Provide an **outside air / occupancy ventilation table on the plans** to meet the requirements of the IBC, Section 1203, IMC Chapter 4, WSEC Chapter 14. Required elements are occupancy classification and room use, area of room, exiting occupant load factor, occupant load, required cfm of outside air per person or square foot, total outside air required per room, and amount of outside air provided per room.

Section IX - Energy Code Requirements

1. Provide a note that states how the Washington State Energy Compliance is achieved for the envelope. **Show compliance with the prescriptive envelope requirements, component performance or systems analysis**. Provide completed energy code forms.

2. **Show compliance with the Washington State Energy Code for the mechanical system.** Provide the completed energy code forms.
3. Provide a lighting layout that reflects the requirements established in the lighting budget. **Provide completed lighting energy forms.** The emergency lighting plan requested in Section VI of this document shall be incorporated into the lighting plan.

Section X - Hazardous Materials

1. Indicate whether there will be **hazardous chemicals and/or materials present, or processes that produce hazardous chemicals or materials** present within the building.
2. If hazardous chemicals or materials will be present within the building, provide a complete analysis of types, classes, and quantities in storage (including state), in use in closed systems, and in use in open systems **in the same format as shown in IBC, Tables 307.7(1) and 307.7(2).** In addition see Chapter 414 and 415 of IBC
3. Indicate whether or not **Material Safety Data Sheets (MSDS)** sheets accompany the building plans.
4. Indicate whether or not a **Hazardous Materials Management Plan (HMMP)** accompanies the building plans. Identify the HMMP author and state the author's credentials.

Section XI - Accessibility

1. Identify on a site plan, the full extent of the **site's exterior route of travel** as prescribed in the IBC, Chapter 11 and the ANSI A117.1 Standard.
2. Identify on a floor plan, the full extent of the **building's interior route of travel** as prescribed in the IBC, Chapter 11 and the ANSI A117.1 Standard.

Section XII - Plumbing Fixture Count Requirements

1. Provide a **plumbing fixture count table** on the plans to meet the requirements of the IBC, Chapter 29 WAC, and Table 2902.1. Required elements are occupancy classification, plumbing occupant load factor, occupant load, the required number of water closets for each sex, the number of water closets provided for each sex, the required number of lavs for each sex, the number of lavs provided for each sex, the number of drinking fountains required, and the number of drinking fountains provided.

Section XIII - Underground Utilities

1. Provide on a site plan, the approximate **location of all transformers, vaults, fire department connections, water meters, sewer, water, fire, and storm lines.** Please consult and co-ordinate the location with your local utility. **Also indicate topography lines on plans.**

Section XIV - Special Inspection, Structural Observation and Deferred Submittals

1. Indicate whether or not special inspections are required. Where special inspections are required, specify the location of the "Special Inspection Information" block or matrix by indicating the plan sheet number. The information block should be located on the first "S" sheet, if no "S" sheet then it should be located on the first "A" sheet.
2. Indicate whether or not structural observation is required. Where structural observation is required, specify the location of the "Structural Observation Information" block or matrix

by indicating the plan sheet number. The information block should be located on the first “S” sheet, if no “S” sheet then it should be located on the first “A” sheet.

3. Indicate whether or not there will be any deferred submittal items. If there are to be deferred submittal items, specify the location of the “Deferred Submittal Information” block or matrix by indicating the plan sheet number. There should be separate information blocks for structural and miscellaneous (e.g. Type I and II hoods, site built stairways, owner installed equipment, awnings/marquees, etc.) deferred submittal items. The deferred submittal information shall be located in a box clearly identified on the front page of the plans.

Section XV - Room Specific Requirements

The following information is required on the Fire and Life Safety floor plan sheet(s) in each room or area.

1. Specify the **use** of each room or area (for example, office, storage, sales, shop, etc.).
2. Specify the **occupancy group classification** for each room or area.
3. Specify the **floor area** of each room or area.
4. Specify the **occupant load** of each room or area.
5. Specify the **occupant load factor** used for each room or area.
6. Specify the number of **exits required** for each room or area.
7. Specify the number of **exits provided** for each room or area.
8. Show the longest **exit path** in each room or area.
9. Show the longest **exit path** on each floor.

NOTE: The Fire and Life Safety plans shall be used as basis for **all** fire alarm installation plans and all sprinkler installation plans.

Code Analysis Worksheet**Occupancy (s):** _____**Construction Type:** _____**Stories:** _____ **Height:** _____**Occupancy square footage:** _____
(per occupancy)**Canopy square footage:** _____**Area Calculations:**

$$I_f = [F/P - .25] W$$

W = yard average between 20 and 30 feet.
('W' is not 1 in most cases, unless all yards are greater than 30 feet.)

$$A_a = \{ A_T + [A_T \times I_F] + [A_T \times I_S] \} \quad A_T = \text{Table 503 allowable}$$

I_S = Sprinklers**I_F = Frontage****Story increase allowed:** _____**Example:**

60 x 80 Office building, 2-story, sprinklers. Yards = N-30', S-15', W-25', & E-65' to C/L of ROW (East / West orientation)

$$F = 80 + 80 + 60 = 220\text{ft} \quad P = 80 + 60 + 80 + 60 = 280 \quad (\text{yards less than 20 do not count for frontage})$$

$$I_f = [220 / 280 - .25] W \quad W = (80 \times 30) + (80 \times 25) + (60 \times 30) / P / 30$$

$$W = 2400 + 2000 + 1800 / 280 / 30$$

$$I_f = [.78 - .25] .73$$

$$W = 6200 / 280 / 30$$

$$W = 22' \text{ av. yd} / 30$$

$$I_f = [.53] .73$$

$$\underline{W = .73}$$

$$\underline{I_f = 39\%}$$

Building sprinkled so; I_s = 2 {one story building - I_s = 3}
{two or more stories - I_s = 2}

$$A_a = \{ A_T + [A_T \times I_F] + [A_T \times I_S] \}$$

$$A_a = \{ 9000 + [9000 \times .39] + [9000 \times 2] \}$$

$$A_a = \{ 9000 + [3510] + [18000] \}$$

$$A_a = \{ 30,510 \text{ per level} \}$$

$$A_a = 30,510 \times 2 \text{ (2 story)}$$

$$A_a = 61,020 \text{ max. allowed square footage}$$