

Building Type Definitions and Maximum Emissions Targets

| Building Types:                     |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------|--------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                                     | Educational                                                                                           |                                                                                                              |                                                                             | Library                                                                                                                                          | Clinical                                                      |                                        |                                      | Residential                                                                     |                                                              | Administrative                                                                            | Athletics                                                                                                                                                                                   |                                                              |                                                                                                                                                              | Other                                                                              |
|                                     | No Lab                                                                                                | Low Load Lab                                                                                                 | High Load Lab                                                               |                                                                                                                                                  | Outpatient Business                                           | Outpatient Ambulatory                  | Inpatient                            | Dormitory                                                                       | Low-Rise, Duplex, Single Family                              |                                                                                           | Low Intensity                                                                                                                                                                               | Medium Intensity                                             | High Intensity                                                                                                                                               |                                                                                    |
| Recommended Target                  |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
| Carbon Dioxide Emission kg CO2/sqft | 10.0                                                                                                  | 16.0                                                                                                         | 21.0                                                                        | 6.0                                                                                                                                              | 10.0                                                          | 15.0                                   | 21.0                                 | 5.2                                                                             | 1.0                                                          | 10.0                                                                                      | 7.0                                                                                                                                                                                         | 10.0                                                         | 16.0                                                                                                                                                         | Varies                                                                             |
|                                     |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
| % reduction from ASHRAE 90.1-2013   | 28.6%                                                                                                 | 23.8%                                                                                                        | 25.0%                                                                       | 20.0%                                                                                                                                            | 28.6%                                                         | 21.1%                                  | 25.0%                                | 34.2%                                                                           | 77.8%                                                        | 33.3%                                                                                     | 28.6%                                                                                                                                                                                       | 23.8%                                                        | 25.0%                                                                                                                                                        | N/A                                                                                |
|                                     |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
|                                     | Low-tech instructional space with conventional Audio/Visual systems (such as screen, projector, etc.) | Active learning with high-tech/ energy-intensive Audio/Visual equipment, and/or non-wet laboratory equipment | Instructional and/or research laboratory spaces, energy intensive equipment | Traditional library space with book storage, fixed/ flexible seating (not including: food service, instructional spaces, computing spaces, etc.) | Typical outpatient clinical space with exam rooms and offices | Clinical space with ambulatory arrival | Inpatient clinical space             | Student housing (includes support spaces except dining and commercial kitchens) | Low-density housing with residential kitchens and bath rooms | Office and meeting space with conventional Audio/Visual systems such as screen, projector | Facilities used for athletic varsity practice and/or recreational athletic competitions (i.e., not designed for spectator comfort, systems designed for primary use and not special events) | Varsity team headquarters and recreational sport facilities. | Facilities used for varsity competitions, natatoria and sports medicine facilities that include therapy pools for training, conditioning and rehabilitation. | Other uses which do not explicitly fit into the existing PCCN use classifications. |
| Typical Space Types:                |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
|                                     | Typical Classrooms                                                                                    | Education Dry Labs                                                                                           | Education Wet labs                                                          | Library Book Stack Space                                                                                                                         | Exam Rooms                                                    | Diagnostic Imaging                     | Inpatient Beds                       | Dormitory rooms                                                                 | Family/ Student Housing                                      | Private Offices                                                                           | Field Houses                                                                                                                                                                                | Varsity Team Facilities                                      | Competition Facilities (w/ Spectators)                                                                                                                       | Vivarium                                                                           |
|                                     | Typical Auditoriums                                                                                   | Research Dry Labs                                                                                            | Research Wet labs                                                           | Reading Rooms                                                                                                                                    | Office/Support Spaces                                         | Ambulatory Surgery Rooms               | Operating Rooms/ Inpatient Surgeries | Lounge/ Study Rooms                                                             |                                                              | Multi-Person Office                                                                       | Indoor Practice Facilities                                                                                                                                                                  | Locker Rooms                                                 | Natatoria                                                                                                                                                    | Commercial Kitchen                                                                 |
|                                     |                                                                                                       | Active Learning Classrooms                                                                                   | Lab equipment spaces                                                        | Study rooms                                                                                                                                      | Pharmacy - Dispensary                                         |                                        | Intensive Care Units (ICU)           | Shower Rooms/ Restrooms                                                         |                                                              | Open Office /Workstations                                                                 | Recreational Sports                                                                                                                                                                         | Ice Arenas                                                   | Event Spaces                                                                                                                                                 |                                                                                    |
|                                     |                                                                                                       | Computer Labs/Classrooms                                                                                     | Cold rooms                                                                  |                                                                                                                                                  | Infusion                                                      |                                        | Acute Care Units                     | Self-Service Laundry Facilities                                                 |                                                              | Conference Rooms                                                                          | Athletic Medicine                                                                                                                                                                           |                                                              | Collection Spaces                                                                                                                                            |                                                                                    |
|                                     |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
| Building Infrastructure:            |                                                                                                       |                                                                                                              |                                                                             |                                                                                                                                                  |                                                               |                                        |                                      |                                                                                 |                                                              |                                                                                           |                                                                                                                                                                                             |                                                              |                                                                                                                                                              |                                                                                    |
| Occupancy:                          | Medium                                                                                                | Medium                                                                                                       | Medium                                                                      | Low                                                                                                                                              | Low                                                           | Medium                                 | Medium                               | Medium                                                                          | Medium                                                       | Medium                                                                                    | Low                                                                                                                                                                                         | Medium                                                       | Medium                                                                                                                                                       | VARIES                                                                             |
| HVAC Design:                        | Low Intensity                                                                                         | Medium Intensity                                                                                             | High Intensity                                                              | Low Intensity                                                                                                                                    | Low Intensity                                                 | Medium Intensity                       | High Intensity                       | Low Intensity                                                                   | Low Intensity                                                | Medium Intensity                                                                          | Low Intensity                                                                                                                                                                               | Medium Intensity                                             | High Intensity                                                                                                                                               | VARIES                                                                             |
| Ventilation and Process Exhaust:    | Low Outdoor Airflow                                                                                   | Medium Outdoor Airflow                                                                                       | High Outdoor Airflow                                                        | Low Outdoor Airflow                                                                                                                              | Low Outdoor Airflow                                           | Medium Outdoor Airflow                 | High Outdoor Airflow                 | Low Outdoor Airflow                                                             | Low Outdoor Airflow                                          | Low Outdoor Airflow                                                                       | Low Outdoor Airflow                                                                                                                                                                         | Medium Outdoor Airflow                                       | High Outdoor Airflow                                                                                                                                         | VARIES                                                                             |
| Electrical Plug and Process Loads:  | Low Density                                                                                           | Medium Density                                                                                               | High Density                                                                | Low Density                                                                                                                                      | Low Density                                                   | Medium Density                         | High Density                         | Low Density                                                                     | Low Density                                                  | Medium Density                                                                            | Low Density                                                                                                                                                                                 | High Density                                                 | Medium Density                                                                                                                                               | VARIES                                                                             |
| Lighting:                           | Low                                                                                                   | Medium                                                                                                       | High                                                                        | Medium                                                                                                                                           | Low                                                           | Medium                                 | High                                 | Low                                                                             | Low                                                          | Medium                                                                                    | Medium                                                                                                                                                                                      | Medium                                                       | High                                                                                                                                                         | VARIES                                                                             |