



# HEALTHY BUILDING, HAPPY WORKFORCE

REDEFINING THE BUILT ENVIRONMENT AT THE BEAM



THE BEAM™  
ON FARMER

Mortenson



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## THE BUILDING

**Healthy Building, Happy Work Force.** In our new world, employee confidence in a clean, safe and healthy work environment is essential to the continuity of business operations. The Beam is uniquely positioned to deliver one of the most, if not the healthiest office building environments in Arizona.

Following the principles of *The 9 Fundamentals of a Healthy Building*, developed by the Harvard TH Chan School of Public Health, and the standards established by the International WELL Building Institute™, a leading the global movement to transform our buildings and communities in ways that help people thrive, along with features and system enhancements combined with the maintenance and testing outlined on the following pages, The Beam sets the stage to easily achieve WELL Certification upon completion.

The Beam offers distinctive building systems such as an Under Floor Air Distribution (UFAD) system that provides best in class air quality, control and flexibility. The Beam also incorporates a first in class Needlepoint Bipolar Ionization (NPBI) system within the mechanical system that has been independently tested and verified to kill 99.4% of SARS-CoV-2 viral particles within 30 minutes (SARS-CoV-2 is the virus that causes COVID-19).

Additionally, The Beam incorporates features such as automatic doors and fob-based elevator controls thus allowing a contactless environment from ‘car to cube.’ The building prioritizes a healthy living model and ensures safety in a post-COVID-19 world.

**Cross Laminated Timber Structure.** Inspired by one of Earth’s most important natural resources, The Beam will incorporate a cross laminated timber (CLT) structure, the first of its kind in Arizona. Paying homage to the sturdy timber that will frame and support its majestic yet strong structure, The Beam is inspired by balance – between life and work, new and tenured, modern and vintage.

CLT is an environmentally friendly and sustainable construction method that has been widely adopted in Europe for over 20 years. In addition to the environmental attributes, The Beam’s CLT structure will remain exposed, providing the juxtaposition of a modern, efficient design in a warm heavy timber building.

### WELL CERTIFICATION



*WELL Certification is the leading tool for advancing health and well-being in buildings globally. Informed by insights from the WELL Building Standard—the world's premier standard for advancing health and well-being in the places where we spend our lives—the WELL Health-Safety Rating accommodates all space types as well as the specific goals and concerns of different organizations and facilities.*



[Click here for more details on the features of CLT](#)

## THE BUILDING

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**Location.** Located in the heart of Tempe, The Beam's location itself is an amenity that will benefit our talent's recruiting and retention plan. With a walkability score of 78, The Beam is integrated into the urban fabric of Tempe's Mill Avenue District and ASU campus.

The Beam also offers the ability to access the Loop 202 via Priest Drive, thus avoiding the congestion along Rio Salado Parkway and Rural Road. In addition, the Tempe street car will have a stop on the south side of the building at 5th Street & Ash Avenue and the Mill Avenue light rail station is less than a 5-minute walk, providing convenient access to the Phoenix Metro and Sky Harbor Airport.

For those who commute by bike or foot, or seek a loop around Tempe Town Lake for lunch, The Beam offers ground floor showers and locker rooms.



CLICK HERE TO SEE A MAP OF TEMPE, ARIZONA AND EXPLORE ALL OF THE AMENITIES SURROUNDING THE BEAM IN THE NEIGHBORHOOD!

## THE FACTS

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- First-of-its-kind-in-Arizona office building utilizing exposed Cross Laminated Timber (CLT) construction
- Under Floor Air Distribution (UFAD) System provides best-in-class air quality, thermal comfort, energy efficiency and tenant flexibility
- First in class Needlepoint Bipolar Ionization System
- Contactless environment from "Car to Cube"
- Design to the *The 9 Fundamentals of a Healthy Building* and to exceed WELL Certification requirements
- +/- 40,000 square foot floor plate available
- Adjacent 4 per 1K structured parking (801 total parking spaces)
- Additional 10,000 square feet of at-grade commercial/retail space
- 13' floor to exposed wood deck ceilings
- 36' x 30' column grid
- 3 stair cores providing maximum flexibility

THE BEAM™  
ON FARMER

[thebeamtempe.com](http://thebeamtempe.com)

## THE 9 FOUNDATIONS OF A HEALTHY BUILDING

The Beam embodies an active design and will uniquely fulfill or exceed the **9 Foundations of a Healthy Building**, as defined by the Harvard T.H. Chan School of Public Health. The research as outlined in *Building Evidence For Health / The 9 Foundations of a Healthy Building* was created by a multidisciplinary team of experts from the Healthy Buildings Program at Harvard for ForHealth.org. Meeting these foundations, which mirror those of the WELL Certification, positions The Beam to be designed with system enhancements and operation processes that will redefine a healthy workplace.

Encouraging a healthy lifestyle of all users, The Beam will deliver a one-of-a-kind, safe and healthy building product to the Tempe market, fostering a culture of healthier and happier users.



### Full Report



[CLICK HERE](#)

### WELL Certification



[CLICK HERE](#)

### Safety + Security

### ADDITIONAL FEATURES



Non-smoking Building

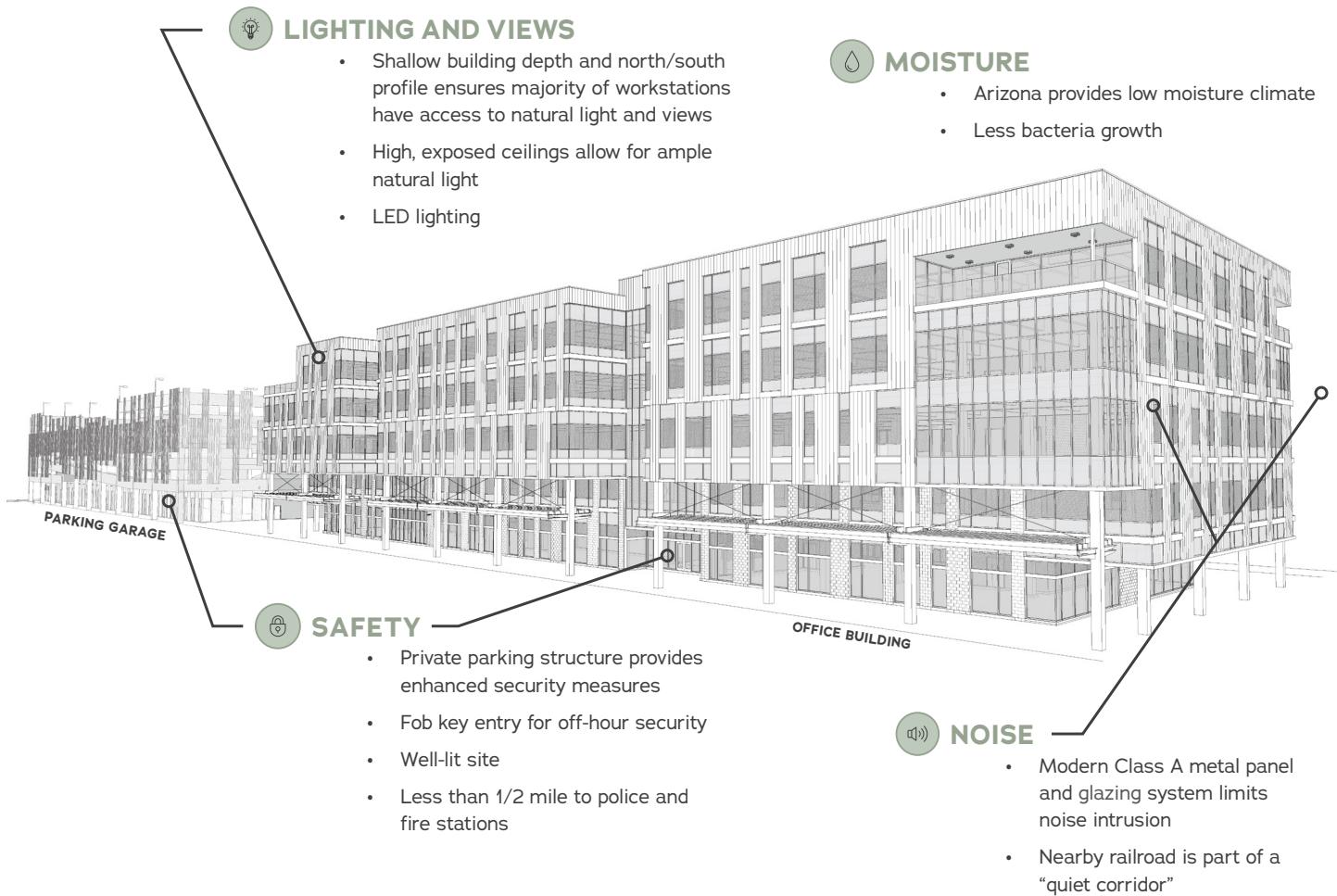


Active Design

**Source:** Harvard T.H. Chan School of Public Health,  
*Building Evidence For Health / The 9 Foundations of a Healthy Building*

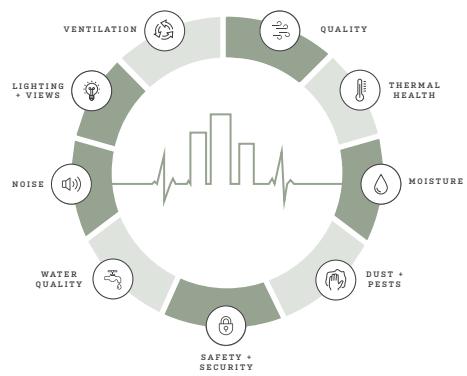
# HEALTHY FOUNDATIONS AT THE BEAM ON FARMER

## EXTERIOR



## ACTIVE DESIGN

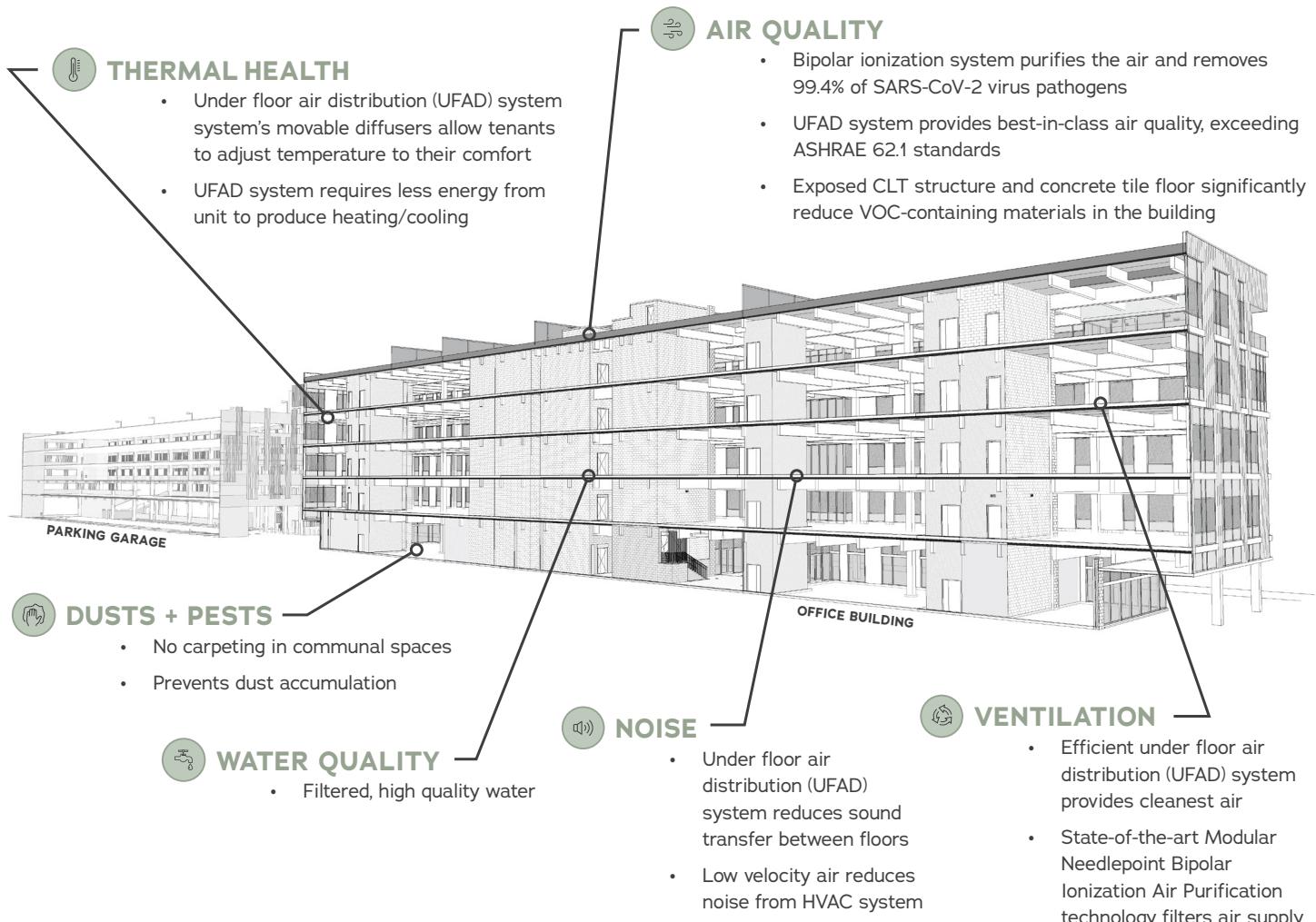
- Location promotes a healthy environment within an urban setting
- Close proximity to bike trails with building bike racks available
- Walking paths adjacent to building
- Close to Tempe Town Lake (park, lake, walking paths, views)
- Building equipped with shower and locker space for active users
- Outdoor areas for tenant use
- CLT structure promotes psychological wellbeing



[Click here for more details on how the 9 Healthy Foundations are demonstrated at The Beam](#)

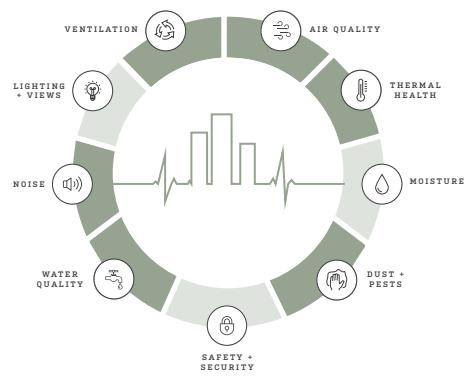
# HEALTHY FOUNDATIONS AT THE BEAM ON FARMER

## INTERIOR



## OPERATIONS AND MAINTENANCE

- Annual indoor air testing provided, with ability to test more frequently if needed
- Quarterly water quality testing
- Monthly roofing, plumbing, ceilings, and mechanical system inspections
- Janitorial staff to use high efficiency vacuum filters
- Pest treatment on the exterior of building only
- No smoking within 25 feet of the building



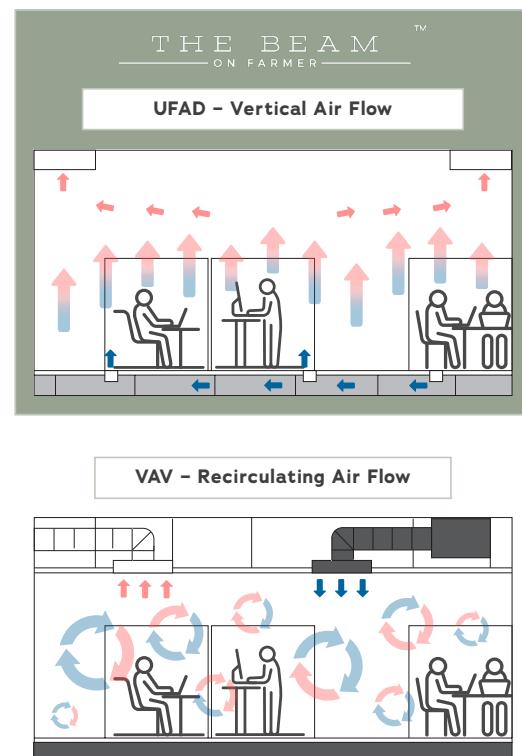
[Click here for more details on how the 9 Healthy Foundations are demonstrated at The Beam](#)

# CLEAN AND EFFICIENT AIR

## Underfloor Air Distribution (UFAD) System

The Beam will feature a **UFAD** system; an enhanced alternative to traditional overhead sheet metal-ducted VAV systems. While traditional HVAC systems mix supply and return air above the occupants, wasting energy and contaminating the air supply, UFAD uses the walking surface as a plenum to distribute air more efficiently. The air is dispersed from the floor and returns through the ceiling, naturally rising as it heats. As a result of this direct upward flow, the UFAD system's air is cleaner and uses less energy to provide a healthier work environment.

| TOP BENEFITS OF UFAD     |  |
|--------------------------|--|
| <b>FLEXIBILITY</b>       | <ul style="list-style-type: none"><li>Customizable layout</li><li>Less labor intensive adaptability</li></ul>  |
| <b>ENERGY EFFICIENCY</b> | <ul style="list-style-type: none"><li>Reduced operating costs</li><li>Allows for lower temperature set point</li></ul>   |
| <b>HEALTHY AIR</b>       | <ul style="list-style-type: none"><li>Best-in-class air quality</li><li>Exceeds ASHRAE 62.1 standards</li><li>Individual air distribution</li></ul>  |
| <b>NOISE</b>             | <ul style="list-style-type: none"><li>Reduces floor to floor sounds transfer</li><li>Low velocity air reduces noise from HVAC systems</li></ul>  |
| <b>THERMAL HEALTH</b>    | <ul style="list-style-type: none"><li>Individual air flow control</li><li>Increased microspace comfort</li></ul>   |
| <b>AESTHETIC</b>         | <ul style="list-style-type: none"><li>Complements exposed timber</li><li>Mechanical, electrical, low voltage/IT all under floor</li><li>Efficient design leading to lower construction costs</li></ul> |



## Modular Needlepoint Bipolar Ionization Air Purification (GPS-iMOD) System

To ensure the highest level of air quality, The Beam will utilize a GPS-iMOD system, a first-of-its-kind technology that further purifies and filters the building's air supply. Benefits of the GPS-iMOD system include:

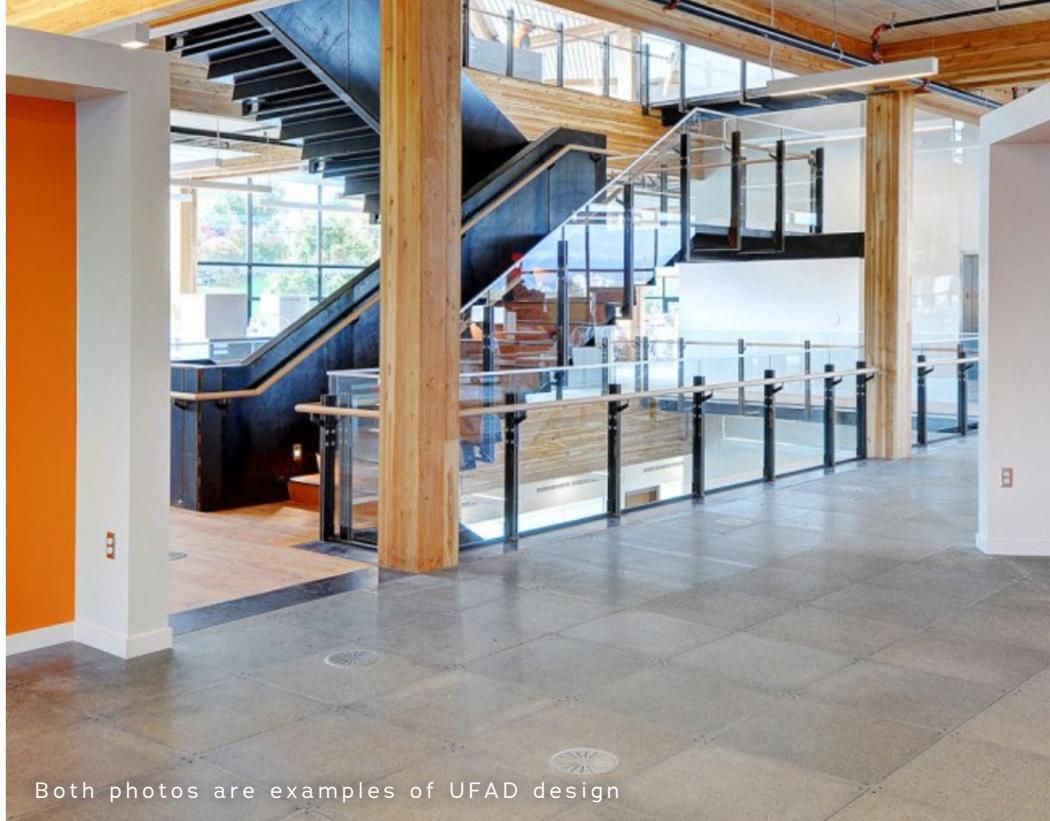


### Coronavirus Precaution:

A recently completed independent, third-party scientific study demonstrated that the GPS-iMOD system's technology **CAN INACTIVATE SARS-COV-2 VIRAL PARTICLES BY 99.4% WITHIN 30 MINUTES.**

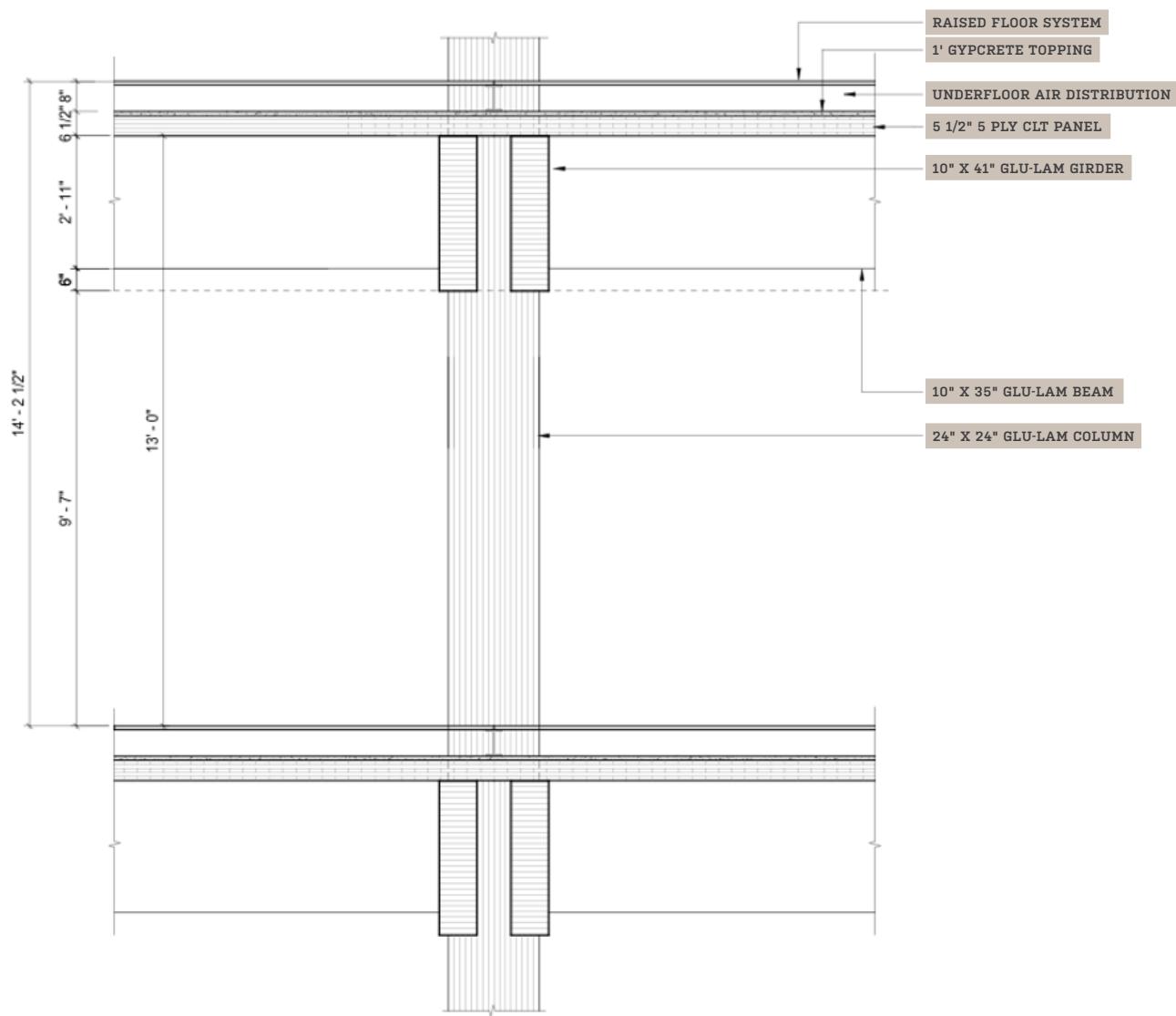
## Other Notable Users of GPS iMOD System





Both photos are examples of UFAD design

### The Beam's UFAD design

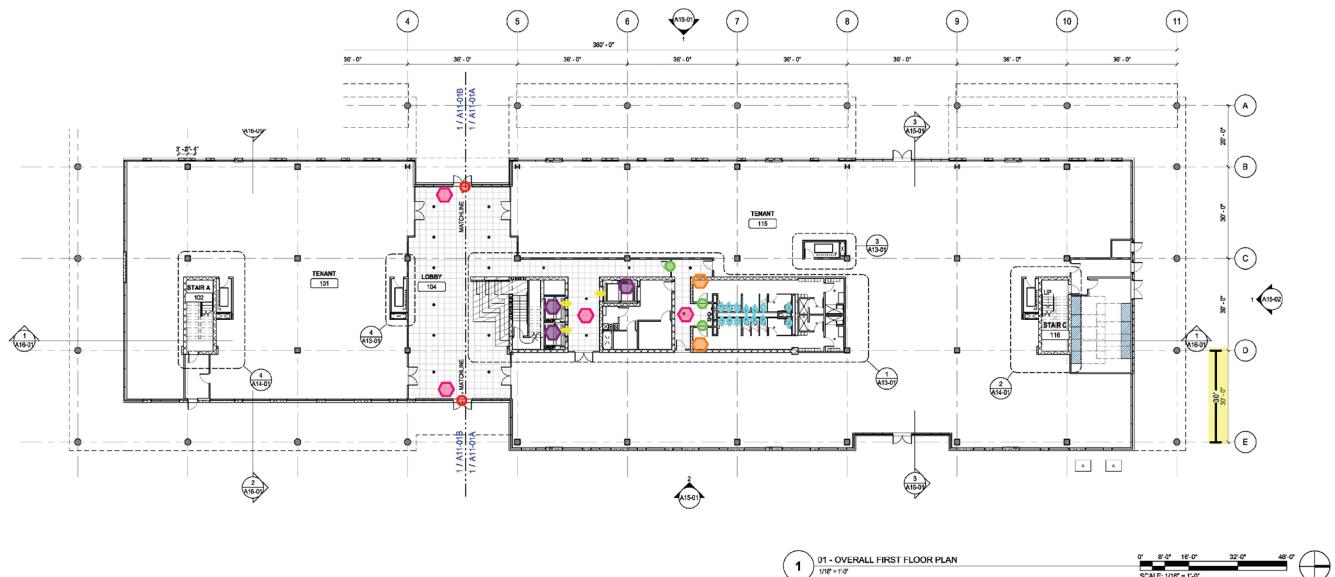


# A 'CONTACTLESS' EXPERIENCE: FROM CAR TO CUBICLE

From the moment you park your car, to the moment you sit down at your cubicle, The Beam delivers a **contactless experience**. Through thoughtful design enhancements, the building is equipped with key features to allow you to control your own environment – allowing you to avoid touching surfaces like doors, knobs, elevator keys or restroom fixtures. These enhancements are integrated throughout the entire building to instill confidence and safety.



**Contactless Locations at The Beam** (All levels share similar “contactless” amenities)



- Auto Door Openers - EXT Double Glass Doors
- Hand Wipes - Restrooms
- Door Foot Pulls
- Sensored Sink Fixtures
- Elevator Fobs
- Sensored Toilet Fixtures
- Hand Wipes/Sanitizer Station
- Sensored Urinal Fixtures
- Wall Mounted Sanitizer Dispensers

\*\*Tenants will have the option to integrate touchless features in their respective office spaces

## A D D I T I O N A L D E T A I L S :

### H E A L T H Y F O U N D A T I O N S A T T H E B E A M

Below, find further detail into the healthy recommendations from the “Building Evidence For Health | The 9 Foundations of a Healthy Building” report and how these guidelines are integrated into The Beam.

#### AIR QUALITY



**Healthy Foundation Guideline:** Choose supplies, office supplies, furnishings and building materials with low chemical emissions to limit sources of volatile and semi-volatile organic compounds. Check for legacy pollutants such as lead, PCBs and asbestos. Limit vapor intrusion by using a vapor barrier. Maintain humidity levels between 30-60% to mitigate odor issues. Conduct annual air quality testing. Respond to and evaluate occupant concerns.

##### Addressed at The Beam on Farmer:

- Indoor air quality is tested, on an annual basis at minimum, with increased frequency as needed to address tenant/occupant concerns.
- Environmental testing showed no significant presence of pollutants in soil, however, as an added precaution, the entire footprint of The Beam is built over a vapor barrier.
- Low VOC materials utilized in all building materials, specifically in the core & shell.
- Mechanical system maintains a humidity range of 30-60%.
- GPS-iMOD system purifies the air and removes 99.4% of SARS-CoV-2 virus pathogens.

#### DUST + PESTS



**Healthy Foundation Guideline:** Use high efficiency filter vacuums and clean surfaces regularly to limit dust and dirt accumulation, which are reservoirs for chemicals, allergens, and metals. For homes, take off shoes at the door to limit tracking in dirt. Develop an integrated pest management plan with a focus on preventative measures such as sealing entry points, preventing moisture buildup and removing trash. Avoid pesticide use, if possible. Train building management how to respond to pest problems and complaints.

##### Addressed at The Beam on Farmer:

- No carpet use in public areas and corridors (discouraged in tenant areas) reduces the potential for trapped dust and reduces VOC off-gassing potential.
- Janitorial staff uses high efficiency vacuum filters.
- Building mechanical system filters are replaced monthly.
- Building maintenance pest treatment is on the exterior of the building only.

#### LIGHTING + VIEWS



**Healthy Foundation Guideline:** Provide task lighting for comfortable viewing. Provide direct lines of sight to exterior windows from all workstations. Provide as much daylighting and/or blue-enriched lighting as possible without introducing glare. Incorporate nature and nature-inspired design indoors.

##### Addressed at The Beam on Farmer:

- The shallow building depth, north/south profile, and high, exposed ceilings allow for ample natural light, also accommodating tenant layouts that can provide line-of-sight to the exterior from all occupant workstations.
- The exposed CLT wood structure provides a nature-inspired design inside the building.
- LED lighting used throughout building.

## A D D I T I O N A L D E T A I L S :

### H E A L T H Y F O U N D A T I O N S A T T H E B E A M



#### MOISTURE

**Healthy Foundation Guideline:** Conduct regular inspections of roofing, plumbing, ceilings and HVAC equipment to identify sources of moisture and potential condensation spots. When moisture or mold is found, immediately address moisture source and dry or replace contaminated materials. Identify and remediate underlying source of the moisture issue.

##### Addressed at The Beam on Farmer:

- Inspections are performed monthly, at minimum, on roofing, plumbing, ceilings, and the mechanical system systems to determine if any moisture or condensation spots are penetrating or occurring within the building.
- Arizona provides low moisture climate which lends to less bacteria growth.



#### NOISE

**Healthy Foundation Guideline:** Protect against outdoor noises such as traffic, aircraft and construction. Control indoor sources of noise such as mechanical equipment, office equipment and machinery. Provide spaces that minimize background noise to 35db for unoccupied work and learning areas, and a maximum reverberation time of 0.7 seconds.

##### Addressed at The Beam on Farmer:

- CLT floor structure, combined with the raised floor of the UFAD system, provides an STC (Sound Transmission Class) and IIC (Impact Isolation Class) rating that exceeds typical norms for Class A Buildings. This results in minimal noise transfer between floors.
- The lack of ductwork and increased number of floor diffusers across the floor in the UFAD system reduces air distribution noise compared to a traditional ducted HVAC system.
- Railroad track along the eastern edge of The Beam is within the Tempe Railroad “quiet zone.”



#### SAFETY + SECURITY

**Healthy Foundation Guideline:** Meet fire safety and carbon monoxide monitoring standards. Provide adequate lighting in common areas, stairwells, emergency egress points, parking lots and building entryways. Manage points of egress and the physical perimeter. Be situationally aware through video monitoring, interactive patrols and incident reporting. Maintain a holistic emergency action plan and mechanism for communication to building occupants.

##### Addressed at The Beam on Farmer:

- Surrounding exterior lighting and street lighting provides a clear, lit walking path between the parking garage and office buildings.
- Incorporates the latest code compliant life safety systems.
- Secured by timed magnetic locks and can accommodate each tenant's individual security requirements.
- Less than ½ mile from Tempe Police Headquarters and less than ¼ mile from Tempe Fire Station No. 6.

## A D D I T I O N A L D E T A I L S :

### H E A L T H Y F O U N D A T I O N S A T T H E B E A M



#### THERMAL HEALTH

**Healthy Foundation Guideline:** Meet minimum thermal comfort standards for temperature and humidity and keep thermal conditions consistent throughout the day. Provide individual level thermal control, where possible. Survey the space and occupants regularly to identify zones that under-perform. Respond to and evaluate occupant concerns. Commission systems, conduct regular maintenance and monitor temperature and humidity in real-time to prevent and resolve thermal comfort issues promptly.

##### Addressed at The Beam on Farmer:

- Auto- and manually-controlled UFAD system floor diffusers can be placed throughout tenant space. Occupants in both open seating and hard-walled offices can easily control the temperature of their area without impacting others in their area.
- UFAD system floor diffusers can be easily rearranged, at any time, without rerouting ductwork or other systems. This allows easy modification to accommodate tenant/occupant concerns or changes in layout.



#### VENTILATION

**Healthy Foundation Guideline:** Meet or exceed local outdoor air ventilation rate guidelines to control indoor sources of odors, chemicals and carbon dioxide. Filter outdoor and recirculated air with a minimum removal efficiency of 75% for all particle size fractions. Avoid outdoor air intakes at street level or near other outdoor sources of pollutants. Commission systems, conduct regular maintenance and monitor ventilation in real-time to prevent and resolve ventilation issues promptly.

##### Addressed at The Beam on Farmer:

- Under Floor Air Ventilation System (UFAD) moves air from floor to ceiling, minimizing air recirculation and improving ventilation efficiency.
- Design exceeds minimum ASHRAE ventilation guidelines.



#### WATER QUALITY

**Healthy Foundation Guideline:** Meet the U.S. National Drinking Water Standards at point-of-use. Test water quality regularly. Install water purification system for removal of contaminants, if necessary. Ensure residual disinfectant levels are sufficient to control microbes, but not in excess. Prevent water stagnation in pipes.

##### Addressed at The Beam on Farmer:

- Water quality is tested on a quarterly basis.

## ADDITIONAL DETAILS: ADVANTAGES OF CLT

**Modern. Natural. Clean. Defined.** Cross Laminated Timber (CLT) is thoughtful, responsible and delivers durable construction.



### LOOK

Juxtaposition of a modern design and amenities with vintage character



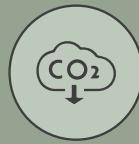
### SUSTAINABILITY

Utilization of young trees, a sustainable forestry practice, also a renewable resource



### UNIQUE

Arizona's first and only CLT office building



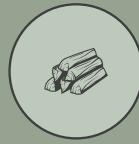
### ENVIRONMENT

The wood, also a renewable resource, utilized on the project will capture 3.5 tons of carbon dioxide



### FUNCTION

Large grid spacing & high exposed ceilings provide maximum interior design flexibility



### NATURAL

The warm feel of wood generates an inherent creative environment



### RECYCLE

CLT manufacturing creates 0 waste and scrap material goes to other products or biofuel



### AIR QUALITY

The Under Floor Air Distribution System (UFAD) provides energy efficiency and localized thermal comfort

## Contact Information

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