



U

# THE HEALTHCARE STRUCTURE PROTOTYPE II

The American Institute of Steel Construction, Inc. (AISC) is a not-for-profit organization that provides technical information and services to the steel industry. The AISC is a member of the International Association of Bridge, Structural, Ornamental and Reinforcing Steel Fabricators (IABR).



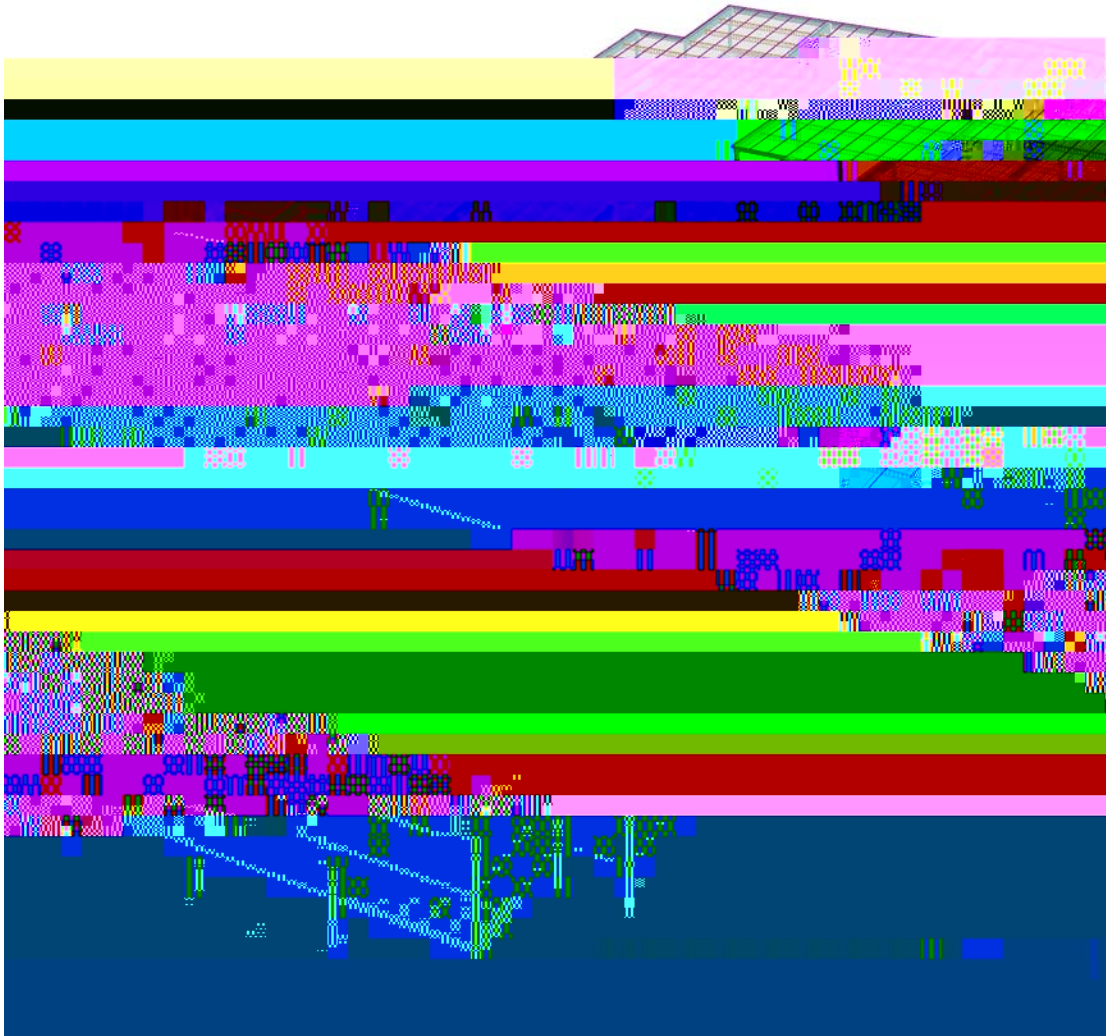
The American Institute of Steel Construction, Inc. (AISC) is a not-for-profit organization that provides technical information and services to the steel industry. The AISC is a member of the International Association of Bridge, Structural, Ornamental and Reinforcing Steel Fabricators (IABR).

Tridcepa bee ead acc da ce Pf a ade a a be e A e ca l e f See C c a d AISC  
See S Ce e a Pe e f e aa . Tridcepa bee e ad f c e a e a a e g ee g  
c c d c e a d Pa be ed eed f a d ec ca ca P c ee fe a e a a a d

Information Provided to the SSC by the Architect



This page is a copy of the information provided to the SSC by the Architect. The information is provided for the SSC's use only and is not to be distributed to any other party. The Architect is not responsible for any errors or omissions in this information. See the AISC website for more information.



TP d c e Pa bee e aed acc da ce P f a ade a a be Pe A e ca l e f See C c  
a d AISC See S Ce e a Pe e f e aa . TP d c e Pa bee e aed f c e a ea



1)

2)

3)

4)

5)

6)

7)

8)

Suspended Floor Areas:

187,917 f<sup>2</sup> (± 31,319 f<sup>2</sup> Total )

Estimated Steel Quantities:

G a C



# DESIGN PARAMETERS: INTERNATIONAL BUILDING CODE 2006

The design parameters are based on the 2006 International Building Code (IBC) and the 2006 International Code of Building Officials (ICBO). The design parameters are based on the 2006 International Building Code (IBC) and the 2006 International Code of Building Officials (ICBO). Requirements by local and state jurisdictions have not been considered. If actual project criteria differ from the design parameters, the design parameters shall be used.

|                              |        |
|------------------------------|--------|
| Basic Wind Speed             | 90 mph |
| Wind Direction Factor, $C_d$ | 1.15   |
| Exposure Category            | B      |
|                              |        |
|                              |        |

**Note:** The provisions of the AISC *Seismic Provisions* WERE NOT used in determining the design parameters for this project. Where the design parameters are based on the applicable building code and local requirements must be taken into account in the design is based on the applicable building code and local requirements.

TYPICAL FLOOR FRA

# ROOF FRAMING PLAN

TR d c e Pa bee e aed acc da ce P f a ade a a abe Pe A e ca l e f See C c a d AISC See  
S Ce e a Pe e f e a a . TR d c e Pa bee e aed f c e a e a a e g ee g c c  
d c e a d Pa be ed eed f a d ec ca ca P c ee fe a e a a a d e ca f

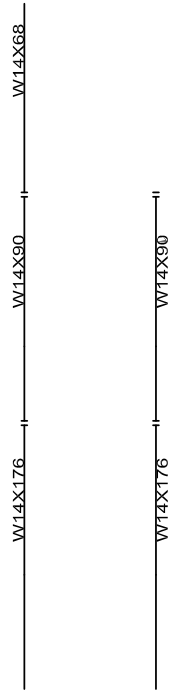
# COLUMN LAYOUT

NOT FOR CONSTRUCTION



The American Institute of Steel Construction, Inc. (AISC) is a non-profit organization that promotes the use of steel in building construction. It is the leading authority on steel design and construction in the United States. AISC provides technical support, research, and education to the steel industry. For more information, visit [www.aisc.org](http://www.aisc.org).

# FRAME ELEVATIONS



Braced Frame 1



Braced Frame 2

NOT FOR CONSTRUCTION

T P d c e P a bee e a e d a c c d a c e P f a a d e a a a b e P e A e c a l e f S e e C c  
a d A I S C S e e S C e e a P e e f e a a . T P d c e P a bee e a e d f c e a e a  
a e g e e g c c d c e a d P a b e e d e e d f a d e c c a c a P c e e

# CASTELLATED BEAMS AND GIRDERS

## Castellated Shape Usage

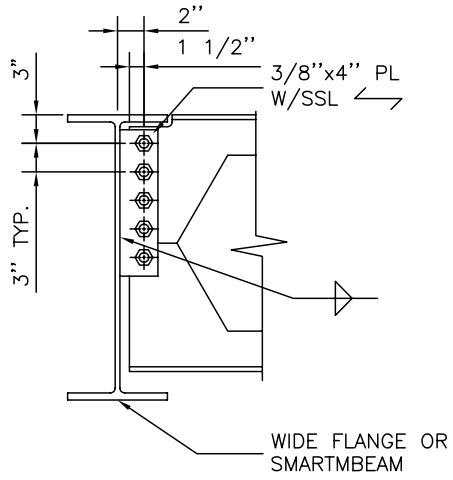
Castellated beams are a common choice for a wide range of applications. They have been used throughout the United States and Europe for a variety of structural purposes, including floor joists, roof supports, and industrial building frames. Castellated beams are often used in conjunction with other structural elements, such as columns and girders, to create a strong and stable framework. Their unique shape allows them to provide a high strength-to-weight ratio, making them an ideal choice for many construction projects. Additionally, their open web design allows for easy routing of pipes and conduits, which is a significant advantage in industrial and commercial buildings.

## Castellated Beam Advantages:

- Castellated steel members are lightweight and easy to handle.
- Castellated steel members, like wide flange framing, can be used to span long distances.
- Castellated beams provide lower floor-to-floor height by allowing for a larger depth of the beam.



# STANDARD DETAILS FOR CASTELLATED BEAMS



# BUILDING INFORMATION MODELING

## Building Information Modeling

Building Information Modeling (BIM) is a process for creating and managing a building database in a graphic, multi-

# THE HEALTHCARE STRUCTURE PROTOTYPE II



The design of a building structure is a complex task that requires a high level of technical expertise and a deep understanding of the building's function and the materials used. The design process is iterative and involves a close collaboration between the architect and the structural engineer. The design team must consider a wide range of factors, including the building's location, the climate, the seismicity, and the available materials. The design process is a continuous one, with the design team refining the design as more information becomes available. The design team must also consider the building's long-term performance and the impact of the building on the environment. The design team must ensure that the building is safe, functional, and aesthetically pleasing. The design team must also ensure that the building is constructed in a cost-effective manner. The design team must ensure that the building is constructed in a timely manner. The design team must ensure that the building is constructed in a sustainable manner. The design team must ensure that the building is constructed in a way that is consistent with the building's intended use. The design team must ensure that the building is constructed in a way that is consistent with the building's intended location. The design team must ensure that the building is constructed in a way that is consistent with the building's intended climate. The design team must ensure that the building is constructed in a way that is consistent with the building's intended seismicity. The design team must ensure that the building is constructed in a way that is consistent with the building's intended materials. The design team must ensure that the building is constructed in a way that is consistent with the building's intended performance. The design team must ensure that the building is constructed in a way that is consistent with the building's intended impact on the environment. The design team must ensure that the building is constructed in a way that is consistent with the building's intended safety. The design team must ensure that the building is constructed in a way that is consistent with the building's intended functionality. The design team must ensure that the building is constructed in a way that is consistent with the building's intended aesthetics. The design team must ensure that the building is constructed in a way that is consistent with the building's intended cost-effectiveness. The design team must ensure that the building is constructed in a way that is consistent with the building's intended timeliness. The design team must ensure that the building is constructed in a way that is consistent with the building's intended sustainability. The design team must ensure that the building is constructed in a way that is consistent with the building's intended consistency with its intended use, location, climate, seismicity, materials, performance, impact on the environment, safety, functionality, aesthetics, cost-effectiveness, timeliness, and sustainability.

# THE HEALTHCARE STRUCTURE PROTOTYPE II

## Postscript

The beginning of the See S  
Certificate of Approval. The decision is made  
each year by the AISC Regulator and the  
SSC for the year. The decision is made  
The SSC has the right to grant the  
license to the company. The SSC  
will be the one to decide if the  
company is eligible for the license,  
and if so, what conditions must be met,  
and what the company must do to  
maintain the license. The SSC  
will also be the one to decide if the  
company is in violation of the license  
conditions, and if so, what the  
company must do to correct the  
violation. The SSC will also be the  
one to decide if the company is  
eligible for a new license, and if so,  
what the company must do to  
maintain the license.

## What should you do next?

You've invested the time to examine this prototype-a  
concept for the healthcare structure.  
What should you do next? A  
,A&BF dRA%& R P%)a)d) 4)2 , CBg R% , P)RBXF, X1)S,R%R 80 41 B