An aerial photograph of a sports facility. The central feature is a large, rectangular field covered by a retractable roof made of blue glass panels supported by a metal frame. To the left of the field is a blue running track with a person running. Further left is a parking lot with several cars. To the right of the field are several tennis courts with green grass and red borders. The entire facility is surrounded by a paved area.

Have a Field or Tennis Court?
You CAN have a retractable roof



Design Concepts



**30 YEARS & 1000 PROJECTS
LATER...**

**OPENAIRE BUILDS
RETRACTABLE ROOFS
AROUND THE GLOBE**

IS YOURS NEXT?

What we do



How to Work with Us

- We work with architects, developers, investors, contractors, construction managers, general contractors, independent builders, property owners and more...
- OpenAire can participate in your project from design to manufacturing, to construction / installation and hand-over plus can provide architectural and engineering services, operations support, financial/investment planning, business planning etc.
- We are typically included in projects at the Concept Design or Schematic Design Phase. We work with your team to implement your vision.
- The best warranty in the industry: minimum 5 year full parts and labour warranty, training, worldwide support and maintenance

Collaborative Design

- In-house design and engineering
- Certified fabrication & welding facility
- Dedicated customer support and project management
- Revit, Solid Edge, CAD

Engineer Standards

- Minimum L/200 deflection criteria in every design
- Free span enclosures of over 180' (55 m)
- Free-span dome configurations more than 300' (91 m)
- Custom Engineering for all climates & geographies including:
 - High snow/rain loads
 - Seismic zones
 - Hurricane/tornados

Aluminum Construction

- Thermally broken aluminum frames/extrusions
- Baked on paint finish prevents corrosion making them Maintenance Free
- Proven Lower Lifecycle Costs for aluminum buildings
- Key component in energy efficient LEED certification



Salinas Municipal Aquatic Center, CA
LEED GOLD RATING



Roger Carter Community Center, MD
LEED SILVER RATING

8 BENEFITS OF ADDING A RETRACTABLE ROOF

TO YOUR DESIGN OR FACILITY



1 PROMOTES HEALTH AND HYGIENE

Opt for fresh air circulation and daylight for a healthier environment, a new standard in future design.



2 MAXIMIZING SPACE AND REVENUE

Convert unused space or extend "usable" space to turn it into a year-round revenue generator.



3 LOWER LIFECYCLE COSTS

Reduced operating costs add up to drastic savings.



4 NATURAL LIGHT AND ILLUMINATION

Welcome the outdoors inside with a retractable solution that allows for flexibility.



5 PERFECT CONDITIONS YEAR-ROUND

Rain or shine, your space converts to an indoor or outdoor space in minutes.



6 CREATE A PLACE PEOPLE WANT TO VISIT

Attract people to your bright, airy, stunning venue any time, any day.



7 MAINTENANCE-FREE

Never repaint again, means no more extended closures for downtime.



8 ENERGY EFFICIENT

Natural ventilation allows heat to escape and for reduced use of mechanical air-handling equipment.

1. Promotes Health and Hygiene

Ventilation is required to achieve and maintain good air quality, as well as thermal comfort levels for the occupants of any space.

There is little evidence that ventilation directly reduces the risk of disease transmission, but many studies suggest that **insufficient ventilation increases disease transmission.**¹

In this time of a global pandemic, the health of guests in your business is critical. New studies demonstrate the correlation between the transmission of COVID19 in closed environments vs. open air circulation.

*In a recent Japan study, the odds a primary case transmitted COVID-19 in a closed environment was 18.7x greater compared to an open-air environment.*²

2. Maximizes Space and Revenue

If you have a patio, rooftop or any space that is seasonal, you can enclose it (lot coverage permitting) giving you additional footprint for year round programming. You can also add a retractable skylight and retractable walls (to some building types) to areas that may be under-utilized or purpose specific, turning these into more flexible/programmable environments

Adding an amenity with lower maintenance costs and operating costs allows business owners to focus capital on other areas, and reduce overhead.



3. Lower Life-Cycle Costs

Savings when operating a retractable roof (translucent or transparent) enclosure include both the cost of hydro, gas and reduce your reliance on electrical lighting during the day.

In a nutshell when the roof is open, you turn off the mechanical systems and lights in the space. This is the intent of all global energy codes. To use less energy.

Using outdoor air as a dehumidifying source when it is cost effective, rather than using a mechanical dehumidification system, can greatly reduce total operating costs, provide better indoor air quality, and improve system reliability.³

4. Natural Light and Illumination

There is undeniable evidence first, that daylit spaces hold the potential to yield substantial benefits, including increased energy savings, increased revenue in retail applications, and improvements to human health and productivity.⁴

There are a variety of studies showing that daylight is the third most important factor in improving retail sales, behind hours of operation and years since last renovation.⁵

In other words, a day lit space with good hours and a clean, new environment will make more money.

Lighting loads can be reduced by incorporating natural lighting into the envelope design and by using efficient lighting options.⁶

5. Perfect Year Round Conditions

Open and Close the roof at the push of a button. Turn your space into one that can be used for events, parties, an indoor/outdoor rentable venue. Mother Nature will no longer have an impact on any use of your space. The roofs of our largest facilities close in minutes. So with the addition of optional rain sensors the enclosure will do the work for you.



6. Create a place people want to Visit

To compete in towns and cities across the country, all hotels, restaurants, bars, etc, must stay ahead of the trends to attract new guests. This is called improving your marketability.

Offering upgraded facilities that are safer and healthier, to compete with other venues, is critical. Ensuring that these can be open year round enhances their value and ROI via programming opportunities.

A retractable roof ensures you are free from weather related concerns. In addition, the ‘peace of mind’ associated with being in a bright, open and naturally ventilated space is appealing and “marketable” to attract guests.

7. Maintenance Free Facility

Aluminum is lightweight, high-strength, corrosion-resistant and widely recycled. It maximizes building efficiency by balancing the functions of heating, cooling, lighting, shading and ventilation. In addition, aluminum in buildings has been proven to last for multiple decades with minimal maintenance, lowering the lifecycle footprint of a building.⁷



8. Energy Efficient

All energy codes, globally, require new or renovated structures and buildings to use less energy. Aluminum is superior to steel and iron in its ability to reflect the infrared (heat) rays of the sun. ***Properly coated aluminum roofs can reflect up to 95 percent of the solar energy that strikes them, dramatically improving energy efficiency. This makes aluminum is a key component in LEED-certified green buildings should you be looking for that designation.***⁹

In addition when the roof is open and the walls are open, your space becomes a naturally “chimney”. This is a low cost alternative to expensive energy consuming mechanical ventilation systems.

Concepts Design Field/Tennis/Courts





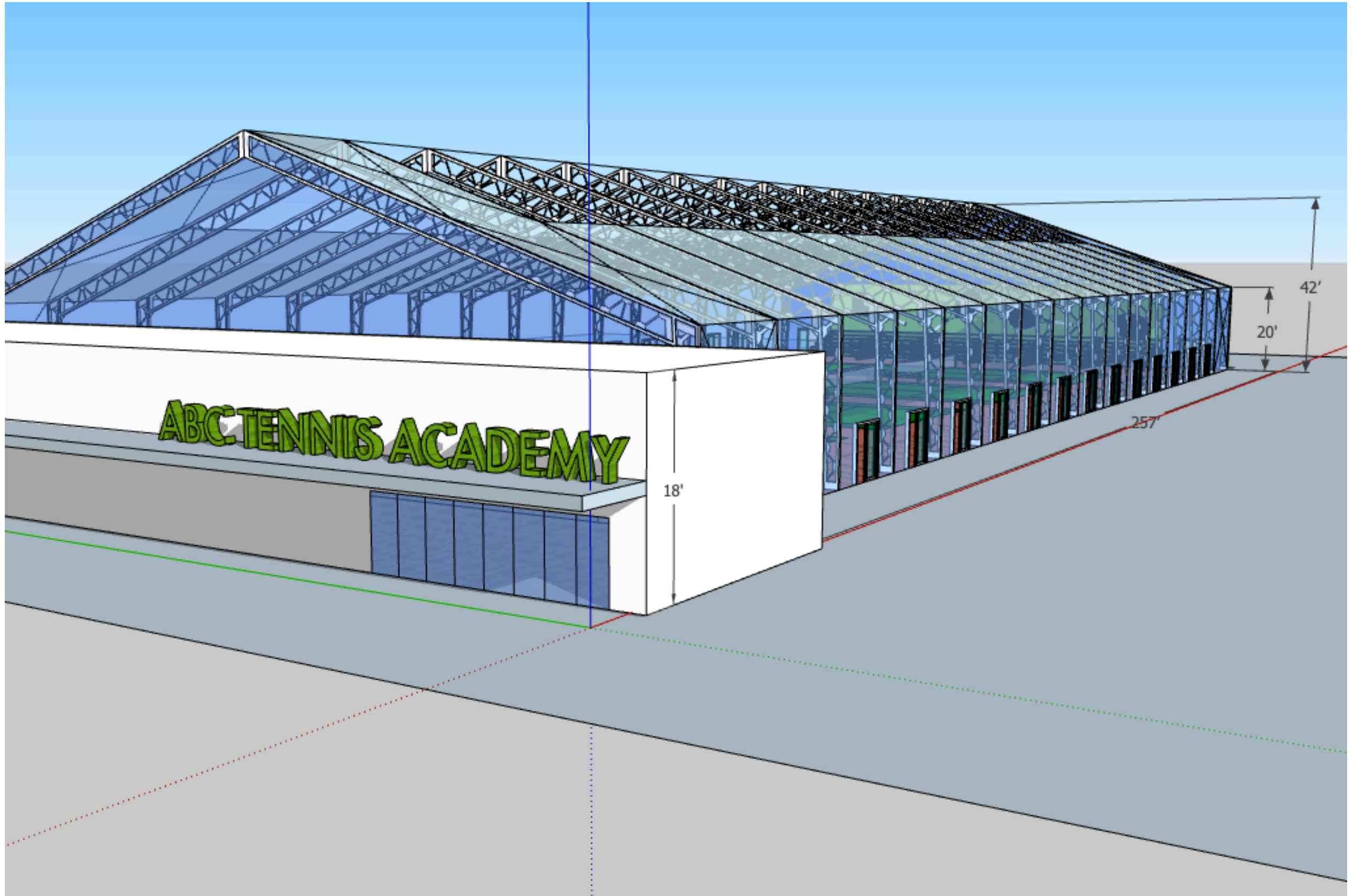
Sport Field Enclosure Concept Design
Footprint 327 ft x 231 ft (side walls 24ft, 60ft max at center)



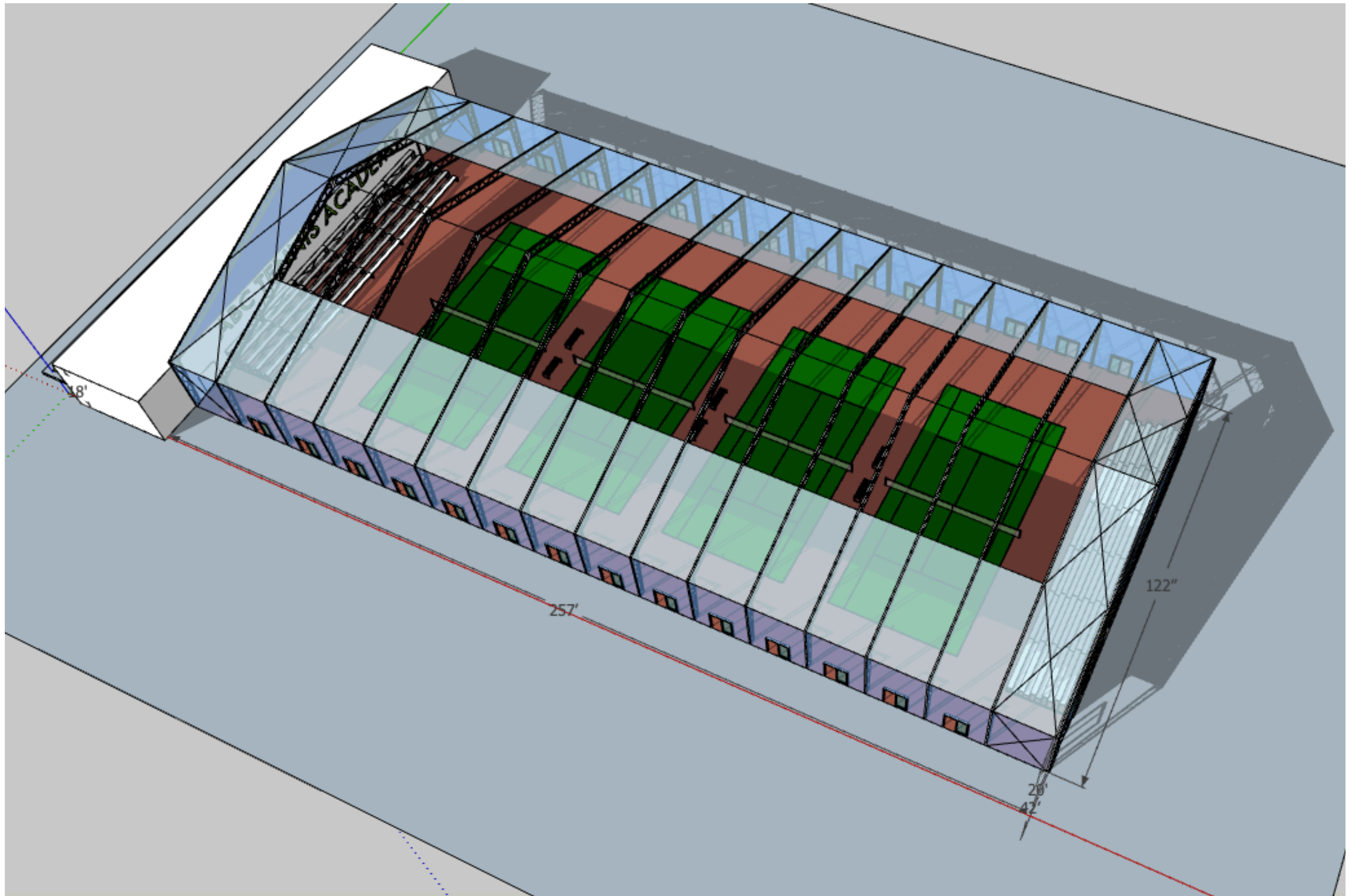
Sport Field Enclosure Concept Design
Footprint 327 ft x 231 ft (side walls 24ft, 60ft max at center)



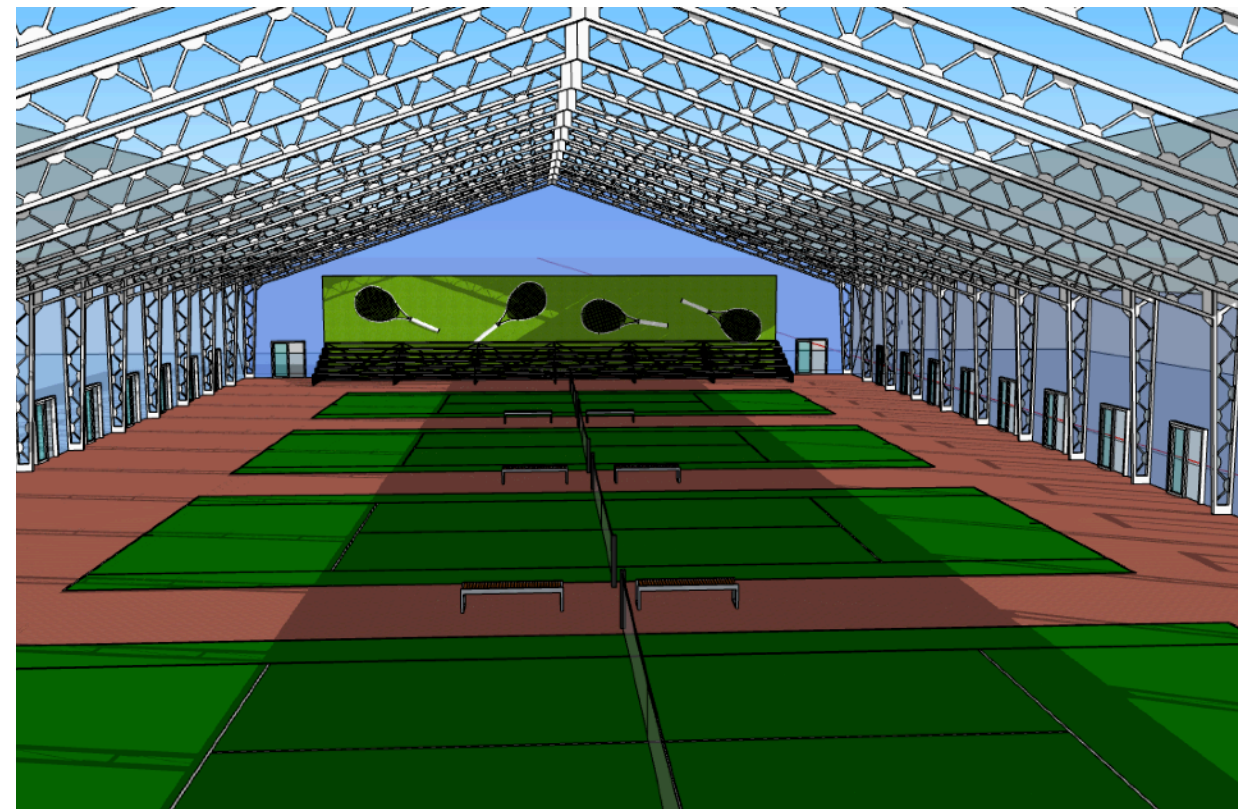
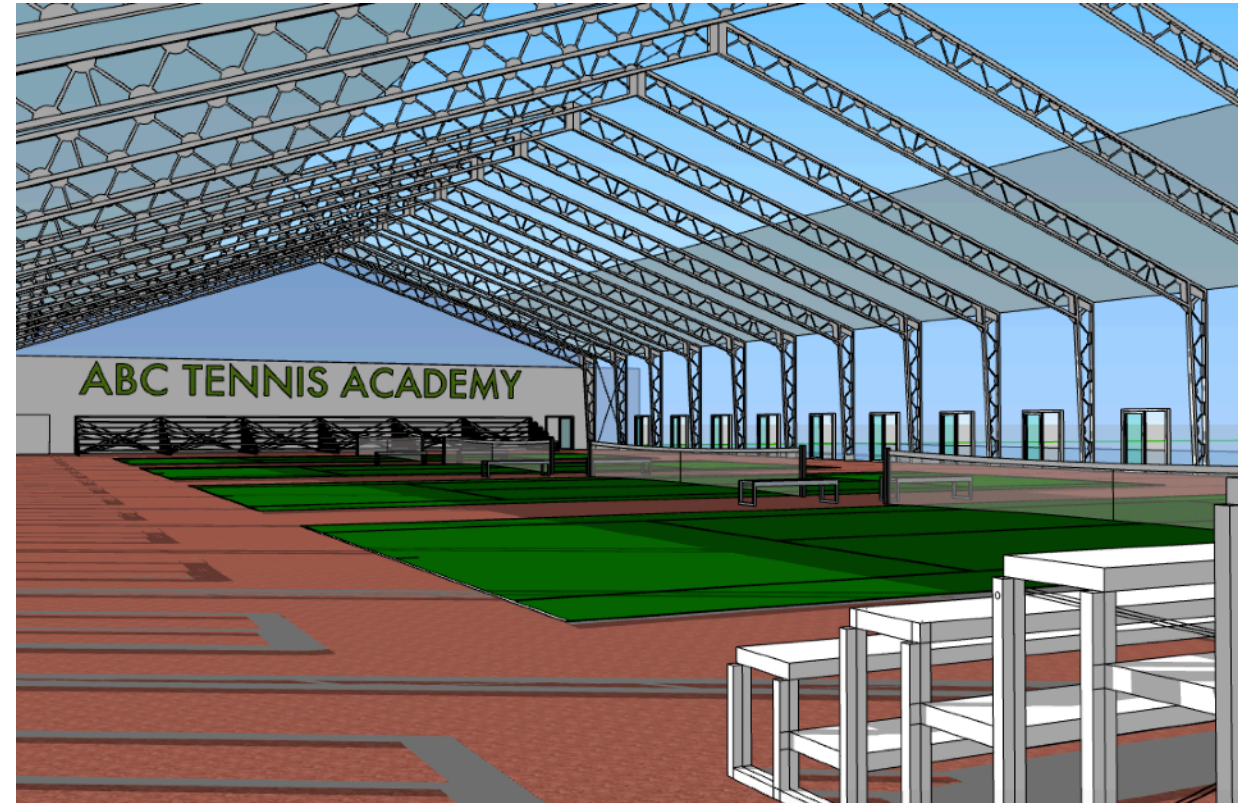
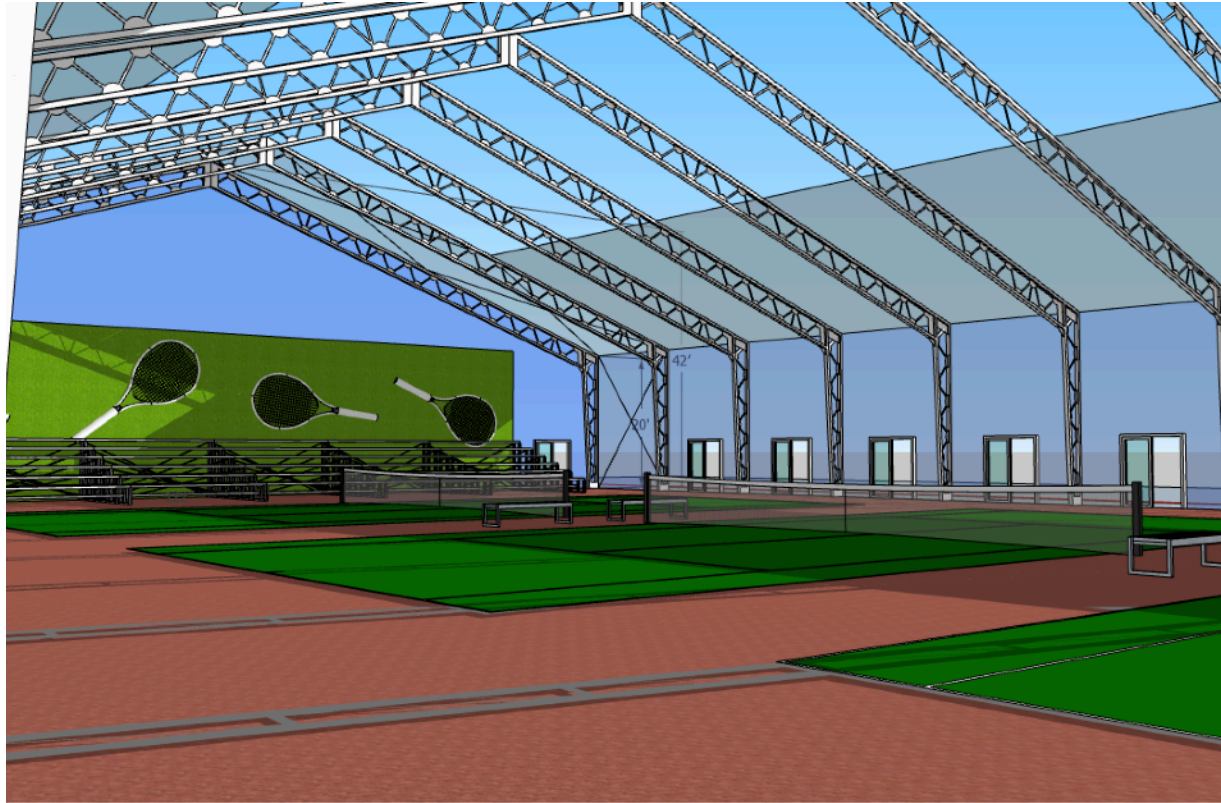
Sport Field Enclosure Concept Design - SMALL
Footprint 120 ft x 75 ft (side walls 16 ft, 30 ft max at center)



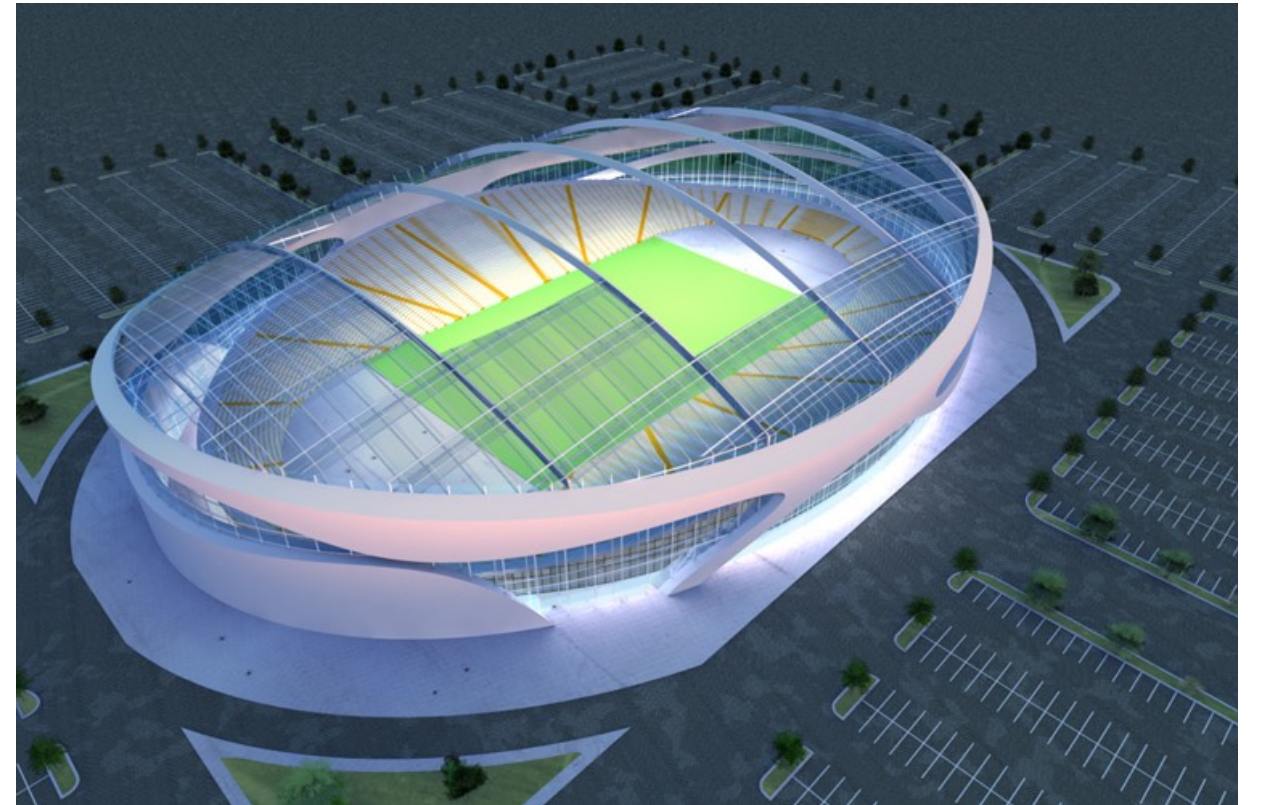
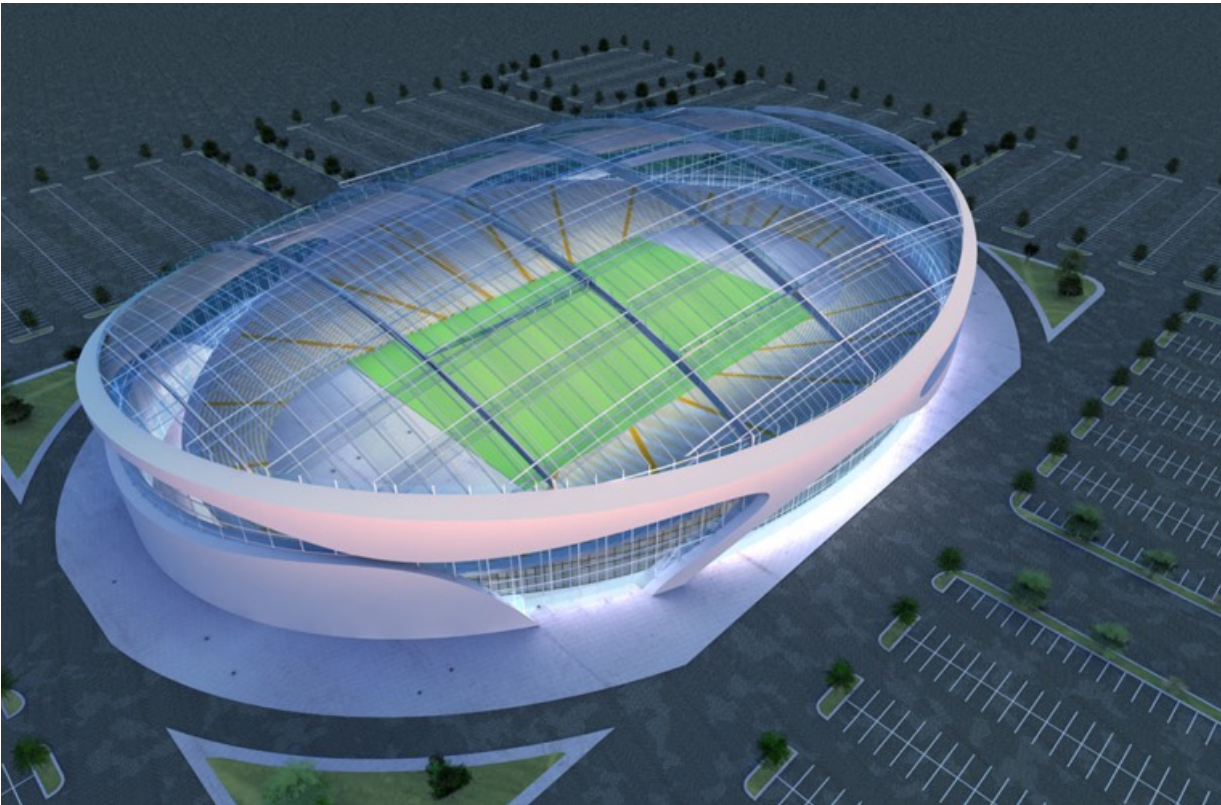
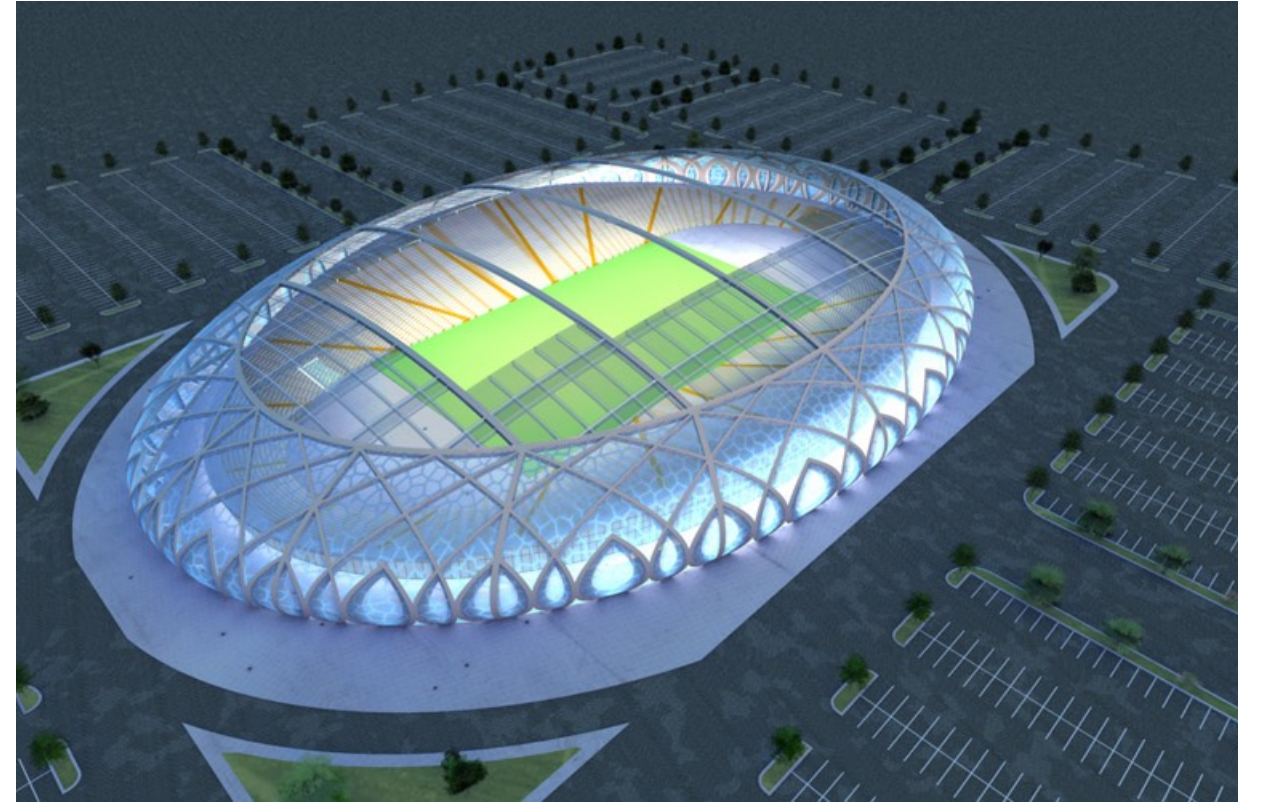
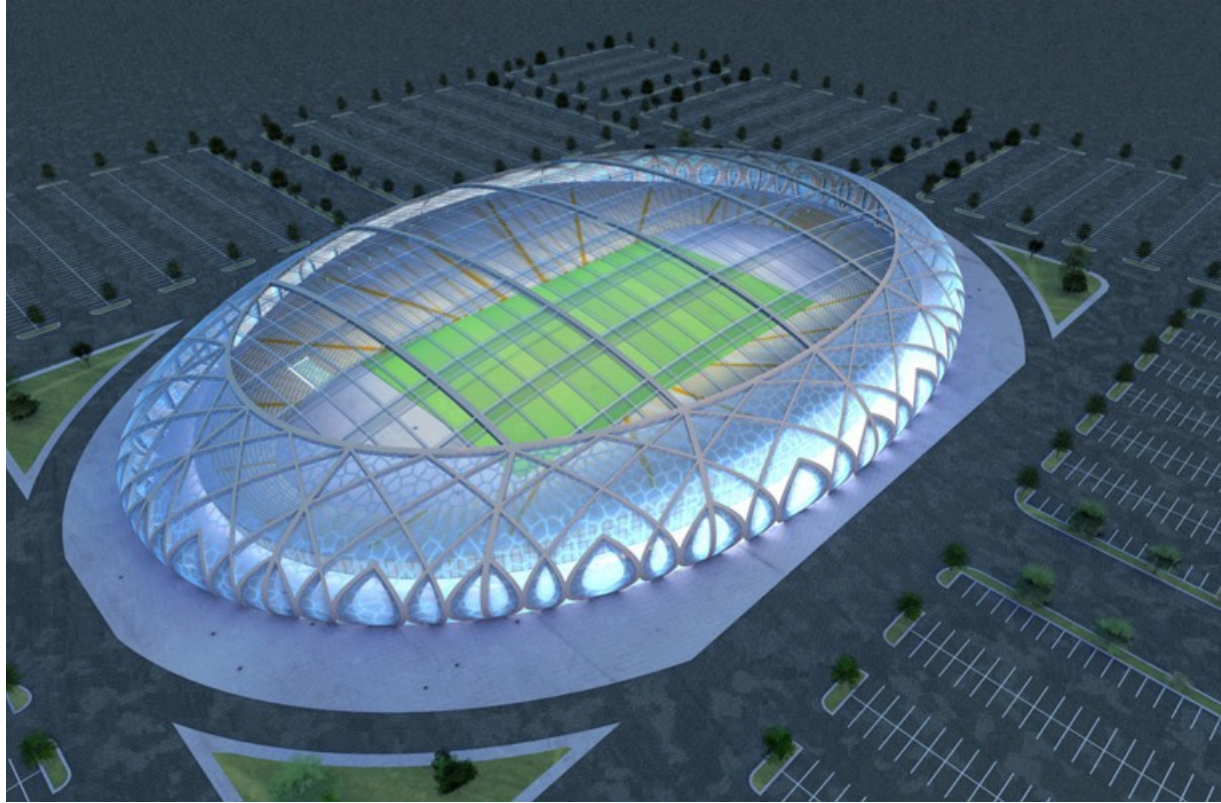
Tennis 4 COURT Concept
Footprint 122 ft x 257 ft (side walls 20 ft, 42 ft max at center)



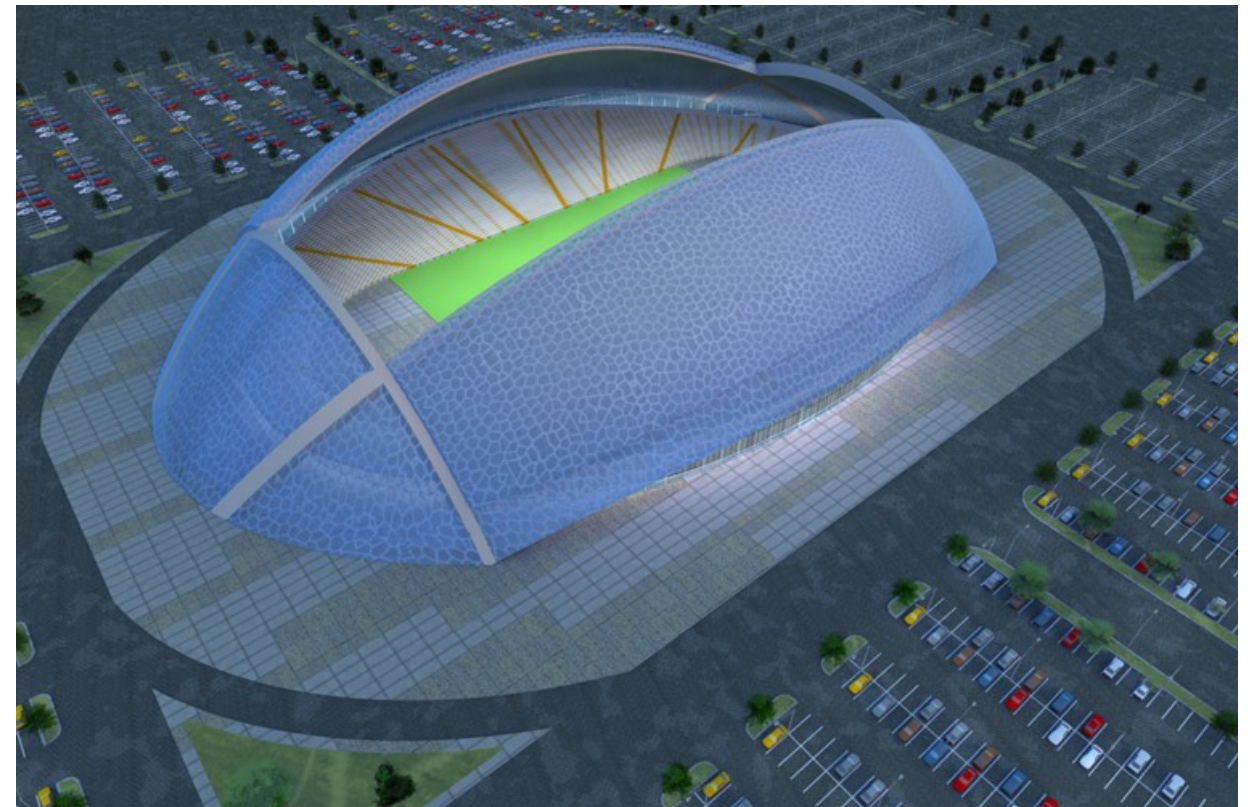
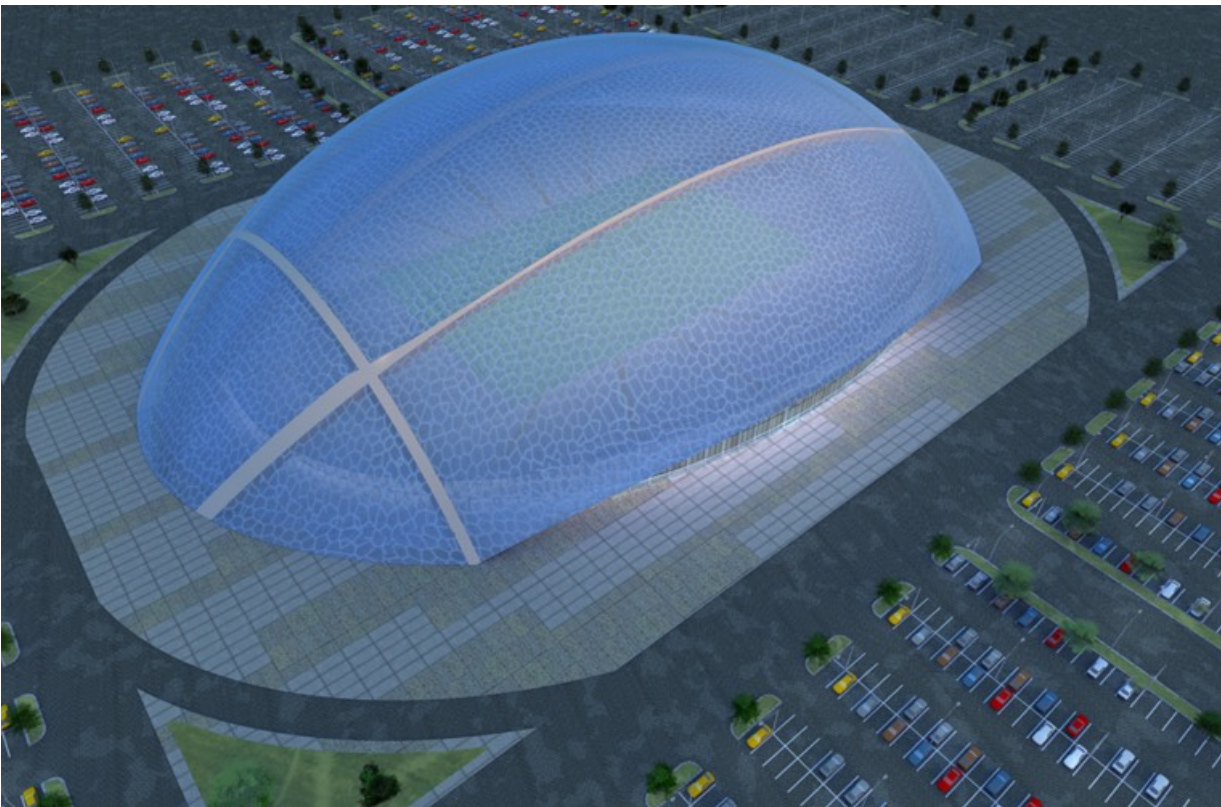
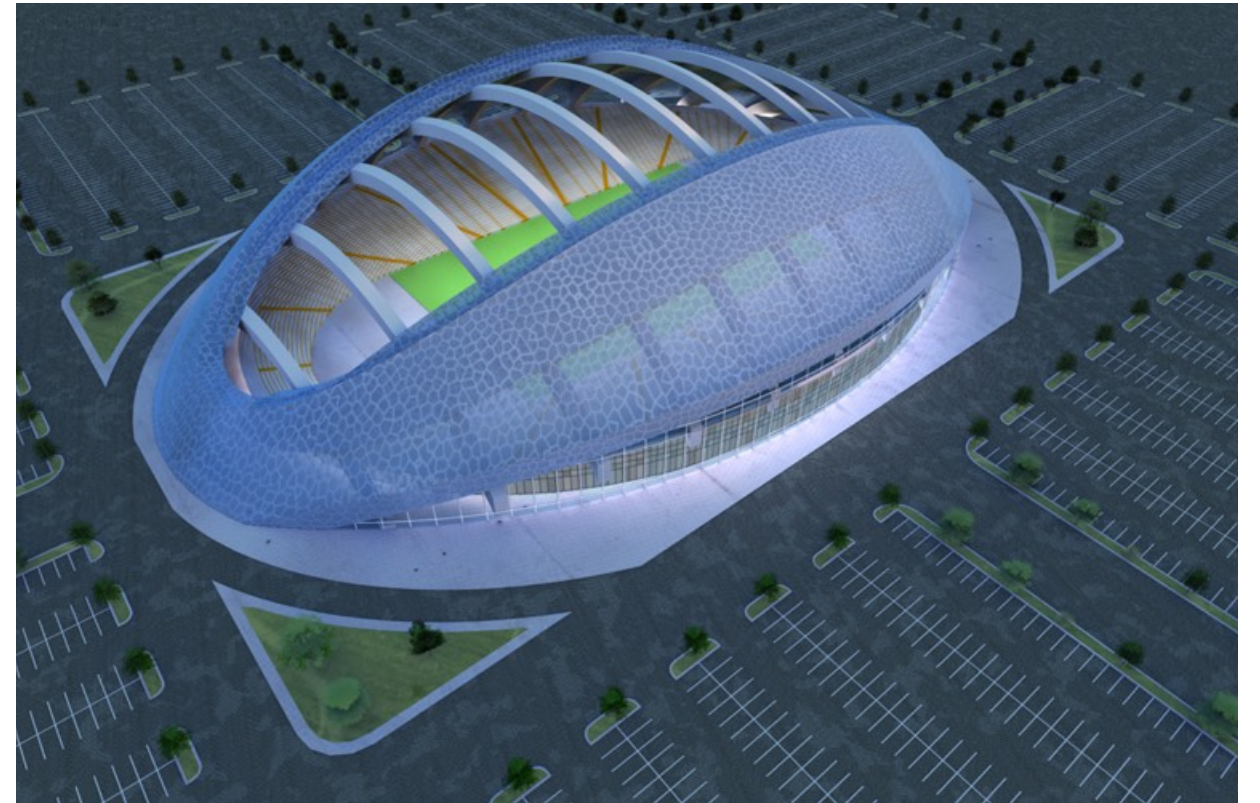
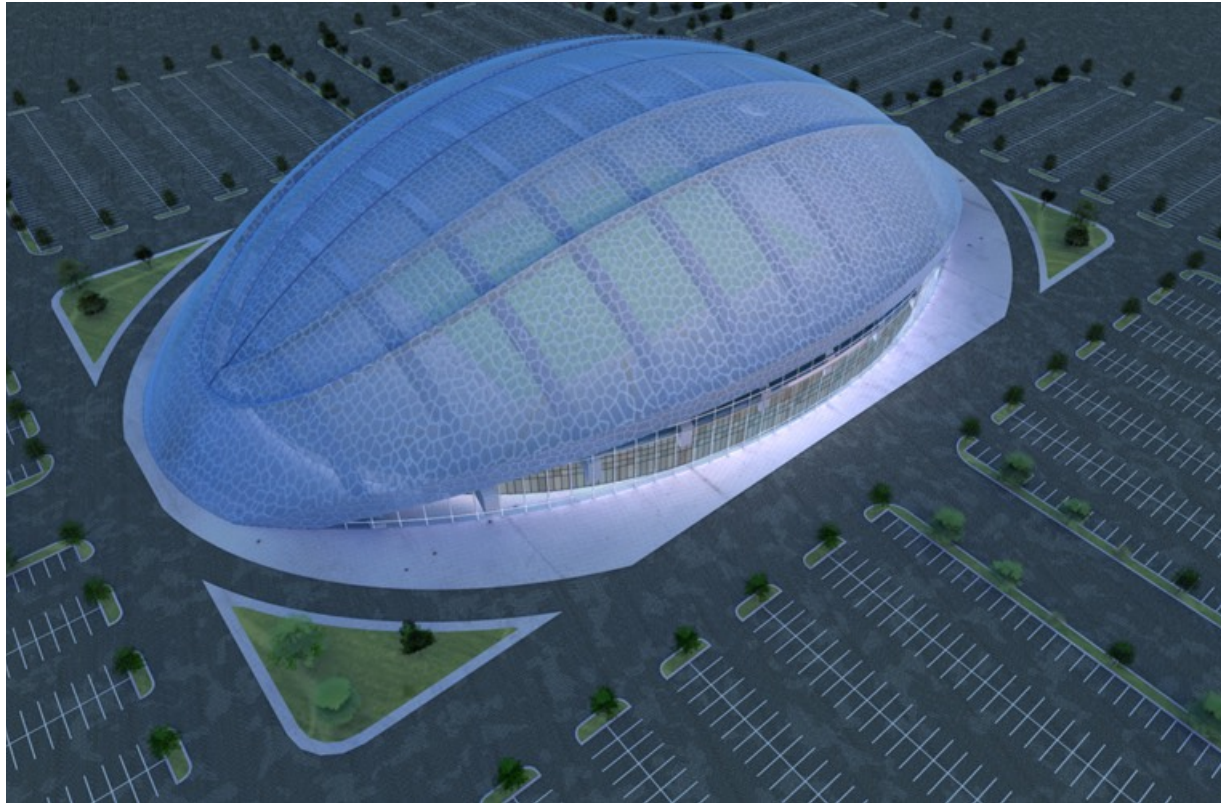
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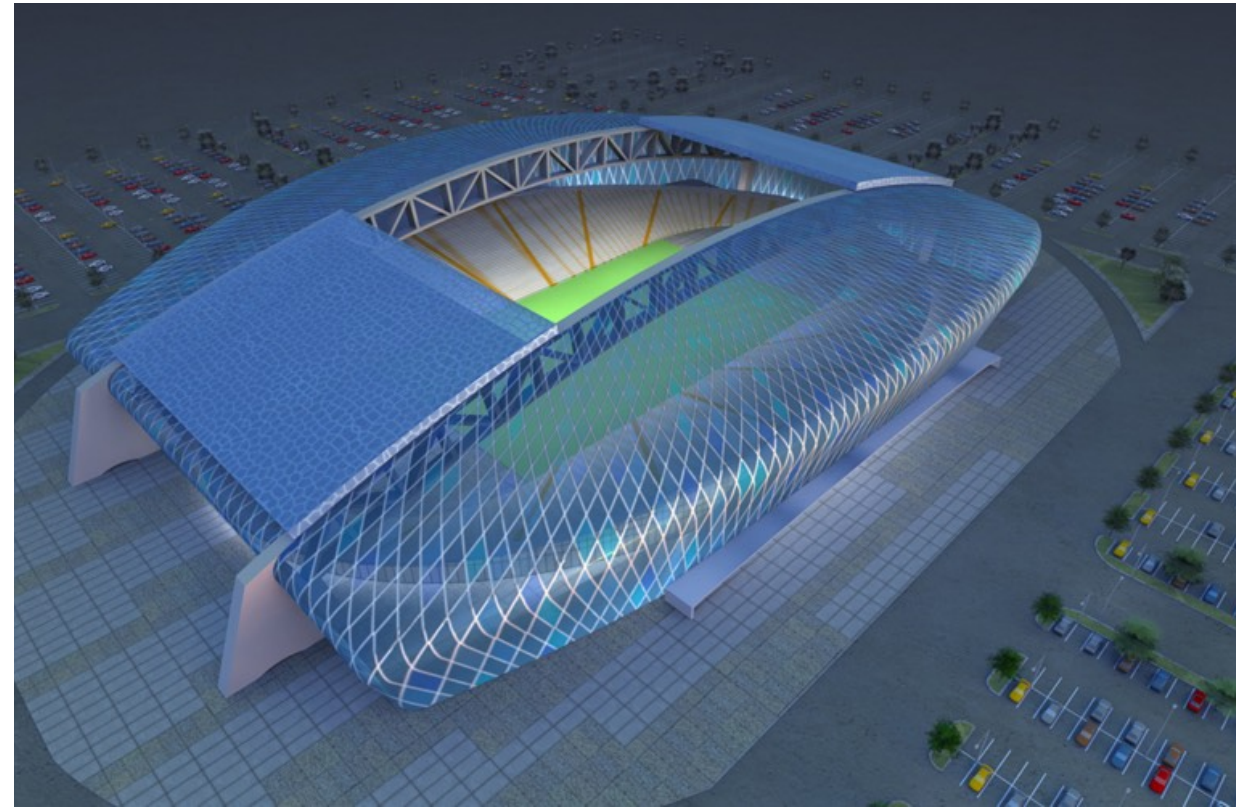
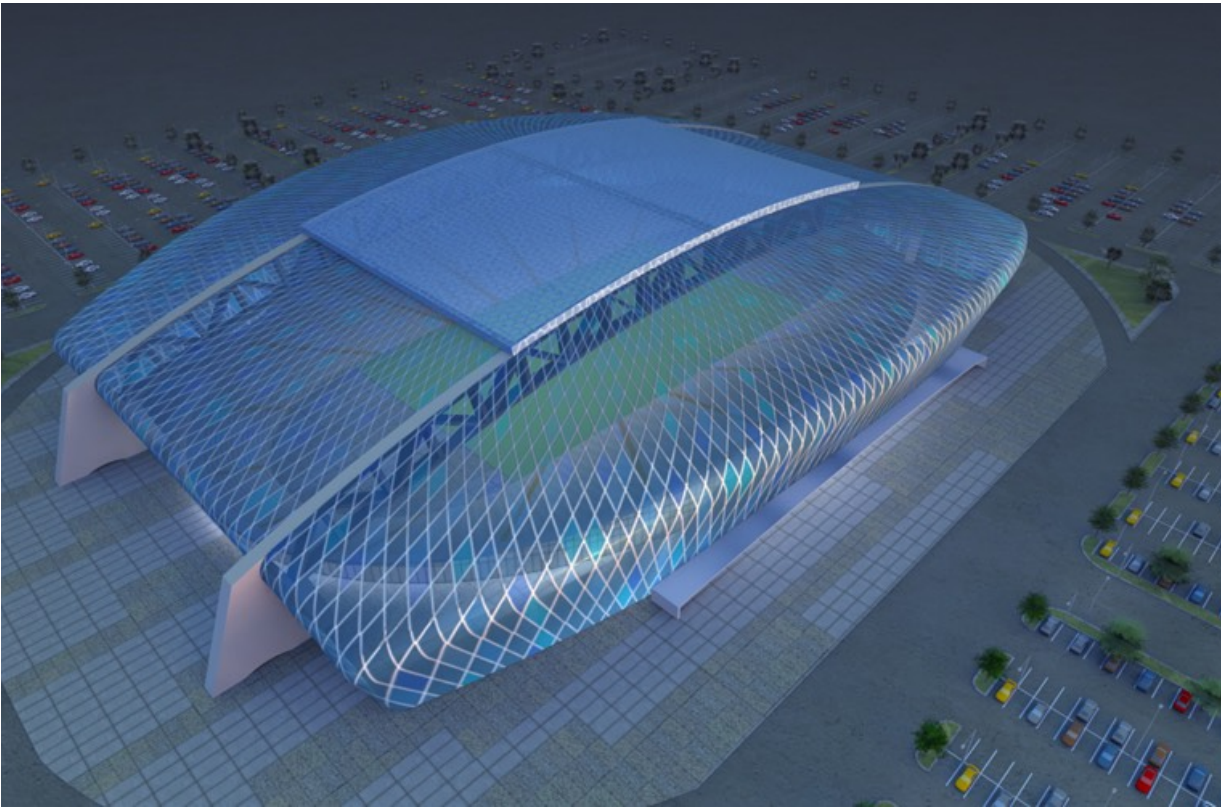
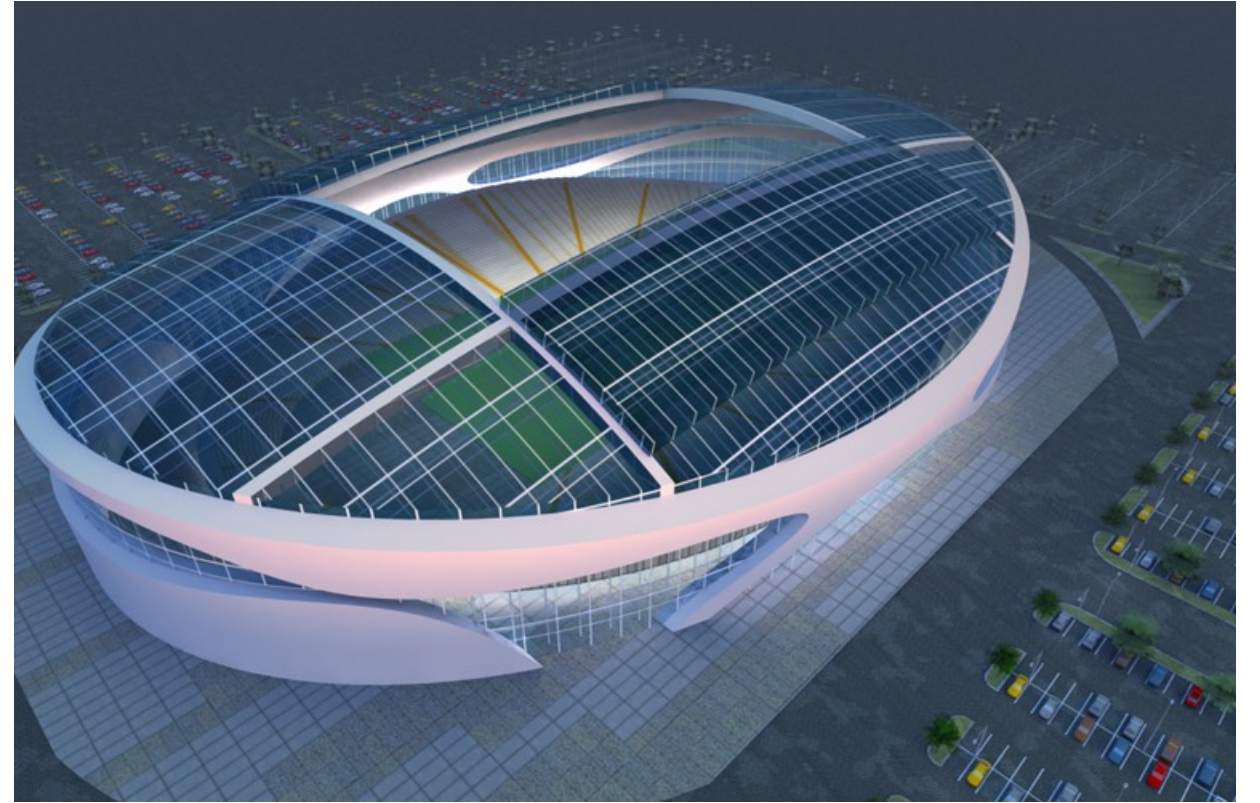
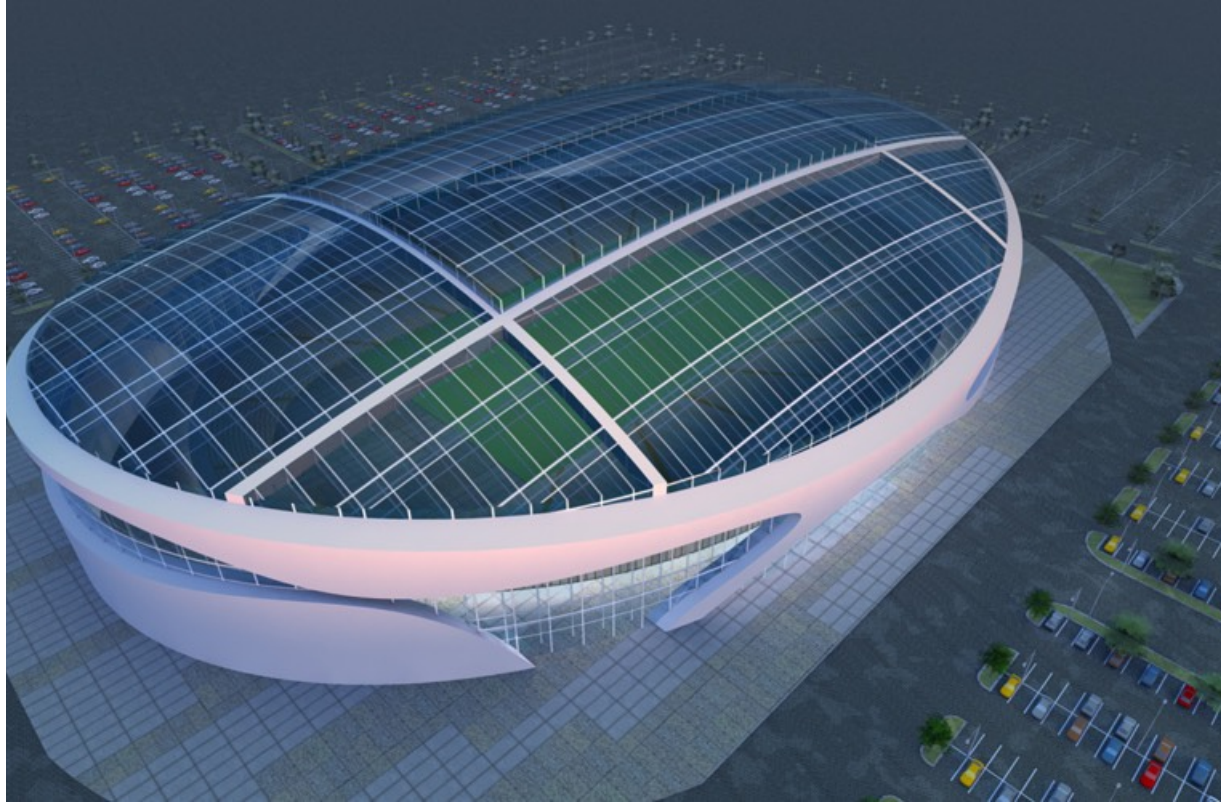
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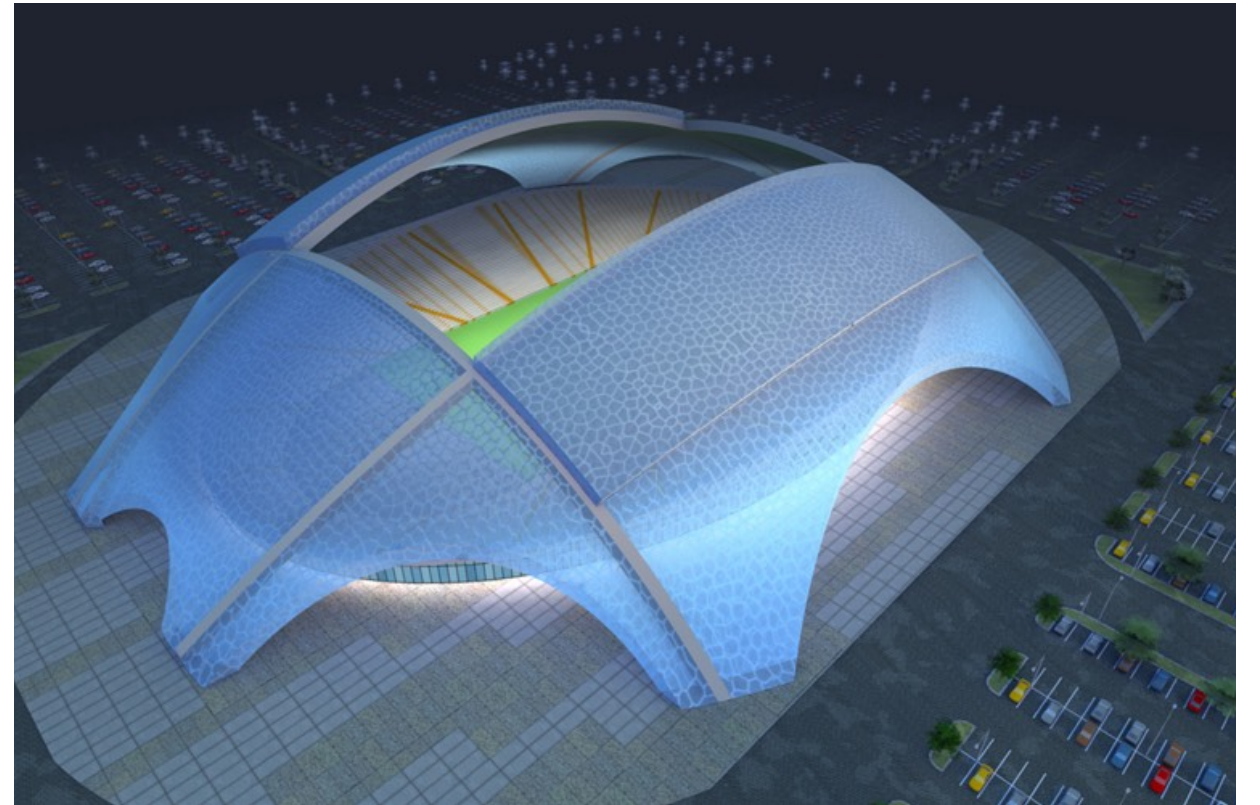
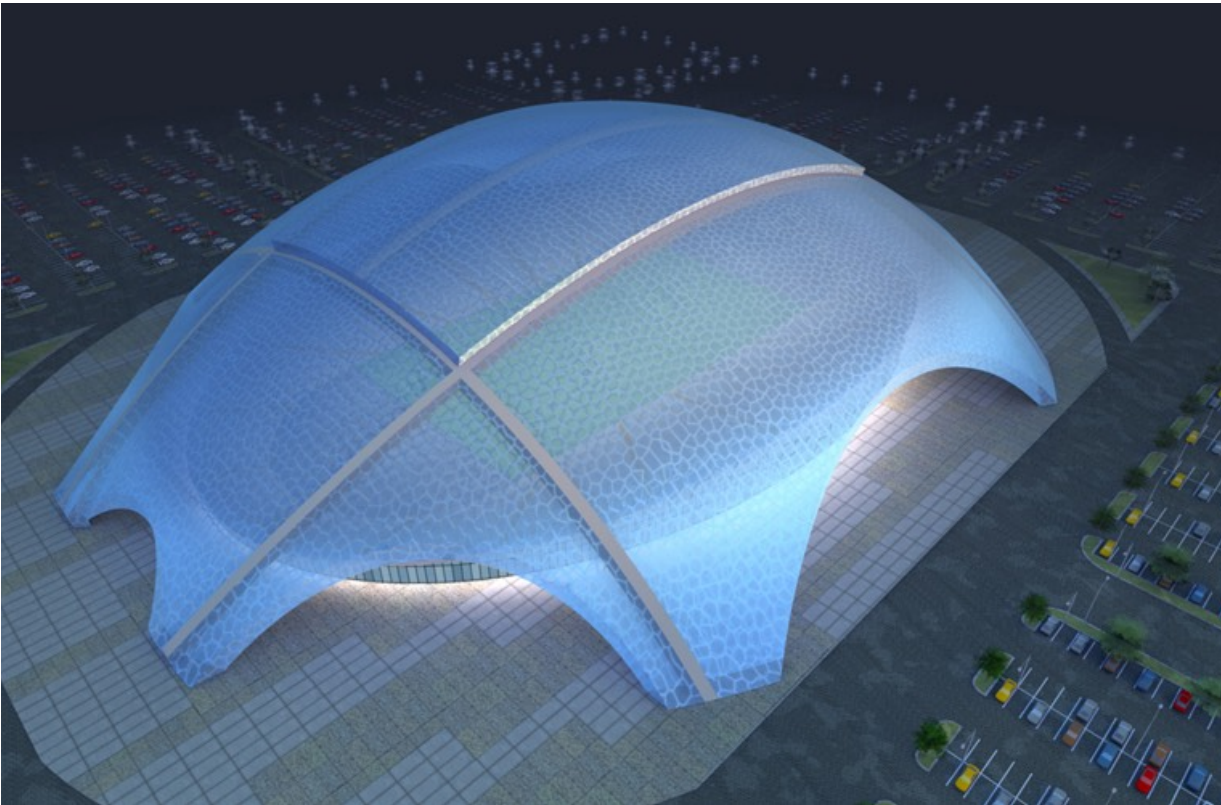
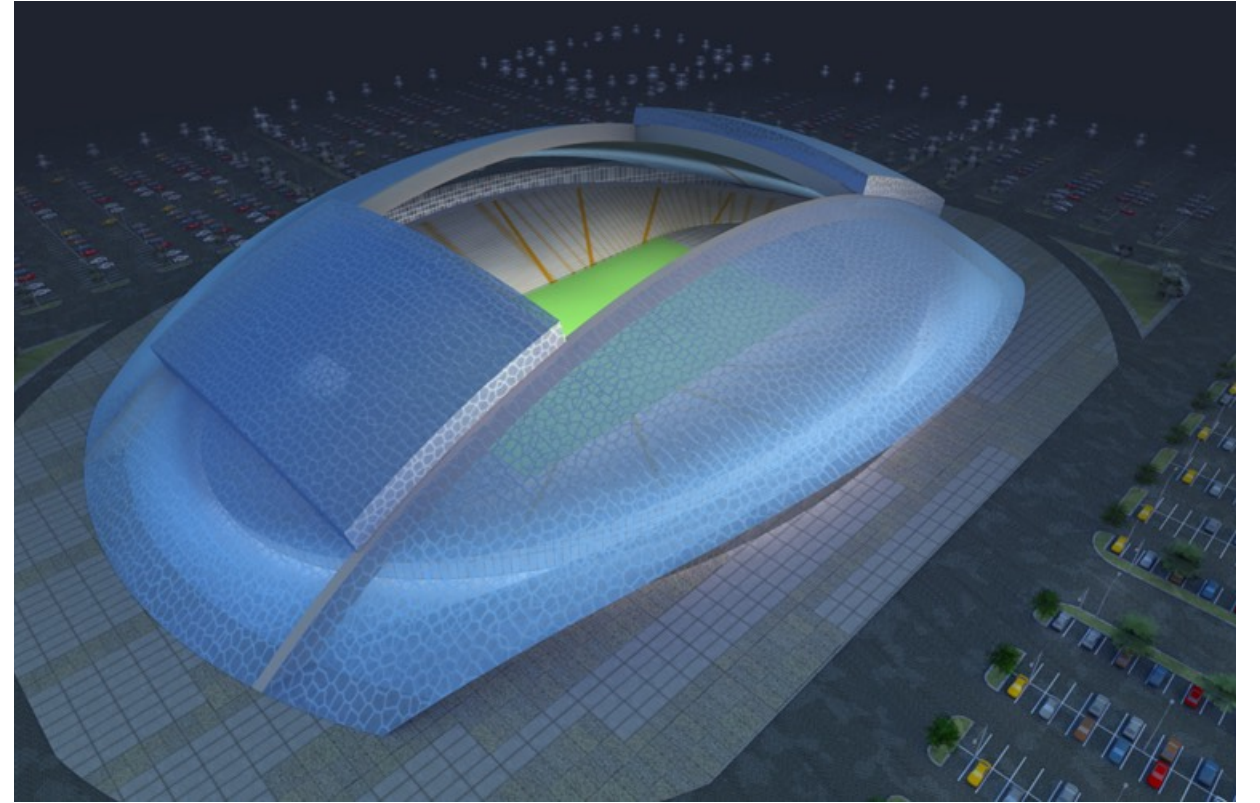
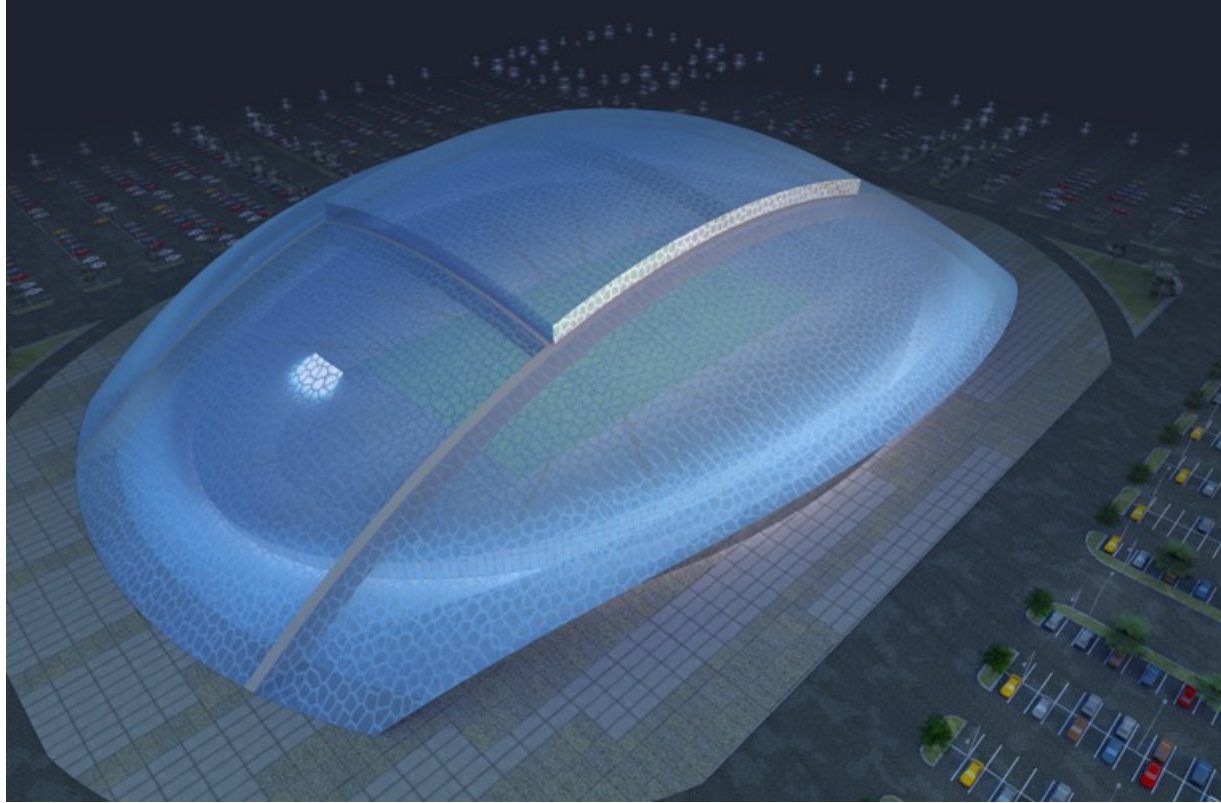
Stadium design Concepts



Stadium design Concepts



Stadium design Concepts



Stadium design Concepts

Athletic

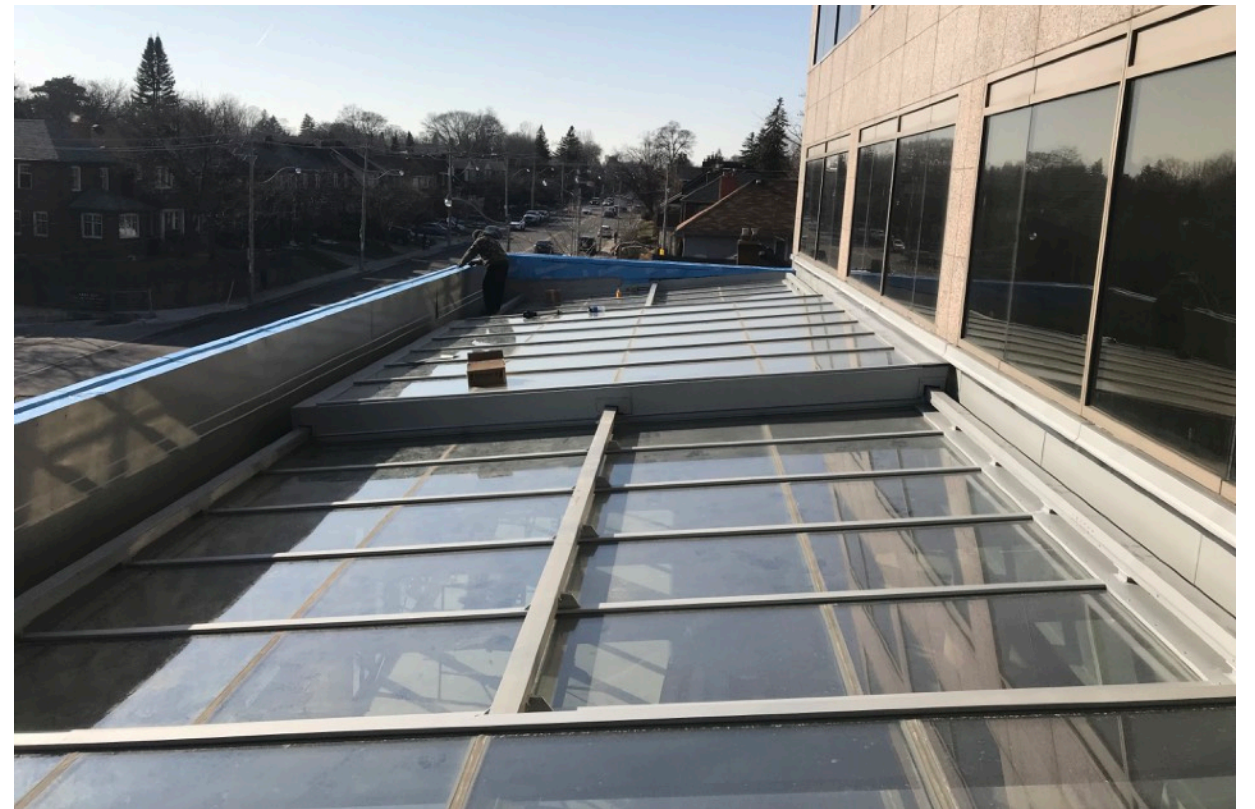




Sports Viewing Complex
United Arab Emirates (UAE)



Underground Dance Academy
Toronto, Ontario



Anatomy Fitness: 3080 Yonge St
Toronto, Ontario



Moxy Hotel by Marriott - Rooftop Yoga Space
Washington DC



Thank you

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End Notes:

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