



GIOVANETTI SHULMAN ASSOCIATES

***GSA CONSULTING
ENGINEERS & DESIGNERS***

Our Commitment

- ▶ ***Giovanetti Shulman Associates, Consulting Engineers (GSA), prides itself on our commitment to our clients and their projects with Principal involvement from the inception to the completion of the project.***
- ▶ ***GSA is committed to exceed the normal engineering design services offered by other firms by having the ability to solve complex problems and design issues, while maintaining the project's design expectations and budgets.***
- ▶ ***GSA's commitment to details assures the client that the entire design team will meet the design intent of the project and that the resulting design, will serve as a model for future projects.***



Who We Are and What We Do

- ▶ *GSA was formed in 1982.*
- ▶ *GSA maintains its experience in what we know best, MEP/FP LV engineering and design.*
- ▶ *GSA maintains an engineering staff of 40 to 50 engineers, designers and CAD staff.*
- ▶ *GSA provides engineering services for projects with MEP/FP/LV construction cost ranging from \$15,000 to \$450,000,000 and with general construction cost ranging from \$1,000,000 to \$2,500,000,000.*
- ▶ *GSA supports the architectural and interior design concepts, which have been approved by the client. As engineers, we look for inventive methods and solutions to maintain the integrity of the design.*
- ▶ *GSA's officers and principals of the firm are actively involved with all projects and to provide personal attention to the client's needs so that the client's project requirements are met without over or under design, and within the agreed budget.*



Engineering Services Offered

General Services

- ▶ *Prepare MEP/FP/LV basis of design for the project*
- ▶ *Prepare preliminary utility load estimates for the project including HVAC estimated loads*
- ▶ *Prepare code review as it relates to MEP systems*
- ▶ *Attend design coordination meetings*
- ▶ *Provide construction administration services*
- ▶ *Provide onsite review and observations with reports*
- ▶ *Provide review of all testing and balancing*
- ▶ *Provide full time onsite representation during construction (when requested)*
- ▶ *Provide M/E/P V.E. Design Services*
- ▶ *Provide M/E/P Commissioning Services*



Engineering Services Offered **Mechanical Engineering and Design**

- ▶ *Heating, ventilation and air conditioning (HVAC)*
- ▶ *Central plant facility engineering*
- ▶ *Chilled water/hot water DX and split system HVAC system design*
- ▶ *Energy recovery systems*
- ▶ *Sustainable systems*
- ▶ *Under floor and displacement air systems*
- ▶ *Humidification/dehumidification systems*
- ▶ *Kitchen exhaust systems*
- ▶ *Smoke management systems and testing*



Engineering Services Offered **Electrical Engineering and Design**

- ▶ *Incoming electrical services*
- ▶ *Power distribution systems (medium and low-voltage)*
- ▶ *Normal power, standby and life safety generation*
- ▶ *UPS systems*
- ▶ *Renewable energy systems*
- ▶ *Energy code compliance analysis*
- ▶ *Interior/exterior lighting*
- ▶ *Power quality systems*
- ▶ *Life safety fire alarm systems*



Engineering Services Offered **Plumbing Engineering and Design**

- ▶ *High-rise and low-rise domestic water systems*
- ▶ *Gas piping systems*
- ▶ *Sanitary (foul) piping systems*
- ▶ *Grease waste systems*
- ▶ *Roof drainage systems*
- ▶ *Vacuum and compressed air systems*



Engineering Services Offered **Fire Protection Engineering and Design**

- ▶ ***Sprinkler system design and calculations***
 - ***Wet systems***
 - ***Dry systems***
 - ***Chemical systems***
 - ***Pre-action systems***

- ▶ ***Sprinkler piping system design***
 - ***Pipe sizing***
 - ***Piping layouts***

- ▶ ***Sprinkler head location design (in coordination with the interior ceiling designs)***



Engineering Services Offered

Low -Voltage Engineering and Design

- ▶ *Provide layout and design of space requirements for IT rooms, slot data rooms, IDF closets, and MDF rooms*
- ▶ *Determine the BTUH output and power requirements of the equipment and work with the MEP engineers to establish cooling and UPS requirements, as well as raceway coordination and requirements*
- ▶ *A/V design and engineering (subconsultant to GSA)*
- ▶ *Surveillance and security systems design engineering (subconsultant to GSA)*
- ▶ *Provide design and engineering of the following cabling requirements for the project:*
 - *Main computer system/network*
 - *Accounting system*
 - *LAN, WAN and Internet Network Infrastructure*
 - *Point of sale (POS system)*
 - *Telephone system including:*
 - *Voicemail*
 - *Call accounting*
 - *Guest sets/dial tone*
 - *VoIP*
 - *PoE*
 - *Time and attendance system*
 - *Tracking system*
 - *RFID systems*
 - *Interconnection to any local and corporate accounting software*
 - *Beverage dispensing and control systems (interfaces)*
 - *Building automation systems*
 - *Infrastructure cabling required to meet State Gaming Board requirements for online central slot reporting to the State*
 - *Wireless Wi-Fi/first responders radio systems*
 - *Cell phone reception systems*
 - *Credit card/ATM systems*
 - *Convergence of the listed systems where feasible*



Engineering Services Offered

Sustainable Systems Building Design (LEED Services)

- ▶ *At GSA, we have the responsibility to be environmentally sound in our design with regards to impact, efficiency and sustainability. Our consulting engineers have the knowledge and supporting technologies to assist clients in creating sustainable “green” buildings. We are a member of the U.S. Green Building Council (USGBC) and maintain a highly qualified staff of professionals who concentrate in the area of sustainability, primarily with respect to building services and building envelope. Areas of application include:*
- ▶ *Renewable energy technologies*
- ▶ *Appropriate ventilation strategies*
- ▶ *Effective use of thermal mass*
- ▶ *Energy and CO₂ emissions*
- ▶ *Reductions of unnecessary heat gains*
- ▶ *Water use*
- ▶ *Our sustainability group includes registered engineers possessing certification as LEED (Leadership in Energy and Environmental Design) accredited professionals*



PROJECT TYPES

▶ **CASINOS – GAMING/ENTERTAINMENT**

▶ **HOTELS**

▶ **RESTAURANTS-NIGHTCLUBS**

▶ **HIGH RISE RESIDENTIAL**

▶ **RETAIL**

▶ **OFFICE BUILDING AND COMPLEXES**

▶ **FINANCIAL FACILITIES**

▶ **ASSISTED CARE LIVING**

▶ **PARKING STRUCTURES**

▶ **MEDICAL**

◦ **OFFICE BUILDINGS**

◦ **WELLNESS CENTERS**

◦ **HOSPITALS**

▶ **EDUCATIONAL**

▶ **DATA CENTERS/COMPUTER ROOMS**

▶ **CENTRAL PLANT FACILITIES**



Construction Management Firm Associations

- ▶ *Keating Construction*
- ▶ *Perini Building Corporation*
- ▶ *Gilbane Construction*
- ▶ *Turner Construction*
- ▶ *L P Ciminelli Construction Managers*
- ▶ *Tishman Construction*
- ▶ *W.G. Yates Construction*
- ▶ *Roy Anderson Construction*
- ▶ *TN Ward Construction*
- ▶ *FLINTCO Construction*





REFERENCES

| | | |
|---|---|--|
| <i>Mr. Dan Keating Keating Partnership The Phoenix, Suite 200 1600 Arch Street Philadelphia, PA 19103 (610) 660-4940</i> | <i>Mr. Richard L. Meister Vice President Isle of Capri Casino 600 Emerson Rd., Suite 300 St. Louis MO 63141 (314) 910-1269</i> | <i>Mr. Ed Sutor President Dover Downs Entertainment 1131 N. Dupont Highway Dover, DE 19903 (302) 857-3206</i> |
| <i>Mr. Steve Peck Principal Klai Juba Architects 4444 West Russell Road, Suite J Las Vegas NV 89118 (702) 221-2254</i> | <i>Mr. Ian Cope Cope Linder Associates 30 So. 15th Street Philadelphia PA 19102 (215) 981-0200</i> | <i>Mr. Brian Fagerstrom Principal The Worth Group 900 S. Broadway, Suite 150 Denver, CO 80209 (303) 649-1095</i> |
| <i>Mr. Tom Sykes Principal SOSH Architects 1020 Atlantic Avenue Atlantic City NJ 08401 (609) 345-5222</i> | <i>Mr. Joseph Emanuele Vice President Design and Construction Hard Rock International 6100 Old Park Lane Orlando ,Florida 08755 (407) 455-7999</i> | <i>Mr. Jess Burts Vice President Construction Seminole Tribe of Florida 5731 South State Rd 7 Hollywood, Florida 33314 (954) 826-8142</i> |



RECENT CASINO PROJECTS

| <i>Revel Entertainment – Atlantic City, NJ</i> | <i>Seminole Hard Rock Casino – Hollywood, FL</i> |
|---|--|
| <i>Mohegan Sun at Pocono Downs – Wilkes Barre, PA</i> | <i>Seminole Hard Rock Casino – Tampa, FL</i> |
| <i>Borgata Hotel Casino & Spa – Atlantic City, NJ</i> | <i>Sugar House Casino – Philadelphia, PA</i> |
| <i>Seminole Tribe Casino – Coconut Creek, FL</i> | <i>Mt. Airy Casino Hotel – Wilkes Barre, PA</i> |
| <i>Maryland Live Casino – Baltimore, MD</i> | <i>Valley Forge Casino – Valley Forge, PA</i> |
| <i>Meadows Casino – Washington, PA</i> | <i>Dover Downs Casino Hotel – Dover, DE</i> |
| <i>Gun Lake Casino – Bradley, MI</i> | <i>The New Golden Nugget – Atlantic City, NJ</i> |

PENNSYLVANIA CASINOS



REVEL ENTERTAINMENT ATLANTIC CITY, NJ



Atlantic City, Marina Area Harrah's , Golden Nugget and Borgata



Borgata Hotel / Water Tower and Spa



Hard Rock Rockcino Northfield, Ohio

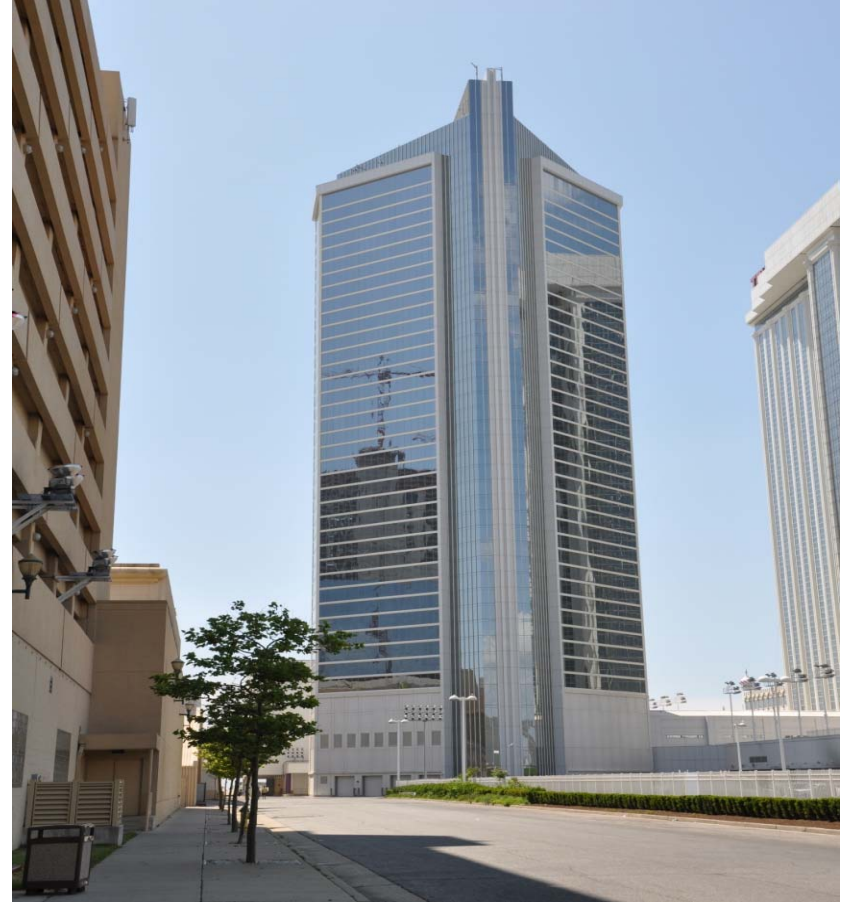


Caesars 5000 Space Parking Facility

Atlantic City, NJ



Trump Hotel Atlantic City ,NJ



Harrah's Hotel-Gaming Entertainment Atlantic City ,NJ



Harrah's Hotel-Red Door Spa and Pool Atlantic City, NJ (Geodesic Dome)



Choctaw Casino Durant, Oklahoma



Hard Rock Casino - Moon Palace Punta Cana



Seminole Hard Rock Casino Hollywood , Florida



Seminole Hard Rock Casino Tampa , Florida



Seminole Coconut Creek Casino

Coconut Creek, Florida



5000 Space Parking Structure

Atlantic City, NJ



The Phoenix Luxury Condominiums

Philadelphia, PA



Hyatt Waterfront Hotel Philadelphia ,PA



Marriott Convention Center Hotel

Philadelphia, PA



Dockside Condominium on the Waterfront Philadelphia, PA



Sheraton Hotel Atlantic City ,NJ



Conectiv Thermal Central Plant Atlantic City ,NJ





Design Engineering Approach

- ▶ *GSA provides close design coordination between the architect and the mechanical/electrical engineers of the project, as well as other supporting consultants.*
- ▶ *GSA will be responsible for not only meeting the design criteria of the architect, as well as the various interior and theme design firms, which will be selected for the project's public spaces, but also will be responsible for providing a sustainable design implementing renewable energy and LEED design where applicable.*
- ▶ *GSA's dedication of the design engineering staff throughout the project design and construction phases and, more importantly, the commitment of the firm's principals and owner involvement to meet the project budget and planned scheduled opening.*
- ▶ *GSA's principals involvement continues long after the design and approval process of the project. The principals maintain the review of the building's mechanical/electrical systems during construction, as well as review and settlement of the MEP/FP contractor's final payments and project closeout.*
- ▶ *GSA commits its principals to the life of the project on a daily basis.*



Design Engineering Approach

- ▶ *GSA, as the principal engineer for projects and in responsible charge for the MEP/FP design and engineering, will be responsible for all coordination issues, all MEP approvals and all construction administration and field coordination issues during construction, including attending all building reviews and life safety testing.*
- ▶ *From the very start of the project GSA will:*
 - *Attend the design kick off meetings with the architect, client and other team members.*
 - *Ascertain a preliminary program and/or plans from the architect or client.*
 - *Prepare a load estimate spreadsheet based on the architect's program and area plans to allow for the review of the services required by area for the project and also the total required services for the project. This spreadsheet will provide the following information:*
 - *Cooling requirements.*
 - *Heating requirements.*
 - *Gas loads.*
 - *Water requirements.*
 - *Electrical requirements.*
 - *Generator sizing requirements.*



Design Engineering Approach

- ▶ *From this spreadsheet and the architect's plans, GSA is able to determine and start the following design:*
 - *Required sizing of the incoming utilities for the civil engineer to start the pursuit of the proper water, gas, electric and sanitary (foul) services for the project.*
 - *Prepare the MEP/FP/LV design brief for client review.*
 - *Allow for sizing of the Central Plant (if feasible for the project).*
 - *Select HVAC equipment and piping and locate this equipment in coordination with the structural engineer for steel sizing design.*
 - *Develop main slab penetrations.*
 - *Develop base single line electrical diagram.*
 - *Locate and size standby and emergency generation equipment.*
 - *Develop and size main plumbing equipment.*
 - *Required room sizes and preferred locations of MEP/FP/LV rooms in coordination with architect and owner.*



Design Engineering Approach

- ▶ *GSA is a full service engineering firm, which includes low-voltage design. As we continue through the process, it becomes increasingly important to get a handle on the types of systems being contemplated for the project, and the space and cabling requirements necessary to meet the project's final design in this area. GSA's plan of action includes the following:*
 - *Meet with the client to determine the numbers and types of systems being considered for the project.*
 - *From that meeting, determine the following:*
 - *Determine incoming service requirements.*
 - *Space requirements necessary for the equipment and its distribution location.*
 - *Cabling requirements for each system.*
 - *Raceway requirements.*
 - *BTUH and power requirements for the equipment being purchased.*
 - *Prepare a low-voltage system design brief for review.*
 - *When the initial requirements are determined as listed above, then the design process can continue through the Design Development and Construction Document phases of the project, with ongoing coordination with the entire design team.*



Design Engineering Approach

- ▶ *With the completion and coordination of the final documents, GSA will also provide the engineering services necessary for construction document releases from the required reviewing agencies and assist in obtaining the final Certificate of Occupancy from the building and inspection agencies, as required, to meet the client's opening schedule.*
- ▶ *GSA's experience in complicated large projects as listed in our resume have led to the development of this method of design approach which has made it's projects successful.*
- ▶ ***GSA offers a complete
Engineering/Design Service for your
project***