Star Building Systems Planning Guide
A Star Building System... consider its beautiful solutions to your building problems. A school, a factory, retail center or warehouse; whatever you need. If you are planning a building, here's an opportunity for you to see the difference a Star Building can make. Consider its rugged durability, energy efficiency and structural diversity. Explore the possibilities of individualized, innovative designs with the integrity of proven engineering.

Form follows function and Star Building Systems utilizes state-of-the-art computer aided engineering and drafting with advanced manufacturing technology to meet the growing worldwide demand for attractive, functional and cost efficient buildings.

Star stands behinds its products and their performance. Each one is backed by a reputation for quality that spans over 73 years and more than 250,000 satisfied customers.

Founded in 1927, Star has become a leader in the building system industry. Six manufacturing plants, located around the country, provide you with cost effective structures that can be occupied quickly and easily modified or expanded.

The following pages will tell you more about our capabilities and building systems. You'll discover that Star has beautiful solutions to your construction challenges.
Star Building Systems approach offers advantages far beyond traditional construction. Cost savings begin on the drawing board and continue at the site for years to come. Star works with architects, contractors, and owners to meet budgetary considerations and future expansion needs. Systems engineering and fabrication methods help reduce interim financing costs through faster construction and minimize field labor expense. Plus, you get the added benefit of earlier occupancy and a head start on day-to-day operations.

From strong structural framing systems, to walls, roofs and compatible accessories, building systems materials have the advantage of factory assured quality and predictable performance. Each component is inspected throughout the manufacturing process to assure the highest standards of quality are maintained. Our fabrications facilities are designed for maximum operating efficiency. That means the very best value for your money.

But value does not have to mean dull, unimaginative buildings. Sophisticated building systems can readily incorporate glass, wood, stucco, brick, and stone to provide versatile structures that have dramatic effects, or blend with their surroundings. This versatility creates contemporary structures, ideally suited to project the right business image.

Star’s building systems have proven themselves to be aesthetically pleasing while providing superior economy, energy efficiency and consistency of quality. That’s why they are the number one choice for today’s business needs.

[Systems Approach]
Clear-Span

With Star, you get the ideal blueprint for aesthetic appeal, energy efficiency and economy on your next building project. You'll never have to worry about structural integrity, because Star Buildings are engineered for long-term strength and durability.

Buildings can be engineered to withstand winds in excess of 150 miles per hour, snow accumulations in excess of 150 pounds per square foot, and seismic loads as required by local building codes. Elements such as sprinkler systems, cranes and HVAC systems can be incorporated into the building certification as required.

Star has the know-how to meet tough building challenges. Interiors with wide open spaces, unusual ceiling heights and extreme load requirements are computer engineered to your exact needs.

Star Building Systems are engineer certified for any of the 50 states to meet the structural provisions of required model codes, as well as state and local codes. This minimizes costly delays when it comes time to get permits and building approvals.

Computer analyzed and tested rigid frame design provides the most economical means of transferring loads into the foundation. Lightweight, high-strength steel allows structural components to be easier and less expensive to assemble. Further savings are realized through built-up plate and open web technology. This reduces costly and unnecessary steel from structural members without compromising strength or load carrying capacity.

When wide open spaces for showrooms, arenas, or display areas are needed, 80' to 300' wide column free systems are available. To limit column spacing for large warehouses or manufacturing facilities, a system can be
engineered with up to 200' wide modules and 80' bay spacing, allowing a 200' x 80' grid for column spacing. And all systems can be provided up to 80' in height.

Mezzanines can be added for office areas, classrooms or storage space. To maximize savings in building costs and land usage, multi-story structures are available up to 4 stories tall.

Structures no longer conform to just the traditional rectangle. Star meets the needs of buildings specified in the shape of triangles, pyramids and polygons. Such diversity offers economically creative solutions for unique challenges posed by space or function.

From a single building, to a diverse complex of buildings, individuality in your building's appearance can be achieved through a wide array of facades, fascias, hip roofs, cupolas and clerestories. Whatever the need, Star Building Systems can meet it with style, speed, economy, function, adaptability, and above all, proven engineering.

Bay spacings may be from 10' to 40' or larger. Roof slope as required from 1:12 to 6:12.
Star's wall systems, in a variety of natural colors, can be used alone or in conjunction with traditional construction materials to create an aesthetically pleasing, energy efficient building. Light mass walls consisting of metals panels and insulation store very little heat or cold. This allows your HVAC system to operate more efficiently and reduce your utility costs. Advanced, state-of-the-art synthetic resin finishes reduce maintenance costs and are warranted for up to 20 years.

Dura-Rib is functional and durable. StarMark and StarCFW II are designed for attractive shadow lines. For maximum thermal efficiency, choose StarTherm III factory-insulated wall panels. With Star's wall systems, the full spectrum of performance, from economy to energy efficiency, can be met.

StarTherm III AW 200 is a factory-insulated sandwich wall panel system that offers outstanding energy efficiency along with aesthetics and durability.

StarTherm III AW 200 composite panel is 42" wide and has an insulating polyurethane foam core between a ribbed 26 gauge, stucco embossed exterior skin and grooved, embossed, 26 gauge interior skin. Available in thicknesses from 2" to 6", U-factors of up 0.021 (R-46.9) can be achieved.

StarTherm III AW 300 is a factory-insulated sandwich wall panel system that offers outstanding energy efficiency along with aesthetics and durability.

StarTherm III AW 300 composite panel is 42" wide and has an insulating polyurethane foam core between grooved, stucco embossed, 26 gauge exterior and interior skins. Available in thicknesses from 2" to 5", U-factors of up to 0.025 (R-39.4) can be achieved.
Dura-Rib is a functional wall system that provides durability and cost efficiency. Traditional looks are achieved by the clean profile that refracts light off its 1/4" high ribs. The attachment of the panel is made from the exterior with color matched fasteners.

StarMark is a functional wall system that provides aesthetics and cost efficiency. An architecturally sculptured shadow panel is achieved with 1" deep ribs to help conceal fasteners. The attachment of the panel is made from the exterior with color matched fasteners.

StarCFW II is a concealed fastener wall system that provides performance and compatibility. Clean, contemporary looks are achieved by the 1 1/2" deep sculptured profile, embossed texture, and interior attachment. Available in 24 or 22 gauge steel and formed into a 16" wide 3" deep section, StarCFW II resists damage and abuse.
StarShield is a 24" wide panel with a standing rib which is machine double lock seamed 2 7/8" above the drainage surface. The system’s two-piece sliding clips connect the weathering surface to the structural panel to structural fastener penetrations, and allowing the weathering surface to move with temperature changes, thereby resisting thermal shock.

High energy efficiency is achieved with concealed clip stand-off design which minimizes compression of the insulation. With 6 inches of fiberglass insulation, an R-value of 17.29 can be attained.

The system’s heavy 24 gauge steel materials with long life coating and Underwriters Laboratories class 90 rating for wind uplift resistance reduces maintenance costs.

Star ASR is Star’s new Architectural Standing Seam Roof Panel. It is available in 16” and 18” widths with a 2” vertical rib. Star ASR has both fixed and floating clips available.

The panel’s heavy 24 gauge steel materials with long life coating and Underwriters Laboratories’ class 90 rating for wind uplift resistance reduces maintenance costs.

From the deep winter snowdrifts of the north to the torrential rains of the south, a Star roof system will perform superbly under the most challenging weather conditions.

It is not enough to say Star’s three roof systems are weathertight. They are also light weight, energy efficient and virtually maintenance free. Fabricated from high-strength steel, they are resistant to decay and thermal shock. To resist steel’s normal oxidation and deterioration, roof systems are available painted, or with a long life coating which is warranted for up to 20 years against rupture, structural failure, or perforation due to normal atmospheric corrosion.
**Dura-Rib** is a 36" wide panel with 1¼" high ribs on 12" centers. It is available in 24 and 26 gauge steel. The 80,000 pounds per square inch yield enhances walkability, resistance to hail damage and load carrying capacity.

The purlin bearing leg design makes panel alignment and fastener engagement consistent. Tape sealant at panel laps prevents water migration and air infiltration.

Dura-Rib fasteners are coated with an organic material that tests seven times more resistant to rust than the typical .0003 cadmium-zinc coated fasteners.

The system has both 30 and 90 classification from Underwriters Laboratories, Inc., for wind uplift resistance.

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**StarTherm III HR 900** roof panels are designed for use in industrial, commercial, new or re-roof applications where speed of erection, light weight and thermal efficiency are required.

StarTherm III 900 is a 40" factory-insulated sandwich roof panel system comprised of a polyurethane foam core between a 26 gauge, ribbed, stucco embossed exterior skin and a 26 gauge, grooved interior skin.

Available in thicknesses from 1" to 5", U-factors of up to 0.024 (R-42.2) can be achieved.

Choose the Dura-Rib roof system for function and economy. StarShield Standing Seam Roof System offers superior weather tightness for large structures. Star ASR provides architectural standing seam flexibility. StarTherm III is designed for superior thermal efficiency. No matter which Star roof system selected, you have made a sound investment.
Store Fronts are Narrowlite windows used in combination with doors to create attractive storefronts. Modules can be nested in unlimited lengths.

Walk Doors are galvanized 16 gauge frames and 20 gauge embossed door leaves, bonderized with one coat of bronze primer.

Thermal Efficient Windows are 1/2" thick, double-glazed, aluminum alloy with bronze acrylic enamel finish. Windows are available in 14 different sizes, 2 colors with clear and bronze glazing.

From gutters and downspouts to ventilators, windows, and canopies, Star Building Systems offer a complete line of accessories to give you a finished building with a unique presence.

All accessories are specifically designed to integrate with Star's durable roof and wall systems, reinforcing the building's structural integrity and insuring its weathertightness and energy efficiency.

[Accessories]
Narrowlite Windows are galvanized, 16 gauge frames bondertized with one coat of bronze primer. Cross mullions and stacking units are optional.

Monovent is a gravity-type, 20”, circular, 26 gauge unit with a damper.

Louver 18 gauge frame units are 48” x 48” with 20-gauge adjustable blades; comes complete with bird screen.

If you need overhangs, entry doors, store fronts or thermal windows, Star's complete line of accessories will compliment the appearance and functionality of your new building.

Curbs are custom built to accommodate roof-mounted equipment.
Univent is a gravity-type 10' long, 9" or 12" throat, 26 gauge unit with or without dampers, designed for continuous runs.

Pipe Flash is a flexible unit that fits pipes from 1/4" to 7".

Roof Jacks are Dura-Rib panel-mounted and can accommodate stack sizes 7" to 12".
Star Building Systems is not liable for damages incurred as the result of improper erection procedures.

Star Buildings are erected by independent contractors who are not agents of Star. Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. Star reserves the right to discontinue products or change specifications and/or designs without notice and without incurring obligation.