



# **COMPANY OVERVIEW**

# AND

# CAPABILITIES

# **STATEMENT**

PREPARED BY WHITLEY MANUFACTURING CO., INC.

South Whitley, IN // Marysville, WA // Rochester, IN // Leola, PA www.whitleyman.com



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# **1.0 OVERVIEW.**

Whitley Manufacturing has pioneered modular and prefabricated construction since 1945. The company has been on the forefront of modern, automated building systems and accelerated construction for nearly 65 years. Since transitioning to permanent commercial construction in 1993, the company has developed and introduced numerous new construction methods, materials, techniques, and systems that make it the foremost name in modular and pre-fabricated construction. Delivering permanent facilities of technically-demanding specification, extensive scope, and modern aesthetics in 40% less time than conventional construction, Whitley Manufacturing is uniquely suited to serving the needs of today's client in a fast-paced, global marketplace. With expertise across the spectrum of building types, the company continues towards its objective of being the nation's pre-eminent supplier of prefabricated commercial buildings.

Whitley Manufacturing has the resource and experience to deliver technically demanding projects of large scope and scale on an accelerated timeline. In 2009, Whitley Manufacturing delivered an apartment-style, four-story dormitory facility in less than 90 days from groundbreaking to occupancy. **Several project case studies are attached for further review and consideration. Please see Section 9.0 Images + Case Studies for details.** 

#### 1.1 Management Team.

#### Mr. Simon Dragan – Owner, President + Chief Executive Officer.

Mr. Dragan is the owner of Whitley Manufacturing and serves as the President and Chief Executive Officer. Mr. Dragan manages the company and oversees the development of all four factories and the products offered. He leads the Company's continued expansion into the large-scale commercial construction market. Mr. Dragan has over 40 years of experience in commercial modular construction with a background in Engineering Management and Manufacturing Management. His accomplishments in developing new manufacturing approaches and expanding the possibilities offered by modular construction have been recognized by over 30 Awards of Excellence from the Modular Building Institute (the industry's national lobbying and certification body). His vision of modular construction as more than a commodity product, but as a cost-effective, sustainable, and expedient alternative to site construction has shaped the industry into what it is today. Mr. Dragan has held the position of Vice-President of Engineering and Executive Vice-President of National Manufacturing Operations for The Scotsman Group (now Algeco-Scotsman), before leading Whitley Manufacturing. He has expanded the company to currently comprise three production facilities across the country, serving a nationwide and international clientele.



#### Mr. Drew Welborn - Vice President

Mr. Welborn serves as our business leader working with our clients and partners at finalizing agreements, business development, and other client-based services. Having practiced law at Baker & Daniels for over 6 years, Mr. Welborn now serves as legal counsel to Whitley Manufacturing. While pursuing his career and degree in law, Mr. Welborn actually worked out of our South Whitley plant located in Indiana while attending college. This hands-on experience has allowed him to understand in depth the purchase and production process from start to finish. He has also served on the Modular Building Institute's (MBI) board of directors for the past 6 years and currently holds the role of VP within the board. Mr. Welborn works closely with all business teams to continually expand our product offerings, create new efficiencies, and find new emerging markets for Whitley Manufacturing's future growth and expansion.

#### Mr. Michael Ransbottom - Vice-President of Operations.

Mr. Ransbottom is the Vice-President of Operations for Whitley Manufacturing and oversees the activities of the four offices and production facilities. Mr. Ransbottom is one of the leading innovators of prefabricated construction techniques over the past 30 years. He has experience with nearly every facet of the construction process, from on-site project management, to manufacturing management, to sales and estimating, and national operations management. Under his guidance, Whitley Manufacturing has grown to include three production facilities and offices and an international reach.

With Mr. Dragan, he has worked to develop unique applications for modular construction, including:

- Non-combustible and steel framed modular buildings,
- Flexible, clear span designs,
- Panelized wall and roof systems to deliver larger open spaces,
- Poured concrete floors and slab-on-grade modular designs,
- Shielded modular applications for medical technology facility types such as MRI, Radiation Therapy, Diagnostic Imaging, CT Scanning, etc.
- Blast-proof / Explosion resistant building types for high-risk work areas and military applications,
- Stackable and re-configurable ship deck office facilities for the United States Navy,

Mr. Ransbottom is a tireless proponent of modular construction who has consistently pushed the boundaries of what building types can be prefabricated.



#### Ed Messer –V. P Commercial Construction

Mr.Messer works directly with our distributors and direct clients to ensure a seamless experience is had on all projects from negotiation and conceptualization to the finished building. With direct experience previously owning and operating a commercial building company "Messer Commercial Builders" Mr.Messer's leadership and first-hand experience combined with his education from Indiana State University can ensure a professional and well-qualified experience to the client. Some of his achievements include:

- Successfully completing the company's first LEED-certified building renovation for the Auburn Public Library
- Developed sales of NUCOR Building System pre-engineered buildings

• Instrumental in the development and construction of what became a \$50MM+ indoor aquaculture facility in Albany Indiana

He has held such positions as Mechanical Contractor, Project Manager, Owner/ Operator, and many other positions all within the construction industry. Mr. Messer's robust experience allows him to understand all roles and responsibilities within a project's timeline on a highly detailed level ensuring an efficient and quality focused experience when building with Whitley Manufacturing.

#### Paul Gibson -Design Manager.

Mr. Gibson has over forty years of experience in the modular industry. His background includes design, project management, manufacturing supervision, quality assurance, and state submittals. He leads and mentors through design projects while developing teams, conducts initial design analysis and code compliance review for building structures, proactively identifies potential design issues and creates sustainable solutions. He continuously reviews activities in construction and at the office relating to the planning, design, material procurement, construction and QA of complex structures to ensure high quality and timely completion at an accelerated pace. Paul holds an associate degree in industrial technology.

#### Dan Lipinski - Estimator

Dan Lipinski has more than years 25 years of experience in business development, estimating and management in Modular construction. As the Estimator for Whitley Manufacturing, Dan has guided the sales team thru all steps of the client's procurement process to include initial contact, proposals, project documentation and project management follow-thru. Also, bidding multiple projects ranging from \$100K to \$5M, putting proposal packages together, monthly project tracking and plant production tracking.



**1.2 Factory Profiles.** (At each facility we have the ability to dedicate a portion of the property for controlled access).

**Whitley Manufacturing** (South Whitley, Indiana). Comprised of (3) production lines as well as the corporate offices, the South Whitley, Indiana factory features 120,000 SFT of indoor manufacturing space, as well as an exterior concrete pad for overflow and finishing.

**Modular Builders, Inc.** (Rochester, Indiana). With a single production line and attached office, MBI features 25,000 SFT of manufacturing space and is used to construct smaller projects and manage overflow production from the South Whitley production facility.

**Whitley East, LLC** (Leola, Pennsylvania). The Whitley East facility includes 110,000 SFT of production space including a steel fabrication & weld space, as well as specialized precast concrete equipment. An on-site regional office manages the engineering and estimating capabilities.

**Whitley-Evergreen** (Marysville, Washington). Whitley-Evergreen services clients west of the Rockies, constructing both small projects and large custom facilities from a 75,000 SFT production facility with a full, supporting regional office.

With our flexible production approach, we have the ability to adjust our production capacity as needed through reallocation of in-house labor and the addition of sub-contractors. Our combined plants can produce over \$1M dollars per week, if necessary

#### 1.3 **Production Process.**

Whitley Manufacturing produces a variety of building types of various sizes. Our production process and facilities are uniquely designed and configured to meet the challenges of constructing diverse building types successively or concurrently. At the South Whitley facility, one production facility is dedicated to technically demanding custom projects. Buildings can be assembled within the factory as they will sit on the site. By building in place, we ensure continuity of materials and finishes between the modules that comprise the building. Pieces of angle iron are welded to the integrated frame of each building and aligned at the factory prior to finishing work. When units arrive at the site, this angle iron can be matched to ensure that modules are level and set as they were built.

By utilizing multiple production lines, it ensures that we are able to reallocate labor and resources to a large and demanding project, or to deliver a building on



an aggressive timeline. An outdoor finishing pad allows for added production capacity to meet our clients' needs. This area can also be used to set a building in place for specialized trades to access it and complete sub-contracted work under the supervision of the factory quality control and project management personnel.

### 2.0 MARKETS SERVED.

#### Education.

- Classrooms (Permanent or Relocatable)
- School Buildings (Public, Private, Charter)
- School Campuses (Multiple Buildings, free standing or attached)
- Auxiliary Facilities (Gymnasiums, Auditoriums, Cafeterias)
- Specialty Classrooms (Music, Laboratory, Art)
- Athletics (Shower / Locker, Restrooms, Concessions)
- Childcare (Daycare, Child Development Centers)
- Press Boxes

#### Housing.

- Dormitories (Communal Living, Semi-Private, Apartment Style)
- Military Housing (Barracks, Enlisted Housing, Military Apartments)
- Camp Housing (Bunkhouses, Remote Work Area Housing)

#### Medical

- Medical Office Buildings (Relocatable, Permanent, Single- or Multi-Story)
- Clinics (Rural Healthcare, General Practitioners Single or Multiple)
- Treatment (Ambulatory Surgery, Psychiatry, Dental, Urgent Care)
- Diagnostic Imaging / CT Scanning
- MRI (Freestanding, Expansion, Permanent or Relocatable)
- Radiation Therapy / Oncology (Shielded Radiation Vaults and Clinic Space)
- Dialysis (Standard and PT Dialysis, Permanent or Relocatable)

#### Office

- Rolls-Royce Energy Systems
- Branch / Corporate Office (Single- or Multi-Story, Custom Finishes and Corporate Branding)
- Sales Offices (Permanent or Relocatable)
- Military Offices (Stackable, Configurable Ship Deck Office, Explosion Resistant Offices)
- Clearspan Offices (Flexible, open space for easy configuration)



#### Support Buildings

- Shower / Locker Facilities (Provides changing and shower areas. Support for offices, laboratories, schools, remote work areas, military bases).
- Restrooms (Relocatable or Permanent).
- Water Supply / Pumphouses (Provide utility services in areas where conventional utilities are unavailable. Provide potable water in emergencies or increase capacity at existing facilities).
- Sewer Tanks (Provide waste storage in remote areas. Waste collection in emergencies or to increase storage capacity at existing facilities).

#### **Specialty Buildings**

- Kitchens (Temporary or Permanent, expand food service and storage capabilities. Can include food service areas).
- Equipment Shelters / Steel Enclosures (Storage or Protection for delicate or valuable equipment such as computer servers, HVAC equipment, and medical technology).
- Vaults (Custom Fabricated Steel with Specialized Shielding Applied. Can be shielded against radiation, radio frequencies, hazardous material leakage, etc.)
- The UpGrade (Flexible, clearspan panelized building system, allowing for open, spacious structures with ceiling heights up to 26'-0". Used for warehouses, vehicle storage, gymnasiums, cafeterias, auditoriums).

# **3.0 TRADE CAPABILITIES**

# (CAPABILITIES ARE ORGANIZED ALONG THE FIRST LEVEL DIVISIONS BASED ON MASTERFORMAT 2004 EDITION REQUIREMENTS).

#### DIVISION 03 CONCRETE

Whitley Manufacturing has the capability to offer a lightweight poured concrete floor that is installed in the factory and finished at seam-lines in the field. The poured concrete floor is available in a variety of thicknesses and with reinforcing based on the client's specification. The availability of a production facility dedicated to custom projects allows ample time for the curing of the concrete without impeding subsequent production.

Concrete is poured over steel b-deck welded to each module's integrated steel frame and provides a strong base over which finish flooring can be overlaid. This capability offers clients the ability to specify high floor loading values and noncombustible building types.

Another concrete flooring option allows for slab-on-grade construction in situations where a slab is to be poured at the project site (this may be specified in circumstances where poor soil conditions dictate prohibitively large standard foundations). Three dimensional modular units can be constructed in the factory



with their flooring omitted and shipped to the site via a removable carrier. At the site, units are removed from their carrier and set atop the site-poured slab.

#### **DIVISION 04 MASONRY**

Buildings requiring masonry exterior finishes can be produced in the factory when circumstances or the availability of labor dictates. A masonry veneer product can be applied in the factory for shipment to the site. The material is held back at seam-lines and can then be finished on-site.

When masonry finishes are to be applied at the site, sheathing of the appropriate strength and type and required vapor / thermal barrier will be installed at the factory, allowing for quick and efficient application of masonry on-site.

If masonry or CMU structures need to be incorporated into a modular building, the modular design team can account for this to streamline the construction process. For instance, if a masonry elevator tower is to be positioned at the center of a modular structure, the building can be designed so modular units butt flush against the site-built structure for quick completion of the building, preserving the accelerated timeline.

#### **DIVISION 05 METALS**

Whitley Manufacturing has the unique capability of offering custom fabricated metalwork to modular building clients. Whitley Manufacturing maintains an inhouse, on-site steel fabrication shop and a team of welders.

On all modular buildings, this fabrication capability allows for the customization of the building's integrated structural frame. Whereas other manufacturers purchase standard frames from a third-party vendor to construct their building upon, Whitley Manufacturing can customize the strength, size, and placement of structural members on the frames of all buildings.

These capabilities offer numerous benefits to clients. As frames are designed per the layout of each building, additional support can be specified below restrooms or other areas where there will be increased floor loading. Providing additional support beneath these areas helps to ensure the structural integrity of the building when it is set at the final project site – and maintains this structural integrity throughout the building's lifecycle by ensuring that proper support is provided.

As the frame of a modular building serves as the sub-floor, or base, on which the building is constructed, its design is vital to the transport of the building. The customization of frames allows our engineers to exert some control over forces acting on the building while it is in transit. This minimizes any adjustments that may need to be made to the building when it arrives on site. Proper frame support is also integral to our capability to install high-end finishes at the factory. Ceramic can be installed and grouted at the factory without fear of cracking and damage, due to the proper steel support structure beneath the unit.



Frame design can also be used to the client's advantage at the site. In instances where soil conditions might dictate large, costly footers and piers, the frame structure can be custom fabricated with additional strength and designed to span longer distances, thus reducing the amount of foundation work required at the site.

Custom steel fabrication can also be used to fabricate wall, roof, and floor framing members. This allows for expanded design options with custom wall and ceiling heights and thicknesses. Our familiarity with steel-framed construction allows us to build a number of non-combustible building types as required by clients.

Our steel fabricating capabilities also allow us to provide a variety of protective structures and steel enclosures. These enclosures or vaults can be used to protect or shield a variety of equipment types, protecting them from either damage or theft from the outside, or protecting the building's occupants from potentially harmful side effects of the equipment's operation.

Our familiarity with steel construction and the ability to custom fabricate and weld allows us to provide the most complex and sensitive of shielded vaults. We produce radiation-shielded vaults that house the latest in oncology equipment, radio frequency shielded magnetic resonance imaging facilities, and explosion resistant buildings that protect employees at hazardous work sites and armed forces personnel.

#### DIVISION 06 WOOD, PLASTICS, AND COMPOSITES

Whitley Manufacturing builds a variety of standard wood-frame buildings. Our design expertise allows us to utilize economical wood-frame construction in a variety of building types with the inclusion of fire suppression systems, including multi-story buildings, STC-rated buildings, and progressive collapse designs. Wood frame construction can be used in conjunction with steel structural members to produce flexible, open clear span buildings for rapid deployment and versatile use.

Both interior and exterior finishes comprised of wood, plastics, and composites can be applied within the factory or prepared for site installation. Refined plastic products such as vinyl composition tile, which offers durability and ease of maintenance, can be largely installed at the factory while being held back at seamlines, preserving accelerated delivery schedules while still offering visual and aesthetic appeal.

#### **DIVISION 07 THERMAL AND MOISTURE PROTECTION**

Design of a robust and energy-efficient building envelope is an integral part of maintaining energy efficiency and holding building lifecycle costs in check. Similarly, adequate moisture protection plays a major role in preserving indoor air quality. With an in-house design group, thermal and moisture protection can be optimized to balance up-front construction costs with building lifecycle operating costs.



These issues are addressed in-plant through the use of various insulation types to best suit project specifications. Beyond standard insulation, Whitley Manufacturing has the capability to offer unique thermal protection methods such as sprayed-foam insulation within the floor and wall systems which expands to fill any thermal voids.

Other strategies include both active and passive protection ranging from the elimination of thermal voids, adequate sealing of seams and penetrations, and protective wraps and barriers.

#### **DIVISION 08 OPENINGS**

Within the factory, Whitley Manufacturing has the capability to install a variety of doors and windows within structural openings. Our in-house design and purchasing / procurement team have the capability of accommodating specialized doors and windows in modular structures. We work with STC-rated, blast-proof, insulated, and doors with a variety of protective shielding's. As a custom builder, even specialty items such as pocket doors, or doors and windows with specialty hardware can be installed.

To ensure the exceeding quality of the finished product, we often install our frames with a tolerance to allow for the inevitable movement of the building during transit. Upon arrival at the site, the frame can be adjusted, the door hung, and finish trim applied.

Our procurement staff and experience with custom projects allows for factory installation of specialized doors and hardware. This ensures that all Openings benefit from the efficiencies of off-site construction: cost savings and consistent labor rates, extensive quality control, and an accelerated timeline.

#### **DIVISION 09 FINISHES**

Our approach to the other Facility Construction Subgroup Divisions, coupled with our unique production process and extensive quality control, safety, and project management programs, all allow for Whitley Manufacturing to offer installation of labor-intensive and high-end finishes.

A variety of wall coverings can be installed in the factory, ranging from economical vinyl wall coverings, through fire-rated gypsum products, up to durable materials such as FRP. By custom fabricating the steel integrated frame on which the building sits, a level, solid, and steady surface is provided as a base upon which to build. This same frame system also allows for the building to travel with relatively little trauma to installed materials. All these factors combine to deliver quality and savings to the end client, as the building arrive without the need for re-work, preserving both the schedule and budget.

The added support of custom fabricated steel framing is also integral to the installation of bath finishes such as ceramic tile and flooring coverings of all type. A



major benefit of off-site modular construction is the time savings and consistent costs which it delivers. Specialty finish contractors such as ceramic tile installers are often highly paid and may be subject to very limited availability, especially during the peak construction season. By offering these services within the factory, Whitley Manufacturing can further reduce timelines while offering an economical alternative to contracting the work at the project site. Through our custom construction capabilities, the work is delivered with a high standard of quality and consistency.

#### **DIVISION 10 SPECIALTIES**

Specialty items within a project can often delay timelines and push back the date of occupancy. By their nature, specialties are subject to limited availability and long lead times. With an experienced procurement / purchasing team and comprehensive, in-house project management, Whitley Manufacturing can quickly identify specialty items and arrange for them to be installed within the production facility. Our strong relationship with material manufacturers and distribution groups, we are able to identify and source specialty items for clients and either ship them with the building or install them prior to delivery. Specialty items offered include marker boards, signage, modesty partitions, corner guards, lockers, specialty storage, screens, blinds, and other building accessories as necessitated by the client's design and specification.

#### **DIVISION 12 FURNISHINGS**

To further streamline the construction process and preserve the integrity of the construction schedule, Whitley Manufacturing can install furnishings and casework, or prepare the building for their installation on-site. At the beginning of the building process, our project team works closely with the client and their design team (if applicable) to identify furnishings which could logically be installed in the factory. These items will be procured by Whitley Manufacturing and installed during the finishing phases, prior to the building's shipment.

In some instances, the construction process may be further streamlined through the omission of items. For instance, if casework conceals an electrical box which will need to be accessed on-site, it may be determined that in the interest of expediency, the item should be omitted. Items which cannot be prudently installed at the factory can be prepared for. Preparation can include the installation of bracing or the framing of a rough opening where they will be placed later. For items requiring electrical connecting, conduit or wire chase can be installed to simplify the pulling of wire at the site. The sizing of electrical panels will take into account furnishings that may be installed at the site. In this manner, the customer benefits from the time savings of modular construction, even when work must be undertaken at the site.

#### **DIVISION 13 SPECIAL CONSTRUCTION**

Although Whitley Manufacturing specializes in permanent, custom, modular construction, the company has the capability to produce buildings intended for future relocation or with a temporary use period in mind. These facilities can be



built to specification to suit the design needs of the client, constraints of the site, and to suit the purpose being addressed by construction.

#### **DIVISION 21 FIRE SUPPRESSION**

Whitley Manufacturing can build to suit custom needs, in both wood frame construction and steel-framed construction. If the building's use, or building codes and ordinances dictate the inclusion of a fire suppression system, then the balance of the system can be installed in the factory. Based upon the specification, the degree of completion can be determined by the manufacturer and the client and their design team (if applicable). A typical fire suppression system installation would include the piping for the sprinkler system being installed above the grid ceiling framing and the sprinkler fixtures being provided as well. At the site, the system can be quickly connected to site-installed risers and tested prior to occupancy.

#### **DIVISION 22 PLUMBING**

The production team at the factory features plumbers who will install waterlines and fixtures throughout the building. During the design phase, the in-house design team will work with the client to streamline the design and optimize the placement of fixtures, minimizing the number of connections that must be made between units. Manifold work and connection to site utilities is then performed at the building site.

Whitley Manufacturing also has the capability and experience to install highly specialized plumbing systems. An example would be the comprehensive plumbing system required for a dialysis clinic. The factory is capable of providing the numerous supply lines to the individual dialysis stations, as well as specialty plumbing to accommodate R.O., acid, and bicarbonate used in the dialysis process.

#### **DIVISION 23 HVAC**

With the broad diversity of projects built by the company, Whitley Manufacturing has the capability and experience to install a myriad of different HVAC systems. From self-contained, economical wall-mount units, to split systems, roof-mounted units, individual through-wall units, to specialized medical chillers, Whitley Manufacturing is able to accommodate a variety of HVAC systems.

Based on the needs of the client, desired performance of the system, and logistics of the building, the HVAC unit may need to be installed at the site. In this instance, ductwork, diffusers, return air grilles, thermostats and controls can all still be installed, and the HVAC unit itself may even be provided for site placement and final installation (i.e. to be mounted on the roof).

Our capabilities extend to working with non-HCFC based "green" refrigerants and zoning separate areas with individual controls to provide optimal thermal comfort for the building's occupants and users. Even complex systems can be provided within the factory setting. For instance, radiation therapy requires the use of two medical-grade chillers and two autonomous air handlers located above the ceiling.



#### **DIVISION 26 ELECTRICAL**

The factory can supply electrical systems installed by qualified professionals meeting even the most stringent requirements. We have the capability to provide wiring and electrical fixtures of a variety of types as required for individual projects. We are experienced with MC cable, EMT systems, blast-proof and hospital-grade receptacles, and the complex electrical requirements of the latest medical technologies.

Electricians are costly contractors and the situation can be exacerbated due to the lack of qualified personnel or their limited availability dependent upon the site of the building. By installing the balance of receptacles, fixtures, lighting, and wiring runs at the factory, the electrician at the site need only make cross-seam connections, finish the homeruns, supply and wire the main panel and connect it to the site utilities (dependent upon the scope of work designated by the customer).

Whitley Manufacturing can provide information and assistance to clients seeking to pursue alternative energy solutions as well, ranging from photovoltaic arrays to solar thermal and wind turbine technology.

# 4.0 QUALITY CONTROL + SAFETY PROGRAM

#### 4.1 Quality Control Program.

Whitley Manufacturing is committed to delivering a building of the highest quality while preserving the safety of workers in the factory and on-site, as well as students and faculty of the college.

Our Quality Control Program consists of a two-phase inspection and quality assurance program. We are inspected at regular intervals by our third-party engineering agency, T.R. Arnold and Associates of Elkhart, IN. They inspect for safety and building code compliance as well as the quality of workmanship.

Further daily inspections and ongoing monitoring are undertaken by our in-house Quality Control staff. This ensures accountability for the work performed and quickly highlights and remedies any issues which may need to be addressed, before they can affect the schedule for completion. The entire project team, incorporating Estimating, Operations, Engineering, Purchasing, Quality Control and Safety, Project Management, and Production meets regularly to discuss work completed, adherence to schedule, items that require special attention, items that require correction, and advise the clients of progress.

Daily progress photos of work completed, and work-in-progress allow the client and other contractors to view the construction process as it occurs. If any issue may



arise, this allows for it to be addressed and corrected immediately, while the building is in the factory and work can be completed easily. The photos allow for review and comment by the entire project team on a continual basis throughout construction.

Accountability is stressed through weekly meetings. An intensive pre-project planning program identifies any aspects of the design that might slow production and solutions to these, ensures the availability of material within the allotted schedule, and identifies and remedies any safety concerns that might exist within the production facility or at the site.

#### 4.2 Safety Program.

At Whitley Manufacturing, the safety of employees, contractors, and the general population at the project site is of the utmost importance.

Within the factory setting, workers perform their job out of the elements, eliminating accidents caused or exacerbated by inclement weather, as well as protecting exposed materials from the elements to prevent the future growth of mold, mildew, and other environmental health hazards that can infiltrate structures that are exposed to the elements.

All work is completed in compliance with OSHA occupational safety requirements. Workers utilize modern building equipment and assemble the structure using innovative techniques. Construction safety equipment is required and available at all work stations.

Additionally, Safety Committee members (comprising factory group leaders, foremen, supervisors, and office staff) are trained to watch for and immediately correct any unsafe behavior, equipment, or processes during the construction process.

The initial project meeting reviews the building, its schedule as it progresses, materials and processes to be used, and any unique safety hazards that could arise during construction. This planning extends to work to be done at the site. By identifying risk and taking the proper corrective or preventative action, as well as alerting employees to certain areas and situations that may require extra care, Whitley Manufacturing strives to ensure the safety of all employees and subcontractors involved.

Our corporate culture of accountability and open door / no phone screening policy, allows workers to report conditions they believe to be unsafe, raise concerns, request repairs or new equipment, and be proactively involved with the safe progression of the project. Weekly meetings at the factory and "toolbox" meetings at the site provide a forum for possible safety concerns and issues to be raised and addressed immediately before any injury might occur.



# **5.0 DIVISION OF LABOR**

The division of labor between in-house personnel and sub-contractors is decided upon a project-by-project based on the wishes of the client, any code requirements for the project, the need for specialized trades based upon the specification, and the timeline for delivery of the building.

Utilizing in-house labor provides controlled and economical costs for the client and delivers consistency of workmanship, and as such, would be the choice in most circumstances.

In some instances, specialized qualifications or certifications may be required by the building codes governing the project's site, and as such, outside labor with those certifications might be contracted if a qualified individual were not available in-house. Also, in the case of very specialized systems, such as the radio frequency shielding installed to protect the scan room in a magnetic resonance imaging building, specialized contractors with the required certifications and experience would be hired to perform the installation of this material, working within the supervision of the in-house Quality Control personnel.

Whitley Manufacturing has the unique capability to reallocate labor resources from one of our multiple production lines in order to meet aggressive timelines or to avoid project delays. In an instance where this did not provide the necessary resources to meet a project's schedule, our external building set-up pad could be utilized to set the structure in place and general trades could be sub-contracted to provide additional assistance.

In this manner, Whitley Manufacturing is able to meet even the most aggressively accelerated schedules and overcome any delays that may occur to provide prompt delivery of building's to clients across the globe.

# **6.0 PROJECT MANAGEMENT**

An in-house Project Manager coordinates all activities at the factory and on-site and insures accountability for deadlines and quality of work. The Project Manager serves as a single point-of-contact for the client and other contractors and ensures that projects are completed on schedule. This brings familiarity with the unique conditions present on a variety of building types. This experience translates into management of the project that minimizes issues for the client, adheres to the delivery and completion schedule, provides assistance and supervision at the site, and controls cost overruns while maintaining an exceptional standard of quality.

# 7.0 IN-HOUSE DESIGN

During the design phase of the project, Whitley Manufacturing works in close cooperation and collaboration with the client, prime contractor, our in-house design



department, third-party engineering firm, and the client's architecture firm (if applicable).

(If working in collaboration with a client's A+E firm). Our design team reviews the building and highlights any changes that might be beneficial, for the architect and client to view. We look to optimize building dimensions to allow for the most efficient use and re-use of materials, as well as taking advantage of our volume material purchasing power to recommend any sizes or types of materials that could be used at a savings to the client.

The focus of the design phase is to produce accurate and detailed production drawings, and to streamline the building for accelerated construction, and the best cost-value to the client.

During the design phase, the client is presented with approval drawings reflecting the design to be built along with material samples, catalog cuts, and color choices, if these decisions have not been previously made. If a beneficial material substitution could be made, this is highlighted for the customer, along with the benefit to be delivered, for their review.

Following approval, production drawings are created to detail each step of the process explicitly to guide the trades in the factory in a coordinated construction effort. In-house material requisition personnel ensure that all materials are available for the building, so the schedule is not compromised by long lead-time items or production delays from our vendors.

During the process of creating the production drawings, any aesthetic or structural issues that are noted are addressed internally with the project team and with the client and owner to ensure that delays are avoided. Any challenges or tasks which require long time periods (i.e. the curing of concrete, ceramic tile) are noted so that they can be scheduled so as not to delay the project as a whole.

#### 7.1 FLEXIBILITY

#### 7.1.1 IN-HOUSE DESIGN.

The hallmark of our in-house design and approvals department is flexibility. Having a large design group on staff allows for the company to meet the varied needs of different customers. Our design group is all highly experienced with modular construction. In some instances, we are able to meet a client's design and specification needs using our in-house staff and client input to create a new building layout or modify a previously constructed building plan to suit their needs. In this instance, the client saves money usually allocated for architect's or engineer's fees, as in-house design services are provided as part of the building cost.



#### 7.1.2 COLLABORATIVE DESIGN.

Another asset of our design department is their ability and experience with regards to collaborating with architecture and engineering firms in the design and specification of a facility. There are two possibilities for collaboration. In the first instance, a design and specification may have already been completed for the client. In that case, the in-house design group reviews the architect's blueprints and makes suggestions to optimize the layout for modular construction. Mark-ups are made with an eye to streamlining the process to yield time savings or reducing the project cost through utilizing standardized sizing to lower material costs or changing dimensions to insure the most efficient of materials. use

If the client does not have plans produced yet, our design group can work in direct collaboration with the architecture or engineering firm and produce a design and specification with the aesthetics and sustainability provided by the architect and the efficiency and time / cost savings of pre-fabrication.

#### 7.2 PRODUCTION PLANS

Once the design, specifications, and material selections have been completed, our inhouse design group produces production plans. These plans detail each component of the building through every step of the production process. Plans are utilized by the project team as a whole to complete their individual task items (material procurement, operations logistics, quality control, third-party inspections, state submittals). Plans are reviewed by our independent, third-party engineering firm to insure code compliance prior to production.

By producing detailed drawings for every stage of construction (i.e. roof construction, wall construction, ceiling plan, etc.) consistency and precision is stressed at every stage of the production process.

#### 7.3 PRESENTATION PLANS + VISUALIZATION

Another benefit offered to the client by our in-house design group is preliminary floor plans, axonometric projections, and exterior renderings. These visualization options ensure that the customer is a full and detailed picture of how the building will look upon completion and allows them to make educated design changes to enhance its functionality. Exterior renderings allow for realistic and detailed views of the completed building, assisting with the selection of materials and ensuring that the finished product delivered meets their needs and wishes.



# **8.0 MATERIAL PROCUREMENT**

With purchasing and procurement personnel at each factory, Whitley Manufacturing is able to provide clients with low material costs. One major benefit of modular construction is that it takes place indoors within a controlled environment. With construction taking place indoors, removed from the elements, areas that often harbor problems tied to poor indoor air quality (the inside of the wall or roof system for example) are protected from the elements while they are vulnerable to penetration and the potential for growth of mold, mildew, and other harmful allergens. When materials are procured, they are stored either within the enclosed factory, or in another location protected from the elements,

#### **8.1 VOLUME PURCHASING**

As a national builder, with three factory locations across the country serving a clientele from coast to coast and overseas, Whitley Manufacturing is able to take advantage of volume purchasing discounts from manufacturers, package volume purchases from suppliers, and our status as a manufacturer and ability to purchase products at wholesale pricing directly, to provide lower bill of materials costs when compared to many typical site contractors.

#### **8.2 SUPPLIER RELATIONSHIPS**

By purchasing a significant volume of product from suppliers and material manufacturers, we are able to form beneficial relationships with them. This results in enhanced service for the client should repairs be needed in the future, preferential pricing, and enhanced availability of certain long lead-time items.

#### **8.3 CUSTOM PER-PROJECT PROCUREMENT**

Whitley Manufacturing does not keep large inventories of materials in stock within the factory. This offers several benefits to the client. First, it demonstrates our proficiency in material procurement. As materials are frequently ordered, it fosters a detail-oriented and careful culture amongst purchasing agents, ensuring that orders are placed accurately and inspected thoroughly prior to their use in construction. Additionally, it ensures that new material is used in any and all building projects ordered. By procuring materials on a per-project basis, it eliminates the possibility of expired adhesives or sealants (for instance) being used.