

# GROSS RE Warehouse

Waco, Texas



Waco is home to one of the most attractive warehouses in Central Texas. GROSS RE Warehouse is located in the industrial district of Waco, located near Highway 6 and Express Parkway across from the new Amazon Distribution Center, which is a prime location for a new 170,000 Square Foot concrete tilt wall distribution warehouse.



Mazanec Construction was approached by the owner, Mr. Taylor Gross, who needed the facility constructed and ready for future tenants in less than nine months. Mazanec Construction's team accepted the challenge and pulled off the massive undertaking. Construction started in June 2022 and the keys were turned over to the owner to occupy the warehouse in early February of 2023. Although the site and weather conditions were not ideal, the massive concrete structure was completed on time, within budget, and features a unique and striking appearance.





**Difficulty in Construction resulting from design, location, materials, etc.**

Although the location is perfect for a new 170,000 SF Warehouse which makes it attractive to any tenant that is in the line of distribution business, the site is home to highly expansive soil. Cost analysis was conducted by Mazanec Construction's project team prior to breaking ground, and it was determined that the



most cost-effective way to prepare the building pad was to treat the existing soil onsite with lime. The geotechnical engineer, Langerman Foster Engineering, recommended two options. One was to export five feet of existing soil and import five feet of select fill (which would have been over 40,000 cubic yards of trucking), or excavate five feet of existing soil and lime treat onsite. Although the onsite lime treatment of soils was not common in Waco, Texas it was a substantial savings to the overall project cost. Mazanec Construction hired Ranger Excavation out of Austin, Texas to set the tempo on the aggressive nine month construction schedule.





## Unusual Construction Techniques Involved

As soon as Mazanec Construction received a notice to proceed, the clock started ticking. Ranger Excavation mobilized and brought with them not only mixers, rollers, and scrapers, but a D10T Caterpillar dozer accompanied the fleet of earth moving equipment. The massive bulldozer was used to help push the scrapers while excavating the building pad when



they could not move in the mud. The soil was removed and relocated to the south side of the building pad and lime treated in place. The areas where the existing soil was treated is referred to as a lime bed. The lime was hauled in from a local source out of Clifton, Texas and dumped on the lime bed. The lime is then watered down and mixed with a Caterpillar Rotary Mixer. Lime and water are used to lower the plasticity index of the soil which makes it less expansive. The lime, water, and soil are mixed again and left to cure. Once cured, the mixed soils are then relocated and installed at the building pad location in six inch lifts all while being monitored and tested by the geotechnical engineer for proper compaction. This process cuts down on the cost of trucking and is a very cost-effective way to construct such a large building pad.

Once the building pad was fifty percent complete, the race was on to drill piers, place and finish the foundation and start pouring tilt wall panels. Due to budget constraints Mazanec Construction utilized the building foundation as a casting bed to place the tilt wall panels. CJ's Concrete out of Gatesville, Texas fought weather delays the entire



duration of setting up the tilt wall panels on the concrete slab. Prior to pouring concrete tilt wall panels, a bond breaker must be applied to the casting beds, which in our case, was the concrete slab. This bond breaker is used to release the concrete tilt wall panels away from the casting bed. Once the tilt wall panel forms are set,



reveals are installed, bond breaker must be applied, then rebar is tied in place. Many rain events caused CJ's Concrete to remove tied reinforcing steel, reapply the bond breaker and re-install the reinforcing steel. CJ's Concrete crews made up for the lost time by working Saturdays and Sundays.

During this time frame in 2022, all manufacturers were trying to recover from the recent pandemic. Steel bar joists and decking were very difficult to procure and extreme long lead times from numerous suppliers made the nine month construction duration unrealistic. Mazanec Construction sourced the structural steel, bar joist, and decking through Waco Metal Products. Waco Metal's Owner, Trent Sutton committed to Mazanec Construction's milestone delivery dates and successfully procured and delivered the steel, decking, and difficult to source bar joists on time.

Once all tilt wall panels were poured, structural steel along with the joist and deck were delivered and set on the slab, a 300 ton crawler crane was delivered and assembled onsite. The 94 concrete tilt wall panels were erected in 5 days and steel and decking followed right behind the panel erection, which allowed for other trades to mobilize and finish the project on time.





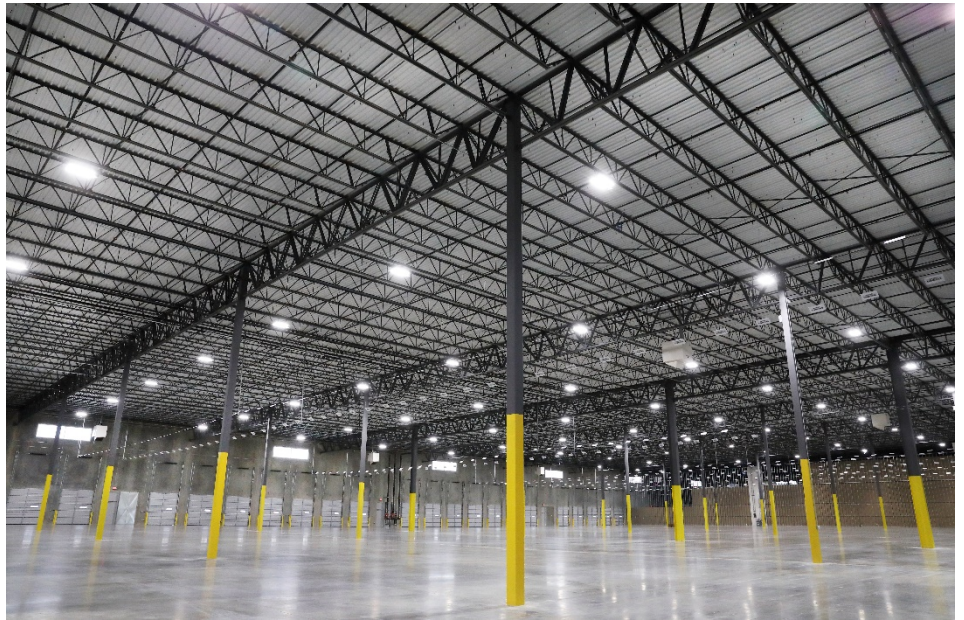
## Final Appearance and Quality of Finished Product

Although GROSS RE is a rectangle concrete box, the architectural team, Pross Design Group, put together a sleek color scheme and concrete reveal pattern within the exterior façade of the tilt wall panels. The corners of the building are painted a dark grey and include a cast in place brick pattern. The brick pattern can be seen in the picture on the right and gives the building a distinctive look, uncharacteristic of a typical concrete tilt wall warehouse. Mr. Gross also elected to include cantilevered aluminum sunshades that add the building's curb appeal.





The concrete slab was cleaned and the floors were sealed with MasterKure HD 300WB manufactured by BASF Products. Once cured, the sealer gave the Gross Warehouse the protection and final touch it needed.



### Timeliness of Completion

Mazanec Construction broke ground in June 2022 and turned the keys over to Taylor Gross in February 2023. Through the dedicated team at Mazanec Construction and the support of numerous Subcontractors, Mazanec Construction completed GROSS RE Warehouse, 170,000 square feet in less than 9 months.





