



Flores Consulting Services

3847 Westside Ave. | Los Angeles | CA 90008 | P: 323 481-1645 | natof2014@gmail.com

## Huntsman Chemicals – Huntsman West Plant Expansion and Process Modification

- Design Build of a new 44,000 SF H2 (hazardous occupancy) CMU building with a metal/lightweight concrete roof deck.
- In addition to the architect and subcontractors Flores Consulting Services, Inc. and Tower General Contractors supervised and coordinated the efforts of at least eleven engineering disciplines including; environmental, civil, structural, soils, process, controls, piping, fire, plumbing, HVAC and electrical engineering.
- Responsible for all aspects of the design from program development through end of construction and occupancy.
- Design of the new manufacturing processes and redesign of the existing.
- Securing all required entitlements.



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## Huntsman Chemicals - Huntsman West General Design Scope

- The normal aspects of plan check and permitting.
- Because the existing plant had grown organically since WWII production flow was not well organized. The scope including re-designing the production flow so that raw materials flowed from one central warehouse to the various production sites and then to the central packaging and shipping area.
- This also required the design and construction new loading docks for the existing raw materials warehouse that we had designed and constructed several years before as part of the master plan for the plant expansions.
- The expansion 44,000 SF building was constructed on an existing 5 acre plant site which required that we modify almost all aspects of the existing plant to accommodate the new building.
- The scope included upgrading the electrical power and the relocation of 5 DWP power poles



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## Huntsman Chemicals - Huntsman West The Project

- The design and installation of fire booster pumps among many other upgrades to the existing plant.
- We had to determine if the existing prime electrical/mechanical equipment had the capacity to support the plant expansion.
- In the case of the cooling towers and chillers we had to add additional cooling towers and chillers to support the additional production equipment.
- The area of construction was near the Los Angeles River. The water table was very high and the 118 friction piles all had to be cased and de-watered during their construction.
- The existing plant had to kept in operation during the entire duration of construction.



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## Huntsman Chemicals - Huntsman West The Project Overall Work Site of New Production Building





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## Huntsman Chemicals - Huntsman West The Project Friction Pile Re-Bar Cage





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## Huntsman Chemicals - Huntsman West The Project - Friction Casement





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## Huntsman West The Project – Drilling Cased Friction Pile





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## Huntsman West The Project – Typical Footing Forming w/Shoring





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## Huntsman Chemicals - Huntsman West The Project Typical Masonry Walls Under Construction





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## Huntsman Chemicals - Huntsman West Roof Steel Superstructure





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## Huntsman Chemicals - Huntsman West Masonry Complete NW View





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## Huntsman Chemicals - Huntsman West Masonry Complete SW View





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## Huntsman Chemicals - Huntsman West Steel Roof Beams





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## Huntsman Chemicals - Huntsman West Steel Roof Deck





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## Huntsman Chemicals - Huntsman West Roof Complete





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## Huntsman Chemicals - Huntsman West Typical Exhaust & Supply Ducting





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## Huntsman Chemicals - Huntsman West Typical Interior View





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## Huntsman Chemicals - Huntsman West Exterior Ducting/Dust Collector





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## Huntsman Chemicals - Huntsman West Interior Racks Being Erected





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## Huntsman Chemicals - Huntsman West Exterior Ducting/Dust Collector





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## Huntsman Chemicals - Huntsman West Process Chilled Water Heat Exchanger





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## Huntsman Chemicals - Huntsman West Fire Booster Pump System





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## Huntsman Chemicals - Huntsman West Distribution Panels & Transformers





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## Huntsman West The Project – Exterior North East View





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## Huntsman Chemicals - Huntsman West Exterior South East View

