

## Coppell Site Expansion – Krystal Tank Farm Pipe Routing

**Project: Krystal Tank Farm**

**Objective:**

- Starting Material Pipes – Route pipes from remote Tank Farm to existing building

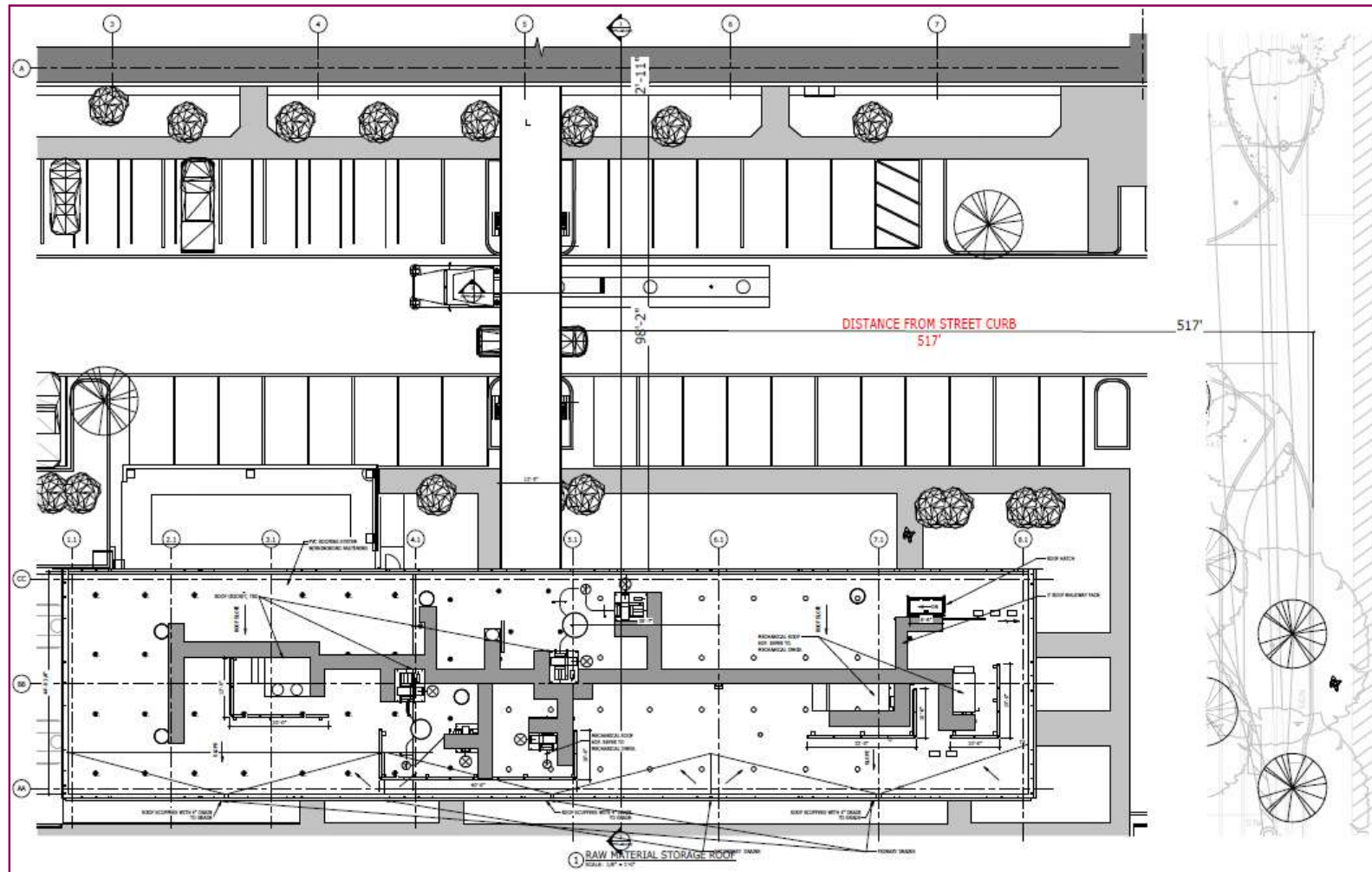
**Alternate Design Proposal:**

- Design an overhead 'Pipe Rack' to keep the pipe routing above the parking lot.

**Design Advantages:**

- Pipes would be accessible for maintenance and non-routine repairs.
- Pipe installation and construction would be less disruptive to existing manufacturing operations.
- Construction Schedule – Shorter timeline to complete construction and installation





## Coppell Site Expansion – Krystal Tank Farm Pipe Rack Design

### Pipe Rack Design Highlights

#### Safety Controls:

1. Pipe Rack Structural Support Columns
  - Safety Guard Railing that meets BSI PAS 13 guidelines will be installed around support columns
  - Support Columns will be installed in landscaped areas to eliminate exposure to traffic
  - 3' Base of Column will be encased in concrete
  - Deep foundations utilized to account for soil and ground movement
2. Wind / Load Rating: System will be designed with a wind rating of 120mph
3. Leak Detection: Enclosure will include a leak detection system
4. Automation and Controls: System will be designed to safely shutdown if low flow or leaks are detected
5. Signs: Pipe Rack will be labeled with Low Clearance / Max Height signs
6. Piping – Double-contained and fully welded with minimal mechanical joints

#### Miscellaneous Details:

1. Enclosure Exterior Walls: Walls will be designed to have same appearance as building
2. Pipe Rack External Dimensions: 12' – 5" W x 7' – 9" H
3. Pipe Rack Min / Max Height: 23.00' / 30.75'



## Coppell Site Expansion – Krystal Tank Farm Pipe Rack Cross Section

