

DESIGN NARRATIVE

Mechanical

PLUMBING

- The plumbing system will be designed in accordance with the latest edition of the International Plumbing Code.
- All plumbing fixtures will be low flow, water conservation type. The water closets will be limited to 1.6 gallons per flush. The lavatories will be provided with manual operated faucets limited to delivering .25 gallons.
- Domestic water piping will be PEX.
- Water piping below concrete slab will be PEX.
- Joints under slab will be prohibited.
- Water piping penetrating through the floor slab or other concrete, will be provided with a sleeve of similar material.
- Interior water piping above floor will be PEX.
- Sanitary sewer and vent piping systems will use ABS pipe and fittings for above and below ground installation. Gas piping will use schedule 40 steel pipe.

Restrooms

- Install floor mounted, pressure assisted, tank type toilets and countertop, oval sinks, and top mount lavatories with manual faucets.

Break room

- Provide a stainless-steel sink and faucet.

Janitor's Closet

- Installation of a mop sink in the janitor's closet along with a 30 gallon, 3kW electric
- Installation of a 30 gallon, 3kW Water heater located above the mop sink.

General Maintenance Shop

- Install a laundry sink and faucet with instant hot water.

Perimeter of Building

- Install hose bibs around the perimeter of the building.

MECHANICAL

- The mechanical system will to be designed in accordance with the latest edition of the International Mechanical Code.
- All ductwork shall be constructed per the SMACNA HVAC Duct Construction Standards.

HVAC office, Break Room, Restrooms, Plans Office, and Janitor Supplies

- In these areas, provide and install a single, 3-ton, ground mounted, gas/ electric air conditioning unit.
- Provide and install a programmable thermostat to be located in the break room to serve these areas.
- Install a ceiling type exhaust fan (87 watts) in each restroom and the break room. Fans to be controlled by light switch.

Wood Shop, and Paint Shop

- Provide and install a single, ground mounted evaporative cooler ducted into each space

as required.

- Provide and install an Evaporative cooler. Cooler will be a Celdek Media type cooler with a 12" thick pad similar to Master Cool (3/4hp fan motor with fractional hp pump motor).
- Provide and install separated combustion unit heaters. Heaters to be similar to Modine PDP 200.
- Install and provide Two heaters for the wood shop, one heater for the paint shop. Installation to include In-line exhaust fans for the wood shop and the paint shop.

Metal Shop, HVAC Shop, and Shipping/Receiving

- These areas will be provided by two, ground mounted evaporative coolers ducted into the spaces as required.
- Evaporative cooler will be a Celdek Media type coolers with a 12" thick pad similar to Master Cool (3/4hp fan motor with fractional hp pump motor).
- Heat will be provided by separated combustion unit heaters similar to Modine PDP 200.
- Two heaters will be provided for the metal shop, two heaters for the HVAC shop and one heater for shipping and receiving. Inline exhaust fan (1/4hp) will be provided for the metal shop and the HVAC shop.

General Storage, Plumbing Supplies, General Maintenance Supplies, General Maintenance Shop, and Small Tools

- These areas will be provided by four, ground mounted evaporative coolers ducted into the spaces as required.
- Evaporative cooler will be a Celdek Media type coolers with a 12" thick pad similar to Master Cool (3/4hp fan motor with fractional hp pump motor).
- Heat will be provided by separated combustion unit heaters similar to Modine PDP 200.
- Two heaters will be provided for the General Maintenance shop and one heater for each of the other areas. Inline exhaust fan (1/4hp) will be provided for the General Maintenance Shop.