* 1. Enthalpy Plate Heat Exchanger
     1. General specifications
        1. The air-to-air plate heat exchanger shall transfer both sensible and latent energy between the incoming fresh air stream and the exhaust stale air stream, manufactured by CORE Energy Recovery Solutions or approved equal, subject to compliance with requirements.
        2. The plate heat exchanger shall be in either a crossflow or counter crossflow orientation and have no moving parts.
        3. The plate heat exchanger shall be certified by AHRI under its Standard 1060 for Energy Recovery Ventilators. Products that are not currently AHRI certified will not be accepted.
        4. The enthalpy plate exchanger must be manufactured in North America.
        5. The enthalpy plate exchanger manufacturer must have at least ten (10) years of experience in the manufacturing of energy recovery components.
     2. Product Specifications
        1. The plate heat exchanger shall achieve the minimum effectiveness value as indicated in the schedule.
        2. The fresh air stream must have complete separation from the stale air stream to prevent cross contamination.
        3. The plate heat exchanger must be able to tolerate freezing temperatures of -30°C (-22°F) and not have an increase in EATR or decrease in performance after being frozen.
        4. The plate heat exchanger must be able to tolerate high temperatures of +60°C (140¬o F) and not have an increase in EATR or decrease in performance at these elevated temperatures.
        5. The plate heat exchanger must be freeze tolerant tested to 150 freeze thaw cycles from -20¬o C (-4¬o F) to +20o C (68¬o F) while maintaining the energy recovery effectiveness and EATR rating of less than 0.5%.
        6. The plate heat exchanger must be water washable to remove dust and contaminants
        7. The plate heat exchanger should have particulate filters positioned before the incoming air streams.
     3. Quality Assurance Specifications
        1. The plate heat exchanger shall have an Exhaust Air Transport Ratio of less than 0.5% as tested to AHRI 1060 (EATR) to prevent cross-over of gases, contaminants, or odors.
        2. The plate heat exchanger’s Outdoor Air Correction Factor (OACF) shall not exceed 1.0 as tested to AHRI 1060 (OACF) Standard.
        3. The plate heat exchanger shall not be degraded or promote the growth of mold and bacteria with a rating of zero in testing according to ISO846 A and C.
        4. The plate heat exchanger must be flame proof and comply with UL 723 with a flame spread index that shall not be over 25 and a smoke index that shall not be over 50.