

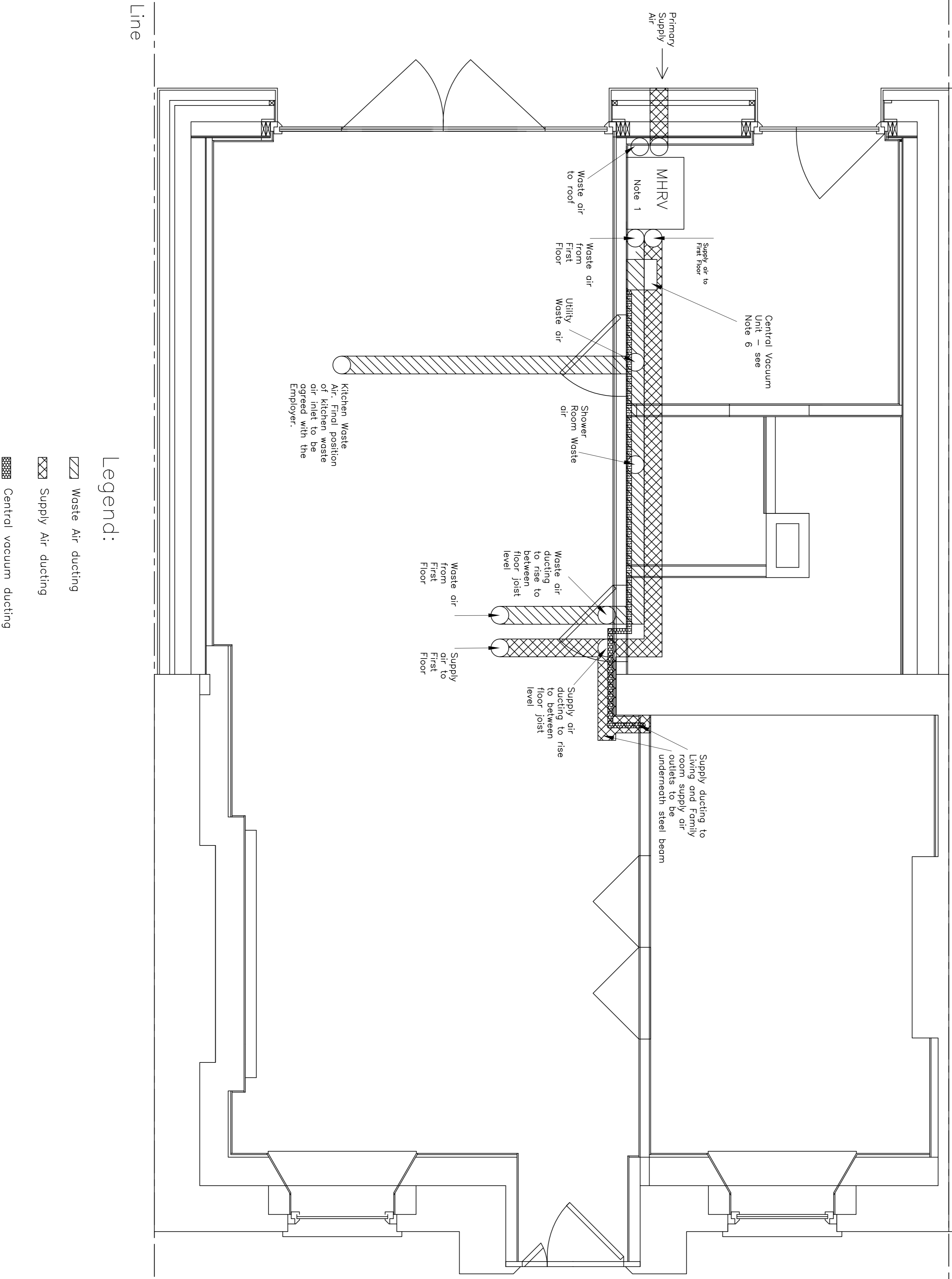
## 25 Inchicore Terrace North




Party Line

Party Line

Boundary Line

Boundary Line



- Legend:
-  Waste Air ducting
  -  Supply Air ducting
  -  Central vacuum ducting

Inchicore National School

### Notes:

Note 1: Contractor shall supply and install whole house mechanical heat recovery ventilation system (MHRV) from MTD Solutions Ltd, Blessington Co. Wicklow. MHRV system shall be MTD-ERV 300 with continuous airflow of 100-300m<sup>3</sup>/h between normal automatic mode and high speed combined with minimum 95% heat recovery efficiency. The Contractor shall provide to the Employer a certificate of efficiency tested in accordance with NEN 5128. MTD-ERV 300 shall be fitted with EU F7 filters on supply air and waste air. Unit shall be fitted with brushless DC EC motors, integrated thermostats and a primary humidistat. System shall be controlled by internal intelligent biorythmic control and automatic bypass of 65% or 100% and shall incorporate an intelligent defrost cycle. Unit shall have reversible handling module and water condensation drain. The mounting of the MHRV unit shall contain sound isolating features so that no vibrations or sounds shall be audible in Bedroom 3 or the Kitchen.

Note 2: MTD-ERV 300 system shall be installed using the Eco-Air semi flexible 5 core aluminium polyester composite thermally insulated ducting certified and fire tested to EN 13502-1 B-s1,d0. Primary ducts, i.e., the supply air duct from the exterior and the waste air duct to the exterior, to be Eco-Air 150mm diameter inner core with 25mm thermally insulated outer core of maximum thermal conductivity of 0.04 W/mk. Internal supply and waste air ducting shall be Eco-Air insulated flexible ducting and shall be sized by the installer (see note 3 below) to ensure that the total resistance of the supply air as well as the exhaust system does not exceed 160 Pascals at 300m<sup>3</sup>/hr. All mechanical fixing of ductwork to be stainless steel, aluminium or galvanised steel. The location of all extract and supply points shown are indicative only. All final locations shall be determined by the installer and agreed with the Employer. All ducting shall be installed in the manner that allows the most cost-effective and unintrusive concealment.

Note 3: The Contractor shall ensure that the MHRV system is installed by an installer who is registered with and trained by MTD Solutions Ltd. The registered installer shall be trained by MTD Solutions Ltd in fitting and correctly sizing the MTD-ERV 300 system and calculating pressure losses through the system. The Contractor shall ensure that the installer shall use calibrated equipment to measure supply and waste air flows and the Contractor shall issue to the Employer a certified commissioning certificate on completion of installation. The installation and commissioning shall be carried out in accordance with the MTD Solutions Ltd MTD-ERV 300 Installation & Maintenance Manual and MTD Solutions Ltd instructions. The Contractor shall ensure that the system is installed and commissioned in accordance with the room extract requirements of Part F of the Building Regulations. The maximum design air flow rate shall be set at 190m<sup>3</sup>/hr with settings of 1.0, 0.75 and 0.5 times the maximum design air flow rate.

Note 4: Diffusers and grilles on supply and waste air outlets/inlets to be white coloured enamelled steel with acoustic valve and sound attenuator.

Note 5: MHRV unit and position of future central vacuum unit shall be located as close to the underside of the first floor joists as possible.

Note 6: Ducting and wall connections for future central vacuum system (central vacuum unit to be supplied and installed by the Employer) to be supplied and installed by the Contractor. Ducting & 2 no. connections to be as supplied and required by Beam Vacuum & Ventilation Ltd (UK). Horizontal ducting shall pass immediately below the level of the first floor joists. Final position of wall connection in Family and Living rooms to be agreed with the Employer.

Note 7: All doors to have 10-15mm gap to the bottom – see Door & Window Schedule.

Note 8: All openings in masonry walls shall be supported with reinforced concrete lintels.

## Ground Floor Mechanical Layout

26 Inchicore Terrace North, Inchicore, Dublin 8.

Dwayne & Sandra McAleer (copyright Jan 2010)

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