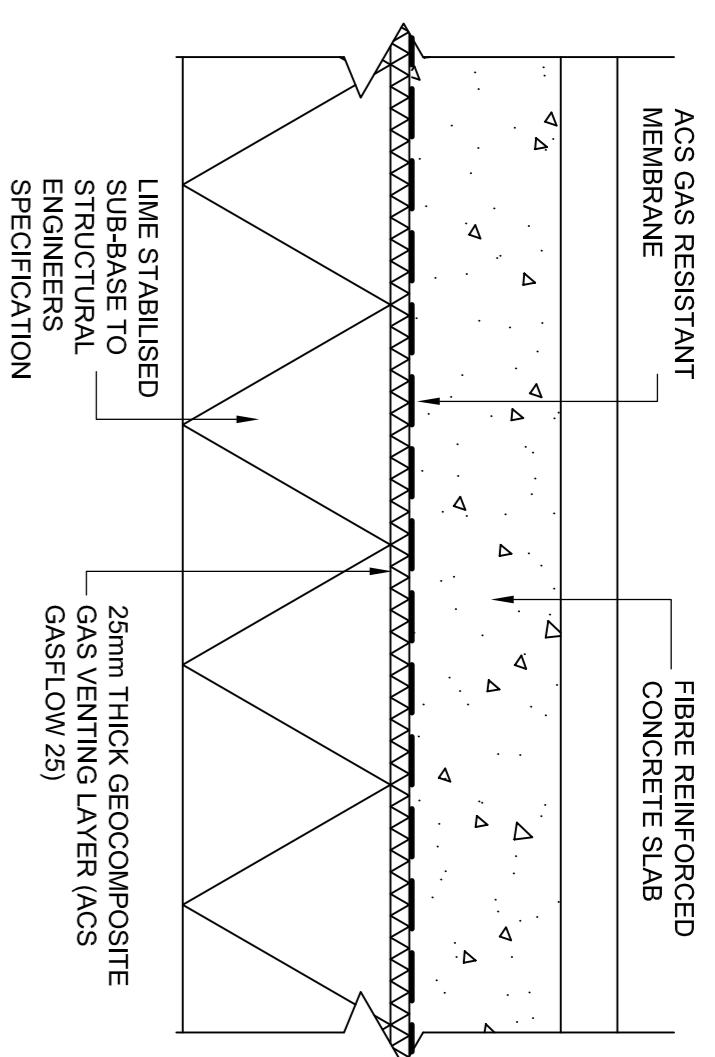
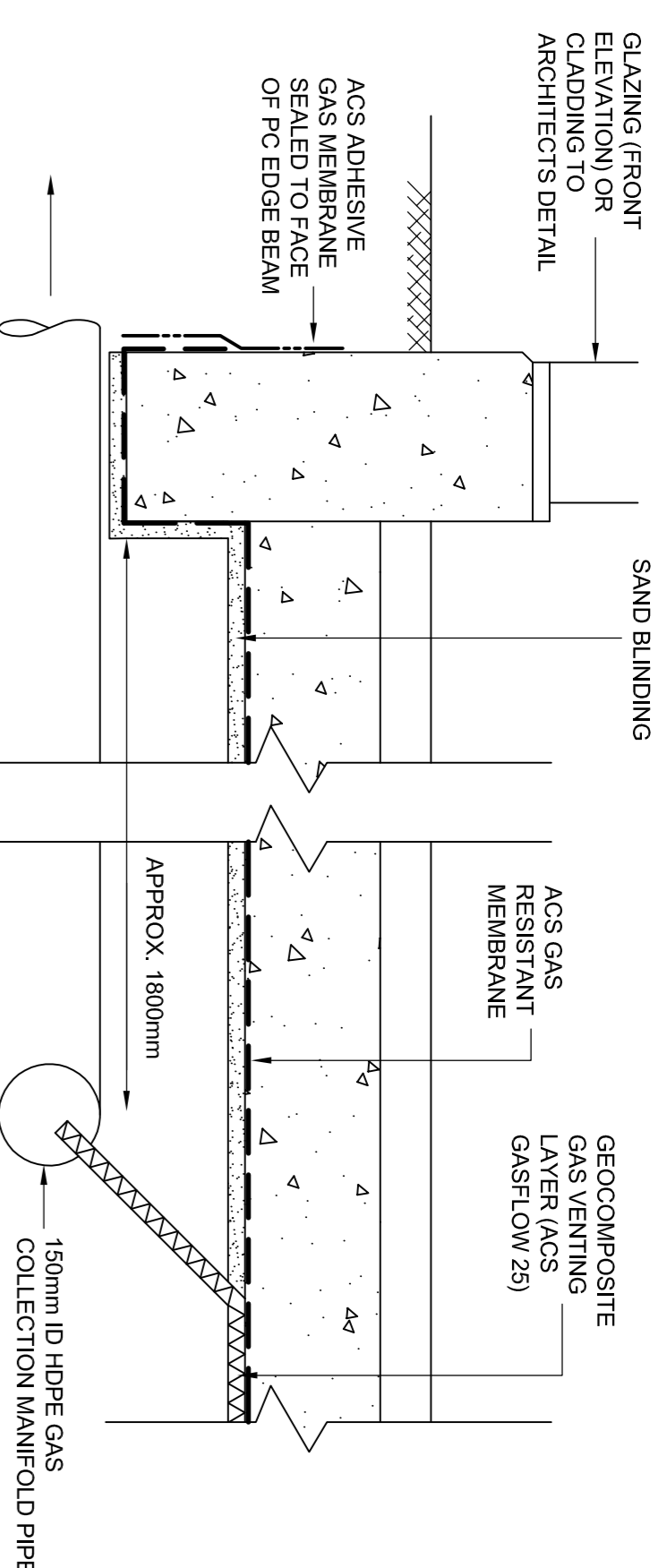


**SPECIFICATION FOR GAS PROTECTION MEASURES**

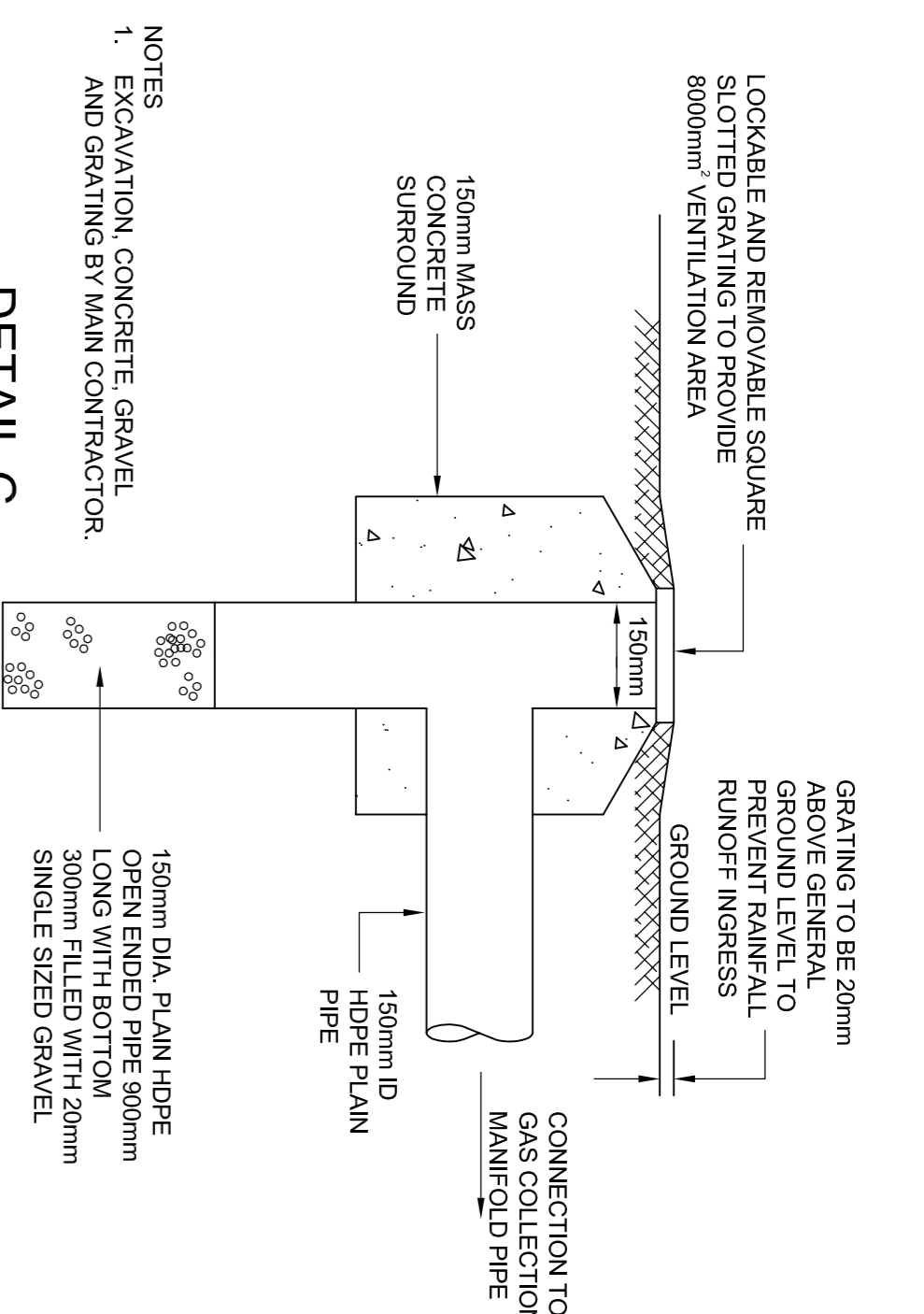
1. Membrane  
Gas resistant membrane to be high performance loose lay membrane containing 20 micron encapsulated aluminium core. Maximum methane permeability 1 x 10<sup>-10</sup> m<sup>3</sup> m<sup>2</sup> / m<sup>2</sup> s. (ACS Gas Resistant Membrane)
2. Installation and protection in accordance with manufacturers recommendations. Membrane to be laid on minimum 25mm blinding throughout except where laid directly above geocomposite gas venting layer.
3. Individual membrane sheets to be lapped minimum 100mm and sealed with 30mm wide proprietary butyl tape (ACS Butyl Sealant Tape).
4. All services and other penetrations to be sealed with self adhesive gas resistant membrane (ACS Adhesive Gas Membrane).
5. Geocomposite Gas Venting Layer  
Geocomposite to comprise single sided 25mm thick cusped high density polyethylene core with high permeability geotextile fabric bonded to core dimples (ACS Gasflow 25).
6. Core to have a minimum 13mm equivalent clear void and a minimum crushing strength of 100kN/m<sup>2</sup>.
7. Geocomposite venting layer to entire building footprint with connectors to 150mm diameter high density polyethylene gas collection manifold pipe along the two long sides of the building.  
**Att Vents**  
Ground level vent boxes (VB) to be provided to front elevation at nominal 3000mm centres. Vent boxes to be locally repositioned around door openings etc.  
High level vent pipes extending to 500mm above eaves level fitted with wind aspirated cowls (ACS Cowl R250) to rear elevation (allow 10No.).



**DETAIL A**  
TYPICAL SLAB SECTION  
SCALE - 1:10

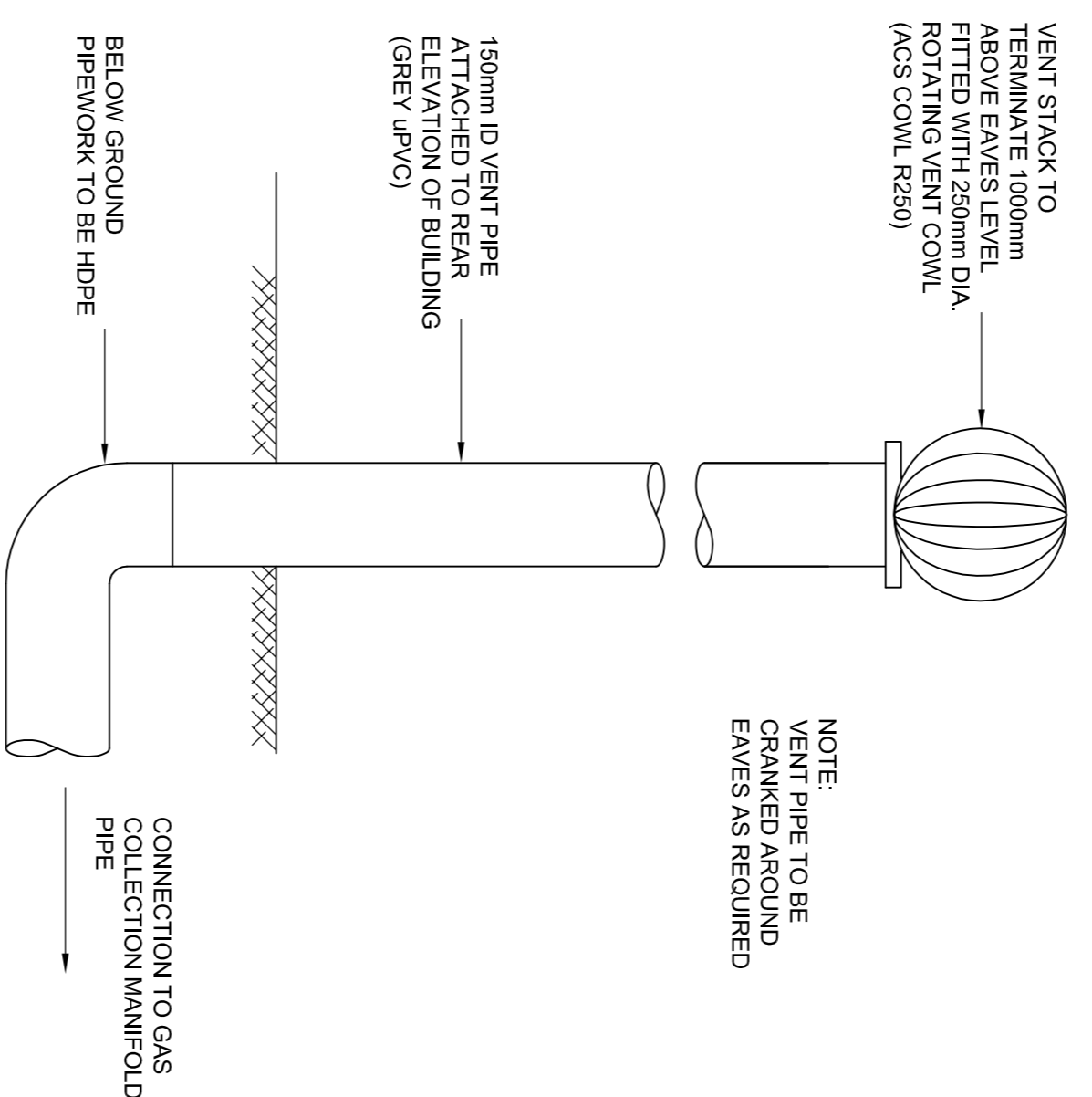


**DETAIL B**  
TYPICAL PERIMETER SECTION  
SCALE - 1:10

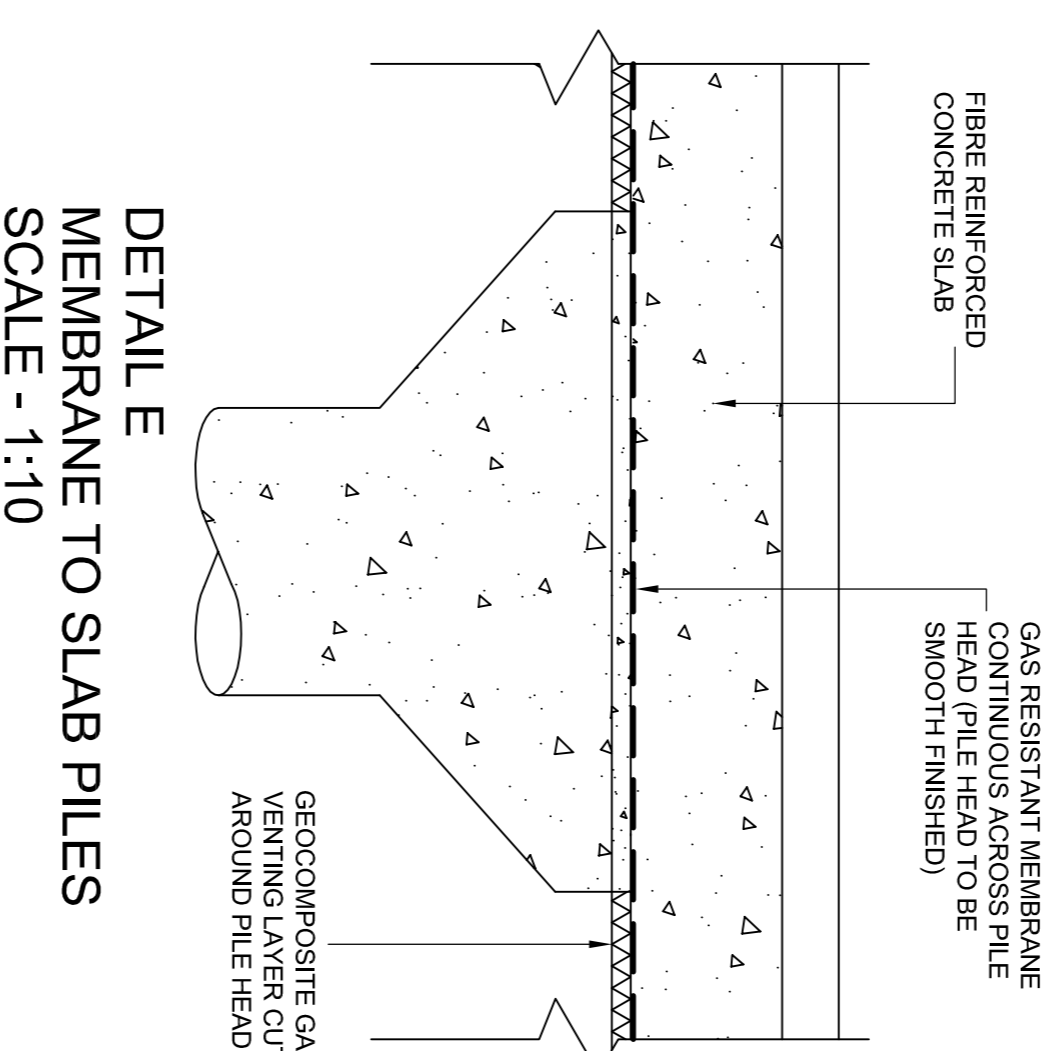


**DETAIL C**  
TYPICAL GROUND LEVEL VENT BOX (VB)  
SCALE - 1:10

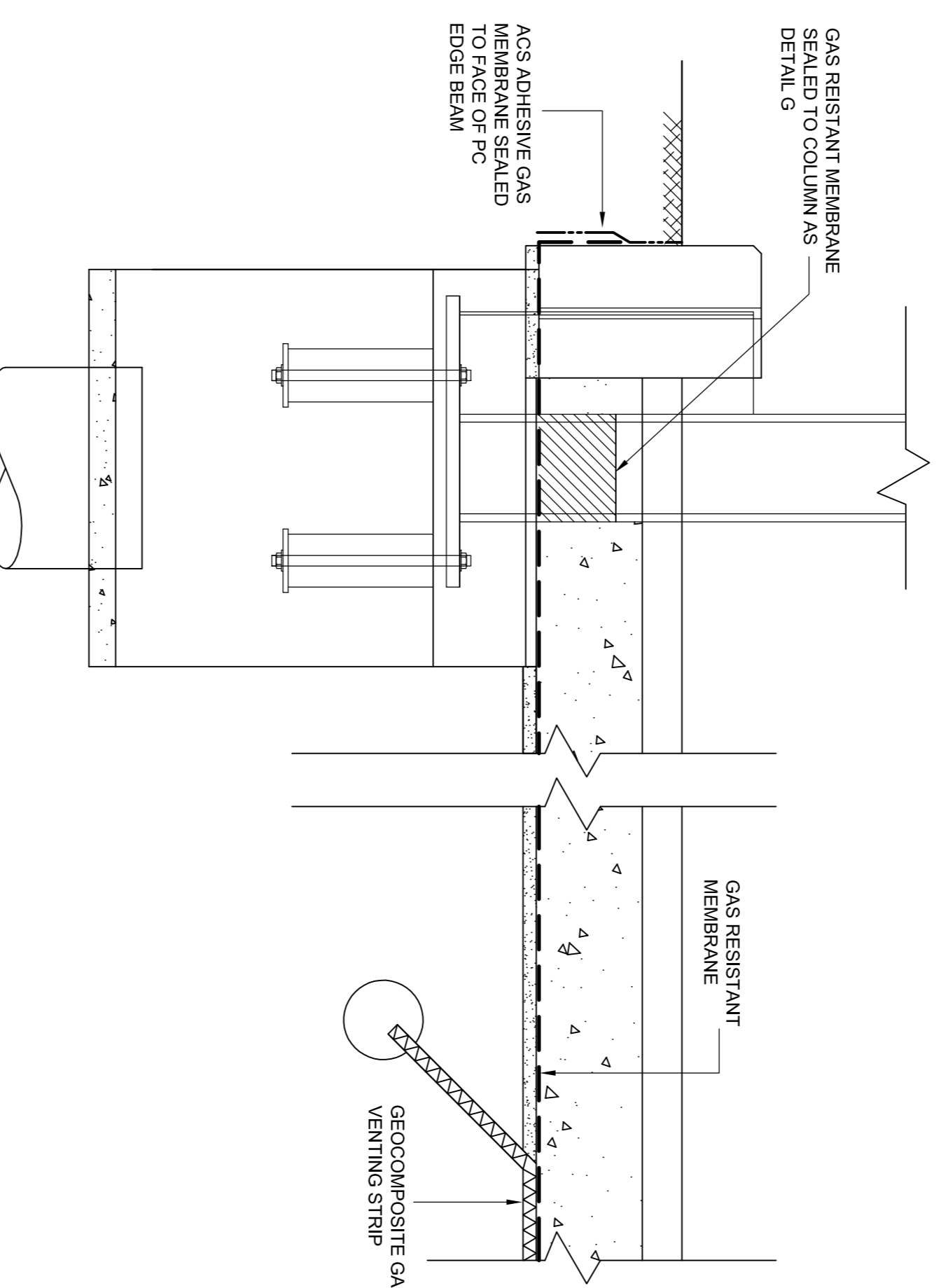
- NOTES**
1. EXCAVATION CONCRETE GRAVEL AND GRATING BY MAIN CONTRACTOR.
  2. 150mm DIA. FLAN-HDPE OPEN ENDED PIPE 900mm LONG WITH BOTTOM 300mm FILLED WITH 20mm SINGLE SIZED GRAVEL.



**DETAIL D**  
AIR OUTLET VENT (AOV)  
SCALE - 1:10

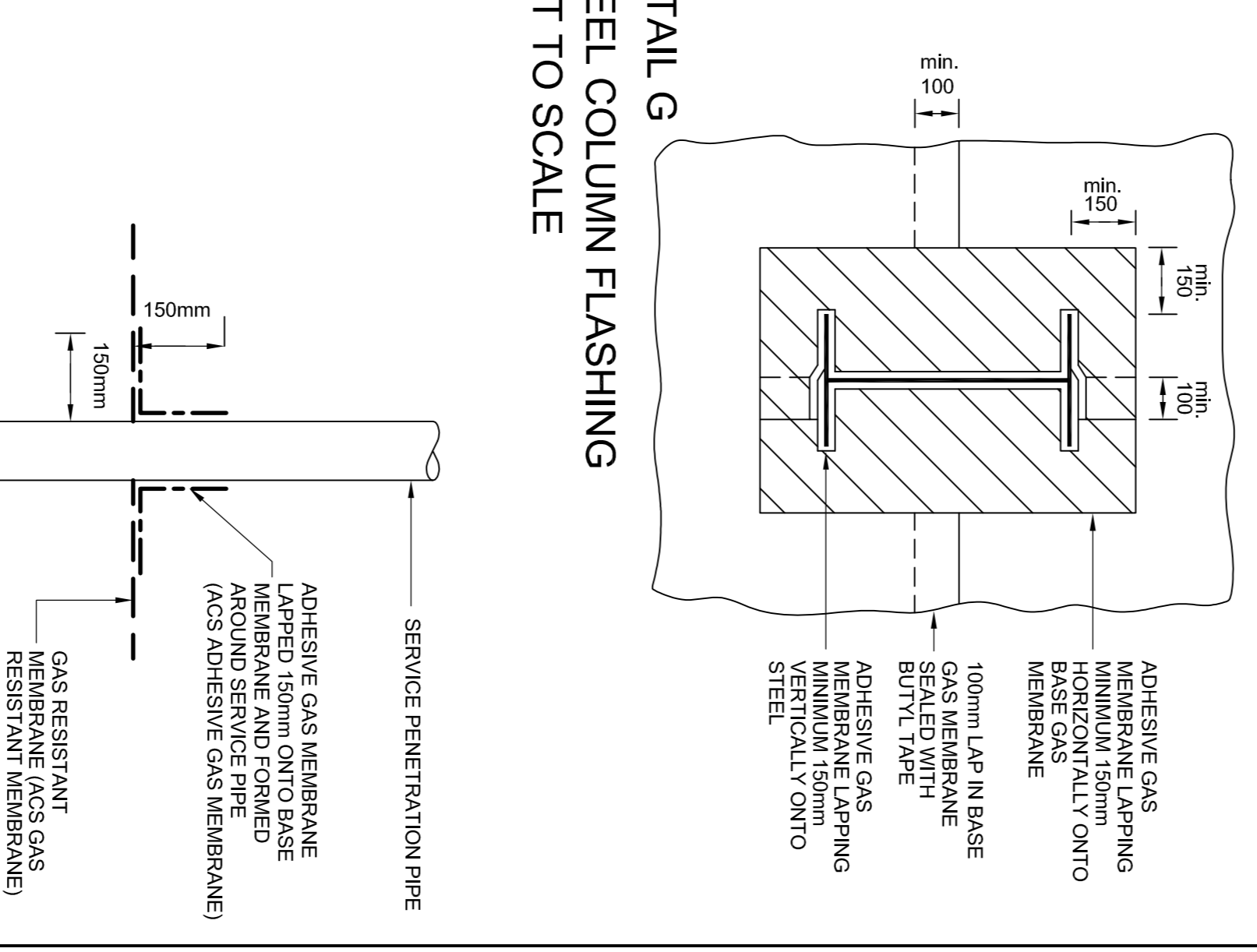


**DETAIL E**  
MEMBRANE TO SLAB PILES  
SCALE - 1:10

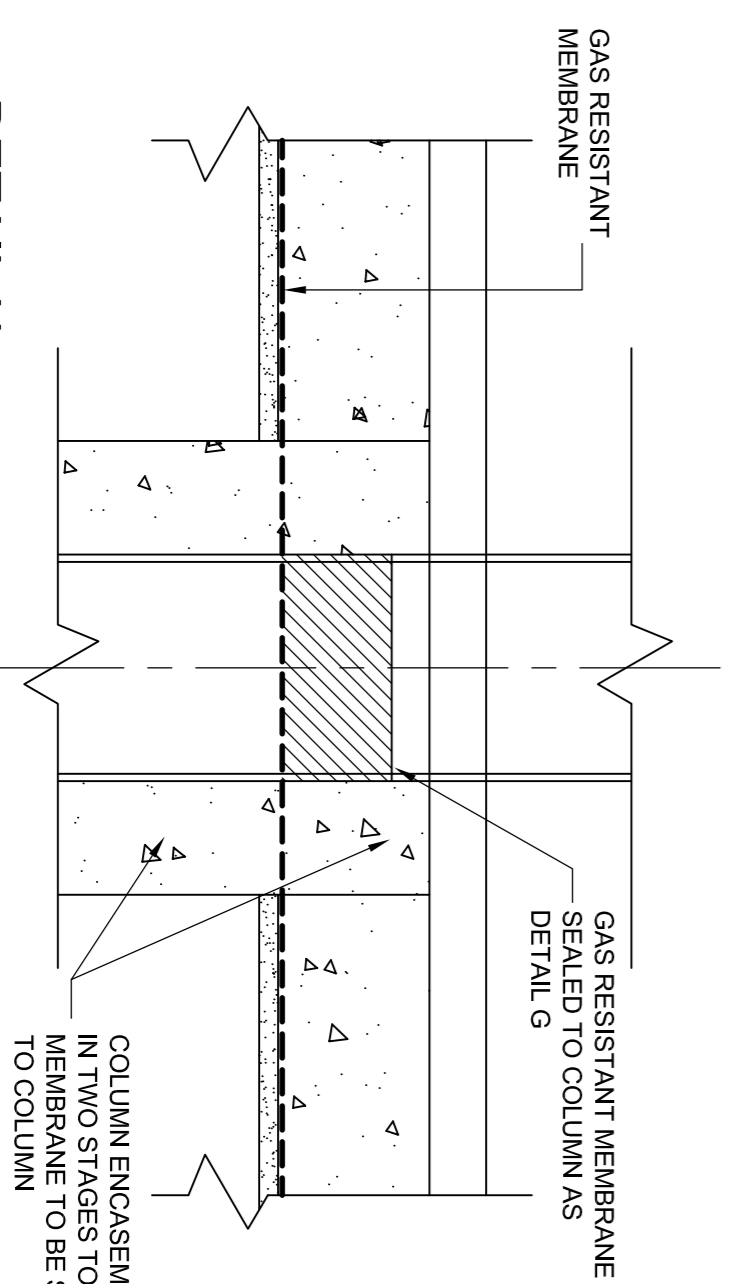


**DETAIL F**  
TYPICAL PERIMETER SECTION (AT COLUMN)  
SCALE - 1:10

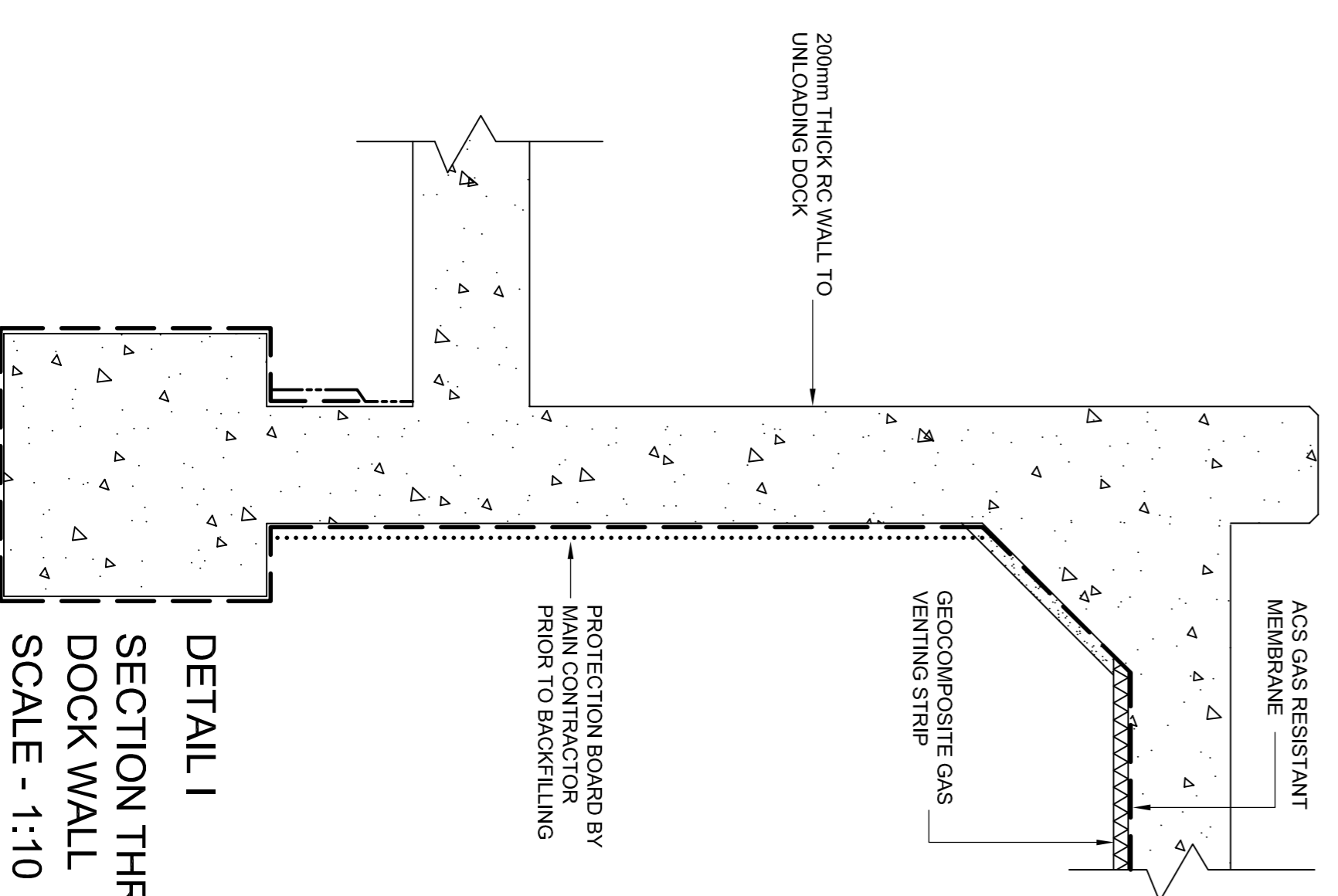
**DETAIL G**  
STEEL COLUMN FLASHING  
NOT TO SCALE



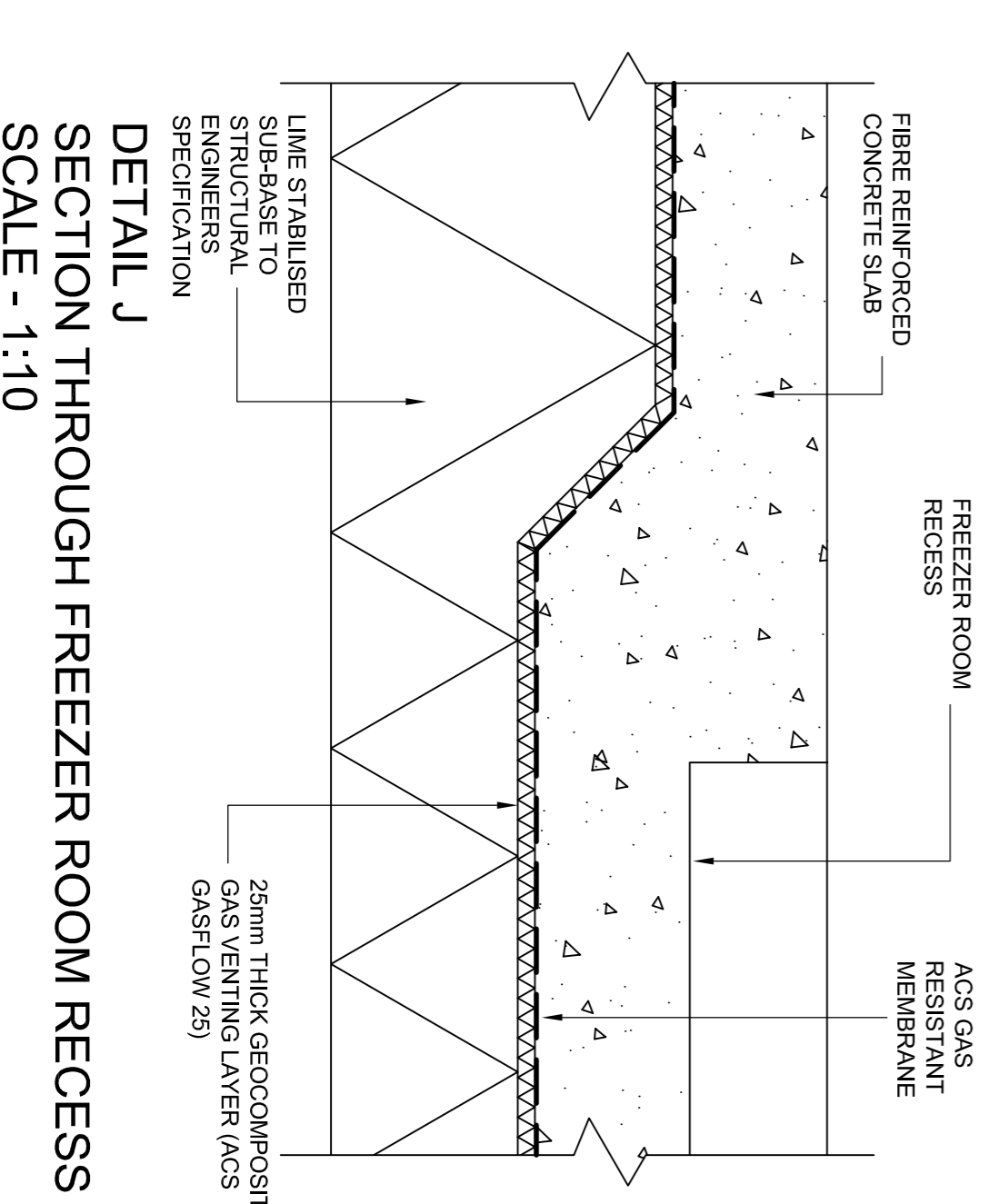
**DETAIL K**  
SEAL TO PIPE PENETRATION  
NOT TO SCALE



**DETAIL H**  
TYPICAL COLUMN ENCASUREMENT SECTION  
SCALE - 1:10



**DETAIL I**  
SECTION THROUGH UNLOADING DOCK WALL  
SCALE - 1:10



**DETAIL J**  
SECTION THROUGH FREEZER ROOM RECESS  
SCALE - 1:10

**CONSTRUCTION STATUS**

REVISION	DESCRIPTION	CHECKED	APPROVED	DATE
A	Minor amendments			22/05/02

CLIENT	R & G CARTER	TITLE	GAS PROTECTION MEASURES (STORE DETAIL(S))
DESIGNED BY	FRANCESCO STORE	DRAWN BY	SAHRB
CHECKED BY	GREAT VARIOLUHL	APPROVED BY	HDS
DATE	APRIL 2002	SCALE	AS SHOWN

**SPLMAN ASSOCIATES**

Geotechnical & Environmental Engineers

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APRIL 2002

REF

J02024

AS SHOWN

J02024/02