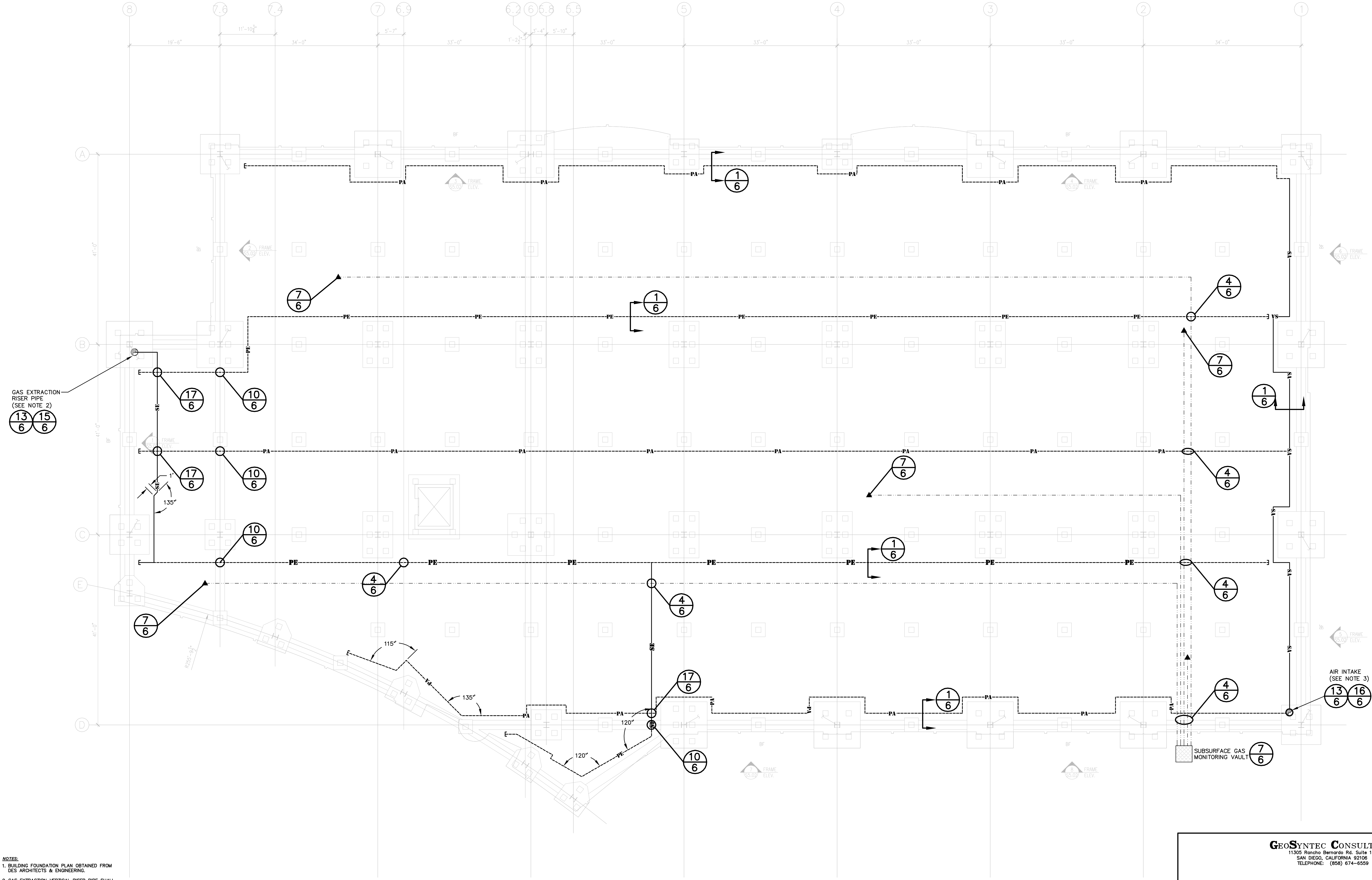
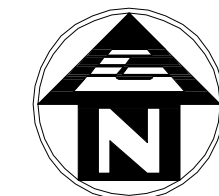




- NOTES:
- BUILDING FOUNDATION PLAN OBTAINED FROM DES ARCHITECTS & ENGINEERING.
 - GAS EXTRACTION VERTICAL RISER PIPE SHALL EXTEND A MINIMUM OF 2 FEET ABOVE ROOF LINE, CONTAIN A WIND DRIVEN ROTARY TURBINE VENTILATOR, AND BE PLACED A MINIMUM OF 10 FEET FROM HVAC INLETS OR BUILDING OPENINGS.
 - AIR INLET VERTICAL RISER SHALL BE INSTALLED A MINIMUM OF 10 FEET ABOVE GRADE OR HVAC INLETS AND OPENINGS.
 - UTILITIES WHICH PENETRATE THE BUILDING SLAB SHOULD BE CONSTRUCTED AS SHOWN ON DETAIL 19 SHEET 6.
 - A SUBSURFACE TRENCH CUT OFF SHOULD BE CONSTRUCTED FOR UTILITIES ENTERING THE ENCLOSED PORTIONS OF THE BUILDING AS SHOWN ON DETAIL 9 SHEET 6.

LEGEND

- PA-----PERFORATED AIR INLET PIPE 2" DIA. SCH40 PVC
PE-----PERFORATED GAS EXTRACTION PIPE 2" DIA. SCH40 PVC
SA-----SOLID WALL AIR INLET PIPE 2" DIA. SCH40 PVC
SE-----SOLID WALL GAS EXTRACTION PIPE 2" DIA. SCH40 PVC
-----GAS MONITORING PIPE 1/2" DIA. SCH80 PVC
▲ SUBSURFACE GAS MONITORING POINT
8/6-----DETAIL NUMBER SHEET WHERE DETAIL SHOWN



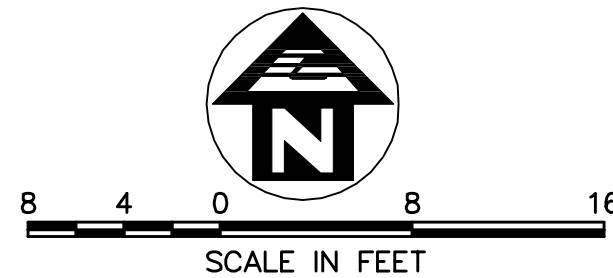
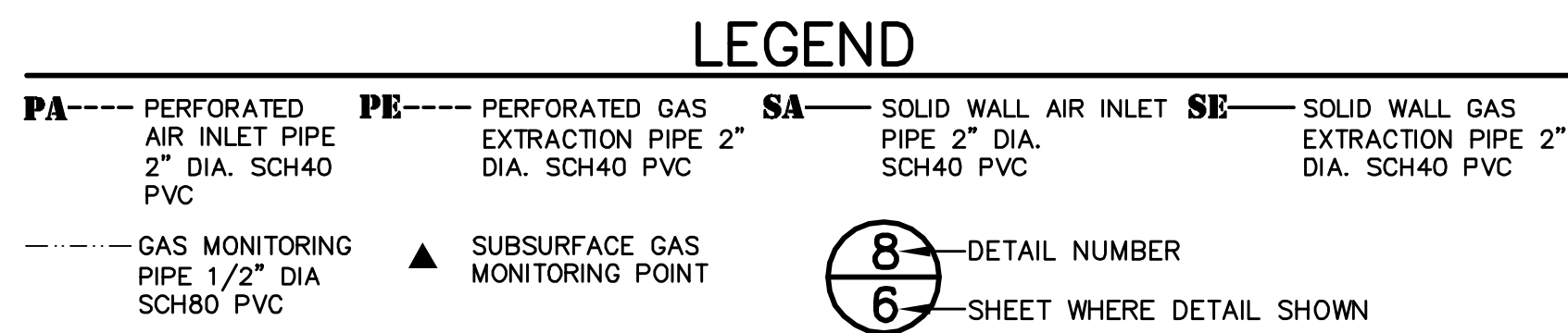
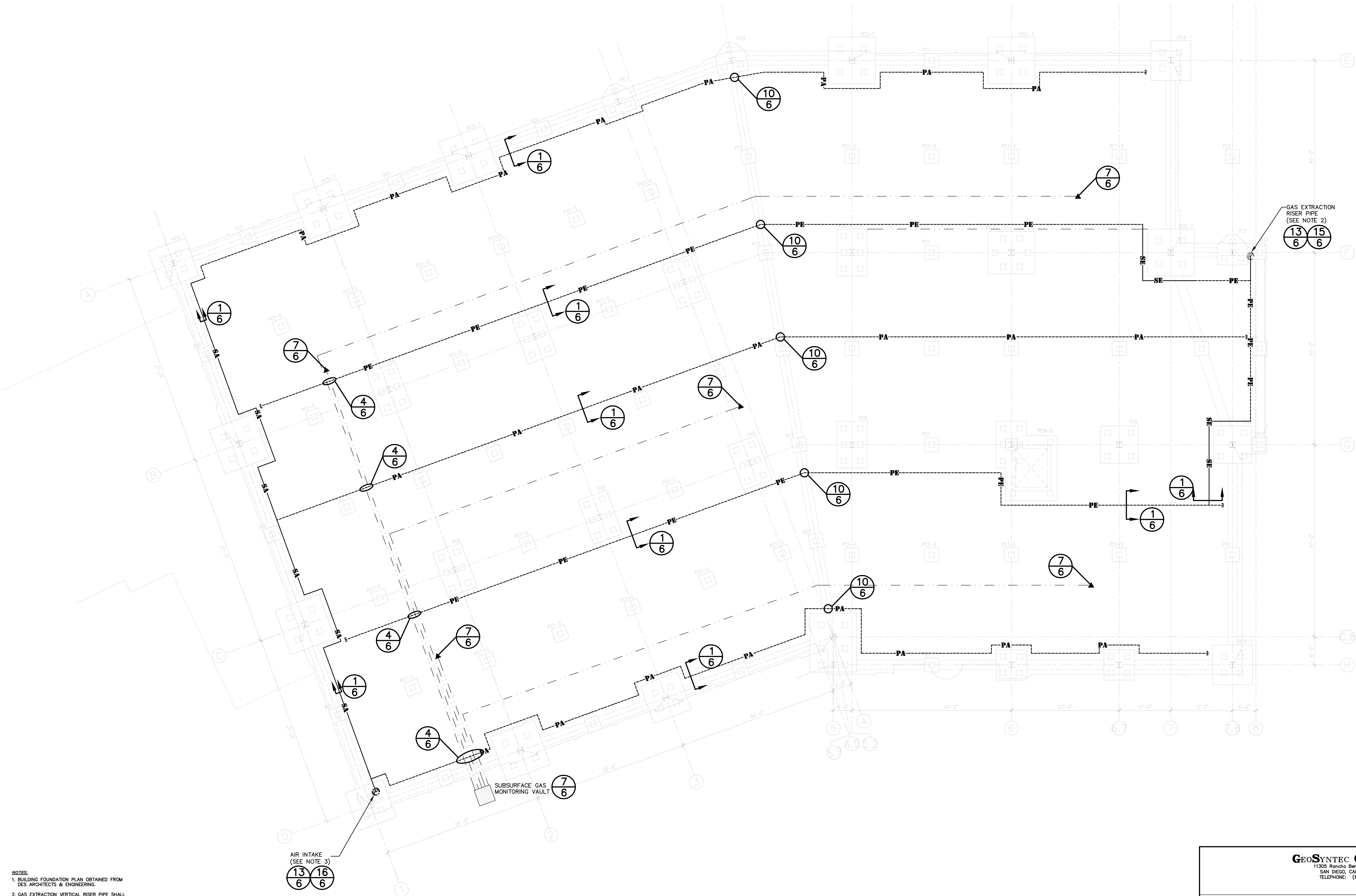
SCALE IN FEET
8 4 0 8 16

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11305 Rancho Bernardo Rd. Suite 101
SAN DIEGO, CALIFORNIA 92106
TELEPHONE: (858) 674-6559

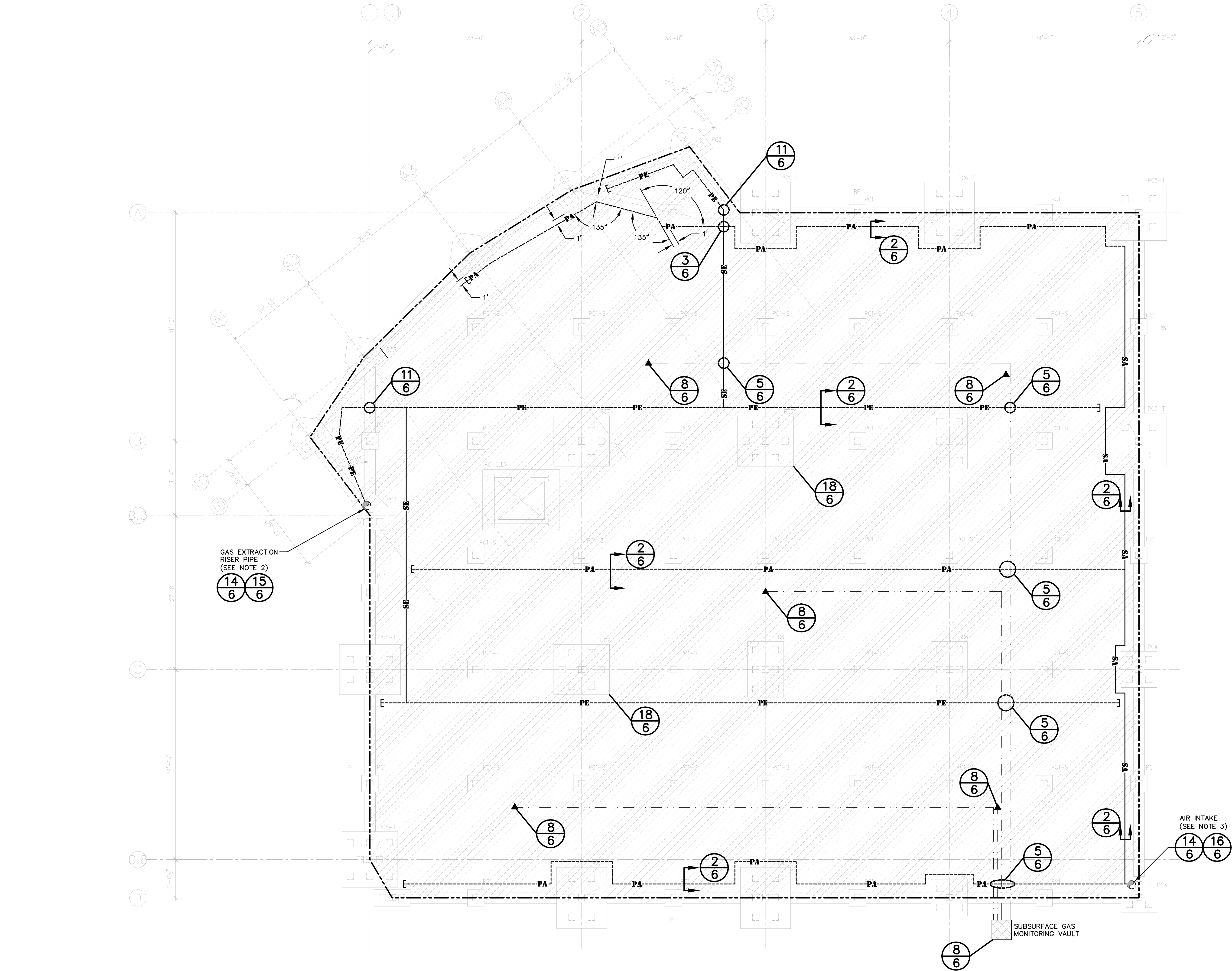


PROJECT:		BRITANNIA EAST GRAND-PHASE II	
		SOUTH SAN FRANCISCO, CALIFORNIA	
TITLE:		BUILDING 7	
		GAS MONITORING SYSTEM LAYOUT PLAN	
MARK	DATE	REVISION	BY
			APPROVED
		DATE: DECEMBER 2005	SCALE: AS SHOWN
		DESIGN BY: S.F.	JOB NO.: SC0347-01
		DRAWN BY: T.L.Z.	FILE NO.:
		CHECKED BY: G.T.C.	DOCUMENT NO.:
		REVIEWED BY: G.T.C.	DRAWING NO.:
APPROVED BY: (PRINCIPAL)		3 OF 6	

- NOTES:
1. BUILDING FOUNDATION PLAN OBTAINED FROM DES ARCHITECTS & ENGINEERING.
 2. GAS EXTRACTION VERTICAL RISER PIPE SHALL EXTEND A MINIMUM OF 2 FEET ABOVE ROOF LINE, CONTAIN A WIND DRIVEN ROTARY TURBINE VENTILATOR, AND BE PLACED A MINIMUM OF 10 FEET FROM HVAC INLETS OR BUILDING OPENINGS.
 3. AIR INLET VERTICAL RISER SHALL BE INSTALLED A MINIMUM OF 10 FEET ABOVE GRADE OR HVAC INLETS AND OPENINGS.
 4. UTILITIES WHICH PENETRATE THE BUILDING SLAB SHOULD BE CONSTRUCTED AS SHOWN ON DETAIL 19 SHEET 6.
 5. A SUBSURFACE TRENCH CUT OFF SHOULD BE CONSTRUCTED FOR UTILITIES ENTERING THE ENCLOSED PORTIONS OF THE BUILDING AS SHOWN ON DETAIL 9 SHEET 6.



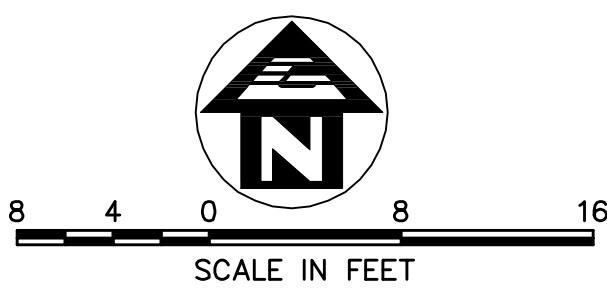
GeoSYNTEC CONSULTANTS 11305 Rancho Bernardo Rd. Suite 101 SAN DIEGO, CALIFORNIA 92127 TELEPHONE: (658) 674-6559			
PROJECT: BRITANNIA EAST GRAND-PHASE II SOUTH SAN FRANCISCO, CALIFORNIA			
TITLE: BUILDING 8 GAS MONITORING SYSTEM LAYOUT PLAN			
MARK	DATE	REVISION	BY APPROVED
DATE: DECEMBER 2005		SCALE: AS SHOWN	
DESIGN BY: S.F.	JOB NO.: SC0347-01		
DRAWN BY: T.L.Z.	FILE NO:		
CHECKED BY: G.T.C.	DOCUMENT NO:		
REVIEWED BY: G.T.C.	DRAWING NO:		
APPROVED BY: (PRINCIPAL)	4 OF 6		



- NOTES:**
- BUILDING FOUNDATION PLAN OBTAINED FROM DES ARCHITECTS & ENGINEERING.
 - GAS EXTRACTION VERTICAL RISER PIPE SHALL EXTEND A MINIMUM OF 2 FEET ABOVE ROOF LINE, CONTAIN A WIND DRIVEN ROTARY TURBINE VENTILATOR, AND BE PLACED A MINIMUM OF 10 FEET FROM HVAC INLETS OR BUILDING OPENINGS.
 - AIR INLET VERTICAL RISER SHALL BE INSTALLED A MINIMUM OF 10 FEET ABOVE GRADE OR HVAC INLETS AND OPENINGS.
 - UTILITIES WHICH PENETRATE THE BUILDING SLAB SHOULD BE CONSTRUCTED AS SHOWN ON DETAIL 19 SHEET 6.
 - A SUBSURFACE TRENCH CUT OFF SHOULD BE CONSTRUCTED FOR UTILITIES ENTERING THE ENCLOSED PORTIONS OF THE BUILDING (I.E. AREAS WITH GEOMEMBRANE GAS BARRIER) AS SHOWN ON DETAIL 9 SHEET 6.

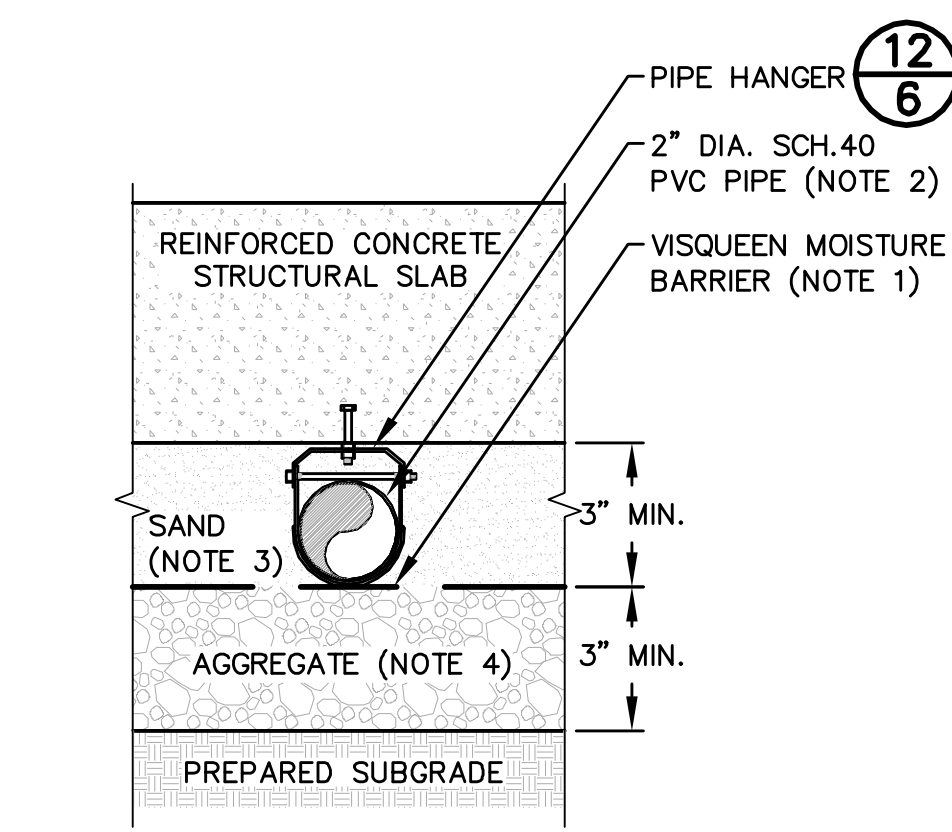
LEGEND

PA----- PERFORATED AIR INLET PIPE 2" DIA. SCH40 PVC	PE----- PERFORATED GAS EXTRACTION PIPE 2" DIA. SCH40 PVC	SA----- SOLID WALL AIR INLET PIPE 2" DIA. SCH40 PVC	SE----- SOLID WALL GAS EXTRACTION PIPE 2" DIA. SCH40 PVC	8/6----- DETAIL NUMBER SHEET WHERE DETAIL SHOWN
----- GAS MONITORING PIPE 1/2" DIA SCH80 PVC	▲ SUBSURFACE GAS MONITORING POINT	LIMITS OF GEOMEMBRANE GAS BARRIER		

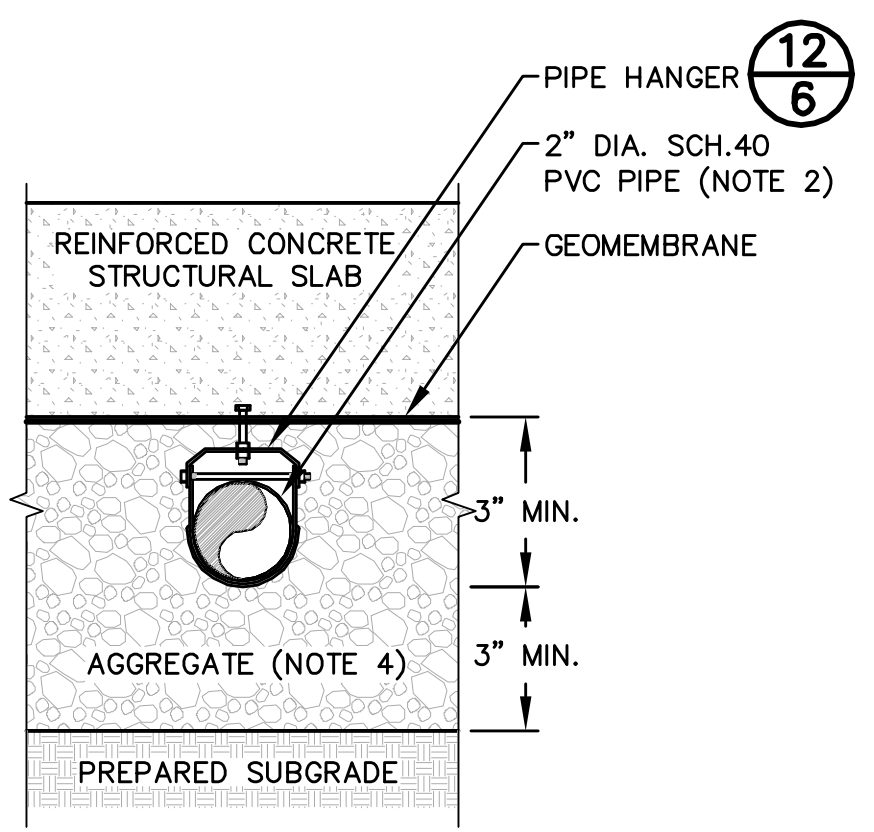


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TELEPHONE: (858) 674-6559

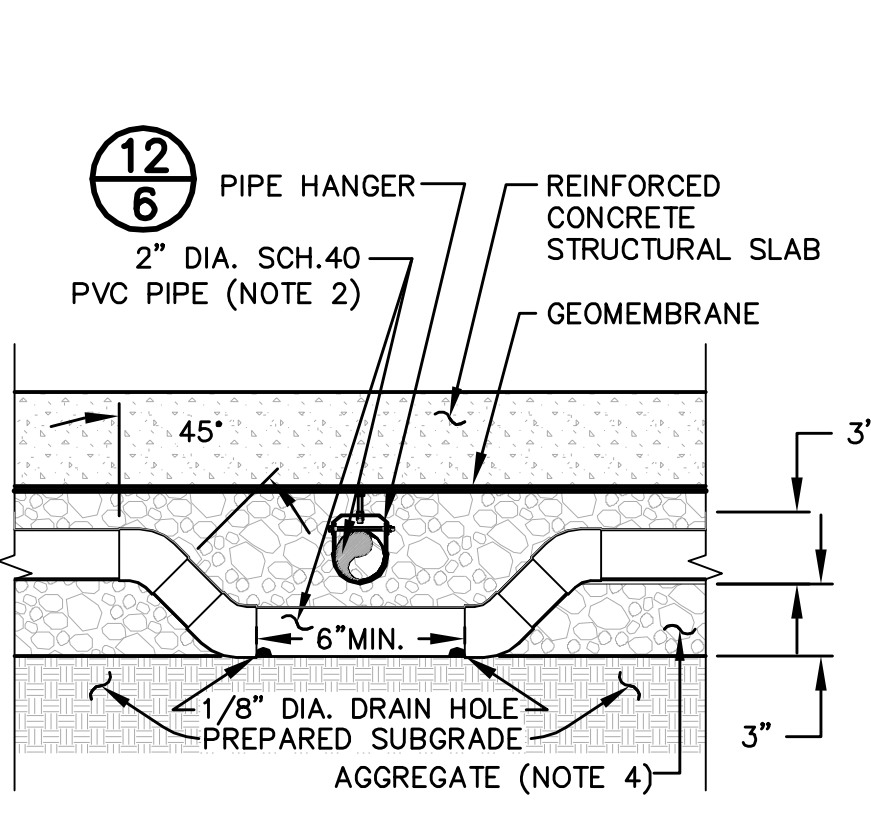
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TITLE:		BUILDING 9 GAS MONITORING SYSTEM LAYOUT PLAN		
MARK	DATE	REVISION	BY	APPROVED
		DATE: DECEMBER 2005	SCALE: AS SHOWN	
		DESIGN BY: S.F.	JOB NO.: SC0347-01	
		DRAWN BY: T.L.Z.	FILE NO:	
		CHECKED BY: G.T.C.	DOCUMENT NO:	
		REVIEWED BY: G.T.C.	DRAWING NO:	
		APPROVED BY: (P&C/PAL)	5 OF 6	



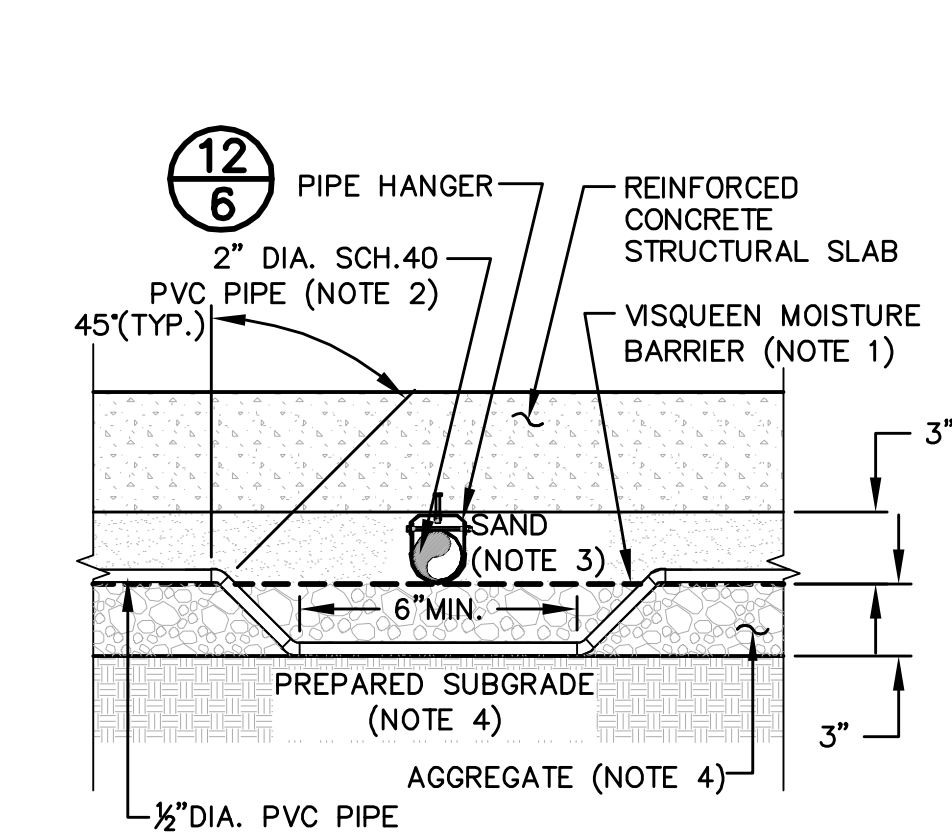
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1-4 SECTION
GAS EXTRACTION SYSTEM
N.T.S.



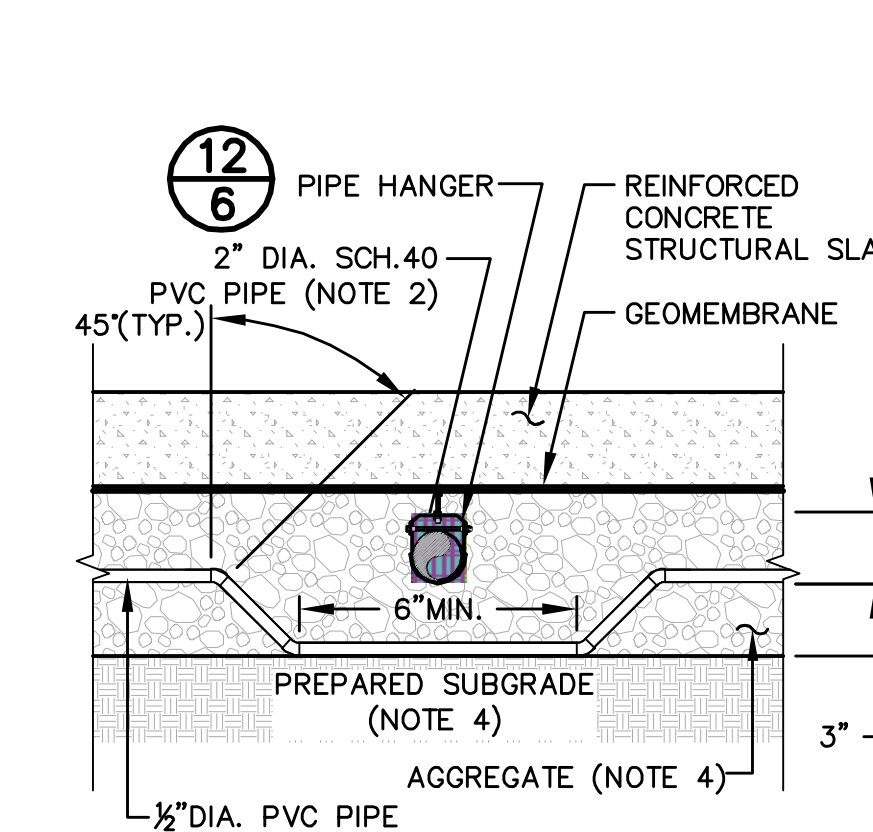
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1.5 SECTION
GAS EXTRACTION SYSTEM
N.T.S.



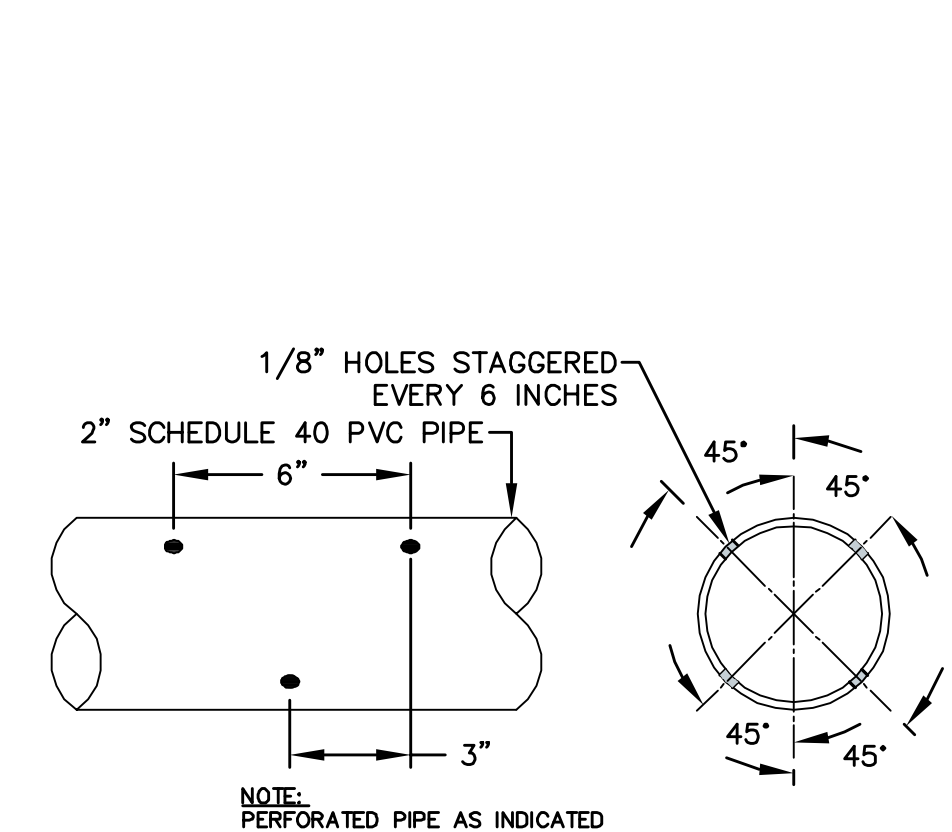
3
1.5 SECTION
PVC PIPE CROSSING
N.T.S.



4
2-4 SECTION
GAS EXTRACTION SYSTEM
N.T.S.



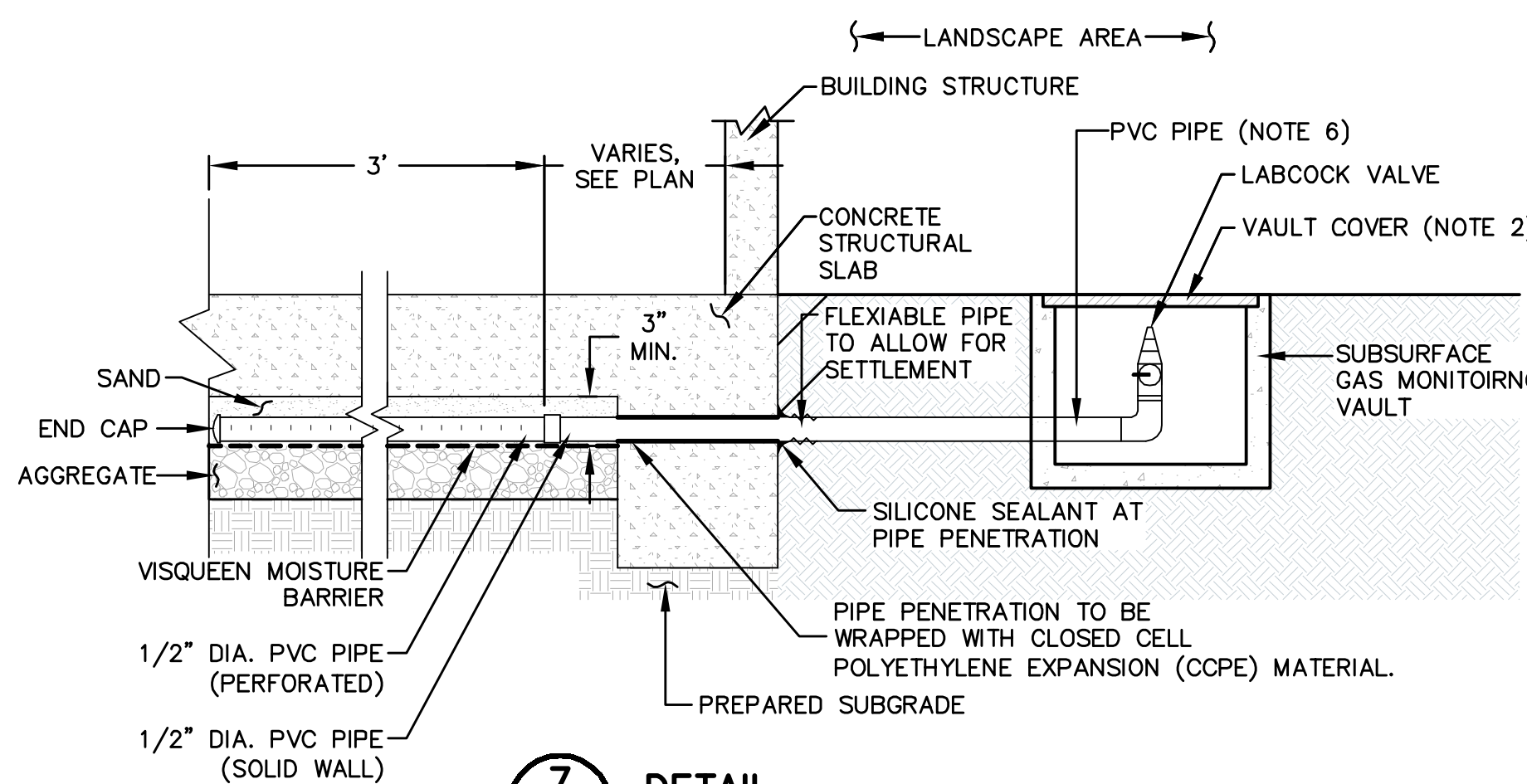
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1.5 SECTION
GAS EXTRACTION SYSTEM
N.T.S.



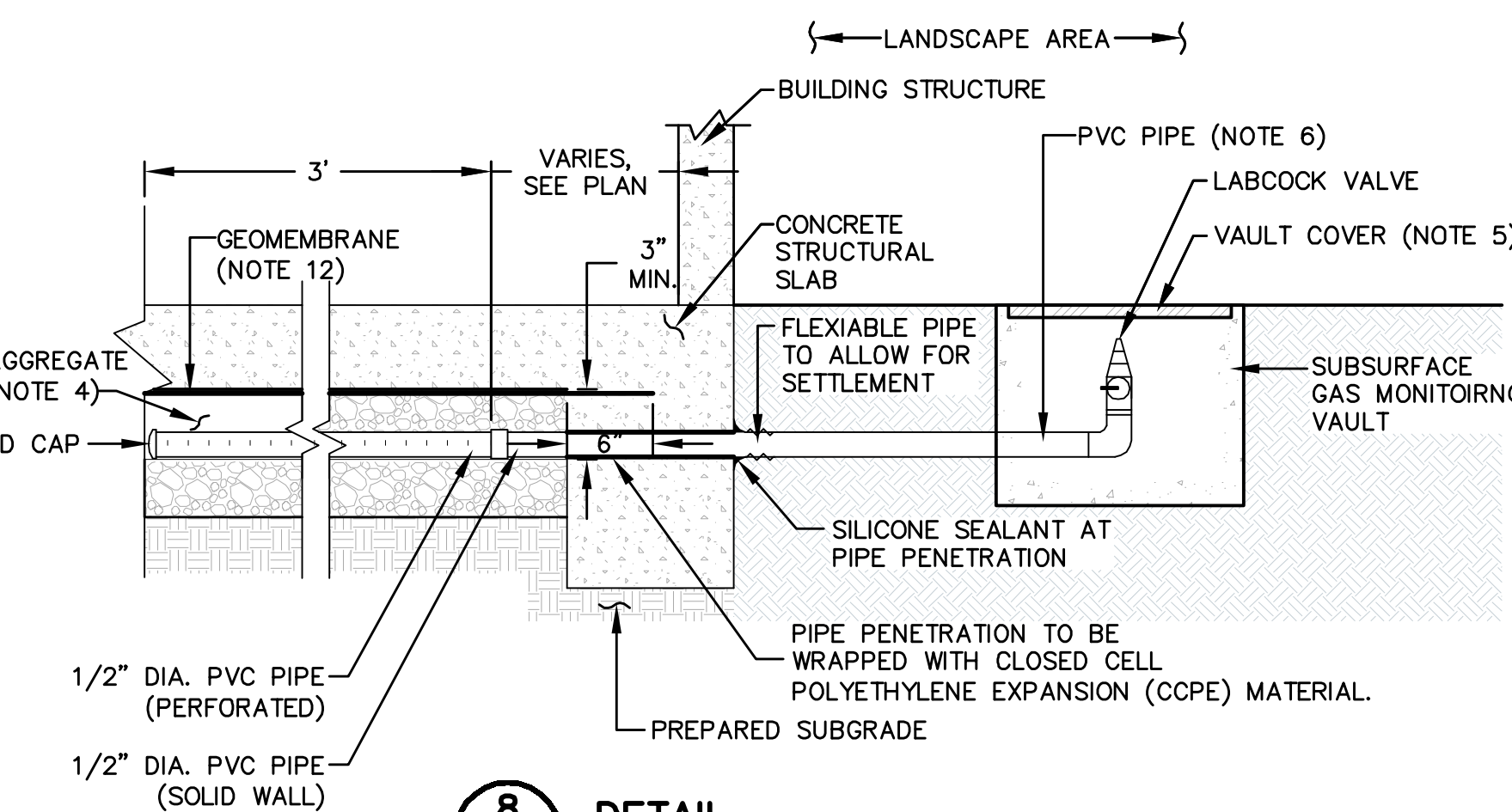
6
6 SECTION
PERFORATED PVC PIPE
N.T.S.

- NOTES:**
1. MOISTURE BARRIER TO BE INSTALLED FOR CONCRETE CURING PURPOSES IN ACCORDANCE WITH STRUCTURAL ENGINEERING DESIGN.
 2. PIPE HANGERS MAY BE REQUIRED IF GEOTECHNICAL ENGINEER ANTICIPATES SETTLEMENT OF SOIL BENEATH STRUCTURAL SLAB.
 3. SAND SHALL MEET THE REQUIREMENTS FOR PORTLAND CEMENT CONCRETE (SSPWC 200-1.5.5), OR MEDIUM OR FINE SCREENINGS (SSPWC 200-1.2.1)
 4. AGGREGATE SHALL MEET REQUIREMENTS SPECIFIED IN ASTM C33 FOR #8 AGGREGATE UNLESS OTHERWISE NOTED IN THE GEOTECHNICAL INVESTIGATION REPORT FOR THE PROJECT.
 5. VAULT SHALL HAVE A WATER-TIGHT, TRAFFIC RATED COVER.
 6. PVC PIPE AND FITTINGS SHALL BE JOINED BY THREADED CONNECTIONS AND/OR STAINLESS STEEL, SELF-TAPPING SCREWS WITHIN THE GAS MONITORING VAULT. NO SOLVENTS WILL BE ALLOWED.
 7. PIPE HANGER SPACING, 8 FEET ALONG SOLID WALL PIPE AND 10 FEET ALONG PERFORATED PIPE.
 8. SLURRY SHALL CONSIST OF 2-SACK CEMENT SLURRY WITH 2 PERCENT BENTONITE.
 9. SETTLEMENT BOX PER STRUCTURAL ENGINEER'S RECOMMENDATION.
 10. IF NO SETTLEMENT BOX IS REQUIRED PER STRUCTURAL ENGINEER'S RECOMMENDATIONS, THEN TRENCH DAM WILL ABUT BUILDING GRADE BEAM.
 11. DRY UTILITIES PENETRATING THE STRUCTURAL SLAB SHALL HAVE THE ANNULUS OF THE CONDUIT SEALED USING 1" THICK DOW SILICONE SEALANT. SEALANT LOCATION TO BE AT FIRST CONDUIT JOINT WITHIN STRUCTURE.
 12. GEOMEMBRANE SHALL EXTEND A MINIMUM OF 6 INCHES ONTO PERIMETER GRADE BEAMS AT LIMIT OF GEOMEMBRANE.
 13. GEOMEMBRANE SHALL EXTEND TO LIMITS SHOWN ON SHEETS 1 AND 5 AT PILE CAPS ALONG LIMIT OF GEOMEMBRANE.

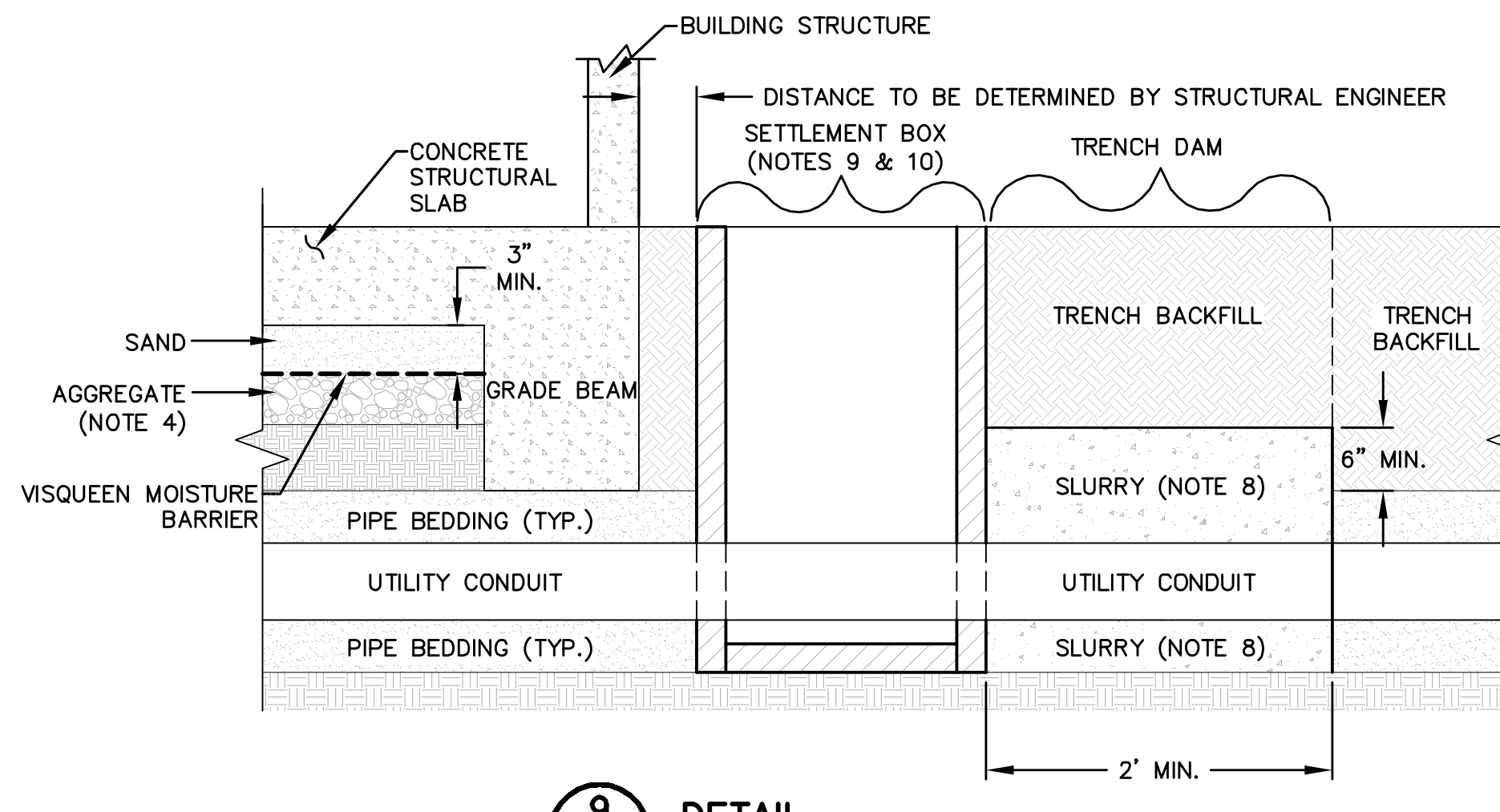
12
6 ———— DETAIL NUMBER
SHEET(S) WHERE DETAIL APPLIES



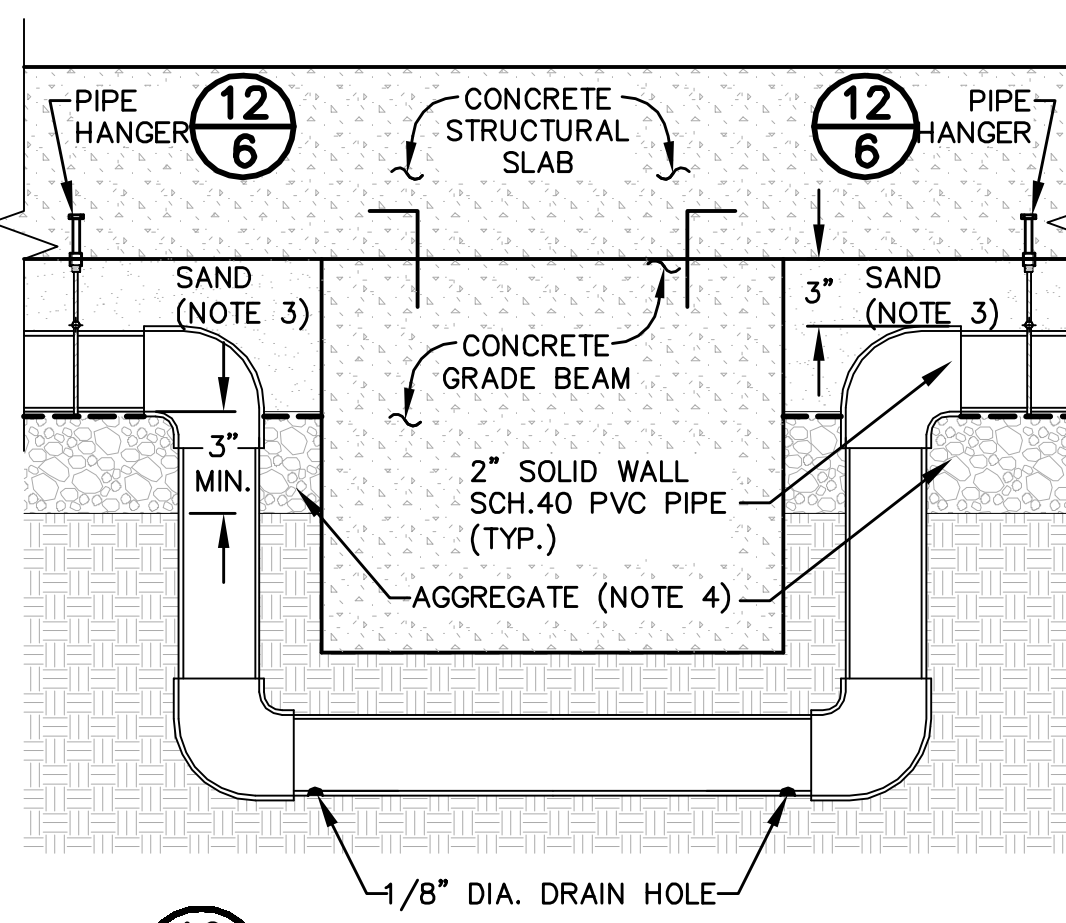
7
2-4 DETAIL
METHANE MONITORING PROBE
N.T.S.



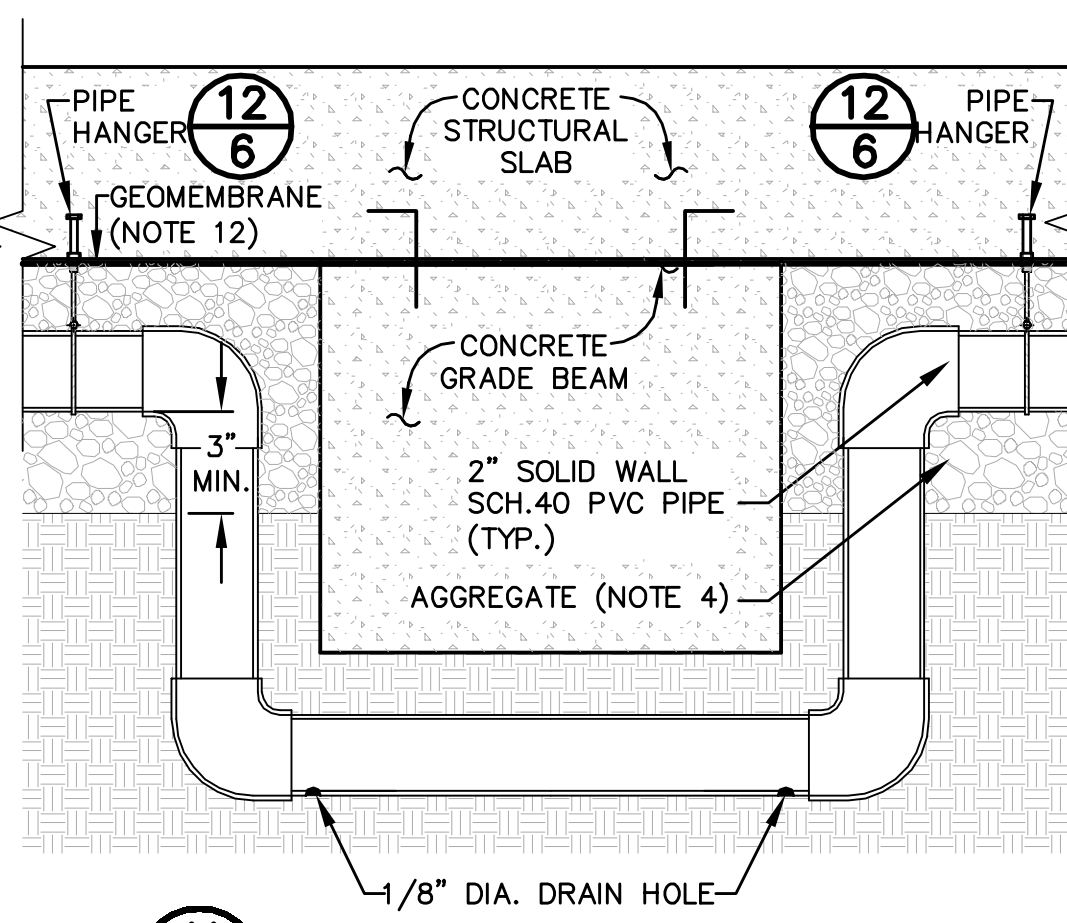
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1.5 DETAIL
METHANE MONITORING PROBE
N.T.S.



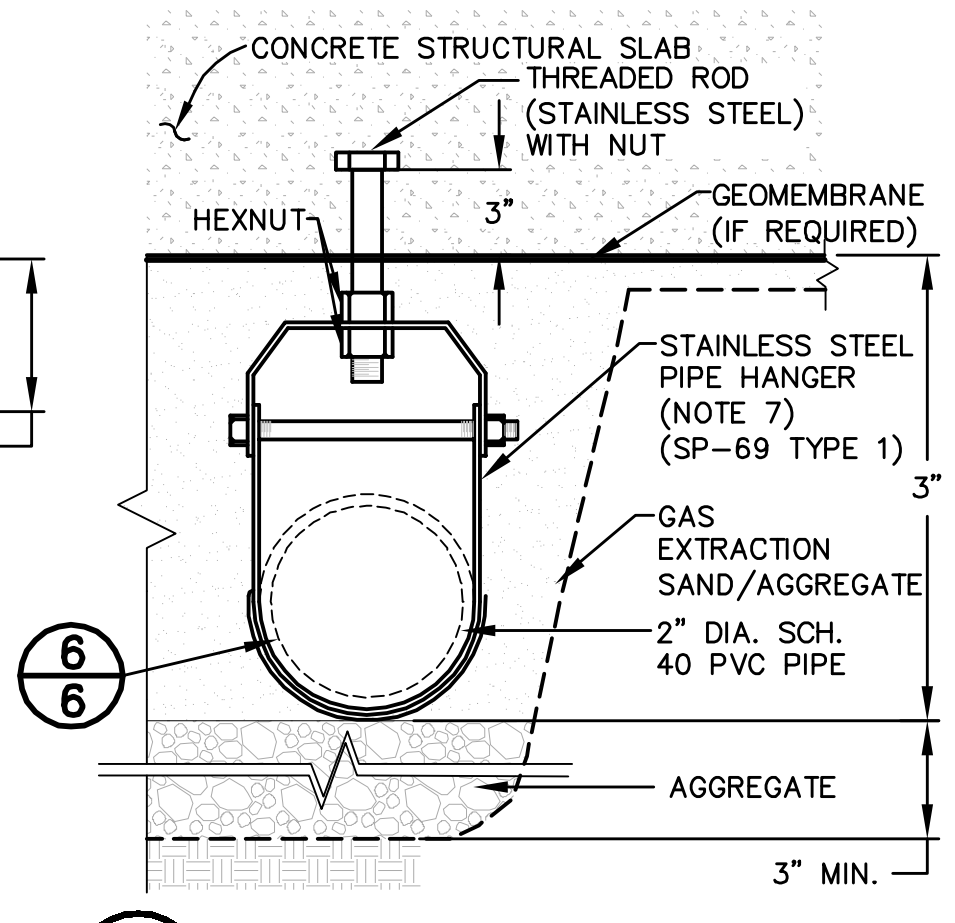
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1-5 DETAIL
SUBSURFACE TRENCH CUT OFF
N.T.S.



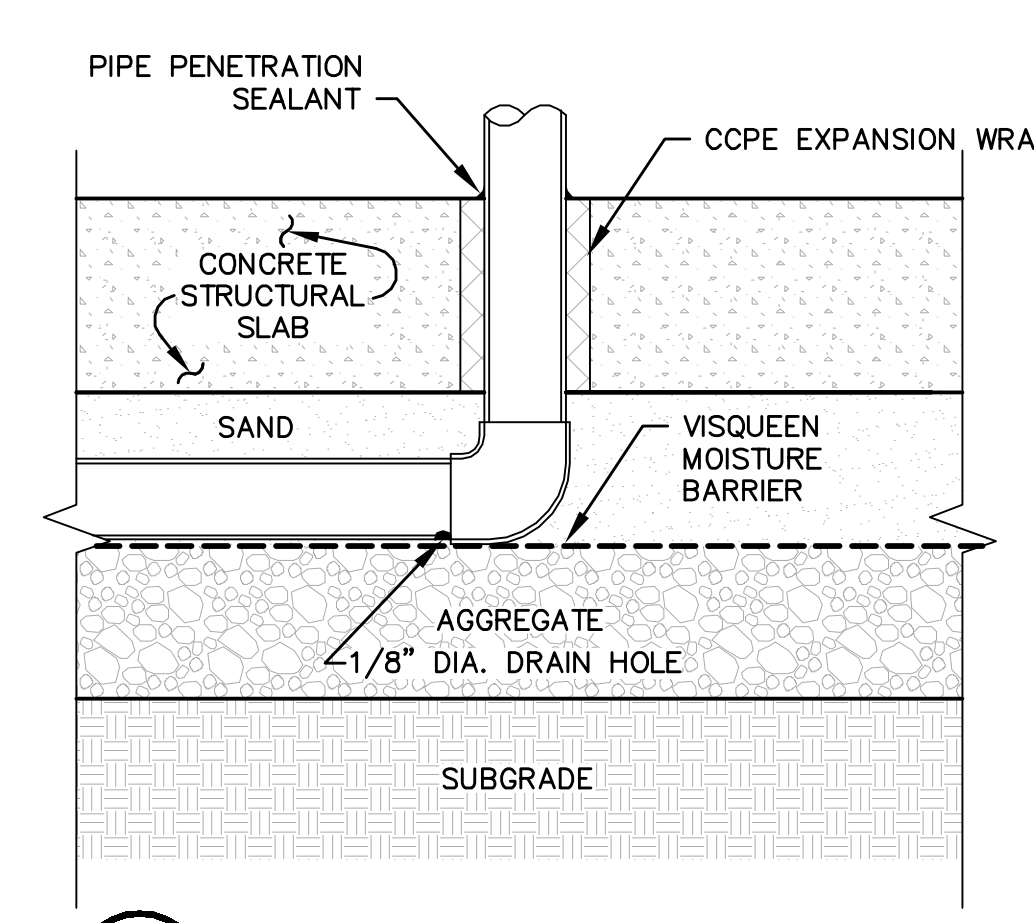
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2-4 SECTION
PIPE CROSSING AT
GRADE BEAM
N.T.S.



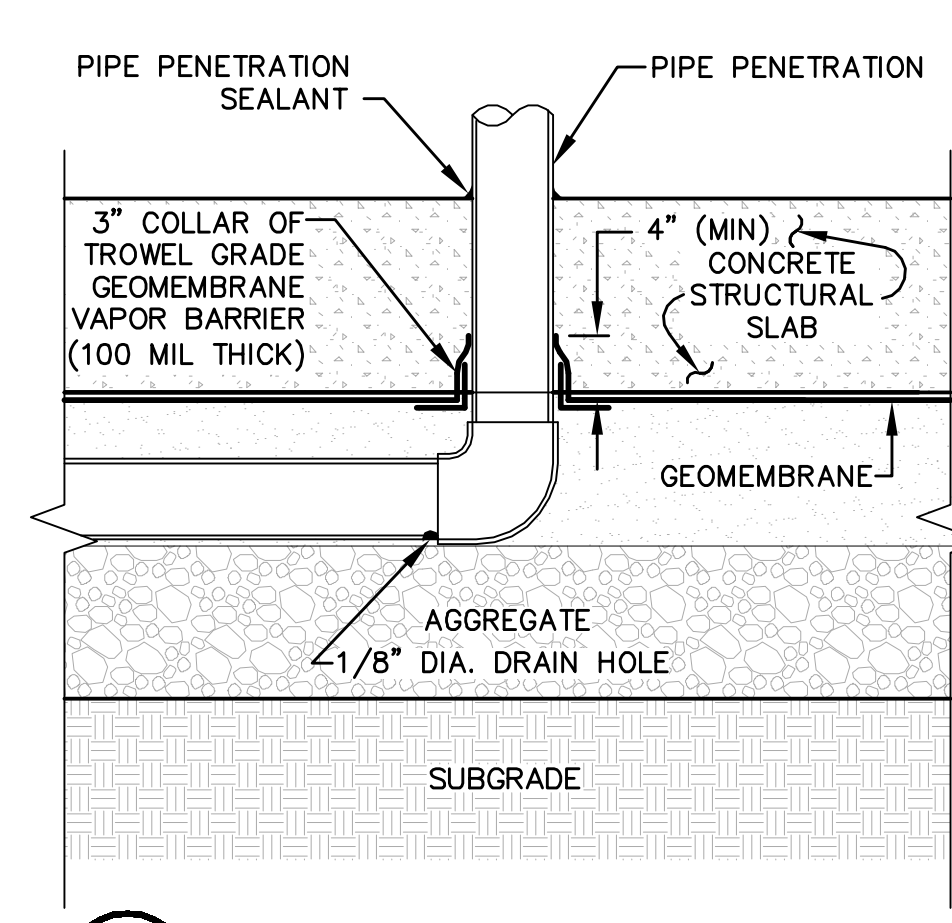
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1.5 SECTION
PIPE CROSSING AT
GRADE BEAM
N.T.S.



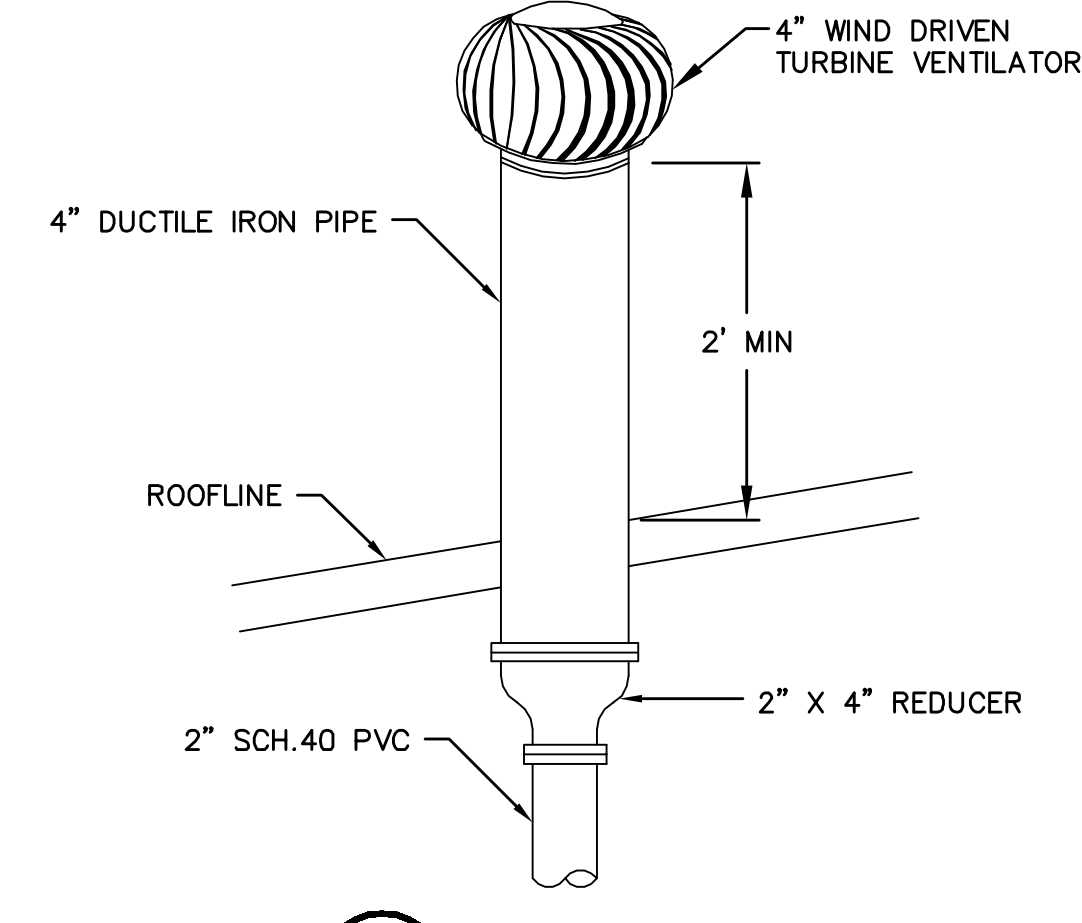
12
6 DETAIL
PIPE HANGER
N.T.S.



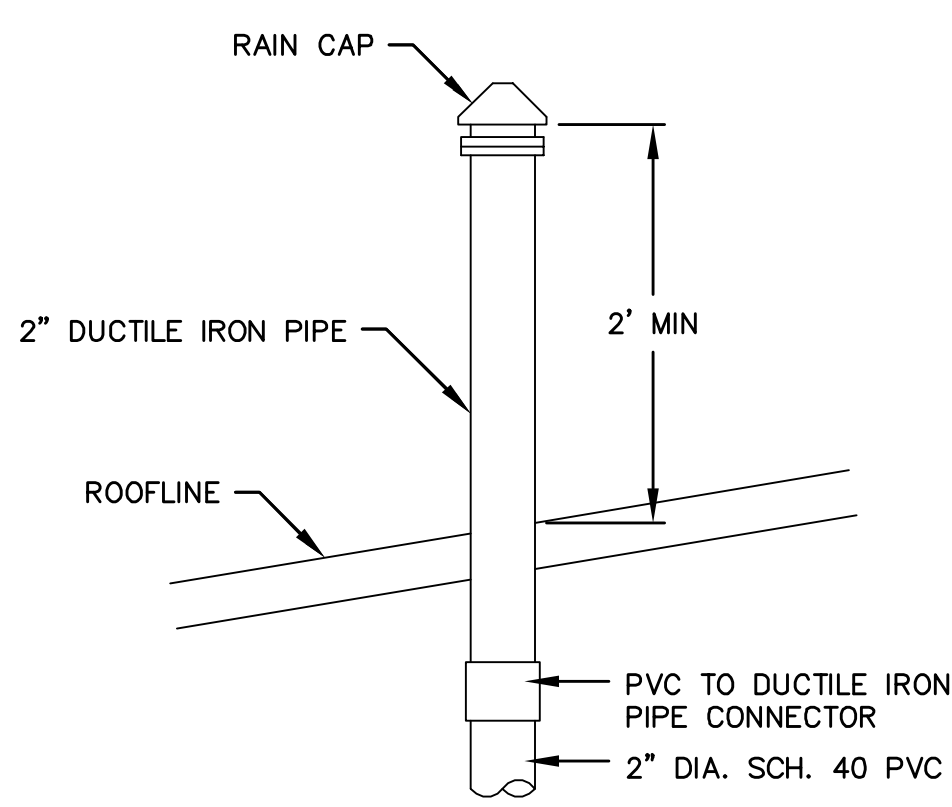
13
1-4 DETAIL
PIPE PENETRATION
N.T.S.



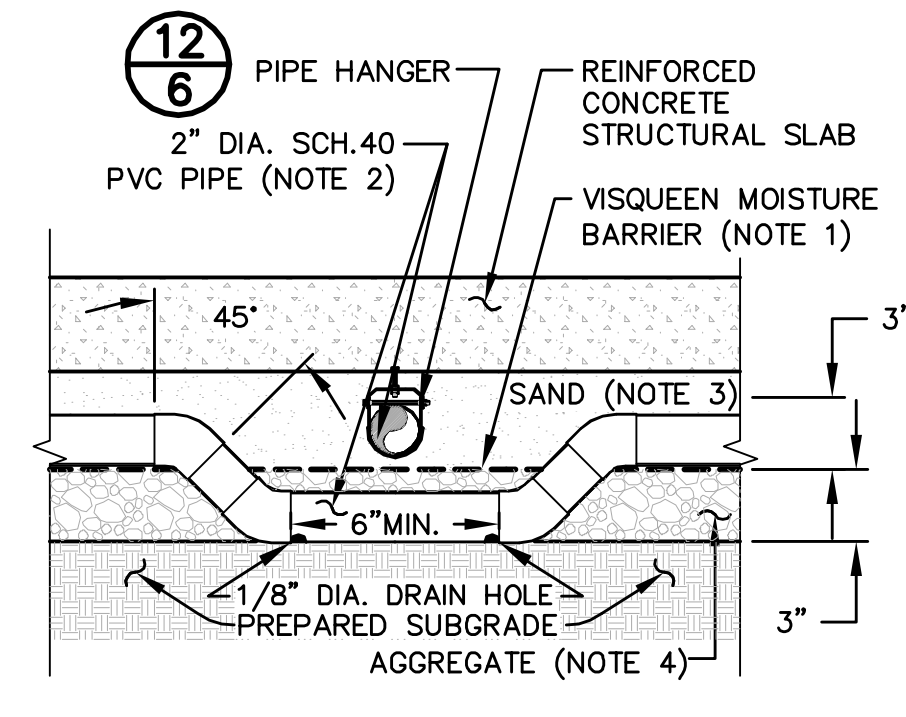
14
5 DETAIL
GEMEMBRANE PENETRATION
N.T.S.



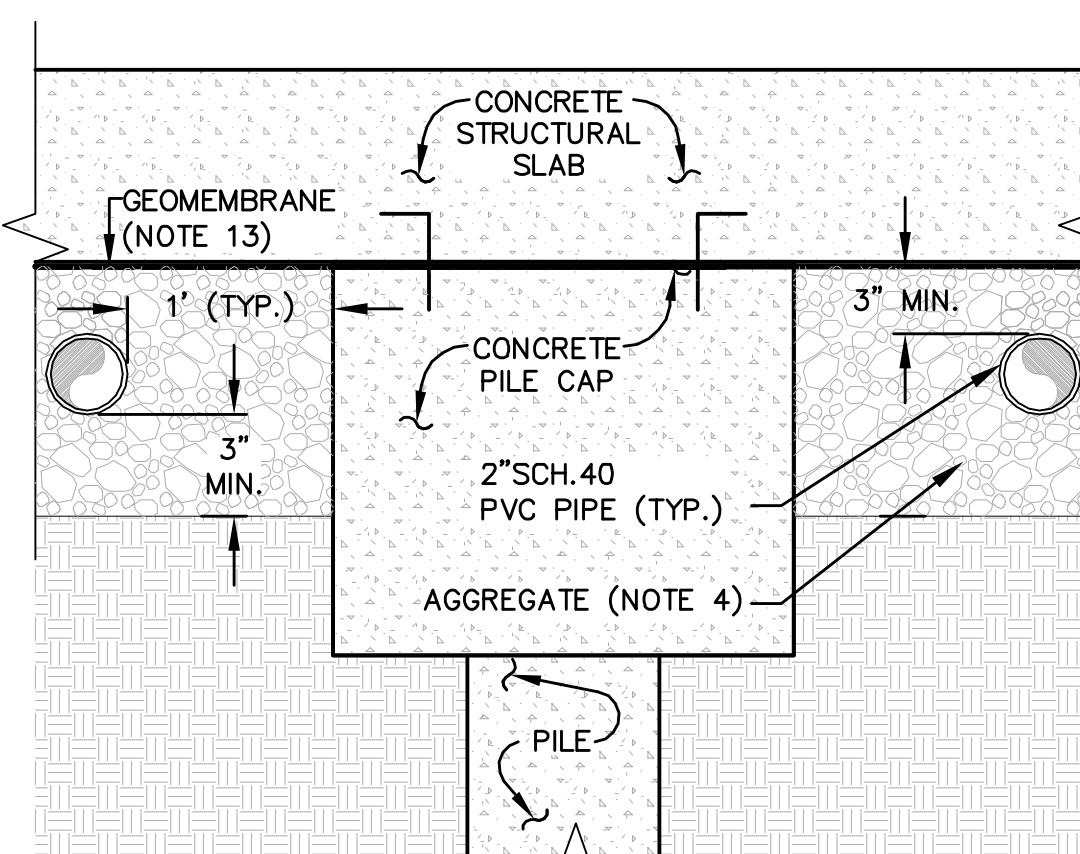
15
1-5 DETAIL
GAS VENT
N.T.S.



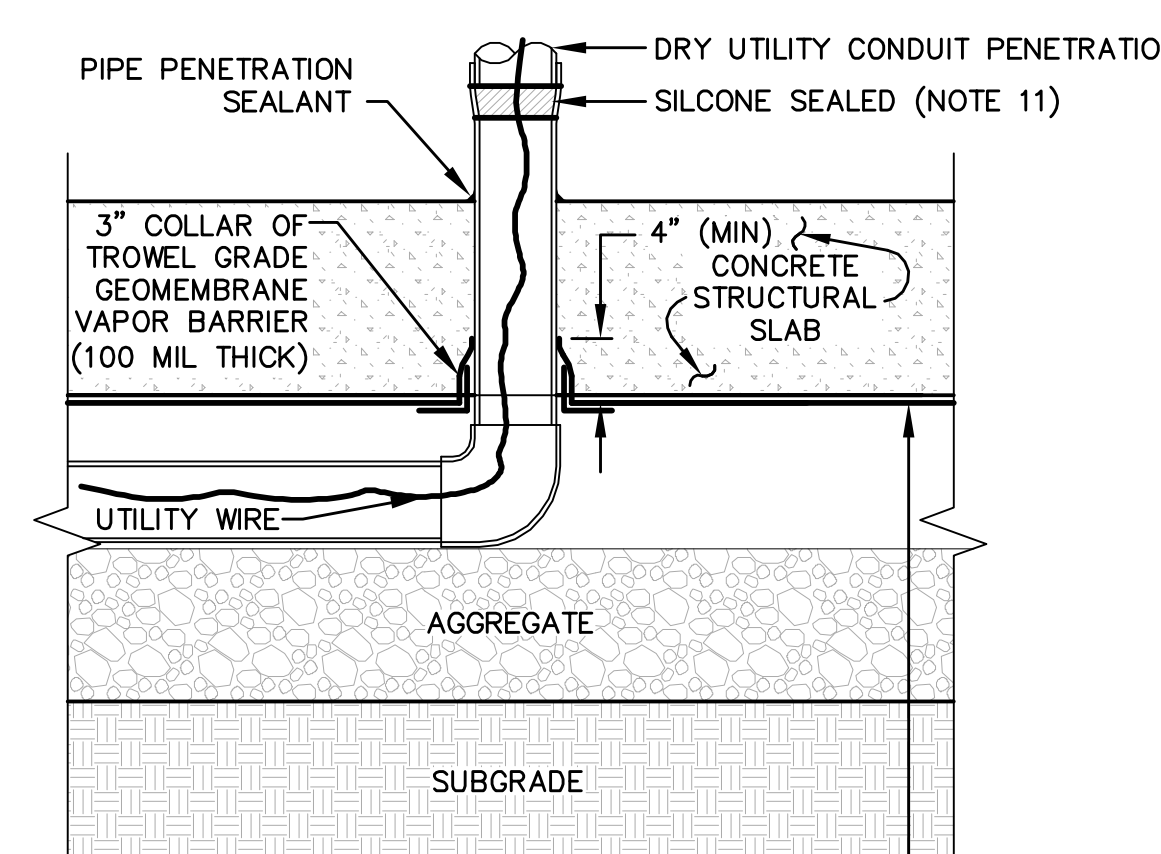
16
1-5 DETAIL
AIR INLET
N.T.S.



17
2.3 SECTION
PVC PIPE CROSSING
N.T.S.



18
1.5 SECTION
GEMEMBRANE
CROSSING PILE CAP
N.T.S.



19
1-5 DETAIL
DRY UTILITY SLAB PENETRATION
N.T.S.

GeoSYNTEC CONSULTANTS 10075 Ramona Boulevard Rd. Suite 200 SAN DIEGO, CALIFORNIA 92127 TELEPHONE: (858) 674-6559					
PROJECT: BRITANNIA EAST GRAND-PHASE II SOUTH SAN FRANCISCO, CALIFORNIA					
TITLE: GAS EXTRACTION SYSTEM DETAILS					
MARK	DATE	REVISION	BY	APPROVED	
		DATE: DECEMBER 2005	SCALE: AS SHOWN		
		DESIGN BY: S.F.	JOB NO.: SC0347-01		
		DRAWN BY: T.L.Z.	FILE NO:		
		CHECKED BY: G.T.C.	DOCUMENT NO:		
		REVIEWED BY: G.T.C.	DRAWING NO:		
		APPROVED BY: (PRINCIPAL)	6 OF 6		