

# Vapor Intrusion Pathway Mitigation for Revitalization of Industrial Property

**Abigail Hendershott**

Michigan Department of Environmental Quality

(616) 356-0227 / [hendersa@michigan.gov](mailto:hendersa@michigan.gov)

**Paul Knoerr**

Michigan Department of Environmental Quality

(616) 356-0624 / [knoerrp@michigan.gov](mailto:knoerrp@michigan.gov)





Large Manufacturing Plant, Grand Rapids, MI

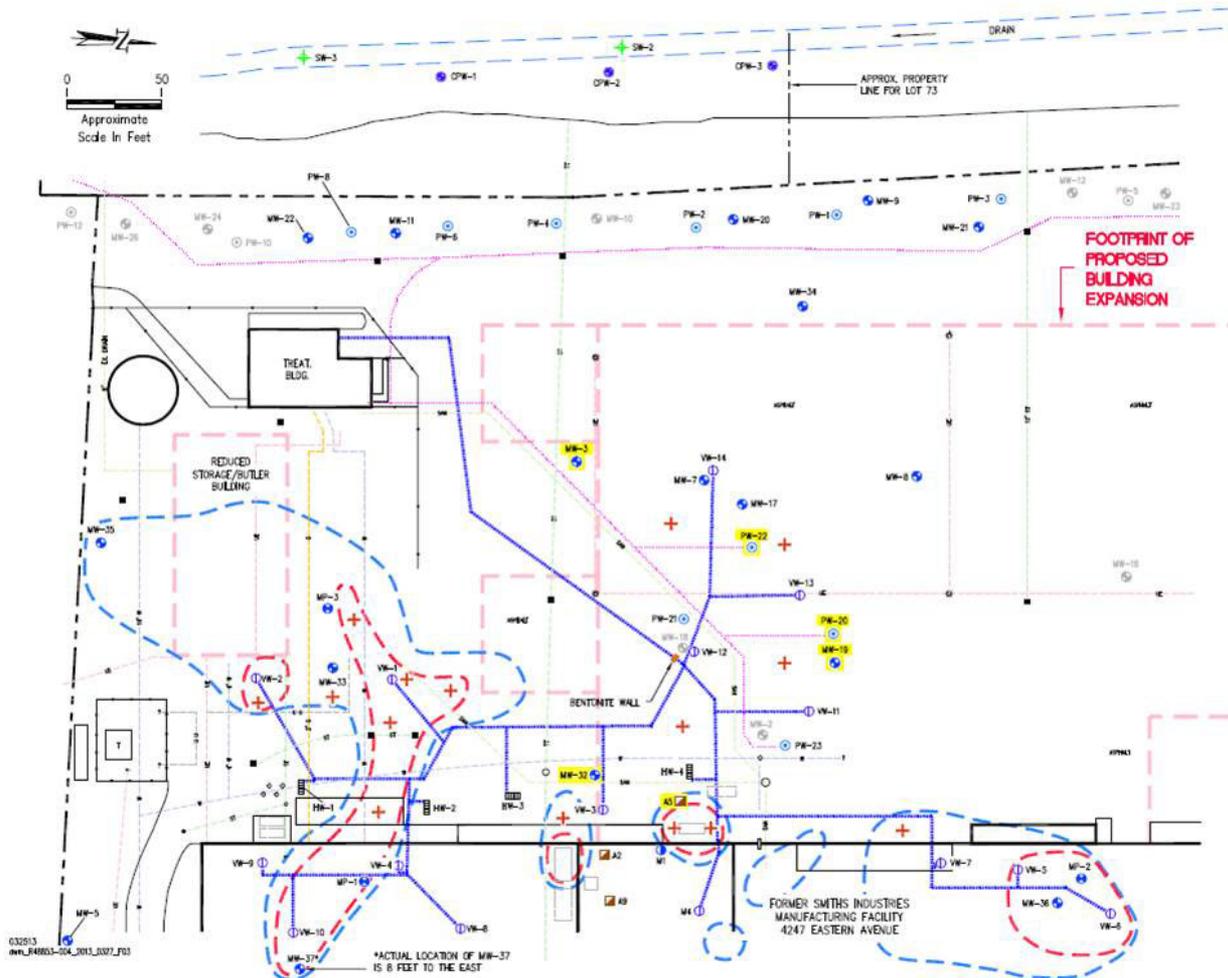


# 330,000 sq. ft. Manufacturing Building

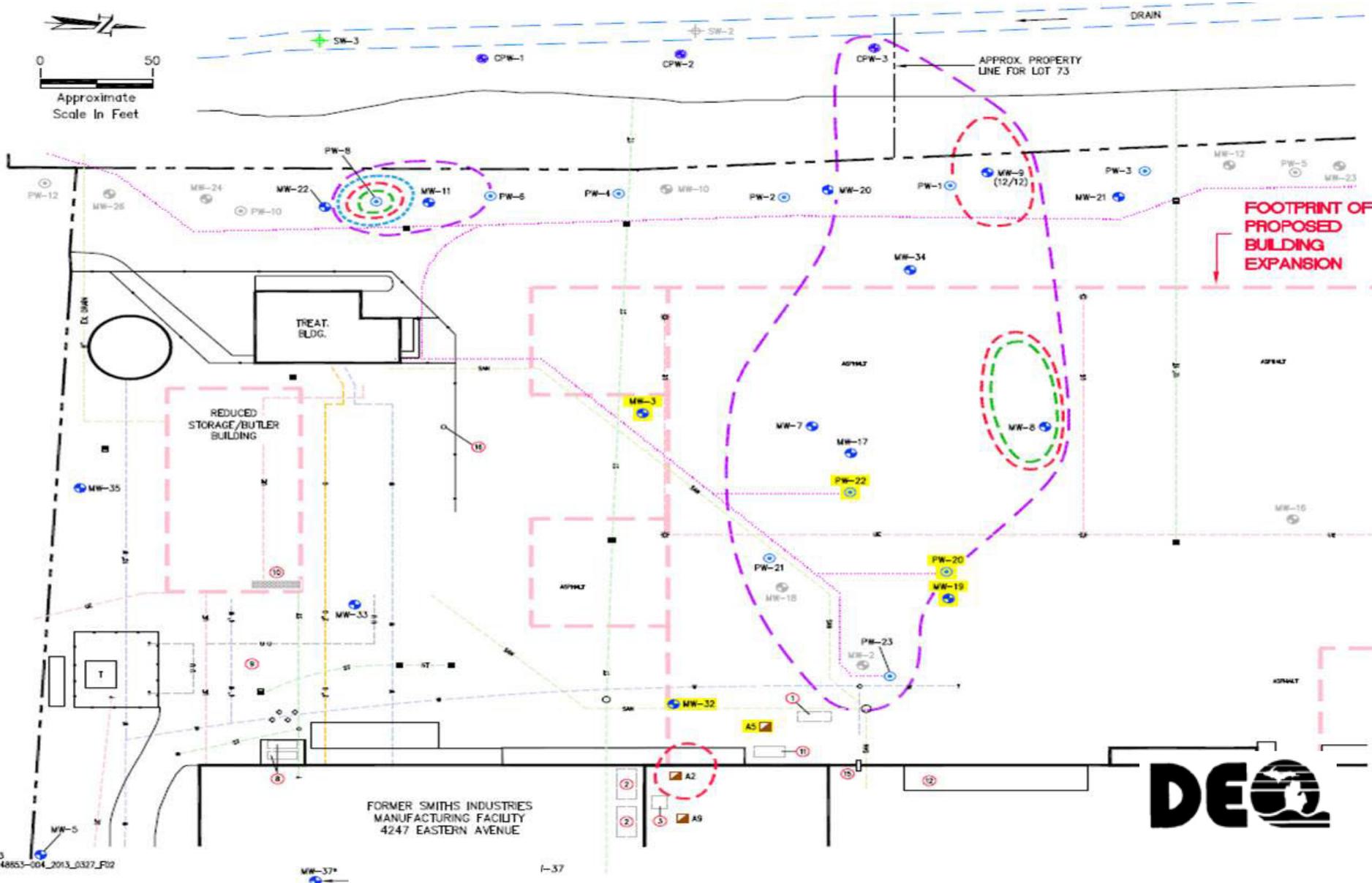


Bing Maps 2012

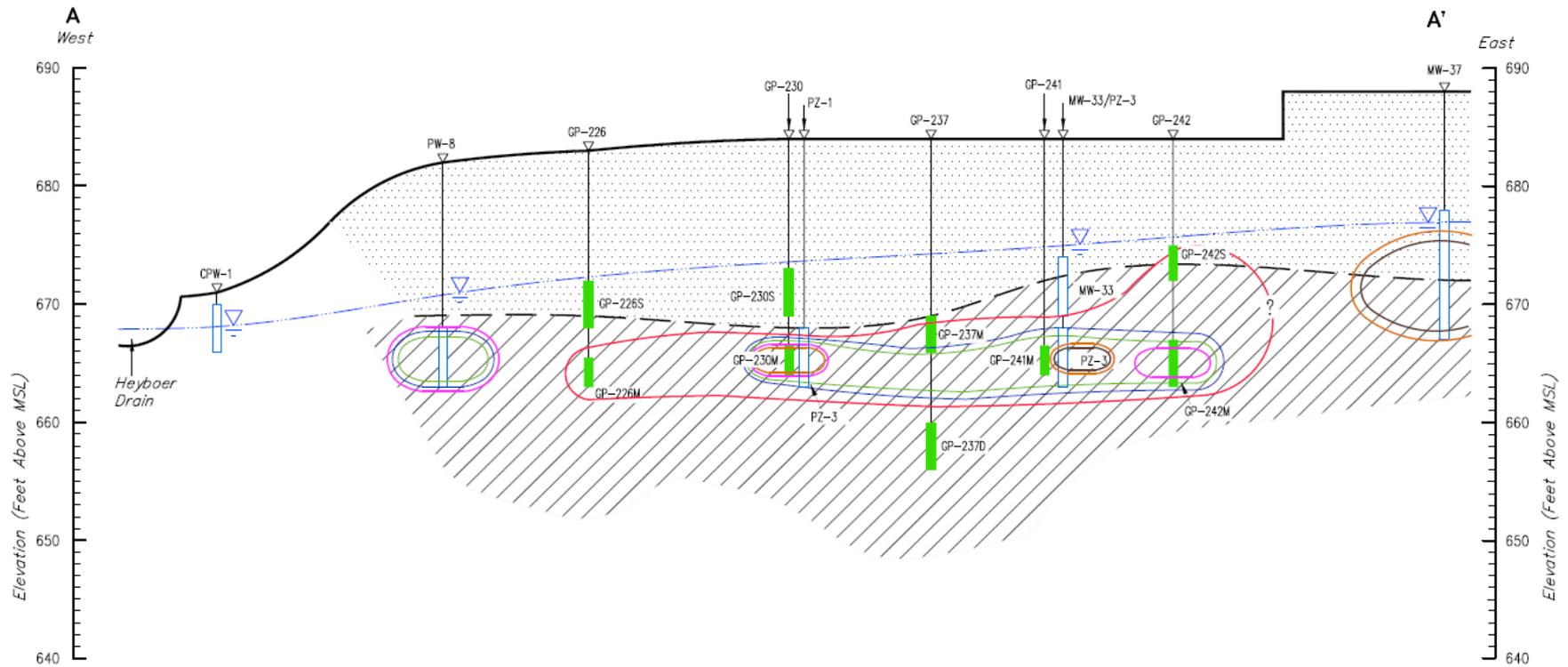
# TCE in Soil

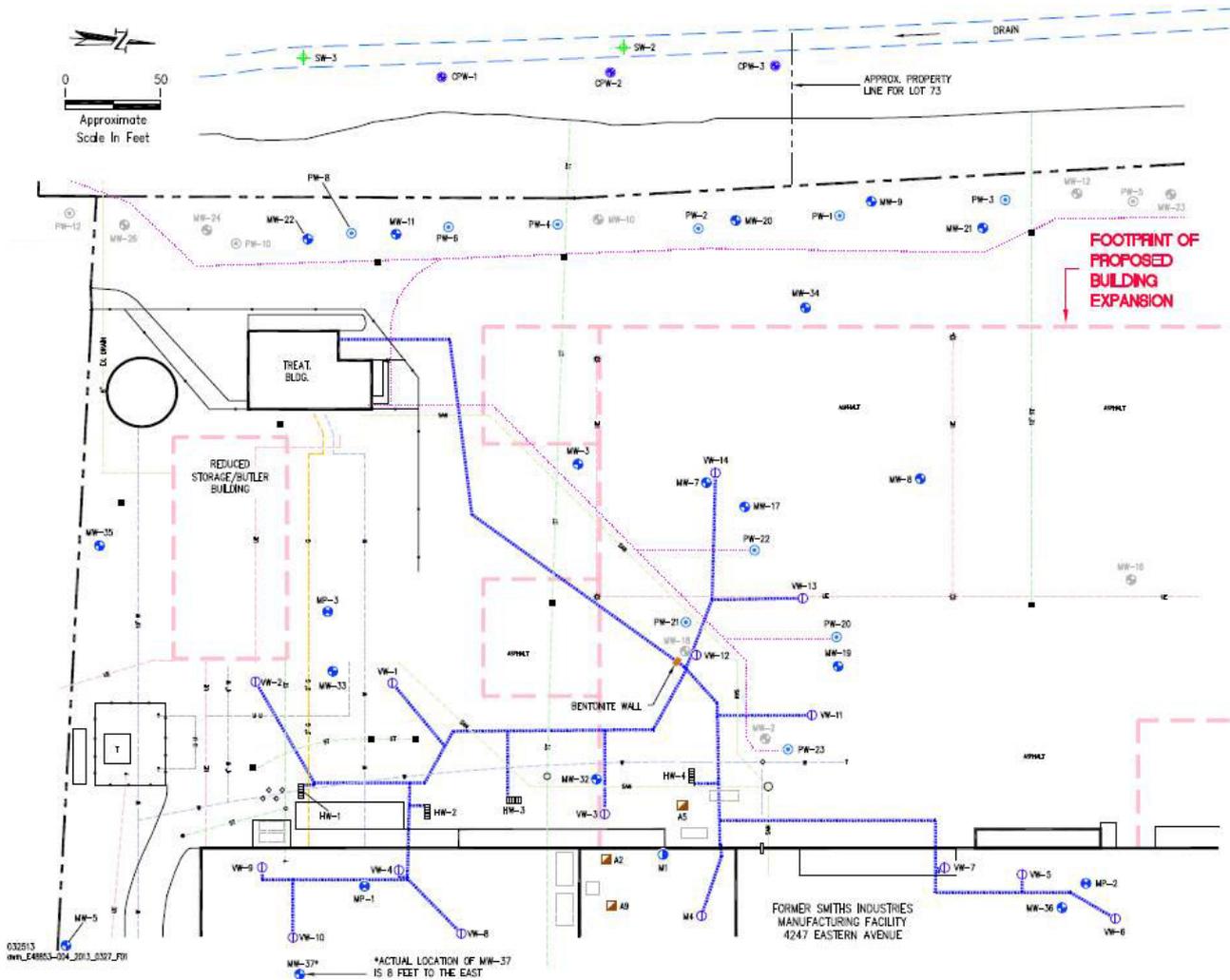


# TCE in Groundwater



# CSM Cross-section of Groundwater Plume





**FOOTPRINT OF PROPOSED BUILDING EXPANSION**

FORMER SMITHS INDUSTRIES MANUFACTURING FACILITY  
4247 EASTERN AVENUE



# Issues:

- **Responsible Party Still performing Remedial Actions**
- **Non-liable Owners**
- **New Tenants want to expand the building over TCE impacted soils/groundwater**
- **Short Time Frame**
- **TCE concentrations exceed soil gas screening levels in GW, Soil and Soil Gas**
- **Collaboration needed between all parties and DEQ**

# 115,000 ft<sup>2</sup> Manufacturing Addition



Google Earth 8-22-2013



# Solutions:

- **Presumptive Mitigation is best option**
  - Short time frame
  - Can be designed and installed before Bldg is started
  - Lower long term costs
  - Due Care
- **Design Considerations:**
  - Vapor Barrier?
  - Sub Slab Depressurization system?
  - Active vs. Passive?
  - Construction cost?

# VI- TAPS TEAM



Liabile Party

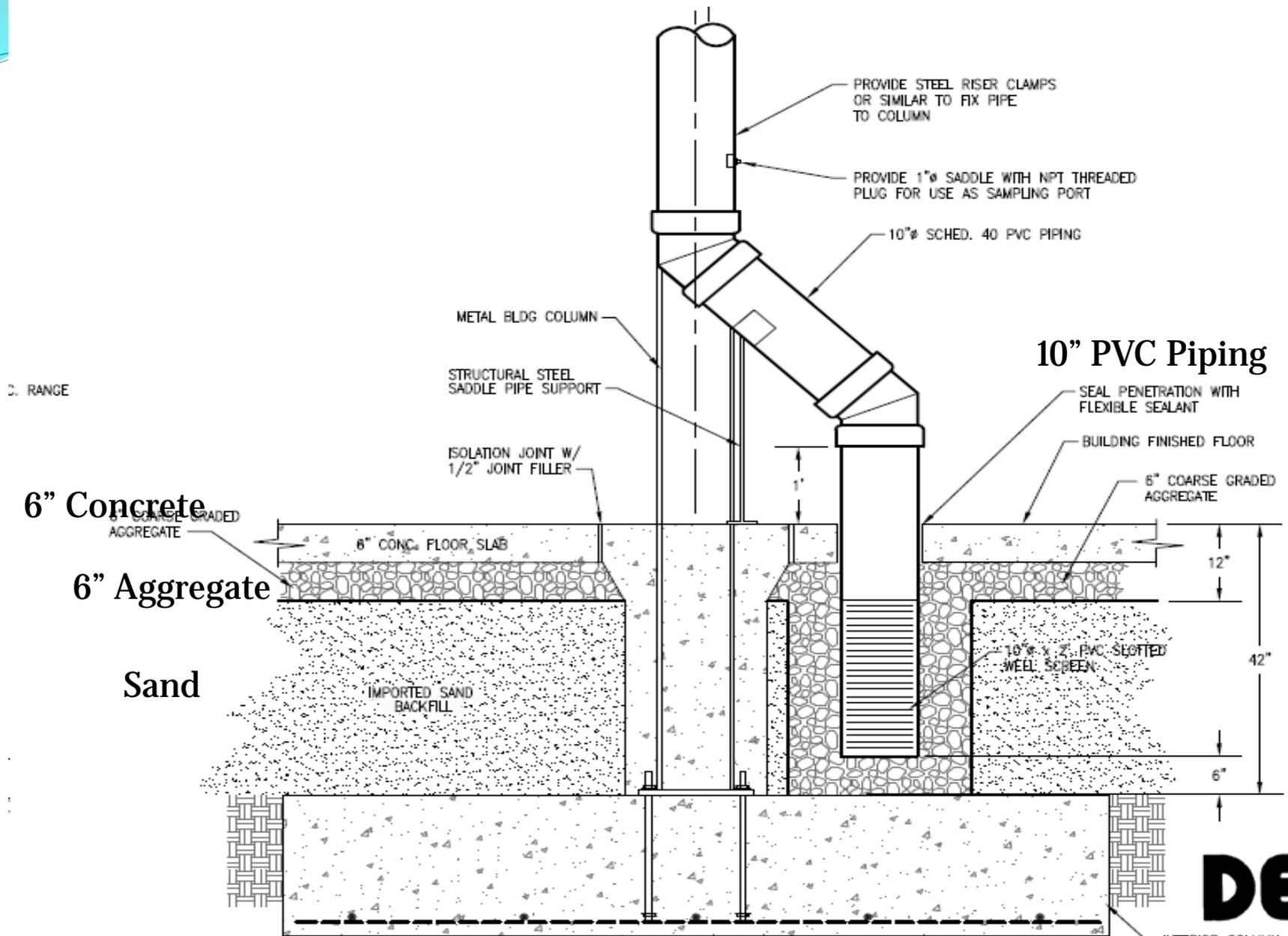
DEQ VI TAPS

Current Owner/Tenant





# Sub Slab Depressurization Sump



D. RANGE

6" Concrete

6" Aggregate

Sand

10" PVC Piping

INTERIOR COLUMN / SUMP DETAIL (TYP OF 4)

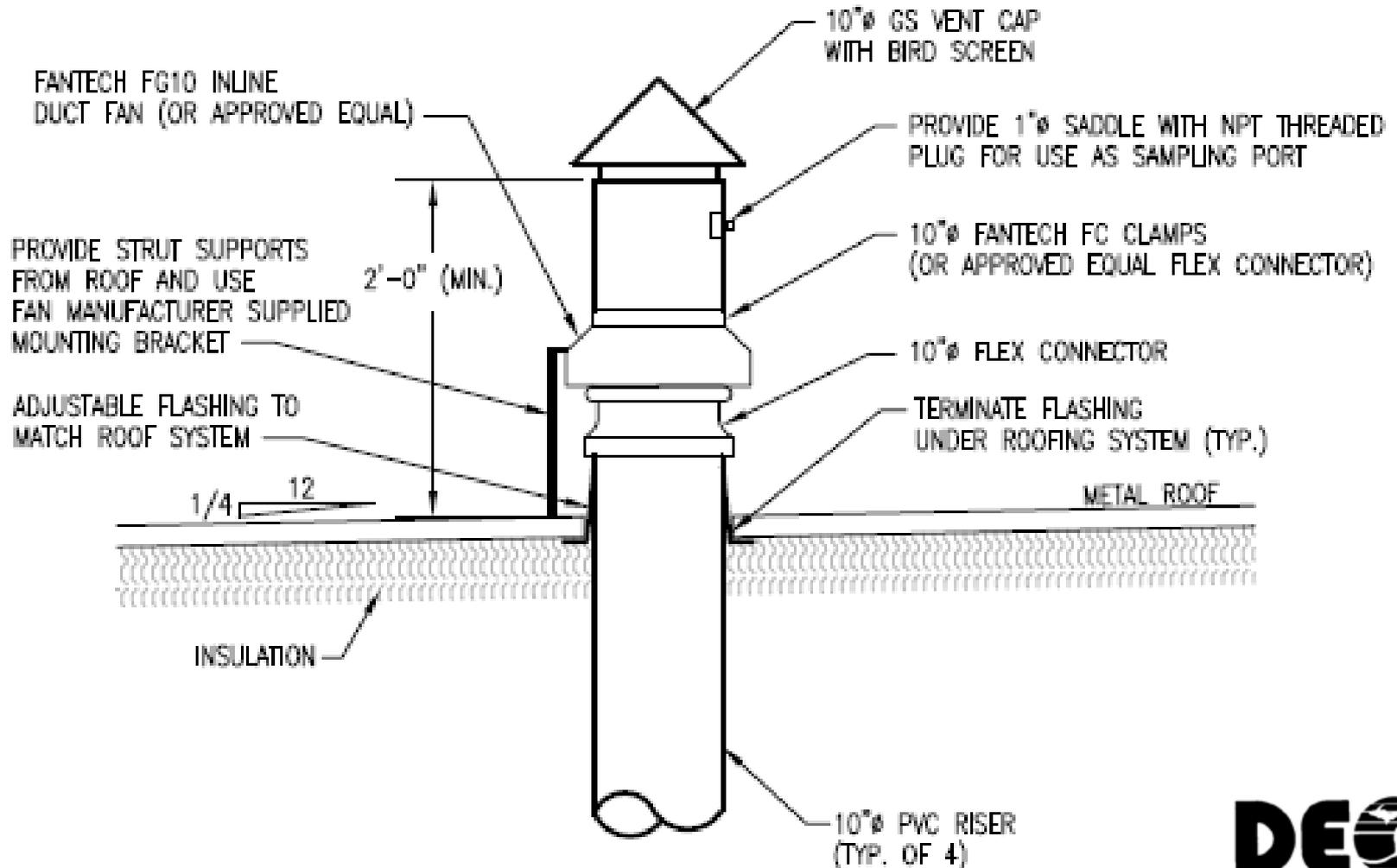


INTERIOR COLUMN FOUNDATION FOOTING

**DPI-4**



# Vapor Extraction Fan/Roof Detail







~~COVID-19 COMPLIANCE EARLY~~  
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Care Compliance



# Michigan Department of Environmental Quality

800-662-9278

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