



Fort George G. Meade



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Operable Unit No. 4 (OU4) Sub-Slab Soil Gas & Indoor Air Sampling

Restoration Advisory Board Meeting
March 15, 2012

John Cherry—ARCADIS



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Operable Unit-4 & LPA



TOPICS

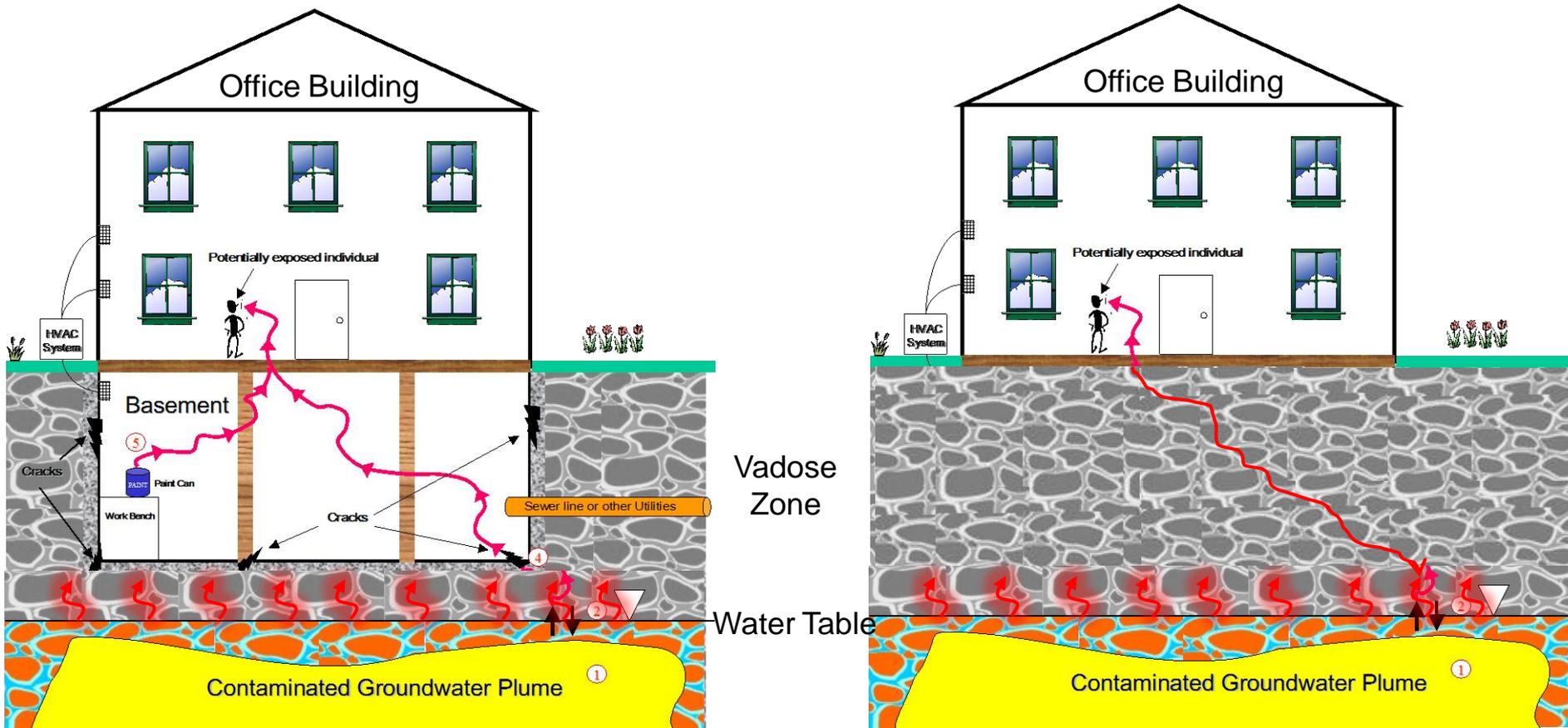
- Vapor intrusion (VI) investigation overview
- Summary of recent VI activities at OU4



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Vapor Intrusion Sampling Overview

- ❑ Vapors from chemicals in groundwater that may rise up and infiltrate a building via cracks or sumps in the slab.
- ❑ Movement is from groundwater through soil pore spaces (soil gas).
- ❑ Indoor background sources.





Purpose of this Work



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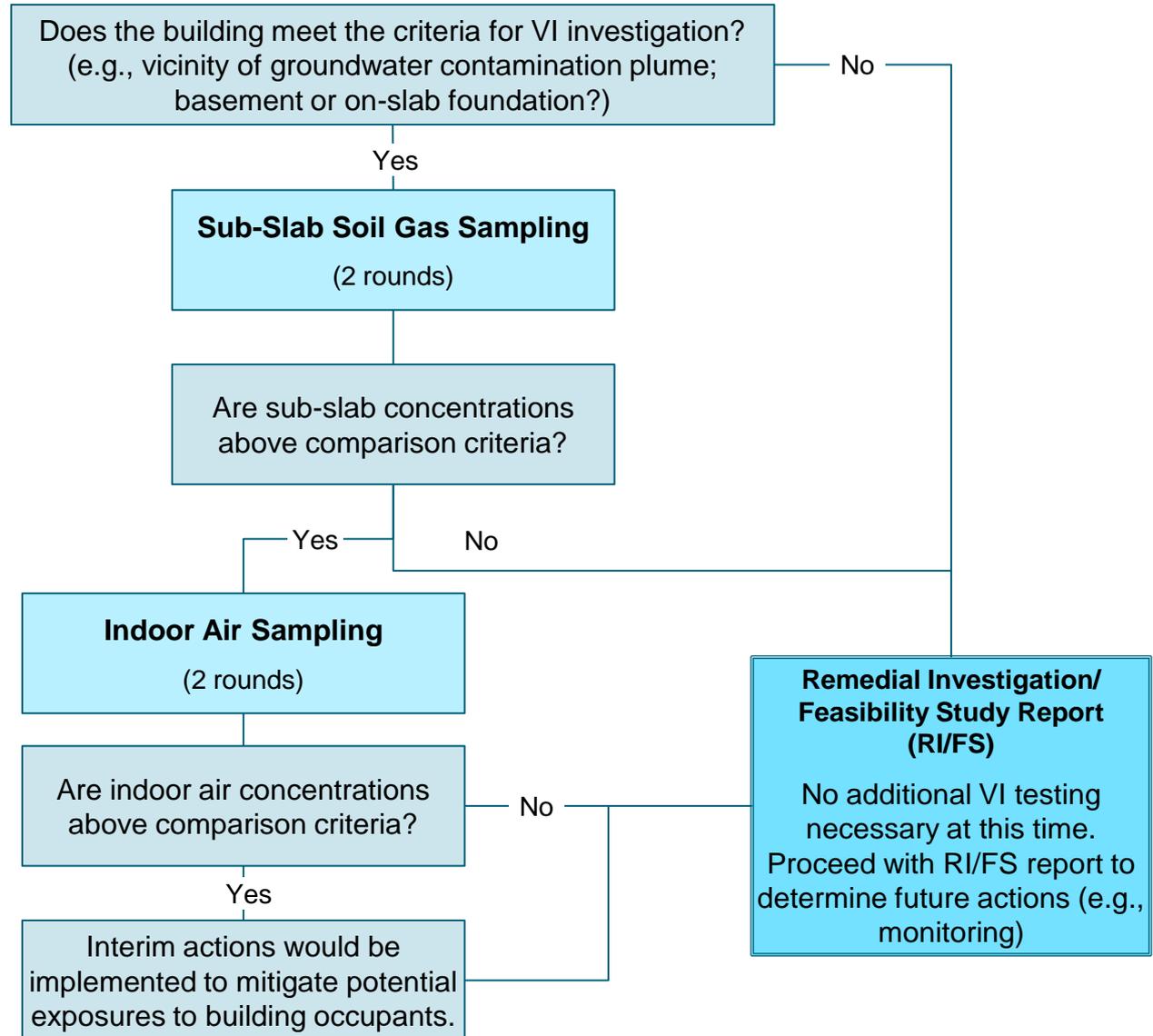
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1. Determine if buildings over or near the plume of solvents in groundwater are impacted
2. Air samples are collected from beneath the building slab to assess if vapors are present beneath the slab
3. If elevated vapors are detected beneath the slab, air samples are also collected within the buildings (and outside the buildings) to see if vapors are present in indoor air.

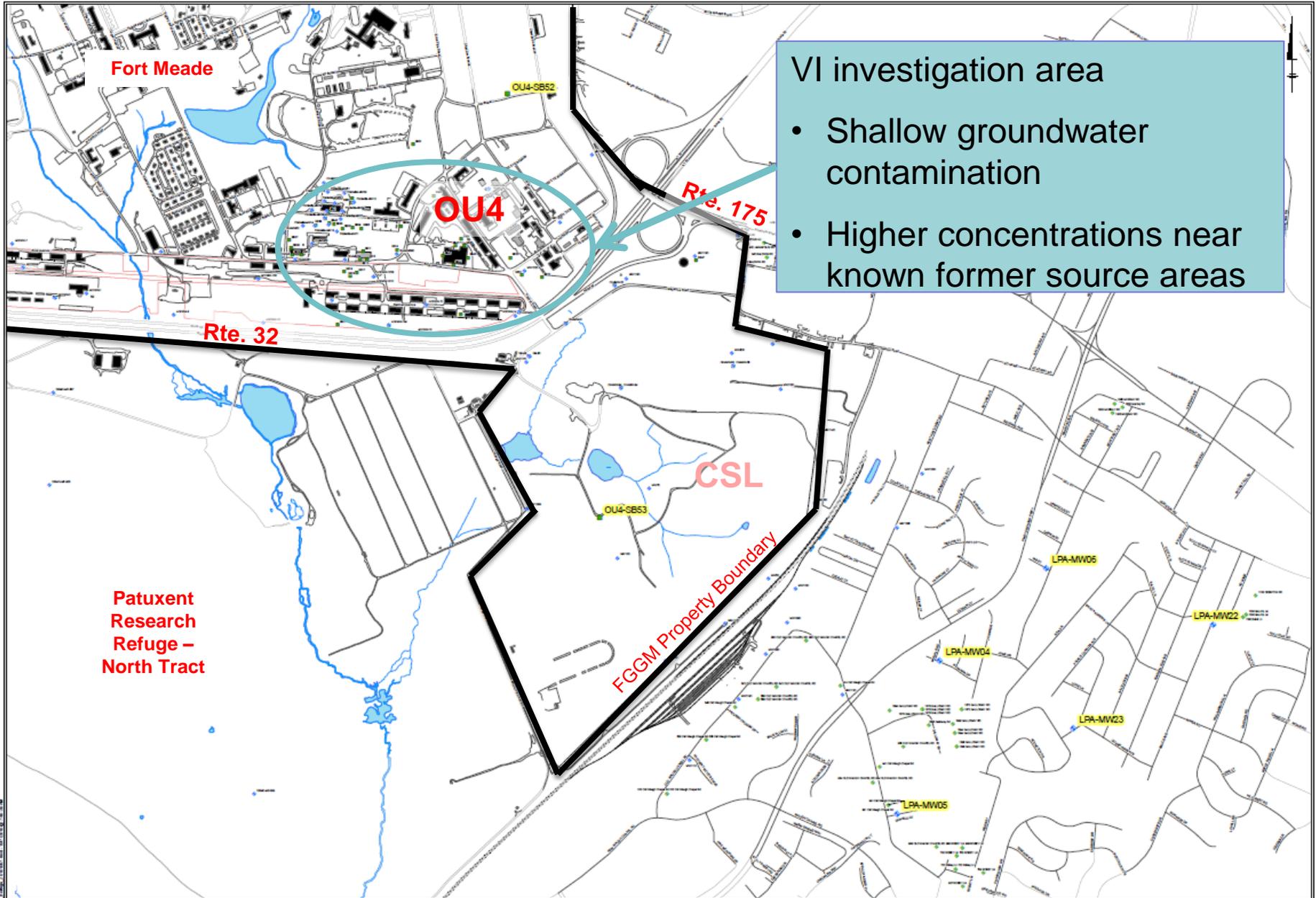


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VI Investigation Process



OU4 Study Area



LEGEND:

UNWELL
DEVELOPMENT
ENCLOSED STRUCTURES
EXISTING STRUCTURES
STREAM
SURFACE WATER

LPA-MW05 - PROPOSED BORING

DRAFT

0 1,000 2,000
GRAPHIC SCALE Feet

FORT MEADE, MARYLAND

PROPOSED VERTICAL ACQUIFER

OU4 Study Area



- | | | | | | |
|--|---------------------------------|---|------------------------------|--|----------------------|
|  | SOIL GAS SAMPLING LOCATION |  | DEMOLISHED STRUCTURES (2011) |  | STREAM |
|  | AOC PROPERTY BOUNDARY (approx.) |  | EXISTING STRUCTURES (2011) |  | SURFACE WATER |
|  | ROADS |  | ELEVATED FROM GROUND SURFACE |  | PCE CONTOUR - 5 ug/L |
| | |  | SLAB FOUNDATION |  | 100' LATERAL BUFFER |

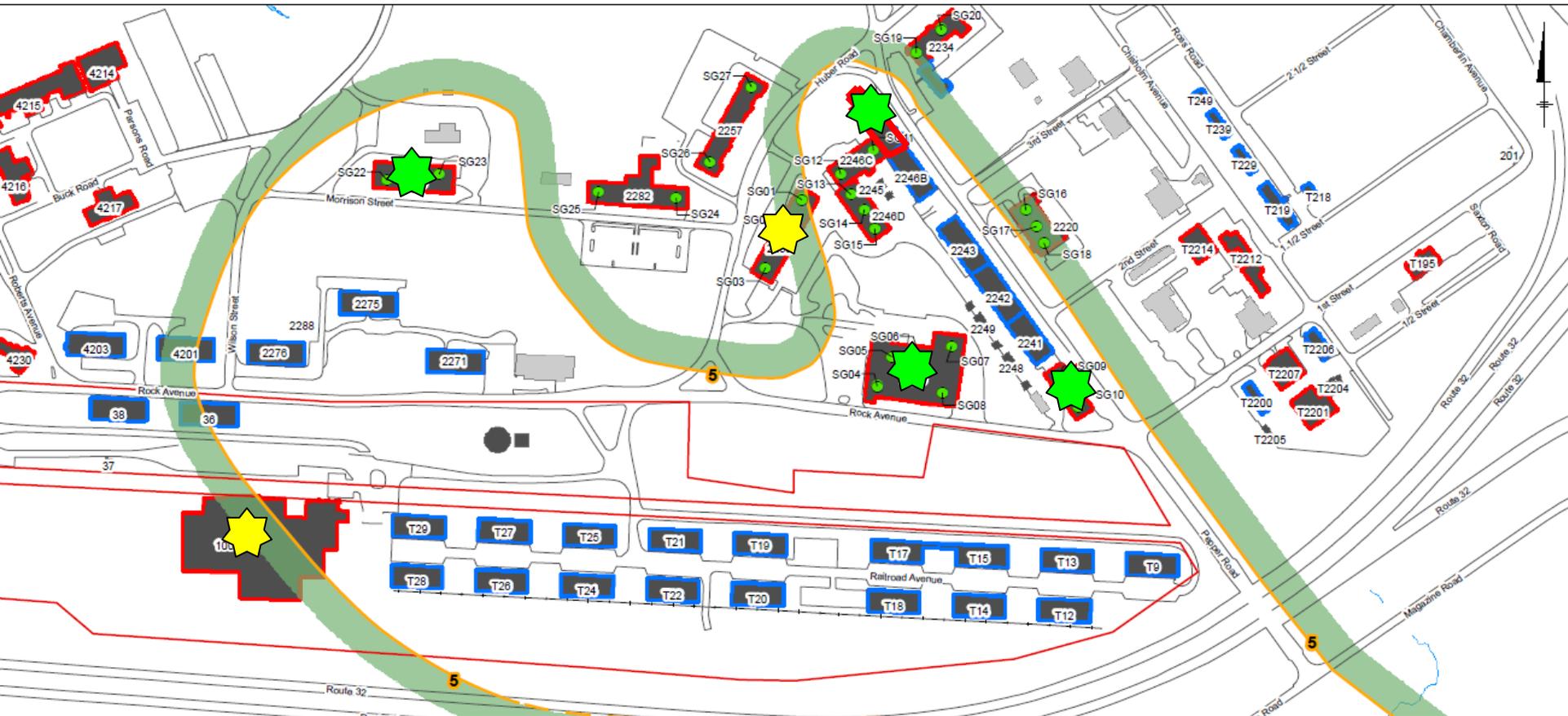
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Sub-Slab Soil Gas Sample Building Locations



-  = Sub-slab gas sampling planned.
-  = Sub-slab gas sampling completed; no exceedances.
-  = Sub-slab gas sampling completed; exceedances at these locations which has triggered indoor air sampling.

Indoor Air Sample Building Locations



 = Indoor air sampling planned.

 = Indoor air sampling completed; no exceedances.

Note: No indoor air concentrations have been detected above risk-based action levels to date.



OU4 & LPA Vapor Intrusion Investigation Schedule

March 2012 Finalize VI Investigation Work Plans with EPA/MDE Approval

Additional Sub-slab gas and indoor air sampling at AOC and select OU4 buildings.

Summer 2012 Final round of sub-slab gas and indoor air sampling.

VI investigation results will be presented in the Remedial Investigation/Feasibility Study report (RI/FS) for OU4.



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