New York State
Office of Mental Health

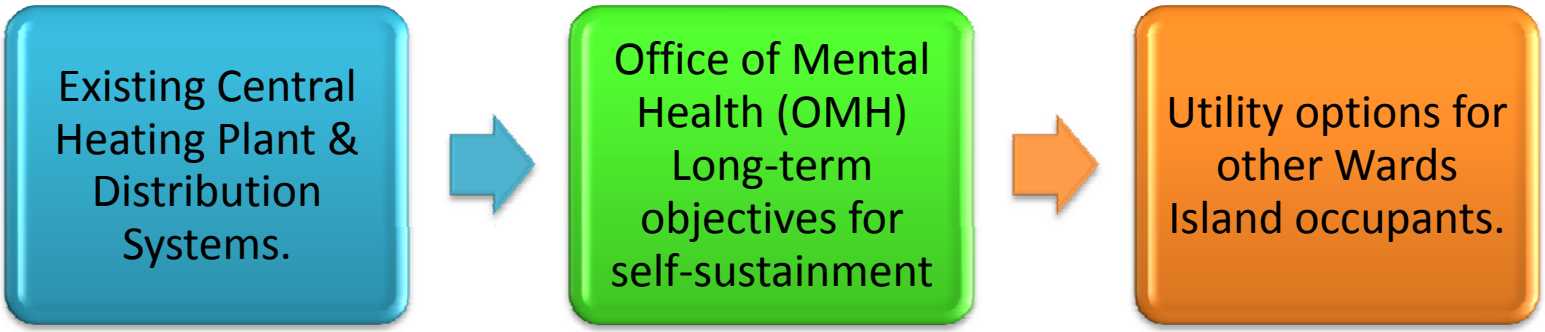
Wards Island
Utility Systems

October 30, 2008

Wards Island Utility Systems

New York State Office of Mental Health

Agenda - Utility Discussion Points



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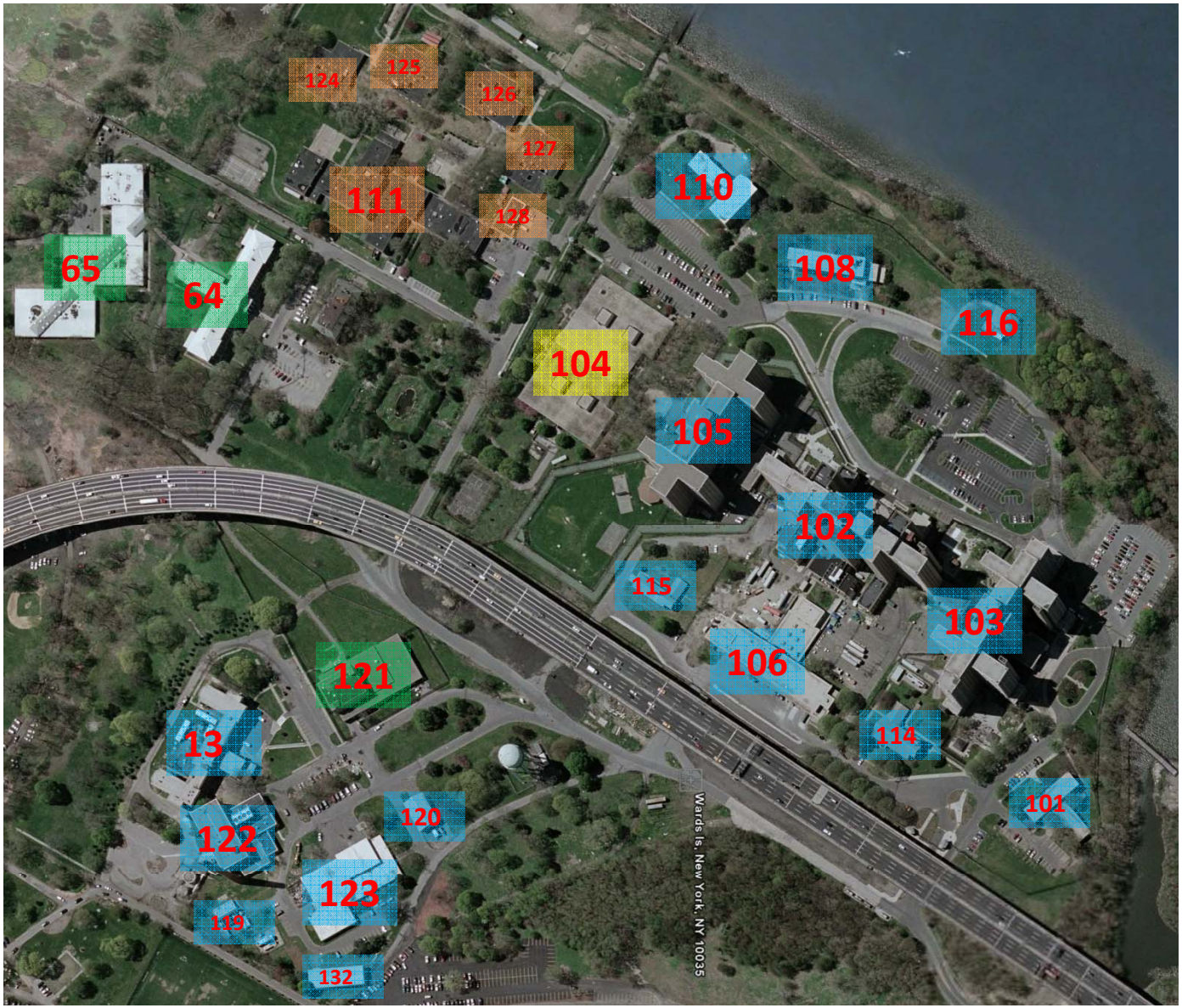
Existing Campus Layout

- OMH buildings
- TBTA buildings
- HELP Buildings
- VOA (Volunteers of America) buildings



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Agenda - Utility Discussion Points

Existing Central Heating Plant & Distribution Systems.

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Campus Utility Layout - Steam

Buildings that receive steam from the Power Plant for heating and/or domestic hot water purposes:

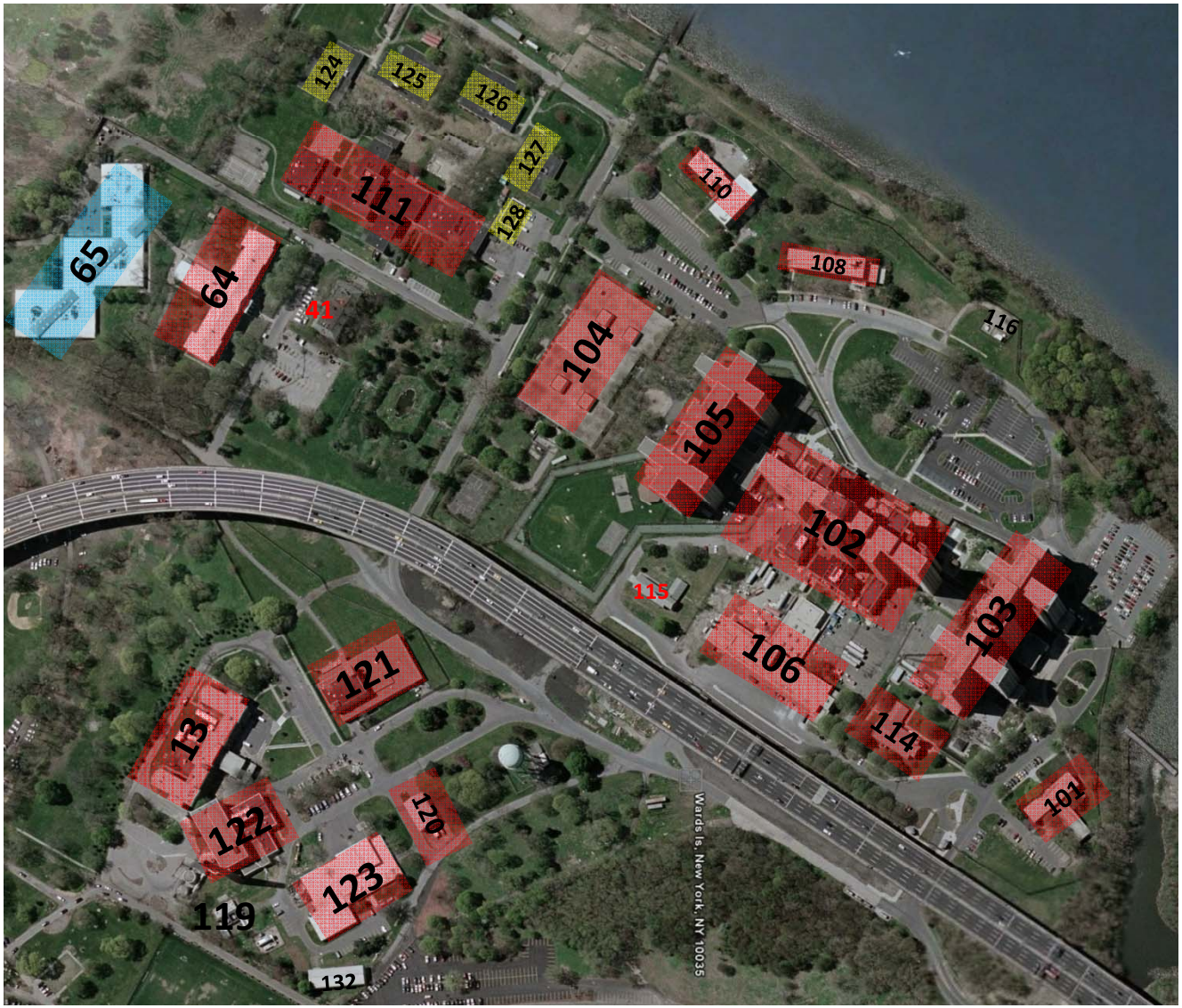
- 120-123, 13
- 64, 111
- 101-106, 108, 110

Buildings that have independent heating and domestic hot water:

- 65

Buildings that have independent hot water, but unknown heating source

- 124-128



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Campus Utility Layout - Electric

Buildings that receive electric from the Power Plant Switchgear:

- 120-123, 13
- 64, 65 (via 64)
- 101, 103, 106, 114, 116

Buildings that receive electric from the ConEd substation (Bldg 119):

- 102, 104, 105, 108, 110
- 111
- 124-128 (via 111)

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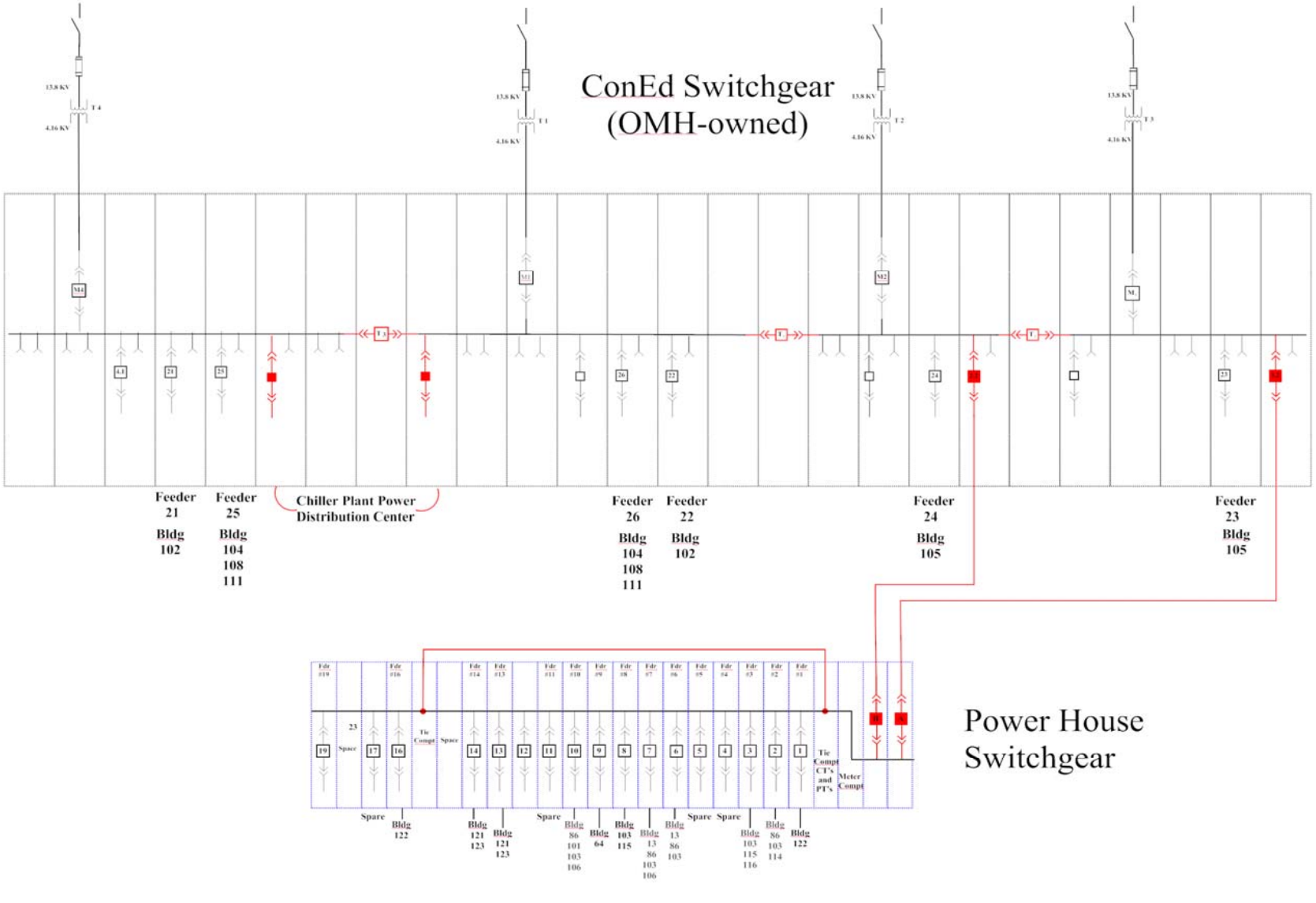
Campus Utility Layout – Electric (Distributed at 4,160 Volts)



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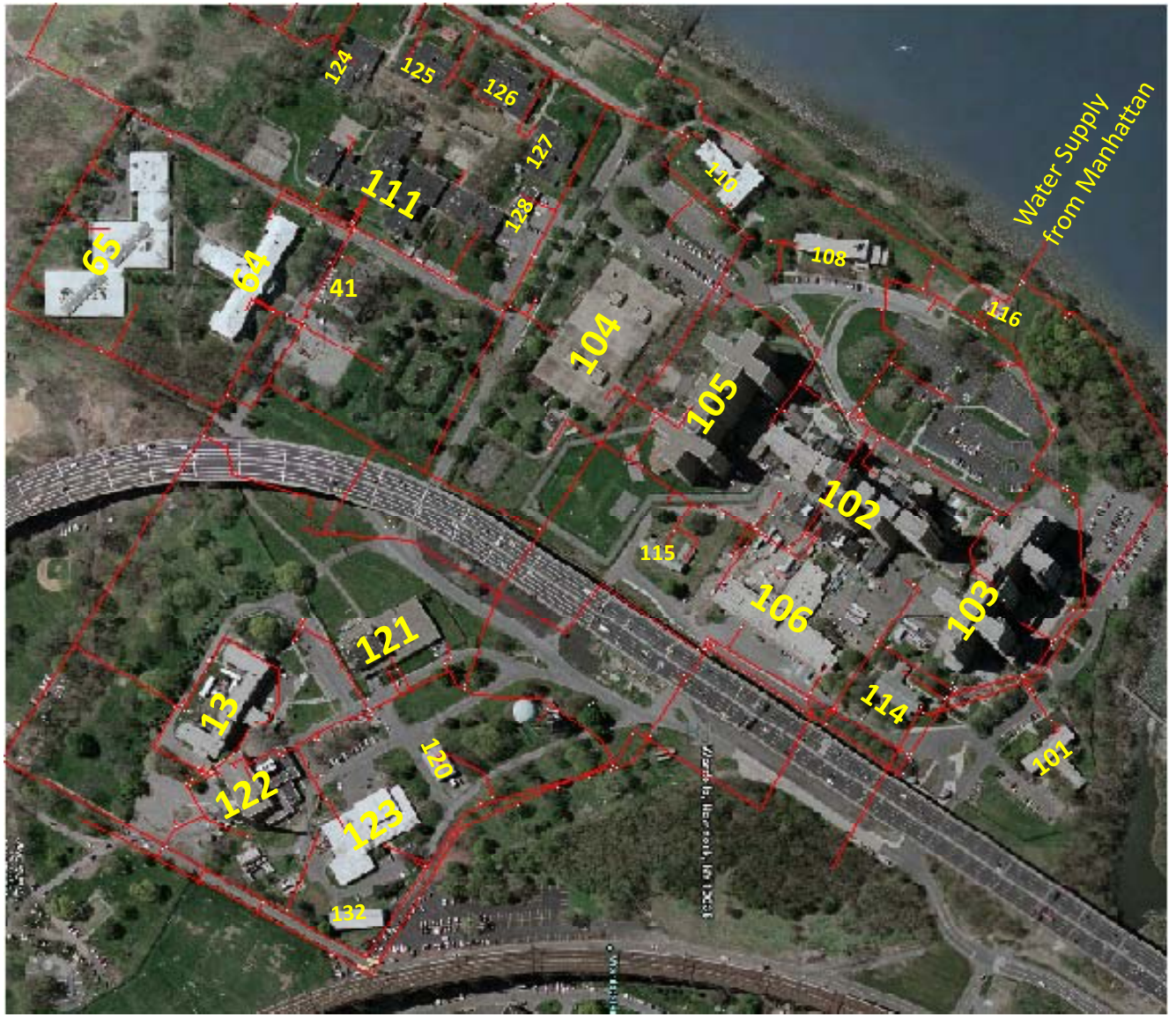
Campus Utility Layout - Water

- All water is supplied from Manhattan, through Building 116 via the 111th Street supply header.
- Water pressure supplied to Wards Island is 40-50 psig.
- Four pumps increase pressure for distribution to 60-70 psig.
- Normally one or two pumps in operation at any one time.



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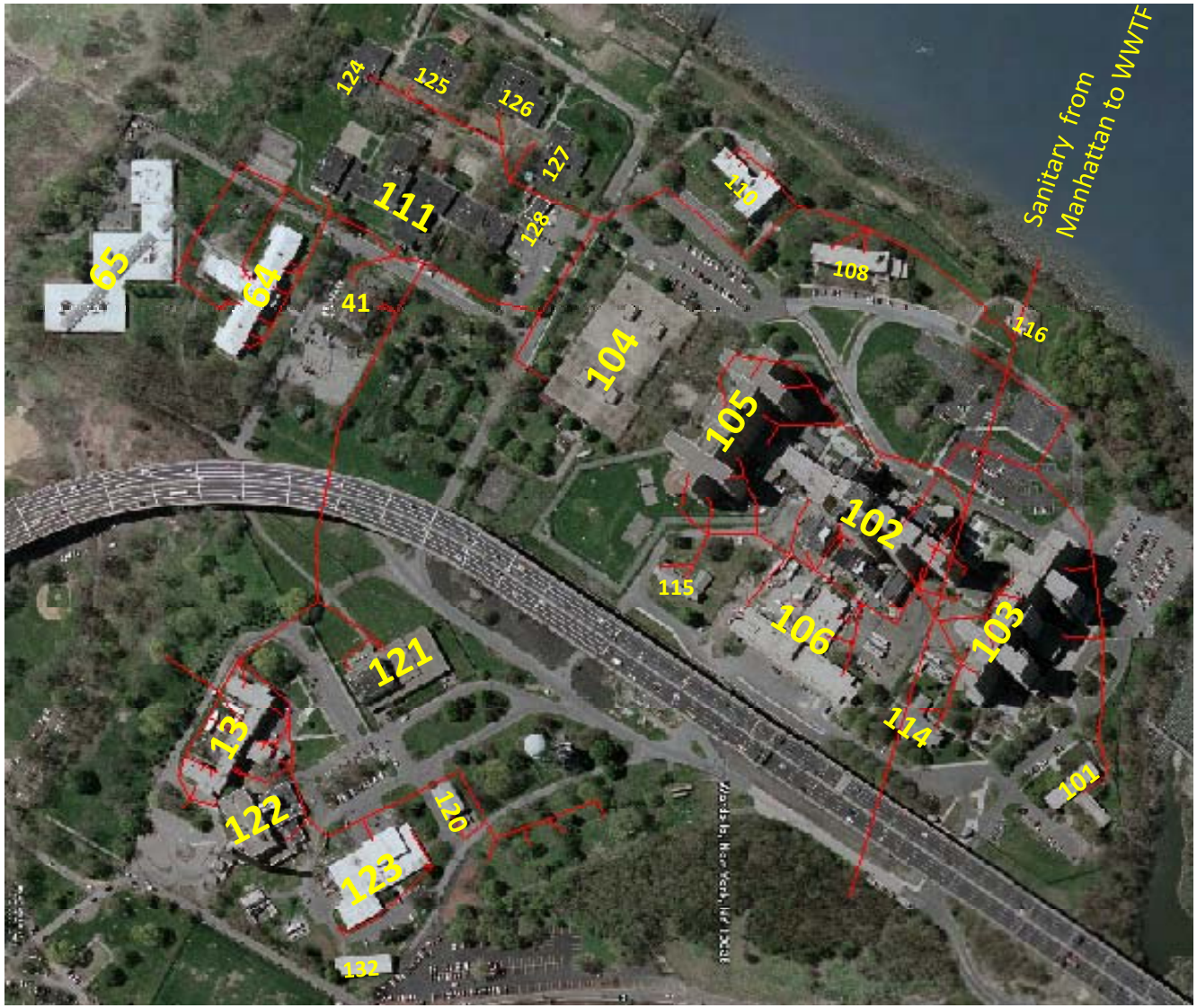
Campus Utility Layout – Sanitary Sewer

- All sanitary sewer flows to the Building 116 pumping station.
- Pumping station transfers all discharge to the Wards Island Waste Water Treatment Facility.



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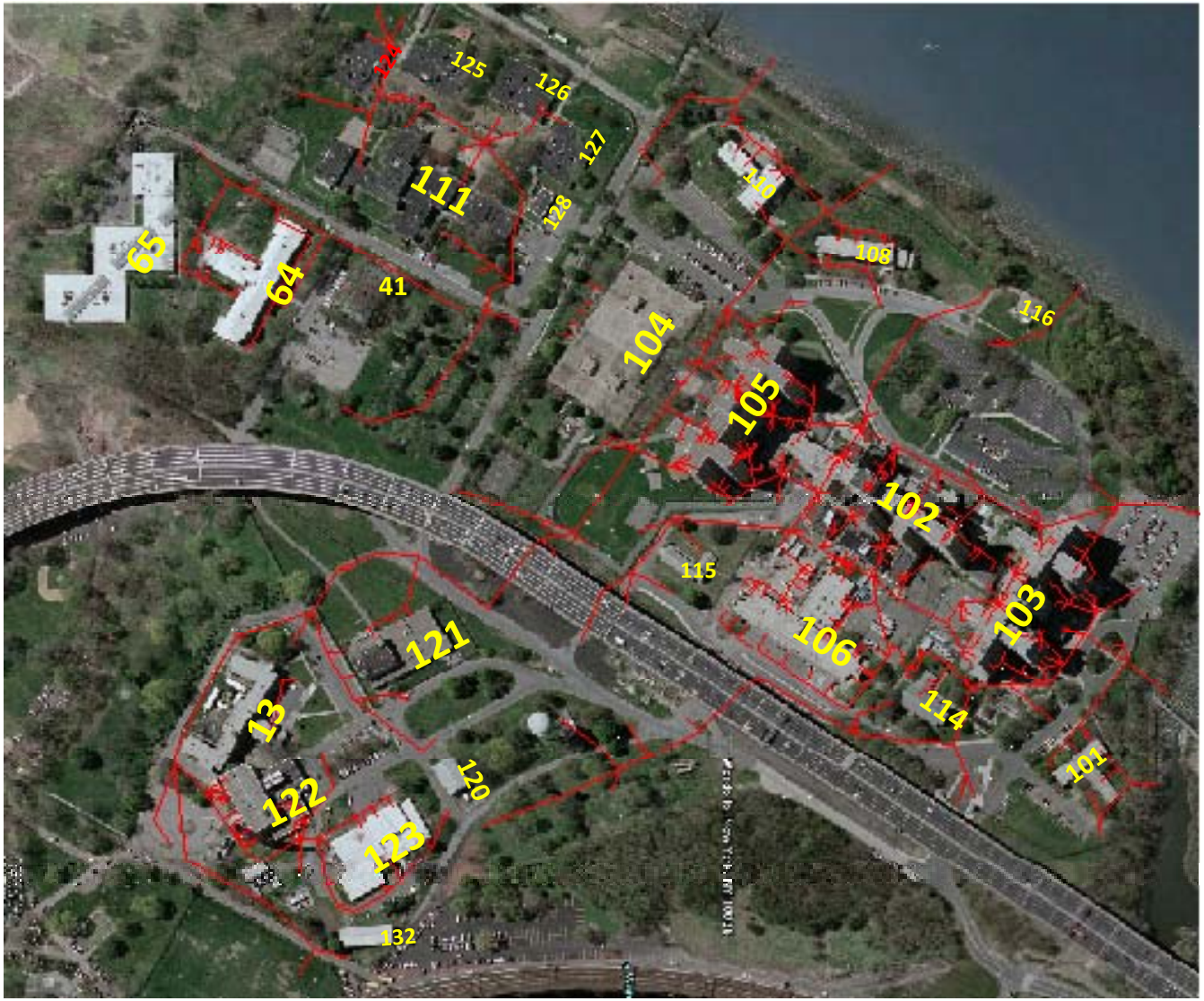
Campus Utility Layout – Storm

- All outfalls discharge to the neighboring waterways.



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Agenda - Utility Discussion Points

Office of Mental Health (OMH) Long-term objectives for self-sustainment

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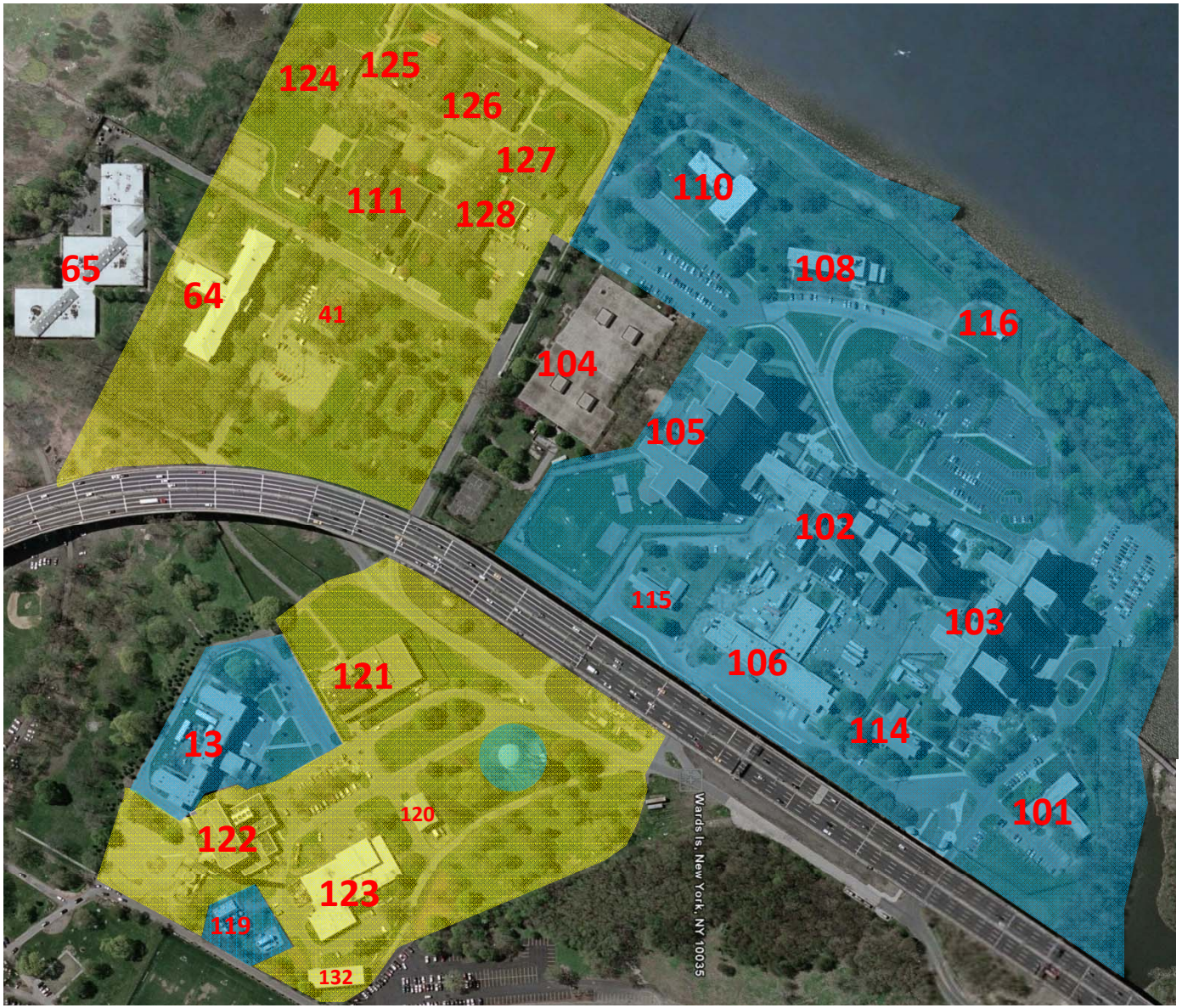
Campus Layout

OMH Long-term Program usage, includes buildings:

- 13, 119
- 101-103, 105, 106, 108, 110 114-116

Proposed continuation of lease-hold agreement areas, includes buildings:

- 120-123, 132
- 64, 111, 124-128



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Wards Island Utility Systems

New York State OMH Office of Mental Health

OMH Long-term Utility Considerations

- Steam – space heating and domestic hot water:
  - Independent boiler/heating systems to be installed and constructed to satisfy Agency needs.
  - Will not require continued use of Building 122, Power Plant. Any existing utility connections to the Power Plant to be severed and sealed.
- Electric
  - Seek to provide all OMH long-term buildings with electric power from the ConEd sub-station, Building 119 or other acceptable configuration.
  - Buildings 13, 103, 106, 114, 116 currently receive electric power from the Power Plant.
  - Investigating options for future Shared Service agreements with other Island occupants.
- Water
  - Infrastructure for self-sustainment in place.
  - Establish necessary easements for access to distribution piping in non-leased areas.
  - Investigating options for future Shared Service agreements with other Island occupants.
- Sanitary Sewer
  - Infrastructure for self-sustainment in place.
  - Establish necessary easements for access to distribution piping in non-leased areas.
  - Investigating options for future Shared Service agreements with other Island occupants.
- Storm
  - Infrastructure for self-sustainment in place.
  - Continue to assess for potential easements and other potential issues.

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Utility options for other Wards Island occupants.

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Utility Considerations for all non-OMH Island Occupants

1. Continued use of existing utility infrastructure:
   - ✓ Least-cost option to satisfy immediate needs, allows for deferred capital investment.
   - ✓ No disruption of service.
   - ✓ Provides time to plan, develop and implement a future utility infrastructure.
   - ✓ Maintenance staff is familiar with existing system; no need to learn the operations and maintenance requirements for a new system.

   - — Given the age of the equipment and distribution system, may be prone to failure/repair.
   - — As time passes, maintenance costs will increase as equipment reaches the end and then surpasses their life-cycle.
   - — Any attrition of personnel will result in lost knowledge-base to maintain the existing infrastructure or support future utility capital investment decisions based on the existing infrastructure.

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Utility Considerations for all non-OMH Island Occupants

2. Construct/install new utility infrastructure:
   - ✓ Reduced maintenance needs with new equipment; less prone to breakdown and failure.
   - ✓ Normally, newer equipment is more efficient. Equivalent or greater capacity for a given equipment size and potentially reduced energy costs.
   - ✓ Mitigation or elimination of transmission and distribution losses = reduced energy costs.

   - — Requires access to capital to fund implementation of new infrastructure.
   - — Potential disruption to building/occupant operations. May require temporary support systems and/or locations for continuation of programs.

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Questions

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