

**Preliminary Engineering Report
for
TRUCK-RAIL TRANS-MODAL FREIGHT FACILITY
City of Olean
Cattaraugus County, New York**



Prepared for:
Southern Tier West Regional Planning and
Development Board
Salamanca, New York

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Acknowledgements:

- Southern Tier West Regional Planning & Development Board
- City of Olean
- Town of Olean
- Town of Allegany
- Olean Urban Renewal Agency
- New York State Department of Transportation
- Western New York and Pennsylvania Railroad
- Dobmeier Lift Trucks, Inc.
- Indek Co-Generation of Olean, NY
- John Deere, Five Star Equipment, Inc.
- National Grid
- New York State Electric and Gas
- Time Warner Cable
- Verizon
- Wilson Manufacturing & Design, Inc.

Introduction:

The Southern Tier West Regional Planning and Development Board (STW) has studied the feasibility of developing a multi-modal freight transfer facility and manufacturing center (industrial and business park) in the Southern Tier West region of New York State.

Previously STW retained the services of The RNO Group LLC to prepare a “Final Report, Statement of Feasibility and Feasibility Report, Multi-Modal Freight Transfer Facility and Manufacturing Center Study” in the spring of 2008.

During the feasibility study a list of 21 candidate sites was identified by STW staff and management. The sites were located in Chautauqua, Cattaraugus, and Allegany counties. They were identified through an outreach process with economic development agencies, county and city officials and railroad partners. Site attributes reviewed during the site selection process included information on transportation infrastructure, utilities, grade, environmental, wetlands, population and surrounding land use. Based on the detailed site selection process, it was recommended that the former Norfolk Southern Corporation (NS) switching yard at Olean, New York, (the Olean Yard) be considered as the primary site for the development of the multi-modal freight transfer facility & manufacturing center. This location is shown in **Figures 1 & 2**. The proposed site was determined to be the most appropriate location based on its direct access to the Western New York and Pennsylvania Railroad Company (WNYP), accessibility to the Southern Tier Expressway, I-86, its suitable location that avoids residences and the availability of roughly 200 acres for future expansion beyond phase 1.

The RNO report further recommended the phased development of the project facility as follows:

- Phase 1- Development of a non-container transmodal facility.
- Phase 2- Development of an intermodal container operation and a satellite marine terminal.
- Phase 3- Development of a Business Logistics Park with foreign trade zone designation.

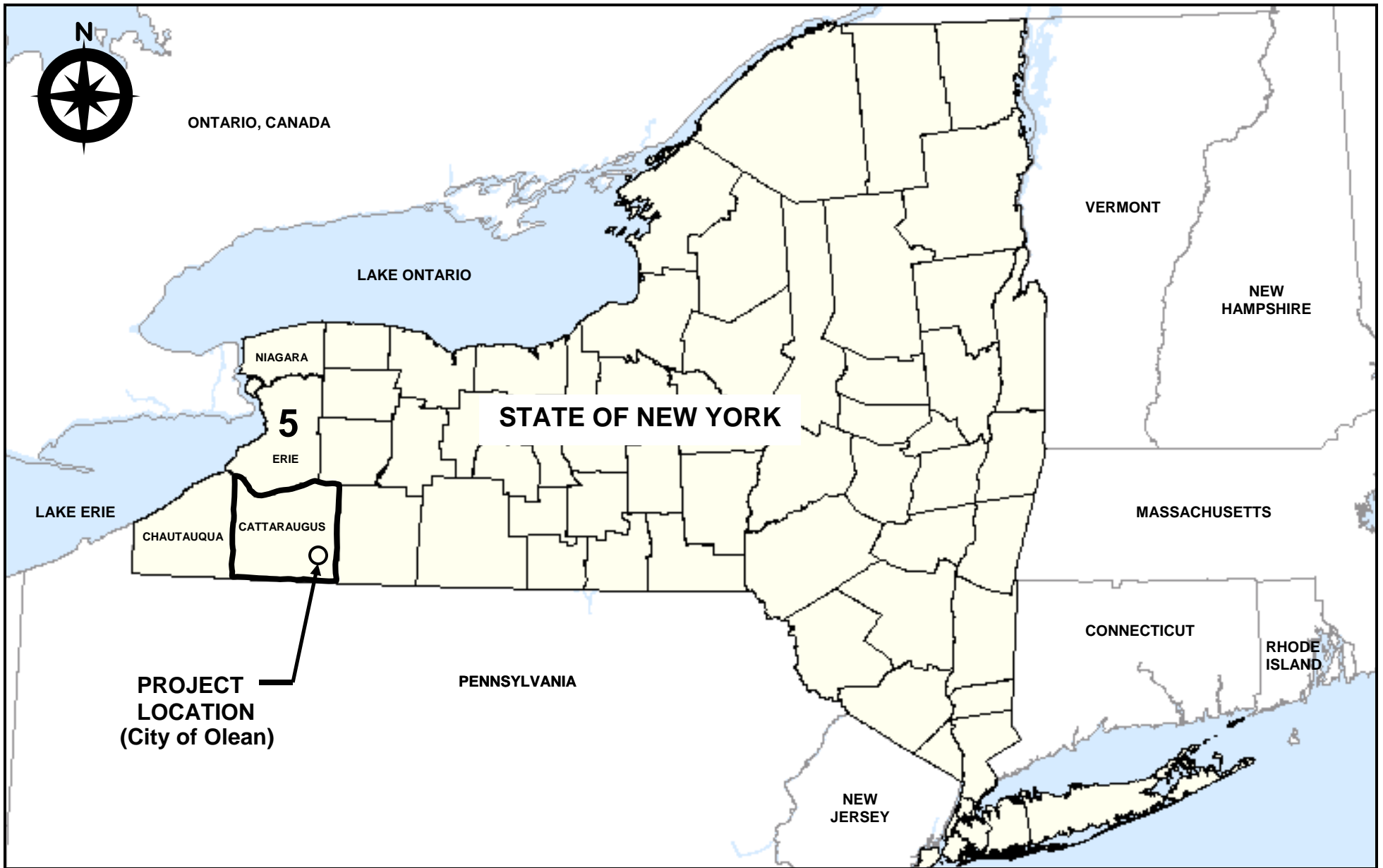


FIGURE 1 – STATE LOCATION MAP



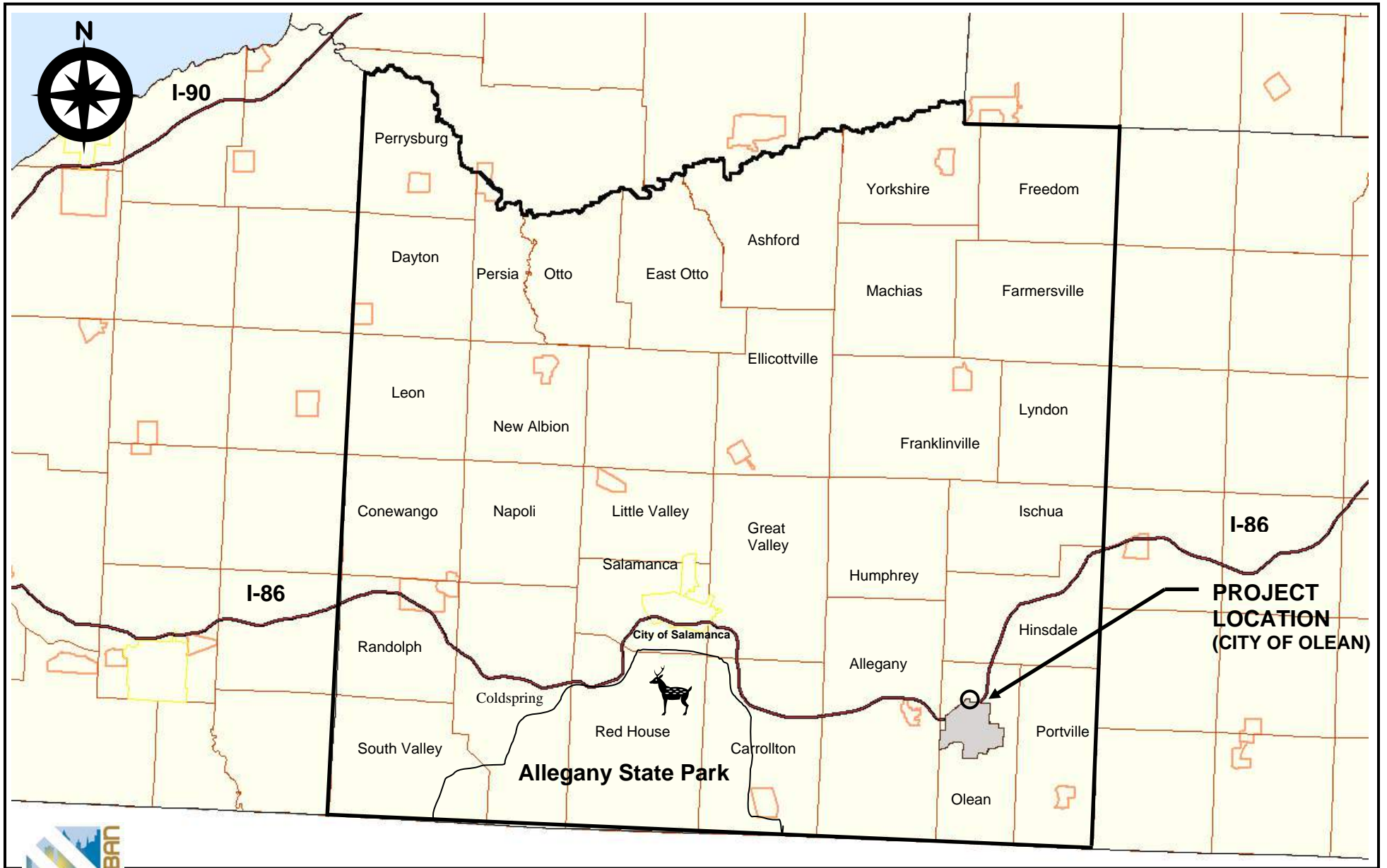


FIGURE 2 - COUNTY LOCATION MAP

In January 2009, STW retained the services of Urban Engineers of New York, PC (Urban) to prepare a Preliminary Engineering Report to provide engineering services and develop budgetary costs for design and construction of the phase 1 transmodal freight facility. In addition STW requested that conceptual locations be developed for phase 2 and 3 operations, together with conceptual transportation improvements to accommodate the development of Phase 2. The scope of this study is defined by the following tasks:

- Task 1- Produce a preliminary site layout.
- Task 2- Hold meetings with representatives from the City of Olean and utility companies.
- Task 3- Develop aerial mapping and conduct a site survey.
- Task 4- Prepare a final site layout plan.
- Task 5- Conduct a geotechnical and soils review.
- Task 6- Conduct a traffic analysis.
- Task 7- Conduct a Phase 1 Environmental Assessment.
- Task 8-Develop a budgetary cost estimate.
- Task 9- Prepare a Report of Findings, Recommendations and Cost Estimate.

Urban presents this Preliminary Engineering Report for the proposed Phase 1 Transmodal Freight Facility, which is to be located in and adjacent to the Olean Rail yard. Further defined the proposed facility is located north and east of the Constitution Avenue and 24th Street intersection in the City and Town of Olean, Cattaraugus County, New York see [Figure 3](#). It would generally be located within and contiguous to the former Norfolk Southern (NS) classification yard in the northwest section of the City of Olean. Task 1 of this report discusses Phases 1, 2, and 3, while Tasks 2 through 9 will focus on Phase 1, the non-container transmodal facility, only.



FIGURE 3 – TRANS-MODAL FACILITY





PHASE 1: Concept Plan

The proposed Phase 1 transmodal facility is located on a 17± acre site, off of I-86, the Southern Tier Expressway, along the north side of Constitution Avenue in the City of Olean. The proposed facility would allow for several modes of transportation designed to handle various bulk and liquid products from truck to railcar, railcar to truck, with warehousing capabilities and ground storage.

The concept plan for the transmodal facility includes administration and warehouse buildings, loading docks, granular conveyors and lifts, liquid storage tanks, rail sidings, security kiosks, associated parking lots, access drives, and storm water management facilities. The plan has been developed for a full build-out of the transmodal facility. The development of the facility could occur in stages based on the volume and type of commodities to be accommodated.

The site is comprised of several adjoining parcels, and is accessible on the south side through a lot that fronts Constitution Avenue at North 24th Street and on the east side by a narrow corridor that extends east to Constitution Avenue. The eastern access corridor is currently occupied by an abandoned rail spur, and is bounded on the north and south by commercial/industrial properties. The site consists primarily of railroad and commercial properties. Most of the site is currently occupied by a railroad maintenance yard, and is covered with gravel access roads, scattered wooded and shrub covered areas, and a few small buildings. A portion of the site is leased by a logging company for storage and transfer of logs. The eastern portion of the site is undeveloped and partially wooded. The site is bound on the north by railroad tracks, commercial and industrial properties, on the south by commercial properties, beyond which is Constitution Avenue, on the west by railroad and commercial properties, and on the east by commercial parcels, see [Figure 3](#).

This Preliminary Engineering Report presents the findings of our review of engineering factors for the development of the Phase 1 transmodal freight facility. The report presents a site location plan, the findings of a Phase 1 Environmental Site Assessment review, a completed State Environmental Quality Review (SEQR) – Full Environmental Assessment Form, an analysis of existing and projected traffic generated by Phase 1, as well as the results of a geotechnical study of the Phase 1 site. A budgetary engineering cost estimate is also included for the development and full build out of the Phase 1 transmodal freight facility. Possible site locations for the development of Phases 2 and 3 are also presented and discussed, as well as several conceptual proposals, which would provide access to the site of Phase 2, container operations, from the existing transportation system.

1.0 TASK 1: Produce a Preliminary Site Layout

The Olean rail yard is located in the northwest section of the City of Olean. Portions of the rail yard are located in three municipalities; the City of Olean, Town of Olean, and Town of Allegany (see [Figure 4](#)). The proposed phase 1, transmodal freight facility, is located in the City and Town of Olean. The site has proximity to I-86, the Southern Tier Expressway, and is within 1 mile of Exit 25 at Buffalo St. The portion of the rail yard and other adjacent parcels to be used for phase 1 is approximately 17+/- acres. The site has considerable infrastructure in place, including rail infrastructure. While the majority of the site is on property owned by the Southern Tier Rail Authority, a portion of the property is under the ownership of the Olean Urban Renewal Agency. The southeasterly portion of the site is under private ownership.

1.1 Phase 1: Transmodal Facility

The Phase 1 transmodal facility is to be built on the eastern portion of the existing rail yard, utilizing an unused siding that extends eastward from the yard area to Constitution Ave. Ingress to the facility would be from Constitution Ave. 0.3 miles southwest of the signalized intersection with Buffalo St. The egress driveway would enter onto Constitution Ave. across from the existing N.24th St. intersection.

The RNO Report recommended that Phase 1, the transmodal facility, be designed to accommodate the following two groups of commodities:

- Group A Commodities:
 - Dry Bulk (grain, cement, fertilizers, plastic granules & pellets, etc.)
 - Liquid Bulk (petroleum, liquid natural gas, chemicals, liquid edibles, etc.)
 - Aggregates (sand, gravel, crushed stone, ores in pellet form, etc.)
- Group B Commodities
 - Break Bulk (bales, barrels, cartons, cased goods, drums, etc.)
 - Palletized Cargo (loose items palletized and shrink-wrapped)
 - Lumber (wood products)

Conceptual plans were developed, each accommodating the Group A and Group B commodities listed above. Options 1 and 2 are shown in [Figures 5 and 6](#). The options were designed to handle the 6,000 rail cars that are forecasted for Phase 1 annually. However further review of the impacted parcels indicated that potential conflicts existed with a parcel owned by the Olean Urban Renewal Agency and an easement to National Grid for existing electric transmission line infrastructure. Consequently the two options were modified and new options 3 and 4 were developed. They will be discussed later in this report as part of Task 4.

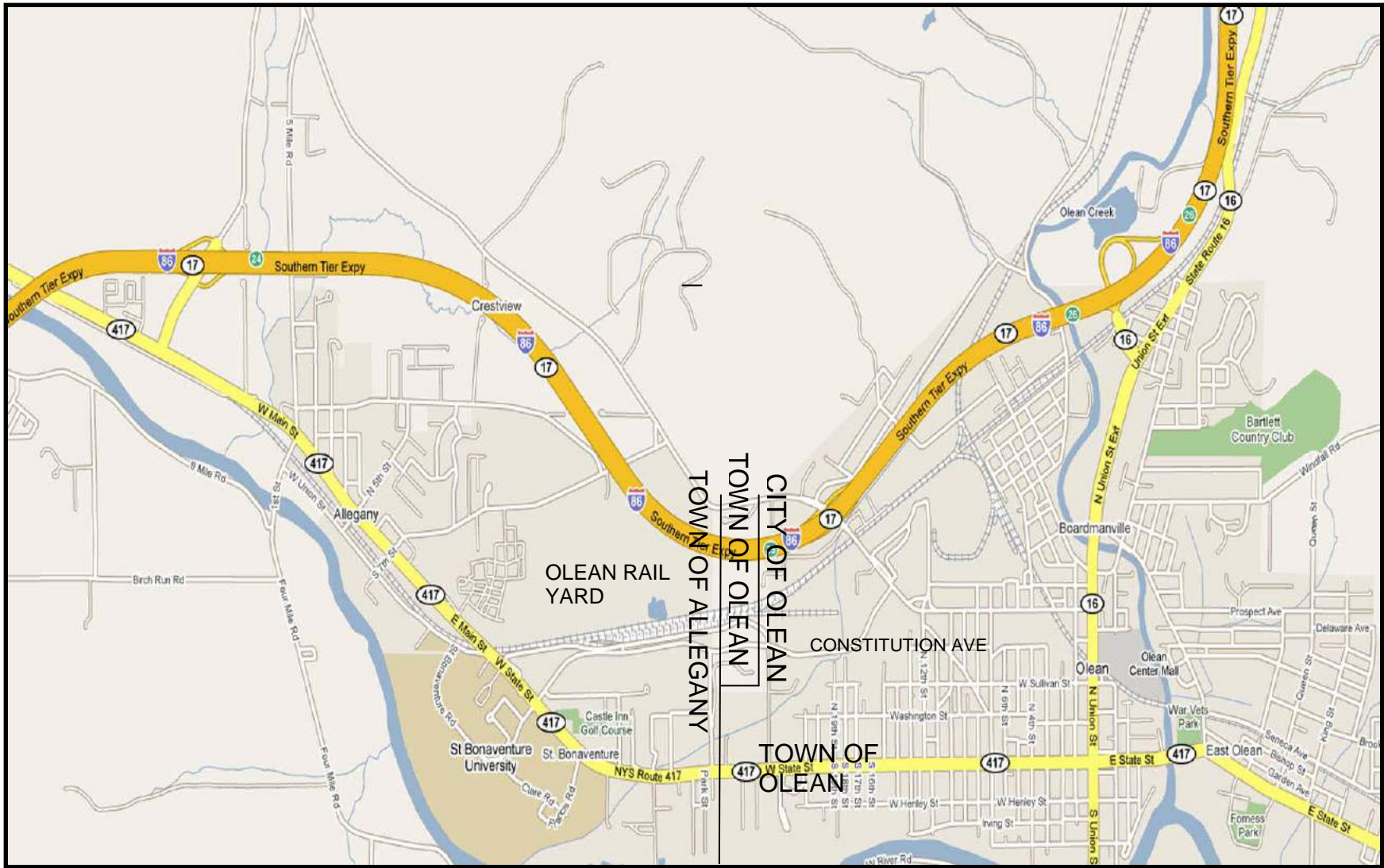


FIGURE 4 – JURISDICTIONAL BOUNDARIES

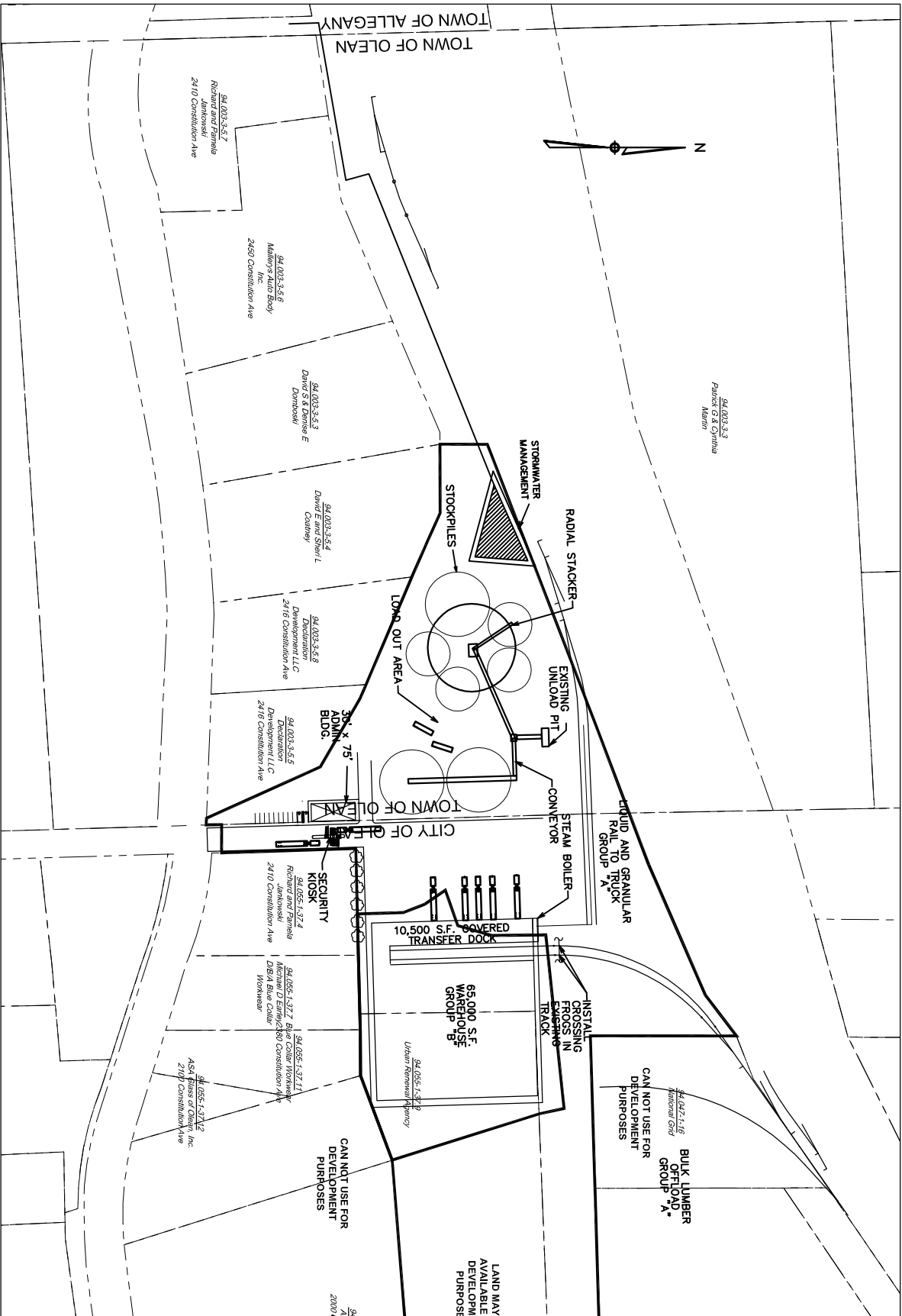


FIGURE 6 - OPTION 2



SCALE: 1"=250'

The proposed transmodal facility is located generally north of the Constitution Avenue and N. 24th Street intersection in the northwest section of the City of Olean, as well as the northwesterly portion of the Town of Olean. The facility would be located approximately 1.0 mile southwest of Exit 25, Buffalo St., of I-86, Southern Tier Expressway. It is a part of the existing Olean Rail Yard, which is adjacent to and north of Constitution Avenue (see [Figure 3](#)). Traffic would enter the facility off of Constitution Avenue approximately 0.3 miles southwest of the intersection with Buffalo Street. The exit driveway would be located opposite the North 24th Street intersection with Constitution Avenue.

As discussed, the transmodal freight facility has been developed to handle dry bulk, liquid bulk, aggregates, break bulk, palletized cargo, and lumber. It would include loading tracks, where freight is removed from or placed on/in boxcars, tank cars, or flat cars; storage and loading area for bulk freight; an administrative building, and control (security) buildings. Bulk materials would be placed in a storage area for trucks to pick up at a later date. A warehouse is included for the inside storage of vulnerable bulk materials, such as palletized material, and outside space for storage of the remainder of the bulk freight, such as various types of aggregate and lumber products.

All options contain a conceptual location for Phase 2, the development of an intermodal container and satellite marine terminal operation. The location is identified as Site #1 on [Figure 7](#). The proposed sites for Phase 3, the Manufacturing Park, are shown as Site 2 to 8 on [Figure 7a](#).

1.2 Phase 2: Intermodal Container & Satellite Marine Terminal

Phase 2 involves the expansion of operations to permit the development of intermodal container operations and a satellite marine terminal proposed to accommodate container traffic. The conceptual location for this phase is identified on both options 3 & 4 and is located north of the rail yard, between the yard and the Southern Tier Expressway, I-86.

1.3 Phase 3: Manufacturing Park

As previously mentioned, the RNO Report recommends that Phase 3 involve the development of a Business and Logistics Park. The report further recommends that Phase 3 be developed as a “scattered site” development of acreage on which businesses would be sited. The Report identified a number of scattered sites that collectively might be considered to be the footprint of a Business and Logistics Park. The six sites, which are proposed as possible locations for Phase 3 operations, are located in the section of Olean between Buffalo St., the half diamond interchange formed by east-west and north-south mainlines of the Western New York and Pennsylvania Railroad Company (WNYP), and I86, Southern Tier Expressway.

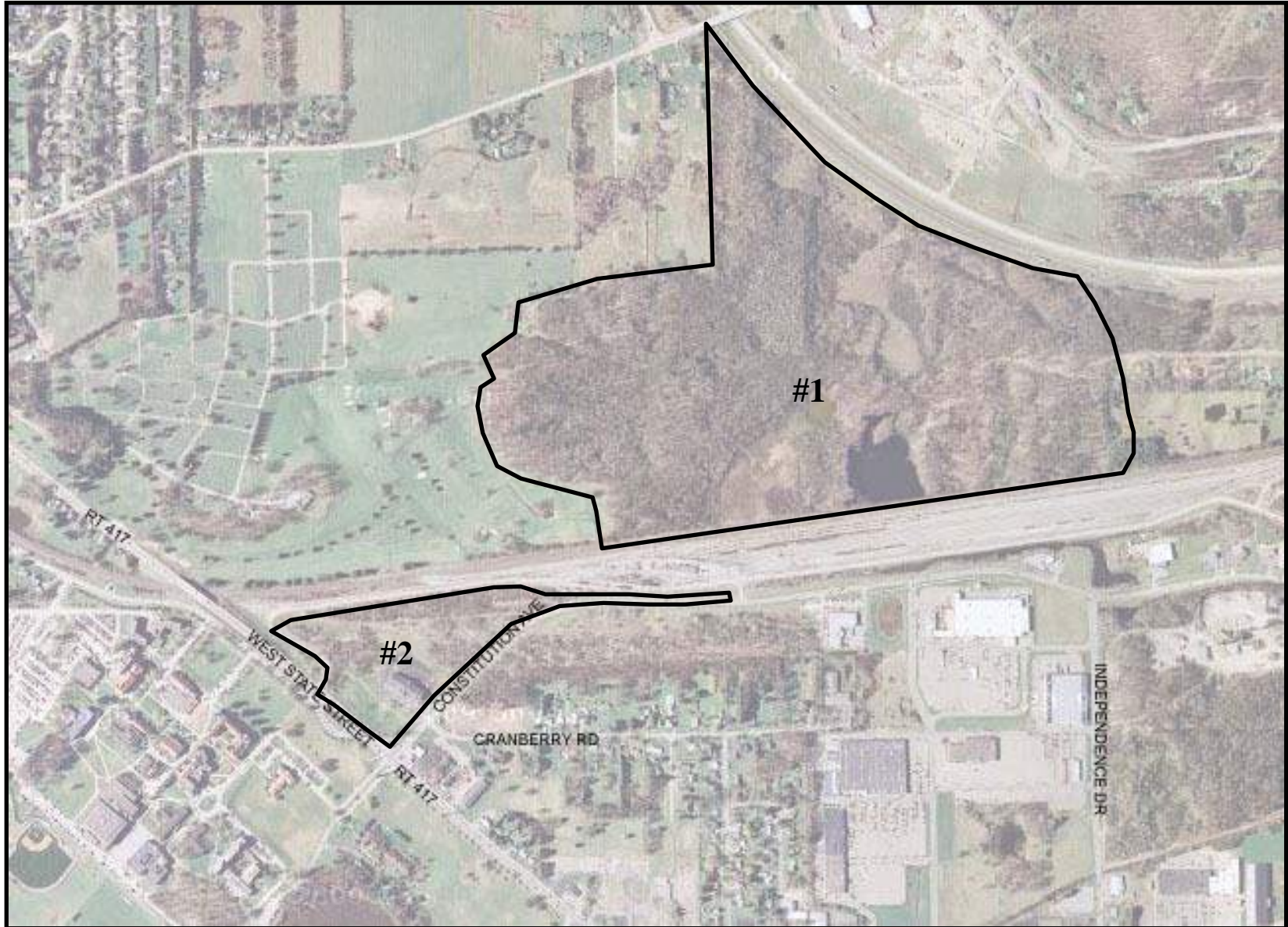


FIGURE 7 – PHASE 2, SITE 1 PHASE 3, SITE 2



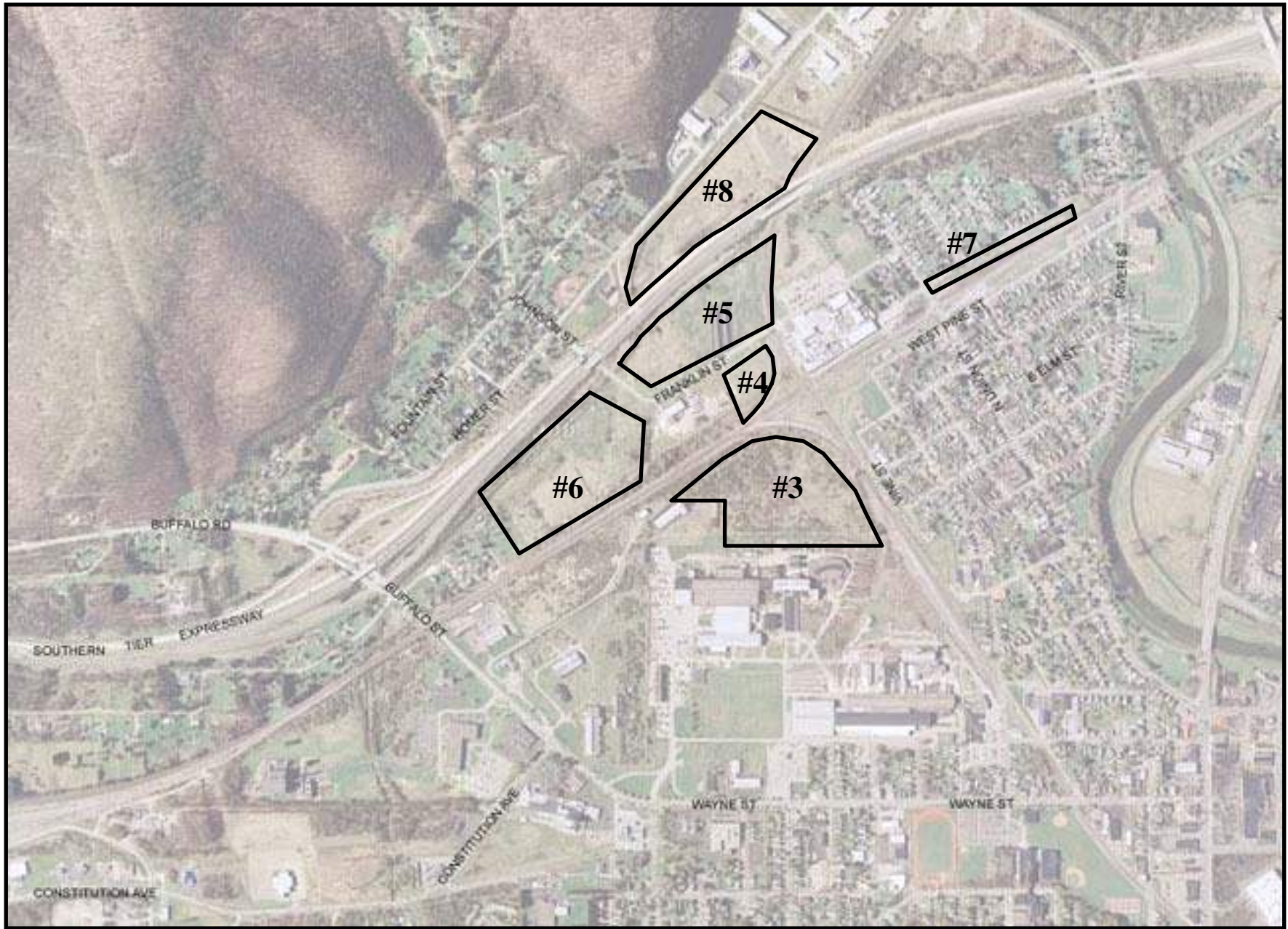


FIGURE 7a – PHASE 3, SITES 3-8



All seven of the scattered sites are located within areas zoned I- Industrial use. As per the “Code of Ordinances of the City of Olean, New York”, Industrial Use District is defined as follows:

- The intent of the I Industrial Use District is to delineate areas within the city, which are used for and are appropriately suited to manufacturing, distribution, major wholesaling, research and testing, warehousing, processing or other industrial uses, etc.”

The specific sites are as follows (see [Figures 7 and 7a](#)).

Site 1: This site makes up the area identified for Phase 2 operations. It is bordered on the south by the Olean rail yard, on the north by the I-86 expressway, on the west by the St. Bonaventure Golf Course and cemetery and on the east by Exit 25 of the expressway. This is a Greenfield site, and accordingly it is not served by municipal water and wastewater services, or by natural gas, electricity, and telephone and data transmission utilities. This site is approximately 140 acres in size. See [Figure 7](#).

Site 2: Constitution Ave., Rt. 417, West State St., and an unnamed street, which runs generally parallel to and south of the rail yard, border this triangular shaped site. The current owner of this site is listed as St. Bonaventure University. The area immediately south of the rail yard is wooded and continues easterly between the rail yard and Constitution Ave, easterly to N.24th St.. This east west linear area currently has businesses located on the easterly portion of the site between Independence Drive and N.24th St. See [Figure 7](#).

Site 3: This site is bordered on the north by the east-west line and on the east by the north-south line of the WNYPRR, located at the SW quadrant of the diamond interchange between the two railroad lines. This site is approximately 10 acres in size. See [Figure 7a](#).

Site 4: A 2-acre site bordered on the north by Franklin St., on the south by the east-west line and on the east by the north-south line, at the northwest quadrant of the diamond interchange between the two lines. This site is bounded on the north by Franklin St., a City of Olean Street. See [Figure 7a](#).

Site 5: North of Franklin Street and east of Johnson St. is another parcel of developable land, which could be aggregated with the site 3-2 south of Franklin St., resulting in a larger site with greater potential for development. This site is about 10 acres in size. See [Figure 7a](#).

Site 6: This site is located west of site 4, on the west side of Franklin St. It is bordered on the south by the east-west line of the WNYPRR. This location could be combined with

site 3-3, and could also include a capped Superfund landfill site that could possibly have limited redevelopment potential as a paved truck parking area. The acreage at this site would be between 10 and 20 acres. See [Figure 7a](#).

Site 7: This is a linear site generally between N. Union St. on the west, and River St. on the east, and bordered on the north by E. Connell St., and on the south by the WNYPRR east-west line. This site appears to be on property of the Southern Tier Extension RR Authority, which is currently used as a common or public team track transmodal facility. See [Figure 7a](#).

Site 8: A site bordered on the south by I-86 and the north by Homer Street in the city of Olean. It is located to the east of Johnson St. Because of its proximity to the north south railroad line, it is possible that this site could be serviced by a siding which would come off of the north south line. There are between 15 and 20 acres available for development. See [Figure 7a](#).

2.0 Task 2: Meetings with Representatives from the City of Olean and Utilities

As part of this preliminary engineering study related to the proposed development of a transmodal freight facility at the Western New York & Pennsylvania Railroad Yard in Olean, NY, Urban Engineers was charged with assessing infrastructure requirements of the proposed facility. An initial meeting was held in February 2009 with officials from the City of Olean including the Mayor, Department of Public Works (DPW), Police, Fire and Zoning / Code Enforcement to inform them of the study as a follow up to the RNO Report of December 2007. Aerial photos of the site were presented and access points were discussed at locations on the north side of Constitution Avenue on the North side in the vicinity of N. 24th Street and approximately 2,800 feet to the east where an existing, unused railroad siding intersects the Constitution Avenue right of way. It was a consensus of the group that the site identified for the transmodal facility is a good choice due to its proximity to the existing rail yard, other industrial uses, no residential impacts and that traffic congestion is not an issue at this time.

The DPW informed Urban that Constitution Avenue within the city is owned and maintained by the City of Olean which was constructed in the early 1990's with further work done to rehabilitate the pavement and shoulder areas 2-3 years ago. Water and sanitary sewer lines owned by the city exist on the north side of the street and that there is no closed storm drainage system. In addition it was revealed that electrical service in the area is provided by National Grid and gas by NY State Electric and Gas (NYSEG). Standard hard line phone service with DSL Internet is provided through Verizon and cable TV with high-speed internet capability is available with Time Warner Cable service.

Discussion also took place in regard to zoning of the site and applicable building codes. The proposed site is currently listed as general industrial with I-2 and I-3 designations, which are appropriate for the proposed use. Section 6.1 of the City of Olean Zoning Law contains specifics for density in regard to lot size, front/side/rear yard requirements, lot coverage, building heights and separation. A table showing this data related for zoning land use types is shown below (see **Table 1**). In regard to building codes, Olean like many other municipalities in NY State has adopted the latest version of the NY State Building Code, which is currently the 2007 edition. It is anticipated that the proposed facility would be designed to comply with the City of Olean Zoning Laws and the NY State Building Code in place at the time of construction. Prior to any construction the City of Olean Office of Code Enforcement would be responsible for site plan approval and issuing building permits related to the project. Current development scenarios for the facility involve construction of a small administration building (2,200 s.f.) for staff, a warehouse facility with an area of 65,000 s.f. with slab on grade construction, liquid storage tanks, granular stockpile areas, railroad sidings, access roads and a parking area for employees.



Sec 6.1

City of Olean Zoning Law – Density Control Table

Use District	Minimum Lot Area (sq. ft.)	Minimum Lot Width (ft.)	Minimum Yard Requirements (ft.)			Maximum Lot Coverage			Maximum Building Height (Feet/Storys)	Minimum Building Separation on Same Lot (ft.)
			Front	Side	Rear	Principal Use (%)	Garage Use (%)	Accessory Use (%)		
R1	9,000	60	25	4*	35	25	7	2	40 3	5
R2	6,000	50	20	4**	20	30	10	2	40 3	5
R3	4,000	40	15	4**	10	35	12	5	40 3	5
RT	4,000	40	15	4**	10	50	12	10	40 3	0
CC	2,000	30	0	0	0	50	12	10	75 3	0
GC	2,000	30	0	0	0	50	12	10	40 3	0
WC	4,000	40	15	4**	10	35	12	5	40 3	5
I	N/A	N/A	50	N/A	N/A	20	12	10	75 N/A	0
I2	N/A	N/A	50	N/A	N/A	50	12	10	75 N/A	0***
I3	N/A	N/A	50	20****	10****	50	12	10	75 N/A	0****
PR	10,000	100	40	20	10	25	10	10	30 2	5
PB	N/A	N/A	N/A	N/A	N/A	25	10	10	40 3	5

- * The minimum width required for a side yard is 4 feet on any side, with both sides together totaling a minimum of 25 feet.
- ** The minimum width required for a side yard is 4 feet on any side, with both sides together totaling a minimum of 14 feet.
- *** See Section 10.22 for minimum separation distance requirements between adult uses and other specific uses.
- **** These setbacks shall be doubled for any parcel that is adjacent to a residentially zoned area.

TABLE 1 – CITY OF OLEAN ZONING LAW

As a follow up to the meeting with City of Olean officials Urban further investigated utility information to verify providers and ascertain locations and sizes of existing infrastructure. A summary of these investigations is as follows:

2.1 City of Olean: Water and Sanitary Sewer

Additional meetings and discussions were held with the City of Olean Department of Public Works in regard to water and sanitary sewer infrastructure on Constitution Ave. Mr. David Crandall, Senior Civil Engineer, with the DPW confirmed the existence of an (8) inch sanitary sewer on the North side of Constitution Ave., which has sufficient capacity to handle the minimal sanitary flows, which would be generated by this project. He also stated that the existing (8) inch line ties into a (27) inch, main sanitary trunk line that is currently being reconstructed. The proposed transmodal freight transfer facility would require new (4 to 6) inch connections for the proposed administration building and warehouse from the North side of Constitution Ave.

In regard to water service discussions were held with Mr. Mark Whiteman, Water Maintenance Supervisor, who confirmed that an (8) inch water line exists on the North side of Constitution Ave. The transmodal facility option 3 water service requirements were presented in regard to the administration building, warehouse and freight transfer operations. Mr. Whiteman stated that his current records indicate a (1,125) gallon per minute flow rate and a residual pressure of 45 psi, which would be sufficient for separate (2) inch commercial water supplies and (6-8) inch connections for fire service. As with the sanitary sewer, new service connections would need to be constructed from the North side of Constitution Ave. to the new structures and facilities associated with the proposed transmodal facility.

2.2 National Grid: Electric

Contact was made with Mr. Paul Hardiman, Planning Supervisor, for the Olean area in regard to existing service at the WNYF Rail Yard and future service capabilities. Urban was informed that the existing service to the rail yard is a privately owned (13.2) kilovolt service in good condition which has more than enough capacity to energize and operate the new facilities proposed at the transmodal site. He also stated that if a new, separate service was required to be installed for the transmodal facility, National Grid has sufficient capacity in the area. A commercial service application process would have to be followed and standard construction installation rates at the time would apply.

2.3 NY State Electric and Gas: Natural Gas

Contact was made with Ms. Debra Travis, Field Service Engineer, with NYSEG in regard to natural gas service for the proposed transmodal facilities. Discussion was held in regard to the other recent development projects that have occurred on Constitution Ave. She stated that transmission line improvements were done on a case-by-case basis to service individual sites and that sufficient capacity exists in the area for the proposed transmodal site. At a future point in time when design and construction may commence NYSEG would have to be contacted as part of the process to extend service lines to the facility.

2.4 Indek Co-Generation: Electric and Steam 2.4

The Indek Olean Co-Generation Plant is located just to the north of the proposed transmodal facility and produces electricity and steam for heat by burning natural gas. Discussions were held with Mr. Tod Dodmeier, Plant Manager, in regard to the possibility of the co-generation plant providing electric power and steam heat to facilities associated with the proposed transmodal facility. These discussions revealed that at the present time the co-generation plant produces electricity for sale back on the power grid only and not for private customers.

Also it does not operate on a full time basis and only produces electric power when the statewide, daily market rates make it worthwhile.

The co-generation plant also produces steam heat as a by-product to the electrical generation process. This heat source is also not a full time operation and the only way to achieve a reliable supply would be to construct an auxiliary boiler at the plant dedicated to the transmodal facility. This dedicated boiler would be a capital cost associated with the transmodal facility at an estimated cost of \$ 2.5 million dollars. Based on costs along with the current operations and policies of the co-generation plant it would seem that utilizing it for heating purposes at the transmodal facility is not a viable option at this time. However market conditions and energy demands are subject to change and this matter should be reevaluated at a future point in time as development of this project progresses.

To summarize in regard to utility infrastructure related to proposed development of transmodal freight transfer facility there is sufficient, existing infrastructure to support the proposed development. City officials from Olean and the other utilities contacted were all very cooperative and in support of the project. National Grids concerns in regard to operations in the vicinity of existing overhead electric transmission lines will need to be addressed and further defined as the project moves forward.

3.0 Task 3: Develop Aerial Mapping and Conduct Site Survey

In an effort to utilize aerial mapping to develop preliminary and final conceptual plans for the transmodal facility Urban obtained and reviewed aerials for the site from various sources. Upon review of the different aerials maps obtained it was decided to utilize the orthoimagery from the NY State GIS Clearinghouse based on the clarity / detail of the imagery along with the ease of use. Urban then work in conjunction with Mr. John Buzzard of the STW to obtain GIS data for the site including municipal boundaries, parcel boundaries, contours, area roadways and railroad infrastructure. Property owner information was then obtained from the Cattaraugus County Parcel Viewer website.

All of the aerial mapping and data obtained was then assembled in AutoCAD to create a detailed base composite map and a series of working maps for the transmodal site. Various conceptual transmodal site options were then overlaid on the composite map for review and comment by STW and WNY & P. Upon reaching a consensus on a preferred conceptual alternative a large scale composite photograph of the site will generated along with 11 x 17 inch drawings for inclusion in this report.

4.0 Task 4: Prepare Final Plan

The initially developed options, 1 and 2, discussed in Task 1, were modified due to the potential conflict which existed with parcels owned by National Grid and the Olean Urban Renewal Agency due to the presence of overhead electric transmission lines as well as with some of the existing infrastructure located on the footprint for the two options. Site plan options 3 and 4 (see **Figures 8 and 9**), were developed which alleviated the issues which existed with the first two options, while still maintaining the proposed transmodal freight facility requirements on the property of the Olean rail yard. The reconfigured options, however, would require the acquisition of an unused portion of a privately owned parcel on which a banquet facility is presently located.

4.1 Options 3 and 4

Options 3 and 4 have been developed to accommodate the two commodity groups identified in the RNO report, Group A (dry bulk, liquid bulk and aggregates) and Group B commodities, (break bulk, palletized cargo, and lumber). Each option provides a warehouse with covered rail transmodal dock and truck dock capacity to support the transfer of bulk and break bulk freight onto boxcars and flatcars. Bulk fluid tanks and aggregate facilities are also provided. As recommended in the RNO report, the site has been developed to handle approximately 6,000 rail-cars annually. For reasons explained in Task 1, the initial two options were reconfigured and presented to STW and the WNYPRR on May 27, 2009, at a meeting held at the offices of STW. The purpose of the meeting was to review and obtain comments on the reconfigured site development options three and four. Attending that meeting were representatives of STW, as well as Mr. Carl Belke, CEO of Western New York and Pennsylvania Rail Road. Following a lengthy discussion regarding the two options, Mr. Carl Belke, as well as representatives of STW agreed that option 3 was the preferred option. This Preliminary Engineering Report identifies option 3 as the preferred option for the transmodal facility. **Figure 10** is a three dimensional representation of option 3.

4.2 Preferred Option 3

This transmodal freight facility has been designed to handle dry bulk, liquid bulk, aggregates, break-bulk, palletized cargo, and lumber. It would include loading tracks, where freight is removed from or placed on/in boxcars, tank cars, or flat cars; storage and loading area for bulk freight, an administrative building, and control (security) buildings. Bulk materials would be placed in a storage area for trucks to pick up and distribute at a later date. A 65,000 square foot warehouse is included for the inside storage of vulnerable bulk materials, such as palletized products, and outside space for storage of the remainder of the bulk freight, such as various types of aggregate and lumber.

LINE COLOR	DESCRIPTION
DARK BLUE	STORMWATER
BLUE	BUILDING LINES
GREEN	RAIL SIDINGS
RED	PROPERTY LINES
MAGENTA	TANKS, STOCKPILES
(Hatched Box)	RESTRICTED USE PARCEL
---\$---\$---\$	STEAM LINES
- - -	DRAWING NOT TO SCALE

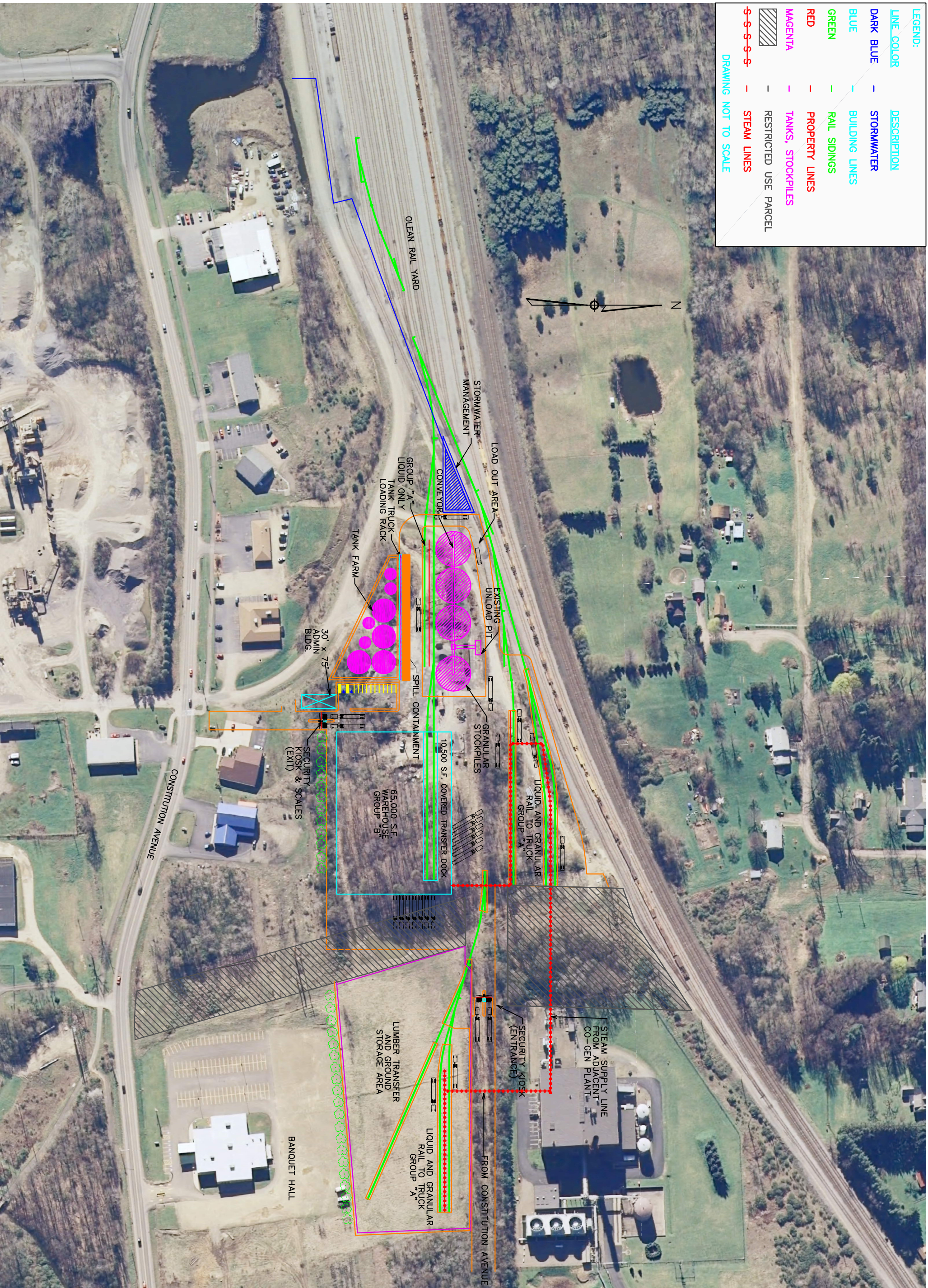


FIGURE 8 - CONCEPTUAL SITE PLAN OPTION #3



LINE COLOR	DESCRIPTION
DARK BLUE	STORMWATER
BLUE	BUILDING LINES
GREEN	RAIL SIDINGS
RED	PROPERTY LINES
MAGENTA	TANKS, STOCKPILES
(Hatched Box)	RESTRICTED USE PARCEL
---S-S-S---	STEAM LINES

DRAWING NOT TO SCALE

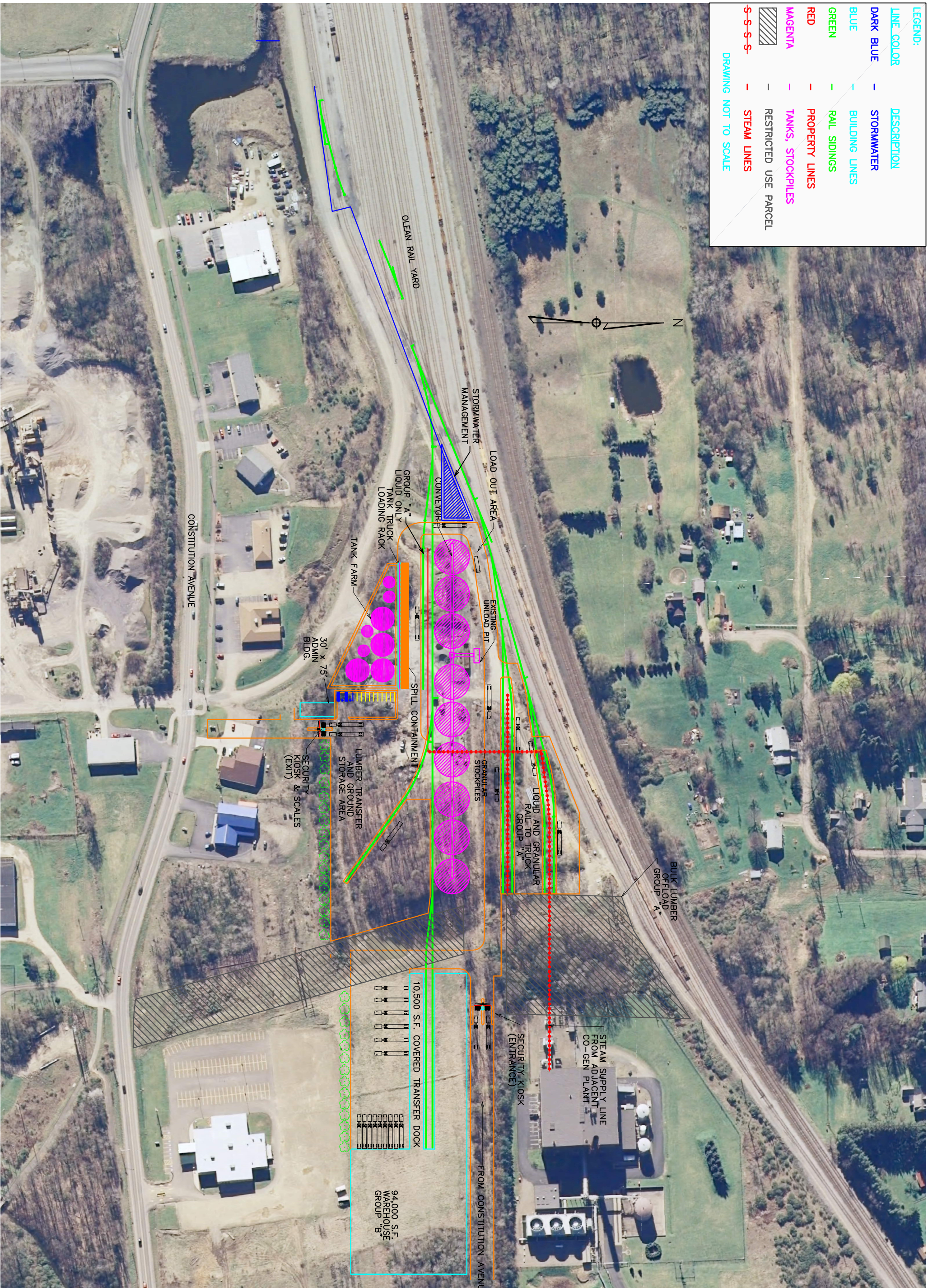


FIGURE 9 - CONCEPTUAL SITE PLAN OPTION #4





FIGURE 10 – THREE-DIMENSIONAL VIEW – OPTION #3

The conceptual plan for the proposed transmodal freight facility is located along the easterly portion of the Olean rail yard, as shown in **Figure 3**. The existing roadway network within the study area (see **Figure 11**) includes I-86, Southern Tier Expressway, Buffalo St., Constitution Ave., and West State St. - Rt. 417. Trucks would have access to the site from I-86 via Exit 25, at Buffalo St. This interchange is located less than 1 mile from the proposed site. This diamond interchange provides eastbound and westbound on and off ramps to Buffalo St. I-86. Exit 24, 3 miles west of Exit 25, interchanges with West Five Mile Rd in the Town of Allegany. Trucks exiting at this interchange would travel, approximately 4 miles along Rt. 417, through the Town and Village of Allegany, onto Constitution Ave. to access the transmodal site. Exit 26, interchanges with Rt. 16 in the City of Olean. Access to the proposed site from this interchange would be via Rt. 16, North Union St, and Wayne St., which is signed as a “Truck Route”, to Buffalo St. and onto Constitution Ave.

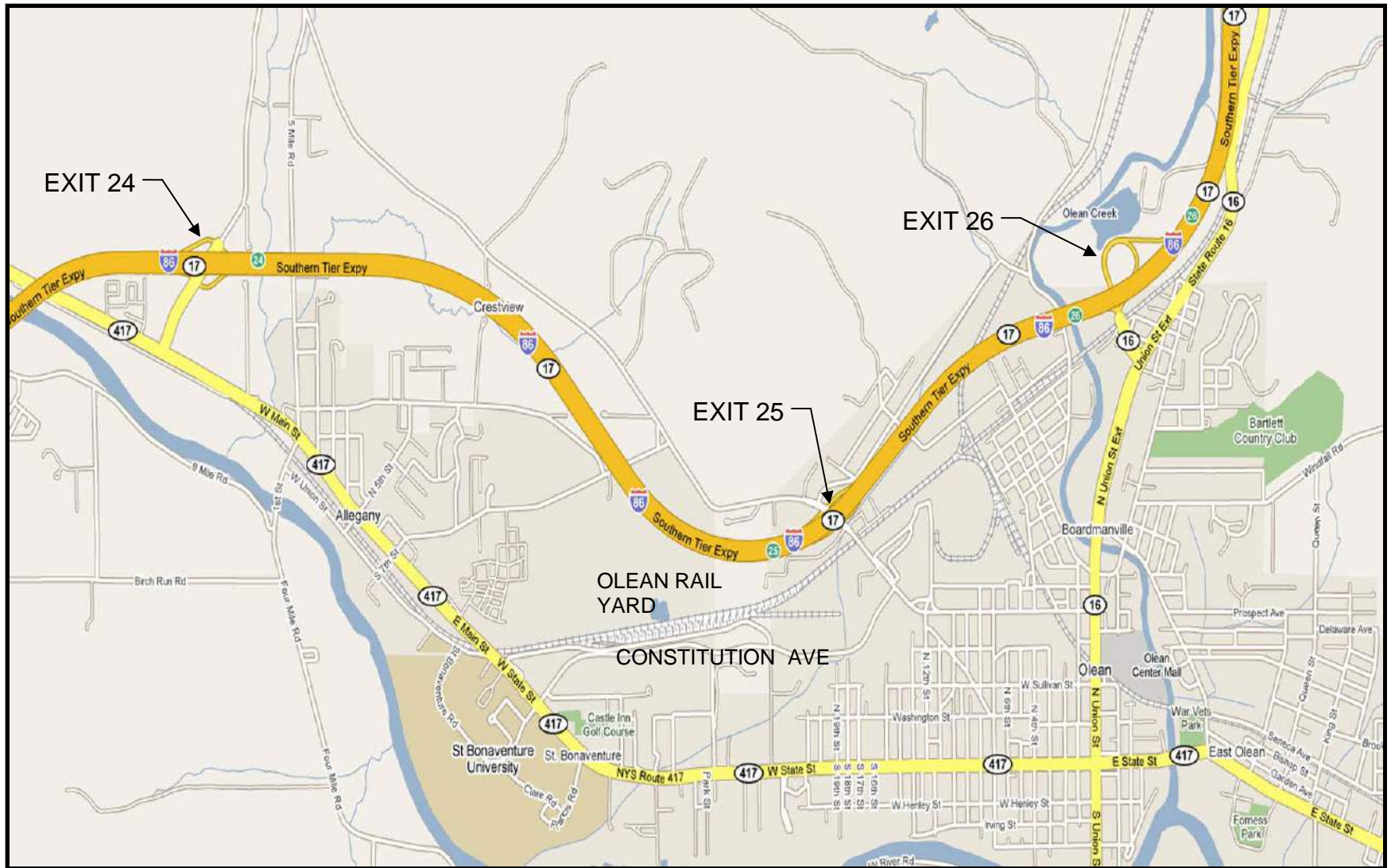


FIGURE 11 – ROADWAY NETWORK



5.0 Task 5: Geotechnical / Soils Review

Eight (8) test borings were performed on April 27 and 28, 2009, and laboratory testing was performed on selected subsurface samples. The site is occupied by railroad maintenance yard and a logging company, and a 4.0 ft. thick layer of fill consisting of brown silt and sand, little to some gravel, trace wood and brick, was found in borings performed on the southern side of the site. About 3.5 ft. to 15.0 ft. thick of virgin brown and gray silt and gravel, trace to some sand, was found below the fill on the south side and at the ground surface elsewhere. Brown sand, some gravel, trace to little silt, was found at depths of 15 ft. to 20 ft. underlying much of the site. Ground water was found at depths of 16 ft. to 17 ft. below the existing ground surface.

Cutting and filling will likely be required to construct the proposed transmodal freight facility. The on-site silty soils, while of poor quality for use as fill, may be used for filling. Borrow granular soil fill is available in the region as bank-run-gravel. The proposed structures may be supported on spread footings constructed on virgin soils and /or compacted engineered fill, and designed for low to moderate bearing pressures. The floor slabs may be placed on grade. The frost depth may be assumed to be 4 ft. in the Olean, New York area. Pavements will require thick subbase and base courses to withstand frost heave and the high volume of truck loading.

The complete Geotechnical Feasibility Study with backup data may be found in Appendix A.

6.0 Task 6: Traffic Analysis

A review of existing traffic volumes and traffic operations was conducted during several on site visits to the study area. Projected truck volumes generated by the transmodal freight facility were added to the existing volumes to determine the impacts on the transportation system.

A review and analysis was conducted of both the existing and projected traffic volumes, in particular truck volumes expected to be generated by the facility. In addition, a review of the latest three years of accident data was completed to determine if any existing safety problems currently exist within the study area.

Data was received from both the New York State Department of Transportation, and the City of Olean. Discussions were also held with Tom Windus, and Ashok Kapoor, the former and current City Engineers, as well as with Terry Schnell, Chief of Police for the city, Mike Manzo, Town of Olean Highway Superintendent, and Pat Eaton, Superintendent of Public Works for the Town of Allegany. No major issues or concerns were noted by the above individuals regarding the operating conditions along Constitution Avenue.

The result of our review and analysis indicates that the existing 2-lanes of Constitution Avenue will adequately handle the minor increase in the volume of trucks projected to be generated by the transmodal facility. In addition, the two existing signalized intersections at either end of Constitution Avenue, at Rt. 417, West State Street, and at Buffalo Street, will adequately handle the added volumes. Minor adjustments to the timing plan for the two traffic signals may be necessary.

Observations, however, at the Buffalo Street/ Constitution Avenue intersection indicate that improvements should be made to the north-west quadrant of this intersection. Existing truck traffic making this right turn move from southbound Buffalo Street to proceed west on Constitution Avenue are encroaching into the left turn lane of Constitution Avenue.

Three conceptual alternative interchanges or new access road configurations into the site of Phase 2 of the development were developed and are contained in the Traffic and Safety Analysis Report, in Appendix B.



7.0 Task 7: Environmental Assessment

Urban Engineers performed a Phase I Environmental Site Assessment (ESA) on the five study site parcels in general accordance with ASTM E 1527-05 *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*. In addition, a preliminary draft State Environmental Quality Review (SEQR) Full Environmental Assessment Form (EAF) was completed for the project site according to the New York State regulatory guidelines.

The over all findings and conclusions of the Phase I ESA indicate that the study site has likely been impacted by contaminated groundwater originating from upgradient industrial parcels. This area of Olean, New York, the study site included, has undergone several environmental studies that appear to document impacted groundwater in the general vicinity of the project area. Additionally, portions of the study site are currently, or have been historically, utilized for railroad maintenance and storage activities that may have impacted the soil and groundwater on the property within the designated project area. Historical railroad fill materials, old gasoline tanks, scrap metal, ground staining and other potentially adverse environmental issues as described in the Phase I report were identified during the study. Prior to future acquisition, final project design and development, Urban recommends a Phase II Subsurface Investigation to evaluate the environmental impact to the soil and groundwater at the study site.

In addition, during the course of the Phase I ESA, Urban observed potential wetlands and natural drainage courses that will require further evaluation prior to final project design and development. Also, previously, potentially undeveloped portions of the study site were observed that may necessitate an archeological assessment prior to development. The study site lies within a New York State designated Archeological Sensitive Area that requires submission of a Project Review Cover Form and supporting documentation to the New York State Office of Parks, Recreation and Historic Preservation Office.

The complete Environmental Assessment Report and supporting data can be found in Appendix C.

8.0 Task 8: Budgetary Cost Estimate

As discussed in Section 4.0 of this report initial options 1 and 2 were modified due to potential conflicts with existing infrastructure which has led to a preferred option 3 which provides the desired components for the development of a transmodal freight facility.

Based on the preferred option 3 which proposes a full development scenario of over 17 acres a budgetary cost estimate has been prepared for the transmodal facility. This estimate is broken down into (10) basic categories as follows:

- Clearing, grubbing, mass grading and site demolition
- Heavy duty asphalt pavement for access roads and loading operation areas
- Compacted stone operation areas
- “Butler Building” type metal clad warehouse with reinforced concrete slab on grade
- Administrative building and security kiosks
- Rail sidings and related switching mechanisms
- Site work including water, sanitary sewer, storm drainage and landscaping
- High mast lighting of operation areas to support 24 hour a day services
- Property acquisition to consolidate parcels
- Contingency for soft costs related to engineering, permitting and inflation

Costs were developed using several sources such as recent highway construction prices for standard NYSDOT items, Engineering News Record Square Foot Costbook, McGraw Hill Architects Construction Square Foot Costbook, RS-Means Heavy Construction and Building Cost Data and verification of pricing with other local architects and engineers.

As a result of these efforts a budgetary cost estimate was calculated for the (10) categories listed above and is shown in **Table 2**. It should be noted that this estimate is for a full build out of preferred option 3 and does not include costs for any environmental remediation, liquid storage tanks, protected dry bulk silos/domes, warehouse operating equipment, handling/ transfer equipment for Group A (dry bulk, liquid bulk and aggregates) and handling/ transfer equipment for Group B (break bulk, palletized cargo and lumber).



Potential environmental remediation costs are difficult to estimate until development of this project progresses further and a phase II environmental study and sampling are done as recommended to further define hazardous materials and the extent of possible contamination.

In regard to liquid storage tanks, dry bulk silos/domes, warehouse operating equipment and handling /transfer equipment for Group A and B commodities investigations were done in these areas. Without specific operating knowledge of the types of liquid and dry bulk goods to be handled we are providing information and pricing obtained for various types of equipment commonly used for these purposes. See **Table 3** for a list of various equipment and current pricing normally associated with handling /transfer of Group A and B goods and commodities.

Additional information is contained in **Appendix D** for various commodity transfer equipment.

BUDGETARY COST ESTIMATE				
PROPOSED TRANSMODAL FREIGHT TRANSFER FACILITY				
<i>Prepared for:</i>	Southern Tier West Regional Planning and Development Board			
<i>by:</i>	Urban Engineers of NY, P.C.			
	June 2009		Project No:	9002-00
ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	TOTAL COST
Clearing, Grubbing, Mass Grading and Site Demolition	Lump Sum	-	-	\$300,000
Asphalt Pavement Access Roads and Operation Areas	Square Yard	\$68.00	31,000	\$2,108,000
Compacted Stone Operation Areas	Square Yard	\$20.00	41,140	\$822,800
Metal Clad Warehouse with Reinforced Concrete Slab on Grade	Square Foot	\$85.00	65,000	\$5,525,000
Administration Building	Square Foot	\$150.00	2,250	\$337,500
Rail Sidings and Switches	Linear Foot	\$185.00	7,000	\$1,295,000
Site Work - Drainage Utilities and Landscaping	Lump Sum	-	-	\$385,000
High Mast Lighting for 24-Hour Operations	Each	\$41,000.00	5	\$205,000
Property Acquisition	Acre	\$25,000.00	17.7	\$442,500
			Subtotal	\$11,420,800
			Engineering Soft Costs and Contingency (35%)	\$3,997,280
			TOTAL	\$15,418,080

TABLE 2 – BUDGETARY COST ESTIMATE



COMMODITY TRANSFER EQUIPMENT
Commodity Groups A and B

Type	Description	Cost
Pneumatic Transfer	Designed to handle plastic commodities as well as food grade products.	\$93,500
Portable Liquid Transfer Equipment	Designed to transfer hydrochloric acid, solvents, food grade liquids, or other liquid chemicals.	\$69,000 to \$83,900
Aggregate Conveyor	Heavy-duty 42" wide portable belt conveyor to handle materials up to 3" in lump size. Used to transfer from rail car to truck or to stock pile material.	\$96,800
Articulating Conveyor	Articulating portable conveyor is easily maneuvered from one rail car to another.	\$83,900 to \$93,500
4-Wheel Drive Loaders	Heavy-duty 4-wheel drive utility loaders designed for multi purpose use. When equipped with a 2.0 - 3.0 loading bucket, lifting fork, and snow plow attachments, they are extremely versatile and productive pieces of equipment.	\$125,000 to \$200,000 depending on model
Forklifts	Designed to lift and transport pallets of material.	Under \$30,000

TABLE 3 – COMMODITY TRANSFER EQUIPMENT COSTS

As shown in the budgetary cost estimate the full build out costs for preferred option 3 are quite substantial at over \$15 million dollars. It is fairly realistic to assume that full funding for the phase I transmodal freight transfer facility would not be made available all at once. The phase I transmodal freight transfer project could easily be built in phases as funds become available and priorities are established for operations based on market conditions for the shipment of various commodities.

9.0 TASK 9: Findings, Recommendations, and Cost Estimates

The following will summarize the findings, recommendations and cost estimate contained in the Preliminary Engineering Report for the proposed Transmodal Freight Facility in Olean, New York.

9.1 Summary of Findings

- The development of the proposed option 3 for the proposed transmodal freight facility is feasible at the eastern end of the Olean rail yard, one-way ingress and egress driveways intersecting Constitution Avenue.
- The proposed administration building and warehouse on the site of the transmodal freight transfer facility would require new (4 to 6 inch) sanitary sewer connections.
- New water service connections would need to be constructed from the north side of Constitution Avenue to the new structures and facilities associated with the transmodal facility.
- The existing electric service to the rail yard is a privately owned (13.2 kilowatt) service in good condition which has more than enough capacity to energize and operate the new facilities at the transmodal site.
- The capacity of the existing natural gas transmission lines in the area are sufficient to accommodate the needs of the proposed facility.
- The Indek Co-Generation plant produces steam heat, but not as a full time operation. An auxiliary boiler at the plant, which would be dedicated to the transmodal facility, would need to be built at an estimated cost of \$2.5 million. Based on the current operations and policies of the Indek plant, it would seem that utilizing it for heating purposes at the transmodal site is not a viable option at this time.
- Cutting and filling will likely be required to construct the proposed facility. The on-site silty soils, while of poor quality for use as fill, may be used for filling. Borrow granular soil fill is available in the region as bank-run-gravel. The proposed structures may be supported on spread footings constructed on virgin soils and/or compacted engineered fill, and designed for low to moderate bearing pressures. The floor slabs may be placed on grade. Pavements will require thick sub-base and base courses to withstand frost heave and the high volume of truck loading.
- Observations of traffic movements through the signalized intersections at either end of Constitution Avenue showed that all vehicles were able to clear the intersection in one signal cycle.
- Observations at the Buffalo Street/Constitution Avenue intersection showed that trucks making the right turn from southbound Buffalo Street into Constitution Avenue completed their turn by encroaching into the left turn lane of Constitution Avenue.
- Discussions with representatives from the City and Town of Olean, as well as the Town of Allegany indicated that they were unaware of any operational or safety problems along Constitution Avenue, and all felt that this would be a good site for the proposed facility.

- The findings and conclusions of the Phase 1 ESA indicate that the study site has likely been impacted by contaminated groundwater. Portions of the site are currently, or have been historically utilized for railroad maintenance and storage activities that may have impacted the soil and groundwater on the property.
- Historical railroad fill materials, old gasoline tanks, scrap metal, ground staining and other potentially adverse environmental issues were identified during the environmental study.
- Potential wetlands and natural drainage courses were observed that will require further evaluation prior to final design and development to comply with NYSDEC regulations.
- The study site lies within a New York State designated Archeological Sensitive Area that requires submission of a Project Review Cover Form and supporting documentation to the New York State Office of Parks, Recreation and Historic Preservation Office.
- Information and cost are provided for several types of the specialty equipment that would be needed for the operation of the transmodal facility. Costs for such items as liquid storage tanks are dependent on the type of commodity to be stored. Factors such as volume, density, flow rate, and exact type of commodity dictate the actual design of a tank and as a result its cost. Since this information is unknown at this time, further analysis will be necessary as the development of this project continues.

9.2 Recommendations

The following summarizes the recommendations in conjunction with the construction of Phase 1, Transmodal Freight Facility:

- Option 3 is the recommended site plan for the transmodal facility.
- New water and sanitary sewer connections would be needed to service the administration building and the warehouse.
- Improvements will be needed in the northwest quadrant of the Buffalo Street/Constitution Avenue intersection to allow trucks to complete the right turn from southbound Buffalo Street without encroaching into the left turn lane of Constitution Avenue.
- A Phase II Subsurface Investigation to further evaluate the environmental conditions of the existing soils and groundwater should be completed prior to property acquisition and final project design and development.
- Further evaluation of the potential wetlands and natural drainage courses should be completed prior to final project design and development in order to comply with NYSDEC stormwater regulations.
- An archeological assessment should also be completed prior to further project development. This would include submission of a Project Review Cover Form and supporting documentation to the New York State Office of Parks, Recreation and Historic Preservation.

9.3 Budgetary Cost Estimate

A budgetary cost estimate for the full build out construction of option 3 of the transmodal facility is estimated at \$15.4 million. This estimate is broken down into various categories as explained in Task 8. This cost estimate however does not include:

- Environmental remediation
- Costs for liquid storage tanks, silos/domes for protected bulk materials
- Warehouse operating equipment
- Equipment necessary for the handling and transfer of Group A and B commodities.

