- The assessment will include photographs of exterior and interior conditions. Sufficient (10 to 20) images should be prepared to provide OPRHP with a general understanding of the state of the resource. These images along with a written assessment of the general condition of the building will be submitted to OPRHP via the CRIS program

Archaeology

- Archaeological testing, as previously requested by OPRHP (see Section 3.6.2 and Appendix E), will commence once MVHS obtains site control
- No ground disturbing activities in the PIA will commence until all archaeological testing has been completed at each identified site and the results of the testing have been reviewed by OPRHP
- Associated archaeological survey reports must be filed with OPRHP in a timely manner and must meet New York State Archaeological Standards
- Unanticipated discoveries, including the discovery of human remains during construction, will follow the protocol outlined in Appendix E

Treatment Measures (Buildings)

In accordance with Section 14.09, efforts that would avoid or minimize impacts to historic buildings should be explored and documented. An alternatives analysis relating to the disposition of historic buildings in the PIA will be submitted to OPRHP for review and comment prior to any activity on the site that might damage the resources. This analysis should explore the following opportunities:

- ***Avoidance***: If practicable, efforts to avoid the removal or direct impacts to buildings identified as historic (see Table 8 and Appendix E) will be explored. Documentation outlining this exploration of alternatives will be provided to OPRHP prior to any action that would directly impact the involved resource(s)
- ***Minimization***: If practicable, efforts that would include options to lessen the overall, as of yet to be fully documented, impacts to historic resources will need to be explored. This assessment should include efforts to retain some or all of the historic resources in situ as part of the development planning
- ***Mitigation Options***: Where it has been determined by the parties that some or all of the historic resources must be removed from the site, with appropriate justification and documentation as noted above, the following mitigation measures may be applied:
  - MVHS will follow OPRHP's standard resource documentation process outlined in Appendix E
  - Other appropriate mitigation for the loss of historic resources as agreed to by the parties

3.7 TRANSPORTATION

The proposed action may have an impact on transportation. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary road and/or sidewalk closures
- Construction vehicle & equipment/material staging
- Impacts to bus service (routes, stops)
- Increased demand for parking (construction workers)

Operation

- Increased traffic flow and operating conditions, which may exceed capacity of existing road network
- Impacts to bus service (routes, stops, capacity)

- Impacts to pedestrian facilities (sidewalk, crosswalks)
- Increased demand for parking (employees, patients) resulting in the construction of parking area/garage for 500 or more vehicles
- Alterations to the present pattern of movement of people or goods (including road closures)

3.7.1 Existing Conditions

A traffic impact study (TIS) was prepared by C&S Engineers, Inc. (C&S) to evaluate the existing traffic conditions within and adjacent to the project area, and to assess the potential transportation impacts to the highway system from implementation of the IHC project. A summary of the TIS is provided below; the complete report is included as Appendix F.

Roadway & Intersection Characteristics

The study area limits were defined based on discussions with NYSDOT Region 2 staff. Information for the roadway and intersection characteristics within and adjacent to the proposed IHC was provided by C&S via a field visit, desktop analysis in Google Maps, and the NYSDOT Functional Class Viewer[78]. Existing roadways are summarized in Table 9, and key intersections within the study area are shown on Figure 12.

Table 9. Existing Study Area Roadways

Road Name	Description
Bank Place	An urban local street situated at the eastern edge of the study area. Bank Place is a one-way road running southeast from Genesee Street to outside of the study area onto Union Street. Curb-cut buffered parking is provided on the southern side of Bank Place.
Blandina Street	An urban local street situated on the eastern edge of the study area that becomes Washington Lane at its intersection with Genesee Street. This one-lane road runs southeast from Genesee Street towards Charlotte Street (located outside of the study area). Street parking is available on both sides of the street.
Bleecker Street	An urban major collector. This two-way roadway has one travel lane in each direction and runs east/west. This roadway becomes Lafayette Street west of Genesee Street and eventually becomes County Road 241 to the east, outside of the city limits. On-street parking is available on both sides of the street within the study area. Bleecker Street includes bus stops for the CENTRO[79] UT 12 and UT 14 bus lines outside of the study area.
Broadway	A two-way urban local street. Broadway has one travel lane in each direction and runs northeast/southwest, terminating at Court Street and Whitesboro Street (outside of the study area). Broadway provides direct access to NYS Route 5S, an urban arterial.
Columbia Street	An urban major collector. Columbia Street runs southeast/northwest from Whitesboro Street and Genesee Street (both outside of the study area). It is a two-way roadway with one travel lane in either direction. On-street parking is available on both sides of the street and has bus stops for the CENTRO UT 20, UT 11, and UT 111 bus lines.
Cornelia Street	A two-way urban street that cuts through the center of the study area. Cornelia Street runs southwest/northeast and terminates at Oriskany Street and Mandeville Street (both outside of the study area). On-street parking is available on portions of the street.
Court Street	An urban minor arterial. Within the study area, it is a two-way street with two travel lanes in each direction. This street terminates at Whitesboro Street (outside of the study area) and Genesee Street, east of which it becomes Hopper Street. Within the study area, there are no bus lines on this street or on-street parking.

[78] https://www.dot.ny.gov/gisapps/functional-class-maps
[79] https://www.centro.org/service_schedules/schedules-utica

Road Name	Description
Elizabeth Street	An urban major collector that becomes Columbia Street west of Genesee Street. Elizabeth Street runs southeast/northwest, terminating at Genesee Street and Nichols Street (outside of the study area). It is a two-way road with a travel lane in both directions. There is on-street parking available on both sides of the street and the street is serviced by the CENTRO UT 12 bus line outside of the study area.
Genesee Street	An urban principal arterial. It has two travel lanes that run northeast through the study area and feeds into Oriskany Street (an urban arterial) after which it becomes North Genesee Street and feeds into I-790/I-90 (principal arterial-interstates) north of the study area. It also has two travel lanes that run southwest through the study area towards NYS Route 8 (a principal arterial expressway) and eventually terminates at NYS Route 12/Seneca Turnpike (a principal arterial) and Highway 5 (a principal arterial expressway) outside of the study area. There is on-street parking on both sides of the street throughout the study area. CENTRO bus lines that service this street include UT 15, UT 22, UT 24, UT 40, and UT 31.
Hopper Street	An urban minor arterial. Hopper Street has two travel lanes in either direction and runs northwest/southeast, connecting Steuben Park (outside of the study area) to Genesee Street. West of Genesee Street, Hopper Street becomes Court Street. On-street parking is available on both sides of Hopper Street and it is serviced by the CENTRO bus line UT 22 outside of the study area.
Lafayette Street	An urban major collector. It becomes Bleecker Street east of Genesee Street and also terminates at Whitesboro Street (west of the study area). Lafayete Street is a two-way street with one travel lane in each direction. There is on-street parking available on both sides of the street. CENTRO bus stops on this street are for the following routes: UT 11, UT 20, and UT 111 lines.
NYS Route 5S	Also known as Oriskany Street West, Oriskany Street East, and Liberty Street. Oriskany Street West begins in Yorkville and ends at the Genesee Street Intersection. Oriskany Street East begins at the Genesee Street Intersection and ends at the Broad Street Intersection. Liberty Street begins adjacent to the northern portion of Genesee Street and extends to Broadway along the one-way westbound portion of NYS Route 5S (Oriskany Street West). Although this street is not located in the study area, it is located directly to its north and runs east/west, so many of the streets running north/south in the study area do feed into it. It is an urban principal arterial and contains two travel lanes in each direction with a dividing barrier.
NYS Routes 5/8/12	NYS Routes 5/8/12 (also known as the North-South Arterial), is located on an elevated roadway west of the study area. It is an urban principal arterial other, running north/south that connects to Oriskany Street/NYS Route 5S and eventually I-790 and I-90 (all north of the study area). This road has two travel lanes in both directions with a dividing barrier.
Sayer Alley	A one-way local alley that connects Lafayette Street with Columbia Street. Sayer Alley has a bi-directional single travel lane.
Seneca Street	A two-way urban local street that dead-ends mid-block south of Lafayette Street to provide on-street parking to local businesses. North of Lafayette Street, Seneca Street is a two-way urban street with on-street parking available on both sides. This portion of the street provides access to Oriskany Street outside of the study area before becoming Water Street. It has one travel lane in each direction.

Road Name	Description
State Street	An urban minor arterial. State Street runs along the western edge of the study area and terminates outside of the study area on Genesee Street to the south and Oriskany Street to the north where it provides the only direct access to I-790 and I-90 via NYS Routes 5/8/12 since the northbound access at Court Street was eliminated. Within the study area, it has two travel lines in each direction. On-street parking is only available on the 700-block of the street.
Washington Street	An urban local street located in the northern portion of the study area. This two-way street has one travel lane in each direction to provide access from Lafayette Street to Oriskany Street. It terminates to the north of the study area on Whitesboro Street. Within the study area, parking is available on the western side of the street.
Washington Lane	A two-way, one-block urban local street. East of Genesee Street, Washington Lane becomes Blandina Street. At its termination to the west, it becomes Washington Street. Washington Lane mainly provides access to the Washington Street Parking Garage and does not have on-street parking available.

Source: C&S (TIS, Appendix F)

Figure 12. Study Intersections
Source: C&S (TIS, Appendix F)

Existing traffic and pedestrian data was collected during peak commuter travel periods at key intersections within the study area on July 18th and 19th, 2018. While peak hours for individual intersections varied, the overall study peak morning and evening hours were determined to be from 7:45 am – 8:45 am and 4 pm – 5 pm, respectively. The highest pedestrian volumes were noted along the Genesee Street intersections, as well as along Columbia Street at Cornelia Street and State Street. There were very few bicyclists observed during the peak hours. The existing AM and PM peak hour traffic and pedestrian volumes for the study area intersections are shown on Figures 2.2 and 2.3 of Appendix F, respectively.

The study intersections were analyzed using SYNCHRO 10[80], a computer program that implements the methods presented in the Highway Capacity Manual[81] (HCM). SYNCHRO determines the level of service (LOS[82]), which is defined in terms of delay, as well as anticipated queue lengths. The LOS for both signalized and unsignalized intersections are defined in terms of control delay. Control delay is a measure of the total travel time lost and includes slowing delay, stopped delay, queue move-up time, and start-up lost time. LOS thresholds are defined as average delay in seconds per vehicles over a fifteen-minute analysis period and range from LOS A to F for both signalized and unsignalized intersections. An overall intersection LOS D or better is generally considered acceptable at a signalized intersection. An overall intersection LOS E or better is generally considered acceptable at an unsignalized intersection. The following table provides a summary of the LOS thresholds as defined in the HCM (2010).

Table 10. Intersection Level of Service Criteria

Level of Service (LOS)	Signalized Intersection Delay (sec)	Unsignalized Intersection Delay (sec)
A	0-10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	over 80	over 50

Source: HCM 2010

The SYNCHRO 10 capacity analysis for the existing intersections within the study area, showed that each of the intersections operate as a LOS C or better during the peak hours, with a few exceptions noted below.

- 6 – Cornelia Street & Oriskany Street (PM)
  - Northbound LT/THRU/RT = LOS F (96.2 sec)
- 17 – Seneca Street & Liberty Street (AM)
  - Northbound LT/THRU/RT = LOS E (38.2 sec)

The complete results of the existing condition capacity analyses are included in Appendix B of the TIS (Appendix F).

Accident Analysis

According to data extracted from the NYSDOT Accident Location Information System (ALIS) for Oneida County, New York for the period between March 1, 2015 and February 28, 2018, there have been 75 vehicular accidents

[80] SYNCHRO 10, Traffic Signal Coordination Software, Version 10.1, Trafficware LLC, Albany, California, 1993-2017.
[81] The fifth edition of the Highway Capacity Manual is a publication of the Transportation Research Board of the National Academies of Science in the United States. The HCM contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including highways, freeways, arterial roads, roundabouts, signalized and unsignalized intersections, rural highways, and the effects of mass transit, pedestrians, and bicycles on the performance of these systems.
[82] Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measures (i.e., vehicle speed, density, congestion, etc.). The following LOS grades are based on North American highway LOS standards as identified in the Highway Capacity Manual (HCM) and AASHTO Geometric Design of Highways and Streets ("Green Book"), using letters A through F, with A being the best and F being the worst, similar to academic grading: A = free flow; B = reasonably free flow; C = stable flow, at or near free flow; D = approaching unstable flow; E = unstable flow, operating at capacity; and F = forced or breakdown flow. An overall intersection LOS D or better is generally considered acceptable at a signalized intersection. An overall intersection LOS E or better is generally considered acceptable at an unsignalized intersection.

reported within the study area, not including NYS Route 5S, which was analyzed separately by the NYSDOT. Accident occurrence by street location during this period are summarized in Table 11.

Table 11. Accident Occurrence

Street	# of Accidents	% of Total
Bleeker St.	2	2.67%
Broadway	2	2.67%
Columbia St.	4	5.33%
Cornelia St.	4	5.33%
Court St.	12	16.00%
Devereau St.	3	4.00%
Elizabeth St.	3	4.00%
Genesee St.	17	22.67%
Hopper St.	4	5.33%
Kennedy Plz.	2	2.67%
Lafayette St.	6	8.00%
Seneca St.	3	4.00%
NYS Route 5S	1	1.33%
State St.	9	12.00%
Washington St.	3	4.00%
Total	75	100%

Source: NYSDOT ALIS, Oneida County for 3/1/15-2/28/18
Compiled by C&S (TIS, Appendix F)

Of the accidents presented, approximately 23% occurred during inclement weather conditions (rain, snow, sleet, hail, or freezing rain) and approximately 17% occurred during non-daylight conditions (dusk or dark road/lighted conditions). In addition, 76% of these accidents occurred on roads that were straight and level, as opposed to those that occurred on curved or graded roads. Overall, this is indicative that the majority of accidents that occurred within the study area were under weather and visibility conditions not conducive to vehicular accidents.

As indicated by the NYSDOT ALIS data, 69% of the accidents reported in the study area occurred at intersections. Of the accidents that occurred at intersections, 64% occurred in the same exact geographic location as another reported accident. Intersection "hot spots" where accidents have occurred more than once are indicated on Figure 2.4 of Appendix F.

Accident data was also analyzed by collision type. As indicated by Figure 2.5 of Appendix F, approximately 24% of recorded accidents were rear ends, 23% were collisions from right angles, 19% were collisions from overtaking, and 17% were from other causes.

Traffic control types were associated by collision type. For rear end collisions, 50% occurred in association to traffic lights and 39% occurred when there was no traffic control type present. The remaining rear end collisions occurred at stop signs and flashing lights. Right angle collisions followed similar trends, with 53% occurring at traffic lights, 35% under no traffic control type, and the remaining from stop signs and flashing lights. Accident type information was also associated with the NYSDOT ALIS data:

- A majority (88%) of accidents documented were from collisions with other vehicles.
- Three (4%) of accidents were collisions with pedestrians and occurred under traffic signal control conditions.
- Six accidents (8%) occurred from collisions with fixed objects, fire hydrants, and guide rails.
- No accidents were reported with bicyclists.

Overall, the data indicated that vehicle accidents are less likely to occur on the weekend than on a weekday. In addition, 89% of accidents within the study area resulted in zero injuries (18 resulted in an injury). No accidents within the study area for this set of data resulted in fatalities.

3.7.2 Potential Impacts

Construction

Construction of project elements will require the use of local roads by construction worker vehicles and equipment for the duration of the construction phase. Construction activities are expected to temporarily increase traffic volumes within and adjacent to the project area. The need for equipment and vehicles (including material flow from staging/laydown areas to project sites and transportation of C&D from the project area) to access and egress sites may cause temporary, short-term delays in traffic flow on local roads. With the implementation of appropriate mitigation (see Section 3.7.3), such impacts are not anticipated to be significant.

Operations

Increased Parking Demand

Using the Institute of Engineers (ITE), Parking Generation Manual, 3rd Edition, the anticipated parking supply and demand associated with the proposed MVHS IHC was estimated. Land use codes 610 – Hospital and 720 – Medical-Dental Office were used to estimate the parking supply needed and anticipated peak (weekday) parking demand. Based on the anticipated number of employees for the hospital and size of the MOB, the parking supply and demand is estimated as shown in the table below:

Table 12. Parking Supply and Demand

ITE Land Use Code	Description	Unit	Urban Supply/ Unit	Urban Peak Demand/ Unit	MVHS Unit	Urban Supply	Urban Peak Demand
610	Hospital	Employees	0.72	0.6	2,400	1,728	1,440
720	Medical-Dental Office	GFA (kSF)[1]	3.9	3.53	80	312	283
					Totals	**2,040**	**1,723**

1. GFA – gross floor area kSF – thousands of square feet

Source: C&S (TIS, Appendix F)

While the calculation for the hospital is based on the total number of employees, it takes into account all parking demand associated with the land use such as patients, visitors, as well as staff in an urban setting. This analysis indicates that hospitals with 2,400 employees along with an 80,000± sf MOB typically provide approximately 2,000 parking spaces to accommodate their demand. The peak demand for the IHC project is estimated at just over 1,700 spaces for a typical weekday.

The proposed development proposes a total of 1,830 spaces. While it is less than the ITE demand, it is more than is anticipated to be needed for their peak demand. Table 13 summarizes how the proposed parking supply and estimated demand compare for the MVHS IHC development. Based on this analysis, the hospital could consider allocating some hospital employees to the parking lot adjacent to the MOB to more equally distribute demand amongst the MVHS IHC facilities.

Table 13. Parking Summary

	Proposed Supply	Anticipated Peak Demand	Estimated Surplus
Hospital	1,455	1,440	15
MOB	375	283	92
Total	**1,830**	**1,723**	**107**

Source: C&S (TIS, Appendix F)

Bus Services

As previously indicated, bus service stops are located within and adjacent to the project area, as follows:

- Bleecker Street – Bus stops for CENTRO UT 12 and UT 14
- Columbia Street – Bus stops for CENTRO UT 20, UT 11, and UT 111
- Elizabeth Street – Bus stops for CENTRO UT 12
- Genesee Street – Bus stops for CENTRO UT 15, UT 22, UT 24, UT 40, and UT 31
- Hopper Street – Bus stops for CENTRO UT 22
- Lafayette Street – Bus stops for CENTRO UT 11, UT 20, and UT 111

Street closures associated with implementation of the project will require coordination with CENTRO to provide for route adjustments necessary to account for the changing street grid. MVHS' goal is to coordinate with CENTRO to maintain sufficient service (routes, stops, capacity) during the construction and operation phases.

Pedestrian Facilities

As previously indicated, the highest existing pedestrian volumes within the study area occur along the Genesee Street intersections, as well as along Columbia Street at Cornelia Street and State Street. Without proper mitigation, pedestrian flow could be impeded by the changing street grid and building layout.

Traffic Flows and Operating Conditions

The TIS included analyses to assess the additional traffic flow anticipated to be generated due to the proposed development as well as changes in traffic distribution.

The 10th Edition of ITE's Trip Generation Manual was used to estimate the traffic that will be generated by the proposed development during the typical weekday AM and PM peak hours. Using the same land use codes and variables as the parking analysis (hospital employees and square footage of the MOB), the trip generation for the IHC is summarized below:

Table 14. Trip Generation

ITE Land Use Code	Description	Unit	AM Peak Hour			PM Peak Hour		
			Entering	Exiting	Total	Entering	Exiting	Total
610	Hospital	Employees	476	176	652	185	500	685
720	Medical Office	GFA (kSF)[1]	143	40	183	76	197	273
		Totals	619	216	835	261	697	958

Source: C&S (TIS, Appendix F)

The proposed project includes the acquisition of parcels within the study area. These properties currently, or have in the recent past, generated traffic in the study area that will be removed when the properties are acquired. To be conservative, the current traffic associated with these properties was not included in the TIS.

As previously discussed, the NYSDOT is currently coordinating the "Route 5S Safety Project", which incorporates intersection and safety improvements from Cornelia Street to Broad Street, including miscellaneous work on the side streets; work is scheduled to be completed in 2020.

As part of the analysis included for the NYS Route 5S project, an initial trip generation and distribution for the proposed MVHS IHC project was developed to be incorporated in their future conditions modeling. A letter memo was developed by GTS Consulting in March 2016 that used initial development assumptions and data provided by the MVHS regarding employee and patient zip code information to determine peak hour regional distributions. While the project information has changed since the memo was developed, the employee and patient information and routing assumptions are still valid. Therefore, the regional distribution from that memo was used for the TIS. Figure 13 illustrates the regional trip distribution to the study area.

The local distribution of project-generated trips within the study area is based on the most logical routing to/from the larger/busier highways and roadways to/from each individual parking facility access. The future AM and PM peak hour trips associated with the proposed development are shown on Figures 4.3 and 4.4 of Appendix F, respectively.

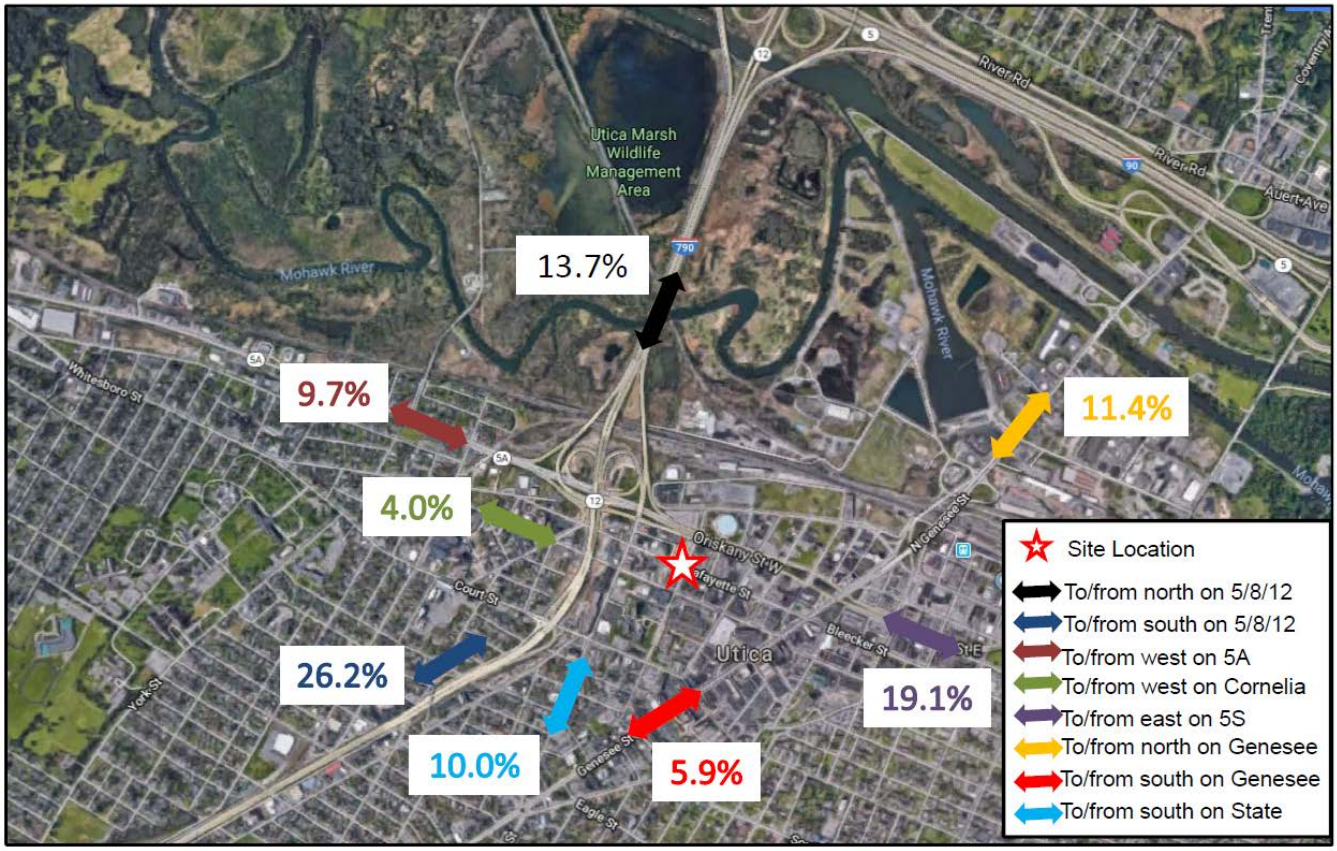

Figure 13. Regional Trip Distribution
Source: C&S (TIS, Appendix F)

Alterations to Present Pattern of Movement

A future build capacity analysis was performed to compare the transportation settings resulting from the future IHC operations to the existing (baseline) conditions. When analyzing the AM and PM peak hour future condition LOS, all of the study intersections operate at LOS C or better except for the following intersections (both during the PM peak hour):

- State Street & Lafayette Street /Emergency Department Access (average intersection LOS F [85.6 sec] previously LOS D [43.8 sec])
- Cornelia Street & Oriskany Street (average intersection LOS D [42.4 sec] previously LOS C [21.8 sec])

Under proposed conditions (IHC build-out), the following movements are expected to operate at a LOS E or F:

- State Street & Lafayette Street/ED Access (PM)
  - Northbound THRU/RT = LOS F (101.4 sec) previously LOS F (84.1 sec) when Lafayette Street continued eastbound through State Street
  - Southbound THRU/RT = LOS F (91.9 sec) previously LOS B (19.5 sec)

- State Street & Court Street (PM)
  - Northbound LT = LOS E (63.9 sec) previously LOS C (22.1 sec)
- Cornelia Street & Oriskany Street (AM)
  - Northbound LT/THRU/RT = LOS E (72.2) previously LOS D (53.4 sec)
- Cornelia Street & Oriskany Street (PM)
  - Northbound LT/THRU/RT = LOS F (176.3) previously LOS E (63.9 sec)
- Broadway & Oriskany/Liberty Street (AM)
  - Southbound LT = LOS E (55.9 sec) previously D (52.7 sec)
- Oriskany Street & Genesee Street (PM)
  - Northbound THRU = LOS E (74.1 sec) previously D (52.8 sec)

In addition, there is expected to be some delay during the PM peak hour for vehicles exiting the new parking garage onto State Street (LOS F [79.2 sec]). It is not anticipated that this delay, internal to the garage, will impact operations of the adjacent roadways. The future build condition model reports are included in Appendix B of the TIS (Appendix F).

3.7.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

To minimize impacts on traffic flow (including delays and queued vehicle exhaust emissions) from project-related activities within road rights-of-way (*i.e.*, off-site utility work), and project-related vehicles, equipment and materials accessing and egressing the site, the contractor(s) will be required to prepare, implement and maintain a maintenance and protection of traffic plan.

The maintenance and protection of traffic plan would be prepared to mitigate project-specific impacts. The plan would be developed to conform to highway work permits, local guidelines, and the MUTCD for Streets and Highways. As applicable, mitigation measures may include the use of:

- Post mounted traffic control and informational/work zone warning signs – As necessary, traffic signs in conformance with Part 201 of the MUTCD will be installed at crossroads, detours, parking areas, and elsewhere, as needed, to direct construction and affected public traffic. Signs will be relocated as work progresses to maintain effective traffic control
- Traffic cones and drums, flares and lights – As specified in the MUTCD, contractors will be required to use flares and lights during hours of low visibility to delineate traffic lanes to guide traffic
- Flag persons – Construction contractors will be responsible for providing trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes and shoulders
- Staging/laydown areas – Construction contractors will be responsible for identifying material staging and laydown areas proximal to the work area. Material staging and laydown area locations will be incorporated into the maintenance and protection of traffic plan.

The contractor(s) will be required to repair roads including the replacement of subbase and new asphalt where the original road is impacted by utility work (including entrances and exits). Work will be coordinated with both the City and NYSDOT and performed in accordance with the highway work permits and the project SWPPP.

Construction-phase access to the project area will be controlled. Figure 14 illustrates the primary path proposed for material deliveries. Project engineers will coordinate with contractors to utilize the North-South Arterial Highway to avoid traffic through the downtown area. Excess materials (including spoils and Construction and Demolition [C&D] debris) will be removed from the site from staging areas along State and Columbia Streets; with quick access to the North-South Arterial Highway.

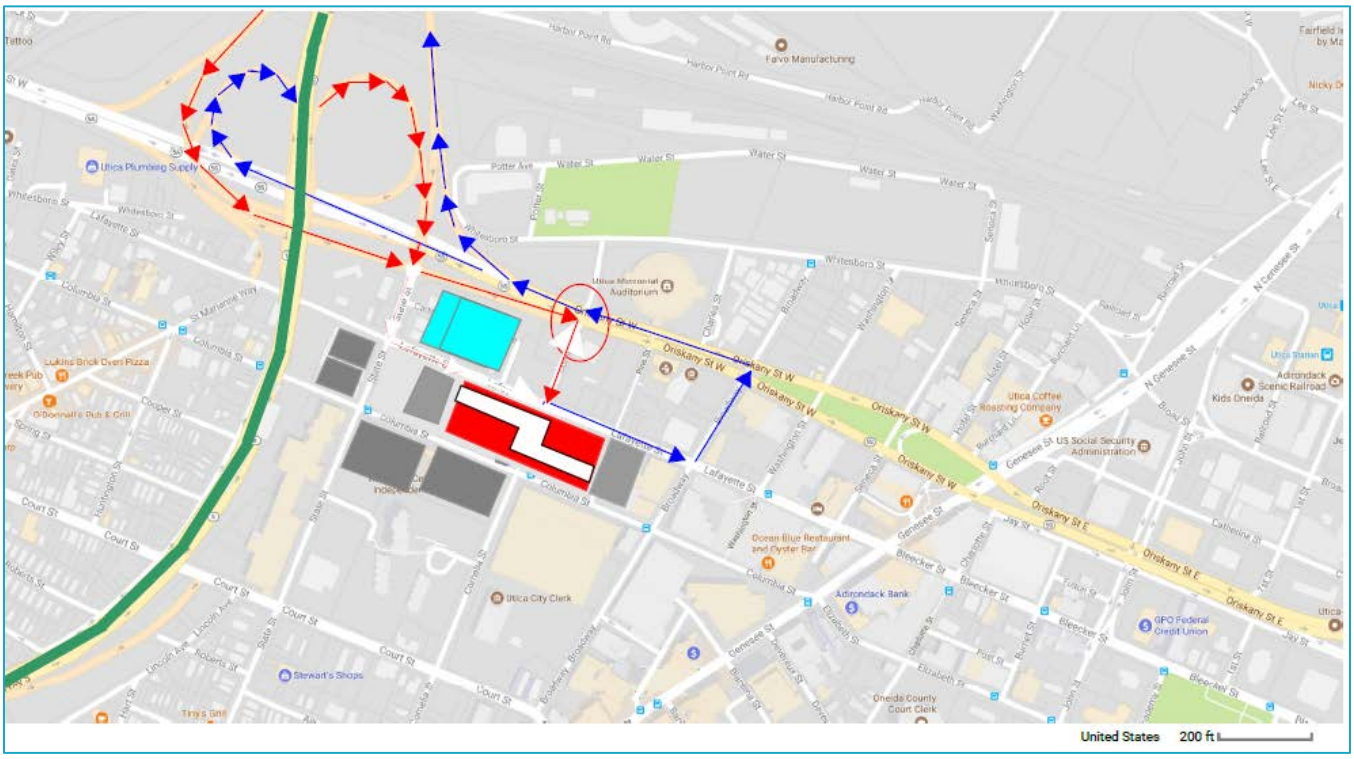

Figure 14. Construction-Phase Access and Egress
(Source: Turner Construction)

Vehicular parking allocated to construction workers will be limited to project staging and laydown areas. Contractors will be responsible for controlling construction-related parking to prevent interference with public traffic and parking, and access by emergency vehicles. Parking on or adjacent to entrance roads or in non-designated areas will be prohibited. Contractors will be required to remove equipment and devices no longer required for construction purposes from the project area.

Operations

Based on the analysis provided in the TIS (Appendix F), it was determined that the proposed development will not have a significant adverse impact on the adjacent transportation network with the following mitigation measures implemented beyond what is expected as part of the development plan for the project:

- Coordination with CENTRO Utica to accommodate any necessary changes in bus services (routes, stops, capacity) within the project area, as a result of the IHC project
- Ensure adequate pedestrian facilities are available from each proposed parking area to the access points of the main hospital building
- Construction of a pedestrian/utility bridge over Columbia Street
- Incorporation of a pedestrian walkway to replace a portion of Lafayette Street; this walkway is proposed to extend from the main IHC entrance to the west, terminating at State Street
- Incorporation of sidewalks and crossings along the reconfigured city streets

- Implementation of optimized signal timings at the following intersections (to be coordinated with the City and NYSDOT):
  - State Street & Lafayette Street/Emergency Department Access (PM)
  - State Street & Court Street (PM)
  - Cornelia Street & Oriskany Street (AM & PM)
  - Broadway & Oriskany/Liberty Street (AM)
  - Oriskany Street & Genesee Street (PM)

3.8 ENERGY

The proposed action may have an impact on energy. The following potential impacts, identified in the scoping process, are evaluated in this section (also see Section 4 – Effects on the Use and Conservation of Energy):

Construction

- Significant adverse impacts to energy are not anticipated.

Operation

- The peak electrical demand load for the proposed MVHS IHC is estimated to be 4.2 Megavolt-Amperes ("MVA"). Although upgrades to the exiting electrical distribution system may be required to adequately service the IHC, the electrical demand is not anticipated to significantly impact the grid
- The proposed action will involve heating and/or cooling of more than 100,000 sf of building area when completed
- Diesel-fueled emergency generators will also be used at the proposed MVHS IHC

3.8.1 Existing Conditions

Electrical and Natural Gas Service

Electric[83] and natural gas utilities exist extensively within and adjacent to the project area and are operated and maintained by National Grid. The gas mains and underground electric conductors are owned by National Grid. The underground conduits and vaults are owned by the City of Utica, and leased to National Grid for use.

Existing Electric and Natural Gas Demand

Energy use within and proximal to project area is primarily driven by the need for heat and electrical power for the current property owners and businesses.

3.8.2 Potential Impacts

Construction

Construction-related activities will require the use of electricity, as well as fuels to power equipment and vehicles. Construction vehicles are typically powered by diesel fuel; however, potential alternatives include natural gas (CNG and LNG), biodiesel, or LPG (propane). Consumption activities are expected to continue throughout the construction phase, but are not expected to significantly impact existing reserves.

To service the project, existing electric and natural gas infrastructure will be relocated out of the IHC footprint, into public rights-of-way. Locations will be identified through on-going coordination between MVHS, National Grid and the City. Impacts will be short-term; extending through a portion of the construction phase.

[83] Includes a 13.2 kV underground feed in Cornelia and Lafayette Streets, as well as an electrical substation located at National Grid's Harbor Point site (Terminal Substation).

Operation

Electrical Demand

Based on preliminary calculations (SSR 2018), the peak electrical demand load for the proposed IHC is estimated at 4,304.27 kilowatts (kW). An estimated electrical demand load summary is provided below (Table 15). The summary is based on a 685,000-sf facility utilizing a chilled water plant that will maintain 68-degree air in most of the facility. Electric heating load is minimal, consisting primarily of electric heat tracing cable. The demand summary was produced using estimated power density values, which is consistent with the current level of project design development.

Table 15. Estimated Electrical Demand Load Summary

Load Category	Load (kW)
Lighting (100% LED)	479.50
Receptacles	1,027.50
Miscellaneous Equipment	274.00
Electric Heating	68.50
Motors (Chillers, Pumps, Cooling Towers, HVAC)	2,218.50
Fire Pump (assumed 250 HP)	236.27
Total Estimated Demand Load	**4,304.27**

Source: Smith Seckman Reid, Inc. (SSR)

Two 15 kV utility electric services will enter the CUP and be distributed to four switchgear rooms on the hospital roof, where the service will be transformed down to 480 and 120-volt distribution branches.

National Grid has verbally indicated, in consultation with the design team, that existing infrastructure proximal to the project site (*e.g.*, substation, transformers, and feeders) are adequate to support the hospital's proposed electrical demand, and will have no adverse impact to current capacity or service levels to others in the network.

Although, the existing infrastructure and electrical capacity of the grid will be sufficient to operate the IHC and supporting elements, the potential exists that the hospital will receive dedicated feeders, which would require upgrades to the existing National Grid substation and approximately 1.5 miles of new feeders; however, this option is solely based on MVHS's discretion and is not necessary for service.

Natural Gas Demand

The peak natural gas load and annual natural gas usage for the proposed IHC is estimated at 50 mcf/hour and 90,000 mcf/year, respectively (SSR 2018). To meet demand and minimize disturbances to existing customers, an 80 psi, 6-inch diameter gas main will be installed and extended approximately 2,500 lf to the site from National Grid's existing 80 psi supply main[84]; no significant adverse impacts to the capacity or service levels to others in the network are anticipated.

Heating/Cooling

The hospital HVAC system consists of roof-mounted central air handling units, which supply conditioned and filtered air to variable volume terminal reheat boxes. Return air is ducted back to the unit. Sound attenuating elbows will be located at strategic locations in the ductwork. Roof-mounted exhaust fans remove air from restrooms, kitchen and laboratory hoods. Water chillers provide chilled water to the air handling units and gas-fired (with fuel oil-backup) condensing boilers provide hot water to the terminal reheat boxes. Chillers, boilers and associated equipment will be located in the CUP. Natural gas for the boilers will be piped in from the existing utility grid located within the street.

[84] Extension of the gas main may require crossing underneath an existing railroad. If necessary, National Grid will coordinate the crossing with CSX.

Emergency Generators

In accordance with code requirements, the IHC will be served by two 2,500 kW diesel-fueled emergency generators with automatic transfer (located in the CUP) supplied by a 50,000-gallon UST (installed adjacent to the CUP). The generators will have sufficient capacity to power the hospital in the event of a power failure[85]. The generators will be housed within noise-attenuating enclosures; and will be regularly tested, maintained, exercised, and inspected in accordance with code and manufacturer specifications. Use of the generators will not adversely impact energy supplies.

3.8.3 Mitigation Measures

The proposed project would be constructed in accordance with the New York State Energy Conservation Code, which is also the basis for the State and City energy policy. The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

While no significant adverse impacts on existing energy resources/capacities are anticipated from construction-phase activities, contractors can select and implement alternative options and methodologies to reduce/minimize energy use. Measures include:

- Implementation of a maintenance and protection of traffic plan including the scheduling of activities to reduce traffic delays and associated fuel consumption
- Use of alternative fuels or energy-saving equipment
- Evaluation of material selection for interior and exterior building materials for recycled content and local material
- Evaluation of interior material selection for indoor air quality impacts
- Diversion of construction and land clearing debris from landfill disposal
- Redirecting recyclable-recovered resources back to the manufacturing process
- Redirecting reusable materials to appropriate sites (other projects)
- Buying and hiring locally to avoid or minimize delivery and travel costs.

Reuse and recycling of materials will result in a further reduction in energy use that might otherwise be expended to produce new materials.

Mitigation related to secondary impacts resulting from the extension of electric and/or natural gas lines within road or railroad rights-of-way is identified in Section 3.7.

Operation

No significant adverse impacts on energy are anticipated as a result of project-related operations. Energy requirements will be consistent with energy policy recommendations established in the New York State Energy Conservation Construction Code.[86] Additional BMPs could include:

- Promotion of "green" product purchases including the use of recycled and reusable materials

[85] 72-hours of operation for the boilers in case of interruption of the natural gas service.
[86] https://www.dos.ny.gov/DCEA/pdf/2016%20EC%20Supp-Revised-2016-08-12-approved%20bycouncil%20V-A.pdf

- Building design and efficiency
  - Facilities include energy-efficient lighting (including spacing) and other equipment
  - Purchase of equipment based on life-cycle costs rather than initial costs of equipment
  - Proposed facility designs which promote sustainable building practices using the United States Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program or a similar system; elements currently proposed include:
    - Heat recovery chiller that puts "waste" heat to use year-around (in CUP)
    - Low temperature hot water heating system with high efficiency (condensing) hot water boilers (in CUP)
    - Green islands within the parking areas
    - Use of energy efficient mechanical, electrical and plumbing systems
- Urban forestry
  - Promote tree planting to increase shading and to absorb CO_2 (*i.e.*, creation of GHG emission offsets at facilities)
- Energy conservation measures (construction and operation phases).
  - Purchase of electricity generated from renewable resources
  - Implementation of "plug-load" audit recommendations to identify operation-phase power management strategies (*i.e.*, automatic turn-off of computers during non-business hours or into "sleep" mode when not in use for a certain period of time during normal work hours)
  - Energy conservation employee training
  - Optimization of vehicle usage (*i.e.*, promotion of carpooling, access to and use of mass/public transit, encouragement of efficient driving techniques, use of active modes of transportation including walking, bicycling, *etc.*).

3.9 UTILITIES

The proposed action may have an impact on utilities. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary impacts due to the abandonment/removal; and installation of utilities (*e.g.*, sanitary and storm sewer, water, electric and natural gas). Specific construction-related impacts are identified elsewhere in this scoping document

Operation

- Although improvements/modifications to the existing utility infrastructure will be necessary to provide adequate services to the IHC, the utility systems themselves currently have sufficient capacity to service the IHC. Therefore, no significant adverse impacts on utility infrastructure capacities are anticipated

3.9.1 Existing Conditions

Sanitary Sewers – Existing

The proposed project area is currently served by the City of Utica's sanitary sewer system. The City of Utica is a member of the Oneida County Sewer District (OCSD). The OCSD is administered through the Oneida County Department of Water Quality and Pollution Control (WQ&PC). The City of Utica is responsible for operation and management of the collection system sewers within the City, while WQ&WPC is responsible for the operation and management of the sewer district infrastructure, including approximately 45 miles of interceptor sewers, the Sauquoit Creek and the Barnes Avenue Pumping Stations, and the Oneida County Water Pollution Control Plant (WPCP) (Shumaker *et al*. 2012). Sanitary sewers servicing the project area are shown on Figure 15, below.

Storm Sewers – Existing

Many of the storm sewers within the City of Utica, including some within the proposed project area are combined with the sanitary sewage system. During times of heavy rainfall or snow melt, the combination of wastewater and stormwater surpasses the capacity of the sewers. The excess flow then overflows and discharges into surface water bodies (*e.g.*, Mohawk River) via NYSDEC-permitted outfalls. This type of occurrence is known as a CSO, and is a major contributor of pollution to surface water bodies across the country. In response, the City of Utica is implementing a NYSDEC-approved Long Term Control Plan requiring the City to increase its percent capture of CSO to 85% (Shumaker *et al*. 2012).

To achieve its CSO capture goal, the City is replacing its combined infrastructure with separate storm and sanitary sewer systems through a series of CSO Control Projects. Currently, CSO Control Project A9.1, which is being conducted in the vicinity of the project, is in the early planning stages. The CSO project includes the construction of a new outfall under the existing CSX railroad, downstream from the existing 42-inch diameter storm sewer currently located in Cornelia Street (at Oriskany Street). The new outfall will increase the amount of stormwater that can be routed through this existing storm sewer, as the new outfall will bypass a known hydraulic limitation at the CSX bridge over Nail Creek. These proposed improvements, as well as the existing storm sewers within the project area are shown on Figure 16.

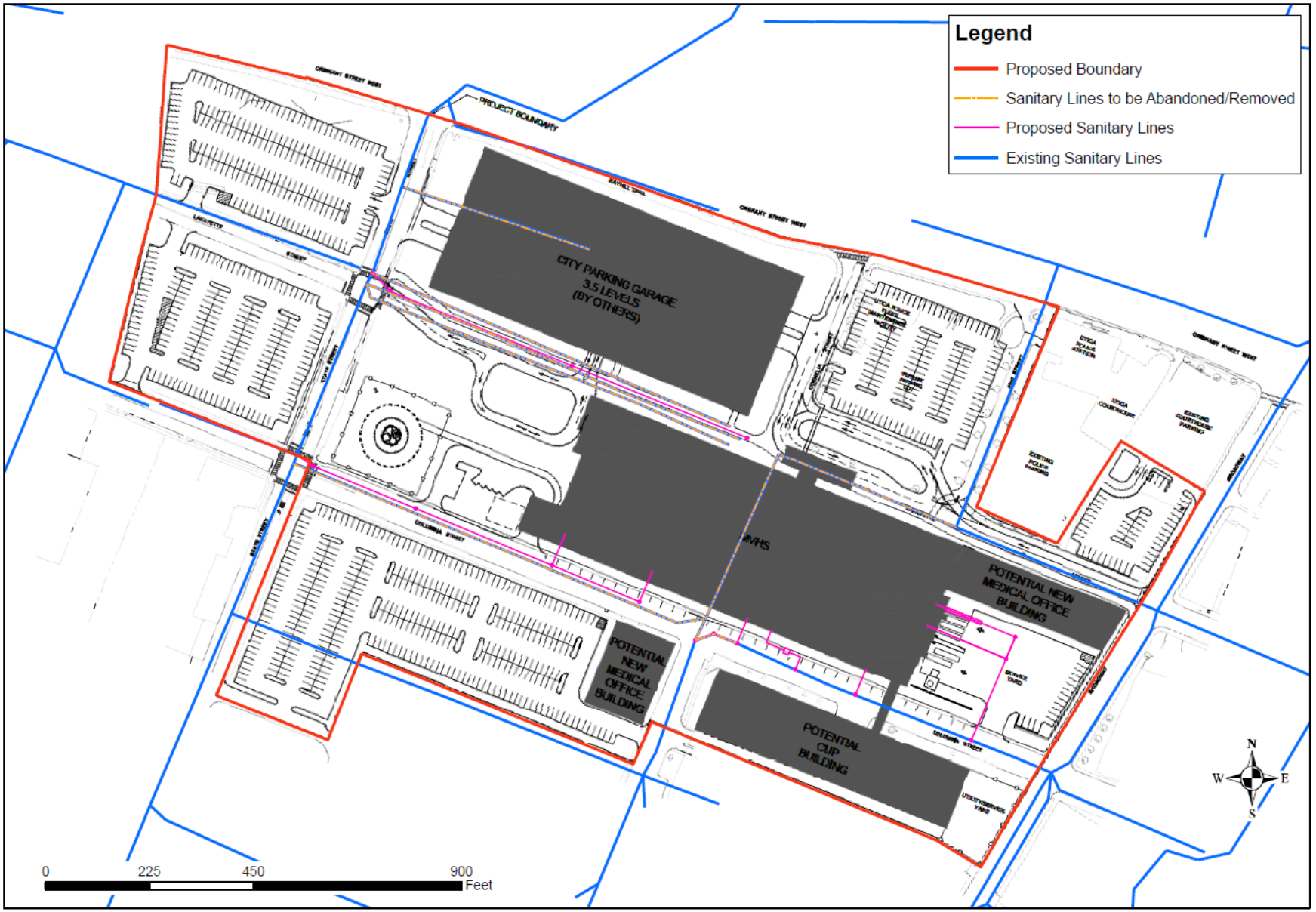

Figure 15. Existing and Proposed Sanitary Sewers

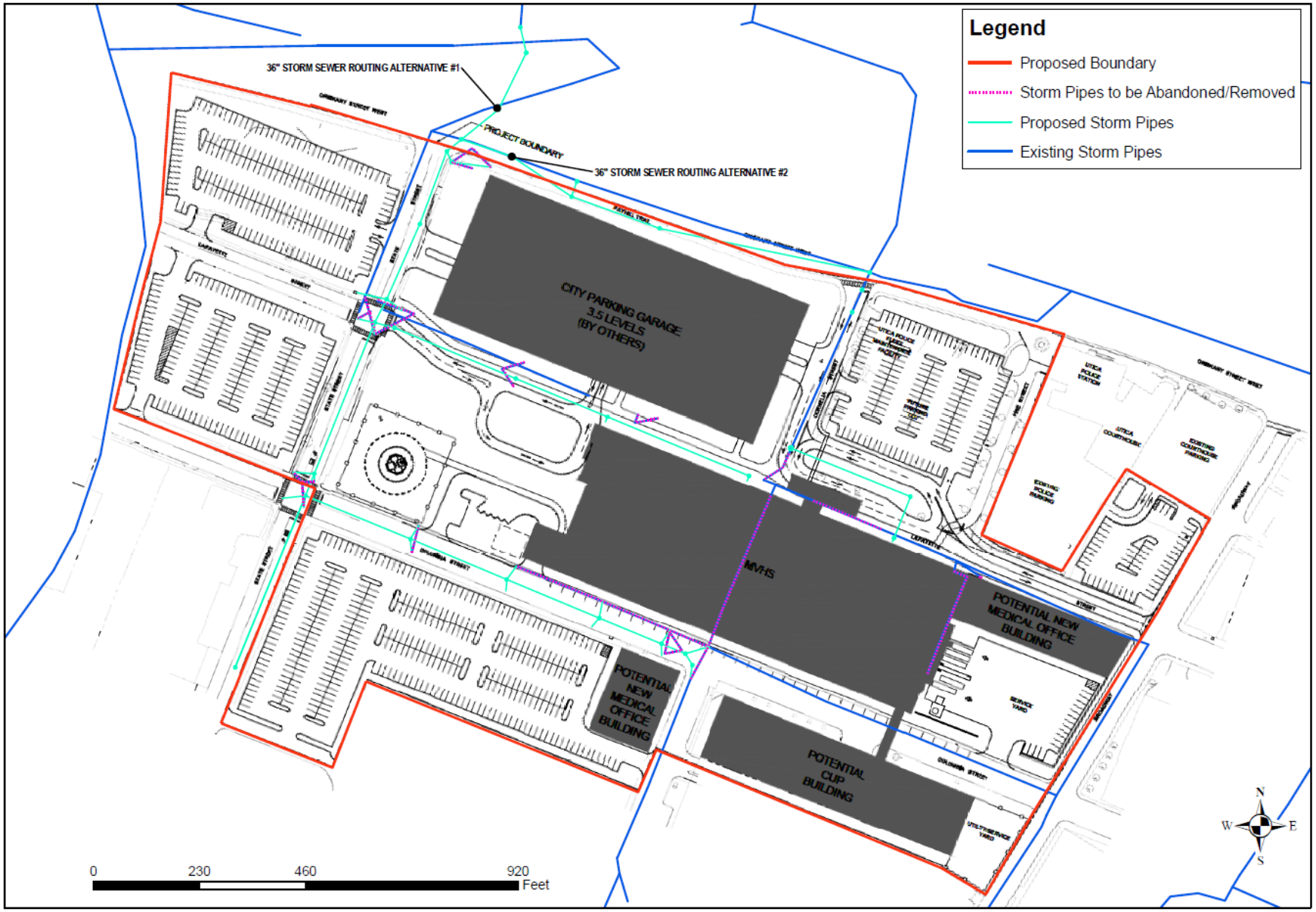

Figure 16. Existing and Proposed Storm Sewers

Water – Existing

According to the Mohawk Valley Water Authority (MVWA), water is supplied to the downtown area by a 16" primary feed, which extends west along Oriskany Street, south on State Street to Lafayette Street. A secondary feed with a strong flow is the 10" main on Columbia Street that is fed by a 20" main on Genesee Street. According to the MVWA, both feeds can supply large amounts of water. Existing static pressure in the area is approximately 88 psi, which varies with the area surface elevation between 426 and 434 feet. Redundancy is provided for the Genesee Street main fed by the Deerfield Reservoir. If a system break occurs, a pressure regulating valve in Yorkville can open to supply water to a 20" main coming down Erie Street to the 16" primary on Oriskany Street. Locations of existing water mains are illustrated on Figure 17.

Telecommunications – Existing

Existing telecommunications (*i.e.*, phone, fiberoptic/cable, and high-speed internet) are currently available within the proposed project area, and are serviced by a variety of providers including Verizon, Spectrum and Northland Communications.

3.9.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Sanitary Sewers – Proposed Improvements

Wastewater associated with hospital operations is anticipated to be 187,000± gallons per day (gpd) and will be discharged to the WPCP via City sanitary sewers and Oneida County interceptor sewers. Based on the proposed building layout, it is believed that the following modifications will be made to the sanitary infrastructure within the proposed project area, as shown on Figure 15:

- All existing sewers in Lafayette Street, between State Street and Cornelia Street will be abandoned/removed, including 12", 15", and 18" diameter sewer piping
- A new 15" diameter sewer on Columbia Street would need to flow in the reverse direction of the existing 15" and tie-into the 48" trunk sewer on State Street
- A new section of 18" sewer will divert upstream flow from Cornelia Street to the existing 24" sewer in Columbia, discharging to the 33" sewer in Broadway

Other potential new sewers include new 15" diameter pipe in Lafayette Street, on the north side of the hospital. The location and size of sanitary laterals and connections will depend on the plumbing/mechanical design of the new hospital buildings. It is assumed each new structure will have its own service lateral(s) connecting to the City mains.

Storm Sewers – Proposed Improvements

To provide sufficient capacity and drainage for the proposed project, sections of existing storm sewers within the project area will be abandoned/removed and new storm sewers will be installed, as shown on Figure 16. The modifications will include:

- Abandonment/removal of 12" and 15" pipe on Lafayette Street
- Removal of 36" trunk sewers from Cornelia Street, between Columbia Street and Lafayette Street
- Removal of 12" storm sewer from Columbia Street

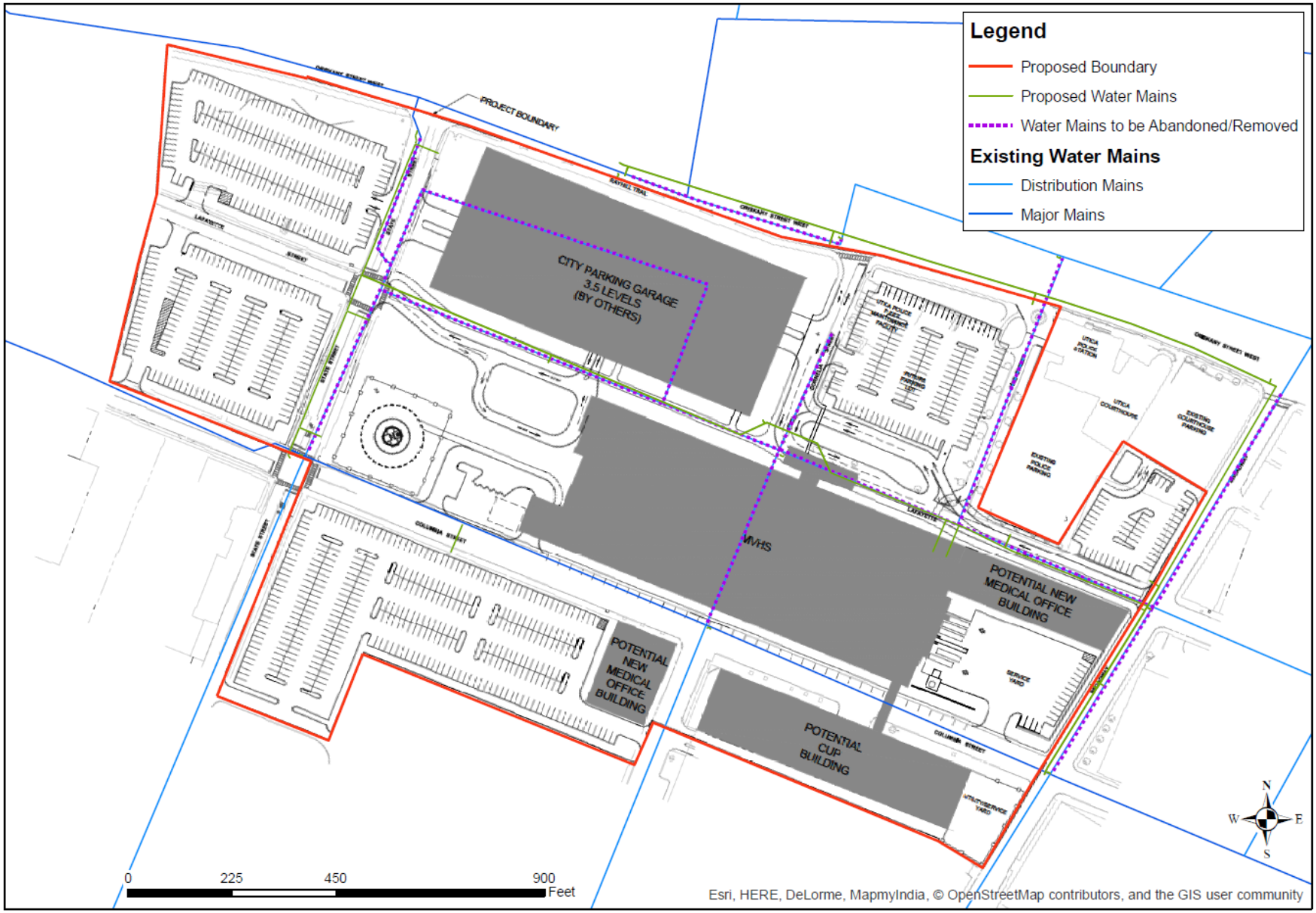

Figure 17. Existing and Proposed Water Mains

- Installation of new 36" diameter storm sewer on Columbia Street, State Street, and potentially along Oriskany Street connecting back to the existing 42" line crossing Oriskany Street West/Route 5S at Cornelia Street, or boring under Oriskany Street to connect to an existing storm sewer on the north side of Oriskany Street.
- Installation of new storm sewer, as needed to tie-in catch basins along the route of the new storm sewer mains.

Water – Proposed Improvements

Water demand for the IHC is estimated at approximately 500 gallons per minute (gpm). Due to the configuration of the hospital in regard to current infrastructure, the abandonment and rerouting of some water mains will be required. Water mains to be replaced or installed are shown on Figure 17 and proposed improvements will consist of the following:

- Older 6" and 16" mains on State Street will be replaced with a new 16" water main
- A 6"/8" main on Broadway will be replaced with a 12" pipe between Columbia Street and Oriskany Street
- Installation of a 12" water main along Oriskany Street East between State Street and Broadway
- Installation of a 12" water main (private) along Lafayette Street, between State Street and Broadway to serve the hospital
- Potential installation of booster pumps to increase flow rates and pressures necessary for fire protection, as well as domestic water, to the upper floors of the proposed hospital.

Telecommunications – Proposed Improvements

Utility purveyors will extend connections to facilities within the project footprint. Potential impacts will be limited to construction-related impacts associated with extending service connections to proposed project facilities; these short-term impacts are not considered significant and can be mitigated consistent with other work within road rights-of-way (ROWs).

Utility Installations/Removals

Potential secondary impacts, which may occur during utility-related construction consist of:

- Potential to encounter groundwater during below-grade construction activities (*e.g.,* utility trenching), which will require temporary dewatering (as discussed in Section 3.3 – *Groundwater*).
- Potential to encounter impacted soil/groundwater from past land use(s) (as discussed in Sections 3.1 – *Land*, and 3.3 – *Groundwater*)
- Potential temporary impacts (sediment laden runoff) to downgradient waterbodies (*i.e.*, Mohawk River, NYS Barge Canal) resulting from disturbances to the soil profile, and exposure of bare soils, from construction activities (as discussed in Section 3.2 – *Surface Water*)

Operation

Utility Capacities

- **Sanitary Sewers** – In correspondence dated September 28, 2018 (see Appendix J), the Oneida County Department of WQ&PC indicated that:

  > *"Current County facilities can accommodate the estimated sanitary sewage design flow of 360 gallons per minute from the proposed healthcare facility. The proposed healthcare facility operations can be supported with no adverse impact on utilities or expansion of existing infrastructure."*

- **Storm Sewers** – The project will result in a net decrease in impervious surfaces in comparison to existing conditions (15±% decrease). The stormwater management system for the project will be designed to control the rate of runoff from the site to at, or below, the rate of runoff during existing conditions. In addition, the system will manage the quality of runoff to eliminate any potential impacts on receiving water bodies. The stormwater system will be designed in accordance with local, state and federal requirements as described in Section 3.2; and, so, no significant adverse impacts are anticipated.
- **Water** – In correspondence dated August 8, 2018 (see Appendix J), the MVWA indicated that they can meet the water demands of the project. The MVWA summarized that:

  "…the average water demands of 500 gpm can be met with existing water system delivery capacity and storage reserves. There will be no adverse impact on current capacity or service levels to others. Final Campus configuration will require abandonment and rerouting of some water mains. Furthermore, fire quantity demands can be supported in terms of water storage capacity however, the required flow rates and pressures may require booster pumping dependent upon the final demand.

- **Telecommunications** – IHC operations will result in additional demand for telecommunications and fiber optic services. The proposed improvements would utilize capacity for phone, cable, and internet services; additional capacity needs would be off-set by the termination of services to existing facilities, which will be relocated. No significant adverse impacts on existing capacities are anticipated.

3.9.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

- If groundwater is encountered during utility removal or installation, it will be characterized to identify the appropriate method of management. If determined to be impacted, it will be managed and disposed of off-site in accordance with applicable local, State, and Federal requirements. If deemed clean, the groundwater will be managed in accordance with standard dewatering practices identified in the General Permit and site-specific SWPPP, as previously discussed in Sections 3.1 and 3.3.
- If impacted soils are encountered they will be removed and disposed of at an approved off-site facility in accordance with applicable local, state and federal regulations.
- Measures will be put in place to prevent temporary impacts to soil erosion and downgradient water bodies (sediment laden runoff) due to excavation and trenching operations associated with utility installations or removals. E&SC measures and BMPs identified in the General Permit and site-specific SWPPP will be employed, as previously discussed in Section 3.1.

Adherence to these measures should provide sufficient mitigation to eliminate potential significant adverse impacts related to utility removal/installations.

Operation

No significant adverse impacts to the capacity or service levels to others in the network are anticipated from hospital operations., therefore no mitigation measures relative to utility service and capacities are warranted. Service connections will be coordinated with respective purveyors. Stormwater management measures, designed in accordance with local, state and federal requirements, will be implemented as described in Section 3.2.

3.10 NOISE AND ODOR

The proposed action may have an impact on noise and odor. The following potential impacts, identified in the scoping process, are evaluated in this section:

Construction

- Temporary construction-related noise impacts from the following:
  - Equipment necessary to prepare the project area (including demolition) and construct the proposed MVHS IHC
  - Vehicles and equipment accessing and egressing the site including trucks hauling C&D debris for off-site management
  - Temporary power generators
- Significant adverse odor impacts are not anticipated.

Operation

- Sporadic noise in excess of existing ambient levels during operation may be generated by incoming ambulances and helicopter flights
- Significant adverse odor impacts are not anticipated.

3.10.1 Existing Conditions

Noise

For the purposes of this assessment, noise is defined as "unwanted sound." Some noise (*e.g.,* police sirens, garbage trucks) are essential to the health, safety and well-being of the city. Other noise emanates from many different sources including traffic, businesses, residences, construction, people and animals. Existing noise sources in the proposed project area include traffic, businesses, residences and humans.

Many factors impact the perception of sound. These include the level of sound, the frequencies involved, the duration of exposure, and the variations in noise level during exposure. Levels of noise are measured in units called decibels (dB). A-weighted decibels (dBA) refers to noise and its effects on humans and other animals. Based on information from the USEPA, existing ambient day-night sound levels may be expected to range from 70 (urban row housing on major avenue) to 80 dBA (downtown with some construction activity.[87] In addition, a significant portion of the project is located near Oriskany Street and the North-South Arterial Highway, which are influenced by noise generated from vehicular traffic and local businesses.

Sensitive receptors within or proximal to the project area (*i.e.,* residences, churches/synagogues/mosques, schools, senior homes, schools, *etc.*) were identified in Section 3.4.

The City of Utica has enacted a municipal noise ordinance (§ 2-15-63 of the City Code, Permissible Noise Levels in Zoning Districts). An excerpt from the ordinance, which summarizes City noise limits, as presented in Figure 18.

[87] http://www.nonoise.org/library/levels/levels.htm (USEPA 1979)

Sec. 2-15-63. Permissible noise levels in zoning districts. [Code 1964, § 16-9(c)-(e)]

A noise measured or registered as provided in this division from any source other than as provided in Section 2-15-67 at a level which is equal to or in excess of the db(A) established for the time period and zones listed in this section is declared to be excessive and unusually loud and is unlawful.

Zone	7:00 a.m. to 10:00 p.m. (db(A), Lmax)	10:00 p.m. to 7:00 a.m. (db(A), Lmax)
Residential	55	50
Commercial	60	55
Light industrial	70	65
Industrial	80	75

When a noise source can be measured from more than one zone, the permissible sound level of the more restrictive zone shall govern.

Between the hours from 7:00 a.m. to 10:00 p.m., the noise levels permitted in Subsection (b) may be increased by 10 db(A) for a period of not to exceed 15 minutes in any one-hour period.

Where noise is periodic, impulsive or shrill, the permitted sound level for these noises shall be fi db(A) less than those listed in Subsection (b) of this section.

Figure 18. Permissible Noise Levels in Zoning Districts (City of Utica)

Odor

No significant or long-term sources of odor currently exist within the project area.

3.10.2 Potential Impacts

Precluding implementation and maintenance of appropriate mitigation measures, the following adverse impacts could occur from construction and operation of the project.

Construction

Construction-related Noise

Noise will be generated during demolition and construction activities associated with the proposed project. Construction-related noise will be short-term, intermittent and limited to the construction phase. Common construction equipment sound levels may be expected to range from 70 to 90 dBA at a distance of 50 feet (NYSDEC 2001[88]). Off-site noise will be generated by construction-related traffic accessing and egressing the site, and traveling on local roads.

Construction-related Odor

No significant construction-related odors are anticipated. Short-term impacts from construction-related emissions and soil disturbances were previously addressed in Sections 3.4.

[88] http://www.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf

Operation

IHC, MOB and Parking Garage Operations

Operation phase activities associated with the project are not anticipated to result in noise levels substantially different than existing noise sources and levels generated from existing operations within the project area. The primary sources of noise will be vehicular traffic entering and egressing project elements (*i.e.*, IHC, MOB, parking garage). Normal operations (including facility mechanical equipment) will be required to comply with the City's noise ordinance; no significant adverse noise impacts are anticipated. Periodic, episodic events such as helicopter arrivals and departures (*i.e.*, 40/year) and ambulances are described below.

Helicopter/Ambulance Noise

Maximum sound levels from individual helicopter operations are expected to be short in duration. As with some existing community noise sources, helicopter arrivals and departures would have the potential to affect speech intelligibility for short periods of time. Lower ambient levels at night could make the helicopter noise more prominent. The community will hear the helicopter operations just as they currently hear buses and trucks on the local roads, but since helicopters (and ambulance sirens) have a unique sound and are episodic, the community will perceive the sound source as unique.

Noise generated from helicopter and ambulance operations are episodic. Episodic noise is infrequent and short-term, with durations lasting only as long as the arrival and departure duration of the equipment. Significant adverse long-term impacts are not anticipated.

Odor

No significant operations-related odor sources were identified.

3.10.3 Mitigation Measures

The following mitigation measures are proposed to minimize or eliminate the potential for, and/or significance of, potential adverse impacts.

Construction

Construction-related Noise

To mitigate construction-related noise, the following mitigation measures may be implemented:

- Contractors will be responsible for using appropriate mufflers on machinery to mitigate potential construction-related noise impacts
- Limiting workday construction activities to normal hours (the NYSDEC program policy suggests that limiting activity to normal workday hours is an effective mitigation [NYSDEC 2001])
- Compliance with the requirements identified in Chapter 2-15 of the City of Utica's Municipal Code and Ordinances

Construction-related Odor

No significant adverse odor impacts are anticipated during the construction phase. Short-term construction-related emissions from equipment and vehicles will be mitigated as indicated in Section 3.4. If petroleum-impacted soils are encountered during excavations, they will be managed in accordance with state and federal regulations, as outlined in Sections 3.1, 3.2, and 3.3.

Operation

IHC, MOB and Parking Garage Operations

To mitigate operations-related noise, the following mitigation measures may be implemented:

- Use of noise attenuation devices/building materials, as necessary (acoustic panels and fully grouted concrete masonry units to attenuate sound transmission through facility walls)
- The housing of roof-top or externally located HVAC system elements in noise attenuating enclosures, as necessary; sound attenuating elbows will be located at strategic locations in the ductwork
- Sound attenuation will be provided at the emergency generator discharge louvers
- Utilization of engineering controls that minimize noise generation and allow employees to work in designated areas without hearing protection (designed to an occupational exposure limit <85 dBA)
- Maintaining day and night time operation phase sound levels at the nearest sensitive receptor (*i.e.*, the property line) in accordance with local code
- Use of landscaping and/or berming for noise abatement.

Helicopter/Ambulance Noise

To mitigate intermittent, episodic noise from periodic helicopter and ambulance operations, the following mitigation measures and best practices may be implemented:

- MHVS will coordinate with helicopter companies to identify optimum arrival and departure flight procedures and paths to minimize episodic noise impacts.

Operations-related Odor

No significant or long-term sources of odor are anticipated from long-term operations within the IHC. Solid waste management practices (see Section 3.13) will incorporate good housekeeping and best management practices including proper storage (*i.e.*, covered receptacles, bins, and dumpsters), transport and off-site management of waste materials.

In addition, the project will adhere to the City's zoning code, which indicates that "no emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable without instruments at the property line of the zone lot from which they are emitted" (§ 2-29-529 of the Utica City Code).

3.11 HUMAN HEALTH

As noted in Section 1, implementation of the project is based on a desire and need to build a facility with the newest technology, services and advancements in patient safety and quality so that our community can receive the most up-to-date healthcare services that rivals those found in large cities. Attainment of this objective will have a significant beneficial impact on human health. As identified in the scoping process, construction and implementation of the project could also result in the following impacts, which are evaluated in this section:

Construction

- Vehicles and equipment accessing and egressing the project site
- Disturbance of hazardous building materials during demolition activities (*e.g.*, asbestos, lead, *etc.*)
- Potential to encounter impacted soils/groundwater (from past or existing land use).