E. UTILITIES

1. Water Service

a. Existing Conditions

The City of Yonkers Water Bureau currently maintains watermains along Central Park, Kimball and Vredenburgh Avenues at the perimeter of the Cross County Shopping Center site (see Figure IV.E-1). A connection to the water main in Vredenburgh Avenue serves the existing Multiplex Theater (Building 12) and Car Wash/Service Center (Building 14) at the south end of the site. Those uses will not be affected by redevelopment of the shopping center and their water service will not be modified.

A connection to the watermain in Central Park Avenue serves the majority of the existing Cross County Shopping Center. A water service connection to the existing watermain in Kimball Avenue provides water to the currently vacant, former Sizzler restaurant building, as well as the upper level of Sears. A second connection to the watermain in Kimball Avenue provides water service to the existing Stop & Shop (Building 15) and Maintenance Building (Building 28) at the east side of the site.

The City of Yonkers Water Bureau maintains separate water systems in Kimball Avenue and Central Park Avenue. The water bureau performed flow tests at hydrants along these Avenues on July 11, 2005. The results of the flow tests are contained in a letter from the City of Yonkers Water Bureau to John Meyer Consulting dated July 12, 2005 (See Appendix II.G.). The existing 16 inch watermain along the west side of Kimball Avenue has a static pressure of approximately 54 pounds per square inch (psi) and the 8 inch watermain along the east side of Kimball Avenue has a static pressure of 41 psi. The 8 inch watermain along the east side of Central Park Avenue has a static pressure of approximately

127 psi.

b. Potential Impacts

1) Project Water Demand

Under existing conditions, it can be estimated that the domestic water demand for the Cross County Shopping Center is approximately 203,500 gallons per day (gpd), based on NYSDEC Design Standards for Wastewater Treatment Works, 1998, increased by 10% to provide a conservative analysis and allow for water which may not be reclaimed by the sewer system as a result of cleaning, cooking and evaporation. Based on the additional building area to be constructed, it can be estimated that the future shopping center will have an average daily water demand of 211,860 gpd. This represents an increase of approximately 8,360 gpd or 4.1% over existing conditions.

2) Availability of Service Including Water District

The City of Yonkers Water Bureau has advised that the water supply system in the vicinity of the Cross County Shopping Center is adequate to provide the additional water demand required for the Shopping Center redevelopment. The Water Bureau also reported that as a matter of policy, they do not assign numbers to different water districts. However, the public water system is owned and operated by the City of Yonkers Water Bureau.

3) Any Required Treatment

Water quality treatment is not required since the municipal water supply is of acceptable quality.

4) Any Issues with Transmission Lines

The existing water distribution system for the Cross County Shopping Center will be abandoned and an entirely new distribution system will be installed to serve the existing and proposed uses on the site with the exception of the existing Theatre (Building 12), Stop & Shop (Building 15), the Car Wash (Building 14) and the Maintenance Building (Building 28) which are not within the redevelopment area.

5) Requirement for any Off-Site Improvements and Cost Estimate

No off-site water system improvements are proposed in conjunction with the redevelopment of the Cross County Shopping Center.

6) Adequacy to Provide Fire Service

The fire demand required to supply the building fire sprinkler and standpipe systems is estimated at 1,250 gpm to be maintained for 90 minutes. Based upon the recent hydrant flow tests (Appendix II.G), the city of Yonkers water supply system will provide adequate flow to meet this demand. Fire pumps will be added as required to obtain necessary system pressure for any standpipe systems.

7) Description of Utility Plan Provision Without Impacting Existing Services

As discussed above, an entirely new water distribution system will be installed to serve the portion of the Cross County Shopping Center to be redeveloped. The proposed system will provide two watermain "loops" to improve reliability and flow (see Figure IV.E-1).

The first "loop" will connect to the watermain along Central Park Avenue in two locations. The first location is near the southwest corner of the existing

Macy's building where an existing water service for the shopping center currently connects. The second connection is at the site's southernmost driveway connection to Central Park Avenue. The majority of the existing and proposed buildings in the Shopping Center will be connected to this loop as requested by the City of Yonkers Water Bureau, since the watermain in Central Park Avenue provides higher pressure than the watermain in Kimball Avenue. It is anticipated that this water main loop will be 12 inches in diameter.

The second watermain "loop" will connect to the existing 16 inch watermain in Kimball Avenue, at the site's northeasternmost driveway where a water connection currently exists. It is anticipated that an 8 inch water "loop" will be installed to serve the east portion of the shopping center including Sears (Building 11), the Sears expansion (Building H), the former Sizzler restaurant building (Building 13) and the Proposed Restaurant (Building F). The new water line will connect to the existing water line in the driveway to the south of the Sears expansion, which was recently installed in connection with construction of the existing Stop & Shop Supermarket.

Approximately 15 new hydrants are proposed throughout the site and backflow preventers will be installed in accordance with City of Yonkers Water Bureau requirements.

During construction, the existing water lines will remain in place to serve existing buildings which will remain in operation. Following completion of the new watermain loops, existing buildings will be systematically disconnected from their existing water services and connected to the new water lines to minimize disruption to operation of the stores. Following connection of the existing and proposed stores to the new water distribution system, the existing water lines will be removed or abandoned in place.

c. Mitigation Measures

An entirely new "looped" water distribution system will be installed to serve the redeveloped Cross County Shopping Center. New backflow preventors will be installed to prevent cross contamination of the City water with the building water in accordance with City of Yonkers Water Bureau requirements.

2. Sewage Disposal

a. Existing Conditions

The Mall's existing sanitary sewer system utilizes multiple pumping stations to collect sewage from all of the buildings on the site. The existing sewer system has four discharge points from the property which are discussed below and are labeled on Figure IV.E-2 titled "Preliminary Sanitary Sewer Service Plan" and Figure IV.E-3 titled "Off-Site Sanitary Sewer Route."

Sewage Discharge Point #1 is located at the approximate midpoint of the site's northern property line. Sewage from the majority of the existing buildings, including Buildings 1, 2, 3, 4, 5, 5a, 6, 7, 8, 9 and 11, is discharged at this point. This entire system will be removed / abandoned to accommodate the proposed buildings and parking structures.

Sewage exits the site to the north via a single manhole in the north parking lot through the existing neighborhood to the north. This existing system within Sunnybrook and Palmer Roads is owned and maintained by the City of Yonkers until it connects with the Westchester County Department of Environmental Facilities (WCDEF) Trunk Sewer at the intersection of Palmer Road and Paxton Avenue. The Trunk Sewer conveys sewer the Yonkers Joint Wastewater Treatment Plant (see Figure IV.E-3).

Existing flows for all buildings outlined above total 133,402 Gallons per Day (GPD) when analyzed using the criteria outlined in NYSDEC publication "Design Standards for Wastewater Treatment Works, 1988" (See Figure IV.E-4).

Sewage Discharge Point #2 is located at the northeast corner of the site at the intersection of the existing site driveway with Kimball Avenue. Sewage from the existing / vacant Sizzler restaurant (Building 13) is discharged at this point.

Sewage Discharge Point #3 is located at the approximate midpoint of the site's eastern property line along Kimball Avenue. Sewage from the recently constructed Maintenance Building (Building 28) is discharged at this point. This existing system will not be impacted by the proposed improvements.

Sewage Discharge Point #4 is located at the southernmost portion of the site at Vredenburgh Avenue. Sewage from the existing National Amusements Theater (Building 12), the existing Stop & Shop grocery store (Building 15), the existing car wash & service center (Building 14) is discharged at this point. This existing system will not be impacted by the proposed improvements.

b. Potential Impacts

- Quantities to be generated

  Only Sewage Discharge Point #1 will experience increases in sewage flow rates as a result of the proposed improvements. Existing on-site sanitary sewer infrastructure contributing to this Discharge point will be completely replaced as depicted on Figure IV.E-2. Proposed flows for to this design point will total 151,657 GPD per NYSDEC criteria, or 18,255 GPD more than existing conditions. A 20% reduction was applied to all proposed buildings since they

will utilize water saving fixtures, as allowed in the NYSDEC criteria.

Sewage Discharge Point #2 will experience a decrease in sewage flow rates of 10,250 GPD since the existing / vacant Sizzler restaurant – Building 13 (350 seats @ 3 GPD/seat) will be converted into 20,000 square feet of Retail Space (0.1 GPD / square foot), as summarized on Figure IV.E-4.

- Availability of service including sewer district
- Any required treatment
- Any issues with transmission lines
- Requirement for any off-site improvements and cost estimate

Interviews conducted by John Meyer Consulting with the City of Yonkers Engineering Department indicate no anticipated issues with downstream transmission lines.

- Description of utility plan provision without impacting existing services

As discussed above, the entire on-site collection system will be replaced during the construction of the proposed improvements. Phasing of the construction will be coordinated to provide sewer service to each of the operating stores during construction.

c. <u>Mitigation Measures</u>

New exterior grease interceptors will be installed at new restaurants. The existing grease interceptors will be removed and replaced to insure grease does not enter the City sewer system.

The proposed expansion of Sears may include a new automotive repair facility. The City of Yonkers Engineering Department had the following questions

regarding the handling of oil by the proposed facility. Reponses to these questions were provided by representatives of Sears:

1) How will used oil from oil changes be recycled/disposed of? Used oil is drained into an approved 300 gallon above ground storage tank. Sears contracts its oil supplier to pick-up the used oil and recycle it.

2) Will there be floor drains in the Auto Center and if so, how will oil drippings be kept from washing into the site sanitary or storm drainage system? An underground oil-water separator is plumbed into the facility's trench drains to collect any oil or contamination that enters the drain. The oil water separator is cleaned on a regular basis by Safety Clean to recover the oil. The facility's trench drains run the entire length of the shop area.

3. Electric and Gas

a. Existing Conditions

The electric service enters the property at two locations along Central Park Avenue on the west and from one location along Kimball Avenue on the east. The electric service enters the facility at 13.2KV and is routed underground to transformer vaults at the individual buildings. The existing underground 13.2KV feeders are adequate for the proposed renovations; however the feeders will be replaced due to their age and to avoid interference with the new structures. The service equipment and metering equipment in the buildings are beyond their useful life and will be replaced. A new service/meter room will be constructed in each building. Feeders to individual tenant spaces will be reused and extended to the new service/meter room.

Gas is provided to the site from the south end by Consolidated Edison Company of New York (Con Ed) through a 2 inch high pressure line. There are also two

separate taps off the gas main in Kimball Avenue that serve Stop & Shop and Sears. These will remain as is. The gas supplied to the site is typically used for heating only, except for the restaurants which will use gas for food preparation.

b. Potential Impacts

The proposed renovations will include reusing the existing points of entry and installing new underground 13.2KV feeders to existing and new transformer vaults at the various buildings. The feeders for the new building pads will be capped in nearby manholes for use by the future tenant. In the existing buildings, new electric service and meter rooms will be constructed. New service equipment and meter equipment will be installed. New service feeders will be installed from the transformers to the new service/meter rooms. The feeders to the individual tenant spaces will be reused and extended to the new service/meter room. Con Edison has stated that their facilities will be able to serve the future needs for the site.

The Proposed Action will result in an increase in the gas consumption on site. Gas loads include estimates for space heating, domestic hot water and food preparation, and total approximately 61,130 cubic-feet per hour (cfh). The Con Edison engineering department has ruled that due to the increase, the complex will be served by a 4" high pressure main from Vrendenberg, at the intersection of Veltri Lane. Con Edison will bring the new 4" service to the property line and install a curb valve. New valved/capped taps will be provided to the proposed building pads. New gas piping will be installed to the existing buildings. The existing gas piping within the buildings will be reused, except modifications will be made to the gas utility rooms housing the pressure reducing valves to comply with new codes. All gas services to the existing buildings will be maintained during the Cross County Shopping Center project.

c. Mitigation Measures

All electrical work will comply with current Con Edison, National Electric Code,

New York State and NFPA requirements. The construction of the new modern electric system to the project site will result in greater reliability. Electric, telephone and cable will be located underground in the same trench, thereby helping to mitigate the amount of site disturbances and excavation.

All gas piping and installation will comply with current Con Edison, New York State and NFPA requirements. Gas service to each building will be located underground in utility trenches.

4. Cable, Telephone And Fiber Optic Cable

The existing site is supplied with telephone service that is routed underground to each of the existing buildings, where it is then distributed to each of the tenants. Verizon supplies the existing telephone service.

The proposed site development includes installation of new underground telephone and cable services to existing and new buildings on the site. Analyses for telephone and cable will be in accordance with customary retail tenant requirements. The additional telephone and cable service demand of the development will be met by the installation of new underground duct banks on site.

All work will comply with current utility codes, National Electric Code, New York State and NFPA requirements. The construction of the new modern telephone/cable system to the project site will result in greater reliability. Electric, telephone and cable will be located underground in the same trench, thereby helping to mitigate the amount of site disturbances and excavation.