



Neighborhood Reinvestment Project 1:

Sanitary Sewer Collection System Rehabilitation in Sugar Pond Manor & Wellington Marketplace



Proposed Sanitary Sewer System Improvements:

The proposed sanitary sewer system improvements within this project primarily consist of cured in place pipe lining (CIPP), sewer main spot / point repairs, mechanical cleaning, lateral repairs, mechanical cleaning, lateral repairs and other miscellaneous repairs. The proposed sanitary sewer system improvements have been depicted on the “Proposed Sanitary Sewer Repairs Exhibit” and have been described per area below:

Sugar Pond Manor Section 1

The sewer mains within Sugar Pond Manor Section 1 were primarily constructed with PVC Truss Pipe (TP). There are several sections of the TP sewer mains where longitudinal and circumferential cracking have been observed; 22 cracks observed within 9 segments of sewer main. There are also six segments of Cast-Iron pipe, two of which have been observed with tuberculation/corrosion at the wyes. Due to the numerous cracks found in the TP pipe material we are recommending to line all of the sewer mains within this area. In addition to lining the sewer mains there are a few other defects that will need the following repairs:

- The 50% sag and offset connection for the outside drop near Manhole # 019005 will need to be repaired by replacing one segment of the sewer main and reconstructing the outside drop connection. This will need to occur prior to lining the system.
- The tuberculation that was overserved at the wye connections may need to be mechanically removed prior to lining.
- The circumferential crack with the heavy encrustation observed near Manhole # 019006 will need to be repaired by replacing a portion of the sewer main prior to lining.
- Approximately 21% of the laterals within this area showed signs of priority 4 and 5 defects. We recommend cleaning and videoing the laterals within this area and line the laterals as needed (replace if required).



Sugar Pond Manor Section 2 & Wellington Marketplace

The 8" sewer mains within the residential portion of this area, Sugar Pond Manor, were constructed with TP pipe and the 12" sewer mains were constructed with PVC pipe. 67% of the TP mains were found with defects and only one of the PVC main was found with a defect. The sewer mains within the Wellington Marketplace were observed in good condition and do not need repairs, however there were a large number of sanitary sewer service laterals within the commercial portion of this area that will need repairs. In general, we are recommending lining all TP sewer mains and performing the following spot repairs and lateral improvements:

- Repair the joint separation on the existing 12" PVC sewer main (segment 016027-016026) by removing and replacing a section of the main.
- Repair the circumferential crack and encrustation within the existing 8" TP main (segment 016030-016017) by replacing a section of the main prior to lining.
- Approximately 42% of the residential and 66.7% of the commercial service laterals within this area that were assessed showed signs of priority 4 and 5 defects. We recommend cleaning and videoing the laterals within this area and line the laterals as needed (replace if required).

Sugar Pond Manor Section 3,

The sewer mains within Sugar Pond Manor neighborhood were primary constructed with TP pipe. There are several sections of the TP sewer mains where longitudinal and circumferential cracking have been observed; 9 cracks observed within 5 segments of sewer main. There are also three segments of Cast-Iron pipe, two of which have been observed with heavy tuberculation near lift station 16 and one with tuberculation/corrosion at the service wyes. There were no priority 4 and 5 main defects found within the Greenview Shores neighborhood or the commercial portions within this area and therefore improvements within those portions have excluded from this project. There were no priority 4 or 5 lateral defects found within any portion of this area.

Due to the sub-standard TP pipe material we are recommending to line all of the sewer mains within the Sugar Pond Manor portion of the area and to mechanically clean and then line all of the Cast Iron Pipe mains within the area. Sewer main spot repairs are not anticipated within this area.



Sugar Pond Manor Area Water and Sewer Condition Assessment
Neighborhood Reinvestment Project 1:
Sugar Pond Manor Section 1



VILLAGE OF WELLINGTON

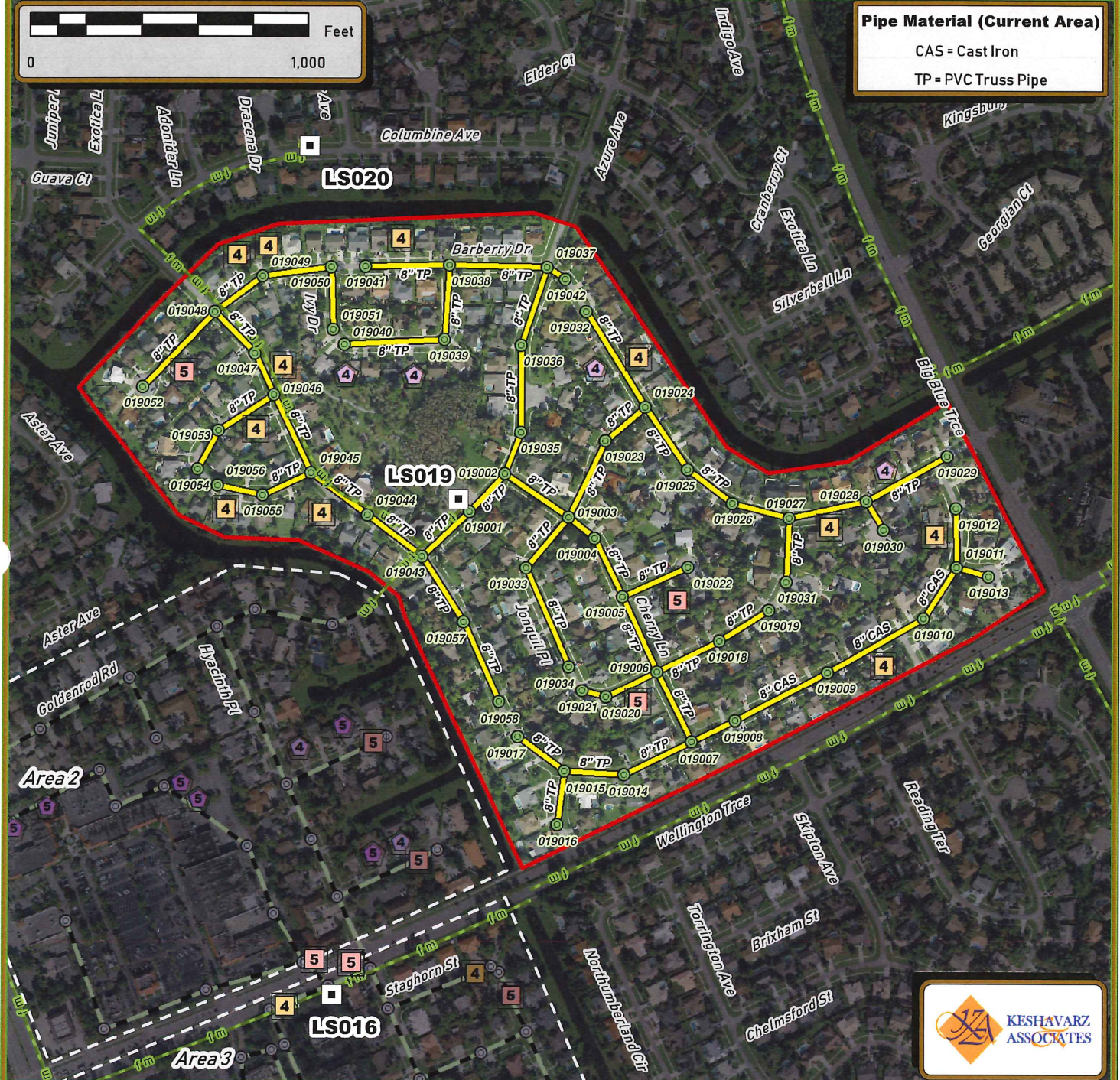
Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)

CAS = Cast Iron

TP = PVC Truss Pipe



Legend

- | | | |
|------------------------------------|---|---|
| Lift Station | Ex. Sanitary Gravity Main | Proposed Gravity Main Repair (Priority 4) |
| Ex. Sanitary Force Main | Ex. Sanitary Gravity Main (To be Lined) | Proposed Gravity Main Repair (Priority 5) |
| Ex. Sanitary Manhole | Ex. Sanitary Gravity Main (Out of Area) | Proposed Sanitary Lateral Repair (Priority 4) |
| Ex. Sanitary Manhole (Out of Area) | | Proposed Sanitary Lateral Repair (Priority 5) |



VILLAGE OF WELLINGTON

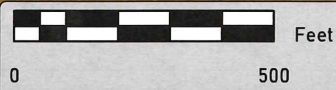
Sugar Pond Manor Area Water and Sewer Condition Assessment

Neighborhood Reinvestment Project 1:

Sugar Pond Manor Section 2

& Wellington Marketplace

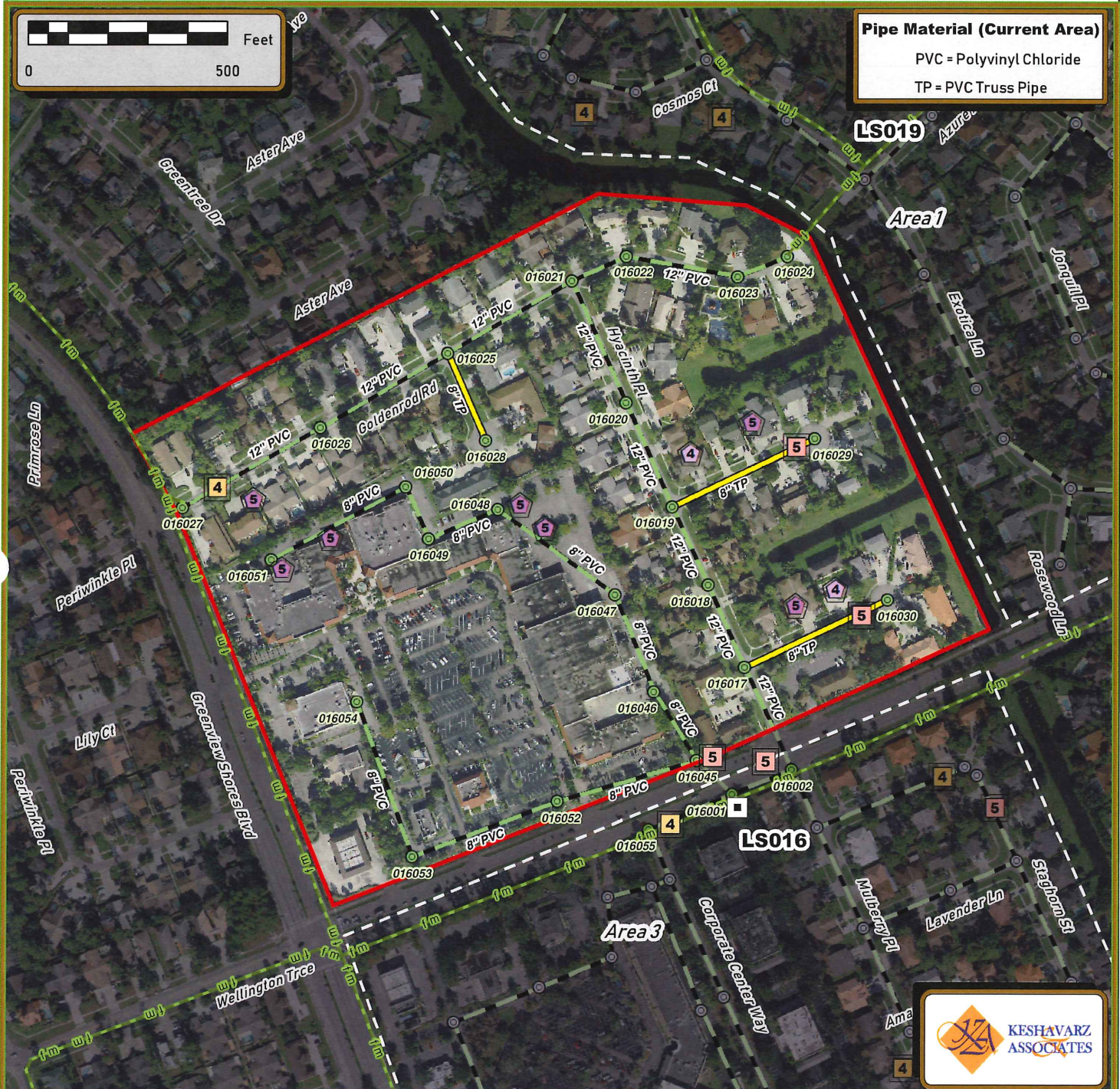
Proposed Sanitary Sewer Repairs



Pipe Material (Current Area)

PVC = Polyvinyl Chloride

TP = PVC Truss Pipe



Legend

- | | | |
|------------------------------------|---|---|
| Lift Station | Ex. Sanitary Gravity Main | Proposed Gravity Main Repair (Priority 4) |
| Ex. Sanitary Force Main | Ex. Sanitary Gravity Main (To be Lined) | Proposed Gravity Main Repair (Priority 5) |
| Ex. Sanitary Manhole | Ex. Sanitary Gravity Main (Out of Area) | Proposed Sanitary Lateral Repair (Priority 4) |
| Ex. Sanitary Manhole (Out of Area) | | Proposed Sanitary Lateral Repair (Priority 5) |

Sugar Pond Manor Area Water and Sewer Condition Assessment

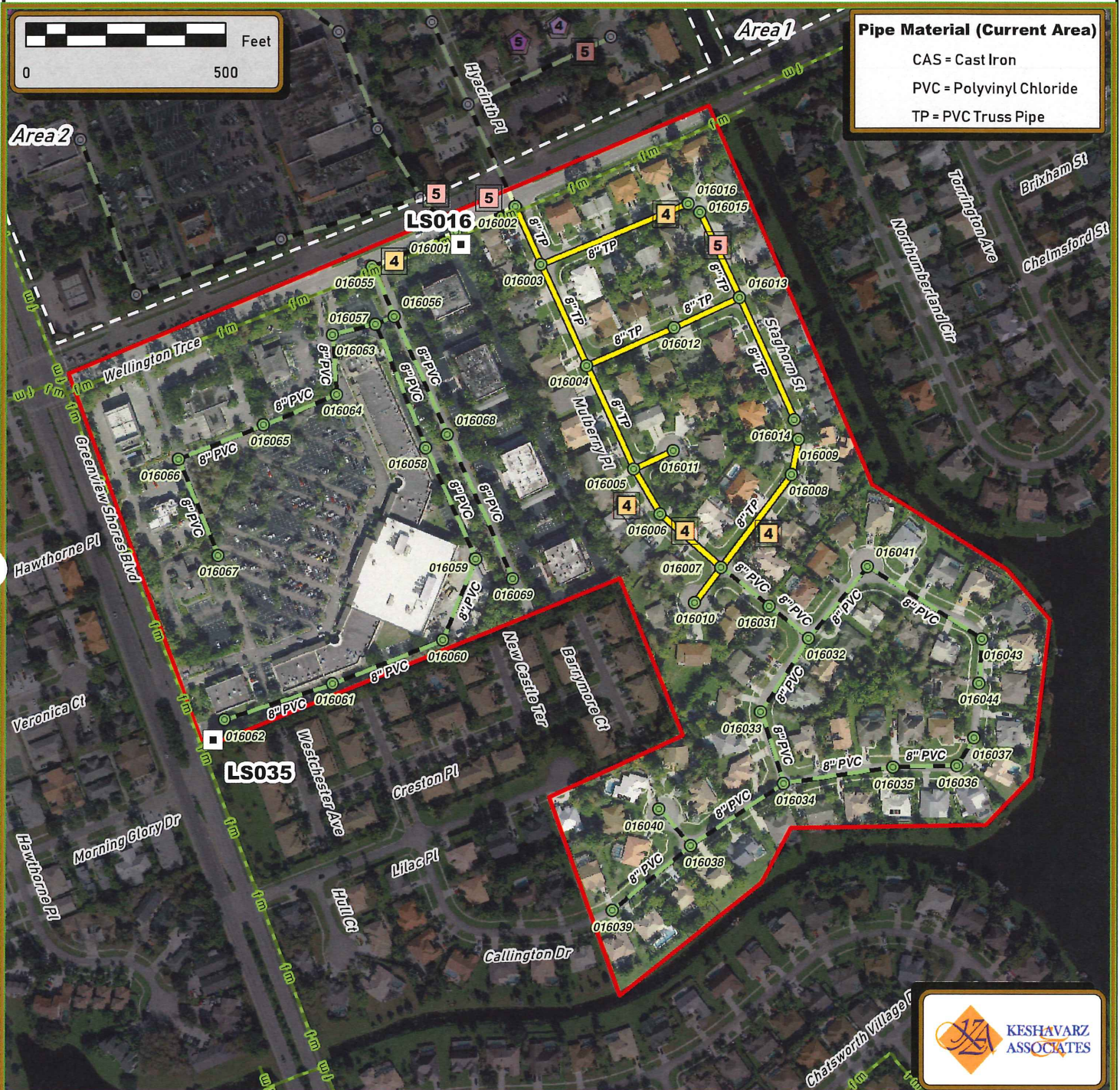
Neighborhood Reinvestment Project 1:

Sugar Pond Manor Section 3














VILLAGE OF WELLINGTON

Proposed Sanitary Sewer Repairs



Legend

- | | | | | | |
|---|------------------------------------|---|---|--|---|
|  | Lift Station |  | Ex. Sanitary Gravity Main |  | Proposed Gravity Main Repair (Priority 4) |
|  | Ex. Sanitary Force Main |  | Ex. Sanitary Gravity Main (To be Lined) |  | Proposed Gravity Main Repair (Priority 5) |
|  | Ex. Sanitary Manhole |  | Ex. Sanitary Gravity Main (Out of Area) |  | Proposed Sanitary Lateral Repair (Priority 4) |
|  | Ex. Sanitary Manhole (Out of Area) | | |  | Proposed Sanitary Lateral Repair (Priority 5) |



Neighborhood Reinvestment Project No. 1
Sanitary Sewer Collection System Rehabilitation
in Sugar Pond Manor & Wellington Marketplace



| Item No. General | Item | Quantity | Unit | Unit Price | Cost \$ |
|---------------------|---|----------|------|------------------|---------------------|
| 101 | Mobilization | 1 | LS | \$ 30,000.00 | \$ 30,000.00 |
| 102 | M.O.T. | 1 | LS | \$ 25,000.00 | \$ 25,000.00 |
| 103 | NPDES (Storm Inlet Protection, Misc. Erosion Control) | 1 | LS | \$ 2,000.00 | \$ 2,000.00 |
| 104 | Survey Layout & Record Drawings | 1 | LS | \$ 1,500.00 | \$ 1,500.00 |
| 105 | Geotechnical Testing Allowance | 1 | LS | \$ 5,000.00 | \$ 5,000.00 |
| | | | | SUBTOTAL= | \$ 63,500.00 |

| Wastewater Collection | | | | | |
|-----------------------|--|--------|----|------------------|------------------------|
| 301 | 8" Sewer Main CIPP Lining (Includes Testing and Cleaning) | 18,200 | LF | \$ 35.00 | \$ 637,000.00 |
| 302 | 10" Sewer Main CIPP Lining (Includes Testing and Cleaning) | 60 | LF | \$ 37.00 | \$ 2,220.00 |
| 303 | 15" Sewer Main CIPP Lining (Includes Testing and Cleaning) | 240 | LF | \$ 40.00 | \$ 9,600.00 |
| 304 | 8" Mechanical Cleaning for Tubercolation | 60 | LF | \$ 25.00 | \$ 1,500.00 |
| 305 | 15" Mechanical Cleaning for Tubercolation | 240 | LF | \$ 25.00 | \$ 6,000.00 |
| 306 | Sewer Main Repair | 3 | EA | \$ 4,000.00 | \$ 12,000.00 |
| 307 | Outside Drop Repair at Manhole & Sewer Main Repair | 1 | EA | \$ 8,000.00 | \$ 8,000.00 |
| 308 | Asphalt Removal and Replacement (Trench Repair) 2.5" thick | 100 | LF | \$ 75.00 | \$ 7,500.00 |
| 309 | 1" Mill & Overlay | 800 | SY | \$ 10.00 | \$ 8,000.00 |
| 310 | Sewer Lateral Repair | 80 | EA | \$ 4,500.00 | \$ 360,000.00 |
| | | | | SUBTOTAL= | \$ 1,051,820.00 |

| Summary | |
|------------------------|-----------------|
| CONSTRUCTION SUBTOTAL= | \$ 1,115,320.00 |
| CONTINGENCY (20%)= | \$ 223,064.00 |
| SUB-TOTAL= | \$ 1,338,384.00 |
| SOFT COSTS (20%)= | \$ 267,676.80 |
| TOTAL= | \$ 1,606,060.80 |