

## EAST BRANDON SANTITARY SEWER IMPROVEMENTS

Brandon, Mississippi

### Phase I

Estimated Cost: \$6,500,000.00

State Revolving Loan Funds (SRLF)

Guest Consultants, Inc. was contracted to produce plans and specifications for the initial phase of a multi-phase sanitary sewer project for the City of Brandon. This project included over 8 miles of new sanitary sewer main ranging in sizes from 8" to 30", 5 miles of force main ranging in sizes from 1 ¼" to 3", 121 – 48" manholes ranging from 6 ft in depth to 22 ft, 47 – simplex grinder pumps, 1 – duplex grinder pump, 48 – home service connections, removal of 48 existing home treatment plants, 1 – trailer mounted by-pass pump, 1 – truck mounted jet rodder, 2 – lift station conversions, and 1 – new lift station. GCI was also responsible for the contract documents, bidding and construction administration.



### Phase II

Estimated Cost: \$2,400,000

State Revolving Loan Funds (SRLF)

Guest Consultants, Inc. was contracted to produce plans and specifications for the 2<sup>nd</sup> phase of the Brandon Sewer Project. Sanitary sewer improvements included on this project were over 7,000 Linear feet of 12" gravity sewer main, 410 linear feet of ductile iron pipe, 680 linear feet of 14" HDPE gravity sewer main, and approximately 30 manholes. Also included in this project was the installation of over 30 simplex grinder pump stations for individual home owners, over 17,000 linear feet of pvc force main and one trailer mounted by-pass pump.

### Phase III

#### Contract I

Estimated Cost: \$2,500,000

State Revolving Loan Funds (SRLF)

The City of Brandon was faced with an aging sewer infrastructure that had problems such as infiltration and joint separation. Much of this pipe was made of either concrete or clay and they were also being faced with the deterioration of this clay pipe. This sewer line had seen the end of its design life and the City was faced with trying to determine the best way to replace over 40,000 linear feet of sewer line, in a timely, economically feasible manner without overly disrupting the general public. Guest Consultants, Inc. proposed pipe bursting as a method of pipe replacement instead of the traditional pipe laying method involving extensive excavation and disturbance. This method not only saved on excavation expense, but also minimized damage to streets and was also much less disruptive to the traffic.



At the time of the initiation of this project, this was the largest pipe bursting project in the State of Mississippi. The final project included over 40,600 linear feet of pipe bursting and miscellaneous manhole and service line repair. This is just another example of how Guest Consultants uses unique and new methods to solve difficult issues.

#### Contract II

Estimated Cost: \$255,000

State Revolving Loan Funds (SRLF)

This phase of the sewer project was warranted in order to provide City sewer services to certain homeowners included in some recently annexed areas. Guest Consultants, Inc. was retained to determine the most cost effective and feasible way to provide these sewer services. After several cost comparisons and conceptual design comparisons, we determined that it would be more cost efficient to design these new connections based around installing individual grinder pumps at the homes. Guest Consultants Inc. produced the plans and specs for this sewer project, which included 28 simplex grinder pumps, and over 16,600 LF of sewer line.

## Phase IV

Estimated Cost: \$1,000,000

State Revolving Loan Funds (SRLF)

Phase IV of the sewer project involves the design and oversight of over 9700 linear feet of 21" gravity sewer main. Guest Consultants, Inc. was contracted to produce plans for this proposed additional phase to the sewer project. This project will include approximately 9,700 LF of 21" gravity sewer main and will connect a new development area near Interstate 20 and Hwy 80 on the east side of town with the existing sewer system. Some of Guest Consultants Inc. responsibilities for this project included modeling this new sewer main with the existing system that it would be connecting to. This project also includes a 30" gravity bore approximately 400' long under Interstate 20.

