



**2017 Edwards Aquifer Recharge Zone (EARZ) Cured In Place Pipe (CIPP) Construction Contract
Solicitation Number: CO-00130
Job No.: 17-4536**

**ADDENDUM 2
June 5, 2017**

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bid proposal, plans, and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the bid proposal.

RESPONSES TO QUESTIONS

- 1. Question: Is this your job and the one that was rejected last time?**

Response: This set of projects has not been previously put out for bid.

- 2. Question: Several recent projects issued by SAWS have contained CIPP specifications that vary from one project to another. Projects bidding after 2/27/17 including this one, refer to the 901 CIPP specification on the SAWS web site. We request that based on this specification and certain critical items included therein, that SAWS refer to alternative specifications that will prove to be more beneficial, efficient, and cost effective for the project. We feel that the specifications used in SAWS Job 14-4652, CO-00098-SM, Castroville Road are well suited to this project. I have attached a copy for your consideration.**

Response: The current project shall utilize the most current specification, as posted to the SAWS website under Construction Specifications, currently Item 901 dated March 2017.

- 3. Question: Please provide approximate pavement elevations along the pipe alignment on the main lanes of Loop 1604 in order that accurate liner designs can be performed and subsequent costs for materials, etc. be utilized for a responsible bid. Page 9 (sheet 4) of the plans.**

Response: Plan sheets have been revised to include depth of cover information. Please see Changes to Plans as part of this Addendum.

- 4. Question: Please provide video of the line from MH 74868-74869-74870.**

Response: Inspection videos were made available to contractors upon completing and submitting a disclaimer form..

- 5. Question: Please confirm that SAWS will not perform any locating, rehabilitation, or uncovering of MH 74869 and does not require contractor to do the same.**

Response: SAWS is currently working to make MH 74869 accessible.

- 6. Question: Please confirm that SAWS expects contractor to line through manhole 74869 and leave as-is and understands that risk.**

Response: SAWS expects MH 74869 will be accessible in time for the Contractor to utilize it for CIPP work. The Contractor will not need to line through MH 74869. At this time, rehabilitation of MH 74869 is not included in the scope of this project.

- 7. Question: Please confirm that replacement of manhole frames and covers unless manhole reconstruction is performed, will be size for size and not updated to a larger size as indicated by the specifications.**

Response: To comply with TCEQ requirements, all manholes ring and cover replacements will include increasing manhole size to 30" opening. This requires all manholes with smaller openings to have the cones replaced to accommodate the larger opening ring and cover. Therefore, sheets have been revised to include manhole reconstruction items, and to also include pavement restoration where required. Note that only cone and ring/cover replacement and lining are required for this item, not reconstruction other manhole sections. Please see Changes to the Plans

- 8. Question: Please provide pavement data and/or expectations for areas where frames and covers (and encasement) is to be done.**

Response: Wherever manholes are located within pavement Contractor shall restore per normal trench restoration as necessary to meet CoSA requirements.

- 9. Question: Are there any known point repairs, or are the pay item quantities intended as "in the event required"?**

Response: No specific locations of point repairs have been identified based on most recent inspection videos. Pay item quantities are included to provide for potential condition changes since last video inspection.

- 10. Question: Is there an engineer's estimate for the project?**

Response: Engineer's estimate for this project is \$1,086,780

- 11. Question: Please confirm that the CIPP installation contractor experience requirements as specified are for the installation company and not any specific personnel and failure to meet this requirement will be considered as non-responsive.**

Response: Experience requirements apply to the prime contractor, not subcontractors or specific personnel. Failure to meet this or any other bidding submittal requirement will result in that bid being considered non-responsive.

- 12. Question: It appears that the 24" CIPP bid item is overstated by 471 LF. There is only 780' of 24" included on the plans. Will SAWS make the correction so that the 24" Bid Item quantity matches the quantity on the plans ?.**

Response: .Newoak includes 201 LF, Loop 1604 includes 579, Errol and Wurzbach include 471 LF. This totals to 1,251 LF. No revision to plans or Bid Item quantities is needed. Plan sheets for this project were not included at advertisement. Please see Changes to the Plans as they have been inserted as part of this Addendum.

- 13. Question: There is no CIPP specification section 901 published in the contract documents for this project. Will the CIPP specification for this project be the new standard specification section 901 for Item 901.1 from the SAWS Standard Specifications for Construction published March 2017? Is this also true for the bypass specification sections 864-S1 and 864-S2?**

Response: The current project shall utilize the most current specifications, as posted to the SAWS website under Construction Specifications, currently CIPP is addressed in Item 901 dated March 2017, and bypass pumping is addressed in Items 864-S1 and 864-S2, both dated March 2017.

- 14. Assuming the new March 2017 SAWS standard specification section 901 will govern the CIPP for this project, we have the following questions regarding the CIPP design parameters contained in section 901.4.3.e:**

- a. *The soil modulus for design is shown to be a blanket 500 psi, regardless of location. This is an extremely low value for almost all design situations and will unnecessarily increase the CIPP design thickness, which increases difficulty of installation and overall project cost. Typical values for soil modulus are often 700 psi in shallow unconsolidated easements, 1,000 psi at shallow to moderate depths under streets, and with values as high as 1,500 psi or higher in deeper &/or well consolidated soils. We request that an increased soil modulus be provided specifically for this project, with an applicable soil modulus provided for each project area.*

Response: Contractor may submit calculations signed and sealed by a Texas Professional Engineer utilizing other values for soil modulus so long as those values are part of the sealed calculations, and the calculation method complies with ASTM F1216.

- b. *The groundwater level for design is specified to be at the surface. This is a worst case scenario that is rarely true on a permanent basis, and when it is exaggerated, will unnecessarily increase the CIPP design thickness, which increases difficulty of installation and overall project cost. We request that a revised ground water level be provided specifically for this project, with an applicable ground water level provided for each project area.*

Response: Contractor is to base their bid and CIPP design on SAWS Standard Specification 910

- c. *The groundwater level for design is also specified so that it will be required to be at the 100-year floodplain water surface level, if that level is higher than the ground surface. This assumes that a floodwater situation would be a permanent loading situation, which it never is. Since floodwater is a temporary situation, standard practice for handling it in CIPP design, when it is a factor, is to design with the long-term retention of flexural modulus at 75% instead of 50% to reflect the temporary nature of this extra loading. We request that the specification requiring the inclusion of the 100-year floodplain water surface level in the CIPP design either be eliminated, or at the very least, be rewritten so that 100-year floodwater loading, when applicable, will be treated as a temporary condition that is accounted for with 75% long-term retention of the initial flexural modulus.*

Response: Contractor is to base their bid and CIPP design on SAWS Standard Specification 910

- d. *Please provide the 100-year floodplain water surface level elevations to be used in CIPP design for every area where the 100-year floodplain will be applicable. The way this information is currently shown on the drawings, when it is shown, makes it difficult if not impossible to determine what the required 100-year floodplain level would be for use in the CIPP designs.*

Response: Floodplain boundaries are provided on relevant plan sheets.

- e. *We would like to note that if these issues are not addressed and altered, that depending on the specific conditions of the site, any one of them &/or their combination could unnecessarily increase the CIPP thickness to a level that it could make it difficult to impossible to install, which could impact the CIPP contractor's ability to bid and build the project.*

Response: Contractor is to base their bid and CIPP design on SAWS Standard Specification 910

15. What NTP date should be used in the Baseline Schedule that must be submitted with the bid?

Response: Assume August 1, 2017 for the Baseline Schedule. This date is subject to change.

16. After reviewing the bid schedule, we have the following questions regarding many of the bid items:

- a. *Bid item no. 32 says the bid quantity for the 24" CIPP is 1,251 LF. However, the drawings only appear to show a total quantity of 780 LF of 24" pipe being lined with CIPP in the Newoak Park area (201 LF) and the Loop 1604 area (579 LF). Where is the other 471 LF of 24" CIPP located? This would also affect the quantity for bid item no. 29.*

Response: Newoak includes 201 LF, Loop 1604 includes 579, Errol and Wurzbach include 471 LF. This totals to 1,251 LF. No revision to plans or Bid Item quantities is needed

- b. **Why is there a bid item no. 3 for traffic control for 15800 Heimer Road that is separate from the bid item no. 4 for traffic control for 15715 Heimer Road, especially since both segments are in the same set of project drawings, and the segment at 15800 Heimer Road appears to be entirely in unpaved alley that is largely inaccessible to traffic? We request that these 2 bid items be combined into 1 item.**

Response: These barricade items will be combined into a single item, aligning the bid items with the plan sheet quantities.

- c. **Why is there another manhole rehabilitation item no. 14 shown under spec section 852.0? This appears to be for the rehabilitation of the 2 existing manholes in the Loop 1604 area, so shouldn't this manhole rehab be part of the structure rehab under bid item no. 35 performed per spec section 910 since these manholes are existing and are larger than 4' diameter? If not, then how is this manhole rehab under bid item no. 14 different from the structure rehab under bid item no. 35?**

Response: Quantities and types of manholes for the 1604 area have been revised. Please see Changes to the Plans as they have been inserted as part of this Addendum.

- d. **Why are there 2 different Extra Depth Manholes (greater than 6') items – one under bid item no. 15 spec section 852.0 and one under bid item no. 17 spec section 852.3? What is the difference between the 2 items? Is one for the Doghouse Manhole under bid item no. 12 and one for the Sanitary Sewer Manhole, 4 ft Diameter (0-6') under bid item no. 16, and if so, which is associated with which item?**

Response: The extra depth quantities have been revised: Item 852.3 refers to additional depth for a 4' diameter manhole at Wurzbach.

- e. **There are several areas on the project that do not have an associated bypass pumping bid item (1844 Thousand Oaks, 15800 & 15715 Heimer Alley, Encino Verde & Encino Grande, and 1822 Deer Mountain). Does that mean a bypass is not anticipated to be required in those areas? If it is required, how will it be paid for?**

Response: Bypass is not anticipated in these areas, as flows are estimated to be very low, consisting of only a few homes. It is expected that temporary plugs, removed at the end of each work day, plus Contractor coordination with local residents, will be sufficient to allow work to proceed.

- f. **There are several bid items on the bid schedule that do not appear to have any associated work designated on the drawings. Please indicate where the following work is being performed:**

- i. **Bid item no. 11 under spec section 850.0 for Sanitary Sewer Structures for a qty of 1 EA**

Response: Wurzbach Parkway

- ii. **Bid item no. 13 under spec section 851.2 for Adjust Existing Manhole (Watertight Ring and Cover) for a qty of 4 EA**

Response: Wurzbach Parkway & Errol St.

- iii. **Bid item no. 16 under spec section 852.1 for Sanitary Sewer Manhole, 4 ft Diameter (0-6') for a qty of 1 EA**

Response: Wurzbach Parkway

- iv. **Bid item no. 17 under spec section 852.3 for Extra Depth Manholes (greater than 6') for a qty of 6 VF**

Response: Wurzbach Parkway

- v. **Bid item no. 24 under spec section 864-S2 for Bypass Pumping (Large Diameter Sanitary Sewer), Erroll St. for a qty of 1 LS. Is there a location associated with this Erroll Street bypass pumping, and if so, which location would it be?**

Response: Erroll St.

- vi. **Bid item no. 25 under spec section 864-S2 for Bypass Pumping (Large Diameter Sanitary Sewer), Wurzbach Parkway for a qty of 1 LS. Is there a location associated with this Wurzbach Parkway bypass pumping, and if so, which location would it be?**

Response: Wurzbach Parkway

- vii. **Bid item no. 35 under spec section 910.2 for Manhole Structure Rehabilitation for a qty of 325 SF.**

Response: Wurzbach Parkway

- viii. **Bid item no. 36 under spec section 1103.0 for Point Repairs For 4" to 20" Diameter, (10'-15' Depth) Including Up To 20 LF Of Piping for a qty of 2 EA.**

Response: Additional point repairs have been added to the overall project in the event that conditions in the pipe have deteriorated since the last inspection video.

- ix. **Bid item no. 37 under spec section 1103.0 for Point Repairs For 24" Diameter Of Greater, (10'-15' Depth) Including Up To 20 LF Of Piping for a qty of 2 EA.**

Response: Additional point repairs have been added to the overall project in the event that conditions in the pipe have deteriorated since the last inspection video.

17. **Do the 2 existing manholes being rehabilitated in the Loop 1604 area (MH #74870 & MH #74868) also require their ring and covers to be replaced with new watertight ring and covers? If so, will it be incidental to the structure rehab, or will it be paid separately under another bid item? Most of the other areas on the project appear to designate which manhole ring and covers will be replaced, and pay for that work separately when required, so it is unclear what is expected in this Loop 1604 area. This happens again in 12703 Englemann, where both manholes are shown to be rehabilitated, but neither designates the ring & cover to be replaced, so it is also unclear if this ring & cover replacement is required.**

Response: Quantities and types of manholes for the 1604 area have been revised. MH Reconstruction line item includes ring and cover replacement (water tight and 30" opening), cone replacement (to accommodate 30" opening), and coating of interior. MH Rehab line item is only coating of interior. Please see Changes to the Plans as they have been inserted as part of this Addendum

18. **Often on SAWS projects, replacement of the existing manhole ring & cover with a new ring & cover is incidental to any designated manhole or structure rehabilitation, and is expected to be performed whenever manhole rehabilitation is performed. However, this project appears to be different. In the 1844 Thousand Oaks area, there are 2 manholes shown to be rehabilitated, but only 1 is designated to have the ring & cover replaced, and that ring & cover replacement is not incidental to the manhole rehab, but is paid separately. This happens again in the 15800 & 15715 Heimer Alley area, where 3 manholes are being rehabilitated, but only 1 requires the ring & cover to be replaced, and again in Encino Verde & Encino Grande, where 4 manholes are being rehabilitated, but only 3 require the ring & cover to be replaced. Does this mean that for manholes being rehabilitated on this contract, only those shown to need new ring & covers will require that work to be performed, and that when it is required, it will be paid under a separate bid item and not incidental to the manhole or structure rehab?**

Response: Manhole rehabilitation work items have been changed. Reconstruction of Existing Manhole (Item 855.0) includes ring and cover replacement (water tight with 30" opening), cone replacement (to accommodate

30" opening), and coating of interior. Manhole Rehabilitation (Item 855.0) is only coating of interior. For both items all work must follow SAWS Standard Construction Specification for Item 855

19. **When a manhole ring and cover is required to be replaced with a new ring and cover, will the new ring and cover be the same diameter as the original? Are there situations where a larger diameter ring & cover will be required to be installed, and if so, what diameter will the larger ring and cover be, and at which manholes would they be installed?**

Response: All new ring and covers must meet current TCEQ requirements of 30" opening, and corresponding SAWS standard details.

20. **The 12703 Englemann area quantities shown on sheet 6 appear to call for 2 manholes to be reconstructed, but that work does not appear to be designated at any manholes shown on the drawings. Which 2 manholes are being reconstructed in this area?**

Response: Reconstruction in Englemann is anticipated to be required for CIPP and bypass access. Quantities have been revised to a total of four (4) to reflect CIPP start and end and Bypass suction and discharge. See Changes to Specifications Item 2 and Changes to Plans .

21. **It appears that MH 74869 located in the frontage road in the Loop 1604 area is buried and not currently accessible, and that the pipe to be lined goes through a bend at that manhole. Can that manhole be located and exposed to provide direct access into the manhole for the project? If so, will SAWS perform &/or pay for this work, or will the Contractor be responsible for any work required to make the manhole accessible during construction? If the manhole cannot be exposed, what will happen if the CIPP cannot navigate the bend at that manhole without direct access – how would that situation be resolved?**

Response: SAWS is currently working to make MH 74869 accessible. SAWS expects MH 74869 will be accessible in time for the Contractor to utilize it for CIPP work. The Contractor will not need to line through MH 74869. At this time, rehabilitation of MH 74869 is not included in the scope of this project

22. **From the discussion at the pre-bid meeting, it sounds like even though SAWS will be providing all necessary easements for the project, the contractor is responsible for obtaining the necessary rights-of-entry (ROE) to those easements. Is this correct? If it is, what will happen if the Contractor, in good faith, negotiates promptly for those ROE's, but is either denied those ROE's or is not provided those ROE's in a timely manner?**

Response: Contractor is responsible for obtaining ROE; if Contractor encounters issues with obtaining approvals SAWS will provide assistance.

23. **Each project area has its own milestone for completion, but the project as a whole, has a completion period of 150 calendar days. Will liquidated damages apply to any of the individual project area milestones, or will they only apply to exceeding the 150 calendar day contract duration for the entire project?**

Response: Liquidated Damages will only apply to the 150 calendar day contract duration for the entire project.

24. **Project Requirements section 8 on page SC-3 regarding project milestones states that in order to meet EARZ requirements and avoid associated penalties, beneficial use must be achieved at each location by the specified date, then goes on to list milestone dates for each project area. What are the associated penalties for not meeting any of the listed milestones in this section? What if it is through no fault of the Contractor that the milestone is not met (i.e. permit delay for a permit that SAWS is responsible for obtaining)?**

Response: There are no penalties to the contractor for missing individual milestone dates, Liquidated Damages will only apply to the 150 calendar day contract duration for the entire project. However, SAWS expects Contractor to complete work in an expeditious manner and work to achieve the stipulated milestones.

25. **There are 2 project locations listed in the Project Requirements section 1 and 8 that do not appear to be included in any of the project drawings. Are the Errol Street and Wurzbach Parkway areas part of this contract?**

Response: Yes. SAWS did not include them in the original set of plans. See #1 Changes to Plans within this Addendum

- 26. Can the Contractor submit just one SWPPP for the entire contract, or will a separate SWPPP be required for each project area?**

Response: Separate SWPPPs are expected to be required for each project area.

- 27. The documents indicate that SAWS is obtaining the railroad permit, but from Exhibit B, it appears the Contractor is also required to obtain a Right of Entry Agreement from the railroad which has its own associated costs and fees. Will SAWS reimburse or pay for any of the fees or costs associated with obtaining the Contractor's ROE agreement with the railroad? If not, which costs and fees will the Contractor be responsible for paying?**

Response: SAWS is obtaining the permit from UPRR. As part of that permit, UPRR requires the Contractor complete the Right of Entry form and submit for approval from UPRR. Contractor will be responsible for paying all costs and fees associated with obtaining the ROE and satisfying the stated permit requirements for working within the UPRR ROW.

- 28. Normally, rehabilitation of 4-foot diameter manholes is paid per VF, but per section 910.7 and 910.10, both manhole and sanitary sewer structure rehab are specified to be paid per SF on this contract. Is this an error, and should manhole rehab (i.e. rehab of 4-foot diameter manholes) be indicated to be paid per VF instead? From the manhole rehab work is presented in the drawings and under bid item no. 34 on the bid schedule, it appears the intent is to use VF as the unit of measure for that work.**

Response: Bid Items have been revised so that normal MH rehab is included under item 855 with a quantity of VF. MH Reconstruction line item (quantity EA) includes ring and cover replacement (water tight and 30" opening), cone replacement (to accommodate 30" opening), and coating of interior. MH Rehab line item is only coating of interior. Item 910 is utilized for rehab of other sewer structures.

- 29. Bypass specs require the use of HDPE for any bypass pipe within the EARZ, regardless of the size of the pipe being bypassed. Since all of the project areas are within the EARZ, please confirm that this means that all bypass piping will be required to be HDPE on this contract, even for the systems bypassing 8" mains.**

Response: Yes – All bypass piping within EARZ must be HDPE, regardless of size of sewer being bypassed.

CHANGES TO THE SPECIFICATIONS

1. Invitation to Bidders: First paragraph, project description is changed from "...approximately **3,066** LF of 8" to 33" Cured In Place Pipe (CIPP)..." to "...approximately **3,125** LF of 8" to 33" Cured In Place Pipe (CIPP)..." Remove and replace the Invitation to Bidders with the attached.
2. Bid Proposal: Bid Items for Point Repair are revised to specifically refer to pipe diameters on this project. MH Rehab items are revised such that MH Reconstruction refers to ring and cover and cone replacement and MH lining, and MH rehab refers to item 855 and includes lining only. Barricade items are combined for Encino Verde and 15000 block Heimer to match plans. Bid items are renumbered to accommodate. Remove and replace the Bid Proposal with the attached. This is the version Bidders should use when submitting a bid for this project.
3. Statement of Bidders Experience: An additional reference project, A-3 is added. This additional reference is to document bypass installations. Remove and replace the Statement of Bidders Experience with the attached. This is the version Bidders should use when submitting a bid for this project.
4. Special Conditions: An additional Construction Requirement has been added to clarify use of plugs. Remove and replace the Special Conditions with the attached. This is the version Bidders should use when submitting a bid for this project.

CHANGES TO THE PLANS

1. Insert Plan Sheets 1-9 for Errol St and Wurzbach Parkway.

2. 1822 Deer Mountain, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to replace Item 852 "Replace Existing Manhole Ring and Cover" with Item 855 "Reconstruction of Existing Manhole" and add pavement restoration items. Remove and replace sheet 6 in its entirety with the revised sheet attached.
3. 15800 & 15715 Heimer Road, Cover Sheet: Title address corrected to "15800 & 15715 Heimer Road" Remove and replace Cover sheet in its entirety with the revised sheet attached.
4. 15800 & 15715 Heimer Road, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to replace Item 852 "Replace Existing Manhole Ring and Cover" with Item 855 "Reconstruction of Existing Manhole". Remove and replace sheet 6 in its entirety with the revised sheet attached.
5. Encino Verde & Encino Grande Rd, Cover Sheet: Title revised to add street numbers. Remove and replace Cover sheet in its entirety with the revised sheet attached.
6. Encino Verde & Encino Grande Rd, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to replace Item 852 "Replace Existing Manhole Ring and Cover" with Item 855 "Reconstruction of Existing Manhole" and add pavement restoration items. Remove and replace sheet 6 in its entirety with the revised sheet attached.
7. 14902 Heimer Rd, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to remove Item 852 "Replace Existing Manhole Ring and Cover". Remove and replace sheet 6 in its entirety with the revised sheet attached.
8. 1844 Thousand Oaks, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to replace Item 852 "Replace Existing Manhole Ring and Cover" with Item 855 "Reconstruction of Existing Manhole" and add pavement restoration items. Remove and replace sheet 6 in its entirety with the revised sheet attached.
9. 12703 Englemann, Sheet 6: Quantity table is revised to add item 530.1, Barricades, Signs, and Traffic Handling. This item was already included in Bid Proposal items. Quantity table is also revised to increase number of Reconstructed Manholes. Remove and replace sheet 6 in its entirety with the revised sheet attached.
10. Newoak Park, Sheet 4: Project legend is revised to change "Proposed UV CIPP" to "Proposed CIPP", quantity changed to include "Reconstruction of Existing Manhole", and note regarding chain link fence changed. Remove and replace sheet 4 in its entirety with the revised sheet attached.
11. Loop 1604, Sheet 2: Doghouse detail has been added. Quantities modified for manholes. Remove and replace sheet 2 in its entirety with the revised sheet attached.
12. Loop 1604, Sheet 4: Project legend is revised to change "Proposed UV CIPP" to "Proposed CIPP", and added depth data, revised quantity table, revised manhole callouts. Remove and replace sheet 4 in its entirety with the revised sheet attached.
13. Loop 1604, Sheet 5: Project legend is revised to change "Proposed UV CIPP" to "Proposed CIPP", and added depth data, revised quantity table, revised manhole callout. Remove and replace sheet 5 in its entirety with the revised sheet attached.

CLARIFICATIONS

1. Errol Plans, "Item 910, Manhole Rehabilitation", and corresponding Bid Item "910, Manhole Rehabilitation" refer to the same bid item as "Item 855, Manhole Rehabilitation".



S. Keller Drozdick, P.E.
Merrick & Company

END OF ADDENDUM

INVITATION TO BIDDERS

Solicitation No. CO-00130

Sealed bids are requested by the San Antonio Water System for the construction of approximately 3,125 LF of 8” to 33” Cured In Place Pipe (CIPP) for the 2017 Edwards Aquifer Recharge Zone (EARZ) CIPP Construction Contract, SAWS Job No. 17-4536.

To view additional project information, as well as obtain the plans and specifications for this project, visit our website located at www.saws.org and click on the Business Center. Then select Bidder, Consultant, and Vendor Registration, which is located on the left-hand side of the screen. Select the Register Now button and proceed with registration.

For difficulties downloading plans and specifications, contact the Contracting Department at 210-233-3404.

For questions regarding this solicitation, technical questions or additional information, please contact Gina Cappa, Contract Administrator, in writing via email to: gina.cappa@saws.org until **4:00 PM (CT) on May 31, 2017**. Answers to the questions will be posted to the web site by **4:00 PM (CT) on June 5, 2017** as a separate document or included as part of an addendum. Please be advised that Bidders are prohibited from communicating with any other SAWS staff, the Consultant, the Developer, or City of San Antonio officials regarding this IFB up until the contract is awarded as outlined in the Instructions to Bidders.

A **mandatory** pre-bid meeting will be held at **10:00 AM (CT) on May 30, 2017, 2017** at the San Antonio Water System’s **Customer Service Building, 1st floor**, Conference Room **CR-C145**, 2800 U.S. Hwy 281 North, San Antonio, Texas. Please be advised that under no circumstances shall any late or non-attendee(s) to the Mandatory Pre-Bid Meeting be allowed to submit a bid for the project.

Sealed bids will be received by the Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, Suite 171, San Antonio, Texas 78212, **until 10:00 AM (CT), June 9, 2017**. Bids will then be publicly opened and read aloud in Contract Administration, **CR-C154**, Customer Center Building, 2800 U.S. Hwy 281 North, San Antonio, Texas. Each bid must be accompanied by a cashier's check, certified check, or bid bond in an amount not less than five percent of the total bid price.

BID PROPOSAL

PROPOSAL OF _____, a corporation

a partnership consisting of

an individual doing business as

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitation to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the project as specified, in accordance with the Plans and Specifications for the following prices to wit:

TOTAL BID PRICE

\$ _____

BIDDER'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. /FAX NO.

FIRM'S EMAIL ADDRESS

The Contractor herein acknowledges receipt of the following:
Addendum Nos. _____

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within **150** calendar days after the start date as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.**

Complete the additional requirements of the Bid Proposal which are included on the following pages.

Line No.	Item No.	Description	Unit	Qty.	Unit Price	Total Price
1	110.0	Remove & Replace Wooden Privacy Fence (CoSA Spec)	LS	1	\$	\$
2	202.1	Prime Coat (CoSA Spec)	GAL	4	\$	\$
3	203.1	Tack Coat (CoSA Spec)	GAL	2	\$	\$
4	205.3	Hot Mix Asphaltic Pavement, Type D (2" Compacted Depth) (CoSA Spec)	SY	17	\$	\$
5	206.1	10" Asphalt Treated Base (CoSA Spec)	SY	17	\$	\$
6	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 1822 Deer Mountain	LS	1	\$	\$
7	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 15800 Heimer Road & 15715 Heimer Road	LS	1	\$	\$
8	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 1844 Thousand Oaks	LS	1	\$	\$
9	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 130 Encino Grande & 15101 Encino Verde	LS	1	\$	\$
10	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 14902 Heimer Road	LS	1	\$	\$
11	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), 12703 Englemann	LS	1	\$	\$
12	530.1	Barricades, Signs, and Traffic Handling (CoSA Spec), Loop 1604	LS	1	\$	\$
13	850.0	Sanitary Sewer Structures	EA	1	\$	\$
14	851.2	Adjust Existing Manhole (Watertight Ring And Cover)	EA	4	\$	\$
15	852.1	Sanitary Sewer Manhole, 4 ft Diameter (0-6')	EA	1	\$	\$
16	852.3	Extra Depth Manholes, Wurzbach Parkway	VF	6	\$	\$
17	855.0	Reconstruction Of Existing Manhole	EA	15	\$	\$
18	855.0	Manhole Rehabilitation	VF	61	\$	\$
19	864-S1	Bypass Pumping (Small Diameter Sanitary Sewer), 2400 Newoak Park	LS	1	\$	\$
20	864-S1	Bypass Pumping (Small Diameter Sanitary Sewer), 12703 Englemann	LS	1	\$	\$
21	864-S1	Bypass Pumping (Small Diameter Sanitary Sewer), 14902 Heimer Road	LS	1	\$	\$
22	864-S2	Bypass Pumping (Large Diameter Sanitary Sewers), 2400 Newoak Park	LS	1	\$	\$
23	864-S2	Bypass Pumping (Large Diameter Sanitary Sewer), Errol St.	LS	1	\$	\$
24	864-S2	Bypass Pumping (Large Diameter Sanitary Sewer), Wurzbach Parkway	LS	1	\$	\$
25	864-S2	Bypass Pumping (Large Diameter Sanitary Sewer), 12703 Englemann	LS	1	\$	\$
26	864-S2	Bypass Pumping (Large Diameter Sanitary Sewers), Loop 1604	LS	1	\$	\$
27	866.0	Sewer Main Pre-Television Inspection (8"-15" Diameter)	LF	1761	\$	\$
28	866.0	Sewer Main Pre-Television Inspection (18"-24" Diameter)	LF	1251	\$	\$
29	866.0	Sewer Main Pre-Television Inspection (30"	L.F.	113	\$	\$

Diameter And Larger)						
30	901.0	CIPP 8" Sanitary Sewer Pipe, All Depths	LF	1761	\$	\$
31	901.0	CIPP 24" Sanitary Sewer Pipe, All Depths	LF	1251	\$	\$
32	901.0	CIPP 33" Sanitary Sewer Pipe, All Depths	LF	113	\$	\$
33	910	Manhole Rehabilitation	VF	10	\$	\$
34	910.2	Manhole Structure Rehabilitation	SF	296	\$	\$
35	1103.0	Point Repairs For 8" Diameter, (10'-15' Depth) Including Up To 20 LF Of Piping	EA	2	\$	\$
36	1103.0	Point Repairs For 24" Diameter, (10'-15' Depth) Including Up To 20 LF Of Piping	EA	2	\$	\$
37	1103.0	Point Repairs For 33" Diameter, (10'-15' Depth) Including Up To 20 LF Of Piping	EA	2	\$	\$
38	1103.2	Obstruction Removal by Remote Device, 24" Diameter, all depths	EA	4	\$	\$
39	1109.0	Service Reconnection, All Depths (w/ remote control cut device)	EA	20	\$	\$

STATEMENT OF BIDDER'S EXPERIENCE FORM (ATTACHMENT A)

2017 Edwards Aquifer Recharge Zone (EARZ) Cured In Place Pipe (CIPP) Construction Contract

**SAWS Job No. 17-4536
SAWS Solicitation No. CO-00130**

A. Please complete **all** the fields below.

Bidder must answer all questions complete and all information must be clear, accurate, and comprehensive.

If all fields are not completed, the Bid is at risk for being rejected due to non-responsiveness. It is not acceptable to indicate "See attached".

Project A-1 is to have been completed by the Bidder.

- Project A-1 demonstrates construction of 8-inch CIPP sewer rehabilitations.
- Project A-1 was completed between 2012 and 2017.

Project A-1 Description

Name of Project: _____	Location: _____
Scope of Work: _____	_____
Pipe Sizes: _____	Pipe Lengths: _____
Owner Name: _____	Owner Title: _____
Owner Phone Number: _____	Construction Cost: _____
Project Start Date: _____	Project End Date: _____
Additional Information: _____	_____

Project A-2 is to have been completed by the Bidder.

- Project A-2 demonstrates construction of 24-inch and larger CIPP sewer rehabilitations.
- Project A-2 was completed between 2012 and 2017.

Project A-2 Description

Name of Project: _____	Location: _____
Scope of Work: _____	_____
Pipe Sizes: _____	Pipe Lengths: _____
Owner Name: _____	Owner Title: _____
Owner Phone Number: _____	Construction Cost: _____
Project Start Date: _____	Project End Date: _____
Additional Information: _____	_____

Project A-3 is to have been completed by the Bidder.

- Project A-3 demonstrates construction of 24-inch and/or larger sewer bypass.
- Project A-3 was completed between 2012 and 2017.

Project A-3 Description

Name of Project: _____	Location: _____
Scope of Work: _____	_____
Pipe Sizes: _____	Pipe Lengths: _____
Owner Name: _____	Owner Title: _____
Owner Phone Number: _____	Construction Cost: _____
Project Start Date: _____	Project End Date: _____
Additional Information: _____	_____

Special Conditions

CONSENT DECREE NOTICE PROVISION

The San Antonio Water System (“SAWS”), the United States of America and the State of Texas have entered into a Consent Decree in Civil Action No. 5:13-cv-00666- DAE, United States of America and State of Texas v. San Antonio Water System, in the United States District Court for the Western District of Texas, San Antonio Division (the “Consent Decree”). A copy of the Consent Decree is available at

<http://www.saws.org/Infrastructure/EPA/download.cfm>

Work performed pursuant to this contract is work that SAWS is required to perform pursuant to the terms of the Consent Decree. In the event of any conflict between the terms and provisions of this Consent Decree Notice Provision and any other terms and provisions of this Contract or the Contract Documents, the terms and provisions of this Consent Decree Notice Provision shall prevail.

A. Retention of documents.

Contractor shall retain and preserve all non-identical copies of all documents, reports, research, analytical or other data, records or other information of any kind or character (including documents, records, or other information in electronic form including, but not limited to e-mails) in its or its sub-contractors’ or agents’ possession or control, or that come into its or its sub-contractors’ or agents’ possession or control, and that relate in any manner to this contract, or the performance of any work described in this contract (the “Information”). This retention requirement shall apply regardless of any contrary corporate or institutional policy or procedure or legal requirement. Contractor, Contractor’s sub-contractors and agents shall retain and shall not destroy any of the Information until such time as Contractor has received written approval from the General Counsel of SAWS that the Information or any part of the Information may be destroyed. Contractor shall, within 30 days after receipt of a written request by SAWS, deliver the Information to SAWS. Contractor shall instruct and require its agents and sub-contractors performing any part of the work described in this contract to comply with the requirements of this paragraph.

B. Notification of events that may cause delay.

If any event occurs that may delay performance by Contractor, or Contractor’s agents or sub-contractors of any work or obligation of any kind under this contract, Contractor shall provide notice in accordance with the Notice Provisions of this contract to SAWS within two (2) business days of the date Contractor or Contractor’s agents or sub-contractors first knew that the event might cause a delay. Contractor shall provide a written explanation and description of the reasons for the delay, the anticipated duration of the delay, all actions taken or to be taken to prevent or minimize the delay, and a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay. **TIME IS OF THE ESSENCE** in the performance of the requirements of this paragraph and of any work to be performed by the Contractor in this contract.

C. Liability for stipulated penalties.

The Consent Decree provides that the United States of America, the United States Environmental Protection Agency and the State of Texas may assess stipulated penalties against SAWS upon the occurrence of certain events. To the extent that Contractor or Contractor's agents or sub-contractors cause or contribute to, in whole or in part, the assessment of any stipulated penalty against SAWS, Contractor agrees that it shall pay to SAWS the full amount of any stipulated penalty assessed against and paid by SAWS that is caused or contributed to in whole or in part by any action, failure to act, or failure to act within the time required by any provision of this contract. Contractor shall also pay to SAWS all costs, attorney fees, expert witness fees and all other fees and expenses incurred by SAWS in connection with the assessment or payment of any such stipulated penalties, or in contesting the assessment or payment of any such stipulated penalties. In addition to any and all other remedies to which SAWS may be entitled at law or in equity, Contractor expressly authorizes SAWS to withhold all amounts assessed and paid as stipulated penalties, and all associated costs, fees, or expenses from any amount unpaid to Contractor under the terms of this contract, or from any retainage provided in the contract.

PROJECT REQUIREMENTS

General Project Requirements

1. This project consists of twelve (12) different locations:
 - o 2400 Newoak Park
 - o 1822 Deer Mountain
 - o 15800 Heimer Road
 - o 15715 Heimer Road
 - o 1844 Thousand Oaks
 - o 130 Encino Grande
 - o 15101 Encino Verde
 - o 14902 Heimer Road
 - o 12703 Englemann
 - o Loop 1604 Large Diameter
 - o Errol St.
 - o Wurzbach Parkway
2. Work should be started in the same sequence as they are listed – this reflects the milestone date sequence.
3. SAWS requires the Contractor to focus efforts at each location and to complete work on that site by a sufficient number of dedicated and organized crews in as quick a manner as practicable.
4. The Contractor is required to provide the SAWS Inspector and the Engineer final redlines.
5. All Work included under this contract is specified at the time of bidding, all quantities are estimated in the proposal, and it is the intent of the proposal and quantities to establish a fixed unit price for various line items to be paid to the Contractor by SAWS during the term of this contract. No change in the unit price will be made, regardless of the actual quantity of the item of work performed during the contract.
6. No excavation work of any kind may begin until authorized by SAWS. Preliminary work, such as televising, utility investigations, utility potholing, and setup and testing of bypass pumping, may not begin unless approved in writing by SAWS Inspections.
7. Final restoration of each location shall be completed immediately after other work activities are complete to comply with CoSA ROW requirements.
8. Project Milestones: Project milestones below indicate required completion dates for each location. Final completion of all locations shall be achieved in 150 calendar days. The Contractor should take this into consideration when developing their project schedule. In order to meet EARZ requirements and avoid associated penalties, beneficial use must be achieved at each location by the specified date. For these purposes beneficial use consists of the ability to place the facilities into their intended use without restriction, such as allowing manholes and piping to convey normal gravity sewer flows.
 - o 2400 Newoak Park----- August 31, 2017
 - o 1822 Deer Mountain----- August 31, 2017
 - o 15800 Heimer Road ----- September 7, 2017
 - o 15715 Heimer Road ----- September 7, 2017
 - o 1844 Thousand Oaks ----- October 31, 2017
 - o 130 Encino Grande ----- October 31, 2017
 - o 15101 Encino Verde----- October 31, 2017

- 14902 Heimer Road ----- October 31, 2017
- 12703 Englemann ----- October 31, 2017
- Loop 1604 Large Diameter ----- October 31, 2017
- Errol St. ----- October 31, 2017
- Wurzbach Parkway ----- October 31, 2017

CONSTRUCTION REQUIREMENTS

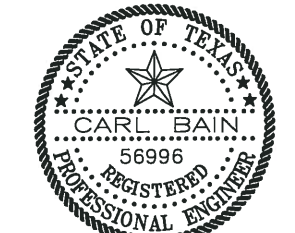
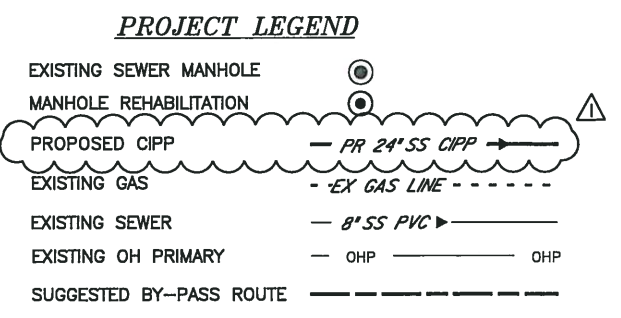
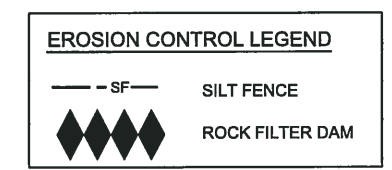
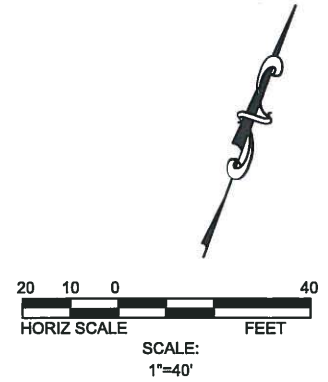
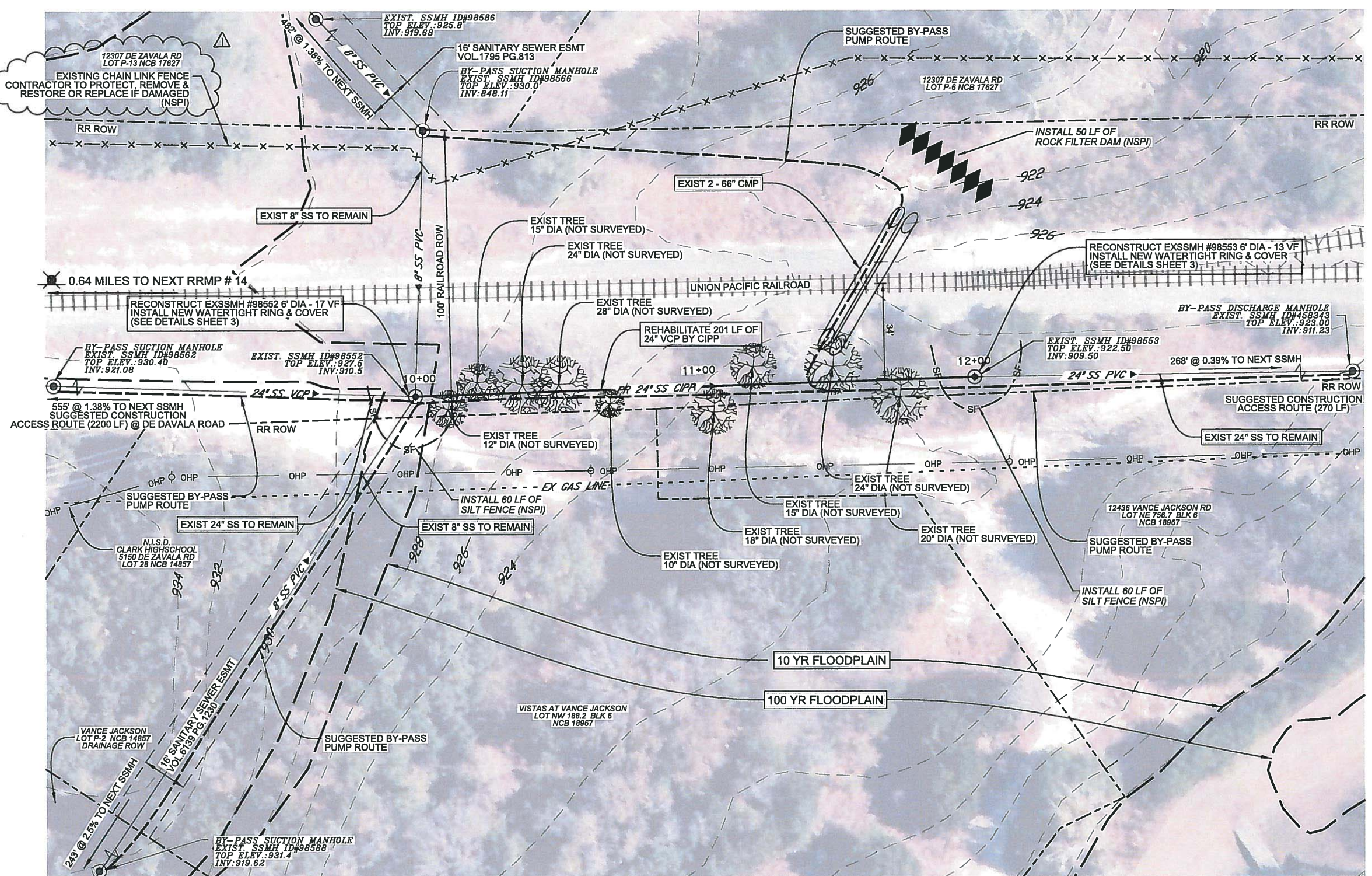
General Construction requirements

1. There will be no measurement or payment for mobilization, preparation of right-of-way, insurance, bonding, or permitting costs on this contract. All mobilization, demobilization, and remobilization, and any costs associated with these items shall be include in the applicable contract price based on the unit price for the items to which the work pertains. There will be no separate payment for cleaning and grubbing or tree pruning.
2. It is the Contractor's responsibility for the preparation, research, submittal, and layout of the site specific submittals, including the Storm Water Pollution Prevention Plan, Traffic Control Plan, the Bypass Pumping Plan, and their approvals at no cost to SAWS. If no pay item is included for the stipulated item, it will be considered as subsidiary to other pay items. There will be no measurement or payment for the Storm Water Pollution Prevention Plan or Tree Preservation Protection work.
3. Easement Access: Access to easements on private property will require close coordination with landowners and their tenants, if any. The Contractor shall coordinate with the Inspector to provide notice to all involved parties well in advance of the work, indicate when field work will begin on each project site, and provide an explanation of the type of work to be done and approximate schedule. Should the Contractor require for his means and methods additional access beyond what may be available within the current easement, the Contractor shall inform SAWS and coordinate directly with the authorized parties to obtain sufficient access for his needs in a written agreement. Copies of any final written agreements shall be provide to SAWS before entering any property. The Contractor will bear full responsibility for any and all of his actions or results of any activities, intended or not, regardless of where the work is taking place.
4. Bypass systems are expected only in areas designated in plans. Other areas are expected to be able to be worked in using plugs. Wherever plugs are used, they are to be removed at the end of each workday to allow regular sewer flow to resume outside of working hours. Also, if a rain event is likely Contractor shall remove plugs so that regular sewer flow is restored. Use of plugs is considered subsidiary to other items and is not a separate pay item.

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6/2/2017

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The seal appearing on this document was authorized by
 CARL BAIN
 P.E. 56996 ON
 6/2/2017
Carl Bain

NOTE:
 THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORD INFORMATION ONLY AND ARE APPROXIMATE. THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO CONTACT THE UTILITY PURVEYORS BEFORE BEGINNING WORK. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL AND ANY DAMAGES THAT MIGHT OCCUR BY HIS FAILURE TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES AND PRESERVE EXISTING CONDITIONS.

TRENCH EXCAVATION SAFETY PROTECTION
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/ EQUIPMENT CONSULTANT, IF ANY SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

CONTRACTOR MUST NOTIFY SAWS INSPECTION AT 233-3500 48 HOURS BEFORE ANY OF THE FOLLOWING ACTIVITIES TAKE PLACE.

1. NOTIFICATION OF PRE-TELEVISION INSPECTION.
2. NOTIFICATION OF BYPASS PUMPING SETUP OPERATIONS.
3. NOTIFICATION OF CIPP INSTALLATION.
4. MANHOLE REHABILITATION

PROP 24" CIPP STA 10+00 TO STA 12+01

- GENERAL NOTES FOR CURED IN PLACE PIPE (CIPP) INSTALLATION:
- 1.) THE CONTRACTOR SHALL INSTALL CIPP IN SECTIONS OF THE SEWER MAINS THAT ARE IDENTIFIED ON THE ENGINEERING PLANS FOR REHABILITATION IN ACCORDANCE WITH THE CONSTRUCTION PHASING AND TRAFFIC CONTROL PLANS DEVELOPED FOR THE PROJECT.
 - 2.) BYPASS PUMPING SHALL BE PER ITEM 864.
 - 3.) CONTRACTOR SHALL PROVIDE ANY ADDITIONAL LOCAL BY-PASS PUMPING AS REQUIRED TO COMPLETE CIPP WORK. NO SEPARATE PAYMENT WILL BE MADE FOR LOCAL BY-PASS PUMPING.
 - 4.) THE CONTRACTOR IS ADVISED TO TAKE APPROPRIATE CAUTIONARY STEPS DURING ALL CLEANING, VIDEO INSPECTION, CIPP INSTALLATION, AND SEWER LINE POINT REPAIR.
 - 5.) AFTER CLEANING SECTIONS OF SEWER MAIN ACCORDING TO SPECIFICATION NO. 868, THE CONTRACTOR SHALL TELEVISION AND VIDEOTAPE ALL SECTIONS OF SEWER MAIN DESIGNATED FOR REHABILITATION TO IDENTIFY LOCATION OF SERVICE CONNECTIONS, PIPE CONDITION AND LOCATIONS REQUIRING POINT REPAIRS.
 - 6.) AFTER CIPP INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL TELEVISION AND VIDEOTAPE THE REHABILITATED SEWER MAINS IN ACCORDANCE WITH SPECIFICATION NO. 886 TO DOCUMENT SATISFACTORY COMPLETION OF WORK TO THE ENGINEER AND OWNER. (NSPI)

NOTE: CONTRACTOR MUST FIELD VERIFY ALL DEPTHS, DISTANCES, PIPE SIZES, AND GRADES BEFORE START OF CONSTRUCTION. (N.S.P.I.)

General Sanitary Sewer Bid Items			
ITEM NO.	SEWER ITEM DESCRIPTION	QUANTITY	UNIT
855	Reconstruction of Existing Manhole *	2.00	EA
864-S1	Bypass Pumping-Small Diameter Sanitary Sewers (8" Diameter)	1.00	LS
864-S2	Bypass Pumping-Large Diameter Sanitary Sewers (24" Diameter)	1.00	LS
866	Sewer Main Pre-Television Inspection (24" Diameter)	201.00	LF
901	CIPP 24" Sanitary Sewer Pipe (Hot Water or Steam Cured), all depths	201.00	LF

- * Reconstruction of Existing Manhole (To include New Ring & Cover)
- UTILITIES NOTE:
 1.) CONTRACTOR TO LOCATE AND NOTIFY ALL UTILITIES AGENCIES BEFORE STARTING CONSTRUCTION. (NSPI)
 2.) CONTRACTOR TO PROTECT THE AREA UTILITIES BEFORE STARTING CONSTRUCTION. (NSPI)

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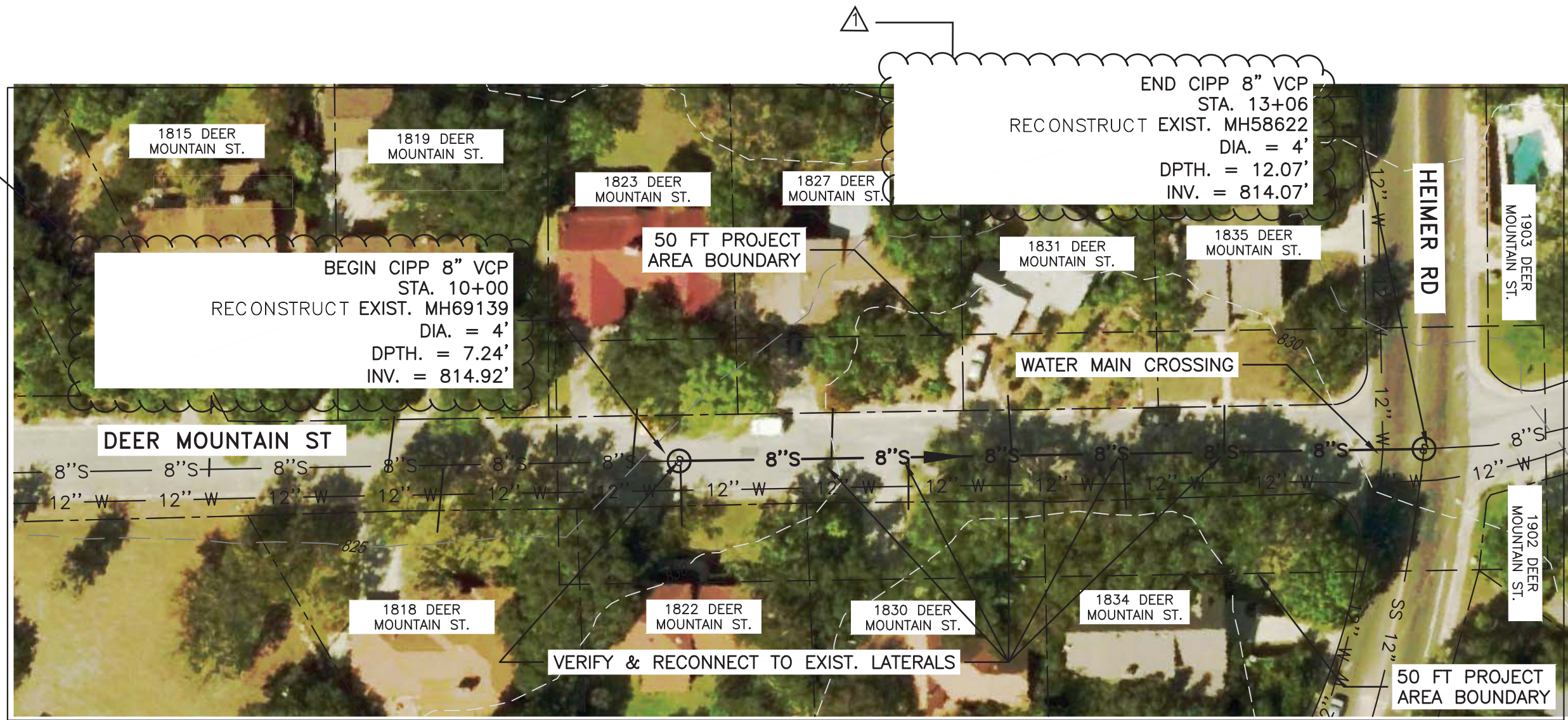
No.	DATE	BY	REVISION
1	6-2-17	CC	PER SAWS COMMENTS

BAIN MEDINA BAIN, INC.
 ENGINEERS & SURVEYORS
 7073 San Pedro, San Antonio, Texas, 78216
 Phone: 210-494-7223 Fax: 210-490-5120 WWW.BMBI.COM

DR 1107 NEWOAK PARK - SEWER REHAB PROJECT

PLAN VIEW

DEVELOPER:		BUDGET PROJ.	
CONT.		SUBMITTED	
APPROVED		SHEET	
MAP No.	SECT. No.	FINAL SUBMITTAL	4
DR. DC	CK. CC/CB	JOB No. 17-4536	OF 5



DEER MOUNTAIN STREET



MERRICK & COMPANY
 401 East Sonterra Blvd.
 Suite 250
 San Antonio, TX 78258
 Tel: (210) 446-4343
 www.merrick.com
TBPE FIRM REGISTRATION NO.: F-3911

Date: May 19, 2017, 12:28pm User: Id: bitouqy
 File: G:\SM\Projects\2017-06-Deer Mountain Sewer Rehab\Design\CD\A\Drawings\9202-06_Deer Mt. Alignment.dwg

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
202.1	PRIME COAT (CoSA ITEM)	GAL	2
203.1	TACK COAT (CoSA ITEM)	GAL	1
205.3	HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMP. DEPTH) (CoSA ITEM)	SY	7
206.1	10" ASPHALT TREATED BASE (CoSA ITEM)	SY	7
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	2
866	SEWER MAIN PRE-TELEVISION INSPECTION (8"-15" DIAMETER)	LF	306
901	CIPP 8" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	306
1109	SERVICE RECONNECTION, ALL DEPTHS (W/ REMOTE CONTROL CUT DEVICE)	EA	4



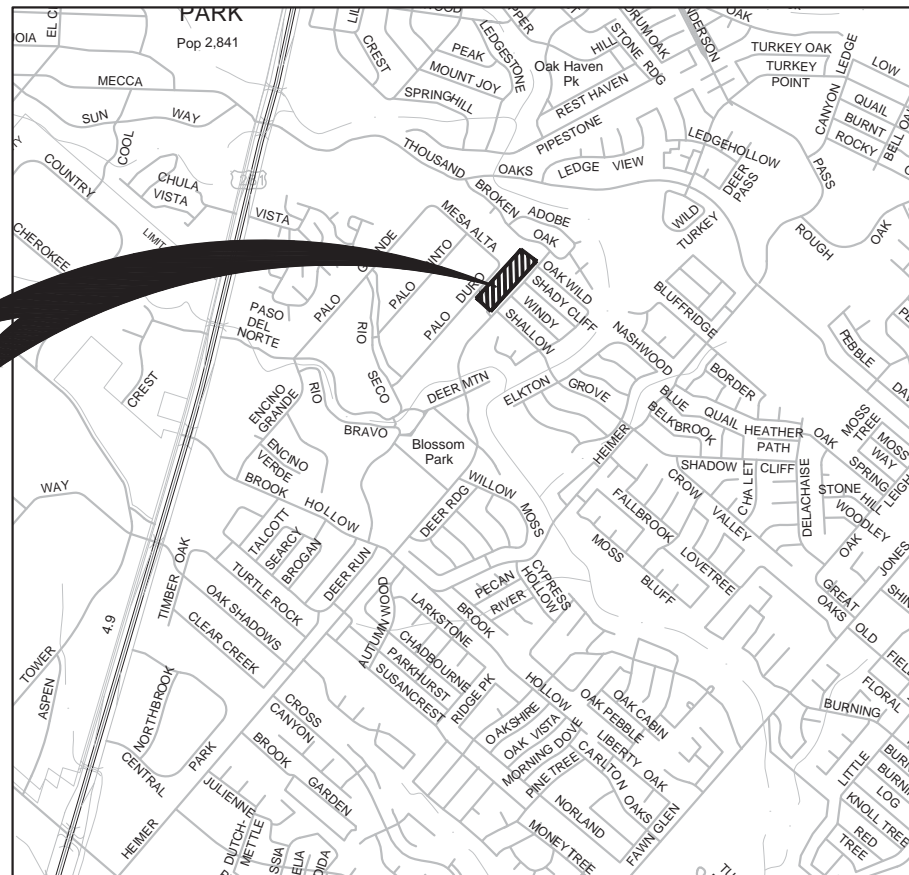
LEGEND	
<p>--- RIGHT OF WAY</p> <p>--- PROPERTY LINE</p> <p>--- EXIST. EASEMENT LINE</p> <p>--- PROP. EASEMENT LINE</p> <p>--- PROP. RETAINING WALL</p> <p>--- EX. EDGE OF PAVEMENT</p> <p>--- EX. CHAIN LINK FENCE</p> <p>--- EX. BARBED WIRE FENCE</p> <p>--- EX. WIRE/MESH FENCE</p> <p>--- EX. POST AND CABLE FENCE</p> <p>--- EX. OVERHEAD ELECTRIC</p> <p>--- EX. POWER POLE W/ TRANS</p> <p>--- EX. POWER POLE</p> <p>--- EX. ELECTRIC PEDISTAL</p> <p>--- EX. LIGHT POLE</p> <p>--- EX. GUY WIRE</p> <p>--- EX. LANDSCAPE LIGHT</p> <p>--- EX. GAS LINE</p> <p>--- EX. SANITARY SEWER</p> <p>--- EX. SS FORCE MAIN</p> <p>--- EX. SAN. SEW. MANHOLE</p> <p>--- EX. SEWER CLEANOUT</p> <p>--- EX. WATER LINE</p> <p>--- EX. FIRE HYDRANT</p> <p>--- EX. WATER VALVE</p> <p>--- EX. WATER METER</p> <p>--- EX. COMM. LINE</p> <p>--- EX. COMM. PEDISTAL</p> <p>--- EX. COMM. MANHOLE</p> <p>--- EX. TREE TO BE REMOVED</p>	<p>--- EX. CHAIN LINK FENCE</p> <p>--- EX. BARBED WIRE FENCE</p> <p>--- EX. WIRE/MESH FENCE</p> <p>--- EX. POST AND CABLE FENCE</p> <p>--- EX. OVERHEAD ELECTRIC</p> <p>--- EX. POWER POLE W/ TRANS</p> <p>--- EX. POWER POLE</p> <p>--- EX. ELECTRIC PEDISTAL</p> <p>--- EX. LIGHT POLE</p> <p>--- EX. GUY WIRE</p> <p>--- EX. LANDSCAPE LIGHT</p> <p>--- EX. GAS LINE</p> <p>--- EX. SANITARY SEWER</p> <p>--- EX. SS FORCE MAIN</p> <p>--- EX. SAN. SEW. MANHOLE</p> <p>--- EX. SEWER CLEANOUT</p> <p>--- EX. WATER LINE</p> <p>--- EX. FIRE HYDRANT</p> <p>--- EX. WATER VALVE</p> <p>--- EX. WATER METER</p> <p>--- EX. COMM. LINE</p> <p>--- EX. COMM. PEDISTAL</p> <p>--- EX. COMM. MANHOLE</p> <p>--- EX. TREE TO BE REMOVED</p>

REVISIONS			
No.	Revision	Drawn	Approved
	ADDENDUM 1	SKD	SKD
			6-1-17
 DEER MOUNTAIN ST SEWER REHAB PROJECT SEWER LAYOUT & CIPP PLAN			
DEVELOPER:		BUDGET PROJ.	
CONT.			
SUBMITTED			
APPROVED			
MAP No.	JOB No. 16-4523		SHEET
SECT. No.			6
DR. JG	CK. SKD		OF 7

SAN ANTONIO WATER SYSTEM

SAWS SEWER JOB NO: 17-4536

2017 EARZ CIPP CONSTRUCTION CONTRACT 15800 & 15715 HEIMER ALLEY SEWER REHAB PROJECT



PROJECT LOCATION MAP
NO SCALE

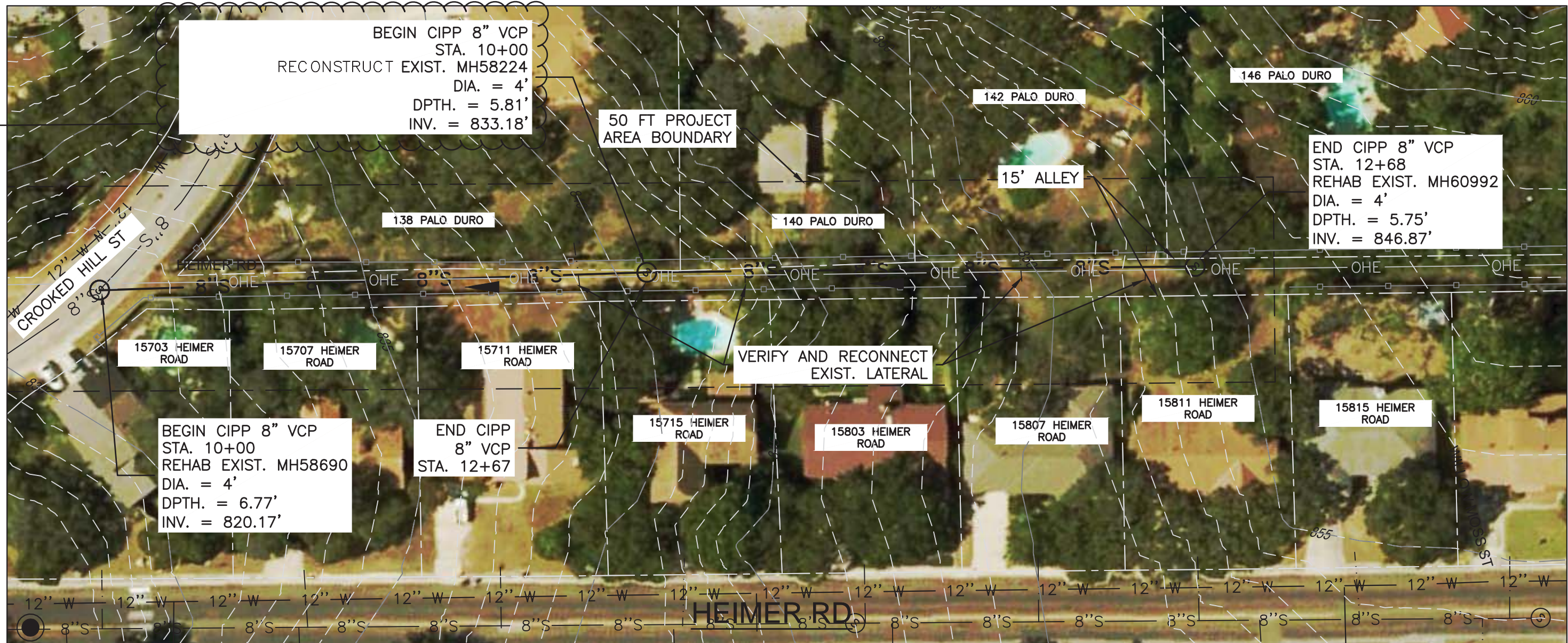


PROJECT VICINITY MAP
NO SCALE

PROJECT VICINITY



Date: May 19, 2017, 12:35pm User: Id: blitquy File: G:\SAN\Projects\1602-07-Heimer Sewer Rehab\Design\Drawings\HEIMER ROAD_SEWER.dwg



BEGIN CIPP 8" VCP
STA. 10+00
RECONSTRUCT EXIST. MH58224
DIA. = 4'
DPTH. = 5.81'
INV. = 833.18'

50 FT PROJECT
AREA BOUNDARY

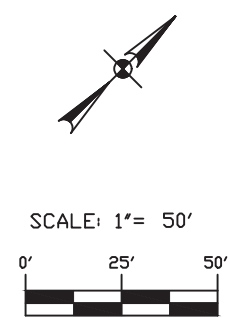
END CIPP 8" VCP
STA. 12+68
REHAB EXIST. MH60992
DIA. = 4'
DPTH. = 5.75'
INV. = 846.87'

BEGIN CIPP 8" VCP
STA. 10+00
REHAB EXIST. MH58690
DIA. = 4'
DPTH. = 6.77'
INV. = 820.17'

END CIPP
8" VCP
STA. 12+67

VERIFY AND RECONNECT
EXIST. LATERAL

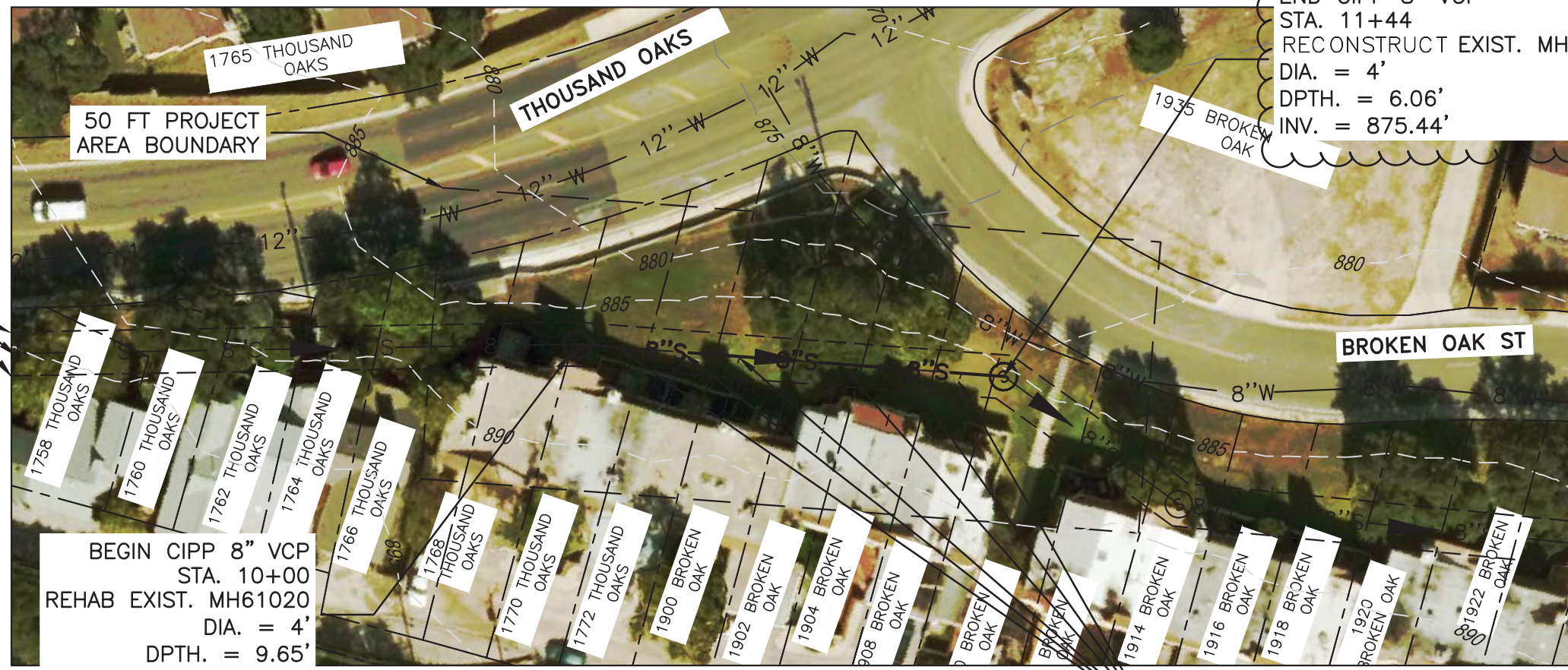
ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	1
855	MANHOLE REHABILITATION	VF	13
866	SEWER MAIN PRE-TELEVISION INSPECTION (8"-15" DIAMETER)	LF	535
901	CIPP 8" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	535
1109	SERVICE RECONNECTION, ALL DEPTHS (W/ REMOTE CONTROL CUT DEVICE)	EA	4



LEGEND	
---	RIGHT OF WAY
---	PROPERTY LINE
---	EXIST. EASEMENT LINE
---	PROP. EASEMENT LINE
---	PROP. RETAINING WALL
---	EX. EDGE OF PAVEMENT
---	EX. CHAIN LINK FENCE
---	EX. BARBED WIRE FENCE
---	EX. WIRE/MESH FENCE
---	EX. POST AND CABLE FENCE
---	EX. OVERHEAD ELECTRIC
---	EX. POWER POLE W/ TRANS
---	EX. POWER POLE
---	EX. ELECTRIC PEDISTAL
---	EX. LIGHT POLE
---	EX. GUY WIRE
---	EX. LANDSCAPE LIGHT
---	EX. GAS LINE
---	EX. SANITARY SEWER
---	EX. SS FORCE MAIN
---	EX. SAN. SEW. MANHOLE
---	EX. SEWER CLEANOUT
---	EX. WATER LINE
---	EX. FIRE HYDRANT
---	EX. WATER VALVE
---	EX. WATER METER
---	EX. COMM. LINE
---	EX. COMM. PEDTAL
---	EX. COMM. MANHOLE
---	EX. TREE TO BE REMOVED

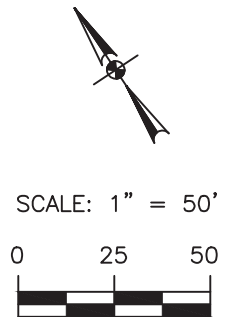
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Suite 250
San Antonio, TX 78258
Tel: (210) 446-4343
www.merrick.com
TBPB FIRM REGISTRATION NO.: F-3911

ADDENDUM 1	SKD	SKD	6-1-17
Revision	Drawn	Approved	Date
REVISIONS			
HEIMER ROAD SEWER REHAB PROJECT			
DEVELOPER:		BUDGET PROJ.	
CONT.			
SUBMITTED			
APPROVED			
MAP No.			SHEET
SECT. No.			6
DR. JG	CK. SKD	JOB No. 16-076	OF 8



END CIPP 8" VCP
 STA. 11+44
 RECONSTRUCT EXIST. MH58161
 DIA. = 4'
 DPTH. = 6.06'
 INV. = 875.44'

BEGIN CIPP 8" VCP
 STA. 10+00
 REHAB EXIST. MH61020
 DIA. = 4'
 DPTH. = 9.65'
 INV. = 876.1'



THOUSAND OAKS

VERIFY AND RECONNECT EXIST. LATERALS

Date: May 19, 2017, 11:22am User: ID: kdrozdick File: G:\SM\Projects\1613-04-ERKZ\Design\Working\Packet D - Thousand Oaks\Segments 3.dwg

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	1
855	MANHOLE REHABILITATION	VF	10
866	SEWER MAIN PRE-TELEVISION INSPECTION (8"-15" DIAMETER)	LF	144
901	CIPP 8" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	144
1109	SERVICE RECONNECTION, ALL DEPTHS (W/ REMOTE CONTROL CUT DEVICE)	EA	6



LEGEND	
---	RIGHT OF WAY
---	PROPERTY LINE
---	EXIST. EASEMENT LINE
---	PROP. EASEMENT LINE
---	PROP. RETAINING WALL
---	EX. EDGE OF PAVEMENT
---	EX. CHAIN LINK FENCE
---	EX. BARBED WIRE FENCE
---	EX. WIRE/MESH FENCE
---	EX. POST AND CABLE FENCE
---	EX. OVERHEAD ELECTRIC
---	EX. POWER POLE W/ TRANS
---	EX. POWER POLE
---	EX. ELECTRIC PEDISTAL
---	EX. LIGHT POLE
---	EX. GUY WIRE
---	EX. LANDSCAPE LIGHT
---	EX. GAS LINE
---	EX. SANITARY SEWER
---	EX. SS FORCE MAIN
---	EX. SAN. SEW. MANHOLE
---	EX. SEWER CLEANOUT
---	EX. WATER LINE
---	EX. FIRE HYDRANT
---	EX. WATER VALVE
---	EX. WATER METER
---	EX. COMM. LINE
---	EX. COMM. PEDISTAL
---	EX. COMM. MANHOLE
---	EX. TREE TO BE REMOVED

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No.	Revision	Drawn	Approved	Date
ADDENDUM 1		SKD	SKD	6-1-17

REVISIONS	
1844 THOUSAND OAKS SEWER REHAB PROJECT SEWER LAYOUT & CIPP PLAN	

DEVELOPER:	
CONT.	BUDGET PROJ.
SUBMITTED	
APPROVED	

MAP No.		SHEET
SECT. No.		6
DR. JG	CK. SKD	JOB No. 17-4519
		OF 7

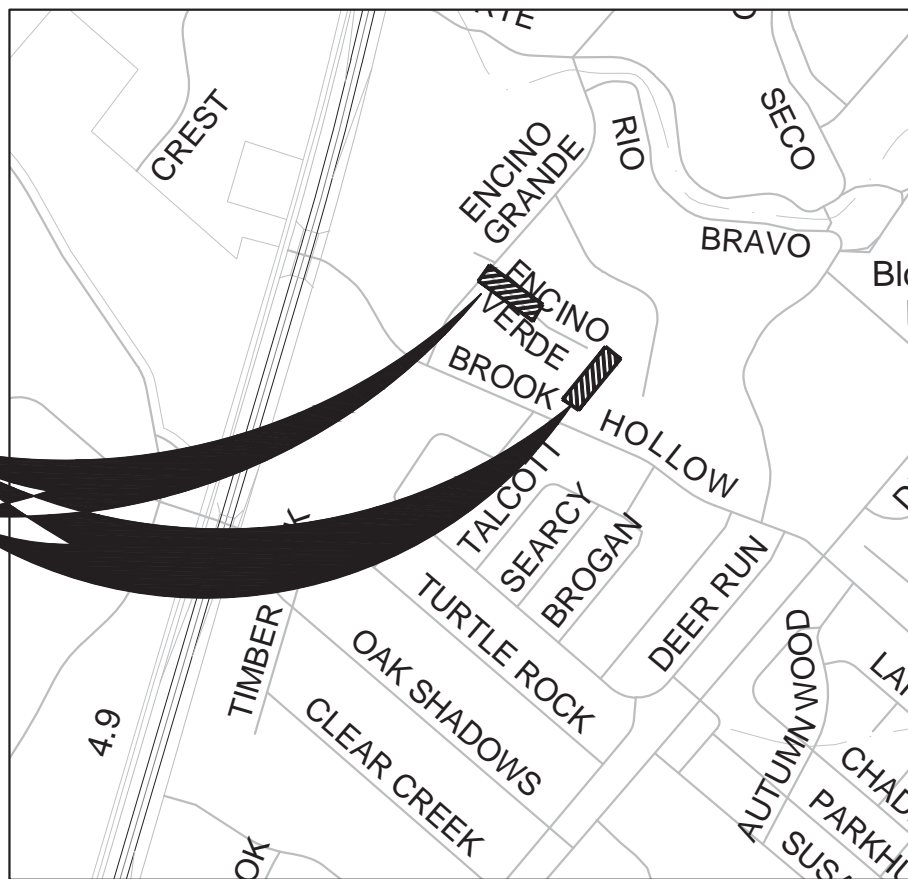
SAN ANTONIO

WATER SYSTEM

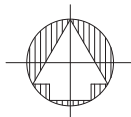
SAWS SEWER JOB NO: 17-4536

2017 EARZ CIPP CONSTRUCTION CONTRACT, 15101 ENCINO VERDE & 130 ENCINO GRANDE RD SEWER REHAB PROJECT

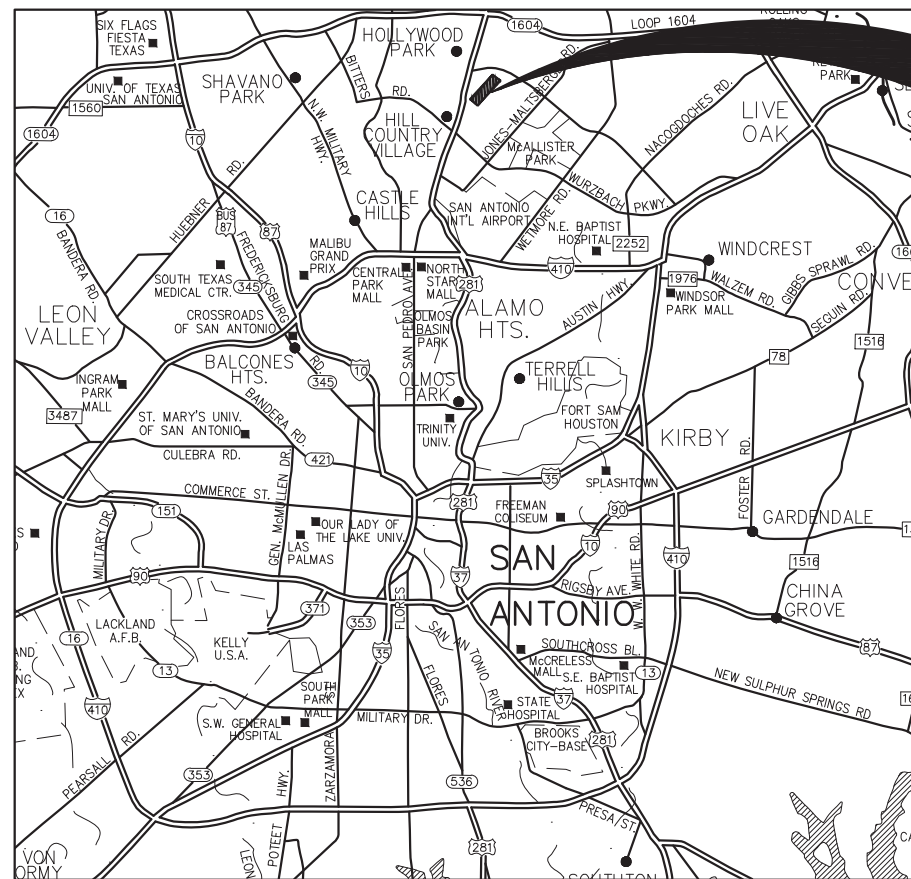
PROJECT LOCATIONS



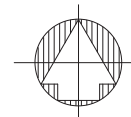
PROJECT LOCATION MAP
NO SCALE



PROJECT VICINITY



PROJECT VICINITY MAP
NO SCALE





BEGIN CIPP 8" VCP
 STA. 10+00
 RECONSTRUCT EXIST. MH61033
 DIA. = 4'
 DPTH. = 6.8'
 INV. = 862.7'

BEGIN CIPP 8" VCP
 STA. 13+21
 REHAB EXIST. MH60627
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 DPTH. = 6.4'
 INV. = 855.6'

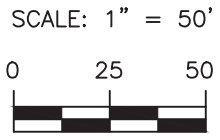
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 STA. 10+00
 RECONSTRUCT EXIST. MH57926
 DIA. = 4'
 DPTH. = 7.0'
 INV. = 846.29'

END CIPP 8" VCP
 STA. 11+49
 RECONSTRUCT EXIST. MH57927
 DIA. = 4'
 DPTH. = 5.94'
 INV. = 846.38'

ENCINO VERDE RD

10' SEWER EASEMENT
 VOL. 6500, PG. 213
 12' DRAINAGE EASEMENT
 VOL. 6500, PG. 213

NOTE: MH57927 IS LOCATED WITHIN PRIVATE PROPERTY. COORDINATE WITH PROPERTY OWNER REGARDING ACCESS, AND PLAN WORK TO MINIMIZE ACCESS REQUIREMENTS AND DISRUPTION TO PROPERTY OWNER.




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Date: May 19, 2017, 10:53am User: Id: idrozdzick File: Encino Verde\Drawings\Project_C\Encino_Verde\Statements_1 & 2.dwg

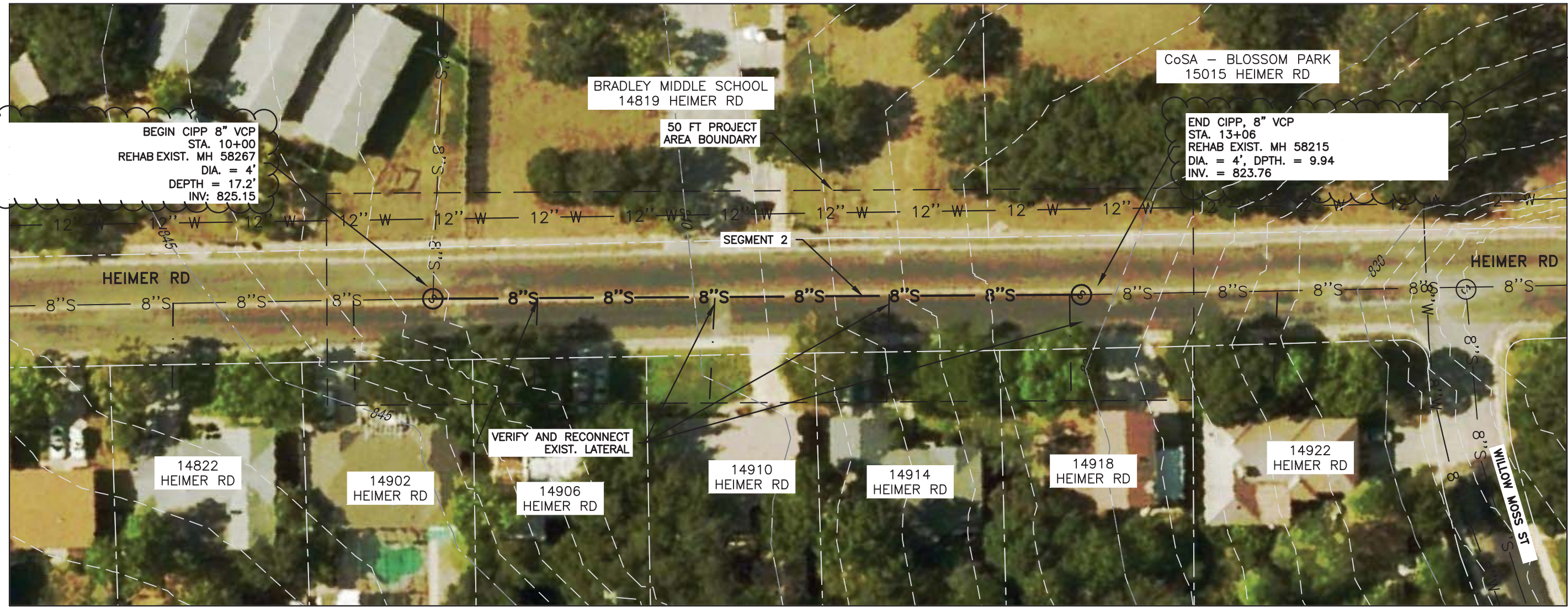
ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
110	REMOVE & REPLACE WOODEN PRIVACY FENCE (CoSA SPEC)	LS	1
202.1	PRIME COAT (CoSA ITEM)	GAL	2
203.1	TACK COAT (CoSA ITEM)	GAL	1
205.3	HOT MIX ASPHALTIC PAVEMENT, TYPE D (2" COMP. DEPTH) (CoSA ITEM)	SY	10
206.1	10" ASPHALT TREATED BASE (CoSA ITEM)	SY	10
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	3
855	MANHOLE REHABILITATION	VF	7
866	SEWER MAIN PRE-TELEVISION INSPECTION (8"-15" DIAMETER)	LF	470
901	CIPP 8" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	470
1109	SERVICE RECONNECTION, ALL DEPTHS (W/ REMOTE CONTROL CUT DEVICE)	EA	2

LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- EXIST. EASEMENT LINE
- PROP. EASEMENT LINE
- PROP. RETAINING WALL
- EX. EDGE OF PAVEMENT
- EX. CHAIN LINK FENCE
- EX. BARBED WIRE FENCE
- EX. WIRE/MESH FENCE
- EX. POST AND CABLE FENCE
- EX. OVERHEAD ELECTRIC
- EX. POWER POLE W/ TRANS
- EX. POWER POLE
- EX. ELECTRIC PEDISTAL
- EX. LIGHT POLE
- EX. GUY WIRE
- EX. LANDSCAPE LIGHT
- EX. GAS LINE
- EX. SANITARY SEWER
- EX. SS FORCE MAIN
- EX. SAN. SEW. MANHOLE
- EX. SEWER CLEANOUT
- EX. WATER LINE
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. WATER METER
- EX. COMM. LINE
- EX. COMM. PEDISTAL
- EX. COMM. MANHOLE
- EX. TREE TO BE REMOVED

ADDENDUM 1				
No.	Revision	Drawn	Approved	Date
		SKD	SKD	6-1-17
REVISIONS				
 ENCINO VERDE RD SEWER REHAB PROJECT SEWER LAYOUT & CIPP PLAN				
DEVELOPER:				
CONT.		BUDGET PROJ.		
SUBMITTED _____				
APPROVED _____				
MAP No.				SHEET
SECT. No.		JOB No. 17-4514		6
DR. JG	CK. SKD	JOB No. 17-4517		OF 8





HEIMER RD



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 Suite 250
 San Antonio, TX 78258
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LEGEND

	RIGHT OF WAY
	PROPERTY LINE
	EXIST. EASEMENT LINE
	PROP. EASEMENT LINE
	PROP. RETAINING WALL
	EX. EDGE OF PAVEMENT
	EX. CHAIN LINK FENCE
	EX. BARBED WIRE FENCE
	EX. WIRE/MESH FENCE
	EX. POST AND CABLE FENCE
	EX. OVERHEAD ELECTRIC
	EX. POWER POLE W/ TRANS
	EX. POWER POLE
	EX. ELECTRIC PEDISTAL
	EX. LIGHT POLE
	EX. GUY WIRE
	EX. LANDSCAPE LIGHT
	EX. GAS LINE
	EX. SANITARY SEWER
	EX. SS FORCE MAIN
	EX. SAN. SEW. MANHOLE
	EX. SEWER CLEANOUT
	EX. WATER LINE
	EX. FIRE HYDRANT
	EX. WATER VALVE
	EX. WATER METER
	EX. COMM. LINE
	EX. COMM. PEDISTAL
	EX. COMM. MANHOLE
	EX. TREE TO BE REMOVED

ADDENDUM 1	SKD	SKD	6-1-17
Revision	Drawn	Approved	Date

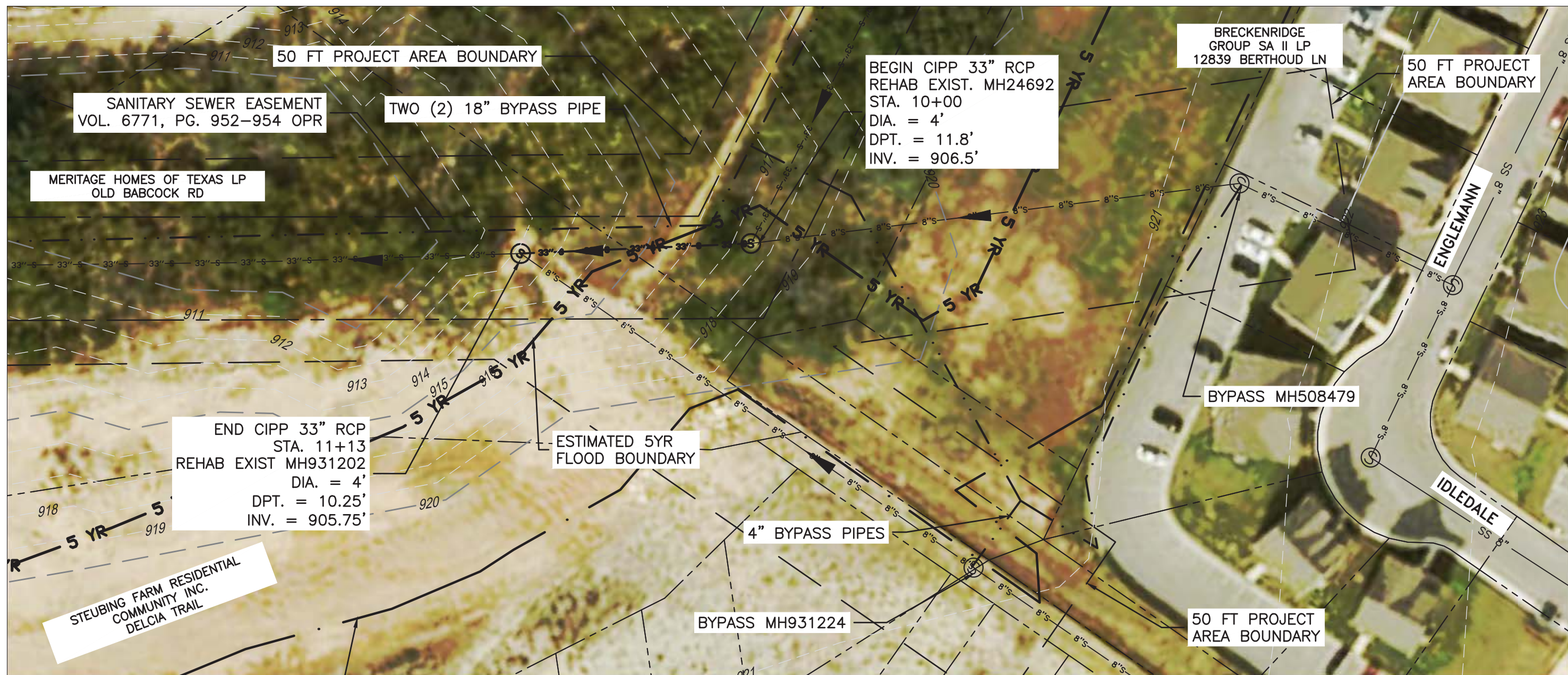
REVISIONS

 HEIMER ROAD SEWER REHAB PROJECT SEWER LAYOUT & CIPP PLAN			
DEVELOPER:		BUDGET PROJ.	
CONT.		BUDGET PROJ.	
SUBMITTED			
APPROVED			



ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	MANHOLE REHABILITATION	VF	28
864-S1	BYPASS PUMPING (SMALL DIAMETER SANITARY SEWERS)	LS	1
866	SEWER MAIN PRE-TELEVISION INSPECTION (8"-15" DIAMETER)	LF	306
901	CIPP 8" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	306
1109	SERVICE RECONNECTION, ALL DEPTHS (W/ REMOTE CONTROL CUT DEVICE)	EA	4

Date: May 18, 2017, 11:36am User ID: kdrozdick
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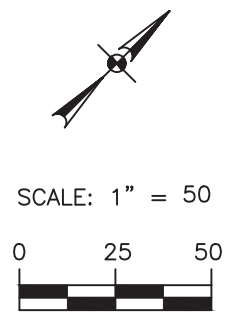
BEGIN CIPP 33" RCP
 REHAB EXIST. MH24692
 STA. 10+00
 DIA. = 4'
 DPT. = 11.8'
 INV. = 906.5'

END CIPP 33" RCP
 STA. 11+13
 REHAB EXIST MH931202
 DIA. = 4'
 DPT. = 10.25'
 INV. = 905.75'

LOMR 100-YR FLOOD ELEV.
 12-06-1378P
 1/11/2013
 PANEL 48029C0240G
 EFF. 09/29/2010

ENGLEMANN

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LEGEND

---	RIGHT OF WAY
---	PROPERTY LINE
---	EXIST. EASEMENT LINE
---	PROP. EASEMENT LINE
---	PROP. RETAINING WALL
---	EX. EDGE OF PAVEMENT
---	EX. CHAIN LINK FENCE
---	EX. BARBED WIRE FENCE
---	EX. WIRE/MESH FENCE
---	EX. POST AND CABLE FENCE
---	EX. OVERHEAD ELECTRIC
---	EX. POWER POLE W/ TRANS
---	EX. POWER POLE
---	EX. ELECTRIC PEDISTAL
---	EX. LIGHT POLE
---	EX. GUY WIRE
---	EX. LANDSCAPE LIGHT
---	EX. GAS LINE
---	EX. SANITARY SEWER
---	EX. SS FORCE MAIN
---	EX. SAN. SEW. MANHOLE
---	EX. SEWER CLEANOUT
---	EX. WATER LINE
---	EX. FIRE HYDRANT
---	EX. WATER VALVE
---	EX. WATER METER
---	EX. COMM. LINE
---	EX. COMM. PEDISTAL
---	EX. COMM. MANHOLE
---	EX. TREE TO BE REMOVED

ADDENDUM 1	SKD	SKD	6-1-17
No.	Revision	Drawn	Approved
REVISIONS			
ENGLEMANN SEWER REHAB PROJECT SEWER LAYOUT & CIPP PLAN			
DEVELOPER:			
CONT.		BUDGET PROJ.	
SUBMITTED _____			
APPROVED _____			
MAP No.			SHEET
SECT. No.			6
DR. JG	CK. SKD	JOB No. 17-4515	OF 9

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
530.1	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS	1
855	RECONSTRUCTION OF EXISTING MANHOLE	EA	4
864-S1	BYPASS PUMPING (SMALL DIAMETER SANITARY SEWERS)	LS	1
864-S2	BYPASS PUMPING (LARGE DIAMETER SANITARY SEWERS)	LS	1
866.0	SEWER MAIN PRE-TELEVISION INSPECTION (30" DIAMETER AND LARGER)	LF	113
901.0	CIPP 33" SANITARY SEWER PIPE (HOT WATER OR STEAM CURED), ALL DEPTHS	LF	113



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6/5/2017

GENERAL SEWER NOTES

- All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
 - Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290.
 - Current Texas Department of Transportation (TXDOT) "Standard Specifications for Construction of Highways, Streets and Drainage."
 - Current San Antonio Water System "Standard Specifications for Water and Sanitary Sewer Construction."
 See SAWS website for current information (www.saws.org).
 - Current City of San Antonio "Standard Specifications for Public Works Construction."
 - Current City of San Antonio "Utility Excavation Criteria Manual"
- The Contractor is to make arrangements with the SAWS Construction Inspection Division at 233-3500 and provide notification procedures the contractor will use to notify affected home residents and/or property owners 48 hours prior to excavation.
- The Contractor shall verify the exact location of underground utilities and drainage structures at least 48 hours prior to construction whether shown on plans or not. The following contact information are supplied for verification purposes:
Utility Locate:
SAWS Utility Locates: 233-2009
SAWS Production Control Center: 233-2016
COSA Drainage: 207-8048
COSA Traffic Signal Operations: 207-7720
Texas State Wide One Call Locator: 1-800-545-6005 or 811
- The Contractor is responsible to ensure that no overflows or spillage of sewage occurs. Should this occur, the Contractor shall:
 - Identify the source of the spill and attempt to eliminate any additional spillage. Notify SAWS Construction Inspections Division at 233-3500.
 - Contain the spill in place and prevent contamination of streams.
 - Clean up the spill and dispose of contaminated materials.
 - Disinfect the area of the spill with a mixture of HTH chlorine and water.
 - Identify and train personnel responsible for spillage prevention and control.
 No separate measurement or payment shall be made for this work. All work shall be done according to Guidelines set by the TCEQ and SAWS.
- The Contractor shall comply with City or other governing Municipality's tree ordinances when excavating near trees.
- The Contractor shall not place any waste materials or spoils in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.
- Service Lateral Connections:
 - The exact location and elevation of the service laterals and manholes shall be field verified by the Contractor. No separate pay item (NSPI).
 - A minimum of 3 feet of cover is to be maintained over the sanitary sewer laterals at subgrade.
 - All sewer lateral services for future connections as identified on the plans shall have a one way clean-out, capped and sealed.
 - The Contractor shall be responsible for maintaining continuous service during construction of the sewer work. (NSPI).
 - Laterals shall be constructed to serve all existing houses and platted vacant lots.
- Contractor shall coordinate with SAWS Construction Inspection Division at 2333500 and/or SAWS Lift Stations Operations at least two weeks in advance of the shutdown of existing force mains of any size. The Contractor must also provide a sequence of work as related to the shutdown including any bypass pumping or pump and haul as required by SAWS. Pump and Haul will not be allowed over the Edwards Aquifer Recharge Zone.
- Sewer lines located within or crossing the 5-year flood plain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill. The trench must be encased in concrete. All concrete shall have a minimum thickness of six inches.
- Where water lines and new sewer lines are installed with a separation distance of less than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC 217.53(d) (Pipe Design) and 30 TAC 290.44(e) (Water Distribution).
- Any work completed without prior written authorization which is not included in these plans and specifications will not be compensated by the San Antonio Water System.
- The Contractor shall provide bypass pumping of sewage around each segment of pipe to be replaced, in accordance with SAWS Standard Specifications for Water and Sanitary Sewer Construction Item No. 864, "Bypass Pumping". Payment for such work will be made under the bid item "Sanitary Sewer (Bypass Pumping)" as per Standard Specifications for Water and Sanitary Sewer Construction Item No. 864, "Bypass Pumping". The Contractor shall provide in writing a sequence of bypass pumping for review and approval by the Inspections department. Refer to the construction plans for the construction phasing and diversion requirements. The Contractor shall also provide a detailed sketch showing the location of bypass pumping equipment for each line segment(s) around which flows are being bypassed, along with the specification of pumping equipment, type, size, capacity and amount of pumps required to handle the peak wet weather flow.
- Contractor shall submit a Bypass Pumping Plan to TCEQ, before starting construction.
- For SAWS construction details go to (www.saws.org).

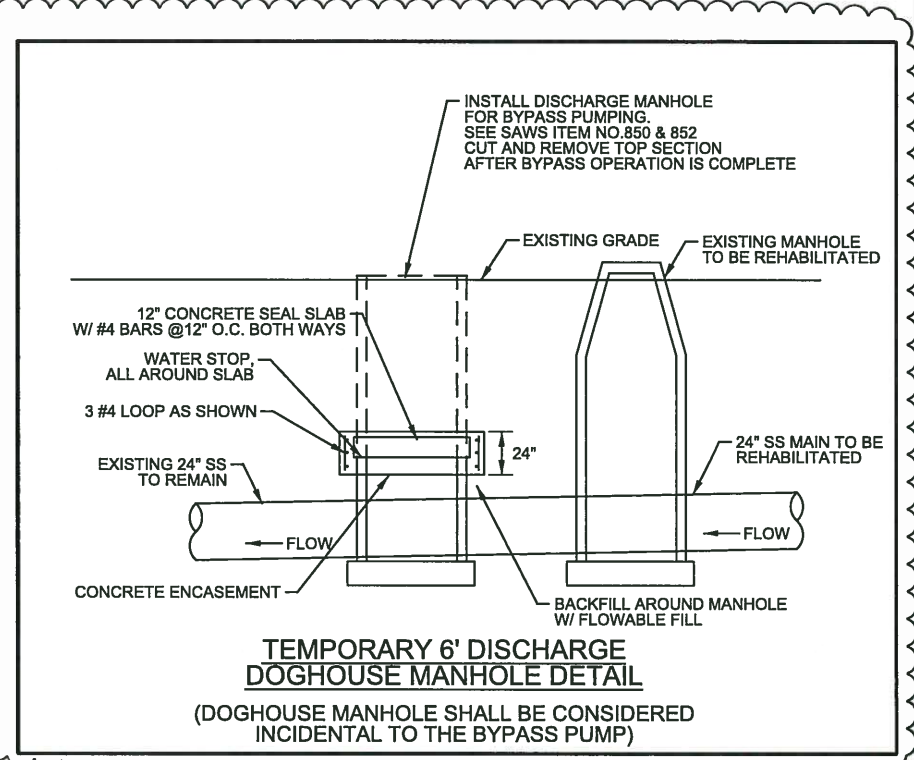
PROJECT SPECIFIC GENERAL NOTES

- All new manholes shall be precast concrete manholes in accordance with SAWS Standard Specification item no. 852.
- All manholes shall be water tight.
- No fuels or hazardous substances shall be stored on-site.
- The aerial photography shown in the plans was taken in 2010, actual size conditions may have changed from the date of photography.
- Whenever power poles/light poles are adjacent to the proposed construction, the contractor shall provide the proper shoring, bracing, and/or other suitable support for the poles during construction (no separate pay item).
- The contractor shall provide residents and businesses with access to and from their homes and establishments and access for the delivery of mail by the U.S. Postal Service (no separate pay item).
- The contractor shall maintain existing fences adjacent to and across the project corridor. The contractor is responsible for constructing any temporary fences, gaps, gates, etc. necessary for construction of the project (no separate pay item).
- At completion of the project the contractor shall restore all fencing affected by the project to its original or better condition (no separate pay item).
- Contractor is responsible for Texas pollutant discharge elimination system (TPDES) permitting and development of a stormwater pollution prevention plan (SW3P) for the project. The SW3P plan and procedures shall be implemented according to TCEQ and EPA regulations for the stormwater discharge from construction activities. Final project acceptance shall not be granted until all permanent stabilization measures have been established.
- The contractor shall be responsible for all necessary means and methods of construction should groundwater be encountered (no separate pay item).
- The contractor shall coordinate smoke testing of service connections with saws operation staff. If leaks are found in testing, the service reconnection will be done with open cut construction methods.
- The contractor shall be responsible for restoring to its original or better condition from damages done to any existing fences, curbs, streets, driveways, sidewalks, landscaping and structures (no separate pay item).
- Locations and depths of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the contractor 48 hours prior to construction. It shall be the contractor's responsibility to locate utility service lines as requires for construction and to protect them during construction at no cost to SAWS.
- NSPI stands for no separate pay item.
- Contractor shall inspect all temporary erosion and sedimentation controls weekly and after each rain event. Contractor shall repair and/or replace any damaged controls immediately upon discovery. Contractor shall remove sediment from temporary sediment control fencing when sediment buildup reaches or exceeds 6 inches. Contractor shall remove sediment from curb inlet gravel filters when sediment buildup reaches or exceeds 3 inches. This work shall be considered subsidiary to other bid items and will not be paid for separately.

**Texas Commission on Environmental Quality
Organized Sewage Collection System
General Construction Notes**

TCEQ San Antonio Regional Office (210) 490-3096

- This Organized Sewage Collection System (SCS) must be constructed in accordance with 30 Texas Administrative Code (TAC) §213.5(c), the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Rules and any local government standard specifications.
- All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the SCS plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors must be required to keep on-site copies of the plan and the approval letter.
- A written notice of construction must be submitted to the presiding TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
 - the name of the approved project;
 - the activity start date; and
 - the contact information of the prime contractor.
- Any modification to the activities described in the referenced SCS application following the date of approval may require the submittal of an SCS application to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval.
- Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. These controls must remain in place until the disturbed areas have been permanently stabilized.
- If any sensitive features are discovered during the wastewater line trenching activities, all regulated activities near the sensitive feature must be suspended immediately. The applicant must immediately notify the appropriate regional office of the TCEQ of the feature discovered.
A geologist's assessment of the location and extent of the feature discovered must be reported to that regional office in writing and the applicant must submit a plan for ensuring the structural integrity of the sewer line or for modifying the proposed collection system alignment around the feature. The regulated activities near the sensitive feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality while maintaining the structural integrity of the line.
- Sewer lines located within or crossing the 5-year floodplain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill, or the sewer lines must be encased in concrete. All concrete shall have a minimum thickness of 6 inches.
- Blasting procedures for protection of existing sewer lines and other utilities will be in accordance with the National Fire Protection Association criteria. Sand is not allowed as bedding or backfill in trenches that have been blasted. If any existing sewer lines are damaged, the lines must be repaired and retested.
- All manholes constructed or rehabilitated on this project must have watertight size on size resilient connectors allowing for differential settlement. If manholes are constructed within the 100-year floodplain, the cover must have a gasket and be bolted to the ring. Where gasketed manhole covers are required for more than three manholes in sequence or for more than 1500 feet, alternate means of venting will be provided. Bricks are not an acceptable construction material for any portion of the manhole.
The diameter of the manholes must be a minimum of four feet and the manhole for entry must have a minimum clear opening diameter of 30 inches. These dimensions and other details showing compliance with the commission's rules concerning manholes and sewer line/manhole inverts described in 30 TAC §217.55 are included on Plan Sheet 03 of 05.
It is suggested that entrance into manholes in excess of four feet deep be accomplished by means of a portable ladder. The inclusion of steps in a manhole is prohibited.
- Where water lines and new sewer line are installed with a separation distance closer than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC §217.53(d) (Pipe Design) and 30 TAC §290.44(e) (Water Distribution).
- Where sewers lines deviate from straight alignment and uniform grade all curvature of sewer pipe must be achieved by the following procedure which is recommended by the pipe manufacturer: N/A.
If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: N/A.
Specific care must be taken to ensure that the joint is placed in the center of the trench and properly bedded in accordance with 30 TAC §217.54.
- New sewage collection system lines must be constructed with stub outs for the connection of anticipated extensions. The location of such stub outs must be marked on the ground such that their location can be easily determined at the time of connection of the extensions. Such stub outs must be manufactured wyes or tees that are compatible in size and material with both the sewer line and the extension. At the time of original construction, new stub-outs must be constructed sufficiently to extend beyond the end of the street pavement. All stub-outs must be sealed with a manufactured cap to prevent leakage. Extensions that were not anticipated at the time of original construction or that are to be connected to an existing sewer line not furnished with stub outs must be connected using a manufactured saddle and in accordance with accepted plumbing techniques.
If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet N/A of N/A.
(For potential future laterals).
The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet N/A of N/A and marked after backfilling as shown in the detail on Plan Sheet N/A of N/A.



General Sanitary Sewer Bid Items			
ITEM NO.	SEWER ITEM DESCRIPTION	QUANTITY	UNIT
530	Barricades, Signs, and Traffic Handling	1.00	LS
855	Reconstruction of Existing Manhole*	2.00	EA
864-S2	Bypass Pumping-Large Diameter Sanitary Sewers (24" Diameter)	1.00	LS
866	Sewer Main Pre-Television Inspection (24" Diameter)	579.00	LF
901	CIPP 24" Sanitary Sewer Pipe (Hot Water or Steam Cured), all depths	579.00	LF

* RECONSTRUCTION OF EXISTING MANHOLE (TO INCLUDE NEW RING & COVER)



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CARL BAIN
P.E. 56996 ON
6/5/2017

No.	DATE	BY	REVISION
I	6/2/17	CC	PER SAWS COMMENTS

BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
TBPE F-001712
7073 San Pedro, San Antonio, Texas, 78216
Phone: 210-494-7223 Fax: 210-490-5120 WWW.BMBI.COM

GENERAL NOTES & QUANTITIES

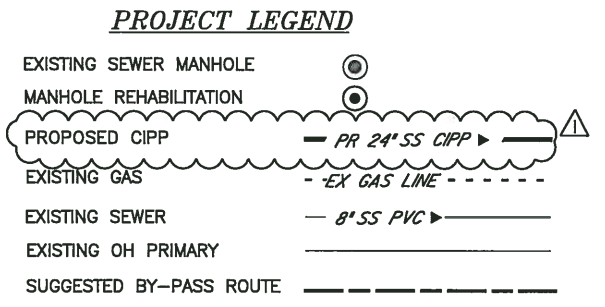
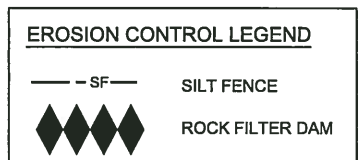
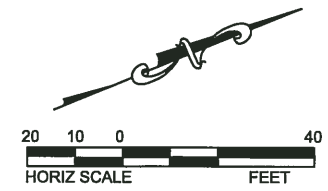
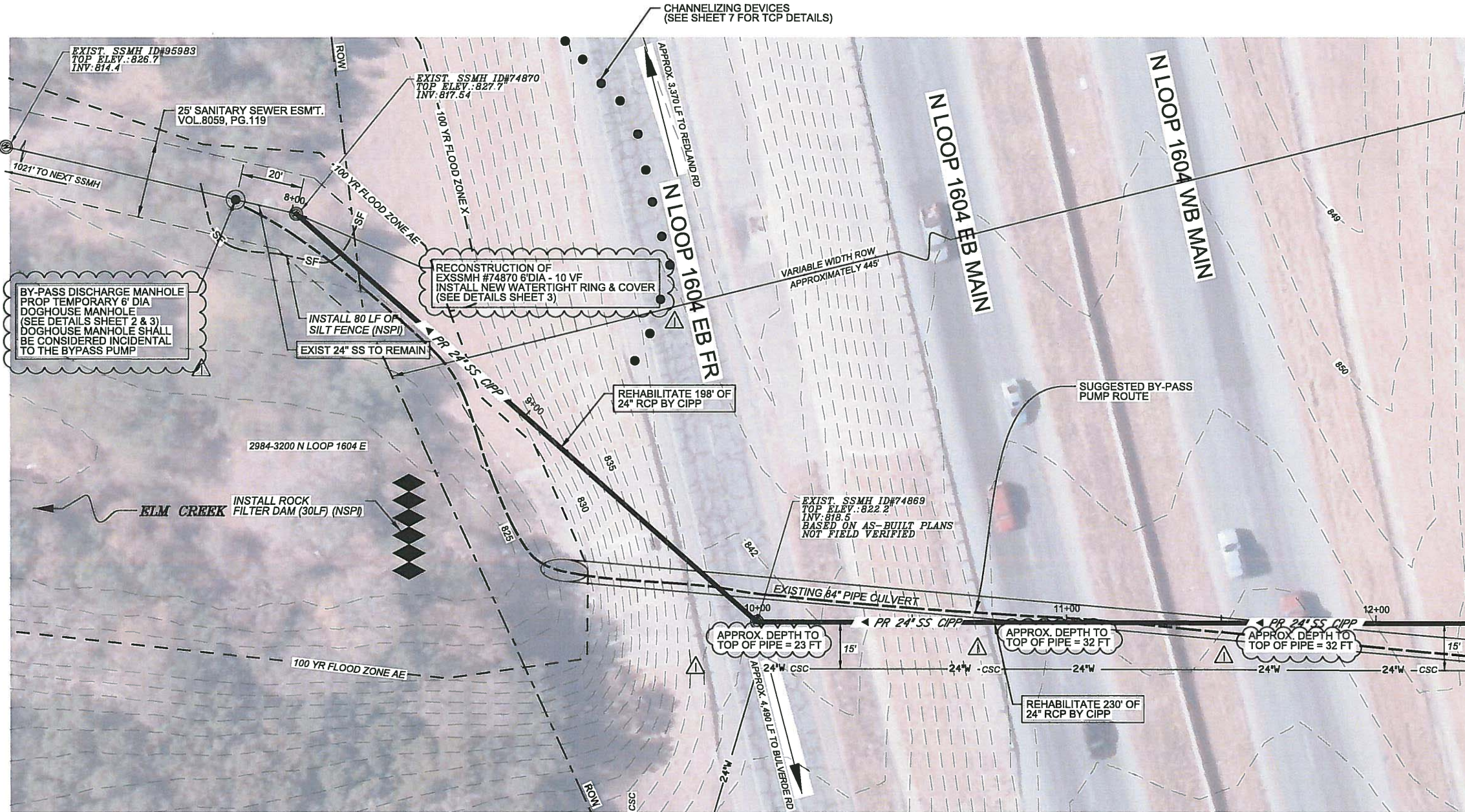
DEVELOPER:			
CONT.		BUDGET PROJ.	
SUBMITTED _____			
APPROVED _____			
MAP No.	FINAL SUBMITTAL		SHEET
SECT. No.			2
DR. MC	CK.	CC/CB	JOB No. 17-4536 OF 7

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6/5/2017

- GENERAL NOTES FOR CURED IN PLACE PIPE (CIPP) INSTALLATION:**
1. THE CONTRACTOR SHALL INSTALL CIPP IN SECTIONS OF THE SEWER MAINS THAT ARE IDENTIFIED ON THE ENGINEERING PLANS FOR REHABILITATION IN ACCORDANCE WITH THE CONSTRUCTION PHASING AND TRAFFIC CONTROL PLANS DEVELOPED FOR THE PROJECT.
 2. BYPASS PUMPING SHALL BE PER ITEM 864.
 3. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL LOCAL BY-PASS PUMPING AS REQUIRED TO COMPLETE CIPP WORK. NO SEPARATE PAYMENT WILL BE MADE FOR LOCAL BY-PASS PUMPING.
 4. THE CONTRACTOR IS ADVISED TO TAKE APPROPRIATE CAUTIONARY STEPS DURING ALL CLEANING, VIDEO INSPECTION, CIPP INSTALLATION, AND SEWER LINE POINT REPAIR.
 5. AFTER CLEANING SECTIONS OF SEWER MAIN ACCORDING TO SPECIFICATION NO. 868, THE CONTRACTOR SHALL TELEWISE AND VIDEOTAPE ALL SECTIONS OF SEWER MAIN DESIGNATED FOR REHABILITATION TO IDENTIFY LOCATION OF SERVICE CONNECTIONS, PIPE CONDITION AND LOCATIONS REQUIRING POINT REPAIRS.
 6. AFTER CIPP INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL TELEWISE AND VIDEOTAPE THE REHABILITATED SEWER MAINS IN ACCORDANCE WITH SPECIFICATION NO. 866 TO DOCUMENT SATISFACTORY COMPLETION OF WORK TO THE ENGINEER AND OWNER. (NSPI)

- UTILITIES NOTE:**
- 1.) CONTRACTOR TO LOCATE AND NOTIFY ALL UTILITIES AGENCIES BEFORE STARTING CONSTRUCTION. (NSPI)
 - 2.) CONTRACTOR TO PROTECT THE AREA UTILITIES BEFORE STARTING CONSTRUCTION. (NSPI)



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CARL BAIN
 P.E. 56996 ON
 6/5/2017
Carl Bain

MATCHLINE STA 12+30 (SEE SHEET 5 OF 7)

NOTE:
 THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORD INFORMATION ONLY AND ARE APPROXIMATE. THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO CONTACT THE UTILITY PURVEYORS BEFORE BEGINNING WORK. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL AND ANY DAMAGES THAT MIGHT OCCUR BY HIS FAILURE TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES AND PRESERVE EXISTING CONDITIONS.

AT&T NOTE:
 THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR IS TO CONTACT THE TELEPHONE COMPANY LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-828-5127. CONTRACTOR IS TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION. UNDERGROUND COMMUNICATION LINES WITHIN PROJECT LIMITS, CONTRACTOR TO LOCATE BURIED LINES BEFORE STARTING CONSTRUCTION.

PROP 24" CIPP STA 7+80 TO STA 12+30

NOTE: CONTRACTOR MUST FIELD VERIFY ALL DEPTHS, DISTANCES, PIPE, SIZES, AND GRADES BEFORE START OF CONSTRUCTION. (N.S.P.I.)

CONTRACTOR MUST NOTIFY SAWS INSPECTION AT 233-3500 48 HOURS BEFORE ANY OF THE FOLLOWING ACTIVITIES TAKE PLACE.

1. NOTIFICATION OF PRE-TELEVISION INSPECTION.
2. NOTIFICATION OF BYPASS PUMPING SETUP OPERATIONS.
3. NOTIFICATION OF THE PIPE INSTALLATION.

General Sanitary Sewer Bid Items			
ITEM NO.	SEWER ITEM DESCRIPTION	QUANTITY	UNIT
855	Reconstruction of Existing Manhole	1.00	EA
866	Sewer Main Pre-Television Inspection (24" Diameter)	428.00	LF
901	CIPP 24" Sanitary Sewer Pipe (Hot Water or Steam Cured), all depths	428.00	LF

* RECONSTRUCTION OF EXISTING MANHOLE (TO INCLUDE NEW RING & COVER)

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TRENCH EXCAVATION SAFETY PROTECTION
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OF SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

No.	DATE	BY	REVISION
1	6-2-17	CC	PER SAWS COMMENTS

BAIN MEDINA BAIN, INC.
 ENGINEERS & SURVEYORS
 TBPE F-001712
 7073 San Pedro, San Antonio, Texas, 78216
 Phone: 210-494-7223 Fax: 210-490-5120 WWW.BMBI.COM

DR 242 LOOP 1604 LARGE DIAMETER SEWER REHAB PROJECT
SANITARY SEWER PLAN VIEW

DEVELOPER: _____
 CONT. BUDGET PROJ.
 SUBMITTED _____
 APPROVED _____

MAP No. _____
 SECT. No. _____
 DR. MC CK CC/CB

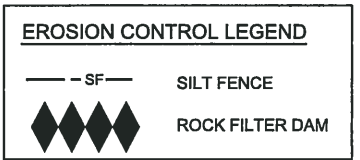
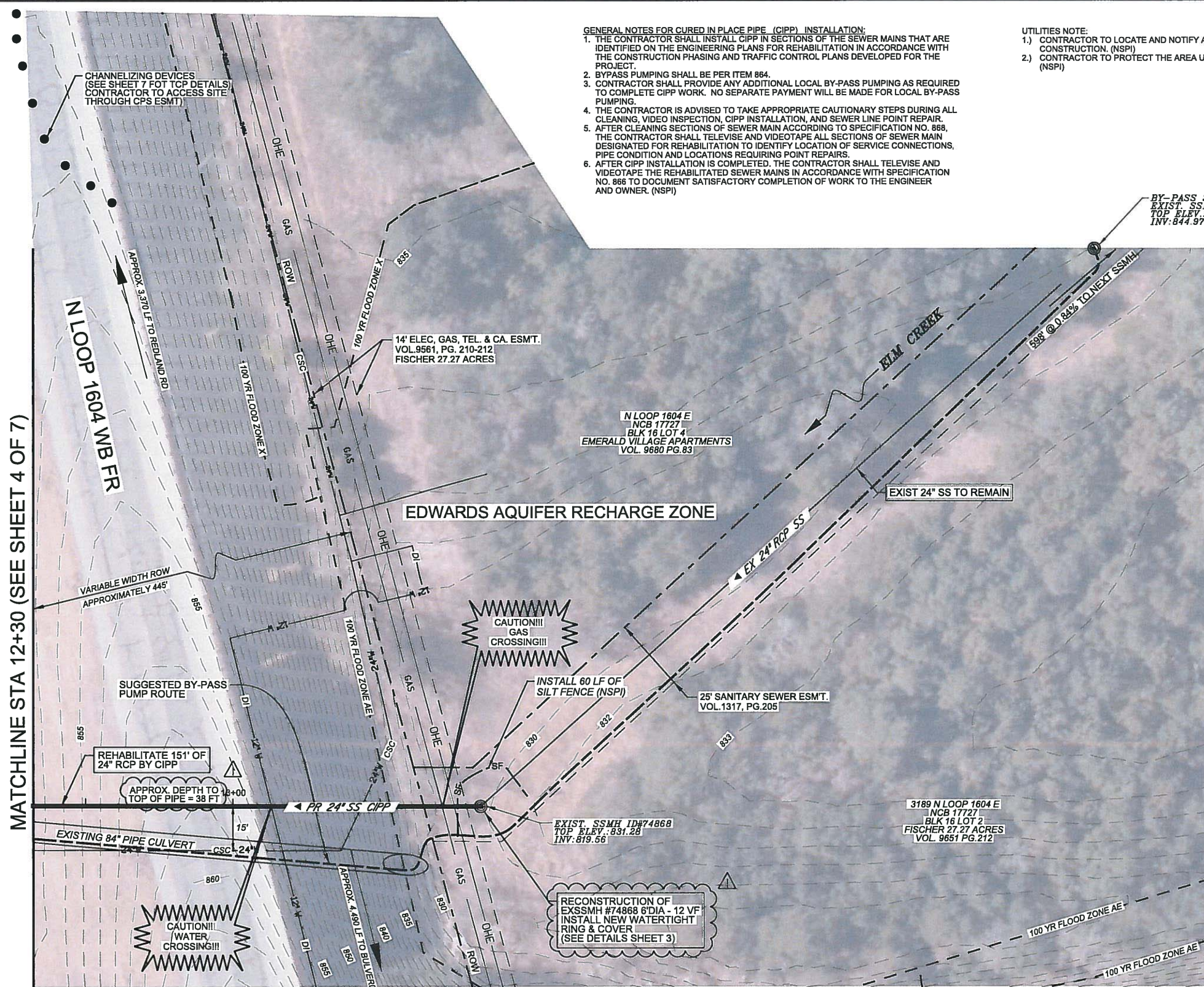
FINAL SUBMITTAL
 JOB No. 17-4536

SHEET 4 OF 7

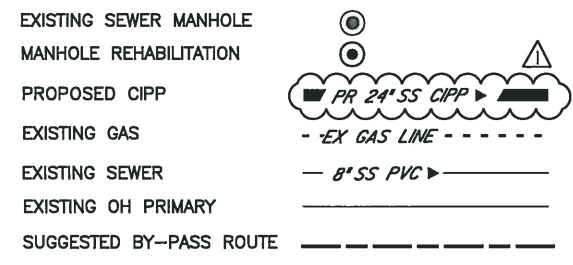
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6/2/2017

- GENERAL NOTES FOR CURED IN PLACE PIPE (CIPP) INSTALLATION:**
1. THE CONTRACTOR SHALL INSTALL CIPP IN SECTIONS OF THE SEWER MAINS THAT ARE IDENTIFIED ON THE ENGINEERING PLANS FOR REHABILITATION IN ACCORDANCE WITH THE CONSTRUCTION PHASING AND TRAFFIC CONTROL PLANS DEVELOPED FOR THE PROJECT.
 2. BYPASS PUMPING SHALL BE PER ITEM 864.
 3. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL LOCAL BY-PASS PUMPING AS REQUIRED TO COMPLETE CIPP WORK. NO SEPARATE PAYMENT WILL BE MADE FOR LOCAL BY-PASS PUMPING.
 4. THE CONTRACTOR IS ADVISED TO TAKE APPROPRIATE CAUTIONARY STEPS DURING ALL CLEANING, VIDEO INSPECTION, CIPP INSTALLATION, AND SEWER LINE POINT REPAIR.
 5. AFTER CLEANING SECTIONS OF SEWER MAIN ACCORDING TO SPECIFICATION NO. 888, THE CONTRACTOR SHALL TELEWISE AND VIDEOTAPE ALL SECTIONS OF SEWER MAIN DESIGNATED FOR REHABILITATION TO IDENTIFY LOCATION OF SERVICE CONNECTIONS, PIPE CONDITION AND LOCATIONS REQUIRING POINT REPAIRS.
 6. AFTER CIPP INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL TELEWISE AND VIDEOTAPE THE REHABILITATED SEWER MAINS IN ACCORDANCE WITH SPECIFICATION NO. 886 TO DOCUMENT SATISFACTORY COMPLETION OF WORK TO THE ENGINEER AND OWNER. (NSPI)

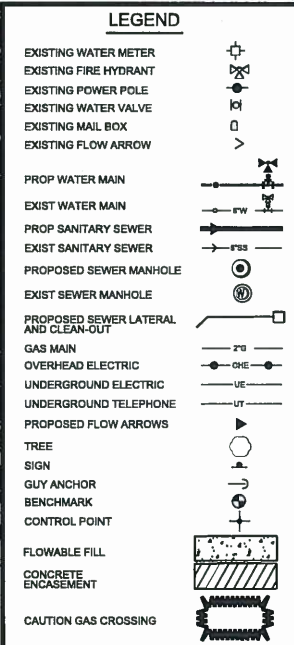
- UTILITIES NOTE:**
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 - 2) CONTRACTOR TO PROTECT THE AREA UTILITIES BEFORE STARTING CONSTRUCTION. (NSPI)



PROJECT LEGEND



SCALE:
HORIZ 1"=40'



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CARL BAIN
 P.E. 56996 ON
 6/2/2017
Carl B. Bain

No.	DATE	BY	REVISION
1	6-2-17	CC	PER SAWS COMMENTS

General Sanitary Sewer Bid Items			
ITEM NO.	SEWER ITEM DESCRIPTION	QUANTITY	UNIT
855	Reconstruction of Existing Manhole **	1.00	EA
866	Sewer Main Pre-Television Inspection (24" Diameter)	151.00	LF
901	CIPP 24" Sanitary Sewer Pipe (Hot Water or Steam Cured), all depths	151.00	LF

** RECONSTRUCTION OF EXISTING MANHOLE (TO INCLUDE NEW RING AND COVER)

PROP 24" CIPP

STA 12+30 TO STA 13+81

NOTE: CONTRACTOR MUST FIELD VERIFY ALL DEPTHS, DISTANCES, PIPE, SIZES, AND GRADES BEFORE START OF CONSTRUCTION. (N.S.P.I.)

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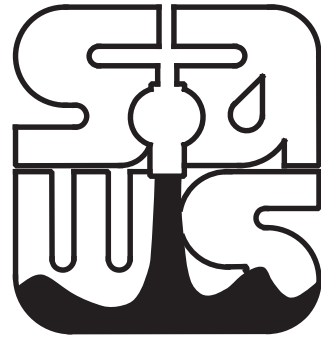
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 ENGINEERS & SURVEYORS
 TPBS F-001712
 7073 San Pedro, San Antonio, Texas, 78216
 Phone: 210-494-7223 Fax: 210-490-5120 WWW.BMBI.COM

DR 242 LOOP 1604 LARGE DIAMETER SEWER REHAB PROJECT
SANITARY SEWER PLAN VIEW

DEVELOPER: _____
 CONT. _____ BUDGET PROJ. _____
 SUBMITTED _____
 APPROVED _____
 MAP No. _____
 SECT. No. _____ FINAL SUBMITTAL
 DR. MC CK. CC/CB JOB No. 17-4536

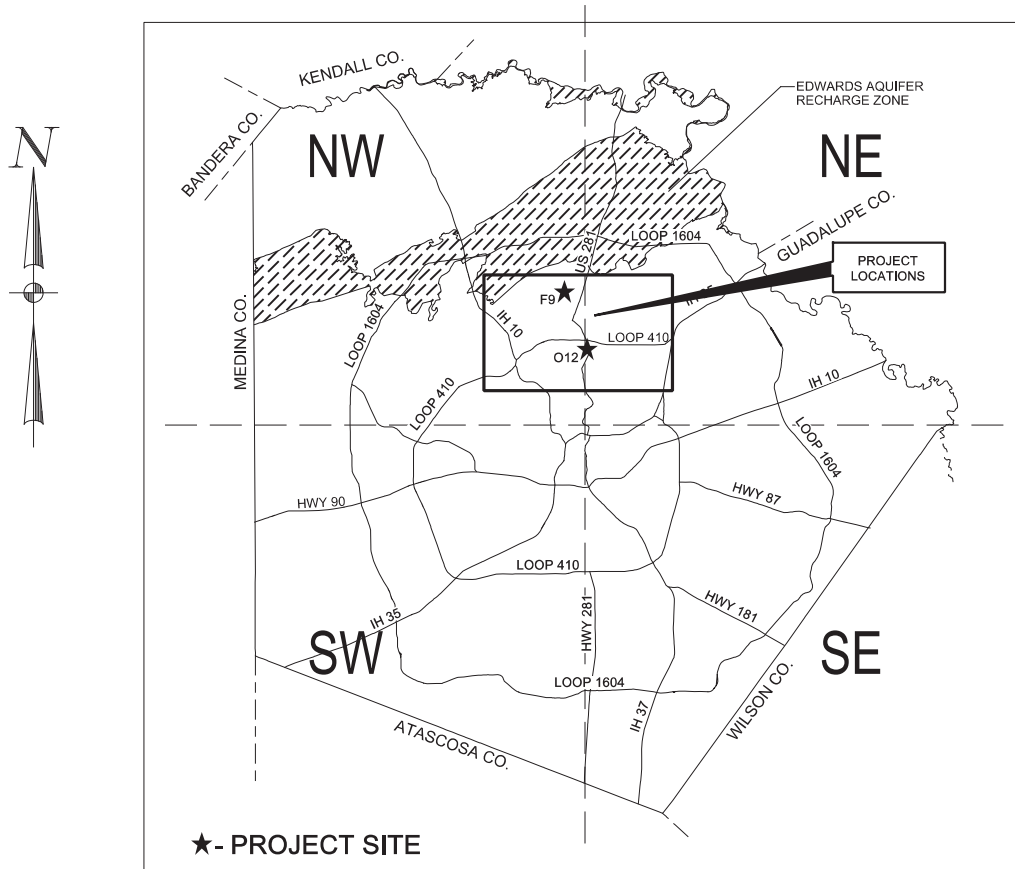
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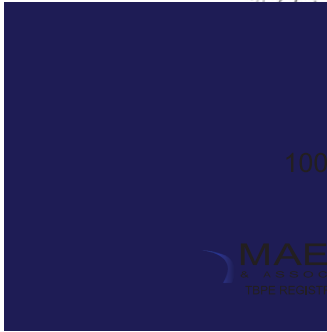
SAWS PROJECT NUMBER: 17-4536

SAN ANTONIO WATER SYSTEM

2017 EARZ CIPP CONSTRUCTION CONTRACT ERROL ST AND WURZBACH PARKWAY SEWER REHABILITATION PROJECT



CITY LOCATION MAP
N.T.S



100% SUBMITTAL

MAESTAS
CONSULTANTS INC.
11550 IH, 10 WEST SUITE 350
SAN ANTONIO, TEXAS 78230
TELEPHONE REGISTRATION NO. : F-333 (210) 366-1988

CEC
CIVIL ENGINEERING CONSULTANTS
DON DURDEN, INC.
11550 IH 10 WEST, SUITE 395
SAN ANTONIO, TEXAS 78230-1037
TEL: (210) 841-9999 | FAX: (210) 841-6440
TBPE REGISTRATION NO. : F-2214
TBPLS REGISTRATION NO. : 100410-00



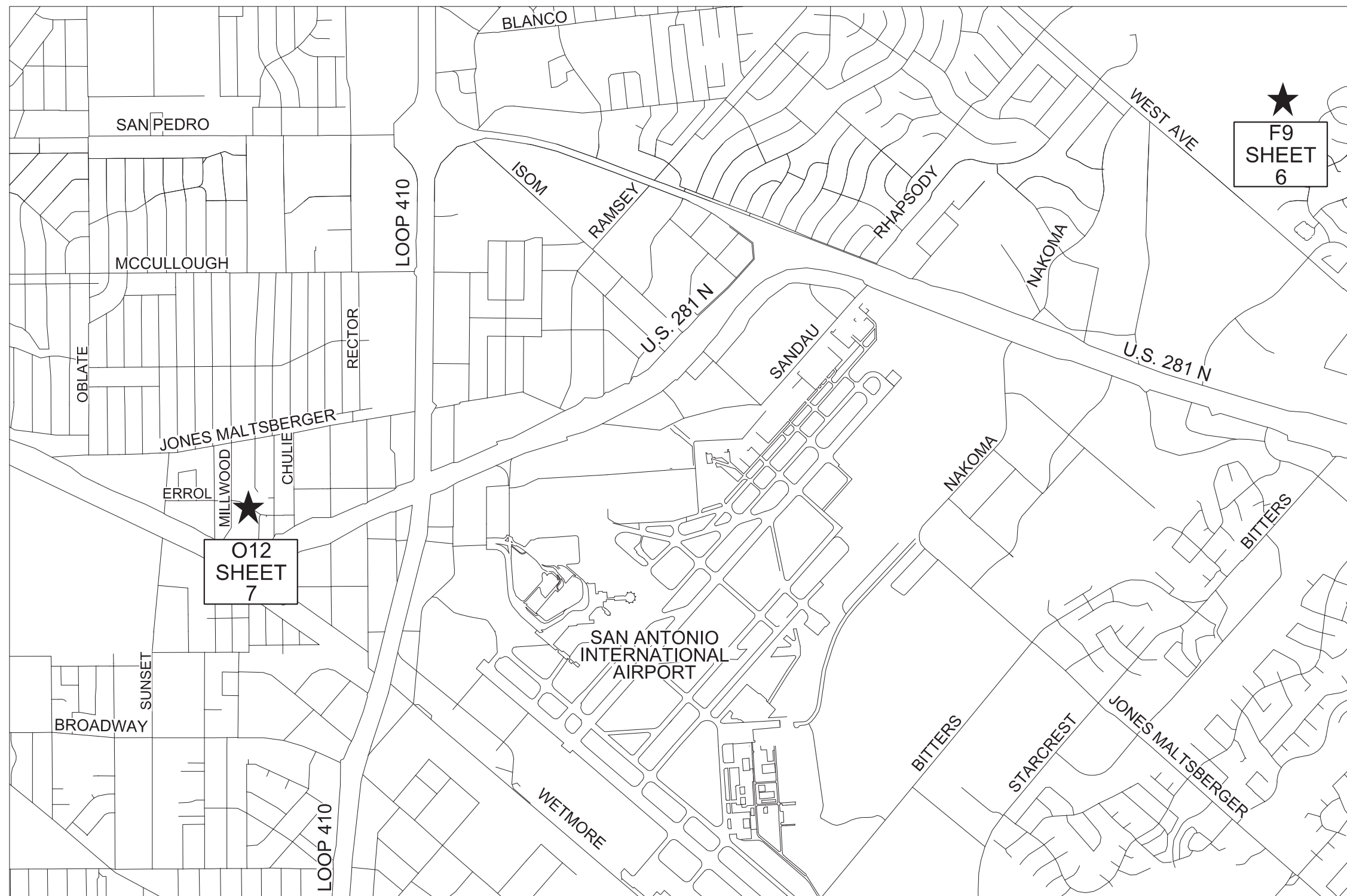
SCALE: 1" = 2000'

SANITARY SEWER IMPROVEMENTS INDEX

SHEET No.	DESCRIPTION
1	COVER SHEET
2	OVERALL LAYOUT & INDEX
3 - 4	GENERAL NOTES
5	QUANTITY SUMMARY
6	PLAN SHEET - SEWER LINE F9
7	PLAN SHEET - SEWER LINE O12
8	BY PASS PUMPING PLAN F9
9	BY PASS PUMPING PLAN O12

★
**F9
 SHEET
 6**

★
**O12
 SHEET
 7**



100% SUBMITTAL

MAESTAS
 ASSOCIATES INC.
 11550 I.H. 10 WEST SUITE 350
 SAN ANTONIO, TEXAS 78239
 REGISTRATION No. : F-333 (210) 366-1988

No.	Revision	Drawn	Approved	Date

REVISIONS
 2017 EARZ CIPP CONSTRUCTION CONTRACT
 OVERALL LAYOUT & INDEX

DEVELOPER:
 CONT.
 SUBMITTED
 APPROVED

MAP No.	Compkey	SHEET
SECT. No.	JOB No.	2
DR. CAD	CK. EM/JS	17-4536

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SAWS GENERAL CONSTRUCTION NOTES

General Section

1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
 - A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290.
 - B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage."
 - C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction."
 - D. Current City of San Antonio "Standard Specifications for Public Works Construction."
 - E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
2. The Contractor shall obtain SAWS Standard Details from SAWS website, <http://www.saws.org/business-center/specs>. Unless otherwise noted within design plans.
3. The Contractor is to notify and make arrangements with the SAWS Construction Inspection Division at 233-3500, and provide notification procedures the contractor will use to notify affected home residents and/or property owners 48 hours prior to excavation.
4. Locations and depths of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
5. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:

San Antonio Water System:
SAWS Utility Locates: <http://www.saws.org/Services/Locates>

COSA Drainage	207-8048
COSA Traffic Signal Operations	207-7720
Texas State Wide One Call Locator	1-800-545-6005 or 811
6. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition as a result of damages done by the project's construction.
7. All work in Texas Highway Department and Bexar County right-of-way shall be done in accordance with respective construction specifications and permit.
8. The Contractor shall comply with City of San Antonio or other governing Municipality's tree ordinances when excavating near trees.
9. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Pain Permit.
10. Any work completed without prior written authorization which is not included in these plans and specifications will not be compensated by the San Antonio Water System.
11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to constworkreq@saws.org.

Weekend Work: Contractors are required to notify the SAWS Inspection Construction department 48 hours in advance to request weekend work. Request should be sent to constworkreq@saws.org.

Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection.
12. PRE-CON SITE VIDEO: Before the start of any construction. The site must be video recorded by the contractor with one copy submitted to SAWS Inspections. A pre-site video will provide accurate documentation of the existing conditions (NSPI).

13. POWER POLE BRACING: Contractors should be advised that there are existing overhead utility poles along the project corridor. Contractors should further be advised that if the distance from the outside face of a utility trench to the face of a utility pole is less than 5 feet, said utility pole is subject to bracing, based on a determination made by utility pole owner. Costs incurred by contractor for bracing of these utility poles is subsidiary to that respective utility company's work. It is advisable for the contractor to review the construction documents, and visit the construction site to determine potential impacts.

Sewer Section:

14. The Contractor is responsible for ensuring that no sanitary sewer overflow (SSO) occurs as a result of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO occur, the contractor shall:
 - A. Identify the source of the SSO and notify SAWS Emergency Operations Identify the source of the SSO and notify SAWS Emergency Operations Center (EOC) immediately at (210)233-2015. Provide the address of the spill and an estimated volume or flow.
 - B. Attempt to eliminate the source of the SSO.
 - C. Contain sewage from the SSO to the extent of preventing a possible contamination of waterways.
 - D. Clean up spill site (return contained sewage to the collection system if possible) and properly dispose of contaminated soil/materials.
 - E. Clean the affected sewer mains and remove any debris.
 - F. Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and televising the affected sewer mains (at SAWS direction) within 24 hours.

Should the Contractor fail to address an SSO immediately and to SAWS satisfaction, they will be responsible for all costs incurred by SAWS, including any fines from EPA.

No separate measurement or payment shall be made for this work. All work shall be done according to guidelines set by the TCEQ and SAWS.

15. The Contractor shall provide bypass pumping of sewage around each segment of pipe to be replaced, in accordance with SAWS Special Specification Item No. 864-S1 "Bypass Pumping Small Diameter Sanitary Sewers" or SAWS Special Specification Item No. 864-S2, "Bypass Pumping Large Diameter Sanitary Sewers". Payment for such work will be made under the bid item "Bypass Pumping per Worksite" (Lump Sum).
16. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at 233-3500 and/or SAWS Production groups at least one week or more in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.
17. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements. (NSPI).
18. The Contractor shall notify Juan C. Ramirez at (210) 233-3558 and SAWS E.O.C. at (210) 233-2015 a minimum of 72 hours, not counting weekends or SAWS holidays, before working on the pipe or manhole, in order to have SAWS remove the Smart Cover. Any damage done to the Smart Cover will be charged to the Contractor through a change order.
19. New manhole ring and covers shall be watertight and installed with concrete manhole ring encasement per SAWS Std. Dwg. DD-852-03
20. When removing and replacing manholes, match existing inverts.
21. Rings and covers from manholes to be abandoned, removed or replaced shall be salvaged and the hole backfilled to the satisfaction of the inspector (No Separate Pay Item).
22. All fittings and appurtenances not identified by a specific pay item shall be included in the bid price for the pipeline.
23. The Contractor shall protect existing sanitary sewer until abandoned.
24. The Contractor shall be responsible for maintaining continuous flows and reconnecting all existing services as pipe is laid.

Service Laterals

1. All sanitary sewer laterals shall be provided with a clean out to be placed in the field as directed by SAWS Inspector or Engineer.
2. Vertical stacks required for sanitary sewer laterals are not shown on the plans and shall be installed where directed by the Inspector.
3. Cement Stabilized Sand Bedding shall be subsidiary to laterals.
4. All sanitary sewer laterals shall be SDR-26 PVC Pipe (ASTM D-2241) with a minimum pressure rating of 160 PSI.
5. The Contractor shall be required to expose all sanitary sewer service lines at the proposed curb line to assure that these lines will not be damaged by construction operations.

NOTE FOR CITY OF SAN ANTONIO FLATWORK:

All limits for curb, sidewalk, and tree prep beyond what is considered incidental to normal utility construction will be addressed by the SAWS Inspector, all communication from the City will be coordinated through the SAWS Inspector. SAWS Inspector will also determine if additional compensation is warranted if limits exceed incidentals.

ADDITIONAL NOTES

1. Contractor is responsible for maintaining and protecting the integrity of power poles and guy wires during construction (NSPI).
2. Contractor is responsible for maintaining sewer service to existing sewer mains and services at all times.
3. Contractor shall protect and/or repair (if damaged) any existing water/sewer service laterals and irrigation shown or not shown (NSPI).
4. Contractor shall maintain vehicular access through all driveways for emergency access.
5. Property lines shown are approximate.



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MAESTAS ASSOCIATES INC.
11550 I.H. 10 WEST SUITE 350 SAN ANTONIO, TEXAS 78239
 (210) 366-1988
 REGISTRATION No. : F-333

No.	Revision	Drawn	Approved	Date
REVISIONS				
2017 EARZ CIPP CONSTRUCTION CONTRACT				
GENERAL NOTES SHEET 1 OF 2				
DEVELOPER:				
CONT.				
SUBMITTED				
APPROVED				
MAP No.	Compkey	SHEET		
SECT. No.	JOB No.	3		
DR. CAD	CK. EM/JS	17-4536		OF 9

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SAWS GENERAL CONSTRUCTION NOTES

6. Contractor to protect existing signs (NSPI). Provide temporary signs and salvage and replace signs that interfere with construction of sewer mains and laterals. (NSPI).
7. Contractor to support and keep intact storm drains and inlet structures. Any damages incurred will be at the Contractor's expense.
8. Contractor shall provide access for the delivery of mail by the U.S. Postal Service.
9. The Contractor shall provide erosion control to prevent pollution of storm waters originating up gradient, and prevent downstream pollution by contaminated stormwater runoff from the site (NSPI).
10. If damaged, the Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping, structure, etc. to its original or better condition (NSPI).
11. Contractor must field verify all sanitary sewer depths, distances, pipe sizes, grades, and laterals before start of construction. (NSPI)
12. Contractor shall coordinate with SAWS and property owners to access to sites located in easements and private properties.
13. Location of laterals are approximate only and contractor shall verify location of all laterals prior to construction.
14. Remove and Replaced fences shall be paid under preparation Right of Way.

UTILITIES

1. The existence and location of utilities indicated on these plans are taken from available records and are not guaranteed to be accurate.
2. For location of underground utilities, including electric and gas facilities, telephone cables and Time Warner Cable TV, call Texas State Wide One Call locator at 1-800-545-6005, 48 hours prior to beginning any excavation.
3. Contractor shall exercise extreme caution when working near, adjacent, or under existing utilities. Any damage to existing utility facilities resulting from Contractor's activities or construction methods will be repaired, replaced, restored or reimbursed at the Contractor's expense.
4. The location and depth of existing utilities and associated easements, if any, shown in these plans are approximate only. Prior to construction, Contractor shall verify the location and depth of all the existing public or private utilities including but not limited to water, sanitary sewer, service laterals, telephone, cable television, data transfer cables, communications, duct banks, utility vaults, gas, heating and cooling, underground electric, fiber optic, drainage systems and irrigation lines. Contractors shall notify SAWS and the Engineer of any discrepancies or conflicts prior to construction. Any damage to the existing utilities shall be repaired at the Contractor's expense (NSPI).
5. Contractor shall provide proper shoring or other suitable support for all utilities crossed or located adjacent to the construction areas. Contractor shall coordinate with the utility company representatives as required to provide support, marking and protective measures within the construction work zones.
6. Due to Federal Regulations Title 49, part 192.181, C.P.S. must maintain access to gas valves at all times. The Contractor must protect and work around any gas valves that are in the project area.
7. Contractor shall support, maintain and keep intact all drainage features or structures. Existing drainage paths shall not be blocked and shall remain in operation during construction. Any damage resulting from contractor's activities or construction methods will be restored by the contractor's at his own expense.

CPS ENERGY NOTES

1. Consider overhead line clearances and locations where large equipment may be used.
2. Consider location of existing overhead lines for construction and design purposes. Sleeving of overhead primary lines will be a cost to the Contractor. The shielding/sleeving of lines is for reference, not for protection from electrical shock.

3. De-energizing of primary lines or transmission lines for construction purposes will be a cost to the Contractor. De-energizing may not be possible in all instances.
4. Consider possible need for temporary relocation of poles during construction. Associated costs will be the responsibility of the party making the request.
5. Consider locations of both existing guy wires and proposed new guy wires. These could cause unforeseen construction interference. Any temporary bracing needed will be a cost to the Contractor.
6. Width, depth, and location of trenching or excavation must be considered around utility poles. This could necessitate bracing/shoring during construction at a cost to the Contractor.
7. Contractors are responsible for requesting a gas leak survey. Allow 10 working days to survey and 10 working days to adjust gas valves. All requests need to be coordinated through the agency inspectors.
8. Gas subcontractors are responsible for adjusting gas valves that are within the project area. Agency Inspectors must notify their Utility Coordinators to request adjustments needed for valves that are inside the project area but not part of the joint bid.
9. The Right-of-way width must be considered for placement of relocated utilities.
10. Include utility inspections and time needed where necessary in schedules.
11. Call for locates before excavating.

GENERAL NOTES FOR CURED IN PLACE PIPE (CIPP) INSTALLATION:

1. The Contractor shall install CIPP in sections of the sewer mains that are identified on the engineering plans for rehabilitation in accordance with the construction phasing and traffic control plans developed for the project.
2. Bypass Pumping shall be per item SS864-S2.
3. Contractor shall provide any additional local bypass pumping as required to complete CIPP work. No separate payment will be made for additional local bypass pumping.
4. The Contractor is advised to take appropriate cautionary steps during all cleaning, video inspection, CIPP installation and sewer line point repair.
5. After cleaning sections of sewer main according to specification No. 866 the Contractor shall televise and videotape all sections of sewer main designated for rehabilitation to identify location of service connections. Pipe condition and locations requiring point repairs, pipe lengths and manhole locations are approximate.
6. After CIPP installation is completed, the Contractor shall televise and videotape the rehabilitated sewer mains in accordance with specification No. 866 to document satisfactory completion of work to the engineer and owner.

BYPASS PUMPING NOTES:

In addition to SS864, Contractor shall provide at no additional cost, as per bid item 864-S2, all site restoration, pavement patching, fence repair, doghouse-style & standard manholes and all lateral pumping and associated clean-out installation.

ABBREVIATIONS:

- CP - Concrete Pipe
- CT - Clay Tile
- PVC - Polyvinyl Chloride
- VCP - Vitrified Clay Pipe
- CSC - Concrete Steel Cylinder

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No.	Revision	Drawn	Approved	Date

REVISIONS

2017 EARZ CIPP CONSTRUCTION CONTRACT
GENERAL NOTES
SHEET 2 OF 2

DEVELOPER: _____
CONT. _____
SUBMITTED _____
APPROVED _____

MAP No.	Compkey	SHEET 4 OF 9
SECT. No.	JOB No.	
DR. CAD	CK. EM/JS	

QUANTITY SUMMARY

Item	Description	Units	Sheet No.		Totals
			6	7	
850	Sanitary Sewer Structures	EA	1		1
851.2	Adjust Existing Manhole (Watertight Ring and Cover)	EA	2	2	4
852.1	Sanitary Sewer Manhole, 4 ft. Diameter (0'-6')	EA	1		1
852.3	Extra Depth Manholes, 4 ft Diameter (>6')	VF	6		6
864-S2	Bypass Pumping (Large Diameter Sanitary Serwer), F9	LS	1		1
864-S2	Bypass Pumping (Large Diameter Sanitary Serwer), O12	LS		1	1
866	Pre Sewer Main Television Inspection (18"-24")	LF	125	346	471
901	CIPP 24" Sanitary Sewer Pipe, all depths	LF	125	346	471
910	Manhole Rehabilitation	VF		10	10
910.2	Manhole Structure Rehabilitation	SF	296		296
1103.2	Obstruction Removal by Remote Device, 24" Diameter, all depths	EA	4		4

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MAESTAS
ASSOCIATES INC.
11550 I.H. 10 WEST
SUITE 350
SAN ANTONIO, TEXAS
78239
TYPE REGISTRATION No. : F-333 (210) 366-1988

No.	Revision	Drawn	Approved	Date

REVISIONS

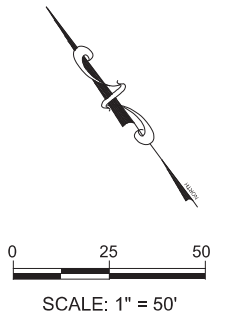
2017 EARZ CIPP CONSTRUCTION CONTRACT

QUANTITY SUMMARY

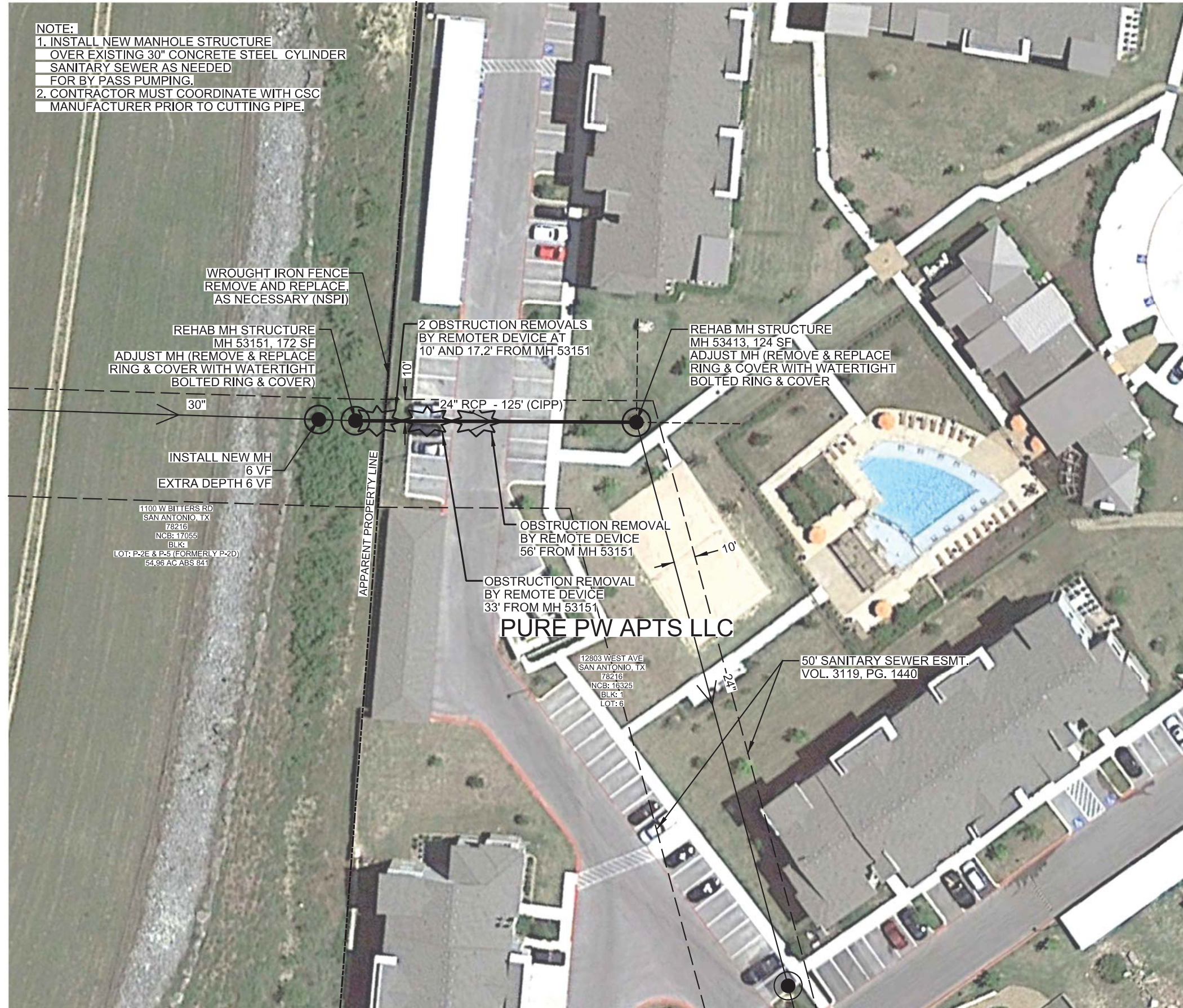
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 CONT. _____
 SUBMITTED _____
 APPROVED _____

MAP No.	Compkey	SHEET 5 OF 9
SECT. No.	JOB No.	
DR. CAD	CK. EM/JS	

NOTE:
 1. INSTALL NEW MANHOLE STRUCTURE OVER EXISTING 30" CONCRETE STEEL CYLINDER SANITARY SEWER AS NEEDED FOR BY PASS PUMPING.
 2. CONTRACTOR MUST COORDINATE WITH CSC MANUFACTURER PRIOR TO CUTTING PIPE.



ESTIMATED QUANTITIES				
ITEM	DESCRIPTION	UNIT	EST	FINAL
850	Sanitary Sewer Structures	EA	1	
851.2	Adjust Existing Manhole (Watertight Ring and Cover)	EA	2	
852.1	Sanitary Sewer Manhole, 4 ft. Diameter (0'-6')	EA	1	
852.3	Extra Depth Manholes, 4 ft Diameter (>6')	VF	6	
864-S2	Bypass Pumping (Large Diameter Sanitary Sewer), F9	LS	1	
866	Pre Sewer Main Television Inspection (18"-24')	LF	125	
901	CIPP 24" Sanitary Sewer Pipe, all depths	LF	125	
910.2	Manhole Structure Rehabilitation	SF	296	
1103.2	Obstruction Removal by Remote Device, 24" Diameter, all depths	EA	4	



LEGEND

PROP. SAN SEWER RECONSTRUCTION OR REHAB LINES	
EXIST. WATER MAIN	
GAS MAIN	
EXIST. SANITARY SEWER	
STORM SEWER	
UTILITY POLE LINE	
LIGHT POLE	
UG ELECTRIC CABLE	
OVERHEAD ELECTRIC/TEL CABLE	
UNDERGROUND TELEPHONE CABLE	
SANITARY SEWER LATERAL	
100 YEAR FLOOD PLAIN BOUNDARY	
MILL & OVERLAY PAVEMENT LIMITS	

STATE OF TEXAS
 REGISTERED PROFESSIONAL ENGINEER
 WEST T. MAESTAS
 52938
 5/19/2017

100% SUBMITTAL
MAESTAS ASSOCIATES INC.
 11550 I.H. 10 WEST SUITE 350 SAN ANTONIO, TEXAS 78239
 (210) 366-1988
 REGISTRATION No.: F-333

No.	Revision	Drawn	Approved	Date

REVISIONS

 2017 EARZ CIPP CONSTRUCTION CONTRACT
 SEWER LINE F9
 SHEET 1 OF 1

DEVELOPER:	
CONT.	
SUBMITTED	
APPROVED	
MAP No.	Compkey 1001126
SECT. No.	JOB No.
DR. CAD	CK. EM/JS 17-4536
SHEET 6	OF 9

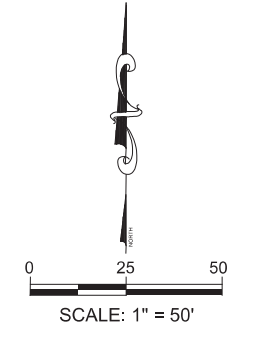
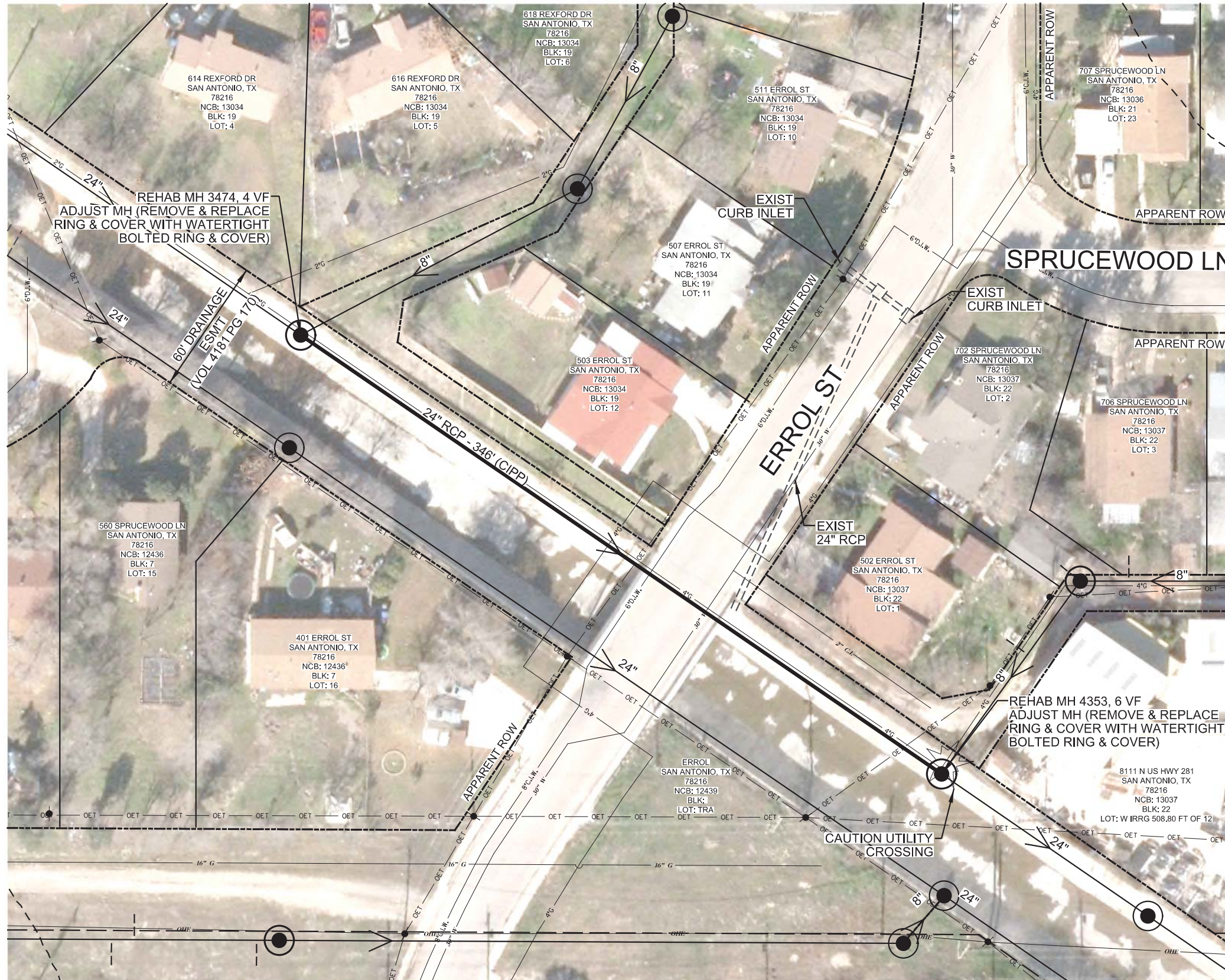
TRENCH EXCAVATION SAFETY PROTECTION
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) IN ORDER TO DEVELOP THE CONTRACTOR'S PLANS TO IMPLEMENT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S PLANS SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY SYSTEMS THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. CALL C.P.S. LOCATOR AT 227-3606, 48 HOURS BEFORE BEGINNING ANY EXCAVATION.

NOTE:
 1. CONTRACTOR SHALL SUBMIT TO SAWS METHOD FOR TESTING MANHOLE AND REHABILITATED SANITARY SEWER.
 2. ALL SANITARY SEWER LINES DEPICTED WERE DRAWN PER SEWER BLOCK MAP 158628.

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ESTIMATED QUANTITIES				
ITEM	DESCRIPTION	UNIT	EST	FINAL
851.2	Adjust Existing Manhole (Watertight Ring and Cover)	EA	2	
864-S2	Bypass Pumping (Large Diameter Sanitary Sewer), O12	LS	1	
866	Pre Sewer Main Television Inspection (18"-24')	LF	346	
901	CIPP 24" Sanitary Sewer Pipe, all depths	LF	346	
910	Manhole Rehabilitation	VF	10	

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- NOTE:
1. PRIOR TO ANY WORK ON 24" SANITARY SEWER IN DRAINAGE CHANNEL CONTRACTOR SHALL PROVIDE SAWS WITH A TEN DAY WEATHER FORECAST SHOWING THERE IS MINIMAL CHANCE OF RAIN.
 2. THIS PROJECT IS LOCATED WITHIN THE DESIGNATED 100 YEAR FLOOD PLAIN.
 3. ALL SANITARY SEWER LINES DEPICTED WERE DRAWN PER SEWER BLOCK MAP 164610 & 166610.

TRENCH EXCAVATION SAFETY PROTECTION
 CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) IN ORDER TO DEVELOP THE CONTRACTOR'S PLANS TO IMPLEMENT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S PLANS SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY SYSTEMS THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. CALL C.P.S. LOCATOR AT 227-3606, 48 HOURS BEFORE BEGINNING ANY EXCAVATION.



LEGEND

PROP. SAN SEWER RECONSTRUCTION OR REHAB LINES	
EXIST. WATER MAIN	
GAS MAIN	
EXIST. SANITARY SEWER	
STORM SEWER	
UTILITY POLE LINE	
LIGHT POLE	
UG ELECTRIC CABLE	
OVERHEAD ELECTRIC/TEL CABLE	
UNDERGROUND TELEPHONE CABLE	
SANITARY SEWER LATERAL	
100 YEAR FLOOD PLAIN BOUNDARY	
MILL & OVERLAY PAVEMENT LIMITS	

100% SUBMITTAL

MAESTAS ASSOCIATES INC.
 11550 I.H. 10 WEST SUITE 350 SAN ANTONIO, TEXAS 78239 (210) 366-1988
 REGISTRATION No.: F-333

No.	Revision	Drawn	Approved	Date

REVISIONS

2017 EARZ CIPP CONSTRUCTION CONTRACT

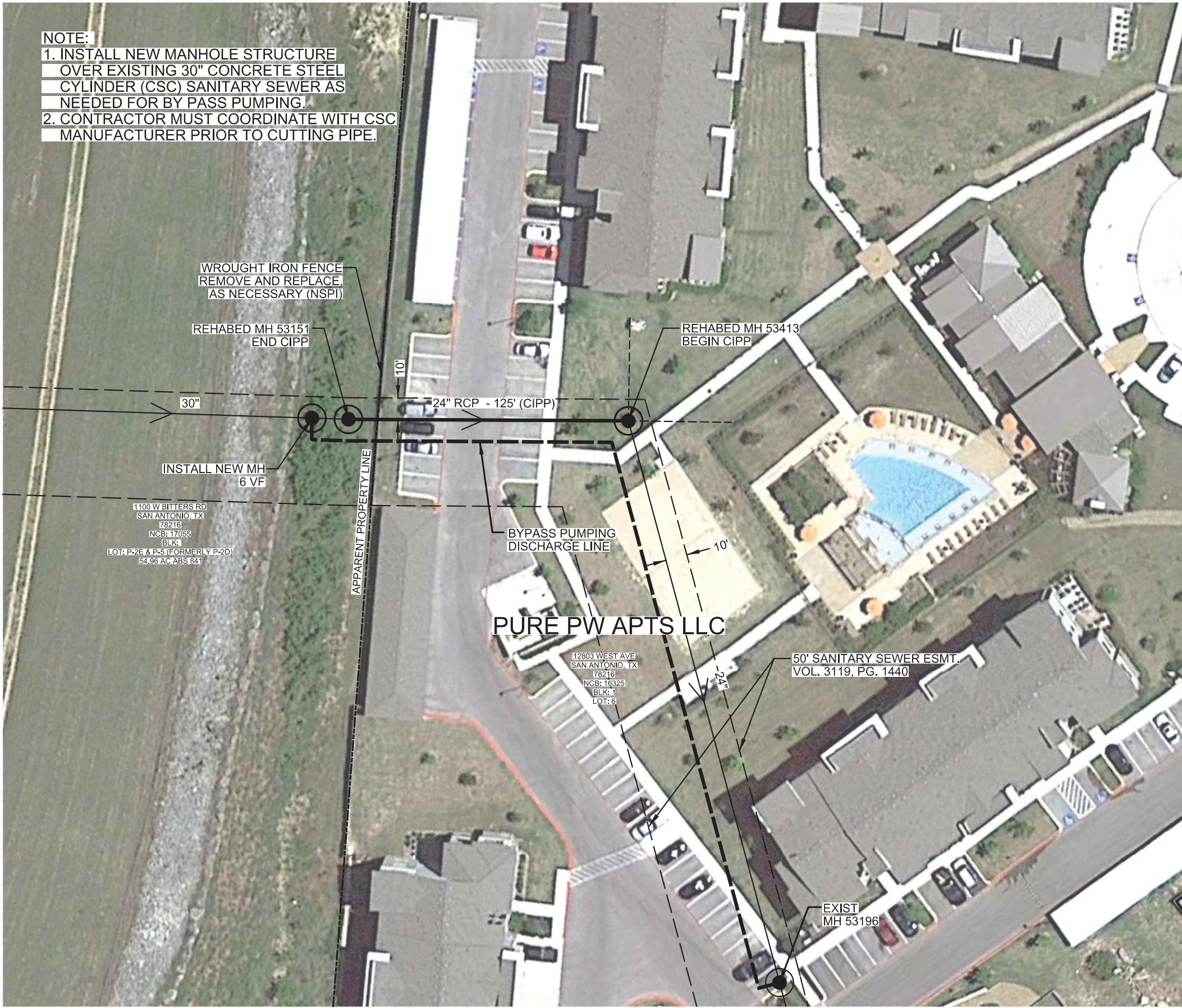
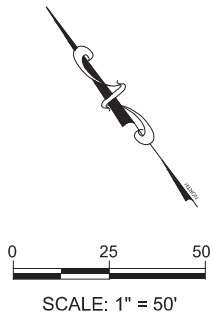
SEWER LINE O12 SHEET 1 OF 1

DEVELOPER: []
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 SUBMITTED []
 APPROVED []

MAP No.	Compkey	967411	SHEET
SECT. No.	JOB No.	17-4536	7
DR. CAD	CK. EM/JS		OF 9

NOTE:

1. INSTALL NEW MANHOLE STRUCTURE OVER EXISTING 30" CONCRETE STEEL CYLINDER (CSC) SANITARY SEWER AS NEEDED FOR BY PASS PUMPING.
2. CONTRACTOR MUST COORDINATE WITH CSC MANUFACTURER PRIOR TO CUTTING PIPE.



NOTE: CONTRACTOR SHALL SUBMIT TO SAWS METHOD FOR TESTING MANHOLE AND REHABILITIZED SANITARY SEWER

NOTE: ALL SANITARY SEWER LINES DEPICTED WERE DRAWN PER SEWER BLOCK MAP 158628.

LEGEND

PROP. SAN SEWER RECONSTRUCTION OR REHAB LINES	
EXIST. WATER MAIN	
GAS MAIN	
EXIST. SANITARY SEWER	
STORM SEWER	
UTILITY POLE LINE	
LIGHT POLE	
UG ELECTRIC CABLE	
OVERHEAD ELECTRIC/TEL CABLE	
UNDERGROUND TELEPHONE CABLE	
SANITARY SEWER LATERAL	
100 YEAR FLOOD PLAIN BOUNDARY	
MILL & OVERLAY PAVEMENT LIMITS	



100% SUBMITTAL

MAESTAS ASSOCIATES INC.
 11550 I.H. 10 WEST SUITE 350
 SAN ANTONIO, TEXAS 78239
 REGISTRATION No.: F-333 (210) 366-1988

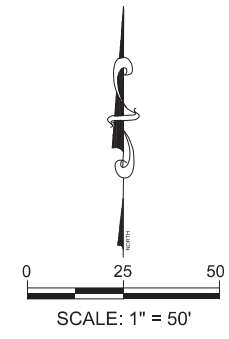
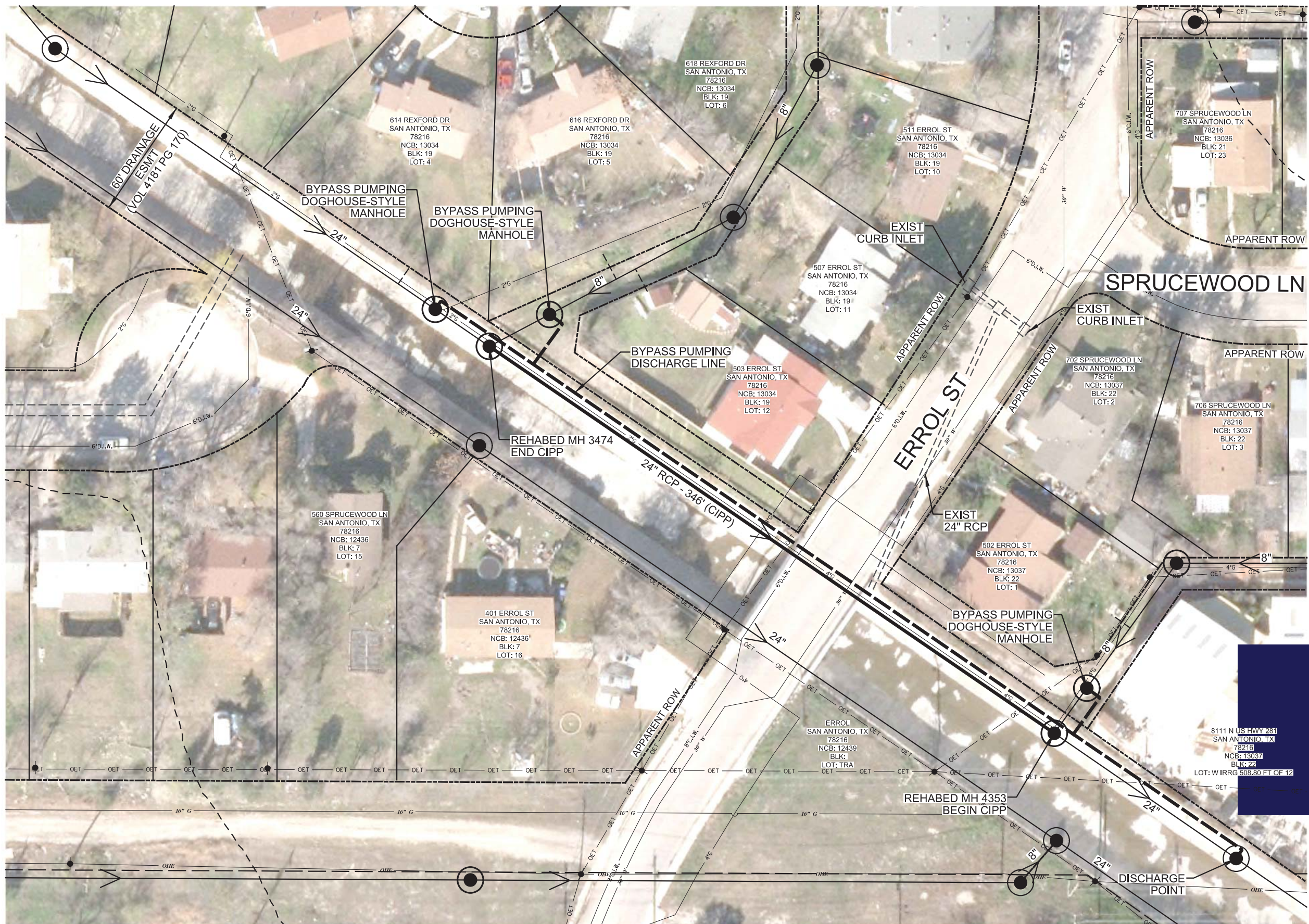
No.	Revision	Drawn	Approved	Date
REVISIONS				
2017 EARZ CIPP CONSTRUCTION CONTRACT				
BY PASS PUMPING SHEET 1 OF 1				
DEVELOPER:		CONT.		
SUBMITTED		APPROVED		
MAP No.	Compkey	1001126	SHEET 8	
SECT. No.	JOB No.	17-4536	OF 9	
DR. CAD	CK. EM/JS			

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LEGEND

PROP. SAN SEWER RECONSTRUCTION OR REHAB LINES	8" (with arrow)
EXIST. WATER MAIN	6" C.I.W.
GAS MAIN	2" G
EXIST. SANITARY SEWER	8" (with arrow)
STORM SEWER	24" ST
UTILITY POLE LINE	(with symbol)
LIGHT POLE	OLP
UG ELECTRIC CABLE	UE
OVERHEAD ELECTRIC/TEL CABLE	OET
UNDERGROUND TELEPHONE CABLE	UT
SANITARY SEWER LATERAL	(with dashed line)
100 YEAR FLOOD PLAIN BOUNDARY	(with dashed line)
MILL & OVERLAY PAVEMENT LIMITS	(with hatched box)

STATE OF TEXAS
 T. MAESTAS
 52938
 REGISTERED PROFESSIONAL ENGINEER
 5/19/2017
 100% SUBMITTAL
 MAESTAS ASSOCIATES INC.
 11550 I.H. 10 WEST SUITE 350
 SAN ANTONIO, TEXAS 78239
 REGISTRATION No.: F-333 (210) 366-1988

- NOTE:**
- DISCHARGE PIPING SHALL BE INSTALLED AT THE TOP OF THE DRAINAGE CHANNEL BANK.
 - NO PIPING ALLOWED WITHIN DRAINAGE CHANNEL OR PRIVATE PROPERTY.
 - CONTRACTOR MAY NEED TO INSTALL TEMPORARY DOGHOUSE STYLE MANHOLES AND/OR PUMP INDIVIDUAL LATERALS (NSPI) AS APPROVED BY SAWS.
 - LATERAL LOCATIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL CONFIRM LOCATIONS PRIOR TO SUBMITTING BYPASS PUMPING PLAN.
 - ALL SANITARY SEWER LINES DEPICTED WERE DRAWN PER SEWER BLOCK MAP 164610 & 166610.
 - THIS PROJECT IS LOCATED WITHIN THE DESIGNATED 100 YEAR FLOOD PLAIN.

No.	Revision	Drawn	Approved	Date
REVISIONS				
2017 EARZ CIPP CONSTRUCTION CONTRACT				
BYPASS PUMPING SHEET 1 OF 1				
DEVELOPER:				
CONT.				
SUBMITTED				
APPROVED				
MAP No.	Compkey	967411	SHEET 9	
SECT. No.	JOB No.	17-4536	Of 9	
DR. CAD	CK. EM/JS			