

**AMERICUS AVENUE DRAIN PIPE
INSPECTION AND REPAIR INFORMATION**

FOR



PREPARED FOR:

**GULF COUNTY BOARD OF COUNTY COMMISSIONERS
1000 CECIL G. COSTIN SR. BLVD.
PORT ST. JOE, FLORIDA 32456**

PROJECT NUMBER 3.181

PREPARED BY:



Panama City | Port St. Joe | Blountstown | Santa Rosa Beach | Ft. Walton Beach
Freeport | Monticello | Quincy | Crawfordville | Tallahassee
Lake City | Pensacola | Marianna | Daphne, AL | Port-au-Prince, Haiti

Americus Ave. Drain Pipe Inspection and Repair Information

The purpose of these guidelines is to provide details on methodology for underground drainage piping along Americus Ave. for long-term repairs.

Prior to any future repairs it is advised to refer to the Repair Locations Map (Sheets 1-2) and this report for location details and similar repairs completed.

The plan drawings will provide information on pipe size and connections and the repair reference book has pictures and details of actual repairs and materials used to date. Utilities will need to be identified and located before any excavations. It is also advised to schedule repairs during dry periods. Well points will be necessary in many cases to dry out the area for excavation. Piping will drain at locations where joints have separated and ground water will be present.

A total of eight (8) excavations were made by PRI (Williams Plumbing) in 2014 to identify the cause(s) of sink holes along Americus Ave and side streets where ADS (Advanced Drainage System) plastic pipe and or connections to existing RCP (reinforced concrete pipe) was installed in 2007/2008. ADS engineers were on site during the initial excavation to assist with the repair plan. The sites excavated and repaired by PRI (Williams Plumbing) was increased from the original agreed upon five (5) sites to eight (8) because of concerns of locations in close proximity to paved roadways.

The eight (8) locations selected for investigation and repair by PRI were based on sink holes marked by county public works and those deemed to provide a cross section of typical joint connections. There were a total of 25 locations marked by the county public works from Court St. to Willow St. during the initial investigation by PRI.

Repair location #5 had previously been back-filled by Gulf County Public Works with clay. This location is between Balboa and Magellan St. running parallel to Americus Ave. The pipe is a 48" diameter ADS and is the eastern most of three 48" diameter pipes in parallel. The bell and spigot joint had separated at the top and was exposed. The north end of this section of pipe (repair location #4) had also separated at the bottom of joint. Both connection joints were repaired using Mar Mac Couplers and filter fabric. Four (4) mobile home anchors and tie-down band straps were installed at each joint to stabilize the pipe (see attached pictures for details). Locations where pipe shifting may be a problem, anchor tie downs should be installed.

The other sink holes investigated to date involved some separation of the connection allowing sand to infiltrate the piping and over time eroded the surface sand in the general area creating pot holes. Repair priority was given to those locations near the edge of road pavements. It is recommended repairs will be made using Mar Mac Couplers and filter fabric per ADS

recommendations where possible. One cross drain between Cortez and Desoto St. was repaired with concrete encapsulation (joint separation due to broken RCP pipe was too large for Mar Mac Coupler). In addition, some piping may be too close together to use the Mar Mac Couplers. In these cases, hydraulic cement can be used to fill the hole or gaps from the outside of pipe. Filter fabric should be wrapped around the pipe as much as possible and held tight with screws through the ribs of ADS pipe until the hole is backfilled. Fill material should be compacted as the hole is backfilled.

It is recommended that all remaining pot holes be flagged and filled until permanent repairs can be scheduled.

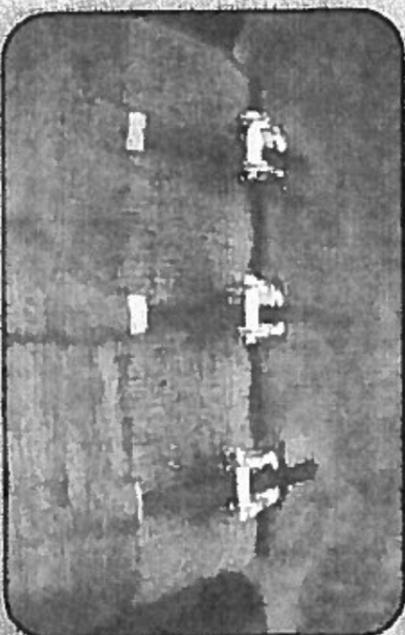
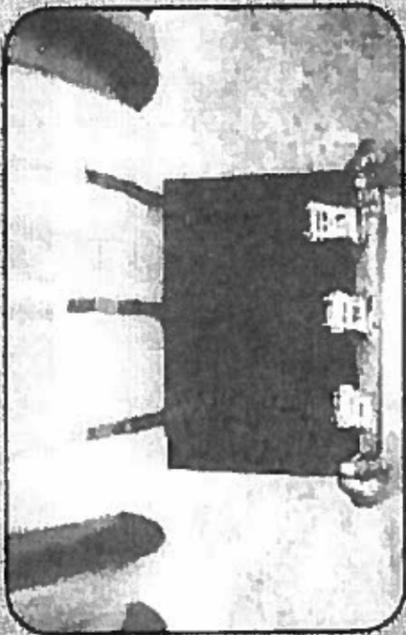
Repair materials will be furnished by PRI to the Gulf County Public Works Department for remaining known repairs. Technical assistance for on-site repairs will be provided by PRI on request.

Sincerely,

Kenneth L. Wood

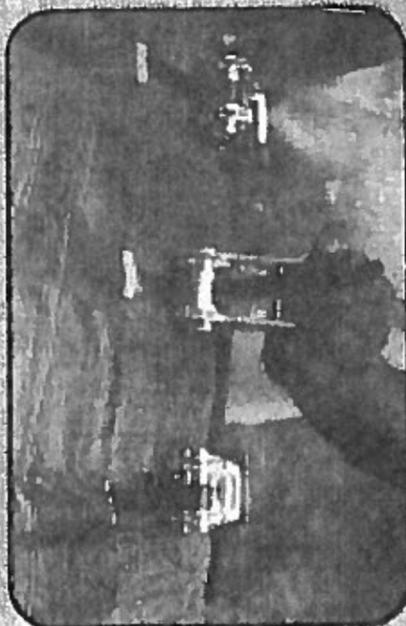
Project Inspector – PRI

THE "HOW TO" IN APPLYING WT COUPLER



STEP 1

Clean the external portion of the joint to insure that foreign materials do not interfere with direct contact between the mastic sealer and the joint to be sealed.
The WT Coupler should be placed around the pipe and centered at the joint. Then protective film is removed - exposed must be side to the joint, spanning the joint with the overlap at the top of the pipe.



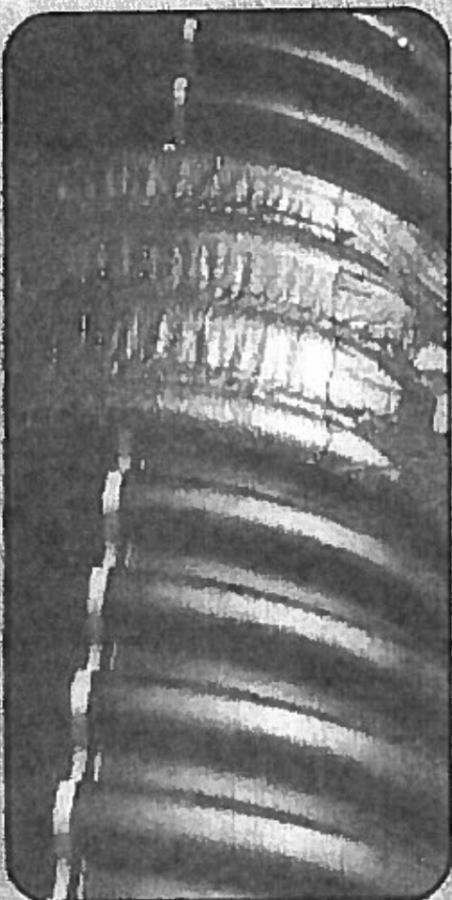
STEP 2

The steel straps should be secured with the attached hand ratchets, the center strap shall be in the joint groove and the outside straps shall fall on each side of the joint between the ridges. The outside straps should be tightened first.



STEP 3

Remove protective film from the outside flap and cover the exposed portions of the straps and ratchets.



STEP 4

Completed joint.

* Please refer to corresponding illustrations and diagrams

Mar Mac Polyseal - Pipe Seal Coupler...

[Quick Links](#) 

POLYSEAL PIPE COUPLERS

For assurance of permanent, flexible, soil and watertight joints

Polyseal was engineered as an external coupler for assurance against infiltration and exfiltration at the joint. Made with long-lasting, heavy-duty materials, Polyseal is an innovative design solution that creates a heavy-duty, positive watertight seal.



The pipe seal coupler incorporates high-strength, shear and puncture resistant internal reinforcing fabric with an impervious, chemical resistant cross-laminated polyethylene outer cover. Polyseal utilizes a specially formulated bonding mastic for polyethylene pipe along with high strength securing straps engineered within the coupler.



Polyseal is a permanent and proven coupler used in thousands of new installations as well as pipe repair.

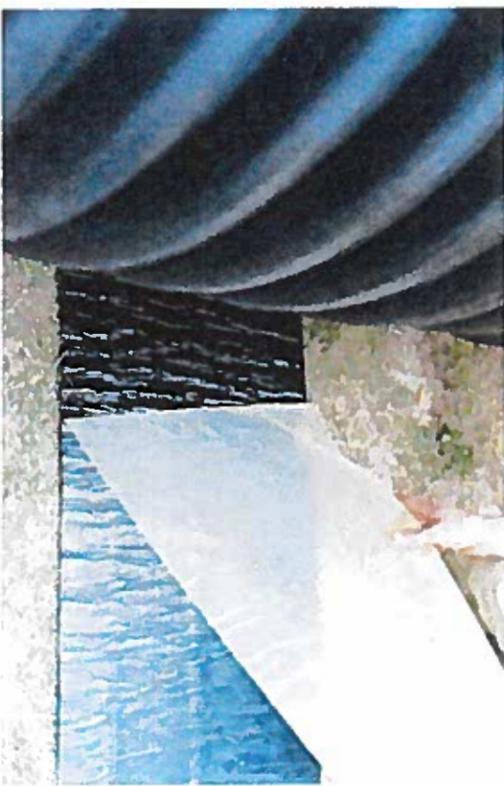
[CLICK HERE](#) to see how it works...

Mar Mac Polyseal How To...

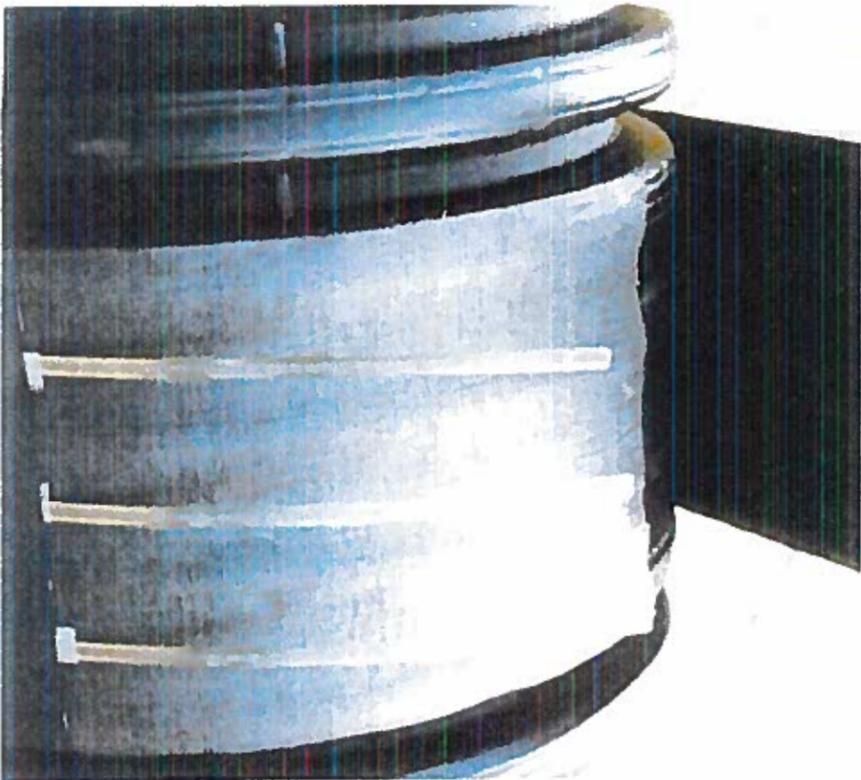
[Quick Links](#) ▾

Applying Polyseal Joint Couplers

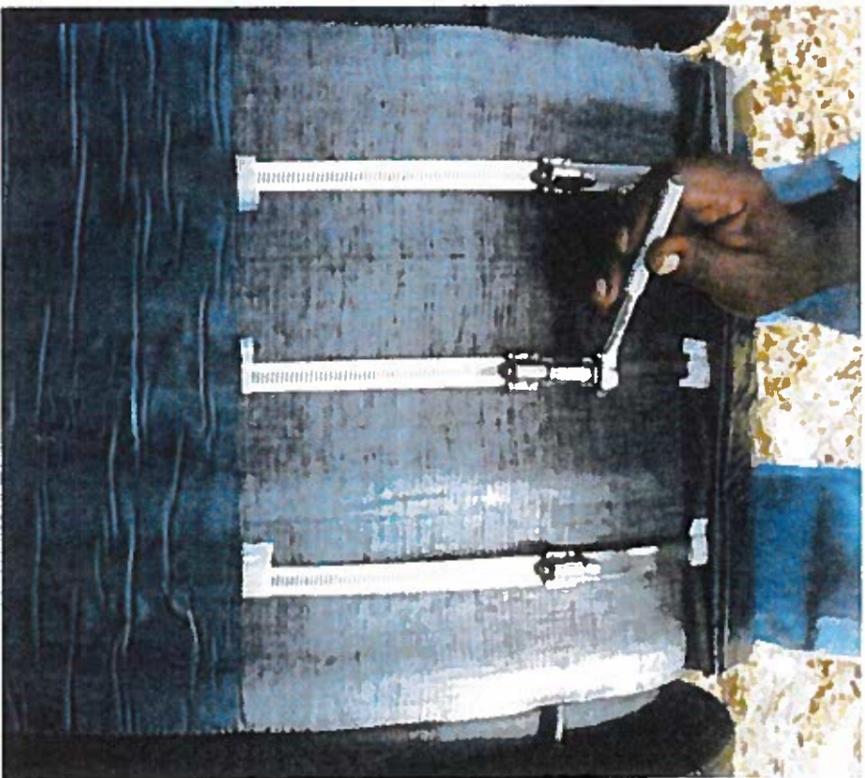
(step 1) Sweep or brush external portion of the joint to insure foreign materials do not interfere with the direct contact between the mastic sealer and the joint to be sealed.



Align the collar so the center strap falls in the butt groove joint and the outside straps fall on each side of the joint between the ridges. Center the coupler to where the straps close over the top of the pipe.



(step 2) Remove the protective plastic film, exposing the mastic side to the joint. Wrap the exposed mastic around the joint.



Tighten the steel straps starting with the outer straps and work towards the middle using the appropriate tools.

(step 3) Remove the protective film from the closing flap and cover the exposed straps to complete the joint.



For product information support call **877-962-7622**

[CLICK HERE](#) to go back to the Polyseal Pipe Coupler page...

NO	DATE	REVISION
1	APR 14	
2		
3		
4		
5		

PREBLE-RISH INC
 CONSULTING ENGINEERS AND SURVEYORS
 CIVIL SURVEYING
 SITE PLANNING

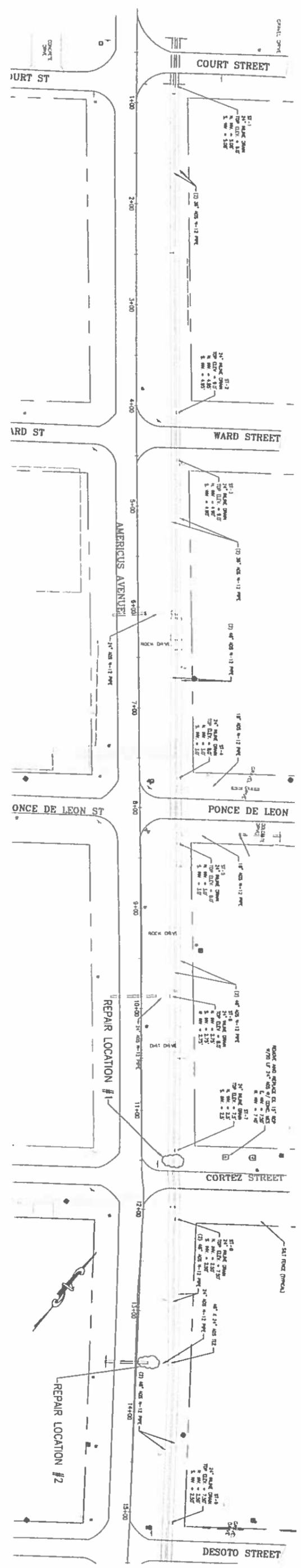
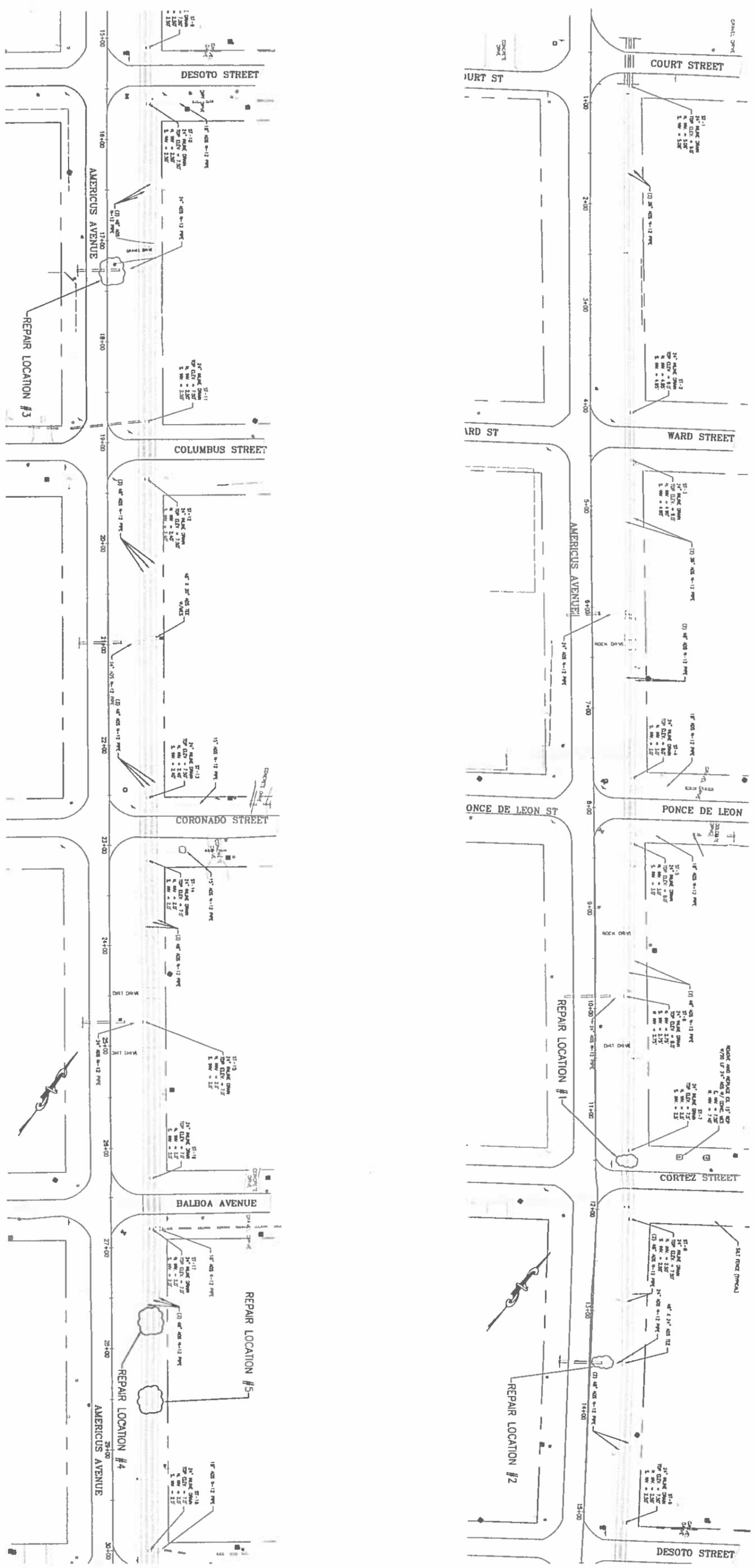
224 VANDERLINDEN DRIVE
 TAMPA, FL 33604
 (813) 271-7200

220 W. WASHINGTON AVENUE
 TAMPA, FL 33602
 (813) 271-7200

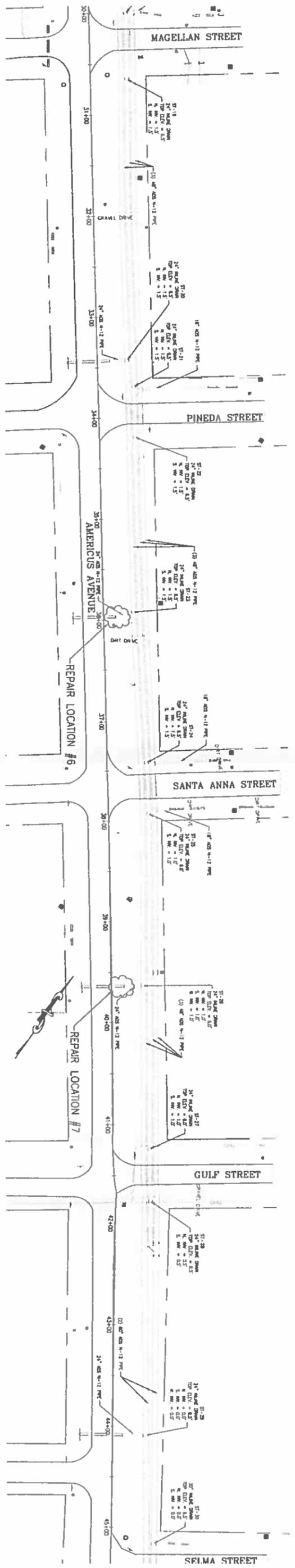
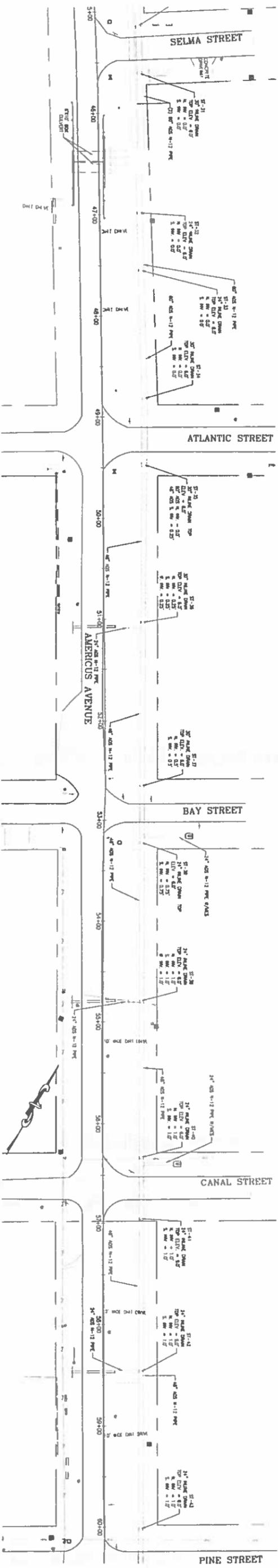
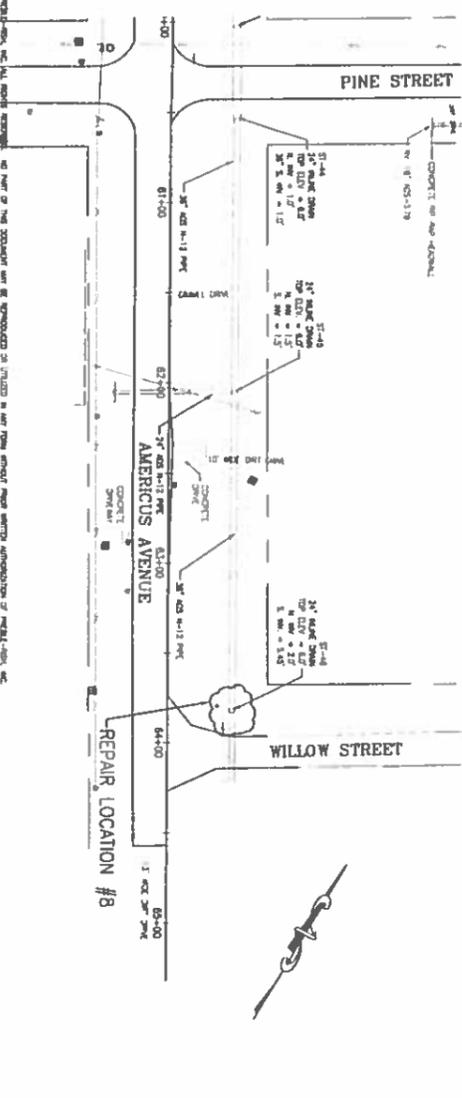
5200 SHELBY PARKWAY
 TAMPA, FL 33609
 (813) 271-3822

REPAIR LOCATIONS MAP
 AMERICUS AVENUE DITCH
 GULF COUNTY BOARD OF COUNTY COMMISSIONERS

DATE	NOV 2014	PROJ#	003
SCALE	1"=100'	DRAWN	HCS
CHECKED	KLW	SH	



NO.	DATE	APPN	REVISION
1			
2			
3			
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PREBLE-RISH INC.
 CONSULTING ENGINEERS AND SURVEYORS
 CIVIL SURVEYING • SITE PLANNING

204 MARINA DRIVE
 (850) 271-7200
 13,300 sq. ft.

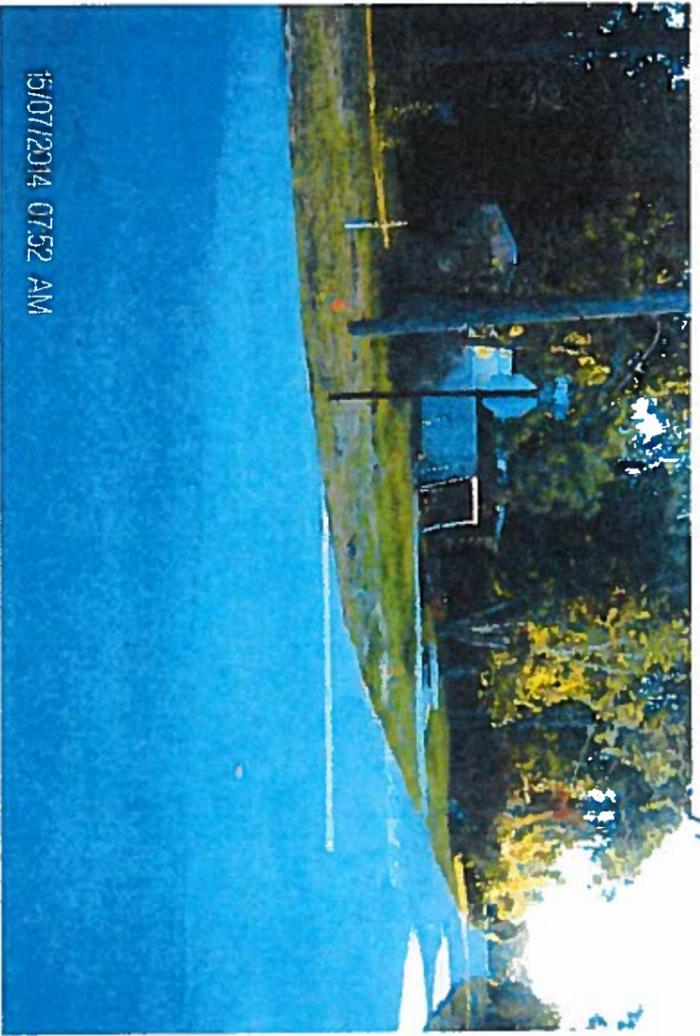
200 MARSHWAY PARKWAY
 (850) 522-0844
 13,300 sq. ft.

2300 SCIENCE PARK DRIVE, SUITE 102
 (850) 271-3002
 13,300 sq. ft.

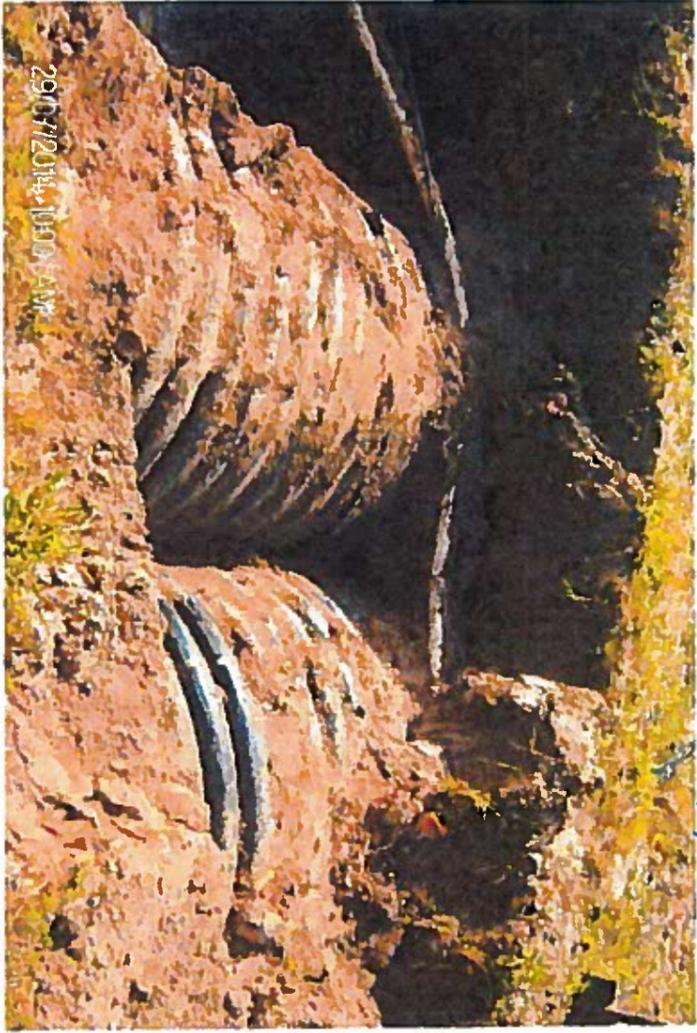
REPAIR LOCATIONS MAP
 AMERICUS AVENUE DITCH
 GULF COUNTY BOARD OF COUNTY COMMISSIONERS

DATE: NOV 2014
 SCALE: 1"=100'
 DRAWN: HCS
 CHECKED: KIW

PROJ: 003
 SHEET: 7

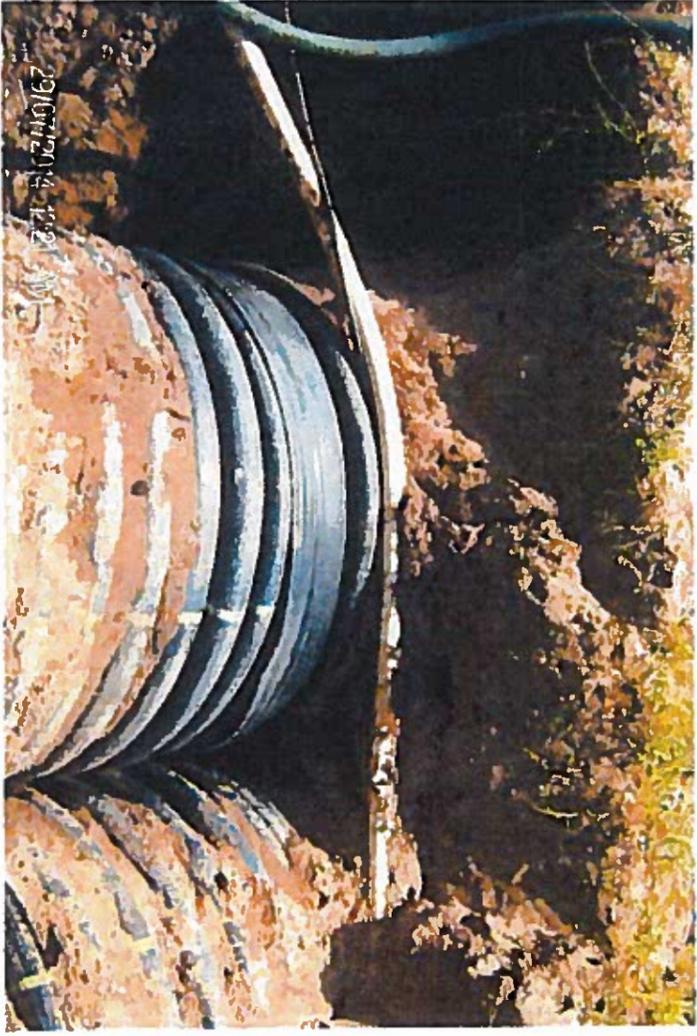


Location #1 - Northeast corner of Cortez and Americus. Prior to excavation.



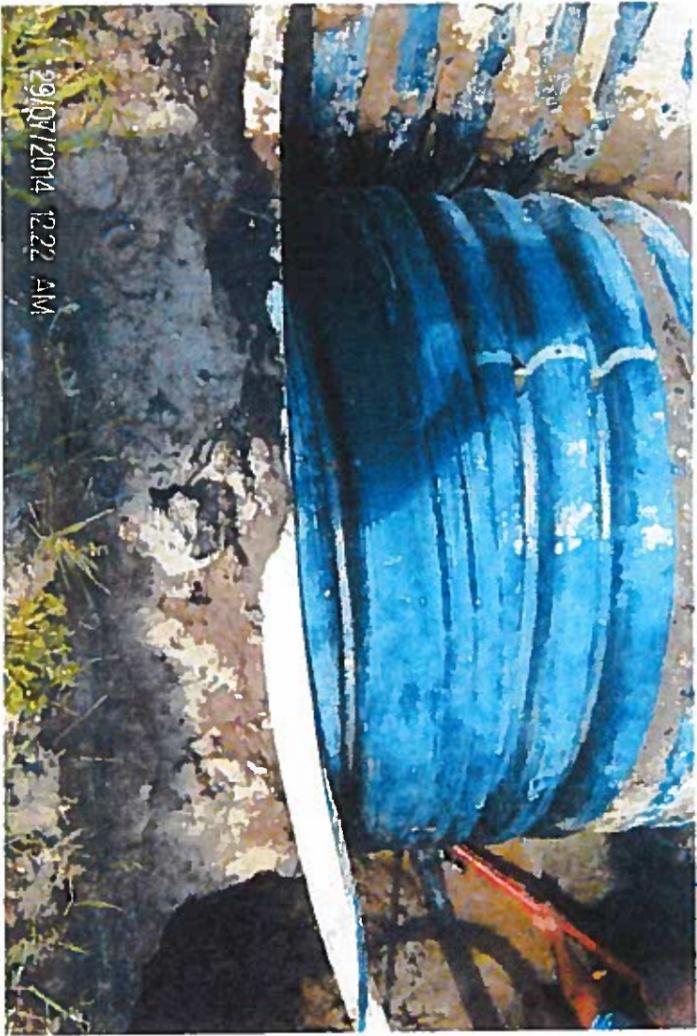
Location #1 - 48" ADS pipes looking towards Cortez.

①

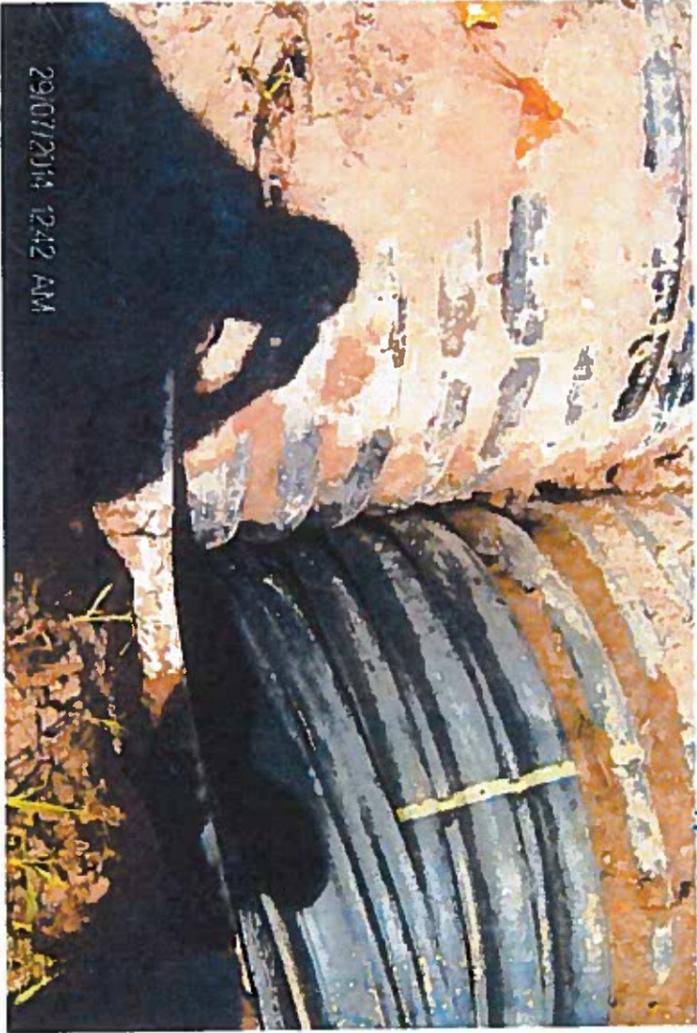


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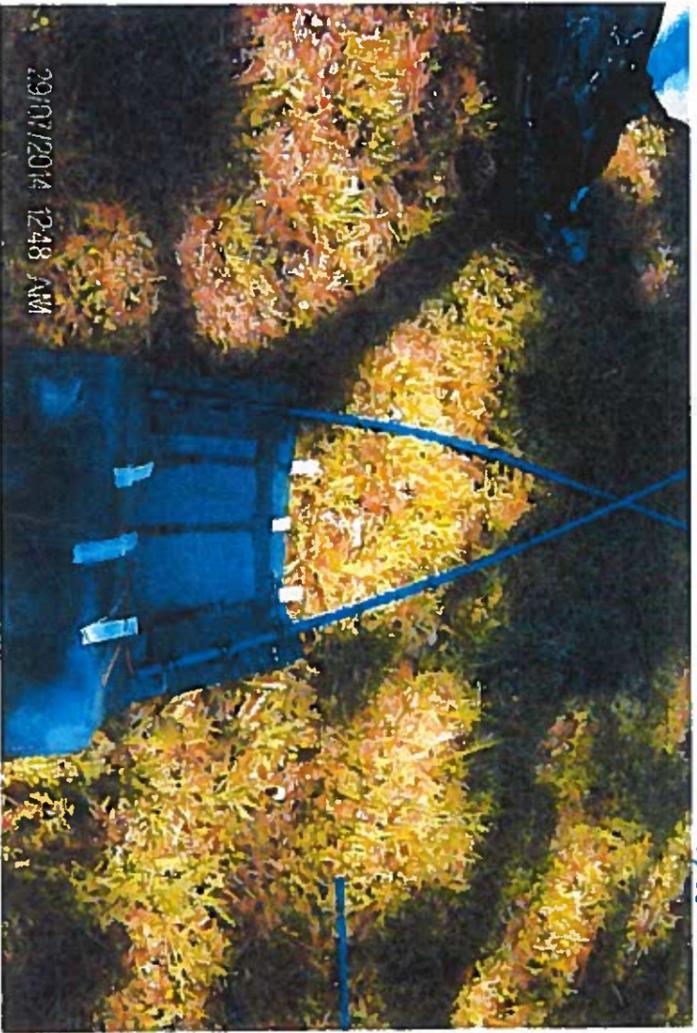
Location #1 - misaligned joint on eastern most 48" pipe.



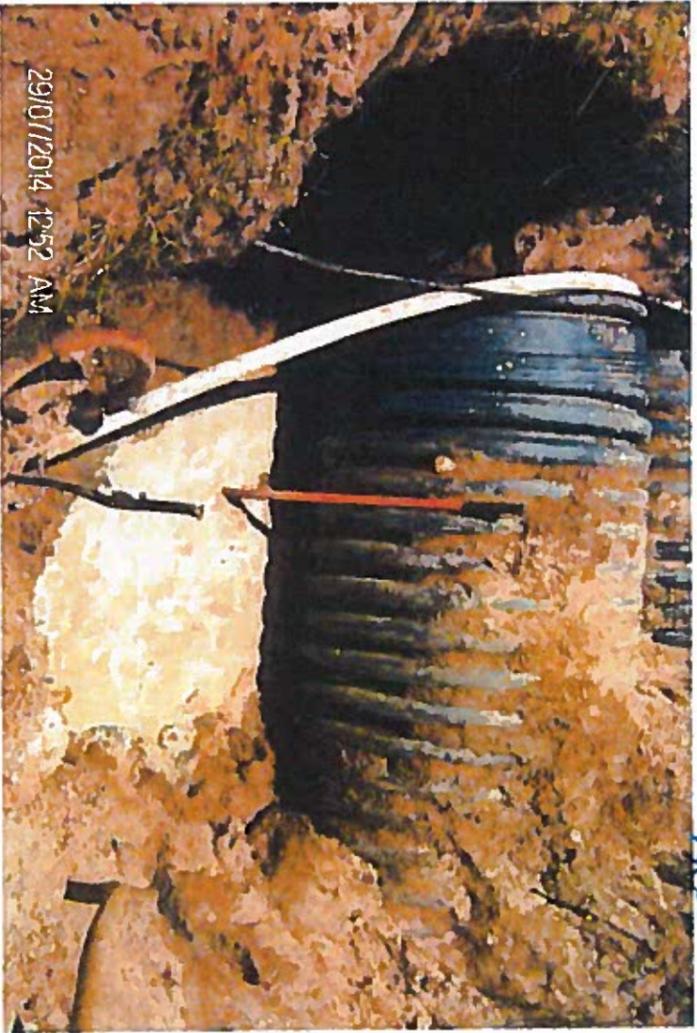
Location #1 - top view of misaligned joint on eastern most 48" pipe.



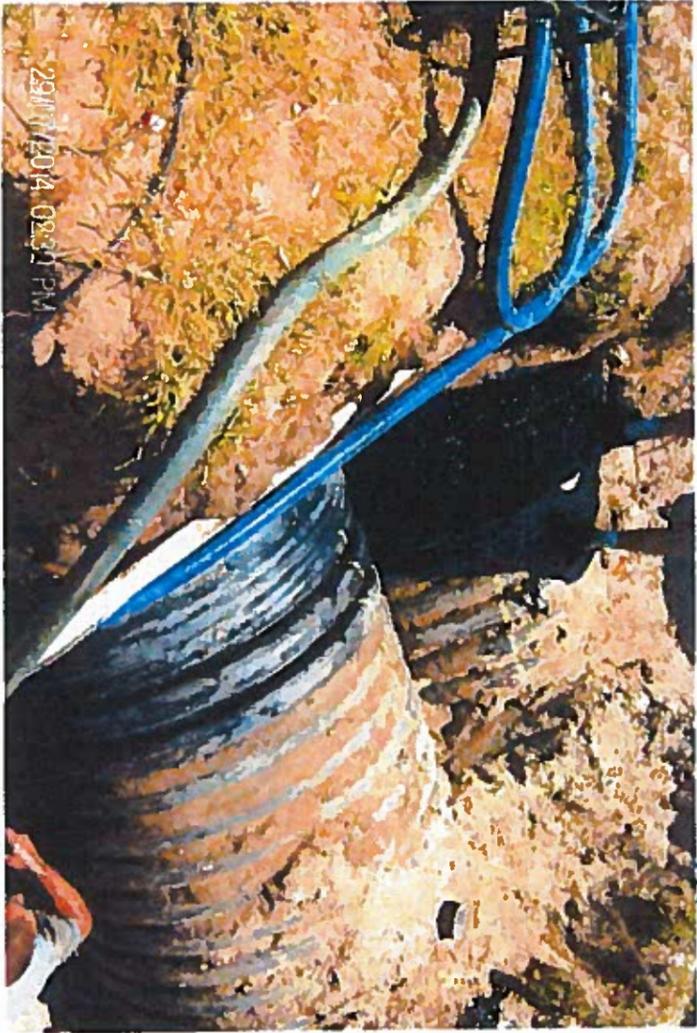
Location #1 - top view of misaligned joint on eastern most 48" pipe.



Location #1 - plastic tubing added to Mar Mac coupler to act as a guide for installation.

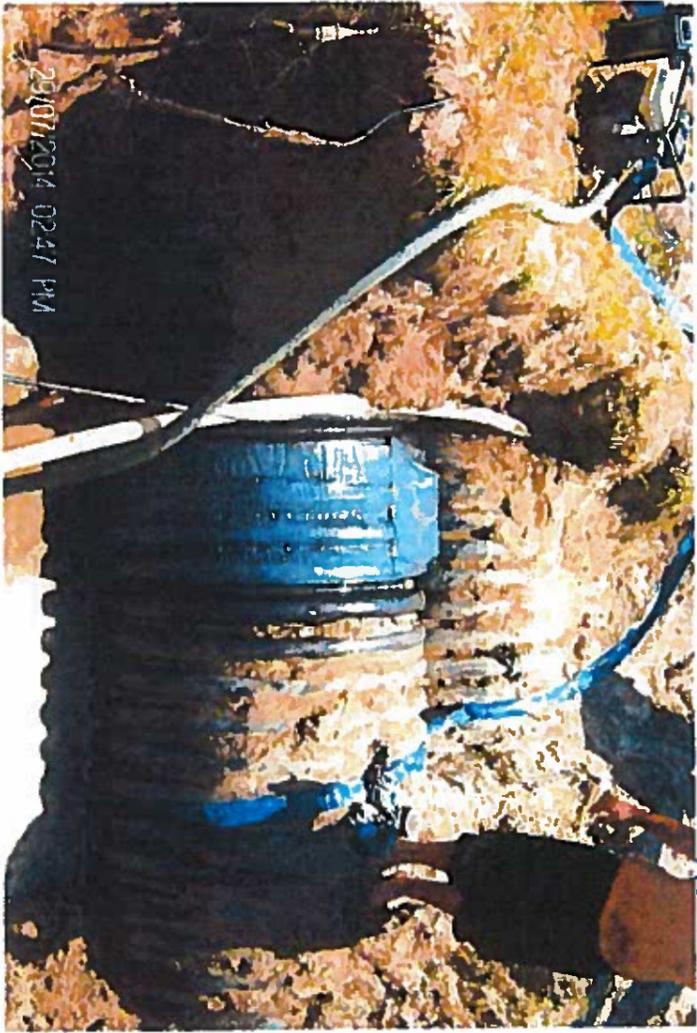


Location #1 - pipe cleaned at misaligned joint in preparation for installation of Mar Mac coupler.



Location #1 - Beginning installation of Mar Mac coupler. Dewatering equipment also shown.

5

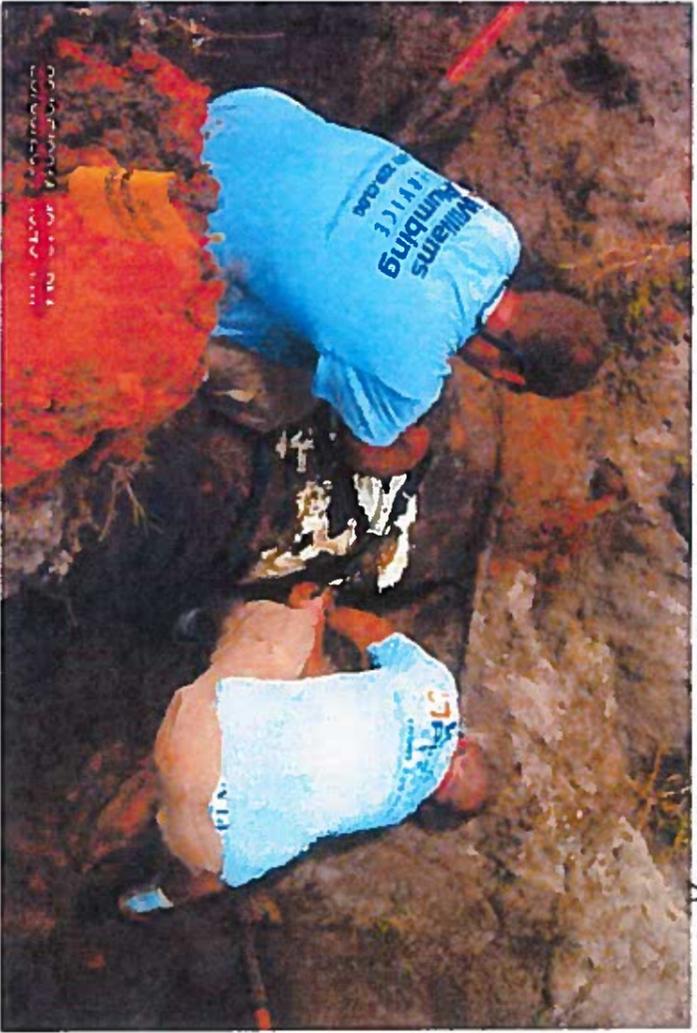


Location #1 - 48" Mar Mac adhesive coupler with 3 band clamps installed.



Location #1 - Repair complete. Looking east from Americus Avenue along Cortez.

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Location #2 - 24" cross drain between Cortez & Desoto. Beginning excavation.



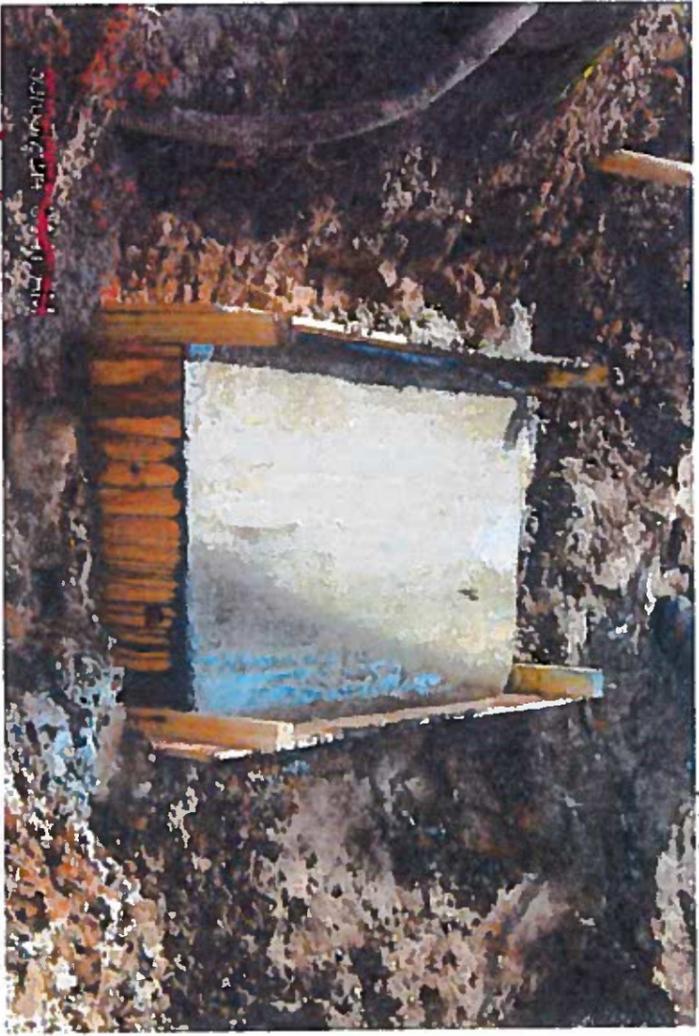
Location #2 - Existing 24" ADS to 24" RCP joint was foam filled and wrapped with fabric.



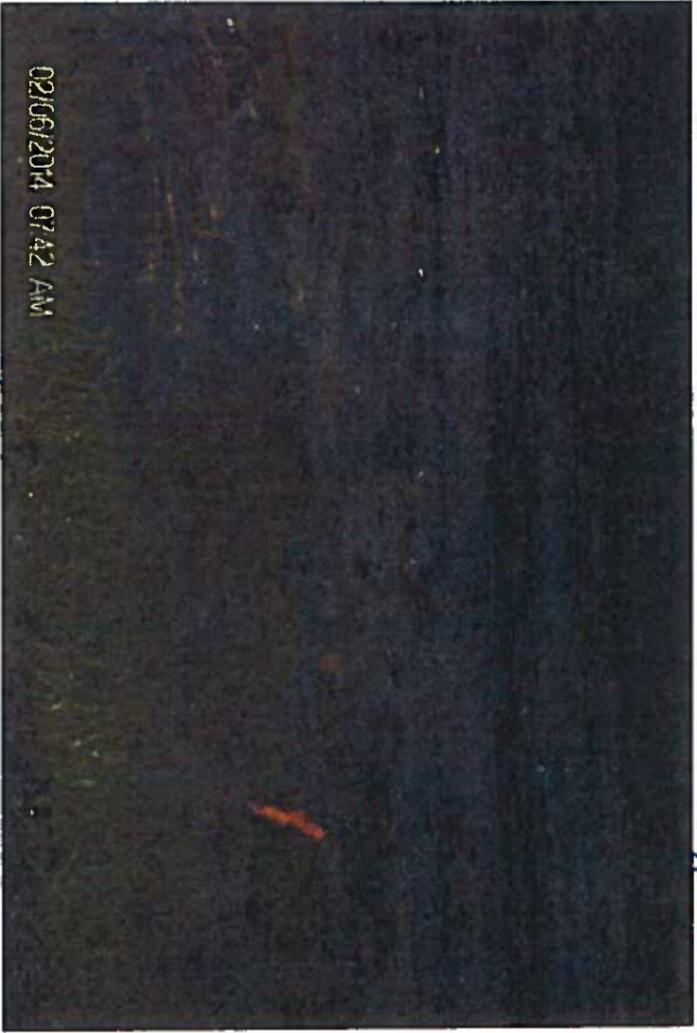
Location #2 - Bottom of existing RCP damaged at the joint to ADS pipe.



Location #2 - Joint wrapped with filter fabric in preparation for concrete collar installation.



Location #2 - 8" thick concrete collar installed on around ADS to RCP joint.



Ken

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Location #2 - Repair complete. Looking east from Americus Avenue.

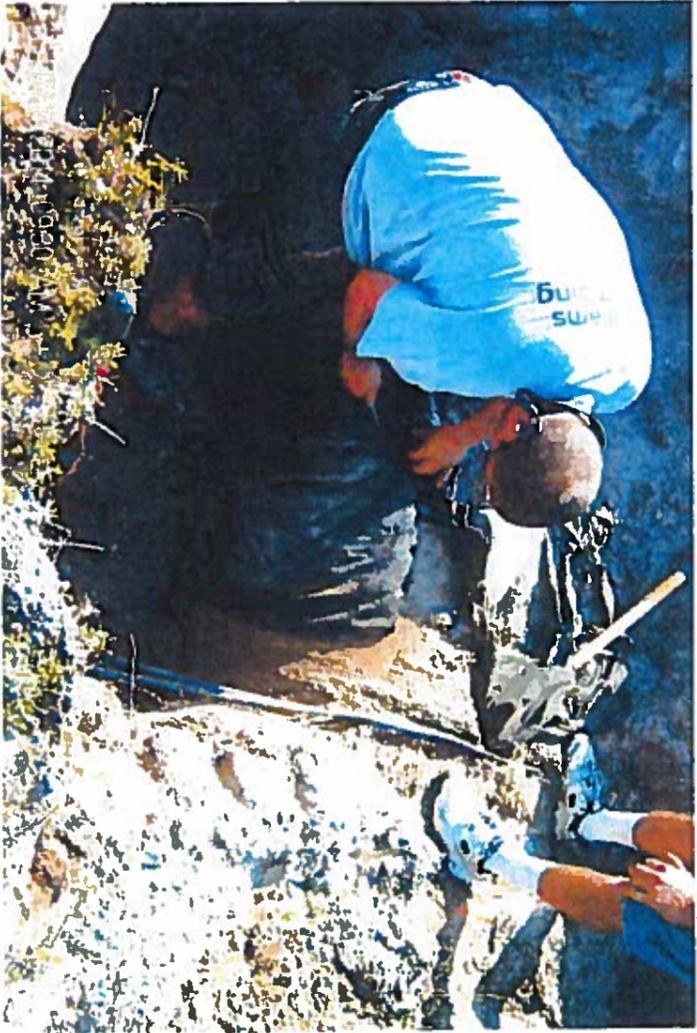


Location #3 - 7466 Americus Avenue between Desoto and Columbus. Prior to excavation.



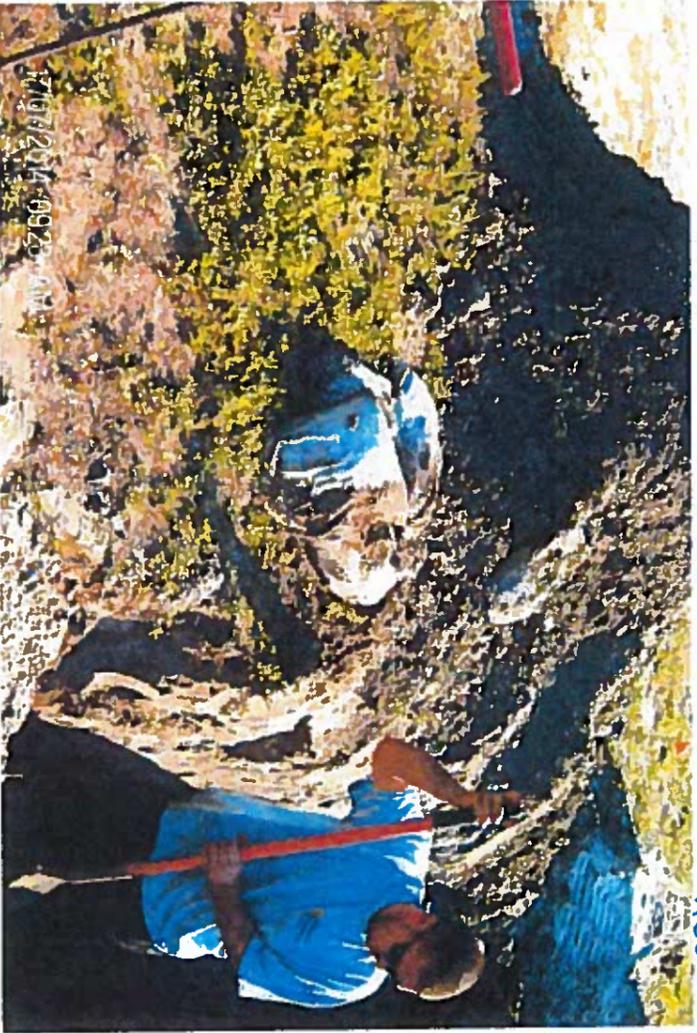
Kew

Location #3 - beginning excavation. 24" pipe had a small amount of concrete installed over filter fabric.



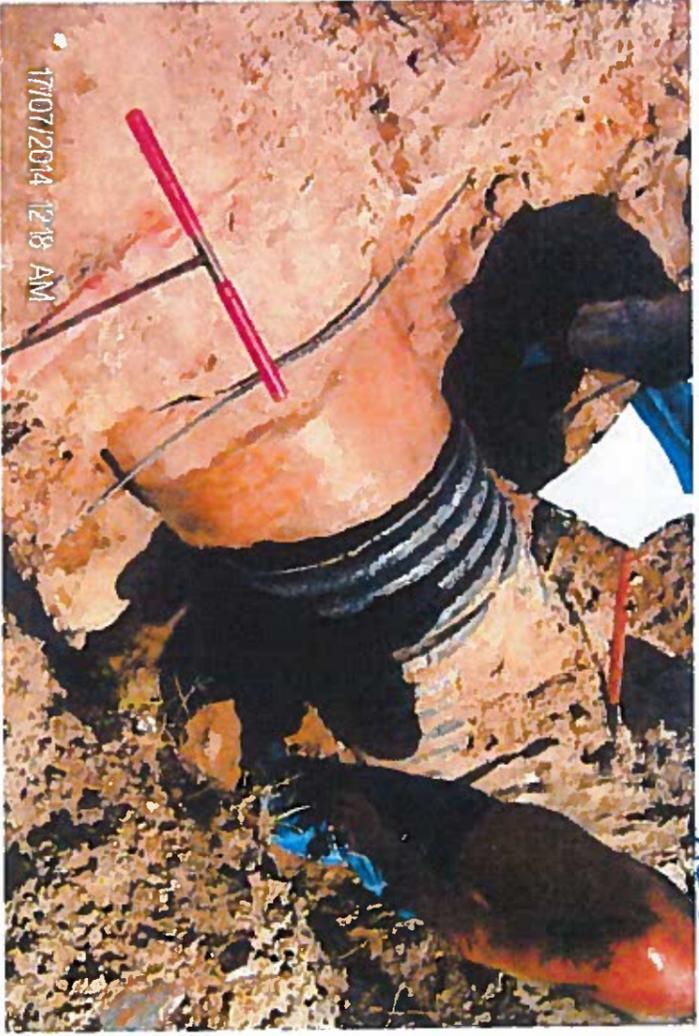
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Location #3 - 24" ADS to 24" RCP connection. Removing filter fabric.



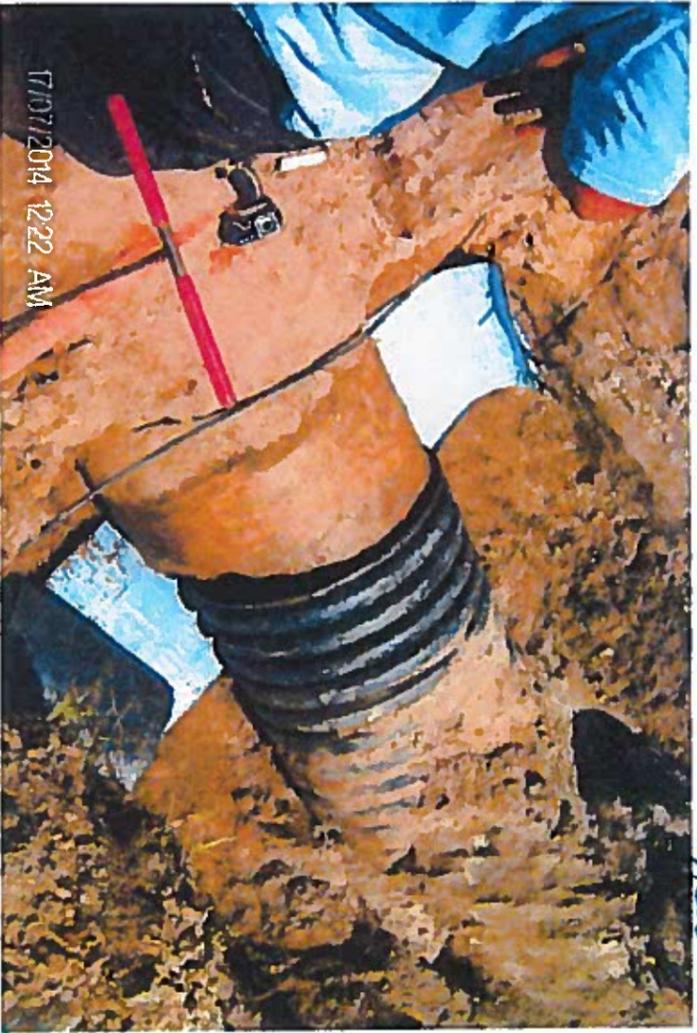
Location #3 - Approximately ten (10) sandbags removed from joint area. Appear to have been used to form concrete patch at the ADS to RCP connection.

(7)



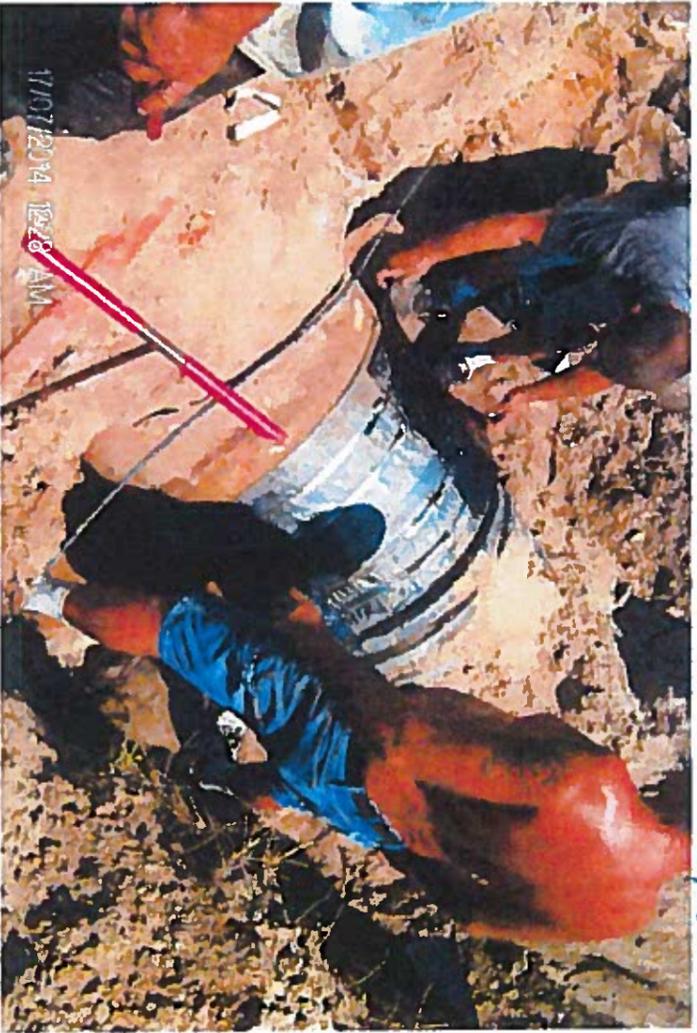
Location #3 - existing material removed and existing pipes exposed. The end of the RCP was broken.

5



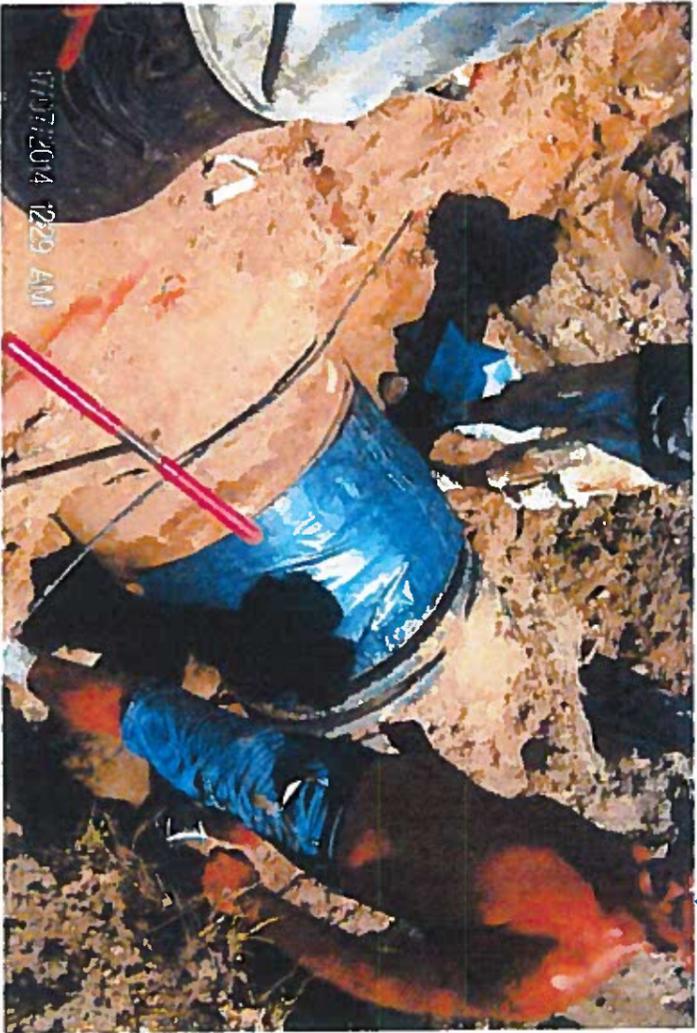
Location #3 - Begin installation of Mar Mac coupler. Plastic protector was left during initial install to protect adhesive side of the coupler.

②



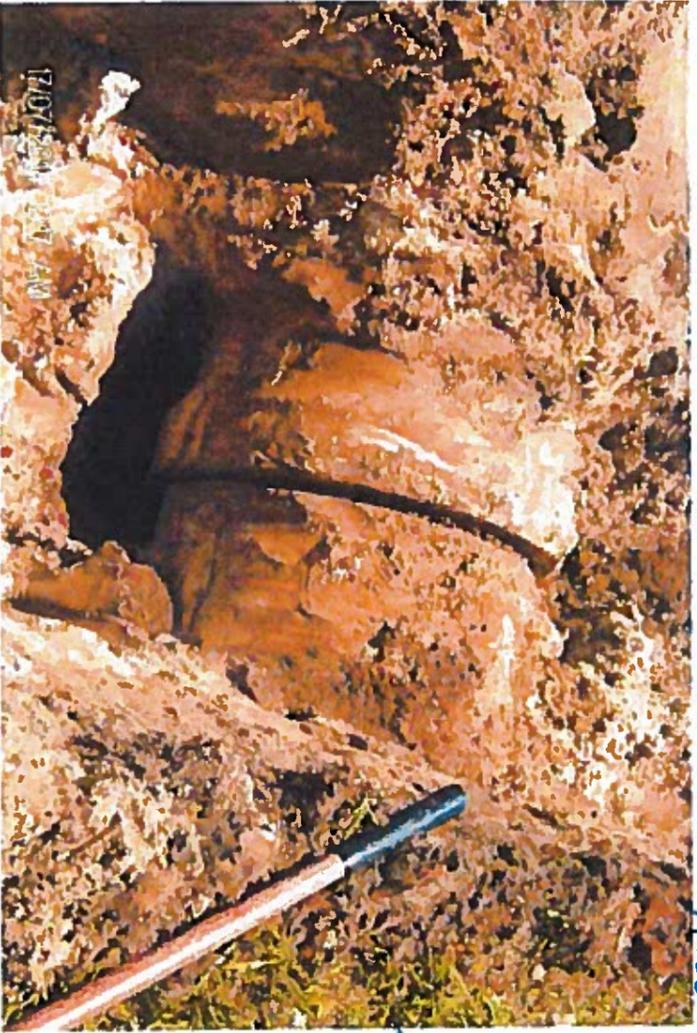
Location #3 - 24" ADS to RCP Mar Mac coupler installed with four (4) band clamps.

②



Location #3 - Mar Mac coupler installation complete.

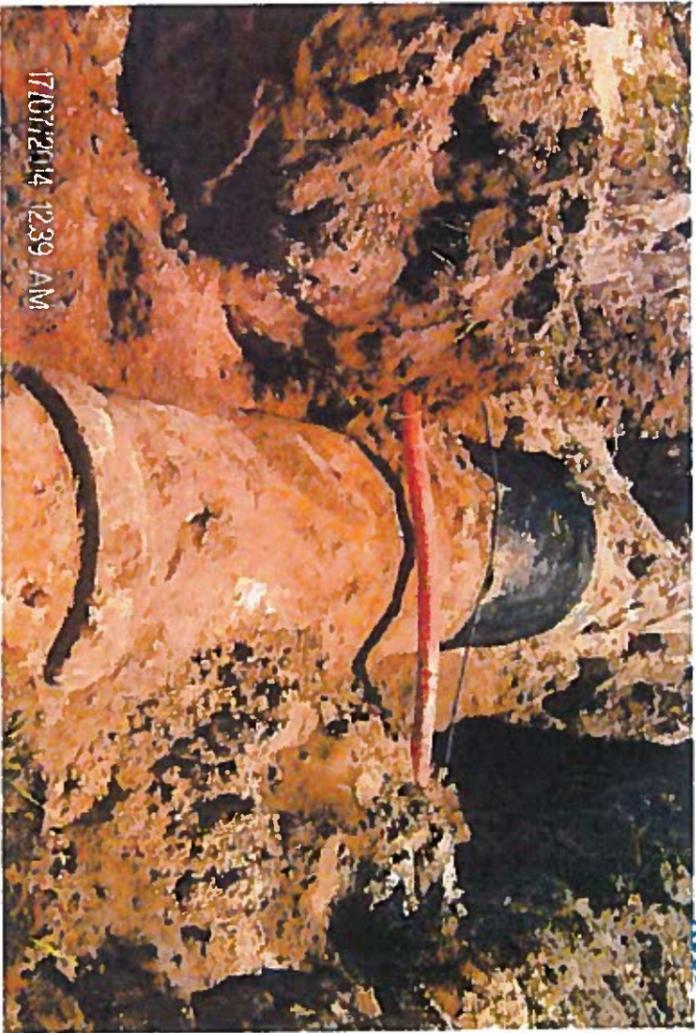
⑧



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→ AMERICUS AVE

Location #3 - Exposed the RCP joint closer to Americus Avenue to check for integrity.
No visible issues found.



Location #3 - Looking east from Americus Avenue showing repaired ADS to RCP connection and RCP joint that had no visual issues. Fiber optic line (orange conduit) and Mediacom cable (black cable) also shown.

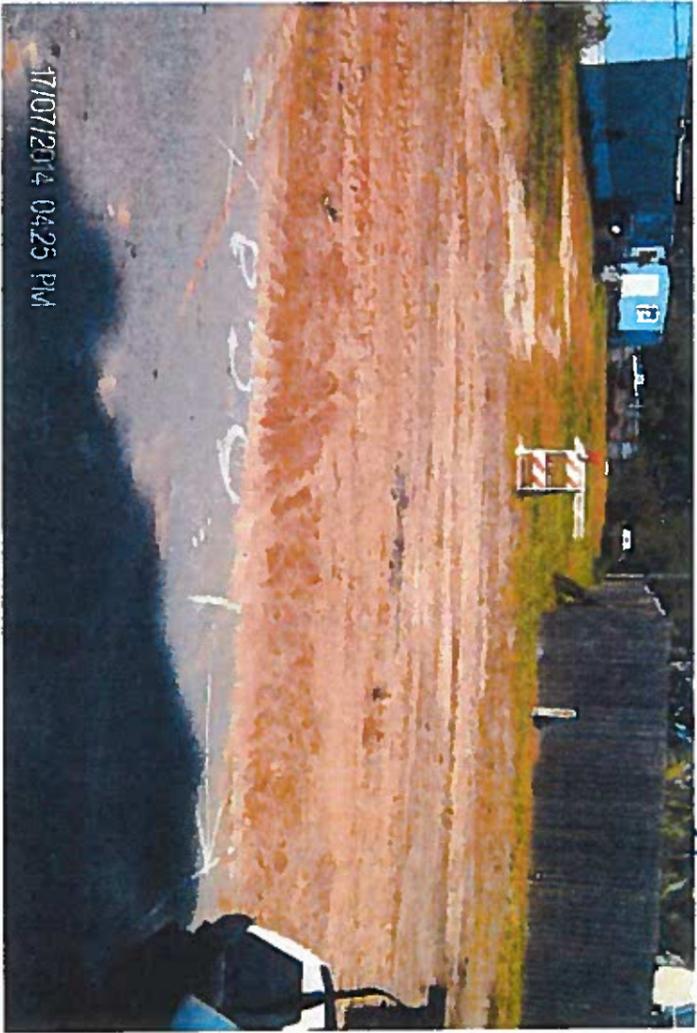
(10)



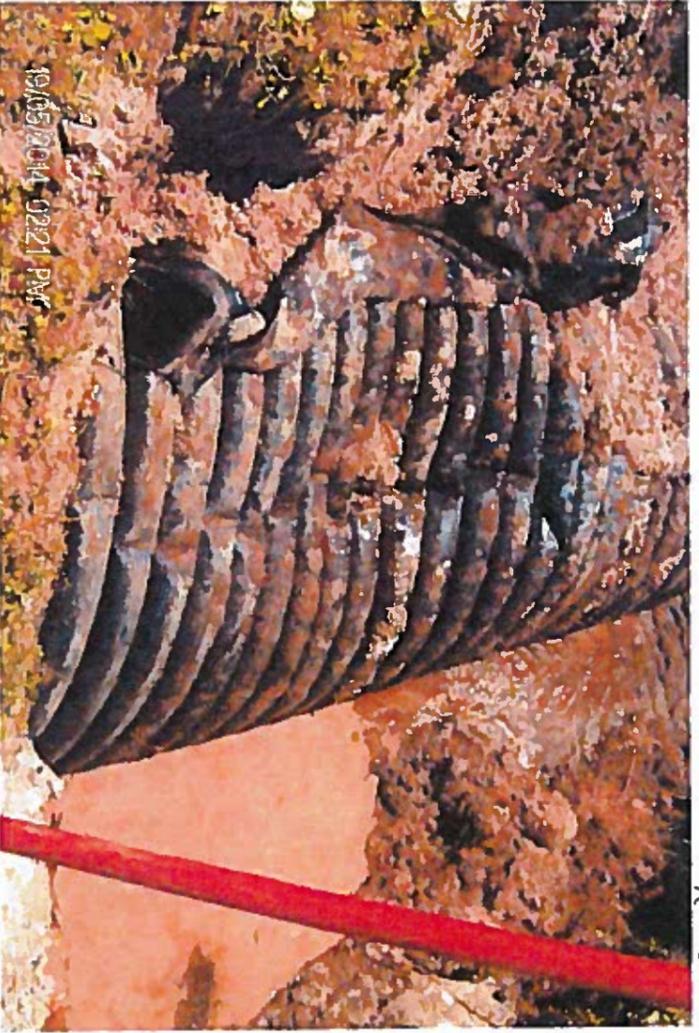
Kw

Location #3 - repair complete. Looking east from Americus Avenue.

①



Location #3 - Repair complete. Looking east from Americus Avenue.



Location #4 - Between Balboa & Magellan. Existing pipe damaged just before and near joint location.



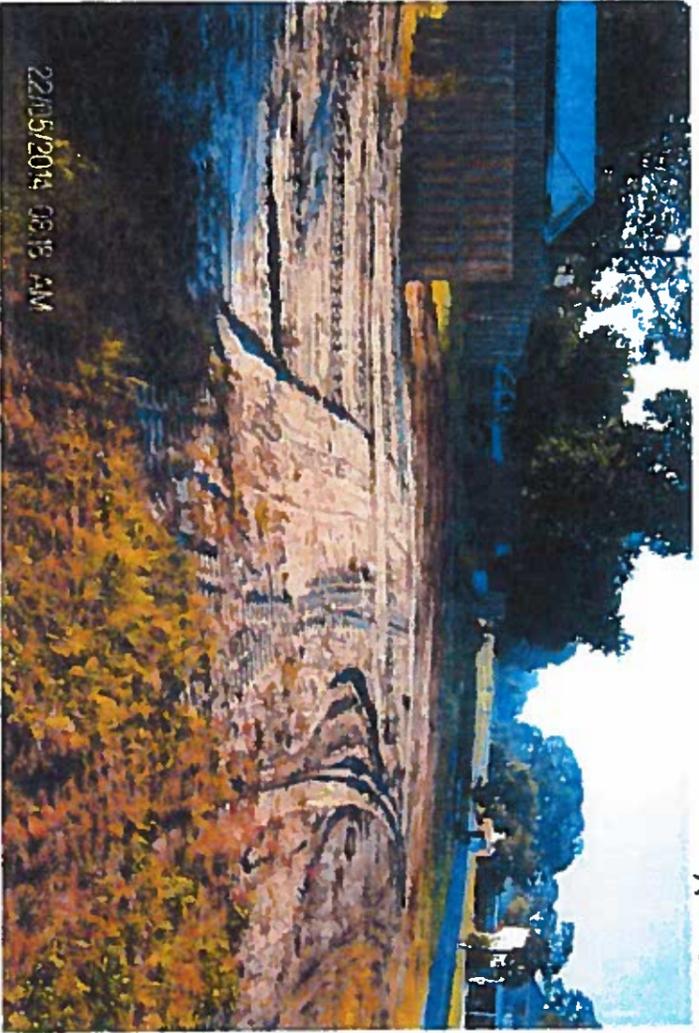
Location #4 - Between Balboa & Magellan. Joint leaking near the bottom of the pipe due to poor pipe connection. Repair will require dewatering.



Location #4 - Between Balboa & Magellan. 48" Mar Mac coupler installed around joint connection. Pipe wrapped in filter fabric. Four (4) 48" galvanized trailer anchors installed with 1.25" galvanized straps tightened down.

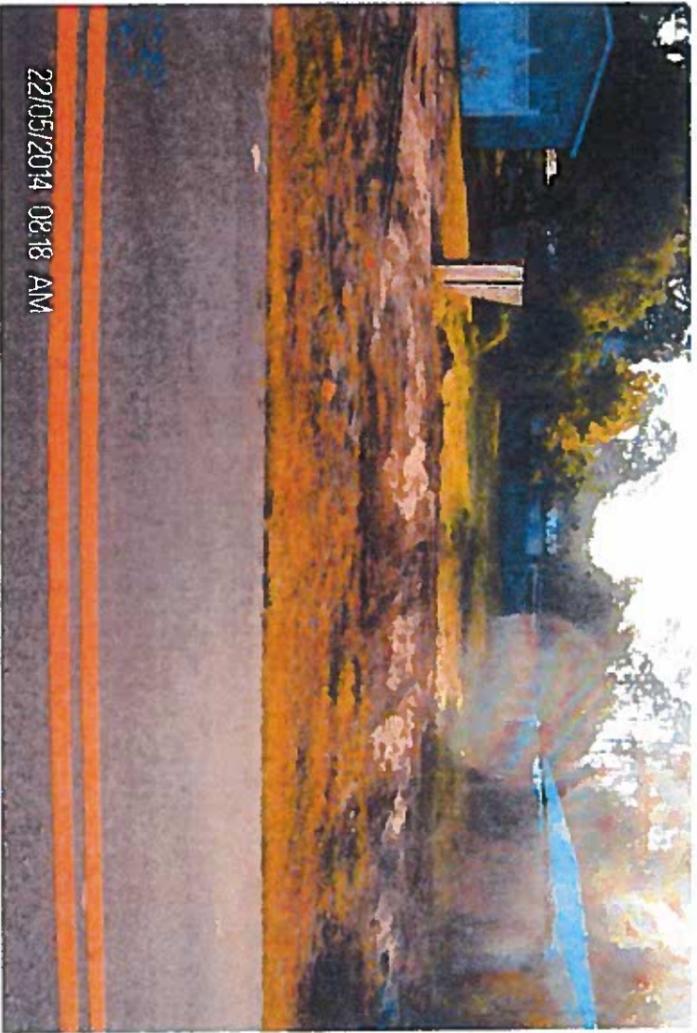


Location #4 - 48" Mar Mac coupler installed around joint connection. Pipe wrapped in filter fabric. Four (4) 48" galvanized trailer anchors installed with 1.25" galvanized straps tightened down.



K.W.

Location #4 & #5 - Repairs complete. Looking south.

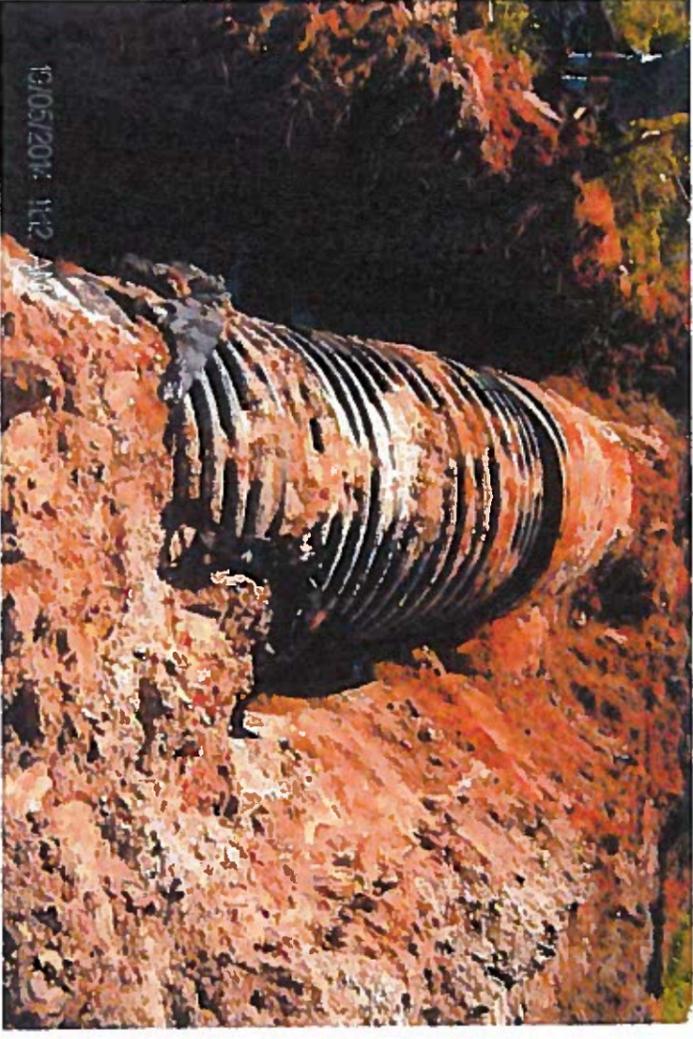


KLW

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Location #4 & #5 - Repairs complete. Looking east from Americus Avenue.

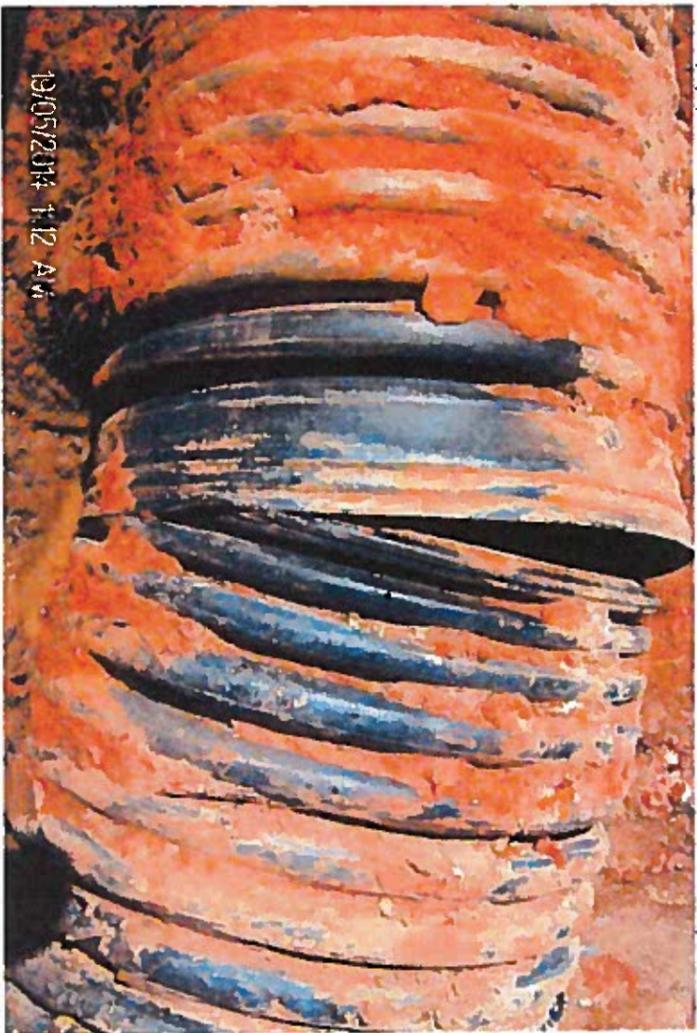
PHOTO #1



Kew

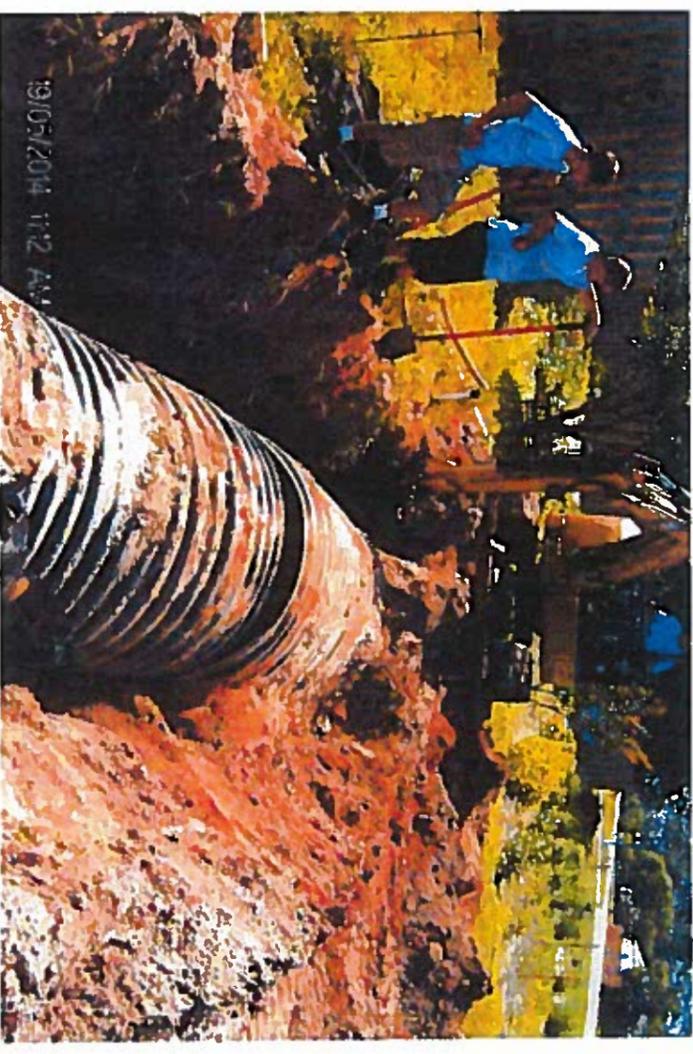
Location #5 - Approximately 20' south of Location #4 between Balboa & Magellan Street. Joint separated.

PHOTO #2



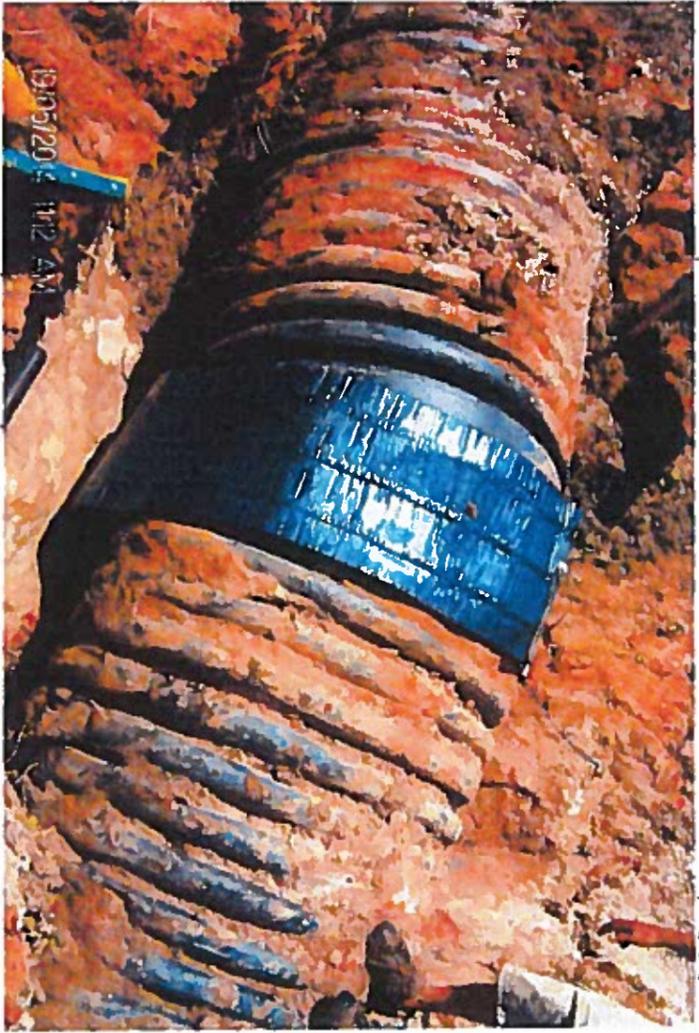
Location #5 - side view. Joint separated.

PHOTO #3



Location #5 - Beginning repairs

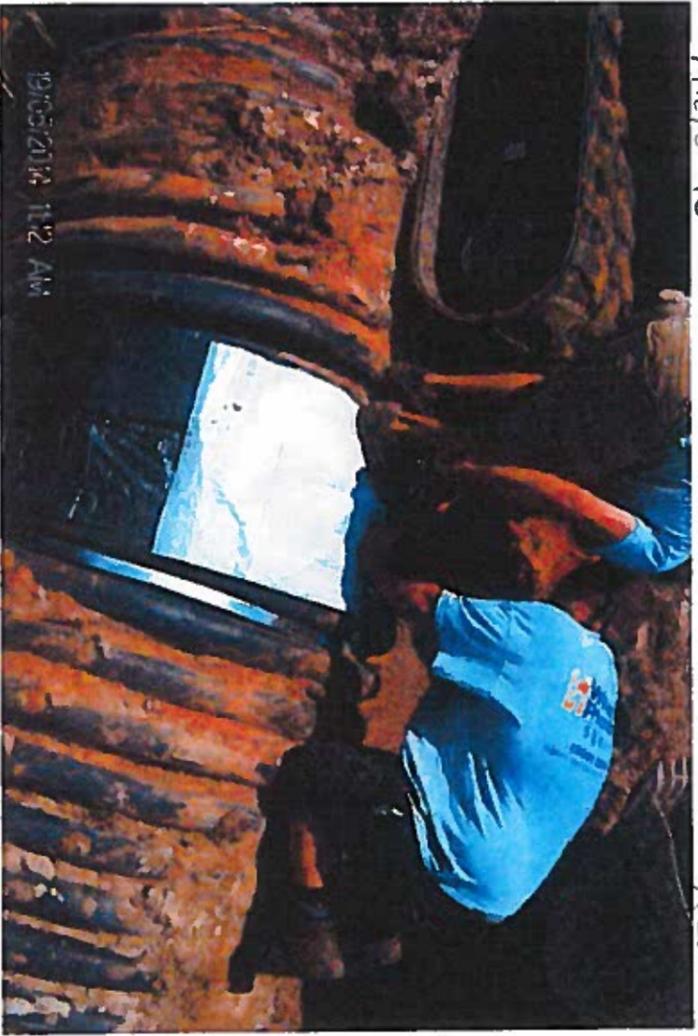
PHOTO # 4



Location #5 - Beginning installation of 48" Mar Mac adhesive coupler with 3 band clamps.

PHOTO #5

KRM

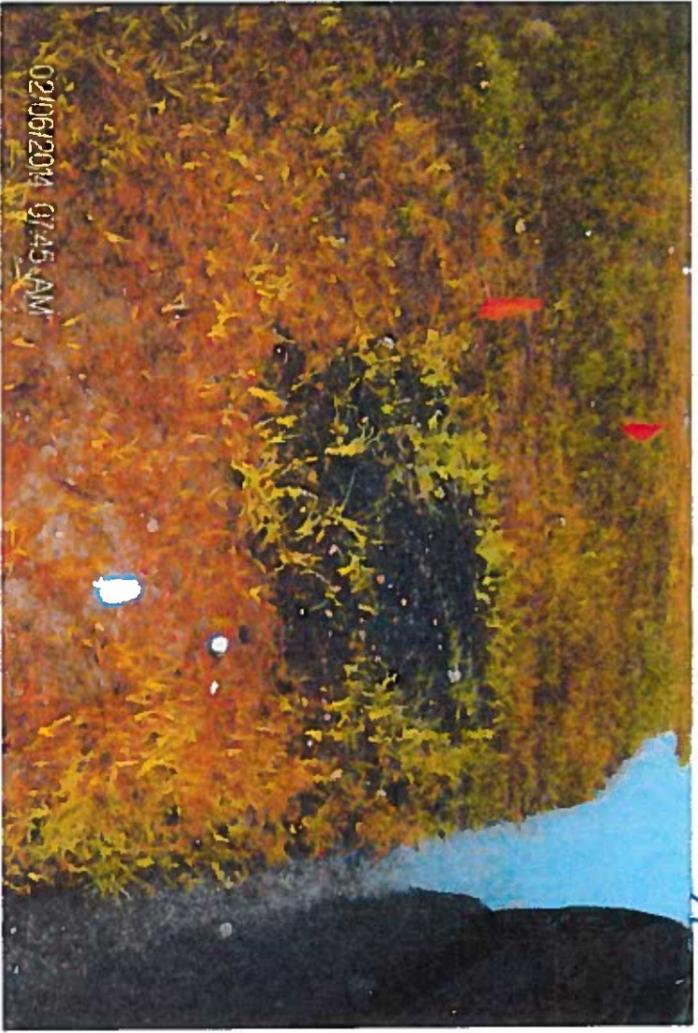


Location #5 - Mar Mac coupler installation.

PHOTO #6



Location #5 - Mar Mac coupler installed. Four (4) 48" galvanized trailer anchors installed with 1.25" galvanized straps tightened down.



Location #6 - 24" cross drain between Pineda and Santa Anna before excavation.



Kw

Location #6 - existing 24" RCP joint failure.

①



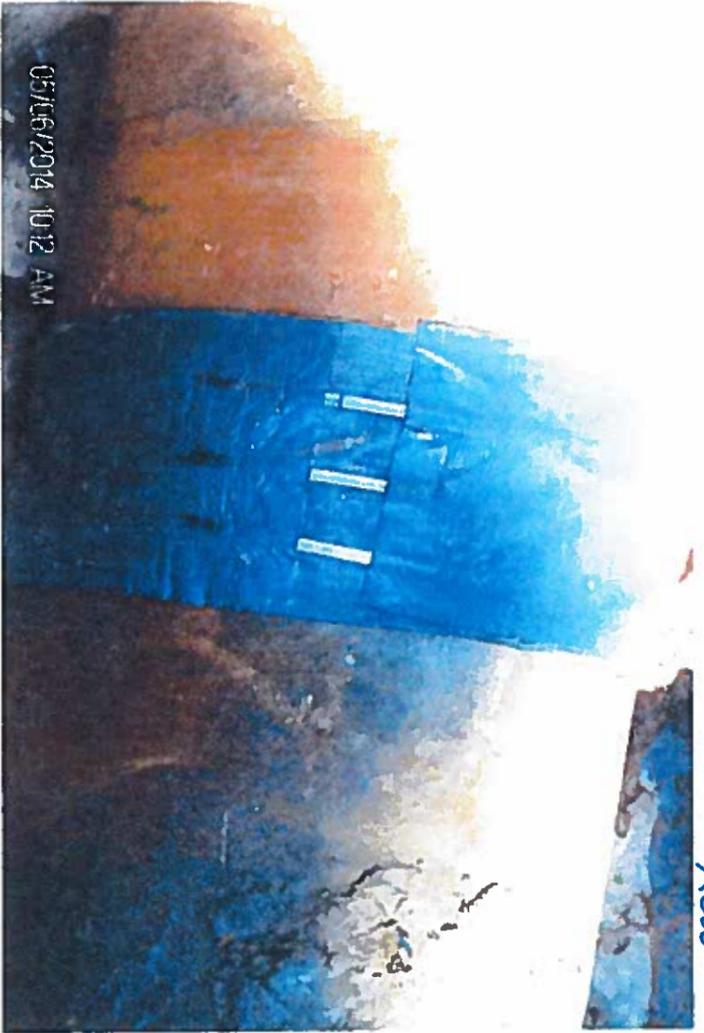
Location #6 - existing 24" RCP joint failure.

②



Location #6 - existing 24" RCP joint failure. Excavation complete and joint cleaned.

6



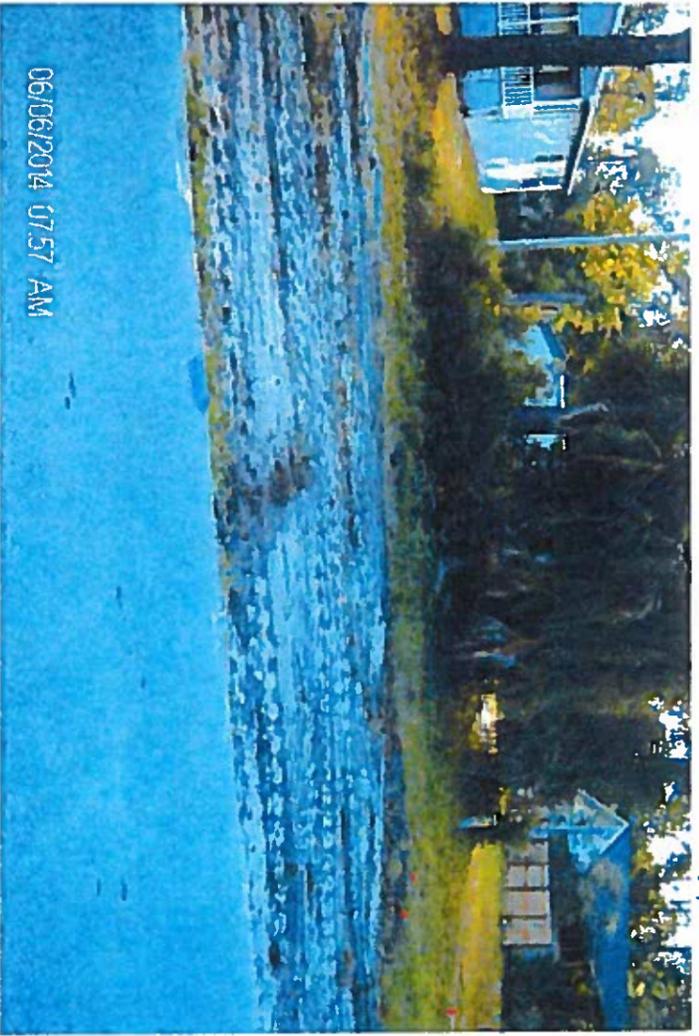
Location #6 - 24" Mar Mac coupler installed

(4)



Location #6 - Filter fabric installed over Mar Mac coupler.

③



Location #6 - Repair complete. Looking east from Americus Avenue.

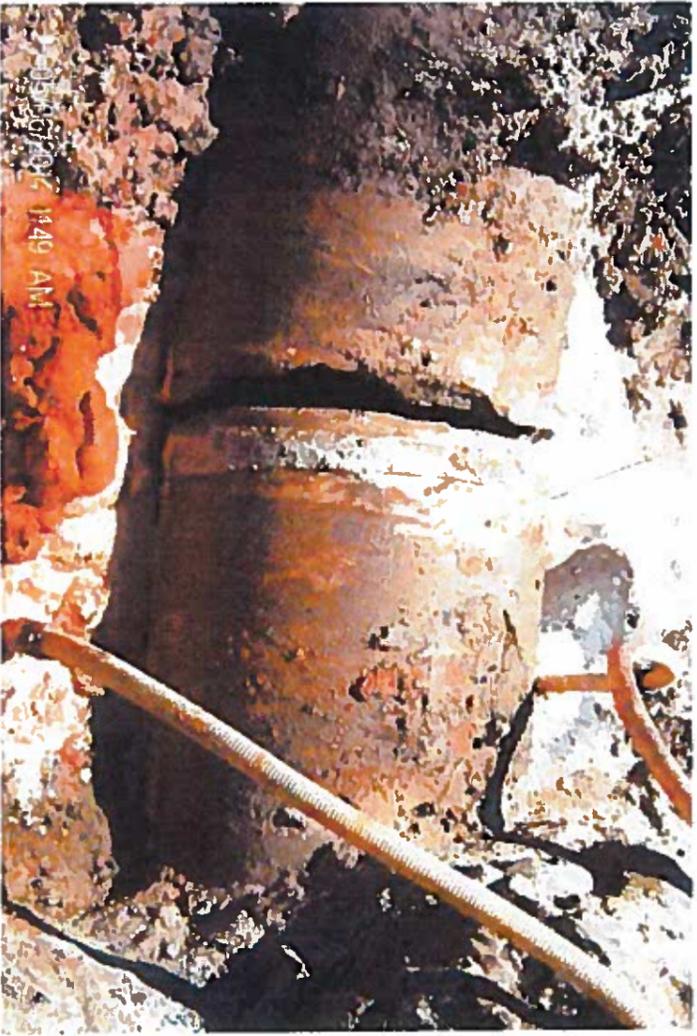


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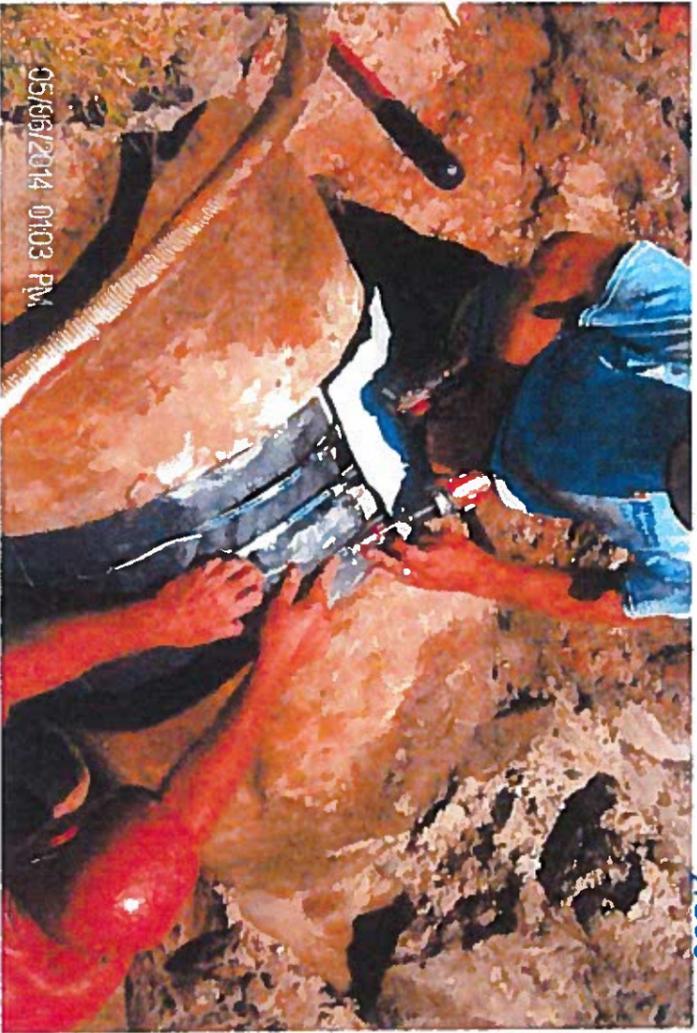
Location #7 - Cross drain between Santa Anna and Gulf Street. Prior to excavation.



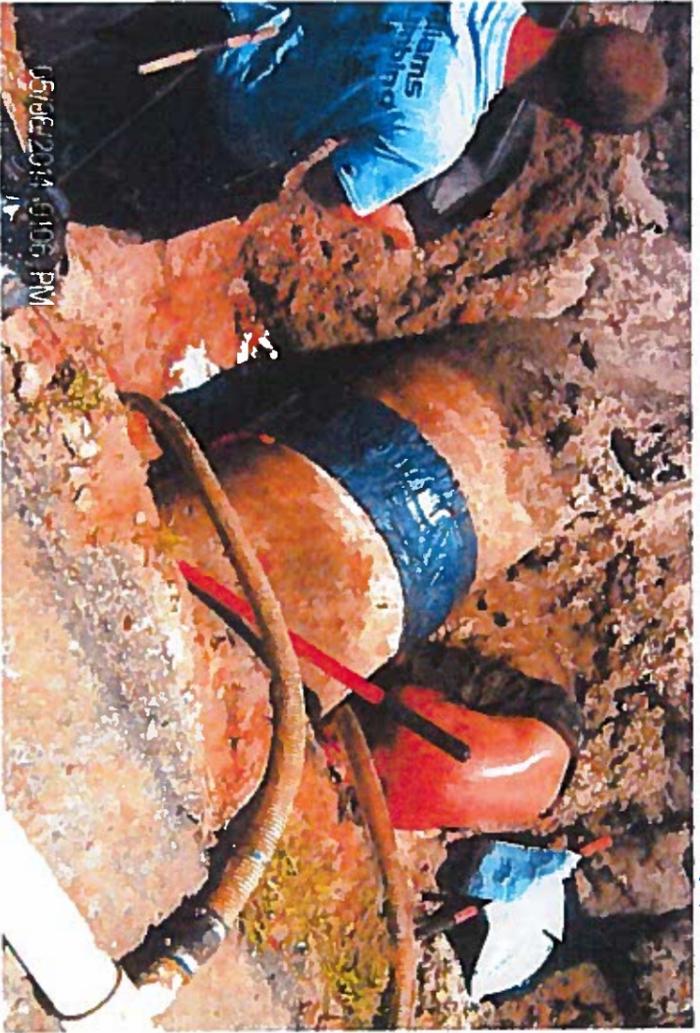
Location #7 - Existing 24" RCP joint failure.



Location #7 - Existing 24" RCP joint failure. Well points for dewatering also shown.



Location #7 - installing Mar Mac coupler at 24" RCP joint failure.



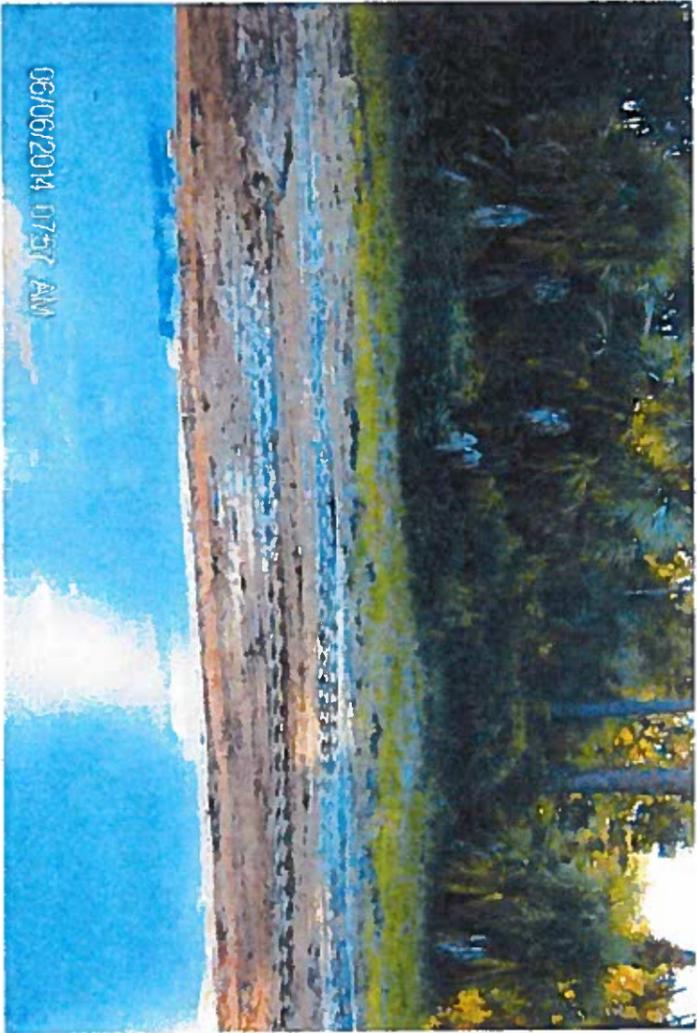
Kim

Location #7 - Mar Mac coupler installed.



Location #7 - Filter fabric installed over Mar Mac coupler

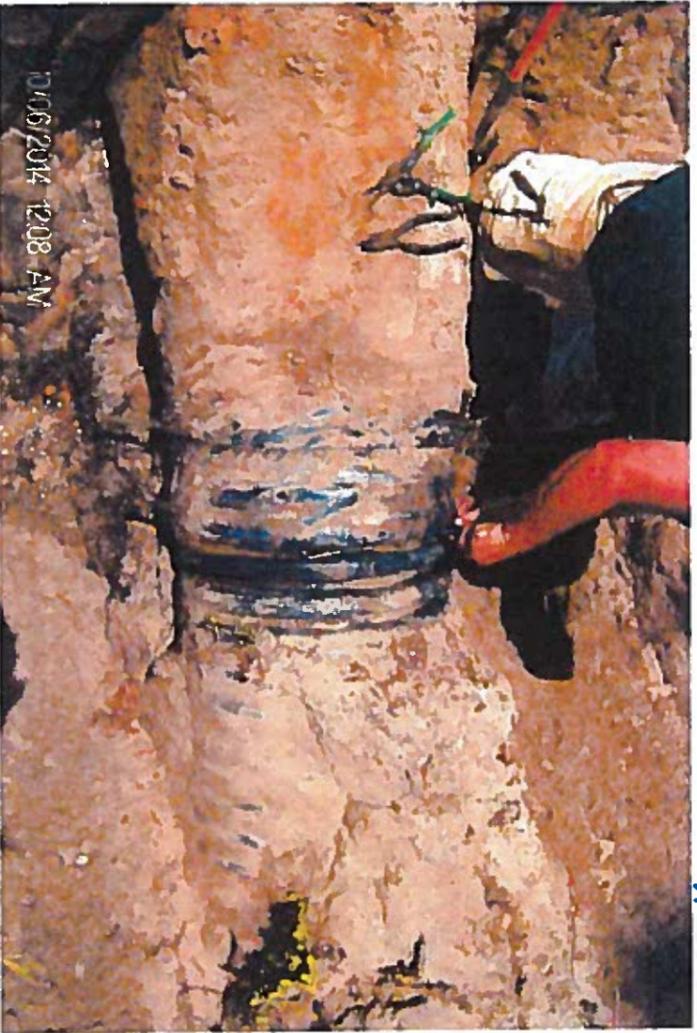
KW



Location #7 - Repair complete. Looking east from Americus Avenue.



Location #8 - Americus Avenue and Willow Street. Prior to excavation.



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Location #8 - Existing 18" ADS to 18" RCP connection. Removing existing fabric from joint.

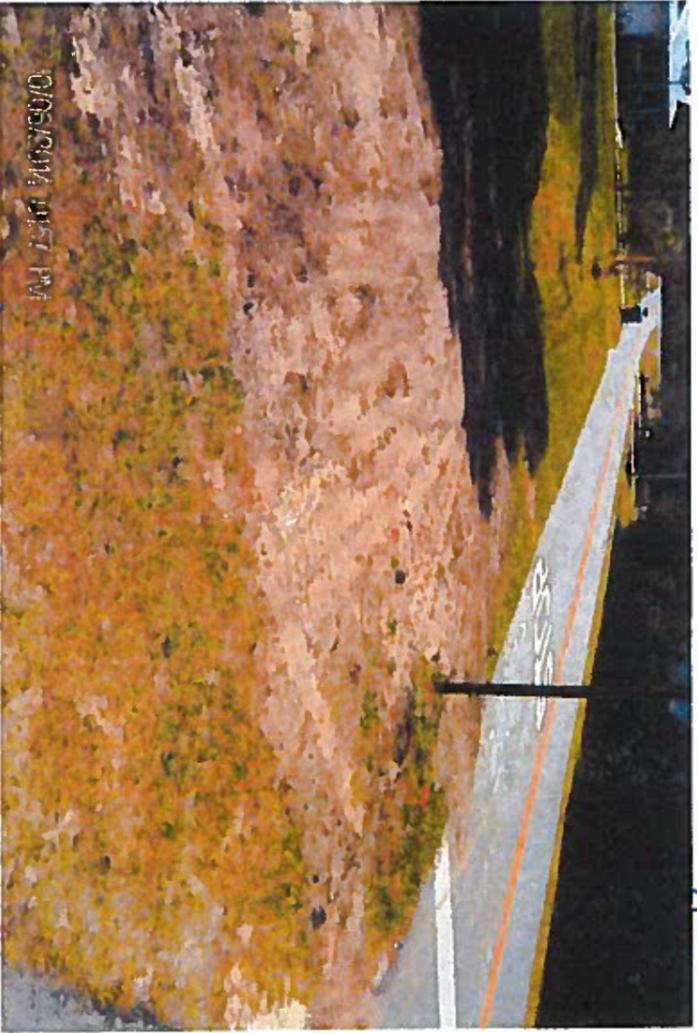


Kw

Location #8 - existing 18" ADS to 18" RCP joint exposed.



Location #8 - Filter fabric and Mar Mac coupler installed.



Location #8 - repair complete. Looking east from Americus Avenue. Willow Street is shown in top of picture.