



Atkins North America, Inc.
101 Arthur Andersen Parkway, Suite 260
Sarasota, Florida 34232

Telephone: +1.941.378.0272

Fax: +1.941.371.7297

www.atkinsglobal.com/northamerica

February 29, 2012

Ms. Lois Rose
Manager Solid Waste
4000 Knights Trail Road
Nokomis, FL 34275

**RE: PRMRWSA Regional Integrated Loop System – Phase 3A Interconnect and
Final Report – Central County Leachate Forcemain (LFM) – WACS 51614**

Dear Ms Rose:

As requested by FDEP (email dated March 01, 2011 from Melissa Madden), Atkins is submitting the final report for impacts to the leachate forcemain that occurred during the construction of the PRMRWSA Phase 3A Interconnect project.

During the installation of the Authority's 48 inch water main, the County's leachate forcemain (LFM) was damaged in several locations. With FDEP's and the County's acceptance additional steps were implemented to minimize potential damage to the LFM, and in the event of a scheduled or non scheduled breach detailed procedures were outlined to repair the LFM (Feb 4th, 2011 Letter Attached, approved with revisions by FDEP on March 1, 2011).

The LFM was removed and replaced in the following locations due to scheduled breaches of the line;

Sheet	LFM Breach Locations	Date	Comments
19	491+19 to 489+57	07/19/2010	Remove and Replace
27	407+72 to 408+09	04/08/2011	Remove and Replace

and repaired in the following locations due to non-scheduled breaches of the line:

Sheet	LFM Breach Locations	Date	Comments
15	525+00	03/16/2011	Directional Drill damage
18	499+00	07/12/2010	Slope sloughed off exposing FM
19	485+00	07/20/2010	Trench box damage
21	465+08 and 465+59	08/02/2010	Damaged during installation of well points
24	441+85	03/17/2011	Trench box damage



Each of the breached areas was repaired as outlined in established procedures using new 4 inch C900 PVC DR 25 and a restrained ductile iron repair sleeve(s) lined with Protecto401 coating. An additional stipulation of a pressure test after any breach repair was made was added to the procedures and conducted prior to reestablishing flow of leachate through the LFM. After all work adjacent to the LFM was completed, the contractor performed a final pressure test at 3 times the nominal working pressure of 10 psi to the affected areas of the LFM on 01/20/2012. All pressure tests passed with zero leakage, and drawings depicting the repair locations are attached.

Outside of the previously mentioned minor repairs, no design changes were made. To the best of my belief and knowledge, the repairs were made within industry standards for similar situations, and the system is functioning as it did prior to the repairs. This statement is based upon on-site observations made by me or by a project representative under my supervision while the repairs were being made and/or tested.

If you have questions, concerns or need additional information please let us know.

Sincerely,

A handwritten signature in blue ink that reads "Michael T. Jordan". The signature is fluid and cursive, with the first name "Michael" being more prominent than the last name "Jordan".

Michael T. Jordan, P.E.
Senior Project Manager

Attachments: Feb 4th, 2011 letter
Record Drawings

XC: Garney, PRMSRWSP, File



an Atkins company

February 4, 2011

Ms. Lois Rose
Manager Solid Waste
4000 Knights Trail Road
Nokomis, FL 34275

**RE: PRMRWSA Regional Integrated Loop System – Phase 3A Interconnect and
Sarasota Co Leachate Forcemain (LFM)**

Dear Ms Rose:

Pipe laying operations adjacent to the existing 4 inch LFM were stopped at Station (\pm) 466+29. There remains a little over 6700 LF of watermain to install in close proximity to the LFM before the watermain crosses Knights Trail Road at Station 398+60. Based on the contractor's current schedule they would like to mobilize back to Knight's Trail Road and resume production work the week of February 28th. As a follow up to our FDEP comment/response letter (dated Aug 6th, 2010 / Attached), we are transmitting to you the revised procedures the contractor will incorporate to their construction methods.

In general the approach to installing the remainder of the watermain is based on the County being able to store up to 600,000 gallons of leachate in the existing leachate ground storage tank (GST), and the contractor installing the watermain when the County's leachate force main (LFM) is shut down. A more detailed outline of the approach is:

- The contractor will install a flush station on the LFM. The flush station will be located in an easily accessible area just north of where pipe laying operations were terminated. The flush station will be installed by cutting in a 4" DI P401 lined tee with a valve on the upstream side.
- The County's GST will hold over 600,000 gallons of leachate. Prior to beginning work, the contractor will request that the County pump down the GST and shut down the LFM.
- After confirming with the County the GST is pumped down and the LFM is shut down, the contractor will close the valve at the flush station and flush the LFM using non potable water. The flush water will be pumped to the same lift station as the leachate.
- Once flushed the LFM will be isolated using the flush station valve and other existing in line valves. The LFM will then be slightly pressurized.
- Pipe laying operations will resume and the contractor will coordinate with the County regarding daily leachate inflows. When prompted by the County, the contractor will stop pipe laying operations and open closed valves allowing the County to pump down the GST.
- This operation will be repeated until the water main is installed (approx 20 to 25 working days).
- After the contractor has completed pipe laying operations adjacent to the LFM, the LFM will be pressure tested from stations \pm 399+000 to \pm 466+00.

- In the event the LFM is damaged during pipe laying operations, the procedures outlined in Appendix A will be implemented to re-establish the LFM.

Other features the contractor will use to minimize damage to the LFM are as follows:

Station 466+29 to 456+00

The watermain alignment is between the guardrail (edge of pavement) and the existing LFM in this section. The excavation depth, pipe lengths and size and trench box make it necessary to use rather large equipment which in turn puts the contractor's equipment within a few feet of the LFM. Due to the relatively short distance, modifying the contractor's current pipe laying operations with added emphasis on locating and protecting the existing LFM will be utilized. The additional features are:

- The contractor will "pot hole" or dig down to the LFM to confirm State required utility locates a minimum of every 100 LF.
- Backfilling operations will be held tight to the trench box to minimize open trench area reducing the chance for excavation sides to slough off and move the LFM.
- Where necessary the LFM will be supported or shored adjacent to the trench box.

Station 456+00 to 415+00

The guardrail stops in this section and where favorable conditions exist the contractor will be able to field adjust the pipe alignment to the east providing a greater clear distance from the LFM. Other than required locates and field adjusting the pipe alignment no special procedures are anticipated in this area.

Station 415+00 398+60

There are two LFM crossings in this area. One crossing will place the watermain on the east side of the LFM and the other crossing will place the watermain on the west side of the LFM. The LFM crossings will require a scheduled removal and replacement as outlined in Appendix A.

After the first LFM crossing (Station 415+00) the contractor will be able to field adjust the pipe alignment to the west providing a greater clear distance from the LFM. After the second LFM crossing (Station 406+00) the contractor will be able to field adjust the pipe alignment to the east providing a greater clear distance from the LFM. Other than required locates and field adjusting the pipe alignment no special procedures are anticipated in either of these areas.

Sarasota Co Leachate LFM
February 4, 2011
Page 3 of 3

We trust the explanation of the procedure is adequate for your needs; however, if you have questions or concerns please let us know.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. T. Jordan", is written over a horizontal line.

Michael T. Jordan, P.E.
Sr. Project Manager

Cc: Garney, PRMSRWSP, File

APPENDIX A

Peace River/Manasota Regional Water Supply Authority Phase 3A Interconnect Project Procedure for Leachate Force Main Removal, Replacement and Repair

The design for the Authority's Transmission main has the transmission main running parallel to or crossing under Sarasota County's leachate force main (FM) along Knight's Trail road for approximately 2.3 miles (begins ~300 feet north of Rustic Road and ends ~2.3 miles north of this location / Station 398+00 to 520+00).

The intent of the following procedures is to establish the protocol in the case of two events which are a scheduled removal and replacement of the FM and an unforeseen or unscheduled break in the FM.

The scheduled removal and replacement of the FM will be isolated to the three locations where the transmission main crosses under the FM (Stations: 406+00, 415+00 and 490+00), and the unscheduled procedure shall be used when the FM is damaged or breached unintentionally.

PROCEDURE FOR SCHEDULED REMOVAL AND REPLACEMENT

1. The FM down time will not exceed 24 hours without a prior meeting with Solid Waste representatives.
2. The Contractor will provide notice to the following Sarasota County representatives a minimum of 24 hours prior to cutting the leachate FM:

Solid Waste	Ed Russ	941.650.9364
Solid Waste	Lois Rose	941.650.0722
Env Services	Carl Sellitti	941.915.4534
Env Services	Mike Mehan	941.650.3803

3. The Contractor will proceed once proper notification has been provided and the scheduled down time coordinated with Sarasota Co representatives.
4. Coordinate and have on-site vacuum truck(s).
5. Expose FM in location to be cut and removed.
6. Place container under controlled cut locations.
7. Score pipe and drain leachate into container to relieve pressure.
8. Vacuum leachate from containers into vacuum truck and remove to landfill disposal location.
9. Once pressure is relieved in FM remove pipe and install plugs in remaining pipe to contain leakage.
10. Lay transmission main pipe, backfill and compact to FM grade.
11. Replace removed FM section with new 4 inch C900 PVC DR 25 using restrained ductile iron repair sleeve(s) lined with Protecto401 coating.

12. Replace tracer wire and magnetic locating tape where necessary.
13. Notify Sarasota Co representatives repairs are made and request FM be placed in service.
14. Ensure pipe is functioning properly then backfill to appropriate grade.
15. Contractor will provide photos of FM before, during and after the construction process.

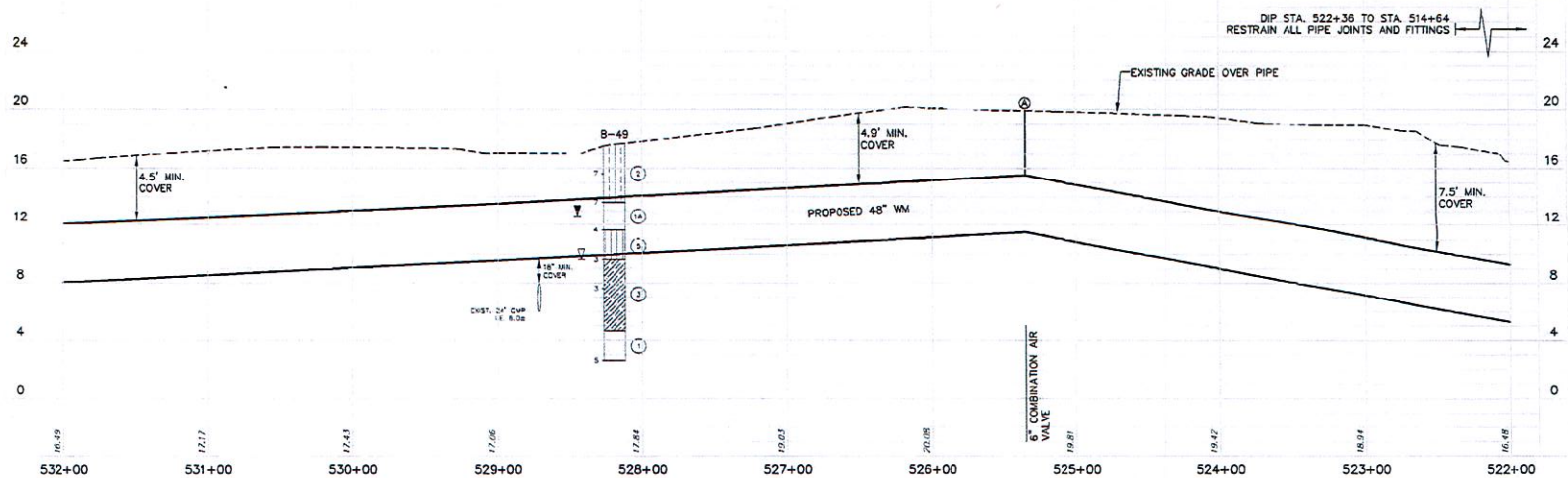
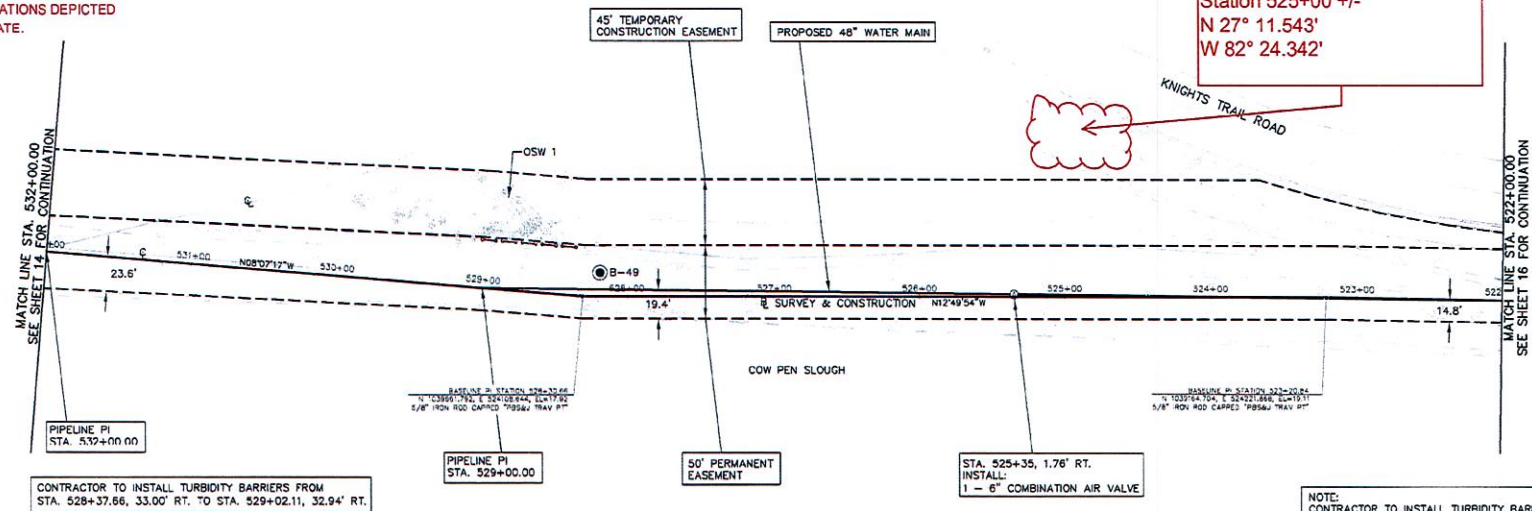
PROCEDURE FOR UNSCHEDULED FM BREAK

1. Immediately notify Solid Waste representatives of line break and request that pumps, if on, are shut down and FM is valved off at the closest valve to the break.
2. Notify other Sarasota Co representatives of break.
3. Mobilize vacuum truck to site.
4. Operators are to contain leak with earthened berms lined with poly sheeting such as Visqueen.
5. Assess situation and repair FM per line items 8 through 15 in the procedure noted above:
PROCEDURE FOR SCHEDULED REMOVAL AND REPLACEMENT.
6. Estimate quantity (volume) of leachate spilled.
7. Soil saturated with leachate is to be removed and brought to the landfill for proper disposal.

RECORD DRAWING
INCORPORATING CHANGES MADE TO THE EXISTING
LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD
COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED
SHOULD BE CONSIDERED APPROXIMATE.

Michael J. Volden, P.E. Date
P. 1556

Leachate Forcemain Repair
3/28/2011
Station 525+00 +/-
N 27° 11.543'
W 82° 24.342'



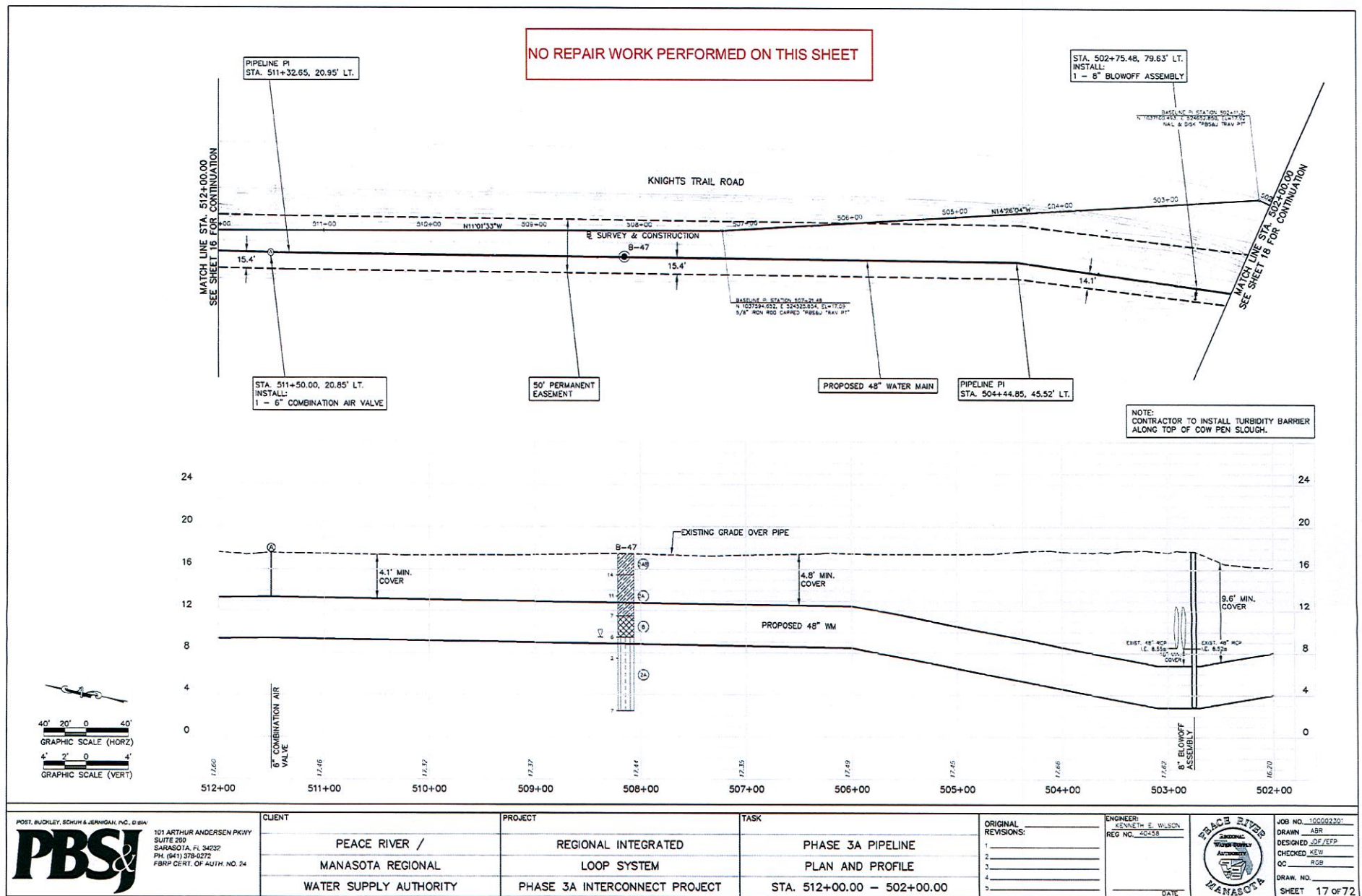
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101 ARTHUR ANDERSEN PKWY
SUITE 200
SAFASOTA, FL 34237
PH. (841) 378-0272
PBHP CRT. OF AUTH NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 532+00.00 - 522+00.00	1. 2. 3. 4. 5.	KENNETH E. WILSON REG. NO. 46458		100002301
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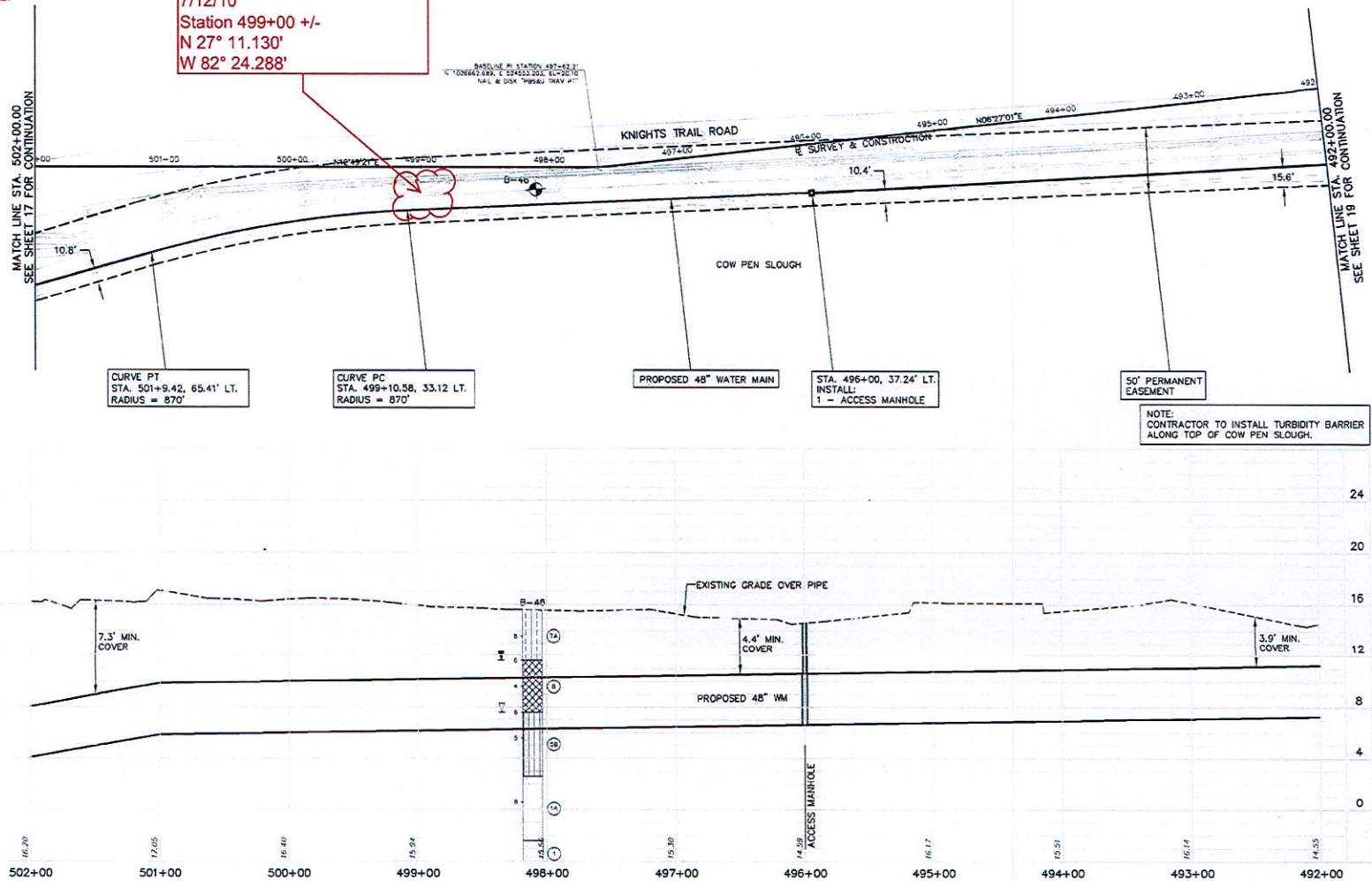




RECORD DRAWING
INCORPORATING CHANGES MADE TO THE EXISTING
LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD
COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED
SHOULD BE CONSIDERED APPROXIMATE.

Michael J. Smith, P.E. Date
PEP50712

Leachate Forcemain Repair
7/12/10
Station 499+00 +/-
N 27° 11.130'
W 82° 24.288'



40' 20' 0 40'
GRAPHIC SCALE (HORIZ)
4' 2' 0 4'
GRAPHIC SCALE (VERT)

PBS&
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101 ARTHUR ANDERSON PKWY
SUITE 200
SARASOTA, FL 34237
PH (941) 378-0272
FBRP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DESIGNED	CHECKED	DRAWN	SHEET
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 502+00.00 - 492+00.00	1 2 3 4 5	KENNETH E. WILSON, REG. NO. 40158	ABR	DEP	ROB	18 OF 72



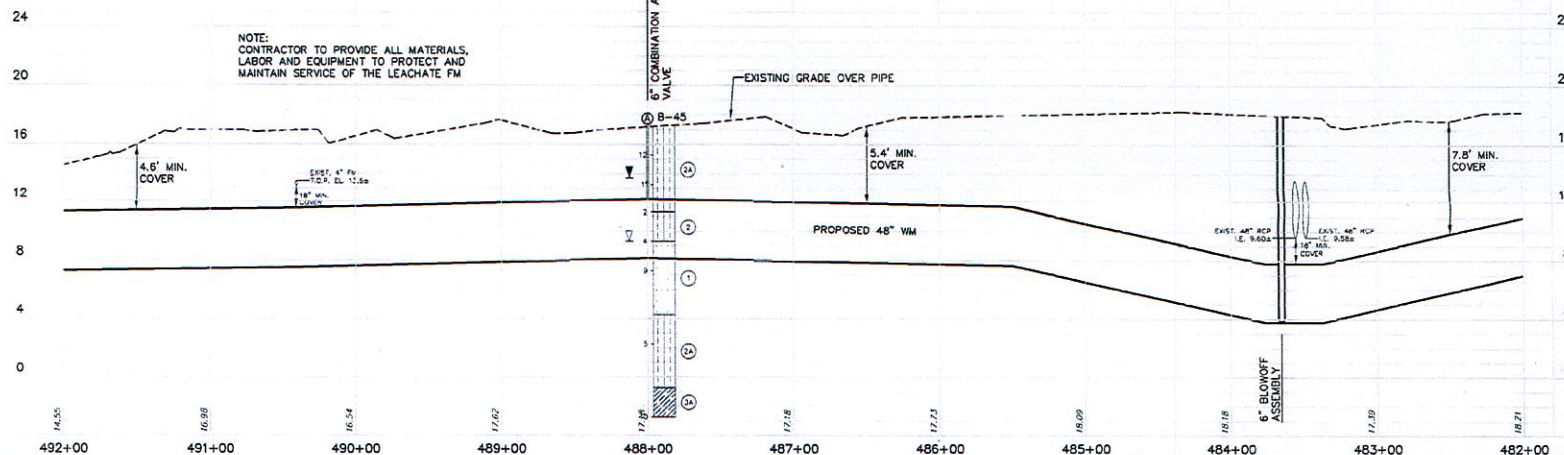
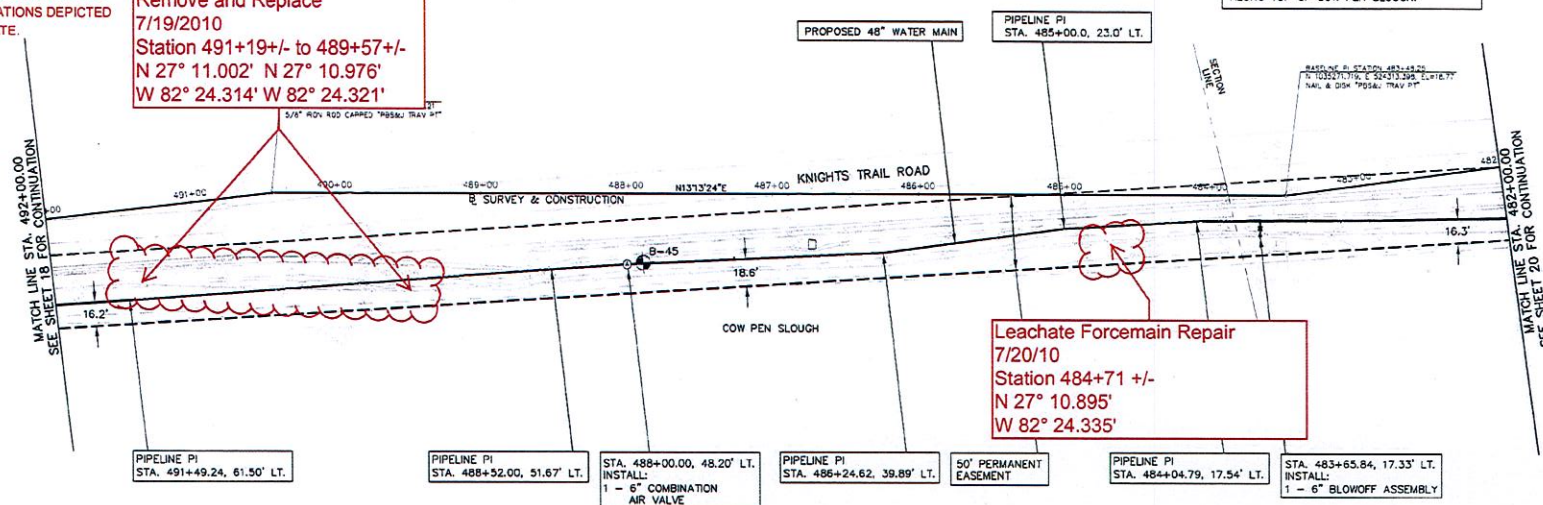
RECORD DRAWING

INCORPORATING CHANGES MADE TO THE EXISTING LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED SHOULD BE CONSIDERED APPROXIMATE.

Morgan Jordan, P.E. Date
P. 05/20/12

Leachate Forcemain
Remove and Replace
7/19/2010
Station 491+19+/- to 489+57+/-
N 27° 11.002' N 27° 10.976'
W 82° 24.314' W 82° 24.321'

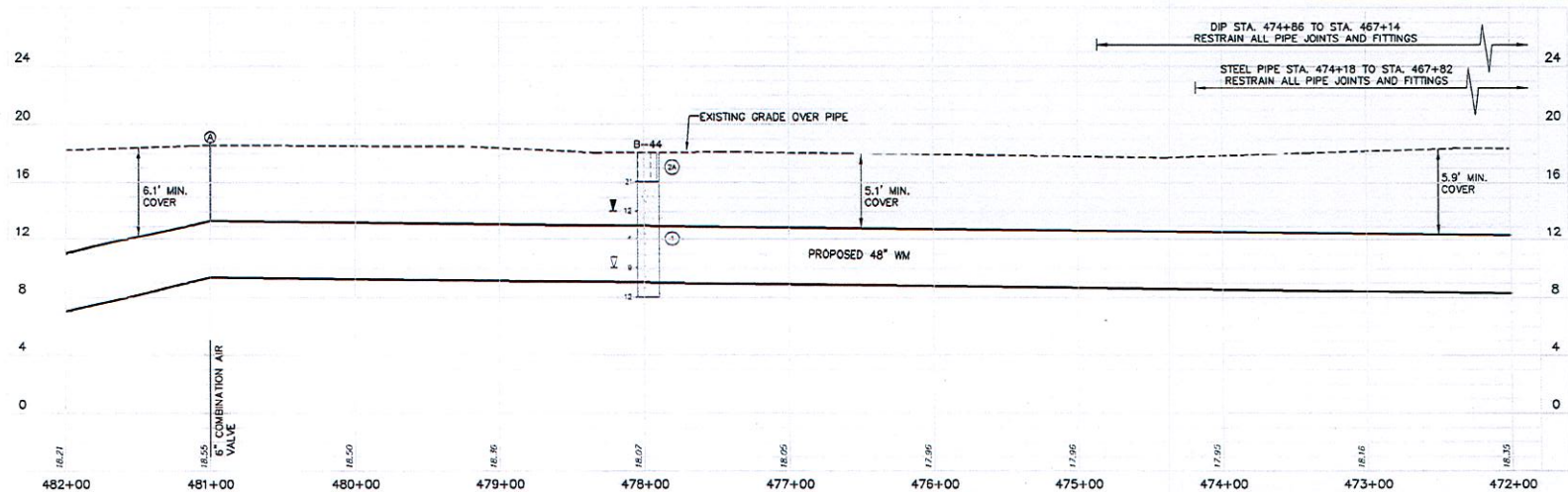
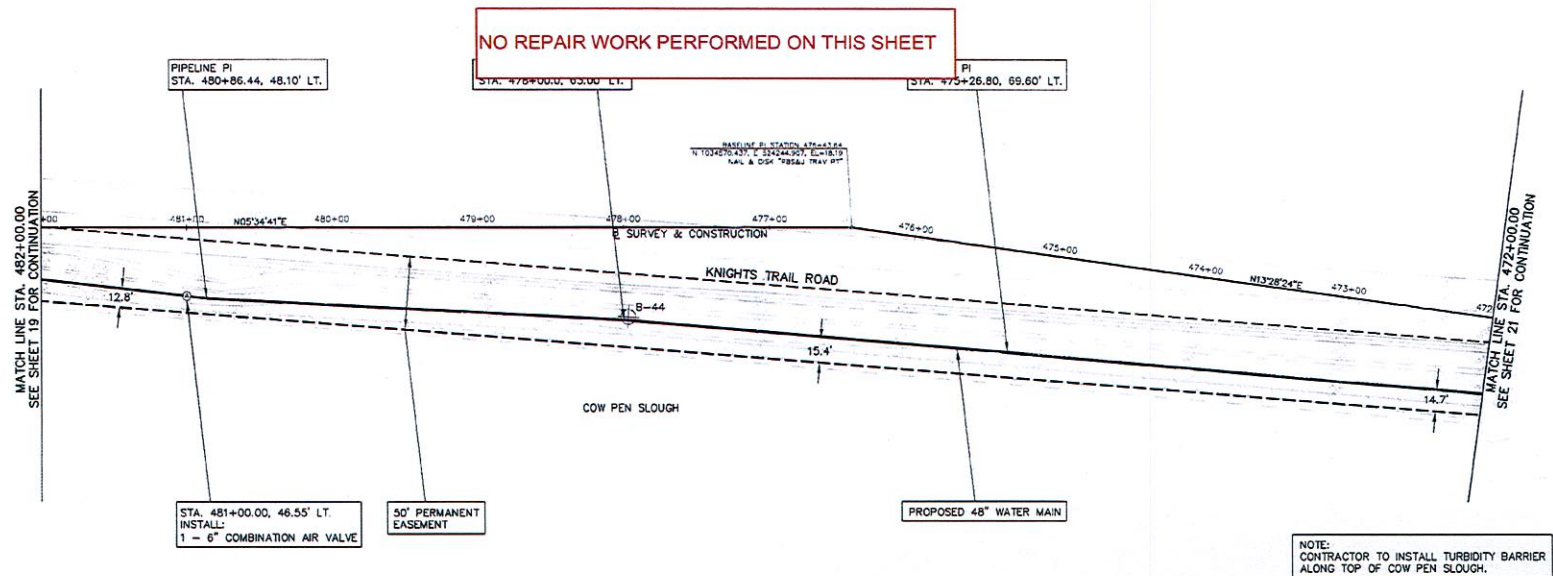
NOTE:
CONTRACTOR TO INSTALL TURBIDITY BARRIER
ALONG TOP OF COW PEN SLOUGH.



101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34237
PH. (941) 378-0272
FBRP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 492+00.00 - 482+00.00	1. 2. 3. 4. 5.	KENNETH E. WILSON REG. NO. 46458		100002200
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SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
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CLIENT

PEACE RIVER /
MANASOTA REGIONAL
WATER SUPPLY AUTHORITY

PROJECT

REGIONAL INTEGRATED
LOOP SYSTEM
PHASE 3A INTERCONNECT PROJECT

TASK

PHASE 3A PIPELINE
PLAN AND PROFILE
STA. 482+00.00 - 472+00.00

ORIGINAL
REVISIONS:

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ENGINEER
KENNETH E. WILSON

REG. NO. 42258

DATE



JOB NO. 100002301

DRAWN ABR

DESIGNED JDF/EFP

CHECKED KEW

QC ROB

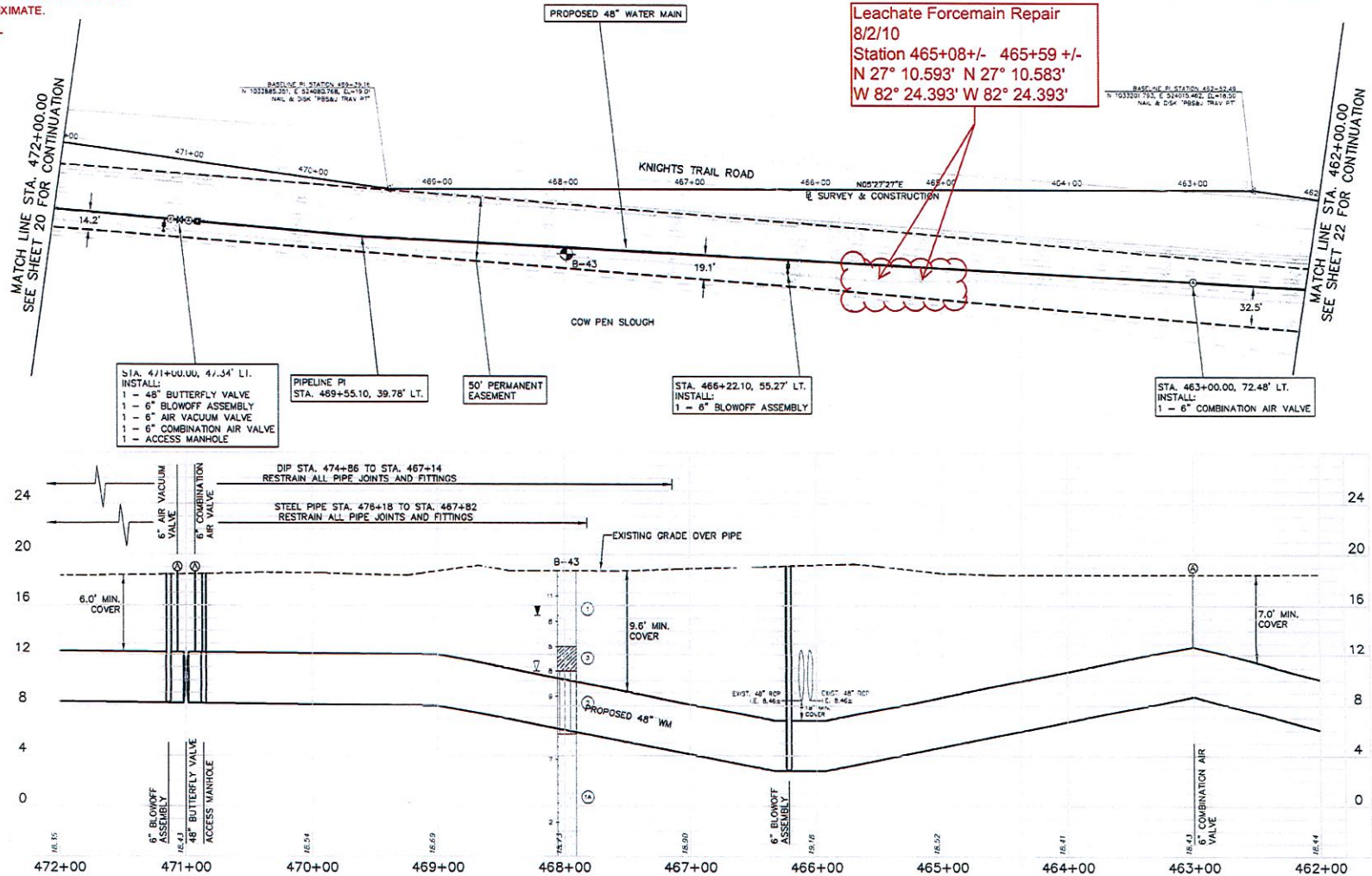
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SHEET 20 OF 72

RECORD DRAWING
INCORPORATING CHANGES MADE TO THE EXISTING
LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD
COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED
SHOULD BE CONSIDERED APPROXIMATE.

Michael J. Wilson, P.E. Date
PE#55120

NOTE:
CONTRACTOR TO INSTALL TURBIDITY BARRIER
ALONG TOP OF COW PEN SLOUGH.



101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34239
PH. (941) 376-0272
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CLIENT

PEACE RIVER /
MANASOTA REGIONAL
WATER SUPPLY AUTHORITY

PROJECT

REGIONAL INTEGRATED
LOOP SYSTEM
PHASE 3A INTERCONNECT PROJECT

TASK

PHASE 3A PIPELINE
PLAN AND PROFILE
STA. 472+00.00 - 462+00.00

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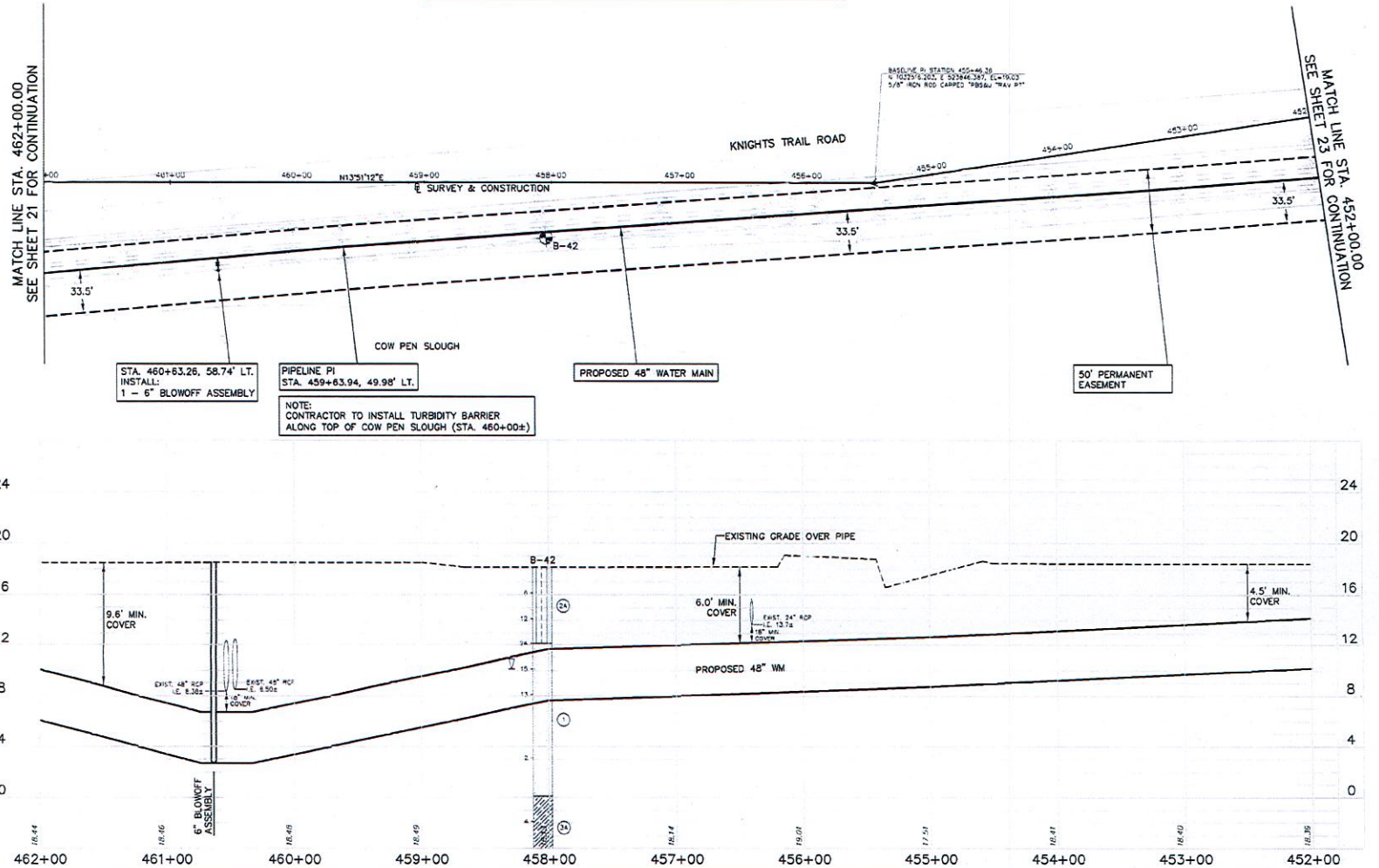
ENGINEER
KENNETH E. WILSON
REG. NO. 40438

DATE



JOB NO. 100002301
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DESIGNED JDF/EPF
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QC RGB
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SHEET 21 OF 72

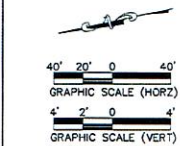
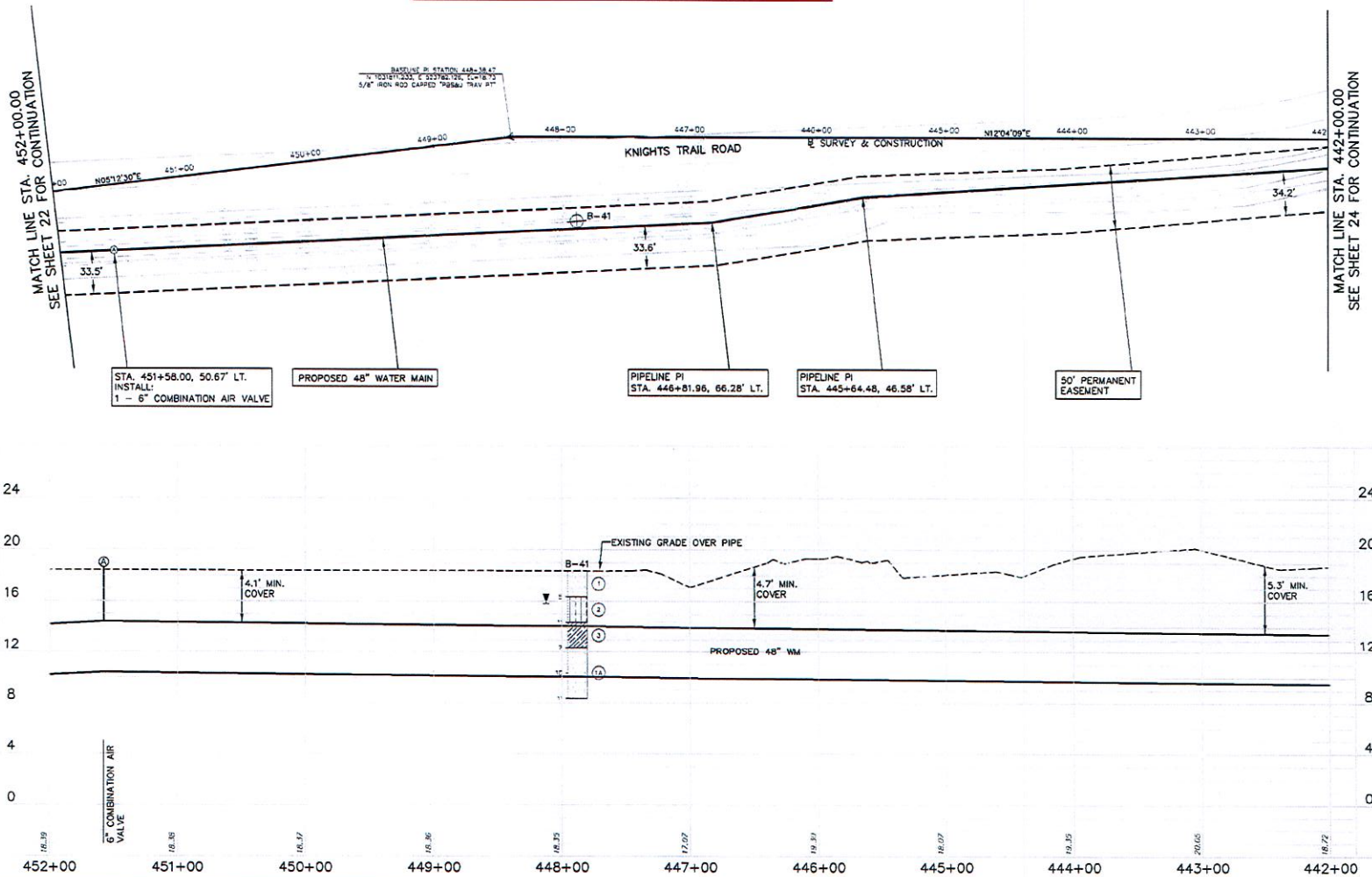
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SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
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CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER:	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 462+00.00 - 452+00.00	1 2 3 4	KENNETH E. WILSON REG. NO. 40458		100002301
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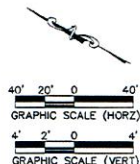
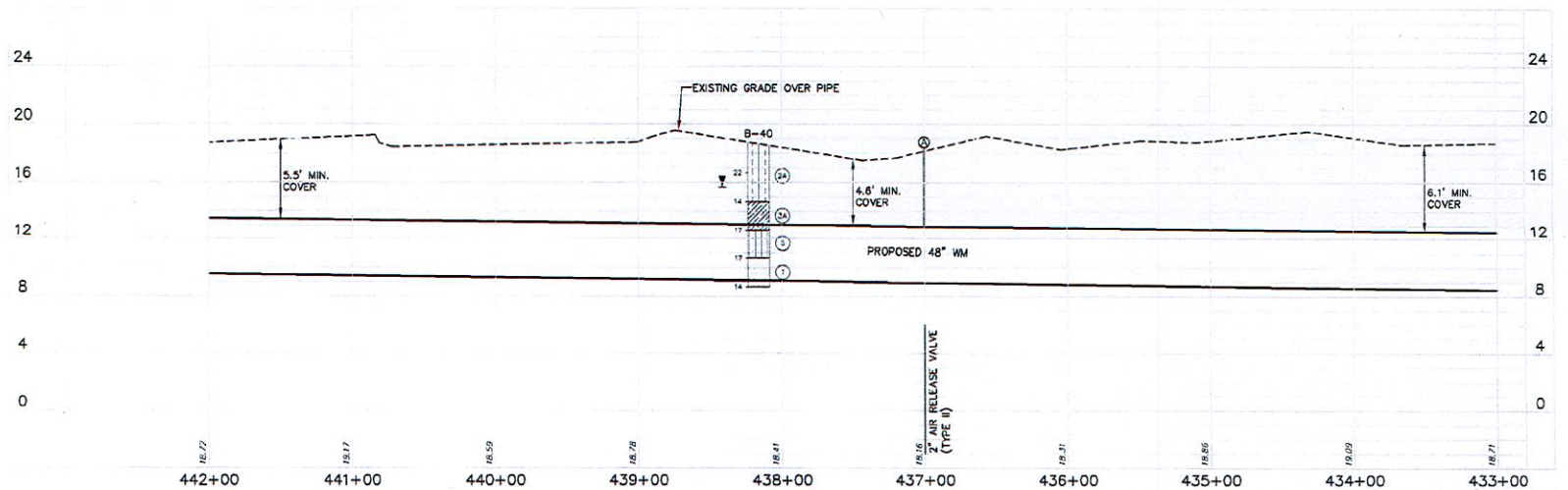
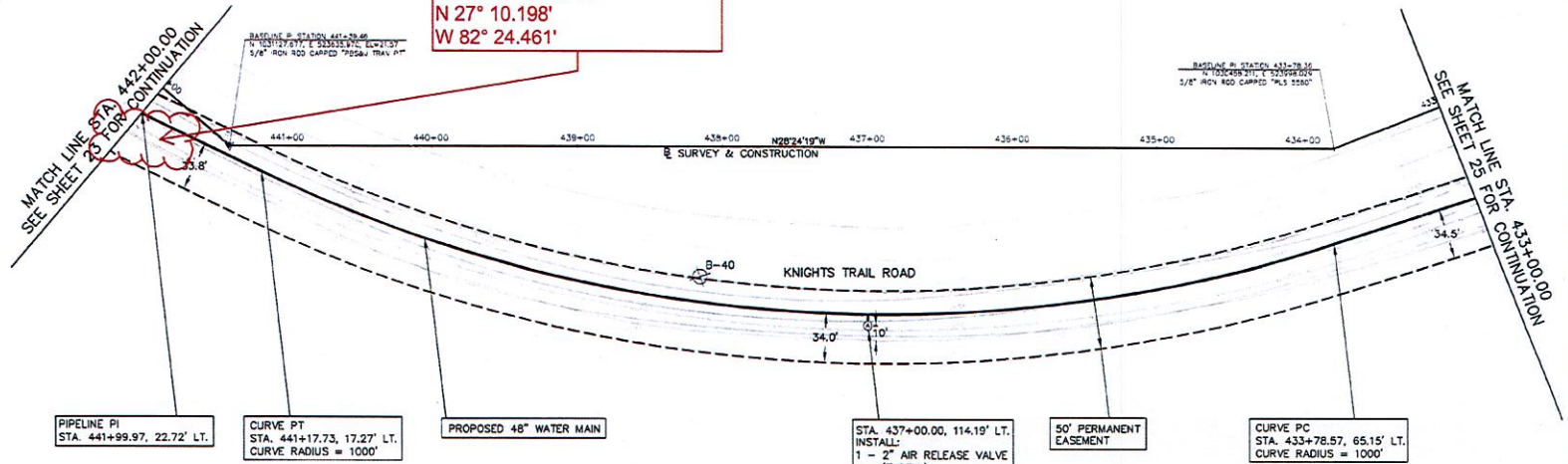
101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34237
PH. (941) 378-0272
FBRP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY	JOB NO. 1000022301
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 452+00.00 - 442+00.00	1. 2. 3. 4. 5.	KENNETH F. WILSON REG. NO. 40458		DRAWN: ABR DESIGNED: JCF/ESP CHECKED: KEM QC: RGB DRAW. NO. SHEET 23 OF 72

RECORD DRAWING
INCORPORATING CHANGES MADE TO THE EXISTING
LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD
COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED
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Michael Jordan, P.E. Date
PE#01111111

Leachate Forcemain Repair
3/17/2011
Station 441+85 +/-
N 27° 10.198'
W 82° 24.461'



101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
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CLIENT	PROJECT	TASK
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 442+00.00 - 433+00.00

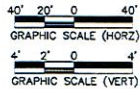
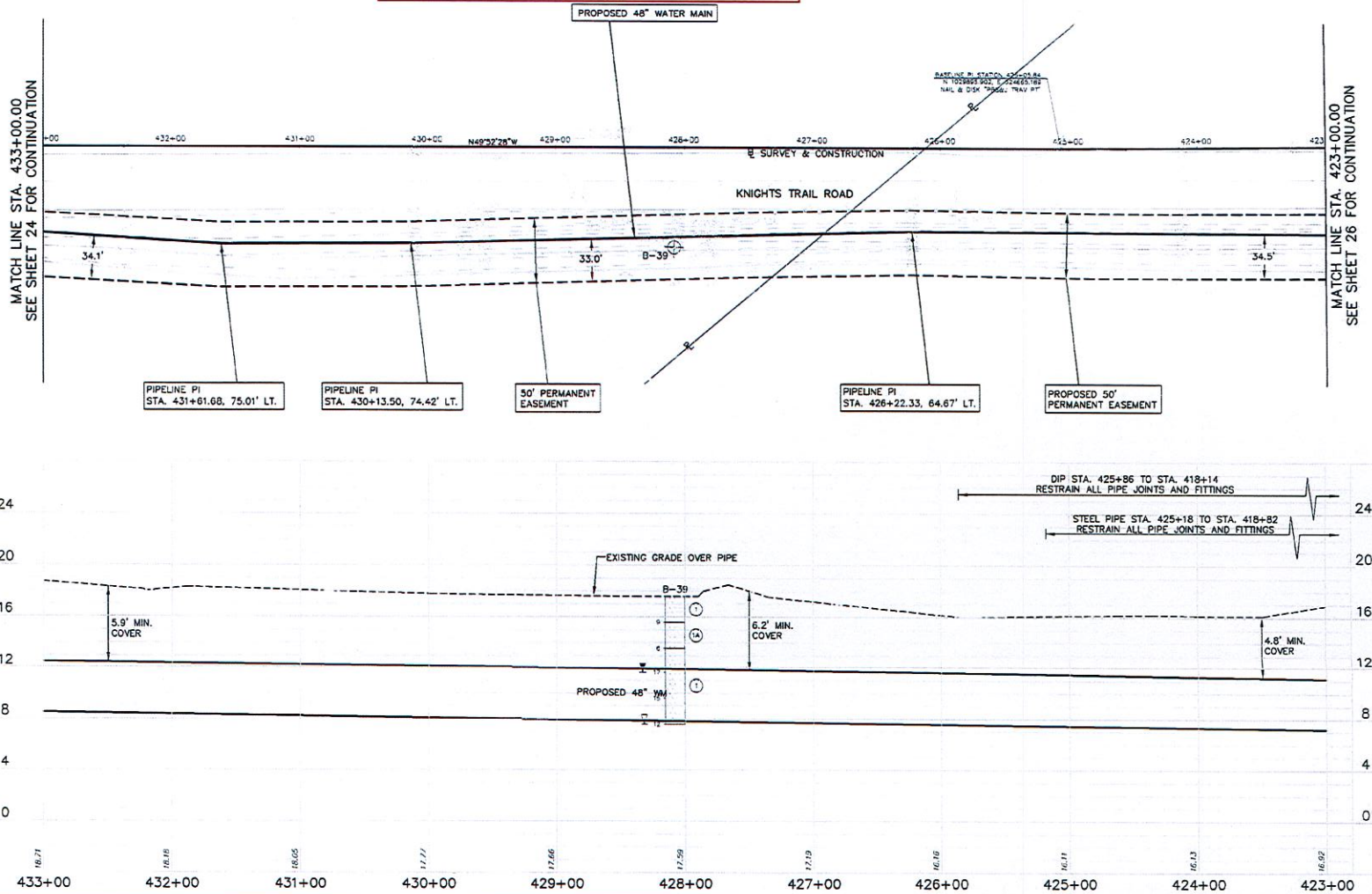
ORIGINAL REVISIONS:
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ENGINEER
ARTHUR E. WILSON
REG. NO. 20358



JOB NO. 100022301
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DESIGNED JDT/ETP
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SHEET 24 OF 72

NO REPAIR WORK PERFORMED ON THIS SHEET

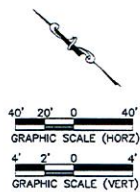
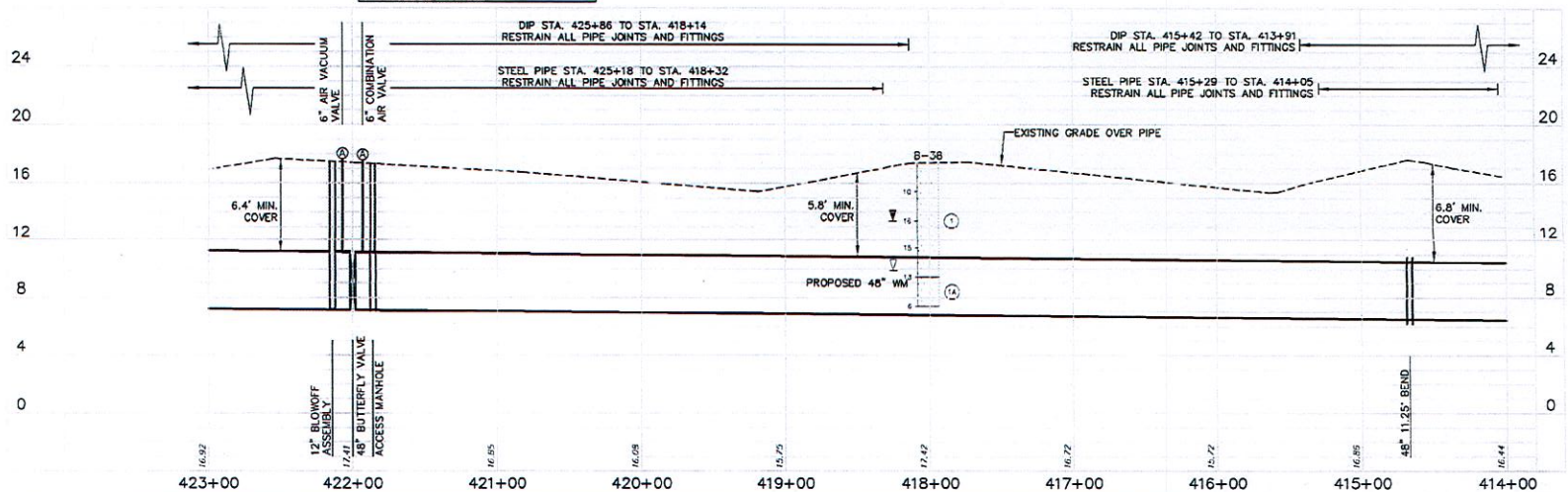
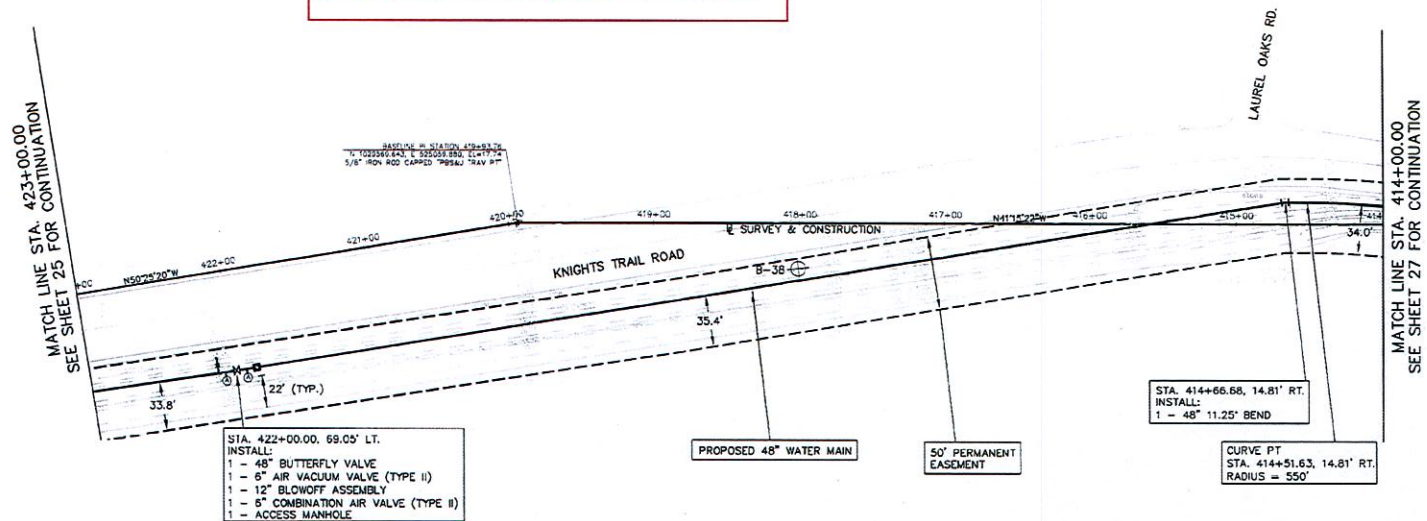


101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
FBRP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 433+00.00 - 423+00.00	1. 2. 3. 4. 5.	KENNETH F. WILSON REG. NO. 40455		100002301
						DRAWN: ABR DESIGNED: JWP/ECP CHECKED: JCH OC: RCB DRAW. NO.: SHEET 25 OF 72



NO REPAIR WORK PERFORMED ON THIS SHEET



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SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
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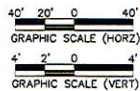
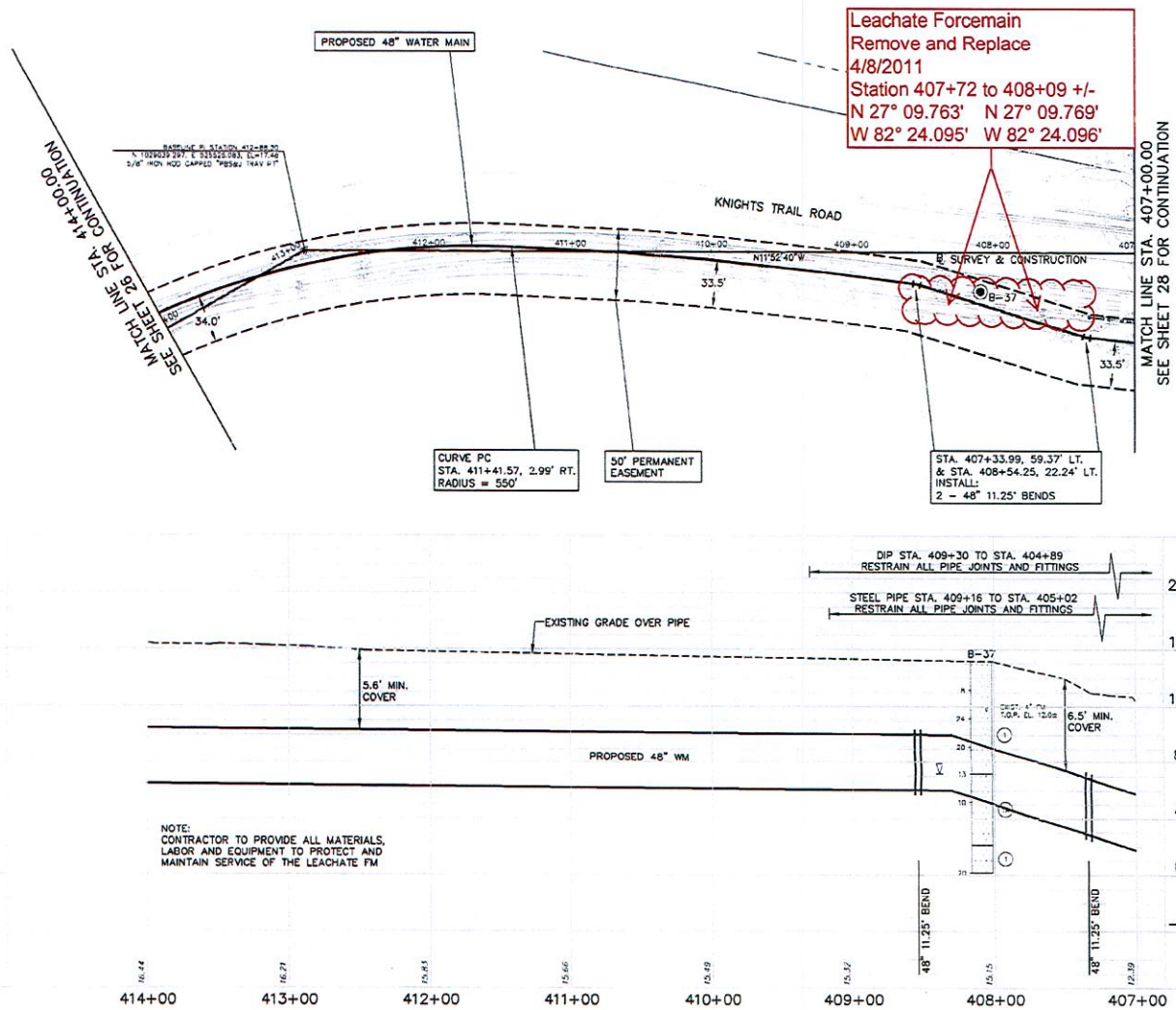
CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DESIGNED	CHECKED	DATE
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 423+00.00 - 414+00.00	1 2 3 4 5	KENNETH E. WILSON REG. NO. 20456	ASR	KEW	26 OF 72



JOB NO. 1000022201
DRAWN
DESIGNED ASR
CHECKED KEW
DATE
SHEET 26 OF 72

RECORD DRAWING
INCORPORATING CHANGES MADE TO THE EXISTING
LEACHATE FORCEMAIN BASED ON NON SURVEY FIELD
COLLECTED DATA. AS SUCH THE LOCATIONS DEPICTED
SHOULD BE CONSIDERED APPROXIMATE.

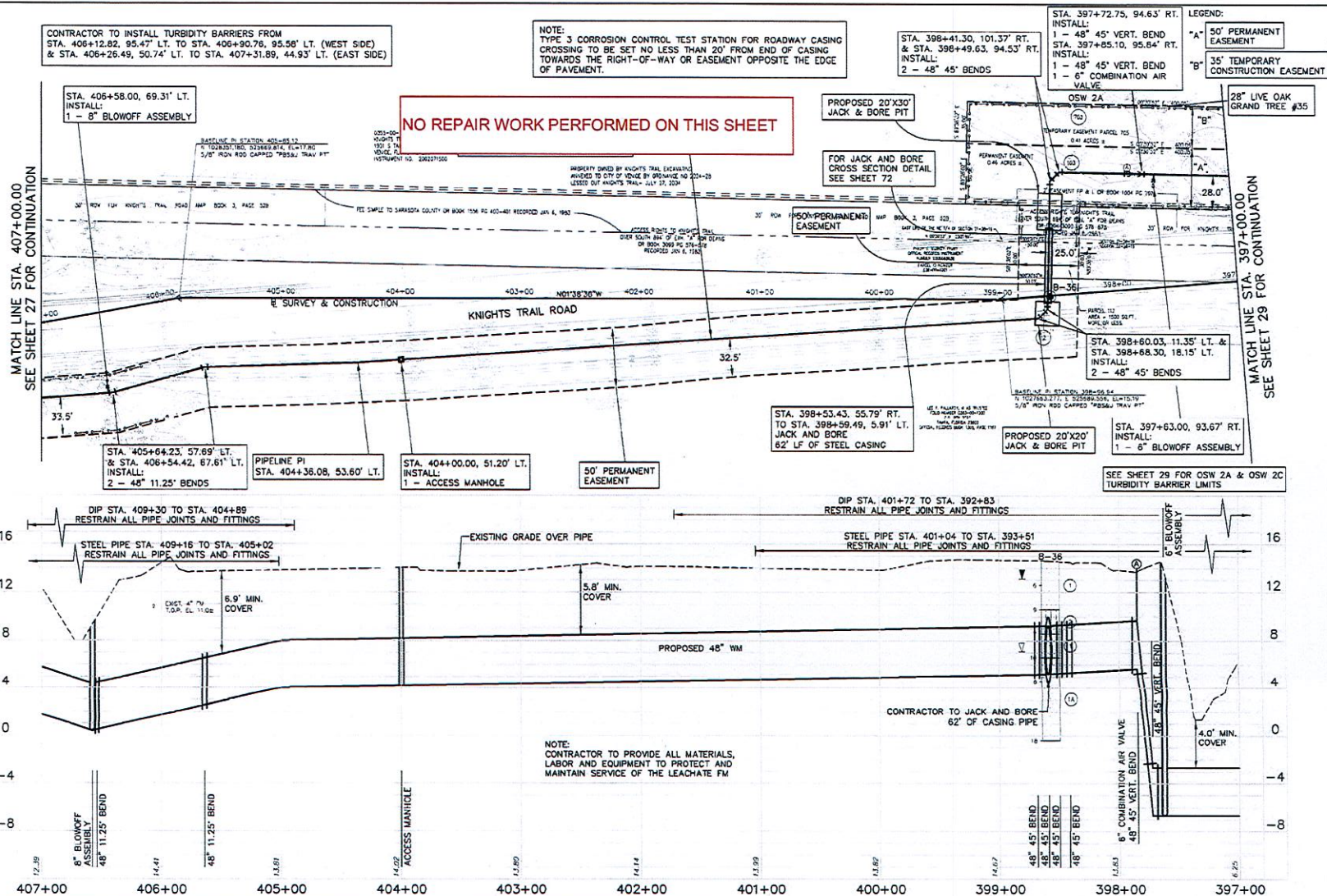
Michael J. Jordan, P.E.
PE#56672
Date



101 ARTHUR ANDERSEN PKWY
SUITE 200
SARASOTA, FL 34232
PH. (941) 378-0272
FBHP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 414+00.00 - 407+00.00	1 2 3 4 5	ARTHUR E. WILSON REG. NO. 20250		100022201
						DRAWN ABR DESIGNED JDF/EFP CHECKED KEW QC RGB DRAW. NO. SHEET 27 OF 72





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SUITE 200
SARASOTA, FL 34237
PH (841) 378-0272
FBRP CERT. OF AUTH. NO. 24

CLIENT	PROJECT	TASK	ORIGINAL REVISIONS:	ENGINEER	DATE	JOB NO.
PEACE RIVER / MANASOTA REGIONAL WATER SUPPLY AUTHORITY	REGIONAL INTEGRATED LOOP SYSTEM PHASE 3A INTERCONNECT PROJECT	PHASE 3A PIPELINE PLAN AND PROFILE STA. 407+00.00 - 397+00.00	1. 2. 3. 4. 5.	KENNETH E. WILSON REG. NO. 40458		100002301
						DRAWN: ABR DESIGNED: JEP/EP CHECKED: KESL QC: RGR DRAW. NO. SHEET 28 OF 72