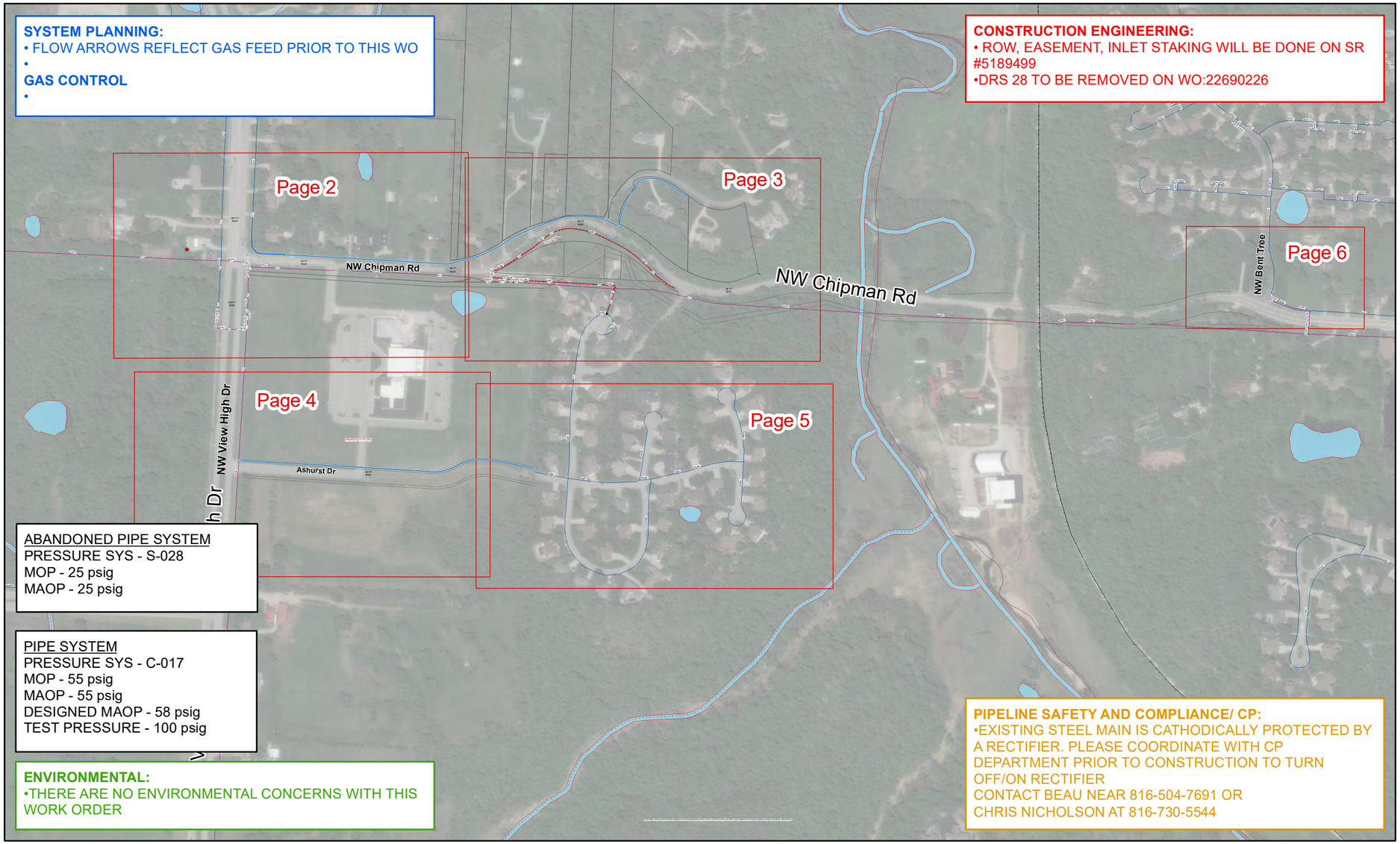
Job Description: Chipman Rd - View High DR and Ashurst **Region:** South **Sector:** 0811

Maximo Work Order: 19974204 **TownCode:** 0901 **Project #:** 803310

spire
Missouri West



1. INSTALL STEEL MAIN PER STD. 2310, 2320, AND 2350.
2. INSTALL PLASTIC MAIN PER STD. 2310 AND 2350.
3. FOR INCREASES IN MAXIMUM OPERATING PRESSURE SEE STD. 3220.
4. SEE STD. 2310.3 FOR TRACE WIRE AND TEST STATION INFORMATION.
5. CONTRACTOR OR INTERNAL FOREMAN TO CHECK CATHODIC PROTECTION OF ALL EXISTING CATHODICALLY PROTECTED FACILITIES EXPOSED AND DIRECT STEPS NECESSARY TO MAINTAIN PROPER ISOLATION AND CATHODIC PROTECTION AS REQUIRED.
6. INSTALL ANODES AND/OR TEST STATIONS PER STD. 3680 PER INSTRUCTIONS FROM CORROSION PROTECTION INSPECTOR.
7. CREATE A PIPE OBSERVATION IN MAXIMO TO DOCUMENT EXPOSED PIPE CONDITIONS PER STD. 3610.5.4.
8. FOR UTILITY LOCATES, CALL ONE-CALL SYSTEM "811" OR (1-800-344-7483), AREA CATV AND ALL OTHER AFFECTED UTILITIES.
9. CONTACT ROW TO SECURE NECESSARY EASEMENTS AND FOR ANY SURVEY WORK @ (314-658-5497 OR 314-349-2933).
10. SQUEEZE-OFF PROCEDURE - STD. 2510.
11. SHUTDOWN PROCEDURE - STD. 10000. CONTACT SYSTEM CONTROL AT 314-658-5486
12. CONDUCT INITIAL CATHODIC PROTECTION SURVEY FOR NEW STEEL INSTALLATION PER STD. 3610
13. RADIOGRAPH PER STD.W 100.4
14. PRESSURE TEST PER STD. 2410 DOCUMENT ON PRESSURE TEST PAGE.
15. ABANDON GAS MAIN PER STD. 2620.
16. INSERT PLASTIC MAIN PER STD. 2320.
17. ANY QUESTIONS CONCERNING "UPGRADING" OF EXISTING MAINS CONTACT PIPELINE SAFTEY AND COMPLIANCE @ 314-349-2932.
18. SPIRE PERSONNEL SHOULD FOLLOW STANDARD PRECAUTIONS REGARDING THE POTENTIAL FOR DRIP OIL TO BE PRESENT IN ACTIVE GAS MAINS AND ADHERE TO APPROVED PROCEDURES FOR MANAGEMENT/DISPOSAL OF ANY PIECES OF PIPE GENERATED IN THE COURSE OF ABANDONMENT. ANY DOCUMENTED DRIPS SHOULD BE CLEARED AND DRAINED BEFORE ABANDONMENT.
19. ALL PLASTIC MAIN TO BE TERMINATED PER STD 2310.2.4.
20. INSTALL EFV OR MANUAL SHUT-OFF VALVE PER STD 2385

FOR QUESTIONS ABOUT THIS DESIGN OR TO REQUEST A SCOPE OF WORK CHANGE PLEASE CONTACT CONSTRUCTION ENGINEERING AT 816-266-1501 OR 816-985-8888

Main & Service
- Existing
- Install
- Proposed
- Abandon
- Gas Pipe Casing

Gas Valve
- Ball
- Butterfly
- Gate
- Plug
- Blow Down

- Take Point
- Drip
- Test Station
- Regulator Station
- Meter Setting
- Marker Post

- Electronic Marker
- Service Tee
- Stopper / Bottom Outlet
- Coupling
- Insulated Coupling
- Trace Wire Box

- End Cap
- Flange
- Insulated Flange
- Cross
- Reducer
- Tee

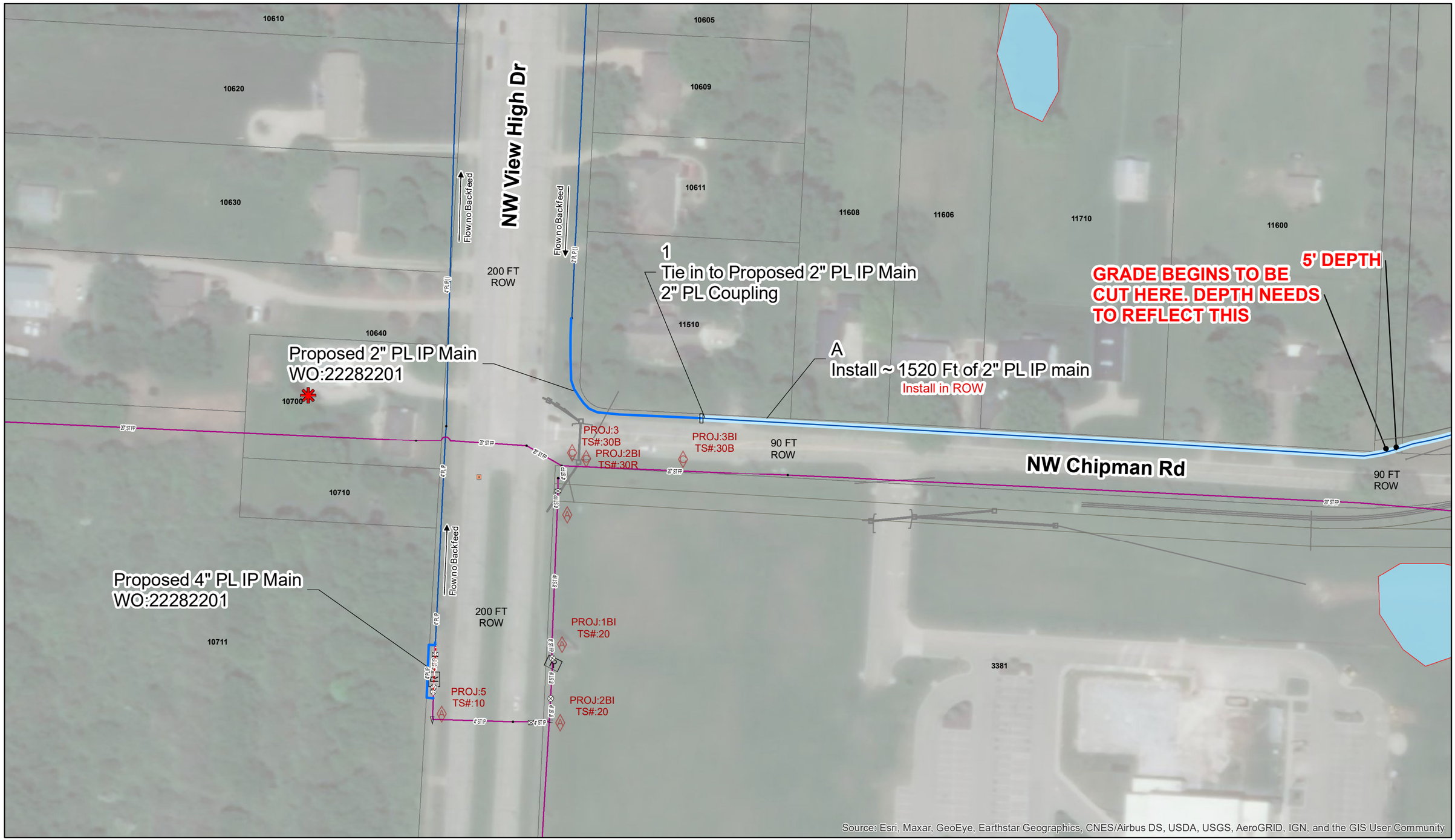
- Vertical Ell
- Bend
- Exposed Pipe
- Rectifier
- Rectifier Cable
- SteamLines

- Street Car Tracks
- RCP Reinforced Concrete Pipe
- CMP Corregated Metal Pipe
- Contamination
- DNR Tanks
- DNR Remediation

Check for Work Order Authorization

Designer :	Revision Date(s):
LWB	
Original Date:	
10/21/2021	

PATH: \\GISAPPSER2\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\COVER.MXD, 1:14:03 PM 10/21/2021 40170



0 100 200 400 Feet

1 inch = 100 feet

Job Description: Chipman Rd - View High DR and Ashurst

Maximo Work Order: 19974204

Project #: 803310

PATH: \\GISAPPSER2\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\DRAWING PAGE 1.MXD, 9:00:38 AM 10/26/2021 40170

3' DEPTH FOR B10-B11

4' DEPTH FOR B13-B10

5' DEPTH FOR B14-B15

8' DEPTH FOR GRADE CHANGE STATION 22+75

A
Install ~ 1520 Ft of 2" PL IP main
Install in ROW

NW Cedar Creek Ln

B
Install ~560 Ft of 2" PL IP Main
Install in 15 Ft Platted Utility Easement

3
2" PL Purge Point

5' DEPTH FOR GRADE TO GO OVER B10-B3 OR 11' TO GO UNDER

4
2" PL Purge Point

2
2" PL Tee

C
Install ~10 Ft of 2" PL IP Main

60 FT ROW

NW Chipman Rd

Flow no Backfeed

Abandon 2" ST MP Main

Abandon DRS #28 on WO:

Abandon 2" PL MP Main

PROJ:
TS#:

9
Cut and Cap
2" Stopper Fitting
2" Gripper Plug
2" Sealing Cup
2" Weld Cap

8
Cut and Cap
2" PL Cap

NW Edgewood Ct

NW Edgewood Dr

Upgrade 936 Ft of 4" PL MP Main to IP
Legacy WO: 940050
Pre and Post Flame Test

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 100 200 400 Feet

1 inch = 100 feet

Job Description: Chipman Rd - View High DR and Ashurst

Maximo Work Order: 19974204

Project #: 803310

PATH: \\GISAPPSER2\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\DRAWING PAGE 2.MXD, 9:41:34 AM 7/19/2022 40170

0 100 200 400 Feet

1 inch = 100 feet

Job Description: Chipman Rd - View High DR and Ashurst

Maximo Work Order: 19974204

Project #: 803310

PATH: \\GISAPPSER2\ENGINEERING_GIS\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\DRAWING PAGE 3.MXD, 2:07:25 PM 10/4/2021 20845

Upgrade 936 Ft of
4" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

D
Install ~1320 Ft of 4" PL IP Main

Upgrade 140 Ft of
4" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

6
4" PL 90° Ell

E
Install ~10 Ft of
4" PL IP Main

7
Tie in 4" PL MP Main
Upgrade to IP
4" PL 90° Ell
4" PL Coupling

Upgrade 435 Ft of
2" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

Upgrade 325 Ft of
4" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

Upgrade 50 Ft of
4" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

Upgrade 1085 Ft of
2" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

Upgrade 544 Ft of
2" PL MP Main to IP
Legacy WO:985633
Pre and Post Flame Test

Upgrade 150 Ft of
4" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

Upgrade 544 Ft of
2" PL MP Main to IP
Legacy WO:985633
Pre and Post Flame Test

Upgrade 470 Ft of
2" PL MP Main to IP
Legacy WO:940050
Pre and Post Flame Test

NW Edgewood Dr
NW Cliffside Ct
NW Ashurst Dr
NW Timber Ridge Trl
NW Edgewood Trl

Flow no Backfeed
Flow w/ Backfeed
4"PLMP
2"PLMP

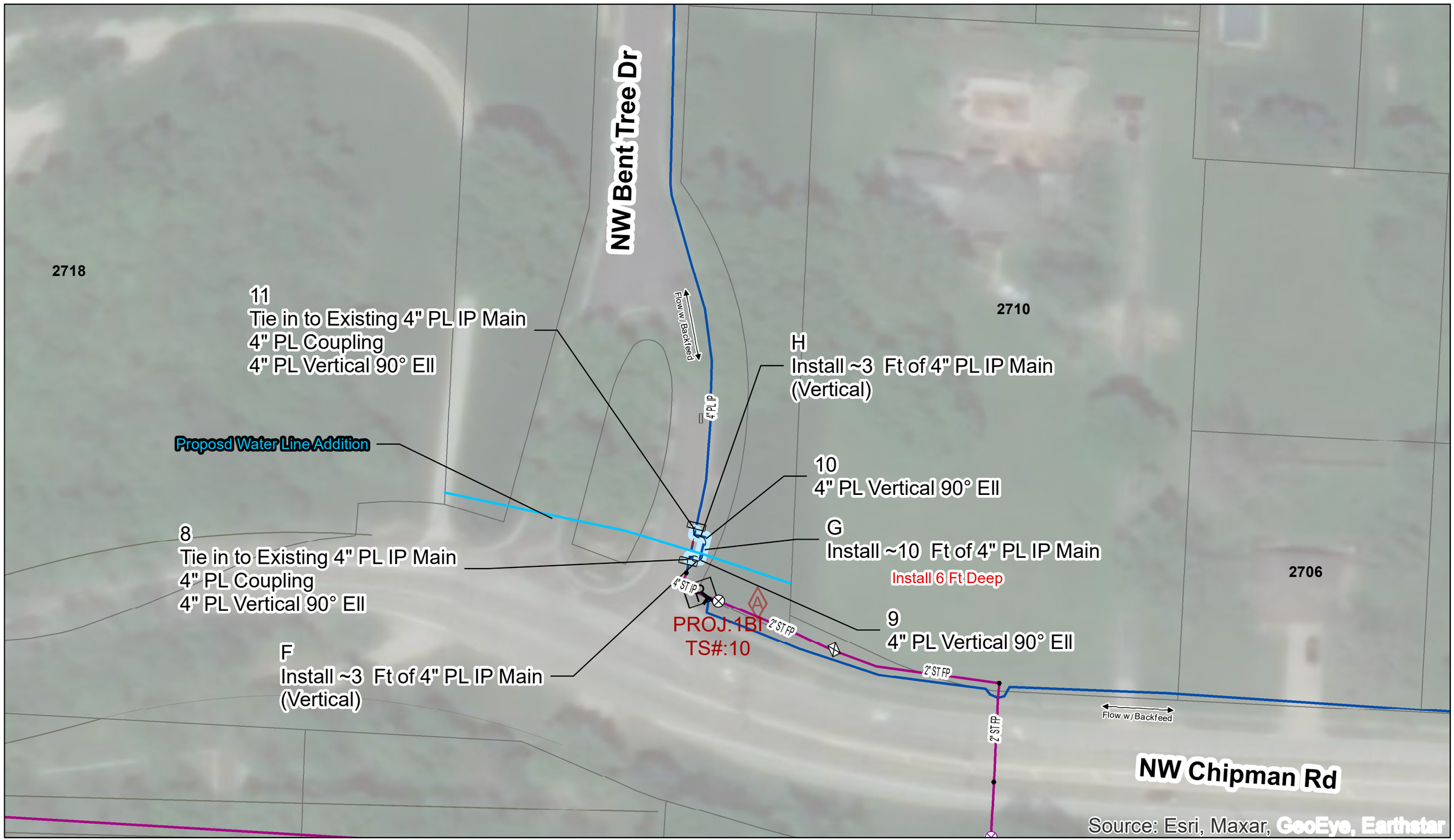
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 100 200 400 Feet
1 inch = 100 feet

Job Description: Chipman Rd - View High DR and Ashurst

Maximo Work Order: 19974204
Project #: 803310

PATH: \\GISAPPSER2\ENGINEERING_GIS\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\DRAWING PAGE 4.MXD, 8:52:52 AM 9/23/2021 20845



0 50 100 200 Feet

1 inch = 50 feet

Job Description: Chipman Rd - View High DR and Ashurst

Maximo Work Order: 19974204

Project #: 803310

PATH: \\GISAPPSER2\ENGINEERING_GIS\WORK_ORDER_DRAWINGS\MGE\SOUTHREGION\2020_19974204_RELOCATION_CHIPMAN RD - VIEW HIGH DR AND ASHURST\DOCUMENTSMXD\DRAWING PAGE 5.MXD, 10:38:02 AM 10/4/2021 20845

Job Description: Chipman Rd - View High DR and Ashurst **Region:** South **Sector:** 0811

Maximo Work Order: 19974204 **TownCode:** 0901 **Project #:** 803310

Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____

Comments: _____

_____

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PRESSURE TEST OF GAS MAINS
(One Test Per Sheet)

Pipe Size: _____ Length (ft): _____

Pipe Size: _____ Length (ft): _____

Pipe Size: _____ Length (ft): _____

Pressure System: TF \ SF \ FP \ HP \ IP \ MP \ LP

Test Medium: Water \ Air \ Gas Other: _____

Gauge Type:	Recording	Indicating	Dead Weight
Gauge I.D. :	_____	_____	_____
Calib. Date :	_____	_____	_____

Test Date: _____

Start Time: _____ End Time: _____

Start Press.: _____ End Press. : _____

Start Temp.*: _____ End Temp.*: _____

* Water or Pipe temperature, not ambient

If Discharge volume is over 1,000 gallons - Contact Lab for sample collection.

Note all leaks or failures, including cause, and corrective action taken in comments below.

SEE STD#2410 FOR PRESSURE TESTING.
SEE STD #3265 FOR LEAK SURVEY.
FOR ANY QUESTIONS REGARDING THE STANDARDS, PLEASE CONTACT PIPELINE SAFTEY AND COMPLIANCE AT 314-349-2932 OR 314-354-6533

Crew Foreman: _____ Date: _____

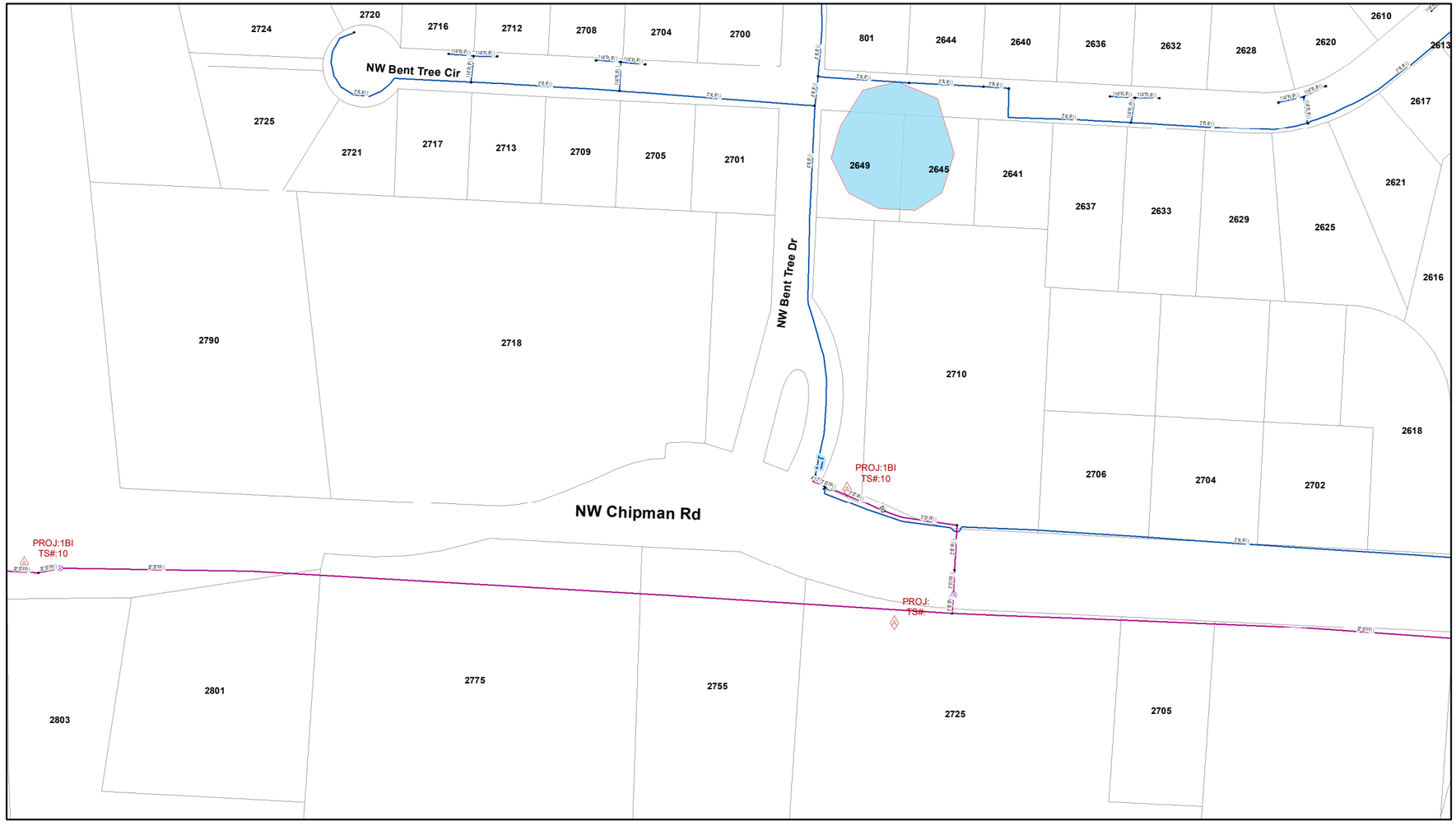
Inspector: _____ Date: _____

Supervisor.: _____ Date: _____

Job Description: Chipman Rd - View High DR and Ashurst **Region:** South **Sector:** 0811

Maximo Work Order: 19974204 **TownCode:** 0901 **Project #:** 803310

Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____	Tie-in Number _____ Soap Test ☐ Yes ☐ No Date: _____ Time: _____ System Gauge Pressure: _____ Signature: _____



PRESSURE TEST OF GAS MAINS
(One Test Per Sheet)

Pipe Size:_____ Length (ft): _____

Pipe Size:_____ Length (ft): _____

Pipe Size:_____ Length (ft): _____

Pressure System: TF \ SF \ FP \ HP \ IP \ MP \ LP

Test Medium: Water \ Air \ Gas Other:_____

Gauge Type:	Recording	Indicating	Dead Weight
Gauge I.D. :	_____	_____	_____
Calib. Date :	_____	_____	_____

Test Date: _____

Start Time: _____ End Time: _____

Start Press.: _____ End Press. : _____

Start Temp.*: _____ End Temp.*: _____

* Water or Pipe temperature, not ambient

If Discharge volume is over 1,000 gallons - Contact Lab for sample collection.

Note all leaks or failures, including cause, and corrective action taken in comments below.

SEE STD#2410 FOR PRESSURE TESTING.
SEE STD #3265 FOR LEAK SURVEY.
FOR ANY QUESTIONS REGARDING THE STANDARDS, PLEASE CONTACT PIPELINE SAFTEY AND COMPLIANCE AT 314-349-2932 OR 314-354-6533

Crew Foreman: _____ Date: _____

Inspector: _____ Date: _____

Supervisor.: _____ Date: _____

Comments: _____

Page : _____ Of: _____

Job Description: Chipman Rd - View High DR and Ashurst **Region:** South **Sector:** 0811

Maximo Work Order: 19974204 **TownCode:** 0901 **Project #:** 803310

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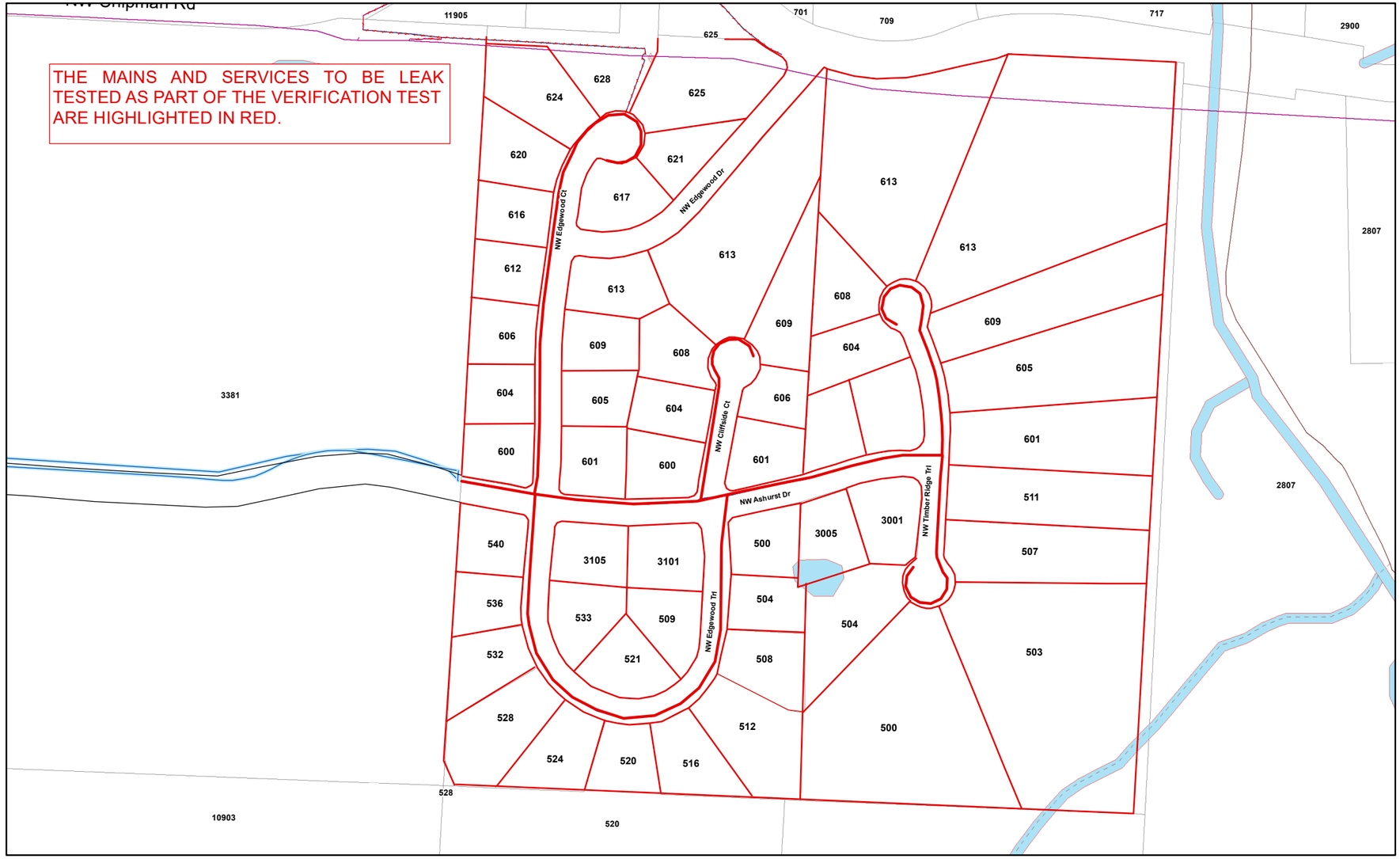
Verification Test Sheet Exhibit B



PRESSURE TEST OF GAS MAINS (One Test Per Sheet)

Pipe Size:_____ Length (ft): _____

Pipe Size:_____ Length (ft): _____

Pipe Size:_____ Length (ft): _____

Pressure System: TF \ SF \ FP \ HP \ IP \ MP \ LP

Test Medium: Water \ Air \ Gas Other:_____

Gauge Type: Recording Indicating Dead Weight

Gauge I.D. : _____ _____ _____

Calib. Date : _____ _____ _____

Test Date: _____

Start Time: _____ End Time: _____

Start Press.: _____ End Press. : _____

Start Temp.*: _____ End Temp.*: _____

* Water or Pipe temperature, not ambient

If Discharge volume is over 1,000 gallons - Contact Lab for sample collection.

Note all leaks or failures, including cause, and corrective action taken in comments below.

SEE STD#2410 FOR PRESSURE TESTING OF MAIN REQUIREMENTS. SEE STD #3265 FOR LEAK SURVEY. FOR ANY QUESTIONS, PLEASE CONTACT PIPELINE SAFTEY AND COMPLIANCE AT 314-349-2932 OR 314-342-3323

Crew Foreman: _____ Date: _____

Inspector: _____ Date: _____

Supervisor.: _____ Date: _____

Comments: _____

_____

Page : _____ Of: _____