



WR 3923612

C T V: Brown Deer

CUST/PROJ NAME: WR 3923612

PROJECT LOCATION: W Fairy Chasm Rd; from N Pearlette Ln to N Alpine Ln

PREPARED BY: Robert Ludan

E-MAIL: robert.ludan@daarcop.com

OFFICE #: 414-935-4427 CELL #: _____

PROJECT ID: ML3923612G IO #: MRU47402199

CGS #: _____

TYPE OF WORK:

- GDAM MAIN REPLACEMENT MAIN EXTENSION
 PAVING RELOCATION SERVICE
 OTHER _____

STAKING REQUIREMENTS:

- SURVEYOR STAKED
 DESIGNER NOT NEEDED

MAIN / SERVICE IN EASEMENT:

- YES ROW WR# _____
 NOT NEEDED

RESTORE PRIVATE PROPERTY: WE ENERGIES CUSTOMER

MAIN SIZE, MAT'L, FT INSTALL METHOD & FOOTAGE

2" PE - 1,039' DIRECTIONAL BORE - 1,039'

RELATED WR's

MAIN RETIREMENT WR n/a FOOTAGE 1,115'

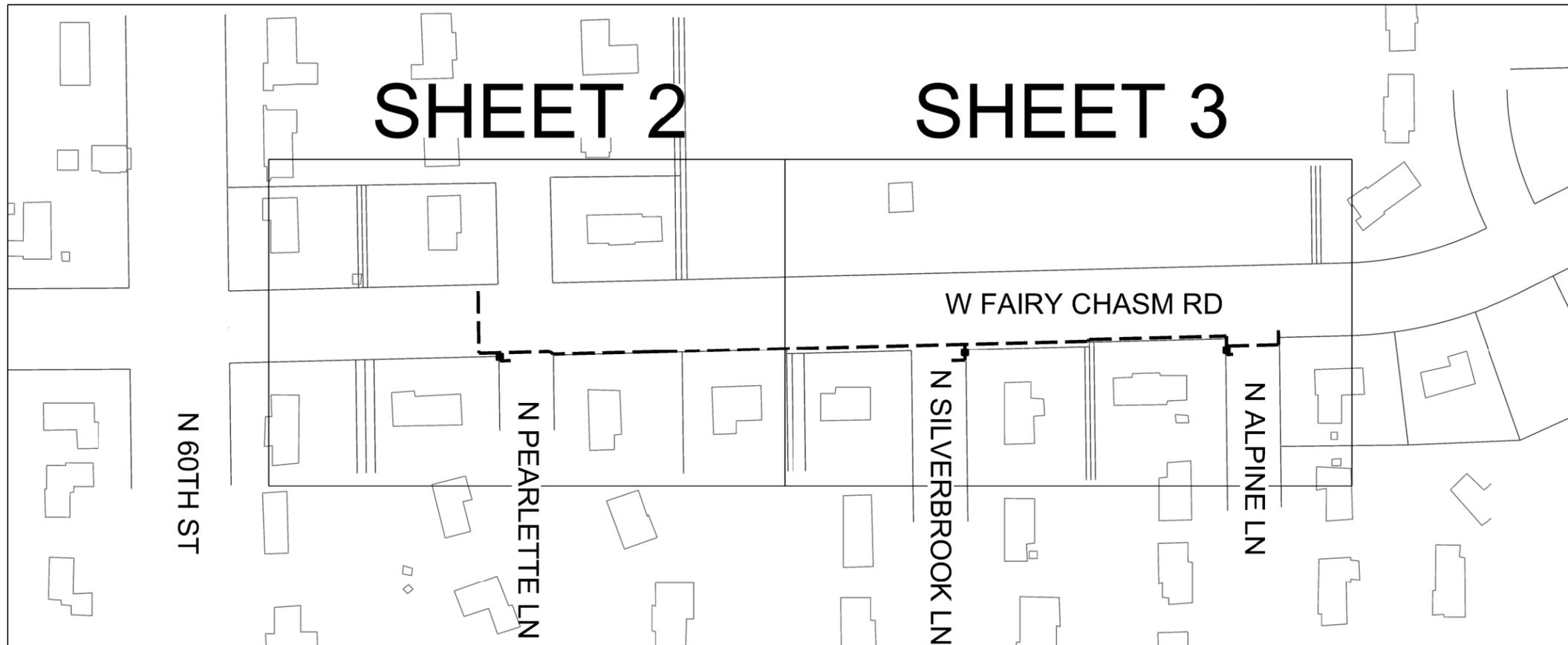
SERVICE REPLACEMENT WR 3934659 NO. 5

SERVICE RECONNECT WR n/a NO. _____

RESTORATION NOTES

- RESTORE ALL DISTURBED AREAS WITH PERMANENT SEED, MULCH AND TACKIFIER, UNLESS NOTED.
- RESTORE ALL DISTURBED AREAS WITH SOIL STABILIZER, TYPE B, UNLESS NOTED.
- RESTORE ALL DISTURBED AREAS INSIDE THE SLOPE INTERCEPT WITH SOIL STABILIZER, TYPE B, UNLESS NOTED. RESTORE ALL DISTURBED AREAS OUTSIDE THE SLOPE INTERCEPT WITH PERMANENT SEED, MULCH AND TACKIFIER, UNLESS NOTED.
- IF DISTURBANCE OCCURS IN WINTER RESTORE WITH SOIL STABILIZER, TYPE B, UNLESS NOTED. FURTHER PERMANENT RESTORATION IS NEEDED. IF DISTURBANCE OCCURS IN SUMMER RESTORE WITH PERMANENT SEED, MULCH AND TACKIFIER, UNLESS NOTED.
- RESTORE ALL DISTURBED AREAS INITIALLY WITH SOIL STABILIZER TYPE B, UNLESS NOTED. FURTHER RESTORATION WITH PERMANENT SEED, MULCH AND TACKIFIER, UNLESS NOTED, IS NEEDED OUTSIDE THE SLOPE INTERCEPT IN SPRING.
- FARM FIELD EXCAVATION SHALL INCLUDE SOIL SEGREGATION, TO FACILITATE THE RESTORATION BACK TO PRE-CONSTRUCTION CONDITIONS.
- RESTORE ALL DISTURBED AREAS, WITHIN ROAD RIGHT-OF-WAY, WITH PERMANENT SEED, MULCH AND TACKIFIER, UNLESS NOTED.

CORROSION DEPT: NEW MAIN TO BE PART OF CIA #2310170



WR 3923612

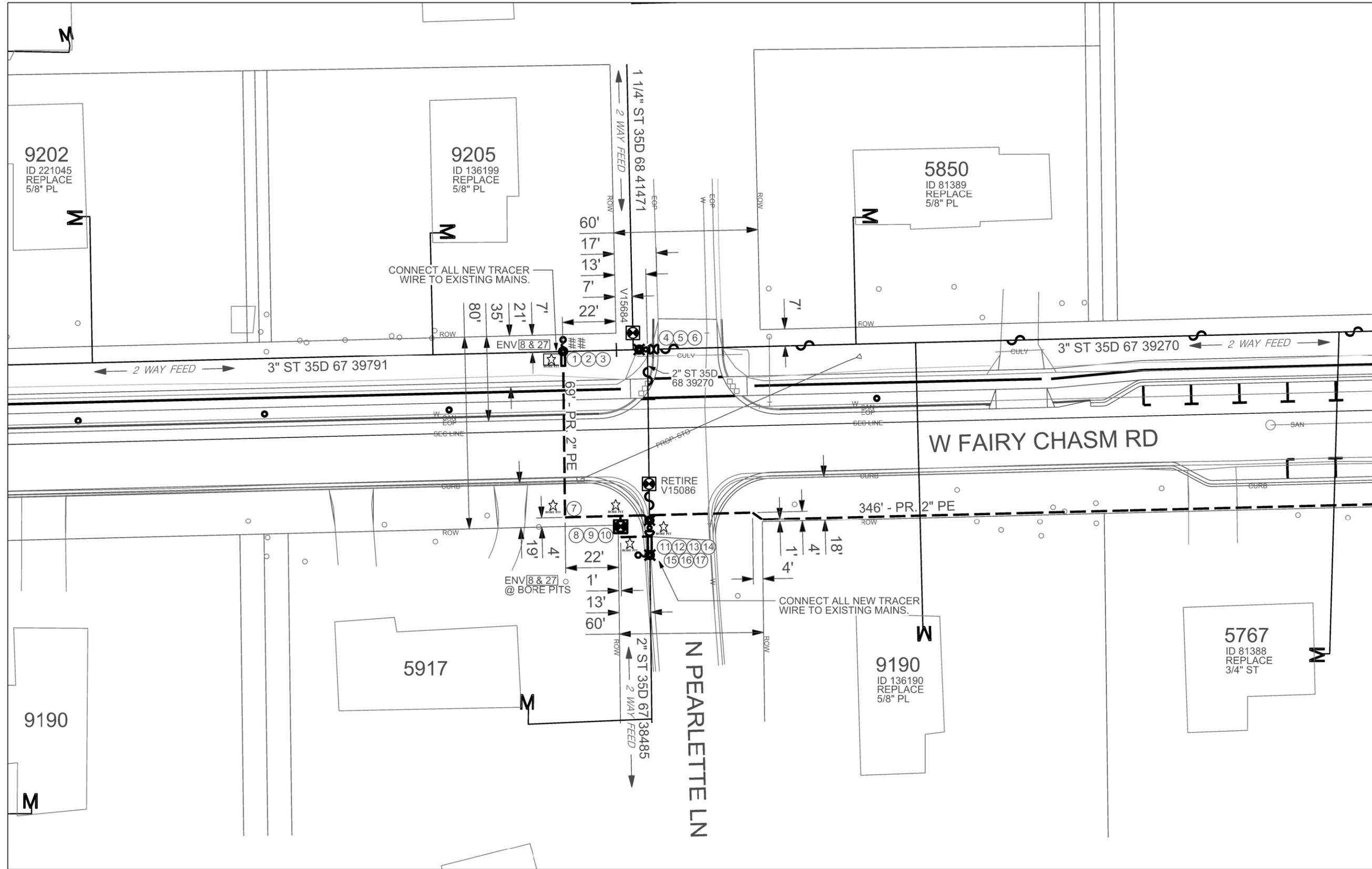
REV.	DESCRIPTION	BY	DATE
0	DESIGN APPROVED FOR CONSTRUCTION	RL	5/16/16

Printed 5/17/2016 2:12:42 PM



INSTALL APPROX. 415' OF 2" PE MAIN

- | | | |
|-------------------------------|-----------------------------------|-------------------------------|
| ① ANODE, 17 LB | ⑦ 2" PE 90 ELL | ⑬ 2" ST CAP |
| ② 2" NO BLO TEE | ⑧ 2" PE 3-WAY TEE (SOCKET FUSE) | ⑭ 2" PE 90 ELL |
| ③ 2" ST/PE TRANSITION FITTING | ⑨ 2" PE VALVE #24871 & BOX (CONV) | ⑮ 2" ST/PE TRANSITION FITTING |
| ④ 3" HALF STOP FITTING | ⑩ 2" PE 90 ELL | ⑯ 2" HALF STOP FITTING |
| ⑤ 2" SAV-A-VALVE | ⑪ 2" HALF STOP FITTING | ⑰ ANODE, 17 LB |
| ⑥ 3" ST CAP (2) | ⑫ 2" SAV-A-VALVE | |



SEE SHEET 3



GAS WORK REQUEST

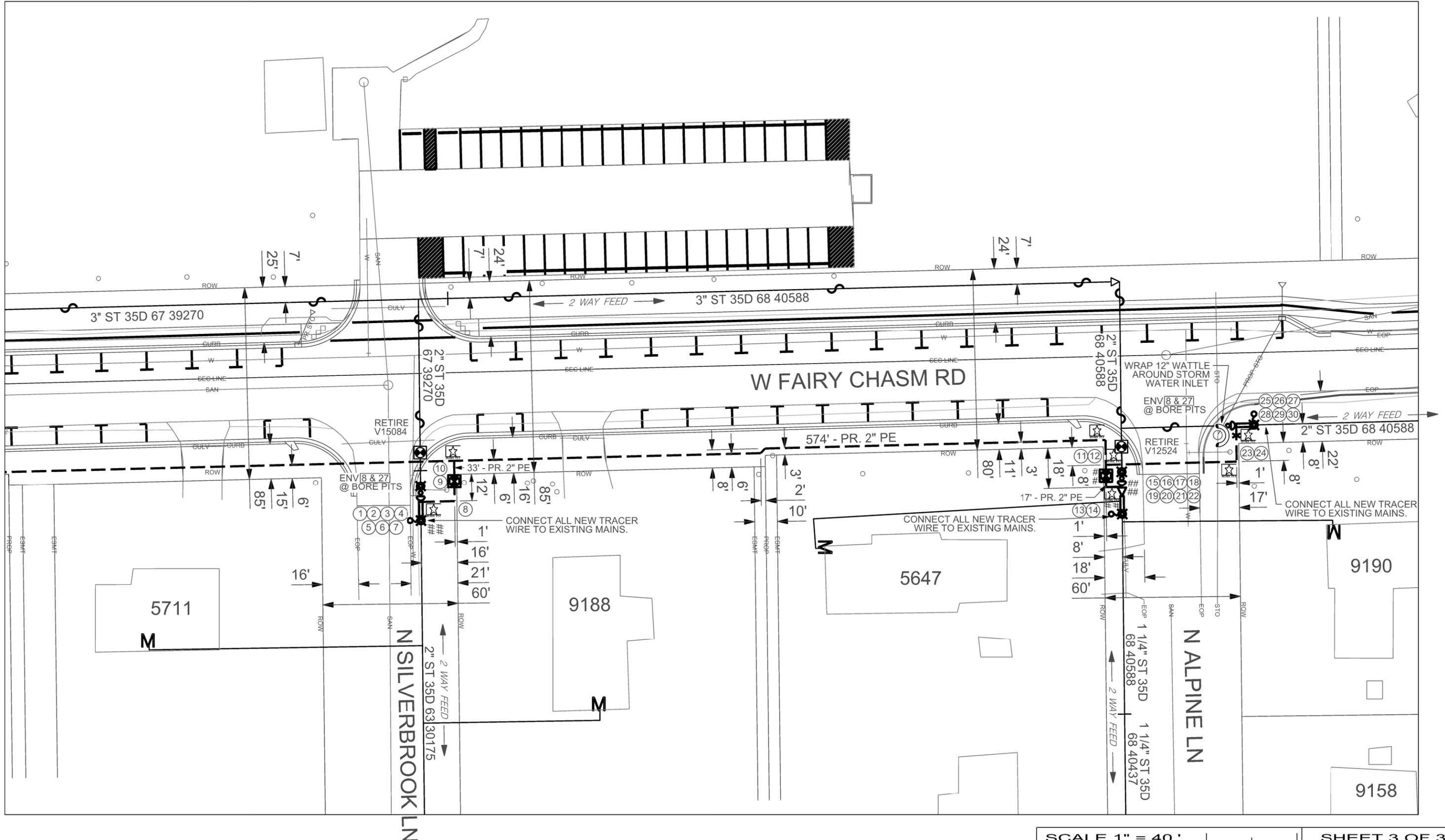
WR 3923612

INSTALL APPROX. 624' OF 2" PE MAIN

- | | | | | |
|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------|
| ① 2" HALF STOP FITTING | ⑦ ANODE, 17 LB | ⑬ 2" PE VALVE #24873 & BOX (CONV) | ⑲ 2" x 1 1/4" PE REDUCER | ⑳ 2" SAV-A-VALVE |
| ② 2" SAV-A-VALVE | ⑧ 2" PE 90 ELL | ⑭ 2" PE 90 ELL | ㉑ 1 1/4" ST/PE TRANSITION FITTING | ㉒ 2" ST CAP |
| ③ 2" ST CAP | ⑨ 2" PE VALVE #24872 & BOX (CONV) | ⑮ 1 1/4" HALF STOP FITTING | ㉓ 1 1/4" HALF STOP FITTING | ㉔ 2" PE 90 ELL |
| ④ 2" PE 90 ELL | ⑩ 2" PE 3-WAY TEE (SOCKET FUSE) | ⑯ 1 1/4" SAV-A-VALVE | ㉕ ANODE, 17 LB | ㉖ 2" ST/PE TRANSITION FITTING |
| ⑤ 2" ST/PE TRANSITION FITTING | ⑪ 2" PE 90 ELL | ⑰ 1 1/4" ST CAP | ㉗ 2" PE 90 ELL | ㉘ 2" HALF STOP FITTING |
| ⑥ 2" HALF STOP FITTING | ⑫ 2" PE 3-WAY TEE (SOCKET FUSE) | ⑱ 2" PE 90 ELL | ㉙ 2" PE CLAMP | ㉚ ANODE, 17 LB |



SEE SHEET 2



SCALE 1" = 40'

SHEET 3 OF 3

WE ENERGIES MAJOR PROJECTS - GAS OPERATIONS

NOTES:
 Existing facilities should be field verified prior to excavation.
 Utility information shown are from plans and have not been field verified.
 Maintain 12" min vertical clearance at crossing of existing electrical facilities.
 Maintain 6" min vertical clearance at crossing of other existing facilities.
 Maintain 18" min vertical clearance at crossing of existing storm sewer pipes.
 Maintain 5' clearance from storm sewer inlets.
 Staking of route or ROW by surveyor required prior to construction.
 Clearances shown are min distances – reference permit for specific clearance requirements.
 Additional information on excavation, backfilling & clearances can be found in the Gas CRS 201.
 Restore all pavement, ROW, sidewalks, and customer's private property.

CONVENTIONAL SYMBOLS

- | | | | |
|--|--|--|--|
| | END OF MAIN CAPPED WITH AN ANODE ATTACHED TO THE TRACER WIRE – 2' x 4' EXCAVATION. | | GAS MAIN CUT OFF AND CAPPED 4' x 5' EXCAVATION |
| | VALVE IN AN 8" DIAMETER METALLIC BOX SET TO GRADE | | METER CHANGE |
| | 17# ANODE ATTACHED TO THE MAIN IN THE SAME TRENCH | | TEST & RECONNECT SERVICE |
| | | | REPLACE SERVICE |

<u>EROSION CONTROL LEGEND</u>	
	APPROXIMATE BORE PIT LOCATION (WITH & WITHOUT PERIMETER CONTROL)
	INLET PROTECTION, TYPE A/B/C/D
	12" WATTLE or 12"/20" SEDIMENT LOG or 9.5"/20" EROSION EEL
	STONE DITCH CHECK
	SAND or ROCK BAG
	MULCH
	SOIL STABILIZER, TYPE B
	EROSION MAT CLASS I, TYPE A
	EROSION MAT CLASS I, TYPE B
	EROSION MAT CLASS I, TYPE A URBAN
	EROSION MAT CLASS I, TYPE B URBAN
	EROSION MAT CLASS II
	EROSION MAT CLASS III
	VEGETATIVE BUFFER
	TRACKING PAD
	TIMBER MAT
	SILT FENCE
	TEMPORARY SEDIMENT BASIN
	SURFACE WATER FLOW

WE ENERGIES WORK REQUEST ENVIRONMENTAL NOTES (Notes 1 through 7 apply to ALL work requests)

General

1. If WDNR and/or USACE permits were obtained for the project, all permit conditions shall be met during construction of the project.

Erosion Control

- If soil disturbance occurs on slopes or channels/ditches leading to wetlands or waterways, or within wetlands, the disturbed areas shall be stabilized and appropriate erosion control Best Management Practices (BMP's) shall be implemented.
- Erosion Control BMR's shall meet or exceed the approved WDNR Storm Water Management Technical Standards (http://dnr.wi.gov/topic/stormwater/standards/const_standards.html). Refer to We Energies Construction Site Sediment and Erosion Control Standards.
- Inspect installed erosion control BMP's at least one time per week and after 1/2" rain events: repair as necessary.
- When temporary stabilization is required (e.g. for winter or short-term construction) prior to final restoration, soil stabilizer shall be installed wherever possible. Erosion mat shall be used temporarily only where appropriate, in accordance with state standards, and when approved by the Operations Supervisor.

Contaminated Soils

6. Whenever soil exhibiting obvious signs of contamination (e.g., discoloration, petroleum or solvent odor, free liquids other than water, buried containers or tanks, or other obvious signs of environmental impacts) is encountered during excavation or installation, cease work immediately, take appropriate immediate precautions to ensure worker health and safety, and contact the Operations Supervisor or Inspector.

Spills

- If an oil spill occurs during construction, call the Environmental Incident Response Team (EIRT) at 414-430-3478:
 - Any quantity of oil is spilled into surface water;
 - Any oil spill greater than 50 ppm PCB into a sewer, vegetable garden, or grazing land;
 - Any oil spill containing greater than 500 ppm PCB;
 - Five gallons or more of oil spilled to the ground;
 - Any oil spill involving a police department, fire department, DNR, or concerned property owner.

Notes 8 through 27 apply as noted at specific points within each work request:

Dewatering

8. Dewatering of pits or trenches shall be done in accordance with state standards. Use an approved sediment bag, a straw bale dewatering basin, a combination of both, or equivalent.

Wetlands

- As much as practicable, the majority of the work shall be staged from the public roadways and road shoulders, keeping equipment out of adjacent wetlands.
- All work shall be conducted to minimize soil disturbance. No rutting will be allowed within the wetlands.
- If soils are not frozen or stable to a point that avoids rutting, timber mats, mud tracks, or equivalent shall be utilized to access pole locations.
- Excavated soils cannot be stockpiled in wetlands.

Waterways

- All excess spoils shall be removed from wetlands and placed in a suitable upland location.
- Trenching and pit excavations within wetlands shall include soil segregation to facilitate restoration of pre-construction soil stratification, and restoration to pre-construction elevations.
- Poles scheduled to be removed, and that occur within wetland, shall be cut at the ground surface.
- No work can be performed within the banks or below the ordinary high watermark of any navigable waterways/streams.
- No crossing of navigable waterways with equipment can occur. Foot traffic is allowed.
- Any disturbed soil within 75-feet of the ordinary high water mark of any navigable waterways/streams shall be stabilized within 24 hours of construction completion.

Threatened and Endangered Species

- Threatened or endangered species are known to occur in the work area. It is illegal to harass, harm, or kill a protected species under state and federal regulations. Proper precautions shall be taken to ensure harm to individuals is avoided.
- In order to protect the threatened or endangered species, work must be conducted between November 5 and March 15.
- Exclusion fencing must be installed at the work area prior to March 15.
- A qualified biologist must be present when conducting work at this location.

Invasive Species

23. State regulated invasive species are known to occur in the work area. Reasonable precautions are legally required to prevent the spread of these species. The Wisconsin Council on Forestry Transportation and Utility Rights-of Way Best Management Practices should be followed: (<http://council.wisconsinforestry.org/invasives/transportation/>).

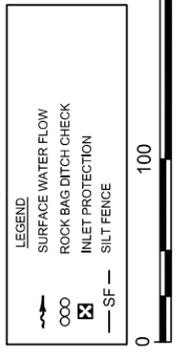
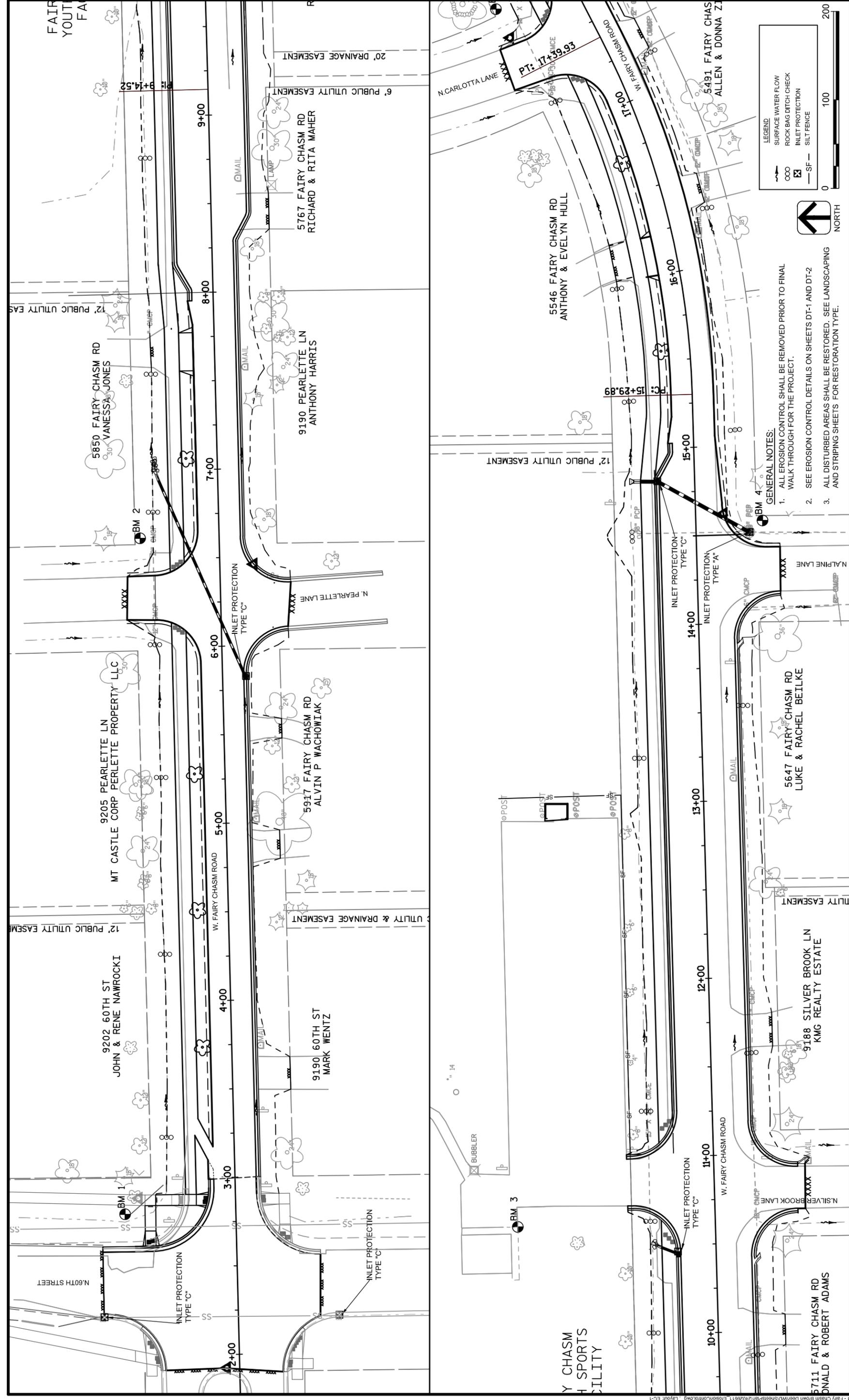
Cultural and Historical Resources, cont.

- The project is within or adjacent to an area that is identified by the State of Wisconsin as potentially having Native American artifacts, burial mounds or burial sites, which could be encountered during construction.
- If human bone or any artifacts are discovered during construction, work must cease immediately. Contact the Environmental Department who will contact the State Burial Sites Preservation Office and determine the next steps that must be taken in order to comply with state law. Work at that site MAY NOT PROCEED until the Environmental Department authorizes it.
- A "qualified archaeologist," as specified under Wis. Stats 157.70 (1) (i) and Wis. Admin. Code HS 2.04 (6), must be present to monitor all ground disturbing activities.

Frac-out Contingency Plan

- A frac-out contingency plan shall be on-site and implemented accordingly. The contingency plan shall incorporate the following components.
 - Continuously inspect the bore paths for frac-outs in order to respond quickly and appropriately.
 - Containment materials (e.g. silt fence, straw bales, sand bags, etc.) shall be on site and available should a frac-out occur.





GENERAL NOTES:

- ALL EROSION CONTROL SHALL BE REMOVED PRIOR TO FINAL WALK THROUGH FOR THE PROJECT.
- SEE EROSION CONTROL DETAILS ON SHEETS DT-1 AND DT-2
- ALL DISTURBED AREAS SHALL BE RESTORED. SEE LANDSCAPING AND STRIPING SHEETS FOR RESTORATION TYPE.

SHEET NO		EC-1	
PROJECT TITLE		EROSION CONTROL PLAN	
PROJECT ADDRESS		W. FAIRY CHASM ROAD RECONSTRUCTION N. 60TH STREET TO N. 51ST STREET VILLAGE OF BROWN DEER	
DESIGNER	BOOK NO	BID DOCUMENTS	REVISION
SES	1	2/11/2016	
DR BY	PROJ NO	24-0266.11	
CHK BY	DATE	FEB 2016	

AVRES ASSOCIATES
WALKESSHA, WI