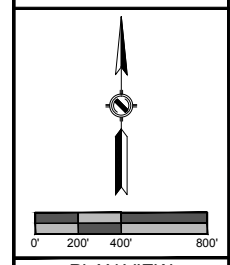


LINE LIST NO.	OWNER/SHIP	FOOTAGE	DESIGN	ENVIRONMENTAL	TRAVERSE ANGLES
WL-015	ROBERT J. & IDA ANN SHELDON	1,689'	PIPE & COATING WEIGHTS METHOD DESIGN FACTOR CLASS LOCATION	WETLAND FISH/WILD LIFE HABITATS CULTURAL SITES LAND USE NOXIOUS WEEDS CONSERVATION RESERVE TOP SOIL SALVAGE MINIMUM COVER REVEGETATION TYPE DRAINAGE SYSTEM IRRIGATION SYSTEM RESTRICTED WORK	755+71 Δ 1°30'47"RT 757+87 Δ 0°53'26"LT
WL-014	VIOLET L. OLSON LIVING TRUST	2,638'			782+53 Δ 30°00'00"LT 786+30 Δ 30°00'00"RT 786+38 Δ 15°36'39"LT 788+40 Δ 22°19'45"LT
WL-013	VIOLET L. OLSON LIVING TRUST	1,382'			795+15 Δ 40°00'25"RT 801+21 Δ 64°14'55"RT
WL-012.002	JEROME L. & ARDELLA KERBAUGH	4,574'			807+45 Δ 34°34'23"LT 808+28 Δ 30°00'00"LT 813+64 Δ 2°42'05"LT
WL-012	JEROME L. & ARDELLA KERBAUGH	1,108'			822+53 Δ 30°00'00"LT 825+35 Δ 30°00'00"RT 827+87 Δ 65°14'55"RT 827+80 Δ 30°00'00"RT 830+92 Δ 30°00'00"LT 833+02 Δ 52°44'25"LT 841+31 Δ 51°31'47"RT

Draft



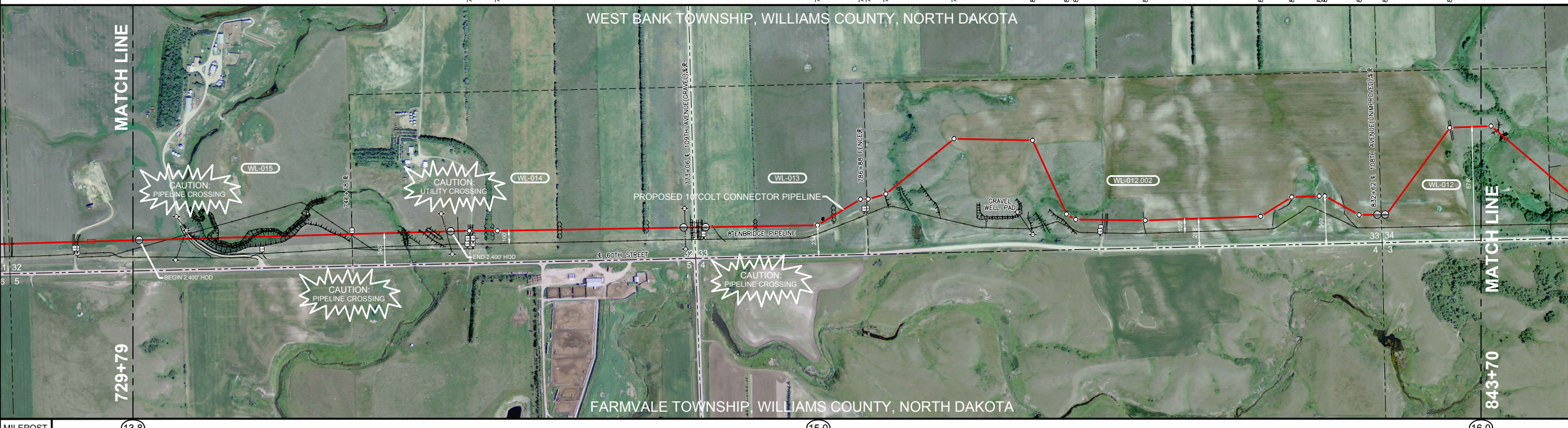
PLAN VIEW

LEGEND

- PROPOSED 10" PIPELINE
- EXISTING PIPELINE
- C/L ROAD
- C/L ACCESS RD
- C/L RAILROAD
- PROPERTY LINE
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L STREAM
- TREE LINE
- WETLAND LINE/GENERAL MARKER
- TEST LEAD
- PI SYMBOL
- TREE
- POWER/TELE POLE
- GLY ANCHOR
- GAS VALVE
- PROPANE TANK
- GASOL/WATER WELL
- GATE POST
- ELEC/GAS/WTR METER
- CULVERT

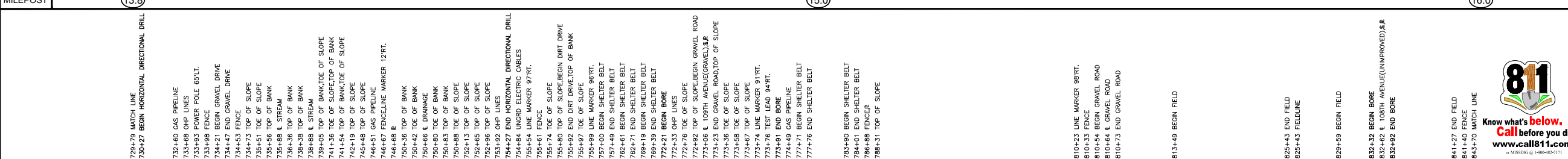
REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION



HORIZONTAL STATIONING

STATIONING	DESCRIPTION
729+79 MATCH LINE	
730+27 BEGIN HORIZONTAL DIRECTIONAL DRILL	
732+60 GAS PIPELINE	
733+68 OHP LINES	
733+93 POWER POLE 65'LT.	
733+98 FENCE	
734+21 BEGIN GRAVEL DRIVE	
734+47 END GRAVEL DRIVE	
734+53 FENCE	
734+73 TOP OF SLOPE	
735+51 TOE OF SLOPE	
735+56 TOP OF BANK	
735+88 & STREAM	
736+36 TOP OF BANK	
738+38 TOP OF BANK	
738+88 & STREAM	
739+05 TOP OF BANK/TOE OF SLOPE	
741+36 TOE OF SLOPE/TOP OF BANK	
741+54 TOP OF BANK/TOE OF SLOPE	
742+19 TOP OF SLOPE	
746+48 TOP OF SLOPE	
746+51 GAS PIPELINE	
746+67 FENCE/PIPELINE MARKER 12'RT.	
746+68 & FENCE	
750+36 TOP OF BANK	
750+42 TOE OF BANK	
750+66 & DRAINAGE	
750+80 TOE OF BANK	
750+83 TOE OF BANK	
750+88 TOE OF SLOPE	
752+13 TOP OF SLOPE	
752+65 TOP OF SLOPE	
752+96 TOP OF SLOPE	
753+92 OHP LINES	
754+27 END HORIZONTAL DIRECTIONAL DRILL	
754+64 UNGRD ELECTRIC CABLES	
755+54 LINE MARKER 87'RT.	
755+61 FENCE	
755+74 TOE OF SLOPE	
755+80 TOE OF SLOPE/BEGIN DIRT DRIVE	
755+92 END DIRT DRIVE/TOP OF BANK	
755+97 TOE OF SLOPE	
755+99 LINE MARKER 96'RT.	
757+00 BEGIN SHELTER BELT	
757+49 END SHELTER BELT	
762+61 BEGIN SHELTER BELT	
762+71 END SHELTER BELT	
769+19 BEGIN SHELTER BELT	
769+39 END SHELTER BELT	
772+21 BEGIN BORE	
772+33 OHP LINES	
772+76 TOE OF SLOPE	
772+92 TOP OF SLOPE/BEGIN GRAVEL ROAD	
773+06 & 109TH AVENUE(GRAVEL),S,R	
773+23 END GRAVEL ROAD/TOP OF SLOPE	
773+36 TOE OF SLOPE	
773+58 TOE OF SLOPE	
773+67 TOP OF SLOPE	
773+74 LINE MARKER 91'RT.	
773+76 TEST LEAD 94'RT.	
773+91 END BORE	
774+49 GAS PIPELINE	
777+21 BEGIN SHELTER BELT	
777+76 END SHELTER BELT	
783+90 BEGIN SHELTER BELT	
784+01 END SHELTER BELT	
786+68 FENCE,S,R	
788+31 TOP OF SLOPE	
810+23 LINE MARKER 96'RT.	
810+33 FENCE	
810+54 BEGIN GRAVEL ROAD	
810+64 & GRAVEL ROAD	
810+73 END GRAVEL ROAD	
813+49 BEGIN FIELD	
829+59 BEGIN FIELD	
829+64 END FIELD	
829+63 FIELDLINE	
829+69 BEGIN FIELD	
832+32 BEGIN BORE	
832+62 & 108TH AVENUE(UNIMPROVED),S,R	
832+92 END BORE	
841+27 END FIELD	
841+40 FENCE	
843+70 MATCH LINE	



WORK SPACE & CONSTRUCTION METHOD

- PROPOSED 10" PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE

STANDARD

WETLAND - STANDARD

BORE - 170" BORE

DRILL - 2,400" DRILL

PROFILE

SCALE: HORZ. 1" = 400', VERT. 1" = 200'

HOLLAND ENGINEERING

ENGINEERING | SURVEYING | PIPELINE SERVICES

200 Westwood, Suite 300
1400 13th St SW
Fargo, ND 58103
Phone: (701) 785-9079
Fax: (701) 785-9079
www.hollandengineering.com

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	08/09/11	ISSUED FOR STAKING
1	09/01/11	REVISED ALIGNMENT PER BARR SHAPE FILE

MATERIAL SUMMARY

REV. NO.	DATE	DESCRIPTION
0	08/09/11	14.16 MILES FUSION BLENDED EPOXY
1	09/01/11	10' O.D. X 0.250" X 4.56 FEW
2	08/30/11	10' O.D. X 0.307" X 4.56 FEW
B	2.830'	14.16 MILES FUSION BLENDED EPOXY

APPROVED FOR CONSTRUCTION

REV. NO.	DATE	DESCRIPTION

APPROVED FOR BIDDING

REV. NO.	DATE	DESCRIPTION

APPROVED FOR FILING

REV. NO.	DATE	DESCRIPTION

AERIAL PHOTOGRAPHY DATE: 2009

811

Know what's below.
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Rangeland Pipeline, LLC

PROPOSED ALIGNMENT SHEET

10" COLT CONNECTOR PIPELINE

WEST BANK TOWNSHIP, WILLIAMS COUNTY, NORTH DAKOTA

HORIZ. SCALE: 1" = 400'

DRAWN BY: HEI(DRF) 08/09/11

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

HEI/P.O. NO.:

HEI PROJECT NO.: 11-04-017

DRAWING NO.: PR-WCND-0000-08

SHEET: 8 OF 11 REVISION: 1

DATE OF PLOT: 9/21/2011 4:00 PM

LINE LIST NO.	OWNER	FOOTAGE	DESIGN	ENVIRONMENTAL	TRAVERSE ANGLES
WL-012	JEROME L. & ARDELLA KERBAUGH	665'	A = 5,207 LF B = 60 LF STANDARD	AGRICULTURAL	844+47 Δ 42°36'23"RT 854+55 Δ 41°23'45"LT 862+24 Δ 56°48'42"LT 867+83 Δ 58°31'31"RT 873+41 Δ 58°27'18"RT 878+57 Δ 60°33'06"LT
WL-011.008	JEROME L. & ARDELLA KERBAUGH	4,572'	BORE 0.8#	48°	887+11 Δ 45°00'00"RT 888+10 Δ 45°00'00"LT 895+45 Δ 45°00'00"LT 902+53 Δ 45°00'00"RT 907+66 Δ 45°00'00"RT 913+78 Δ 45°00'00"LT
WL-011.007	JEROME L. & ARDELLA KERBAUGH	3,257'	STANDARD	48°	920+01 Δ 1°02'36"RT 925+60 Δ 0°37'54"LT
WL-011	JEROME L. & ARDELLA KERBAUGH	2,438'	STANDARD	48°	936+81 Δ 30°00'00"LT 937+88 Δ 30°00'00"RT 938+88 Δ 0°30'48"LT
WL-010	ELISA ANTONSON TESTAMENTARY TRUST BANK OF THE WEST TRUSTEE	355'	STANDARD	48°	

Draft

DESIGN

PIPE & COATING
WEIGHTS
METHOD
DESIGN FACTOR
CLASS LOCATION

ENVIRONMENTAL

STREAM
WETLAND
FISHWILD LIFE HABITATS
CULTURAL SITES
LAND USE
NOXIOUS WEEDS
CONSERVATION RESERVE
TOP SOIL SALVAGE
MINIMUM COVER
REVEGETATION TYPE
DRAINAGE SYSTEM
IRRIGATION SYSTEM
RESTRICTED WORK

TRAVERSE ANGLES

PLAN VIEW

LEGEND

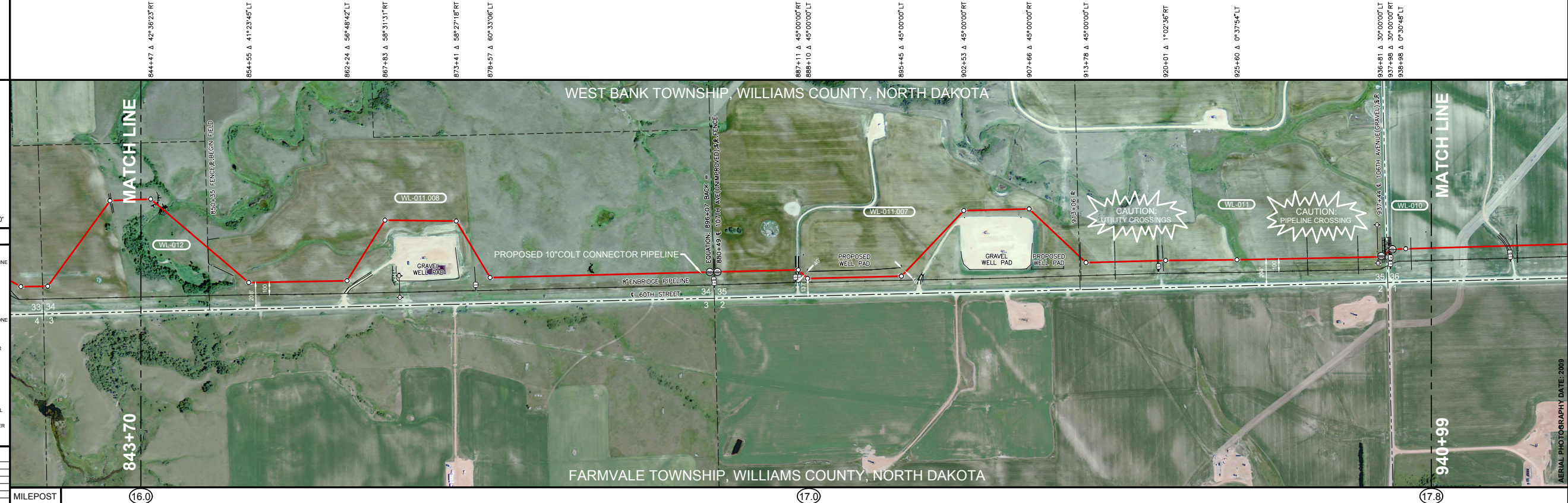
- PROPOSED 10" PIPELINE
- EXISTING PIPELINE
- C/L ROAD
- C/L ACCESS RD
- C/L RAILROAD
- PROPERTY LINE
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L STREAM
- TREE LINE
- WETLAND
- LINE/GENERAL MARKER
- ANODE BANK
- TEST LEAD
- RECTIFIER
- PI SYMBOL
- TREE
- POWER/TELE POLE
- GLY ANCHOR
- GAS VALVE
- PROPANE TANK
- GASOL/WATER WELL
- GATE POST
- ELEC/GASWTR METER
- CULVERT

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION

MILEPOST

16.0 17.0 17.8



HORIZONTAL STATIONING

843+70 MATCH LINE
845+00 TOP OF SLOPE
845+53 TOE OF SLOPE/OP OF BANK
845+61 TOE OF BANK
845+65 Δ DRAINAGE
845+67 TOE OF SLOPE
845+70 TOE OF BANK
850+35 FENCE/BEGIN FIELD#

885+77 BEGIN BORE
885+77 END BORE
EQUATION: 884+07 BACK SLOPE
880+49 Δ 107TH AVE(UNIMPROVED) Δ FENCE AHEAD
880+58 BEGIN FIELD
880+79 END BORE

886+66 LINE MARKER 86"RT.
886+90 END FIELD
886+95 BEGIN DIRT DRIVE
887+11 END DIRT DRIVE
887+16 BEGIN FIELD
887+72 GRAVEL WELL PAD 40"LT.
887+82 LINE MARKER 67"RT.

893+11 GRAVEL WELL PAD 55"LT.
895+93 GRAVEL WELL PAD 48"LT.

902+18 GRAVEL WELL PAD 41"RT.
906+99 GRAVEL WELL PAD 64"RT.

913+06 R
913+18 4.5" STEEL WATERLINE(FIELD VERIFY)

916+04 6" WATERMAN(FIELD VERIFY)

919+37 END FIELD
919+43 LINE MARKER 84"RT.
919+44 FENCE
919+80 BEGIN FIELD

931+11 AMOCO PIPELINE(FIELD VERIFY)
935+08 AMINOL PIPELINE(FIELD VERIFY)
936+63 OHP LINES
936+64 POWER POLE 48"RT.
936+93 BEGIN BORE
937+02 END FIELD
937+18 TOE OF SLOPE
937+26 TEST LEAD 83"RT.
937+28 LINE MARKER 80"RT.
937+31 TOP OF SLOPE/BEGIN GRAVEL ROAD
937+44 Δ 108TH AVENUE(GRAVEL) Δ FENCE
937+58 END GRAVEL ROAD/TOP OF SLOPE
937+70 TOE OF SLOPE
937+81 BEGIN FIELD
938+39 AMERADA-HESS FIRELINE(FIELD VERIFY)
940+99 MATCH LINE

WORK SPACE & CONSTRUCTION METHOD

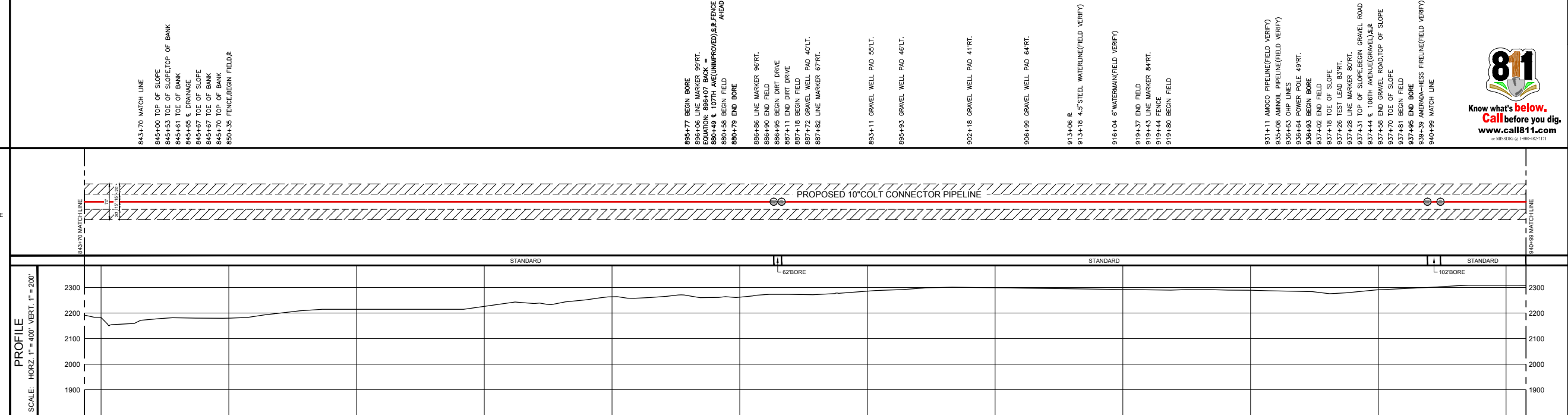
- PROPOSED 10" PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE

PROFILE

SCALE: HORZ. 1" = 400' VERT. 1" = 200'

STANDARD 62" BORE STANDARD 102" BORE

WETLAND -
BORE -
DRILL -



HOLLAND ENGINEERING

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Minnetonka, Minnesota 55345-3796
Phone: (763) 834-3827
Fax: (763) 834-3827

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	08/09/11	ISSUED FOR STAKING
1	09/01/11	REVISED ALIGNMENT PER BARR SHAPE FILE

MATERIAL SUMMARY

REV. NO.	DATE	DESCRIPTION
A	11/12/10	10" O.D. X 10.250' X 450' EAW
B	10/27/10	10" O.D. X 10.250' X 450' EAW
B	10/27/10	14.63 MILES PIPE @ 30 MILES/PAD

APPROVED FOR CONSTRUCTION

DATE: 2009

APPROVED FOR FILING

DATE: 2009

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Rangeland Pipeline, LLC
PROPOSED ALIGNMENT SHEET
10" COLT CONNECTOR PIPELINE
WEST BANK TOWNSHIP,
WILLIAMS COUNTY, NORTH DAKOTA

HORIZ. SCALE: 1" = 400'
DRAWN BY: HE(DRF) 08/09/11
DRAFTING CK:
ENGINEERING CK:
CONSTRUCTION CK:
ENVIRONMENTAL CK:
A/E/P/O.N.O.:
HEI PROJECT NO.: 11-04-017
DRAWING NO.: PR-WCND-0000-09
SHEET: 9 OF 11 REVISION: 1
DATE OF PLOT: 9/21/2011 4:00 PM