

CASS COUNTY HIGHWAY DEPARTMENT

BIDDER'S PROPOSAL

**FOR COUNTY PROJECT NUMBER
CH1001 FLOOD REPAIRS**

Cass Highway 4 from Cass Highway 11 to Drain 13
in Cass County, North Dakota

Date of Letting: 10:00 A.M., JULY 11TH, 2013

Proposal of: _____

**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

SCOPE OF WORK:

The scope of this project is to repair County Highway 4 from the damage incurred by the 2013 spring flood/runoff. The locations are damage from high water during the spring of 2013.

Any questions please contact Tom Soucy at the Cass County Highway Department – 701.298.2374 office or 701.793.9915 cell.

INSTRUCTIONS TO BIDDERS:

The Cass County Auditor at the Auditor's Office, 211 9th Street South, Fargo, North Dakota, will receive sealed bids until 10:00 a.m. on July 11, 2013. Bids will be opened immediately following the hour set for receiving bids in the Grasslands Room at the Cass County Courthouse, 211 9th Street South, Fargo, North Dakota.

The plans and proposal may be obtained at the office of the Cass County Engineer, West Fargo, North Dakota.

All envelopes containing bids must be clearly marked on the outside "BID FOR HWY 4 FLOOD REPAIRS", and the North Dakota contractor's license number must be shown.

A bidders bond in the amount of 5% of the amount bid, made payable to Cass County shall accompany each bid in a SEPARATE ENVELOPE ATTACHED TO THE OUTSIDE OF THE BID. Certified or Cashiers checks will not be accepted. No bid will be read or considered which does not comply with the bond requirements.

Prequalification is required for all bidders prior to obtaining a bidders proposal. Contractors may be required to submit information detailing their ability to perform the work specific to this project. Cass County shall determine the Prequalification status of each contractor requesting a proposal, and reserves the right to deny bid documents to any contractor based on the County's responsibility determination.

The County reserves the right to reject any or all bids and to waive any irregularities. All bidders must be qualified to bid under the laws of the State of North Dakota in accordance with § 43-07-12 of the N.D.C.C.

**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

INDEX OF PROVISIONS:

North Dakota Supplemental Specifications

Supplemental Specifications dated March 1, 2013 are not included in this proposal but are available at the county engineer's office, or be downloaded from the NDDOT's website at the following website:

<http://www.dot.nd.gov/dotnet/supplspecs/standardspecs.aspx>

Price Schedule for Miscellaneous Items Dated January 1, 2012 - (P.S. 1)

Special Provision 13-1
Contractor License
Contractor Claims
Increased or Decreased Quantities

Construction Notes

Basis of Estimate

Location Map

CH1001 2012 Grading As-Builts

NOT FOR BIDDING

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
PRICE SCHEDULE FOR MISCELLANEOUS ITEMS

January 1, 2012

The Contractor agrees to accept the following unit prices for each listed item of work and/or material when no project Contract Unit Price exists for that item. Each price listed will be full compensation for the cost of labor, material, and equipment necessary to provide the item of work and/or material, complete in place, including (but not limited to) royalty, disposal of unsuitable material, equipment rental, sales tax, use tax, overhead, profit, and incidentals.

Payment for items of work under this schedule performed by a Subcontract shall include an additional allowance for the Prime Contractor as specified in Section 104.03 of the Standard Specifications.

Each listed price is referenced to the Standard Specifications by Section number and Section name.

SECTION NO.	SECTION NAME	ITEM NAME	PRICE PER ITEM
107.05 A.1	Maintaining Traffic	Flagging	\$25 per MHR
107.05 B.1	Haul Roads	Water	\$21 per M Gal.
107.05 B.7	Haul Roads	Bituminous Mix	\$28 per Ton**
107.05 B.7	Haul Roads	Bitumen for Mix	Invoice Price* + 10%
107.05 B.7	Haul Roads	Aggregate Base	\$13 per Ton**
203.01 B	Rock Excavation	Rock Excavation	\$8.40 per CY
203.01 C	Shale Excavation	Shale Excavation	Common Excavation Bid Price + \$0.70 per CY
203.01 D	Muck Excavation	Muck Excavation	\$7 per CY
203.02 F	Embankment Construction	Overhaul	\$1.12 per CY - Mile
407.07 B.2.a or 408.07 C.2.a	Hot Bit. Pavement (Excavated Material Hauled to Disposal Area)	Bituminous Mixture	Machine Placed: Bid or Invoice Price + \$20 per Ton Hand Placed: Bid or Invoice Price + \$37 per Ton
420.06	Bituminous Seal Coat	Blotter Sand	\$23 per Ton**
650.04 D.2 Step 3 650.05 D.2 Step 3	Repair & Overlay of PCC Bridge Decks	Low-Slump Concrete	\$335.55 per CY
708	Erosion Control	Mucking Silt Fence	\$3.00 per L.F.
708	Erosion Control	Mucking of Fiber Rolls	\$3.00 per L.F.
708	Erosion Control	Removal of Silt Fence	\$3.50 per L.F.
708	Erosion Control	Removal of Fiber Rolls	\$3.50 per L.F.

* Price paid for bituminous material will be Invoice Price plus Freight Costs.

** Price includes haul up to 10 miles. Payment for haul exceeding 10 miles will be according to Section 109.04 C of the Standard Specifications. The haul distance for Aggregate Base and Bituminous Mix will be based on the average haul. The haul distance for Blotter Sand will be from the point where the haul begins to the point where it enters the project.

CASS COUNTY HIGHWAY DEPARTMENT

SPECIAL PROVISION 13-1

January 1, 2013

SECTION 102.02 CONTRACTOR LICENSE

Section 102.02 of the Standard Specifications for Road and Bridge Construction, 2008 edition is deleted. All bidders must possess a current North Dakota Contractors License in accordance with § 43-07-12 of the North Dakota Century Code.

SECTION 104.06 CONTRACTOR CLAIMS

If the Contractor claims additional compensation for work or material not covered by the Contract, the Contractor is required to prosecute the claim in accordance with Standard Specifications for Road and Bridge Construction, 2008 edition, paragraph 104.06, et seq. The provisions of subparagraph 104.06 D are not applicable to this contract, nor are the provisions of North Dakota Century Code 24-02-06 et seq. as the North Dakota Department of Transportation is not a party to this contract.

References in the Standard Specifications for Road and Bridge Construction, 2008 edition, to the North Dakota Department of Transportation or Department must be construed as referring to the owner. Likewise, a reference by the same works to engineer or director must be construed as referring to the owner of the project.

SECTION 104.03 INCREASED OR DECREASED QUANTITIES

Section 104.03 B of the Standard Specifications for Road and Bridge Construction, 2008 does not apply to this project. Any increase or decrease of quantities shall be paid at the bid unit prices only.

**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

CONSTRUCTION NOTES

COMMON EXCAVATION-WASTE:

This item shall include all costs required to excavate and transport potential unsuitable material from the slopes and ditch bottom to re-established grade and to excavate for the placement of rip rap. This material may need to be disposed of offsite unless it is determined by the engineer in the field to be suitable as fill slope material. Existing machine control surface file is available for use to ensure the as-built grade has been re-established. The as-built 2012 grading plans are also attached. The contractor will be responsible for all staking/use of lasers to re-establish the as-built grades. The estimated quantity for this bid item is 500 CY.

BORROW-EXCAVATION:

This item shall include all costs required transport and compact borrow material from the borrow source to within the project limits. 45% shrinkage factor has been included in the quantity of the material for compaction. Borrow is available near the project at STA 306+00 in back slope/levee, approximately 300 CY is available. All costs for topsoil stripping of this area to be included in the price bid for borrow-excavation. The remaining balance will need to come from the contractor's source.

TOPSOIL-IMPORTED:

This item shall include all costs required transport topsoil-imported material from the borrow source to the project site. Material shall be placed in a uniform manner approximately 4 inches thick along the slopes.

DITCH AND SLOPE RESHAPING:

This bid item shall include all costs associated with the finish grading of the slopes and ditches. Again the existing machine control surface file is available for use to ensure the as-built grade has been re-established. The as-built 2012 grading plans are also attached. The contractor will be responsible for all staking/use of lasers to re-establish the as-built grades. The estimated area for this work per mile is 25' wide for each side of the road. Therefore, 50' X 5,280' or approximately 29,333 SY/MILE for 7 miles equals 205,333 SY. Payment will be based on the actual area finished.

MEASUREMENT OF QUANTITIES:

Borrow and excavation quantities shall be paid by the CY. Truck load (CY/Load) counts shall be the basis for these quantities. The contractor and Engineer shall reconcile on a daily basis all quantities.

TRAFFIC CONTROL:

This item shall include all costs associated with flagging, and required signage to safely allow the passage of traffic or a road closure depending upon the location of work.

**CASS COUNTY HIGHWAY DEPARTMENT
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CONSTRUCTION NOTES

SEEDING-TYPE B-CL V & MULCHING:

Payment shall be actual acres seeded. Mulching shall be placed uniformly at over the seeded areas at a rate of 2 tons per acre. Approximately 10% of the soil surface shall be visible through the mulch blanket before the mulch tiller (anchoring/punching) operation. All costs for mulching/anchoring operation to be included in the price bid for MULCHING. No adjustment to unit prices will be made for the increase or decrease in quantities.

A-1 Pasture Mix

- Meadow Bromegrass - 25%
- Intermediate Wheatgrass - 25%
- Crested Wheatgrass - 25%
- Tetraploid Int. Ryegrass - 10%
- Creeping Alfalfa - 15%

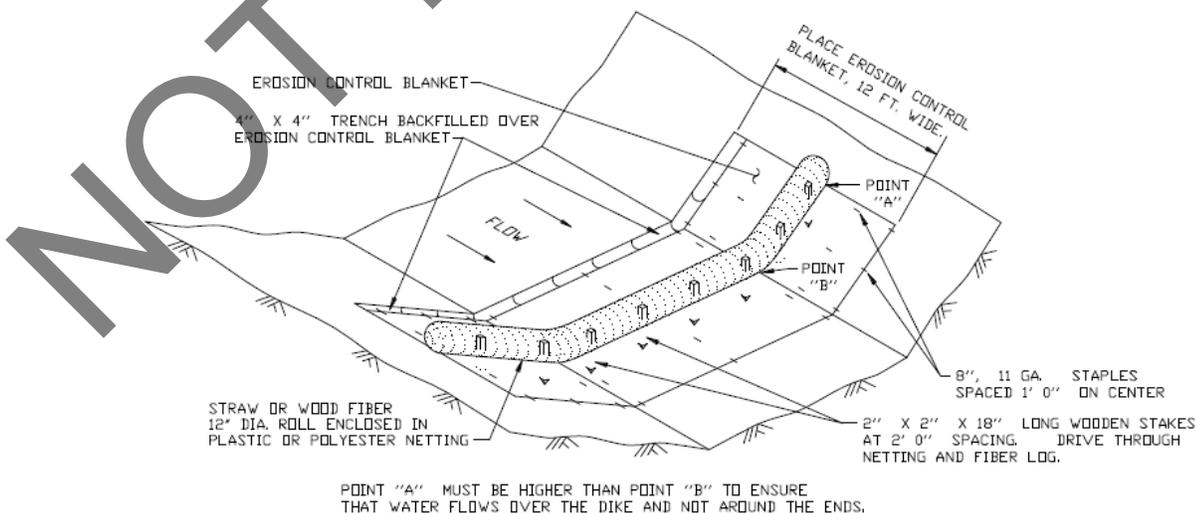
80 lbs of Seed and 20 lbs of Rye per acre.

TEMPORARY EROSION AND SILTATION CONTROL:

The contractor shall submit a temporary erosion control plan in accordance with section 110 of the standard specifications and standard drawing D-708-2. Implementation of the plan shall begin as soon as practical as segments of the project are completed, or as directed by the engineer. All costs associated with this item shall be included in the price bid for FIBER ROLLS 12IN. The estimated quantity for this work is 180 LF.

FIBER ROLLS 12IN:

Bid item is to place 12IN Fiber rolls with ECB Type 2 blankets (12' wide by length of Fiber Rolls) every 2,000 feet for siltation control of ditch bottom. See Fiber Roll Ditch Check detail. Exact locations of Fiber Rolls and ECB Blankets to be determined by Engineer in the field. The estimated quantity for this work is 1,140 LF. Therefore, total quantity for this project is 180 LF + 1,140 LF = 1,320 LF.



FIBER ROLL DITCH CHECK

NOT TO SCALE

**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

CONSTRUCTION NOTES

RIPRAP – LOOSE ROCK:

Bid item is to import and place Riprap in various locations at a depth of 1.5' around inlets and outlets of existing culverts for channel protection. Planned Riprap locations and areas can be found in basis of estimate. Final locations and dimensions to be determined by Engineer in the field.

PLACE PIPE CORR STEEL 24IN:

This item is to install a 60 foot long, 24-inch steel culvert from the back slope/levee to the existing ditch at STA 292+00 RT. CSP, end section and flap gate will be furnished by the county, and bid item is only for labor to install culvert. Contractor will have to excavate around an existing fiber optic line and over-excavate in East-West direction to lift line approximately 1 foot in elevation to and place culvert beneath line. Exact location and inlet/outlet elevation of CSP to be determined by Engineer in the field.

NOT FOR BIDDING

**CASS COUNTY HIGHWAY DEPARTMENT
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BASIS OF ESTIMATE – TOPSOIL AND BORROW

Borrow and Topsoil Volumes

STA	Lane	Location	Borrow (CY)	Topsoil (CY)
0+00	LT	Outlet	2.7	6.5
0+00	RT	Outlet	17.8	2.2
13+00	LT	Outlet	15.8	2.7
26+53	RT	Outlet	141.8	13.1
45+73	LT	Inlet	3.2	0.8
45+73	LT	Outlet	6.1	1.4
45+73	RT	Outlet	77.6	5.9
52+62	LT	Inlet	45.5	7.9
52+62	RT	Inlet	1.9	0.5
52+62	LT	Outlet	132.8	14.1
52+62	RT	Outlet	54.8	9.7
88+12	RT	Outlet	137.2	15.0
98+30	LT	Inlet	4.7	1.2
98+30	LT	Outlet	13.9	3.0
105+57	RT	Outlet	62.5	5.7
105+57	LT	Outlet	0.0	3.2
112+44	RT	Outlet	59.3	7.4
132+50	RT	Outlet	231.0	19.0
158+66	RT	Outlet	12.0	2.5
158+66	LT	Outlet	6.5	1.3
173+84	LT	Outlet	17.6	4.7
181+78	RT	Outlet	59.4	7.0
211+39	RT	Inlet	0.5	0.2
211+39	RT	Outlet	4.9	2.5
211+39	LT	Outlet	0.4	0.9
238+06	RT	Outlet	3.3	2.5
286+48	RT	Outlet	5.3	2.7
295+08	RT	Inlet	40.4	2.9
295+08	RT	Outlet	25.7	4.0
368+89	RT	Inlet	2.6	1.3
368+89	RT	Outlet	34.8	4.6
		Subtotal	1222	156
		45% Shrink	550	
		Grand Total	1772	156

**CASS COUNTY HIGHWAY DEPARTMENT
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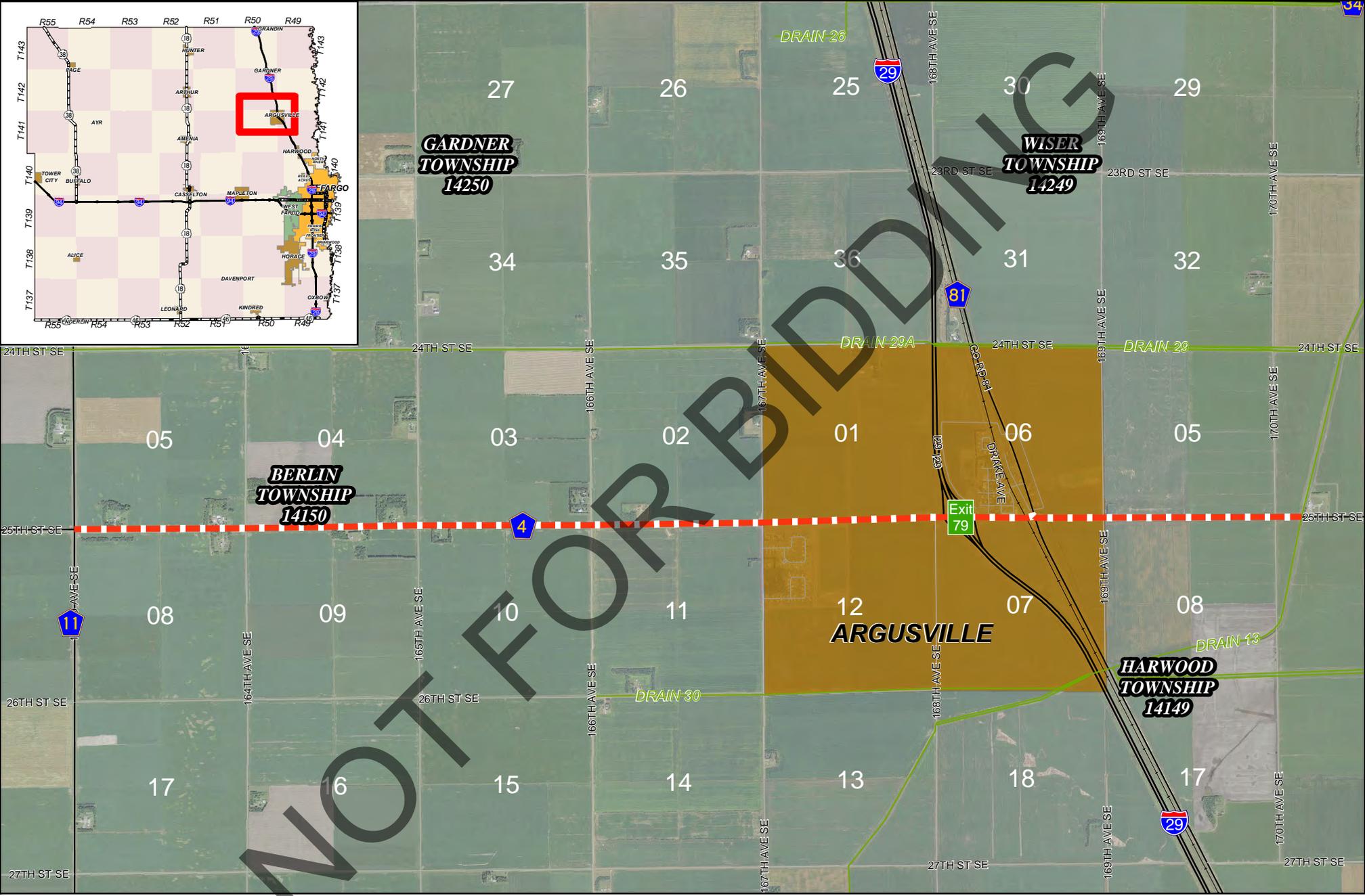
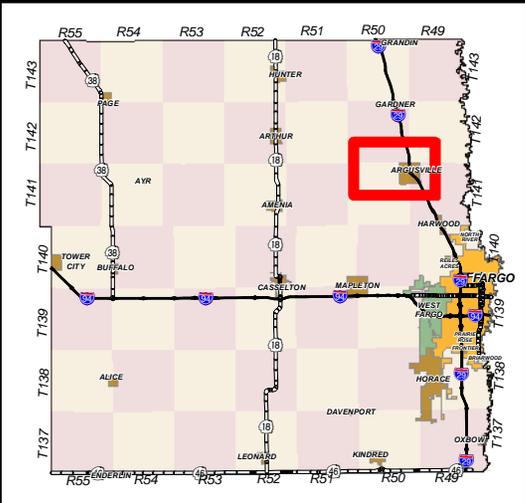
BASIS OF ESTIMATE – RIPRAP: LOOSE ROCK

RIPRAP Volume

Station	Lane	Location	Length (FT)	Width (FT)	Depth (FT)	CY
13+00	LT	Inlet	15	20	1.5	16.7
13+00	LT	Outlet	25	20	1.5	27.8
26+35	RT	Outlet	25	16	1.5	22.2
45+73	RT	Inlet	15	14	1.5	11.7
45+73	RT	Outlet	25	14	1.5	19.4
45+73	LT	Inlet	15	22	1.5	18.3
45+73	LT	Outlet	25	22	1.5	30.6
52+62	RT	Outlet	25	18	1.5	25.0
52+62	LT	Inlet	15	24	1.5	20.0
52+62	LT	Outlet	25	24	1.5	33.3
52+62	LT	Field Entrance	12	6	1.5	4.0
88+12	RT	Outlet	25	18	1.5	25.0
98+30	LT	Inlet	15	24	1.5	20.0
98+30	RT	Outlet	25	24	1.5	33.3
105+57	RT	Outlet	25	14	1.5	19.4
112+44	RT	Outlet	25	14	1.5	19.4
132+50	RT	Outlet	25	16	1.5	22.2
158+66	RT	Outlet	25	20	1.5	27.8
181+78	RT	Outlet	25	22	1.5	30.6
211+39	RT	Field Entrance	12	6	1.5	4.0
211+39	RT	Outlet	25	22	1.5	30.6
238+06	RT	Outlet	25	22	1.5	30.6
		Misc Field Entrances	48	6	1.5	16.0
					SubTotal	507.9 CY
					10% add	50.8
					Total	559 CY

NOT FOR BIDDING

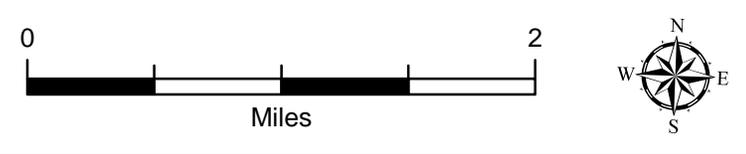
Cass County Hwy 4 Project Identification: Project No. CH1001



Cass County Hwy. Dept.
1201 Main Avenue West
West Fargo, ND 58078

(701) 298-2370
Web: <http://www.casscountynd.gov>
Map Prepared: 8/16/2011

- Road Project
- Drain/Coulee/Ditch
- City Limits
- Railway
- Perennial Stream
- Fargo
- Intermittent Stream
- West Fargo



STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	1	124



SKETCH MAP OF NORTH DAKOTA SHOWING COUNTIES

DESIGN DATA

TRAFFIC	AVERAGE DAILY
CURRENT TRAFFIC (2012)	TOTAL 955
TRAFFIC FORECAST (2032)	TOTAL 1055
DESIGN SPEED	60 MPH
DESIGN LOADING	HS 25
MINIMUM SIGHT DISTANCE (NON-PASSING)	305 FEET

CASS COUNTY HIGHWAY DEPARTMENT

PLANS

FOR

COUNTY PROJECT NO. CH1001

COUNTY HIGHWAY 4

GRADING, AGGREGATE BASE & DRAINAGE IMPROVEMENTS

PROJECT CONSISTS OF REMOVAL OF EXISTING ASPHALT, REMOVAL AND REPLACEMENT OF EXISTING DRAINAGE STRUCTURES, GRADING, AGGREGATE BASE, AND INCIDENTALS.

GOVERNING SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED BY THE NORTH DAKOTA DEPARTMENT OF TRANSPORTATION, OCTOBER 2008; STANDARD DRAWINGS CURRENTLY IN EFFECT; AND OTHER CONTRACT PROVISIONS SUBMITTED HEREIN.

INDEX OF DRAWINGS

SHT. 1	TITLE PAGE
SHT. 2	TABLE OF CONTENTS
SHT. 3-5	NOTES
SHT. 6	ESTIMATE OF QUANTITIES
SHT. 7	BASIS OF ESTIMATE
SHT. 8-11	EARTHWORK
SHT. 12-13	CULVERT LIST
SHT. 14-15	TYPICAL SECTIONS
SHT. 16-23	CONSTRUCTION DETAILS
SHT. 24-29	BOX CULVERT DETAILS
SHT. 30-34	TRAFFIC CONTROL PLAN
SHT. 35-47	PLAN AND PROFILE SHEETS
SHT. 48	ARGUSVILLE INTERCHANGE DITCH DETAILS
SHT. 49-124	CROSS SECTION SHEETS

STANDARD DRAWINGS

D-704-7,8	BREAKAWAY SYSTEMS FOR CONST. ZONE SIGNS
D-704-9,10,11,12,12A	CONSTRUCTION SIGNING DETAILS
D-704-13	BARRICADE DETAILS
D-704-14	CONST. SIGN & BARRICADE ASSEMBLY DETAILS
D-704-15,17,19,21	CONST. SIGN & BARRICADE LOCATION DETAILS
D-708-2	EROSION AND SILTATION CONTROLS

THE STANDARD DRAWINGS ARE NOT INCLUDED IN THE PLANS. STANDARD DRAWINGS ARE AVAILABLE ONLINE AT THE NORTH DAKOTA DOT WEBSITE AT www.dot.nd.gov/dotnet2/view/std drawings.aspx

LENGTH OF PROJECT = 7.143 MILES

SURVEY	OCTOBER, 2009
DESIGN	APRIL, 2010
PS & E	FEBRUARY, 2012

23 USC § 409 Documents
NDDOT Reserves All Objections

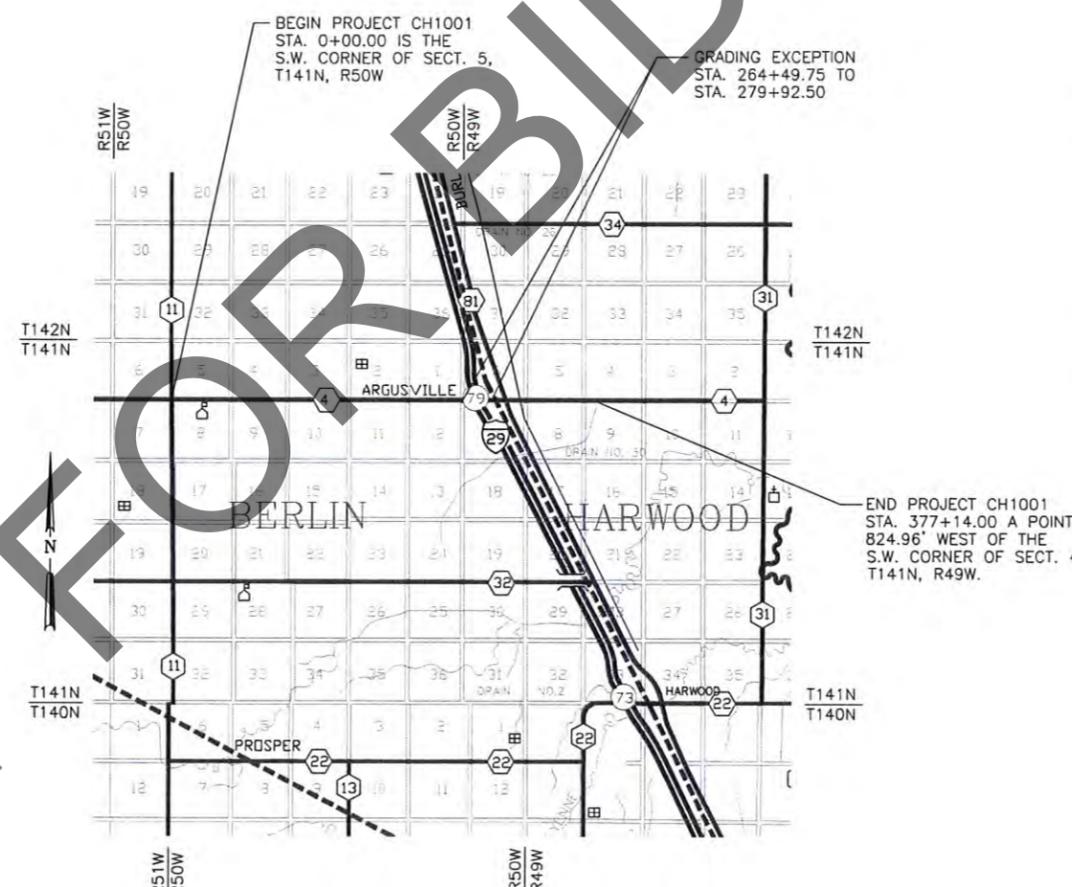
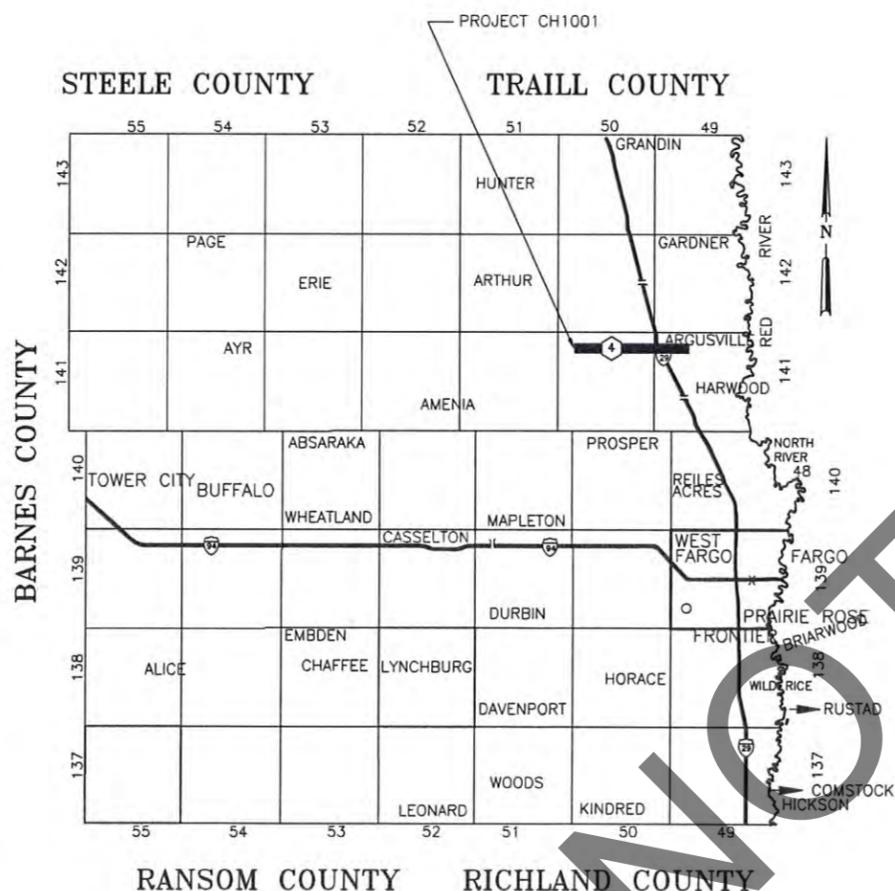
This document was originally issued and sealed by
Richard L. Gunderson
Registration Number
PE-4032,
on 3/8/12 and the original document is stored at the
Cass County Highway Department
Fargo, North Dakota

APPROVED BY CASS COUNTY ENGINEER:

/s/
JASON P. BENSON N.D. REG. NO. 7490
DATE: 3/8/12

	Fargo
	P: 701.237.5065 F: 701.237.5101

AS BUILT - 11/15/12 PROJECT CH1001



APPROVED BY CASS COUNTY ENGINEER:	
/s/	
JASON P. BENSON	N.D. REG. NO. 7490
DATE: 3/8/12	
	Fargo
	P: 701.237.5065 F: 701.237.5101

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	35	124

BOP STA. = 0+00.00
 N = 523373.0960
 E = 2828841.5100

STA. 0+00 = CO. HWY 11 LT.
 INP. - 64"x43"x72' CSP-A
 INP. - 64"x43"x68' CSP-A
 LEAVE AS IS

R/W PARCEL
 HELEN HAGEMEISTER

R/W PARCEL
 BETH HAGEMEISTER

R/W PARCEL
 HELEN HAGEMEISTER

STA. 13+00 = FARM ENT. LT.
 INP. - TIMBER BOX CULVERT
 REMOVE
 F & I - 64"x43"x62' CSP-A (2 LINES)
 F & I - (4) GS APRONS
 INV. W. = 900.72 SEE A1 BUILT LIST
 INV. E. = 900.68

STA. 26+55 = SIDE INLET LT.
 INP. - 30" x 18' CSP W/FLAP
 REMOVE
 F & I - 30" x 30' CSP
 F & I - FLAPGATE FOR 30" CSP
 INV. N. = 901.30 900.81
 INV. S. = 900.70 900.54
F+I-APRON

STA. 7+77 = SIDE INLET LT.
 INP. - 15" x 18' CSP W/FLAP
 REMOVE
 F & I - 15" x 30' CSP
 F & I - FLAP GATE FOR 15" CSP
 INV. N. = 903.00 904.30
 INV. S. = 902.22 904.22
F+I-APRON

BEGIN PROJECT CH 1001
 STA. 0+00.00

STA. 0+00 = CO. HWY 11 RT.
 INP. - 49"x33"x68' CSP-A
 INP. - 42"x29"x68' CSP-A
 LEAVE AS IS

STA. 26+28 = SIDE INLET RT.
 INP. - 30" x 20' CSP W/FLAP
 REMOVE
 F & I - 30" x 30' CSP
 F & I - FLAPGATE FOR 30" CSP
 INV. S. = 901.81 901.42
 INV. N. = 900.77 901.32
 RELOCATE BEYOND THE HIGHWAY
 R/W AS DIRECTED BY THE ENGINEER.
F+I-APRON

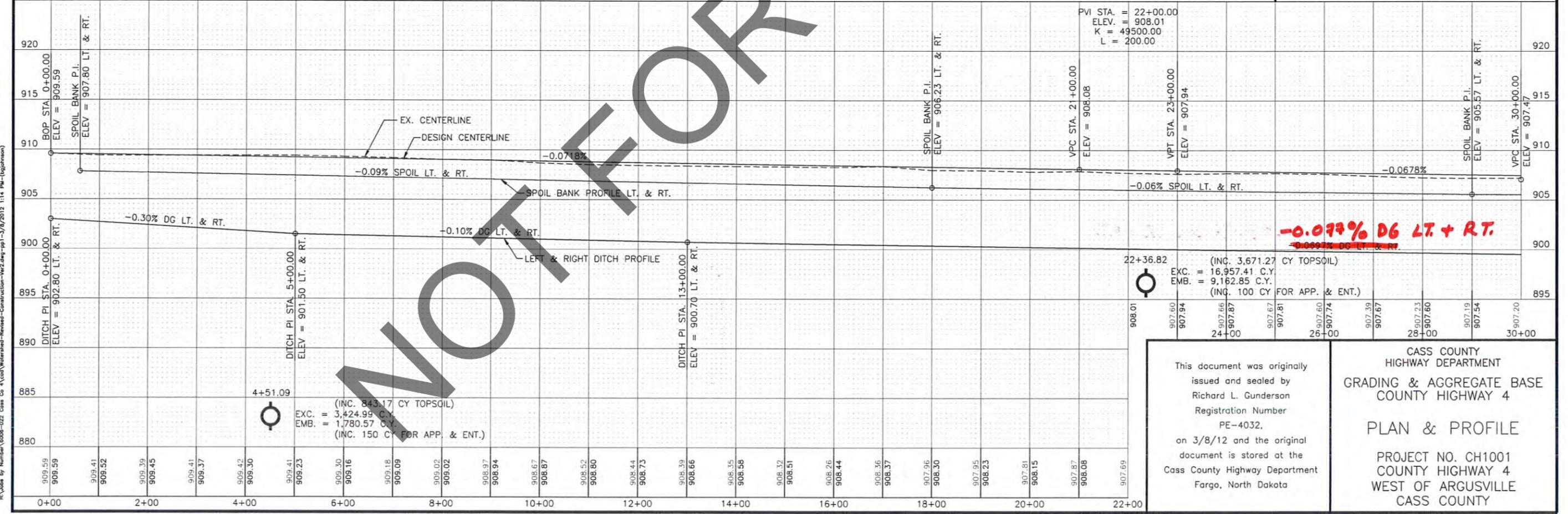
STA. 26+53 = FIELD ENT. RT.
 INP. - 57"x38"x32' CSP-A
 REMOVE
 F & I - 57"x38"x58' CSP-A
 F & I - (2) GS APRONS
 INV. W. = 899.78 900.15
 INV. E. = 899.73 900.00

PROJECT CONTROL POINTS & BENCHMARKS					
BM #	DESCRIPTION	NORTHING	EASTING	STATION	ELEVATION
CP #1	IRON PIPE SET	523287.8371	2828755.2280	-0+90.00 81.07' RT.	906.07

R/W PARCEL
 HELEN HAGEMEISTER



23 USC § 409 Documents
 NDDOT Reserves All Objections
 PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
 AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
 DATED OCTOBER 2009 NAVD 1988



908.01	907.60	907.94	907.66	907.87	907.67	907.81	907.60	907.74	907.39	907.67	907.23	907.60	907.19	907.54	907.20
	24+00		25+00		25+00		25+00		25+00		25+00		25+00		30+00

This document was originally issued and sealed by Richard L. Gunderson Registration Number PE-4032, on 3/8/12 and the original document is stored at the Cass County Highway Department Fargo, North Dakota

CASS COUNTY
 HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE
 COUNTY HIGHWAY 4
 PLAN & PROFILE
 PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

H:\Jobs by Number\0200-022 Cass Co. A\cass\Watermain-Reserve-Construction-102.dwg-pp1-3/8/2012 11:14 PM-(gjohnson)

R/W PARCEL
CHARLES & SUSAN SORVAAG

R/W PARCEL
MARK & NICHOL SORVAAG

STA. 39+92 = SIDE INLET LT.
INP. - 18" x 20' CSP W/FLAP
REMOVE
F & I - 18" x 30' CSP
F & I - FLAPGATE FOR 18" CSP
INV. N. = 901.60 900.53
INV. S. = 899.82 900.43
F+I - APRON

STA. 52+35 = SIDE INLET LT.
INP. - 30" x 21' CSP W/FLAP
REMOVE
F & I - 30" x 40' CSP
F & I - (1) GS APRON
F & I - FLAPGATE FOR 30" CSP
INV. S. = 898.35 898.35
INV. N. = 898.55 898.55
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

STA. 52+62 = TWP. RD. LT.
INP. - TIMBER BOX CULVERT
REMOVE
F & I - 64"x43"x60' CSP-A (2 LINES)
F & I - (4) GS APRONS
INV. W. = 897.11
INV. E. = 897.06
SEE AS BUILT LIST

P.I. STA. = 52+61.66
Δ = 0'34.57" LT.
N = 523585.8735
E = 2834098.8670
CURVE DATA
D = 0'10'23"
R = 19,672.36'
L = 200.00'
T = 100.01'
E = 0.25'
(NORMAL CROWN)

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	36	124

STA. 52+89 = SIDE INLET LT.
INP. - 18" x 50' CSP W/FLAP
REMOVE
F & I - 18" x 50' CSP
F & I - (1) GS APRON
F & I - FLAPGATE FOR 18" CSP
INV. S. = 897.85 898.17
INV. N. = 898.25 898.05
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

STA. 45+73 = FARM ENT. LT.
INP. - TIMBER BOX CULVERT
REMOVE
F & I - 64"x43"x60' CSP-A (2 LINES)
F & I - (4) GS APRONS
INV. W. = 898.44
INV. E. = 898.36
SEE AS BUILT LIST

3TA 44+23
F+I - 18"x30' CSP
F+I - Flapgate for 18"
N INV = 901.50
S INV = 901.22

STA 43+75
F+I - 15"x30' CSP
F+I - Flapgate for 15"
F+I - APRON
INV S = 900.64
INV N = 900.47

STA 45+75
F+I - 15"x30' CSP
F+I - Flapgate for 15"
F+I - APRON
INV S = 901.38
INV N = 900.86

STA 47+50
F+I - 15"x30' CSP
F+I - Flapgate for 15"
F+I - APRON
INV S = 901.20
INV N = 900.52

STA. 52+62 = TWP. RD. RT.
INP. - 71"x47"x36' CSP-A
INP. - 36" x 48' CSP
REMOVE
F & I - 73"x55"x54' CSP-A
F & I - (2) GS APRONS
INV. W. = 897.44
INV. E. = 897.94
SEE AS BUILT LIST

STA. 31+42 = SIDE INLET RT.
INP. - 18" x 26' CSP W/FLAP
REMOVE
F & I - 18" x 30' CSP
F & I - FLAPGATE FOR 18" CSP
INV. S. = 901.70 901.68
INV. N. = 900.42 901.81
F+I - APRON

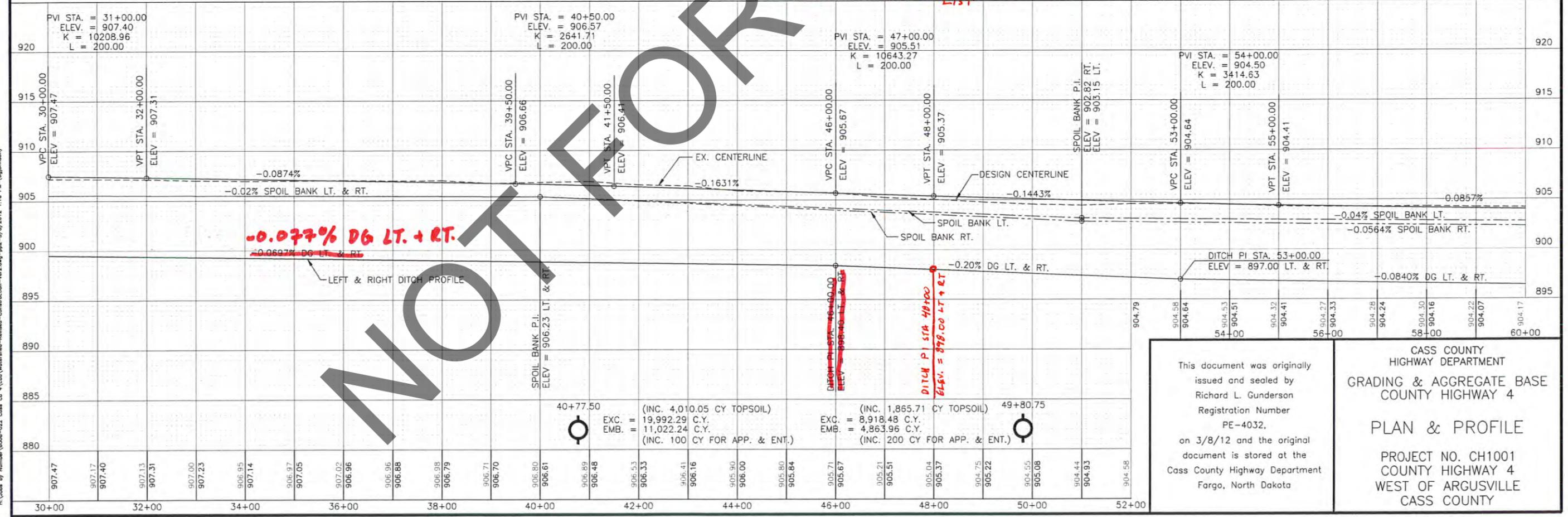
STA. 41+82 = SIDE INLET RT.
INP. - 24" x 20' CSP W/FLAP
REMOVE
F & I - 24" x 30' CSP
F & I - FLAPGATE FOR 24" CSP
INV. S. = 901.10 901.18
INV. N. = 899.69 900.70
F+I - APRON

STA. 45+73 = FARM ENT. RT.
INP. - 71"x47"x34' CSP-A
REMOVE
F & I - 71"x47"x62' CSP-A
F & I - (2) GS APRONS
INV. W. = 898.44
INV. E. = 898.40
SEE AS BUILT LIST

STA. 52+35 = SIDE INLET RT.
INP. - 30" x 20' CSP W/FLAP
REMOVE
F & I - 30" x 42' CSP
F & I - (1) GS APRON
F & I - FLAPGATE FOR 30" CSP
INV. S. = 897.69 898.04
INV. N. = 897.49 897.81
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER
F+I - APRON

23 USC § 409 Documents
NDOT Reserves All Objections

PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
DATED OCTOBER 2009 NAVD 1988



40+77.50
EXC. = 19,992.29 C.Y.
EMB. = 11,022.24 C.Y.
(INC. 100 CY FOR APP. & ENT.)

49+80.75
EXC. = 8,918.48 C.Y.
EMB. = 4,863.96 C.Y.
(INC. 200 CY FOR APP. & ENT.)

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CASS COUNTY HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE COUNTY HIGHWAY 4
PLAN & PROFILE
PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

R:\Users\Number\022-Cass Co. 4\Conf\WaterMain-Revised-Construction-Ver2.dwg - 3/8/2012 1:18 PM - (logonname)

R/W PARCEL
JAMES B. & ANN UELAND

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	37	124

R/W PARCEL
RUTH I. HAGEMEISTER TRUST

STA. 79+06 = SIDE INLET LT.
INP. - 24" x 26' CSP W/FLAP
REMOVE
F & I - 24" x 30' CSP
F & I - FLAPGATE FOR 24" CSP
INV. N. = 896.50 **896.75**
INV. S. = ~~896.10~~ **896.104**

STA. 79+16 = SIDE INLET RT.
INP. - 18" x 13' CSP W/FLAP
REMOVE
F & I - 18" x 30' CSP
F & I - FLAPGATE FOR 18" CSP
INV. S. = 897.00 **896.86**
INV. N. = 896.10 **896.30**
F&I - APRON

STA 87+90
F&I - 18" x 34" CSP
F&I - Flapgate for 18"
INV S = 897.96
INV N = 897.11

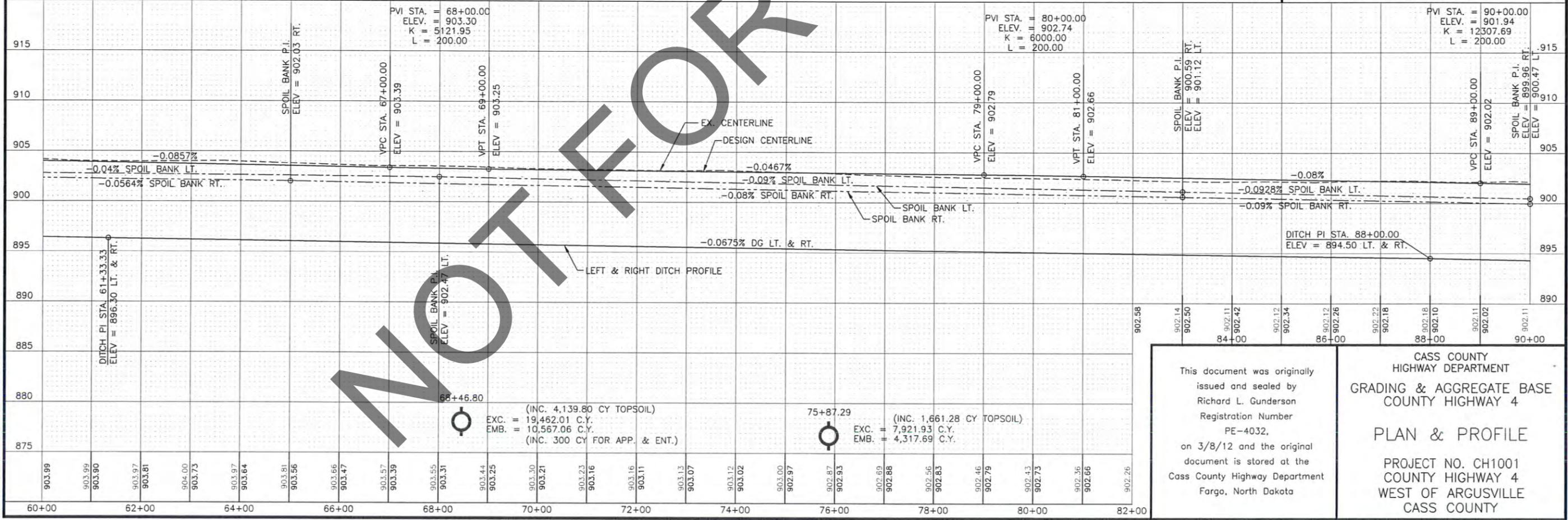
STA. 88+12 = FARM ENT. RT.
INP. 71"x47"x32' CSP-A
REMOVE
F & I - 71"x47"x56' CSP-A
F & I - (2) GS APRONS
INV. W. = 894.53
INV. E. = 894.48

23 USC § 409 Documents
NDDOT Reserves All Objections

R/W PARCEL
CHARLES H. SORVAAG



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DATED OCTOBER 2009 NAVD 1988



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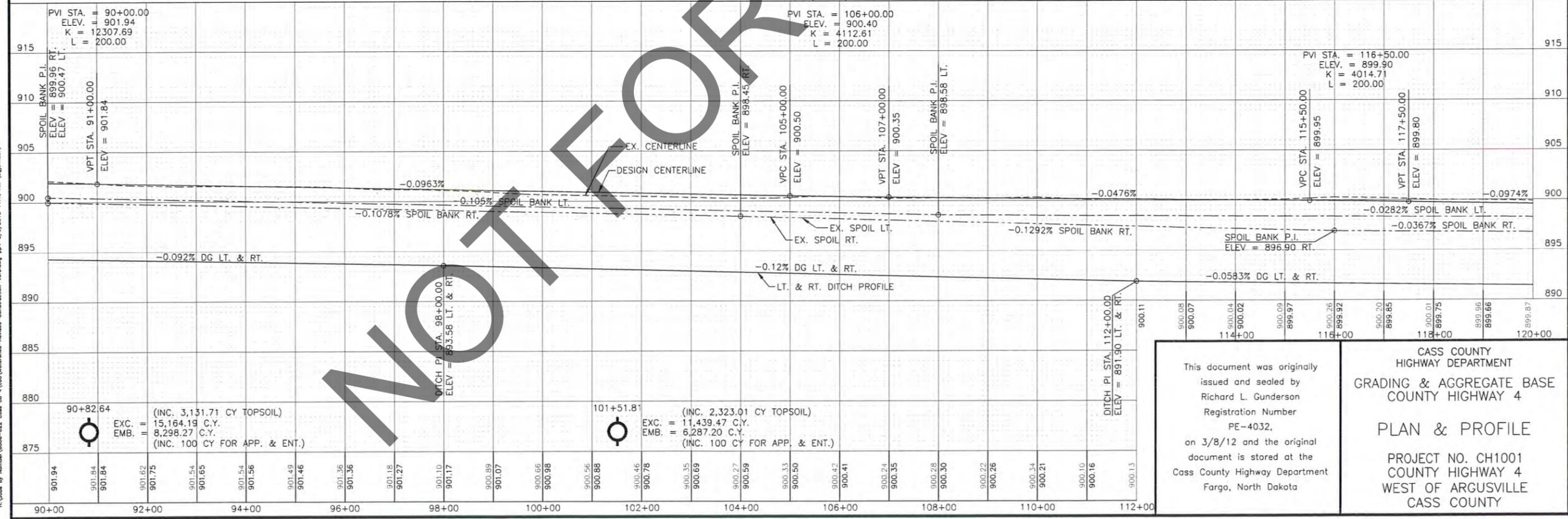
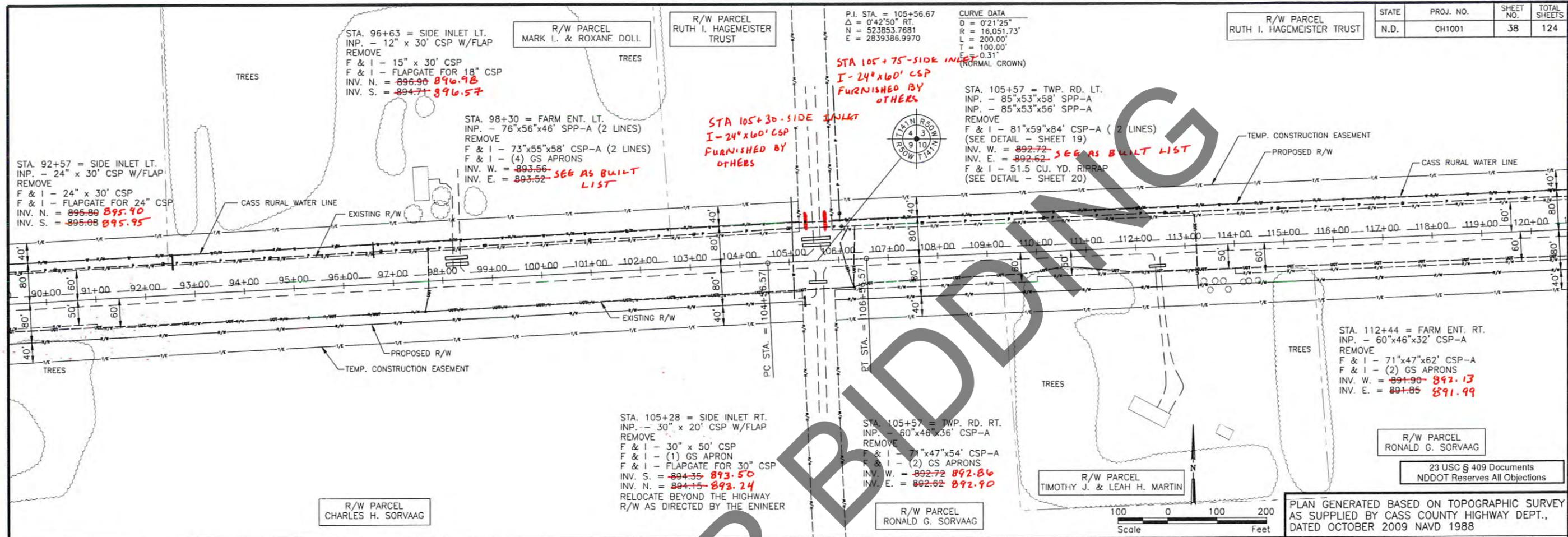
CASS COUNTY
HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE
COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

H:\Jobs by Number\0906-022 Cass Co. \Users\Waterhead-Refresh-Construction\Map-pp-3/12/2012 1:17 PM - (gjohnson)

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	38	124



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CASS COUNTY HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE
 COUNTY HIGHWAY 4
 PLAN & PROFILE
 PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

R:\Jobs by Number\022 Cass Co. 4\cass\Watered-Revised-Construction-Ver2.dwg spt-3/9/2012 11:40 AM (beginman)

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	39	124

R/W PARCEL
LEE E. PAYNE ETAL

R/W PARCEL
RUTH I. HAGEMASTER TRUST

STA. 144+65 = SIDE INLET LT.
INP. - 24" x 24' CSP W/FLAP
REMOVE
F & I - 24" x 34' CSP
F & I - FLAPGATE FOR 24" CSP
INV. N. = ~~895.80~~ **891.72**
INV. S. = ~~897.10~~ **891.48**

STA. 132+23 = SIDE INLET RT.
INP. - 18" x 18' CSP W/FLAP
REMOVE
F & I - ~~18" x 48'~~ **34" x 48'** CSP
F & I - FLAPGATE FOR 18" CSP
INV. S. = ~~892.44~~ **891.84**
INV. N. = ~~892.14~~ **891.86**
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

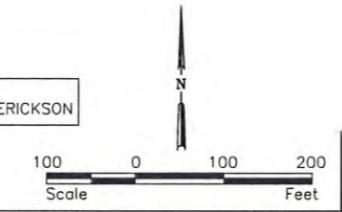
STA. 132+50 = FIELD ENT. RT.
INP. - 60"x46"x32' CSP-A
REMOVE
F & I - 71"x47"x50' CSP-A
F & I - (2) GS APRONS
INV. W. = ~~890.72~~ **890.90**
INV. E. = ~~890.69~~ **890.90**

R/W PARCEL
RONALD G. SORVAAG

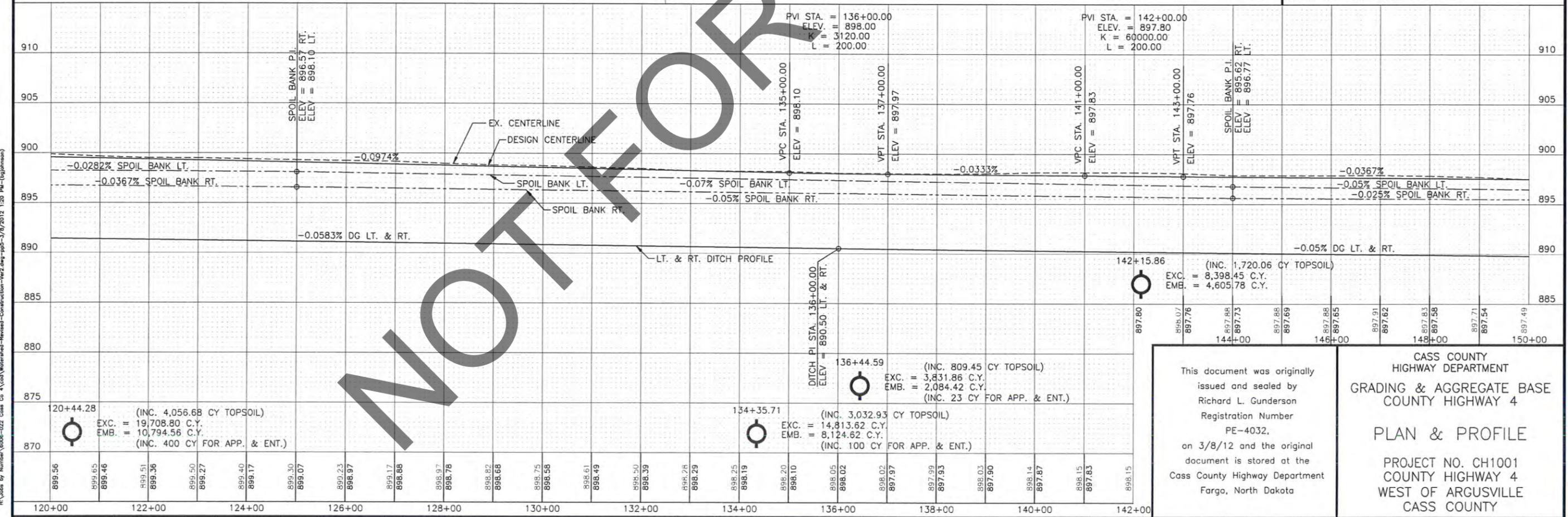
R/W PARCEL
W. GORGON & DORIS J. ERICKSON

23 USC § 409 Documents
NDDOT Reserves All Objections

PROJECT CONTROL POINTS & BENCHMARKS					
BM #	DESCRIPTION	NORTHING	EASTING	STATION	ELEVATION
CP #2	IRON PIPE SET	523881.0609	2842067.2530	132+35.84 74.81' RT.	895.70



PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
DATED OCTOBER 2009 NAVD 1988



142+15.86
EXC. = (INC. 1,720.06 CY TOPSOIL)
EMB. = 8,398.45 C.Y.
EMB. = 4,605.78 C.Y.

136+44.59
EXC. = (INC. 809.45 CY TOPSOIL)
EMB. = 3,831.86 C.Y.
EMB. = 2,084.42 C.Y.
(INC. 23 CY FOR APP. & ENT.)

134+35.71
EXC. = (INC. 3,032.93 CY TOPSOIL)
EMB. = 14,813.62 C.Y.
EMB. = 8,124.62 C.Y.
(INC. 100 CY FOR APP. & ENT.)

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CASS COUNTY
HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE
COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

H:\Jobs by Number\1006-022 Cass Co. 4\road\Waterhead-Revised-Construction-Ver2.dwg-10/12/12 1:20 PM (gjohnson)

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	40	124

R/W PARCEL
LEE E. PAYNE ETAL

STA. 158+38 = SIDE INLET LT.
INP. - 24" x 34' CSP W/FLAP
REMOVE 30"
F & I - 24" x 60' CSP
F & I - (1) GS APRON
F & I - FLAPGATE FOR 24" CSP WATERMAN 30" GATE
INV. S. = 890.40 - 889.94
INV. N. = 890.50 - 890.11
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

P.I. STA. = 158+66.21
Δ = 0°37'30" LT.
N = 524056.3062
E = 2844692.7700

CURVE DATA
D = 0°18'45"
R = 18,334.64'
L = 200.00'
T = 100.00'
E = 0.27'
(NORMAL CROWN)

R/W PARCEL
PERRY RUST ETAL

STA. 173+50 = SIDE INLET LT.
INP. - 12" x 30' CSP W/FLAP
REMOVE
F & I - 15" x 40' CSP
F & I - FLAPGATE FOR 15" CSP
INV. N. = 891.80 - 891.58
INV. S. = 890.20 - 891.17
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

R/W PARCEL
TERRY L. & CHEILA R. PAYNE

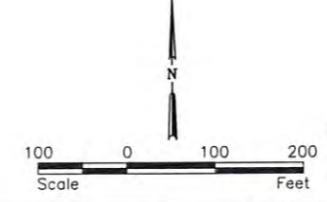
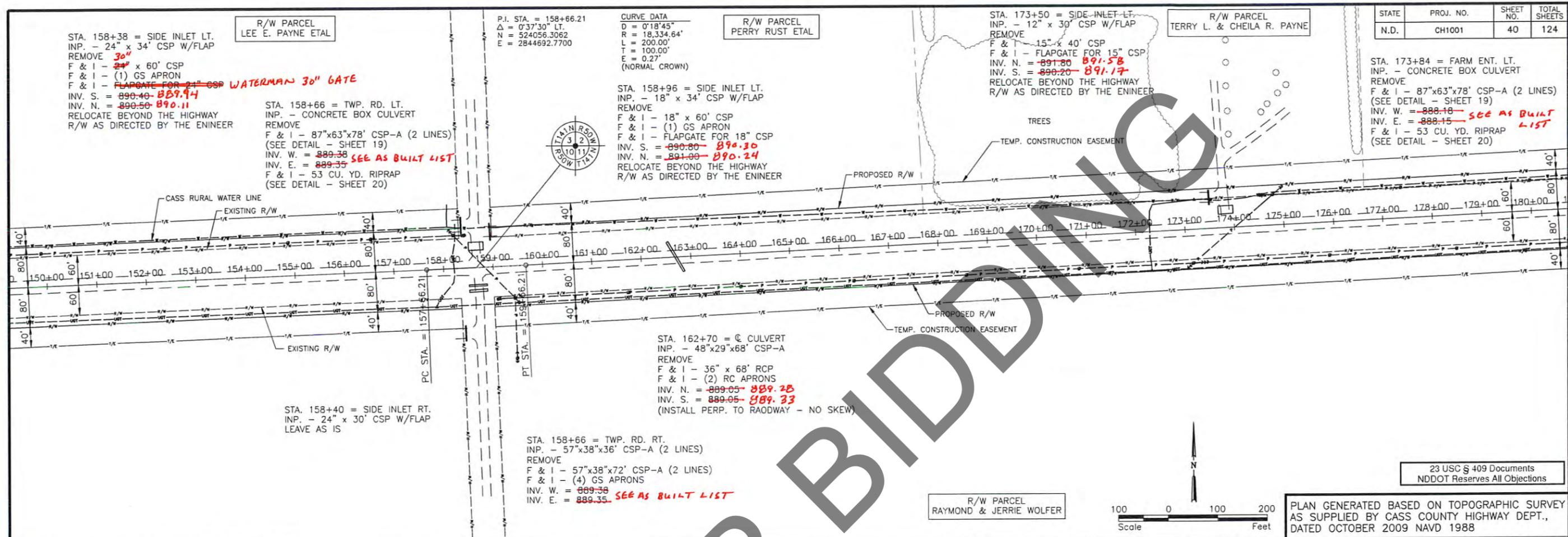
STA. 173+84 = FARM ENT. LT.
INP. - CONCRETE BOX CULVERT
REMOVE
F & I - 87"x63"x78' CSP-A (2 LINES)
(SEE DETAIL - SHEET 19)
INV. W. = 888.18 - SEE AS BUILT LIST
INV. E. = 888.15 - SEE AS BUILT LIST
F & I - 53 CU. YD. RIPRAP
(SEE DETAIL - SHEET 20)

STA. 158+66 = TWP. RD. LT.
INP. - CONCRETE BOX CULVERT
REMOVE
F & I - 87"x63"x78' CSP-A (2 LINES)
(SEE DETAIL - SHEET 19)
INV. W. = 889.38 - SEE AS BUILT LIST
INV. E. = 889.35 - SEE AS BUILT LIST
F & I - 53 CU. YD. RIPRAP
(SEE DETAIL - SHEET 20)

STA. 158+96 = SIDE INLET LT.
INP. - 18" x 34' CSP W/FLAP
REMOVE
F & I - 18" x 60' CSP
F & I - (1) GS APRON
F & I - FLAPGATE FOR 18" CSP
INV. S. = 890.80 - 890.30
INV. N. = 891.00 - 890.24
RELOCATE BEYOND THE HIGHWAY
R/W AS DIRECTED BY THE ENGINEER

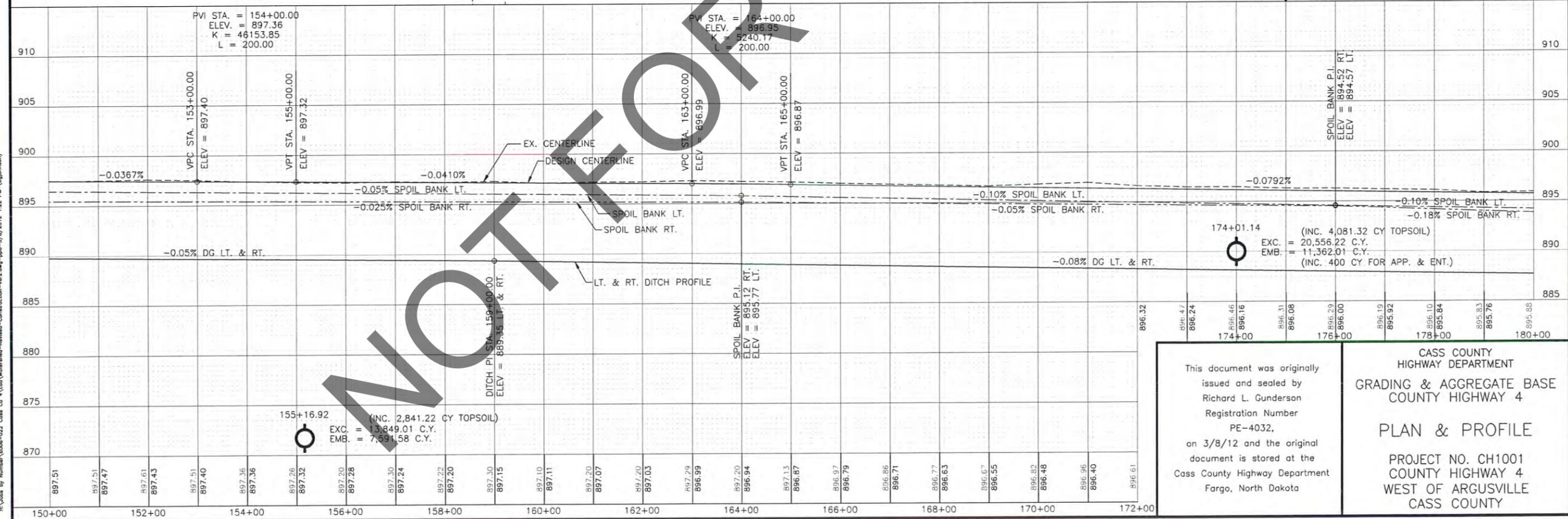
STA. 162+70 = CULVERT
INP. - 48"x29"x68' CSP-A
REMOVE
F & I - 36" x 68' RCP
F & I - (2) RC APRONS
INV. N. = 889.05 - 889.28
INV. S. = 889.05 - 889.33
(INSTALL PERP. TO ROADWAY - NO SKEW)

STA. 158+66 = TWP. RD. RT.
INP. - 57"x38"x36' CSP-A (2 LINES)
REMOVE
F & I - 57"x38"x72' CSP-A (2 LINES)
F & I - (4) GS APRONS
INV. W. = 889.38 - SEE AS BUILT LIST
INV. E. = 889.35 - SEE AS BUILT LIST



23 USC § 409 Documents
NDOT Reserves All Objections

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DATED OCTOBER 2009 NAVD 1988



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Fargo, North Dakota

CASS COUNTY
HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE
COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

H:\Jobs by Number\0006-022 Cass Co A\Cast\Watered-Rev2-Construction-Ver2.dwg-pp6-3/8/2012 1:22 PM - (English)

R/W PARCEL
PERRY RUST ETAL

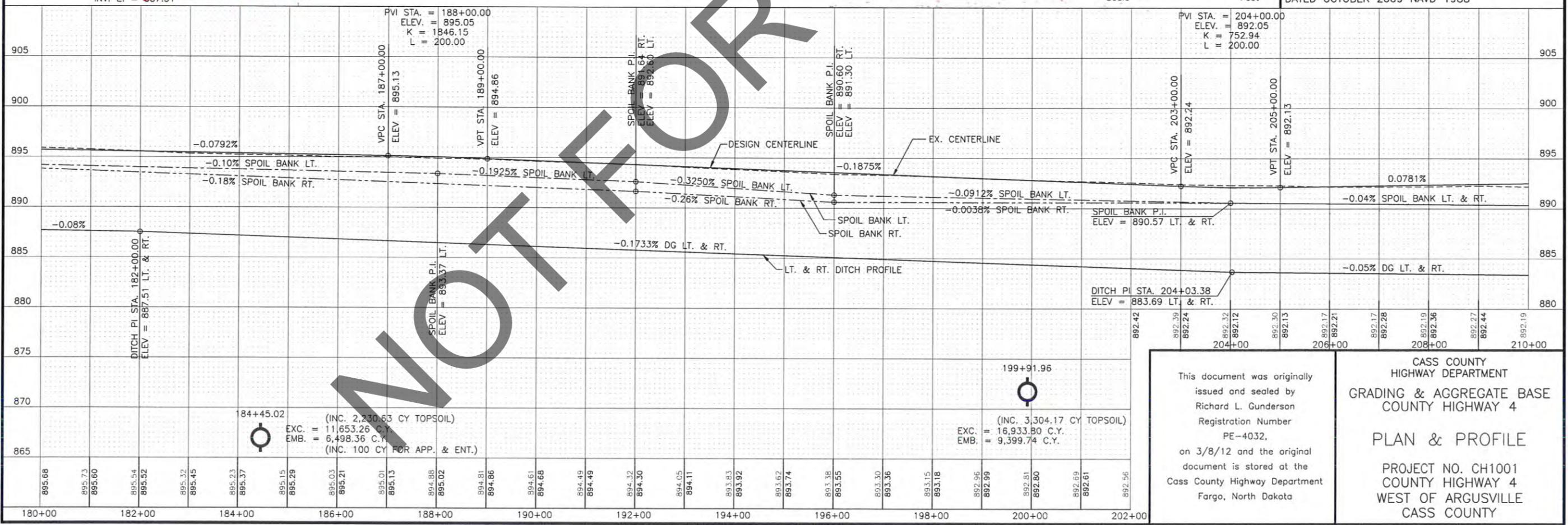
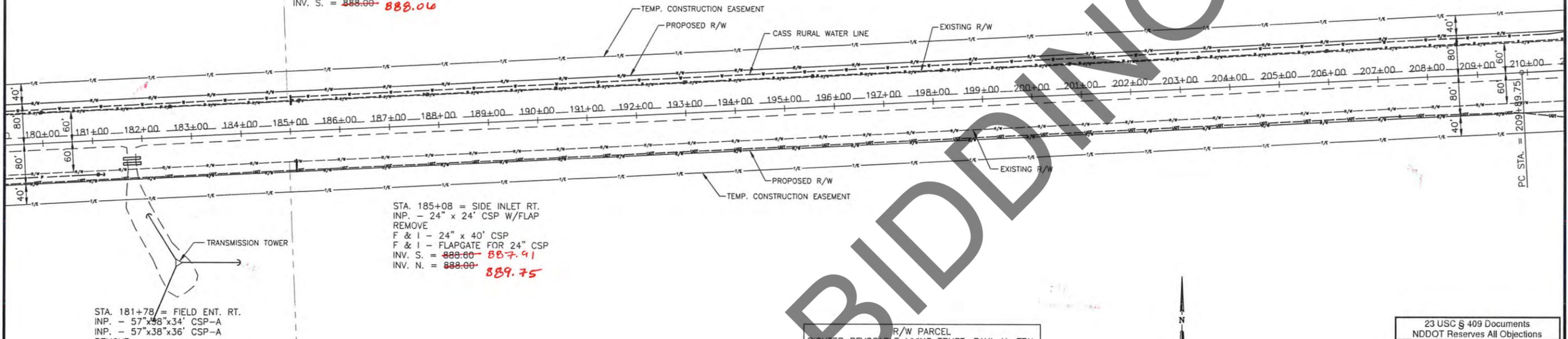
R/W PARCEL
PERRY RUST ETAL

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	41	124

STA. 185+03 = SIDE INLET LT.
INP. - 24" x 18' CSP W/FLAP
REMOVE
F & I - 24" x 40' CSP
F & I - FLAPGATE FOR 24" CSP
INV. N. = ~~888.90~~ **888.39**
INV. S. = ~~888.00~~ **888.06**

STA. 185+08 = SIDE INLET RT.
INP. - 24" x 24' CSP W/FLAP
REMOVE
F & I - 24" x 40' CSP
F & I - FLAPGATE FOR 24" CSP
INV. S. = ~~888.60~~ **887.91**
INV. N. = ~~888.00~~ **889.75**

STA. 181+78 = FIELD ENT. RT.
INP. - 57"x58"x34' CSP-A
INP. - 57"x38"x36' CSP-A
REMOVE
F & I - 57"x38"x62' CSP-A (2 LINES)
F & I - (4) GS APRONS
INV. W. = ~~887.55~~
INV. E. = ~~887.51~~ **SEE A3 BUILT LIST**



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CASS COUNTY HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

H:\Jobs by Number\0008-022 Cass Co. A\Cass\Waterhead-Revised-Construction-Ver2.dwg-ppt-3/8/2012 1:24 PM-(cjohnson)

P.I. STA. = 211+39.26
 $\Delta = 1'08''01''$ LT.
 N = 524314.9208
 E = 2849959.4760

STA. 211+18 = FIELD ENT. LT.
 INP. - 36" x 50' CSP W/FLAP
 LEAVE AS IS

STA. 211+39 = 167TH AVE. SE LT.
 INP. - CONCRETE BOX CULVERT
 REMOVE
 F & I - 87"x63"x84' CSP-A (2 LINES)
 (SEE DETAIL - SHEET 19)
 INV. W. = 883.34
 INV. E. = 883.30 **SEE AS BUILT LIST**
 F & I - 53 CU. YD. RIPRAP
 (SEE DETAIL - SHEET 20)

STA. 211+39 = 167TH AVE SE RT.
 INP. - 57"x38"x78' CSP-A
 INP. - 57"x38"x76' CSP-A
 REMOVE
 F & I - 57"x38"x82' CSP-A (2 LINES)
 F & I - (4) GS APRONS
 INV. W. = 883.34
 INV. E. = 883.30 **SEE AS BUILT LIST**

STA. 211+79 = SIDE INLET RT.
 INP. - 24" x 36" P W/FLAP
 REMOVE
 F & I - 24" x 30" CSP
 F & I - (4) GS APRONS
 F & I - CANAL GATE FOR 24" CSP
 INV. S. = 885.20 **884.97**
 INV. N. = 885.00 **884.77**
 RELOCATE BEYOND THE HIGHWAY
 R/W AS DIRECTED BY THE ENGINEER

STA. 237+84 = SIDE INLET LT.
 INP. - 24" x 22' CSP W/FLAP
 REMOVE
 F & I - 24" x 54' CSP
 F & I - FLAPGATE FOR 24" CSP
 INV. S. = 884.10 **882.53**
 INV. N. = 884.30 **882.83**
 RELOCATE BEYOND THE HIGHWAY
 R/W AS DIRECTED BY THE ENGINEER

STA. 238+06 = FIELD ROAD LT.
 INP. - SINGLE SPAN BRIDGE
 REMOVE
 F & I - 87"x63"x88' CSP-A (2 LINES)
 (SEE DETAIL - SHEET 19)
 INV. W. = 882.02 **SEE AS BUILT LIST**
 INV. E. = 881.96
 F & I - 53 CU. YD. RIPRAP
 (SEE DETAIL - SHEET 20)

STA. 238+06 = FIELD ROAD RT.
 INP. - 57"x38"x38' CSP-A (2 LINES)
 REMOVE
 F & I - 57"x38"x104' CSP-A
 F & I - (4) GS APRONS
 INV. W. = 882.03
 INV. E. = 881.95 **SEE AS BUILT LIST**

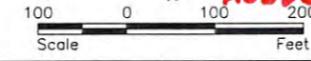
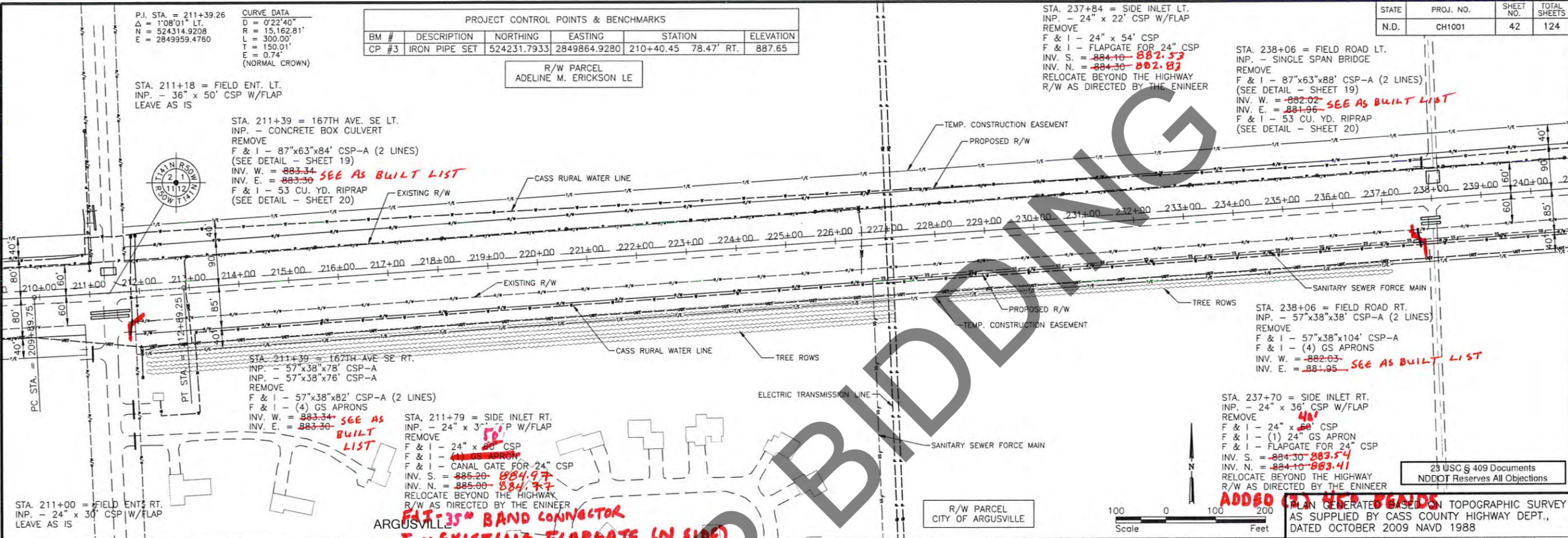
STA. 237+70 = SIDE INLET RT.
 INP. - 24" x 36" CSP W/FLAP
 REMOVE
 F & I - 24" x 30" CSP
 F & I - (1) 24" GS APRON
 F & I - FLAPGATE FOR 24" CSP
 INV. S. = 884.30 **883.54**
 INV. N. = 884.10 **883.41**
 RELOCATE BEYOND THE HIGHWAY
 R/W AS DIRECTED BY THE ENGINEER

PROJECT CONTROL POINTS & BENCHMARKS					
BM #	DESCRIPTION	NORTHING	EASTING	STATION	ELEVATION
CP #3	IRON PIPE SET	524231.7933	2849864.9280	210+40.45	78.47' RT. 887.65

R/W PARCEL
 ADELINE M. ERICKSON LE

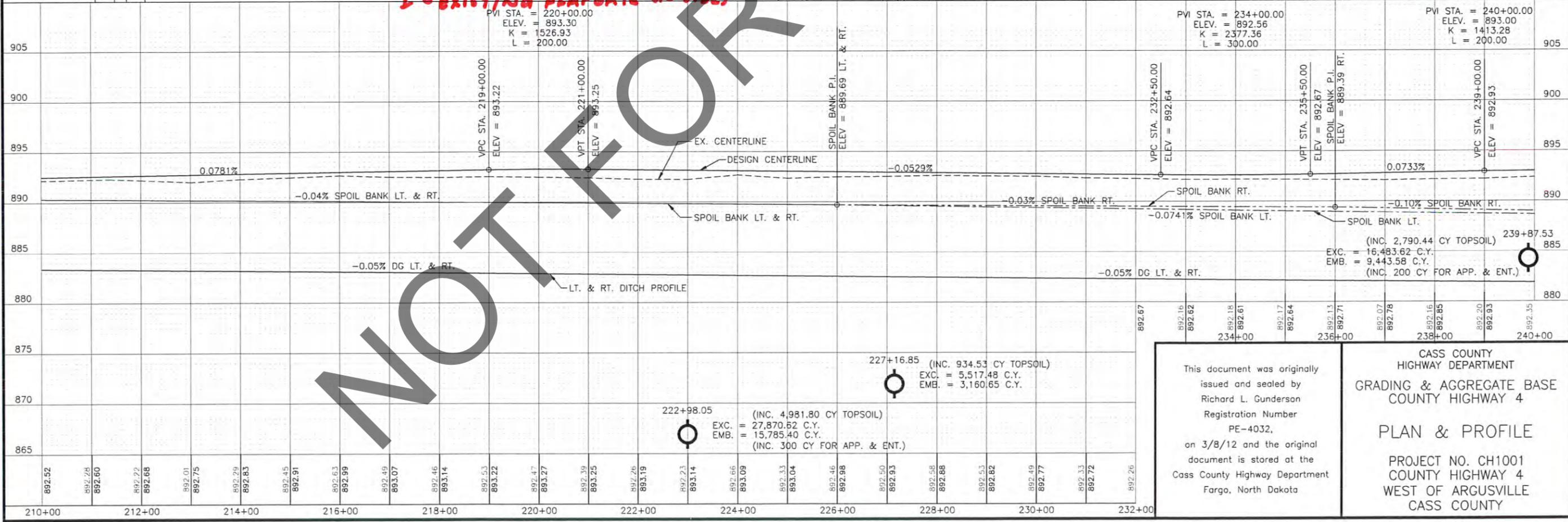
R/W PARCEL
 CITY OF ARGUSVILLE

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	42	124



23 USC § 409 Documents
 NDDOT Reserves All Objections

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 AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
 DATED OCTOBER 2009 NAVD 1988



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CASS COUNTY HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

R:\Jobs by Number\6008-022 Cass Co. \Cass\Waterated-Revised-Construction-Ver2.dwg-pp8-3/9/2012 1:25 PM - (logjman)

R/W PARCEL
RAYMOND WOLFER LE

CURVE DATA
D = 0'45"00"
R = 7,639.44'
L = 335.89'
T = 167.97'
E = 1.85'
(NORMAL CROWN)

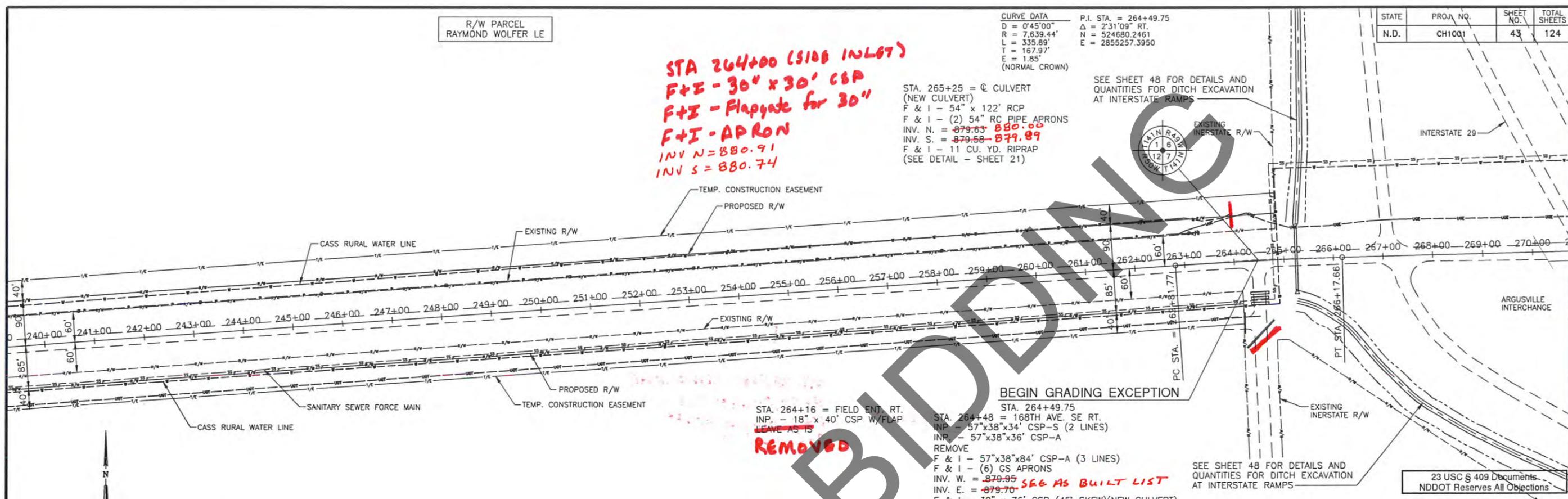
P.I. STA. = 264+49.75
Δ = 231'09" RT.
N = 524680.2461
E = 2855257.3950

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	43	124

STA 264+00 (SIDE INLET)
F+I - 30" x 30' CSP
F+I - Flapgate for 30"
F+I - APRON
INV N = 880.91
INV S = 880.74

STA. 265+25 = CULVERT
(NEW CULVERT)
 F & I - 54" x 122' RCP
 F & I - (2) 54" RC PIPE APRONS
 INV. N. = 879.63 **880.00**
 INV. S. = 879.58 **879.89**
 F & I - 11 CU. YD. RIPRAP
 (SEE DETAIL - SHEET 21)

SEE SHEET 48 FOR DETAILS AND
QUANTITIES FOR DITCH EXCAVATION
AT INTERSTATE RAMP



STA. 264+16 = FIELD ENT. RT.
 INP. - 18" x 40' CSP W/FLAP
 LEAVE AS IS
REMOVED

STA. 264+48 = 168TH AVE. SE RT.
 INP. - 57"x38"x34' CSP-S (2 LINES)
 INP. - 57"x38"x36' CSP-A
 REMOVE
 F & I - 57"x38"x84' CSP-A (3 LINES)
 F & I - (6) GS APRONS
 INV. W. = 879.95 **SEE AS BUILT LIST**
 INV. E. = 879.70
 F & I - 30" x 76" CSP (45' SKEW)(NEW CULVERT)
 F & I - (1) FLAPGATE FOR 30" CSP
 F & I - (1) 36" GS PIPE APRON
 INV. W. = 882.10 **883.33**
 INV. E. = 879.76 **883.28**

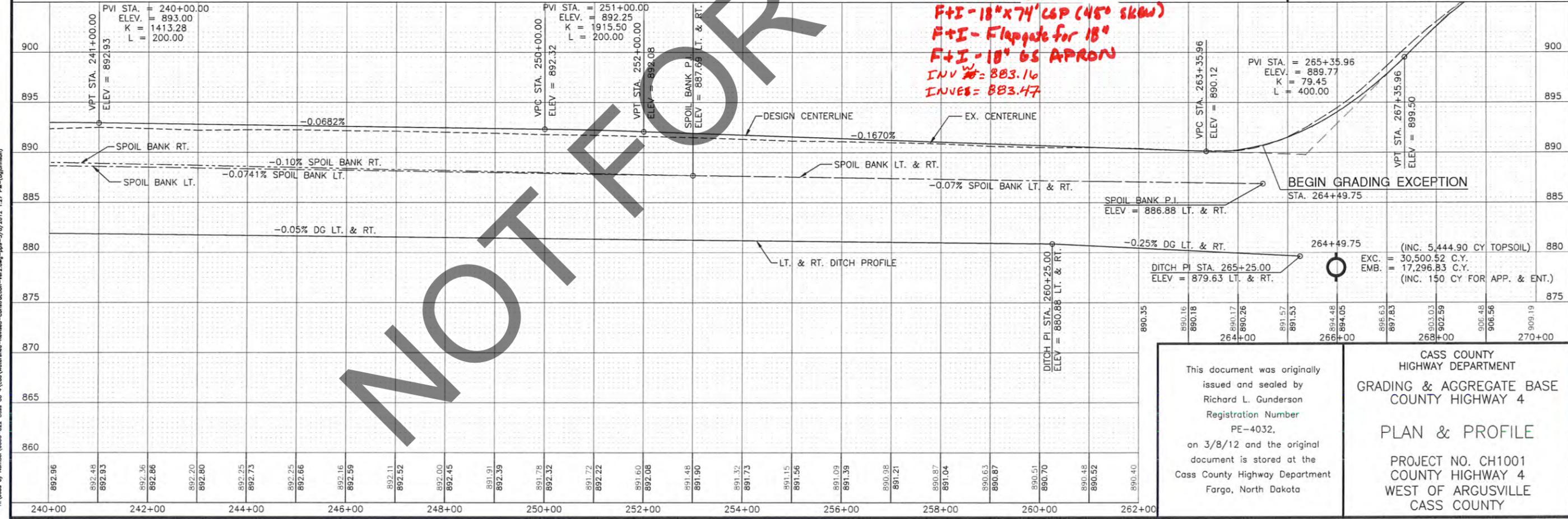
SEE SHEET 48 FOR DETAILS AND
QUANTITIES FOR DITCH EXCAVATION
AT INTERSTATE RAMP

23 USC § 409 Documents
NDDOT Reserves All Objections

PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
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DATED OCTOBER 2009 NAVD 1988



R/W PARCEL
NEWMAN FAMILY PARTNERSHIP



F+I - 18" x 74" CSP (45° SKEW)
F+I - Flapgate for 18"
F+I - 18" GS APRON
INV W = 883.16
INVES = 883.47

BEGIN GRADING EXCEPTION
 STA. 264+49.75
 (INC. 5,444.90 CY TOPSOIL)
 EXC. = 30,500.52 C.Y.
 EMB. = 17,296.83 C.Y.
 (INC. 150 CY FOR APP. & ENT.)

This document was originally
issued and sealed by
Richard L. Gunderson
Registration Number
PE-4032,
on 3/8/12 and the original
document is stored at the
Cass County Highway Department
Fargo, North Dakota

CASS COUNTY
HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE
 COUNTY HIGHWAY 4
 PLAN & PROFILE
 PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

H:\Jobs\1000-022 Cass Co. \Cass\Water\Revised-Construction-Ver2.dwg - 3/8/2012 1:27 PM - (logjman)

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	44	124

P.I. STA. = 295+17.43
 N = 524756.5563
 E = 2858324.1846

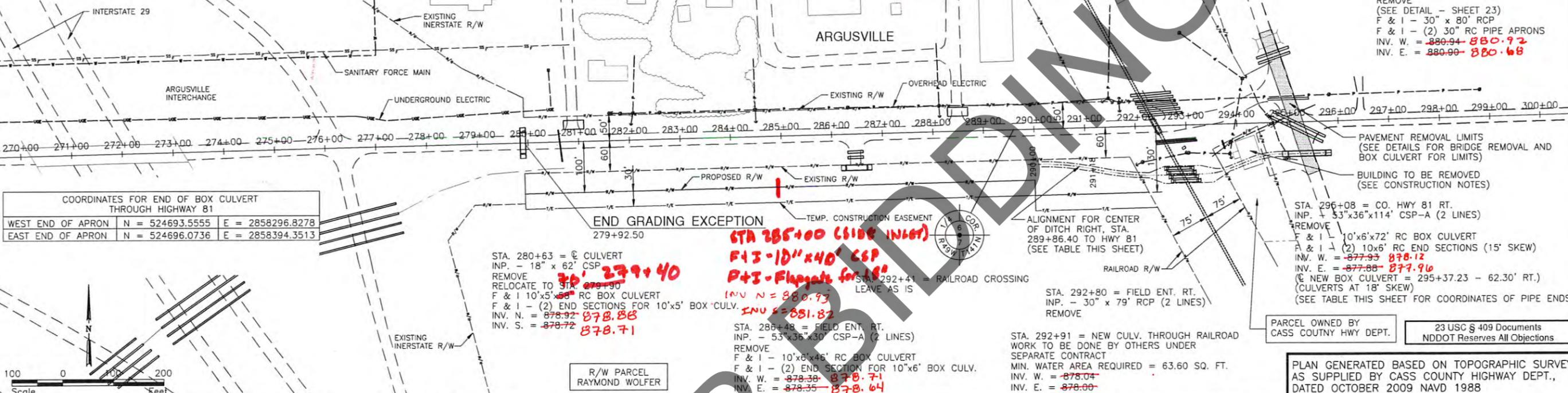
ALIGNMENT - CENTER OF DITCH RT.					
ITEM	STATION	NORTHING	EASTING	Δ ANGLE	CURVE RADIUS
BEG.	289+86.40	524674.6082	2857794.6293		
PI	290+62.50	524675.3334	2857870.7264	11°07'14" RT.	500'
PI	291+92.02	524651.5075	2857998.3517	12°00'00" LT.	500'
PI	293+61.83	524655.7410	2858168.4898	20°10'33" LT.	150'
PI	294+61.53	524692.6485	2858261.7013	20°07'20" RT.	150'
END	295+92.90	524696.0535	2858393.5736		

STA. 280+90 = ALDRICH AVE. LT.
 INP. - 6'x4'x40' RC BOX CULV. (2 LINES)
 SALVAGE
 CONSTRUCT DRY CROSSING
 BOX CULV. AND END SECTIONS TO
 BECOME PROPERTY OF THE COUNTY

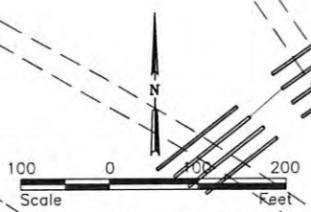
STA. 288+79 = NORTHERN DRIVE LT.
 INP. - 6'x4'x40' RC BOX CULV. (2 LINES)
 SALVAGE
 F & I - 24" x 54" CSP
 F & I - (2) 24" GS APRONS
 INV. W. = ~~883.02~~ **883.09**
 INV. E. = ~~882.97~~ **882.17**
 BOX CULV. AND END SECTIONS TO
 BECOME PROPERTY OF THE COUNTY

STA. 292+73 = FIELD ENT. LT.
 INP. - 48" x 79' CSP (4 LINES)
 INP. - 54" x 79' CSP (2 LINES)
 LEAVE AS IS

STA. 295+08 = CO. HWY 81 LT.
 INP. - 53"x36"x65' CSP-A (2 LINES)
 INP. - TIMBER BRIDGE
 REMOVE
 (SEE DETAIL - SHEET 23)
 F & I - 30" x 80' RCP
 F & I - (2) 30" RC PIPE APRONS
 INV. W. = ~~880.94~~ **880.92**
 INV. E. = ~~880.90~~ **880.68**



COORDINATES FOR END OF BOX CULVERT THROUGH HIGHWAY 81			
WEST END OF APRON	N = 524693.5555	E = 2858296.8278	
EAST END OF APRON	N = 524696.0736	E = 2858394.3513	



STA. 280+63 = CULVERT
 INP. - 18" x 62" CSP
 REMOVE
 RELOCATE TO STA. ~~279+90~~ **279+40**
 F & I 10'x5'x6' RC BOX CULVERT
 F & I - (2) END SECTIONS FOR 10'x5' BOX CULV.
 INV. N. = ~~878.92~~ **878.88**
 INV. S. = ~~878.72~~ **878.71**

STA. 285+00 (SIDE INLET)
 F & I - 10'x4'x40' CSP
 F & I - Flapgate for 18"
 INV. N. = ~~880.93~~
 INV. S. = ~~881.82~~

STA. 288+48 = FIELD ENT. RT.
 INP. - 53"x36"x30' CSP-A (2 LINES)
 REMOVE
 F & I - 10'x6'x46' RC BOX CULVERT
 F & I - (2) END SECTION FOR 10'x6' BOX CULV.
 INV. W. = ~~878.38~~ **878.71**
 INV. E. = ~~878.35~~ **878.64**

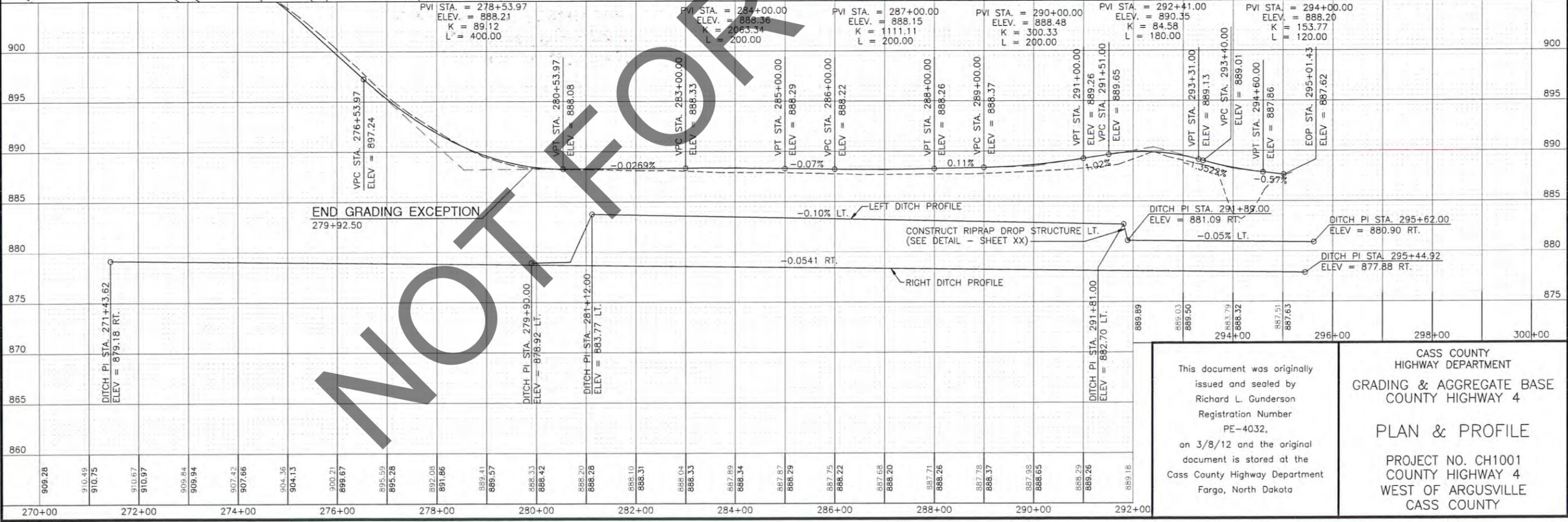
STA. 292+80 = FIELD ENT. RT.
 INP. - 30" x 79' RCP (2 LINES)
 REMOVE

STA. 292+91 = NEW CULV. THROUGH RAILROAD
 WORK TO BE DONE BY OTHERS UNDER
 SEPARATE CONTRACT
 MIN. WATER AREA REQUIRED = 63.60 SQ. FT.
 INV. W. = ~~878.04~~
 INV. E. = ~~878.00~~

PARCEL OWNED BY
 CASS COUNTY HWY DEPT.

23 USC § 409 Documents
 NDDOT Reserves All Objections

PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
 AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
 DATED OCTOBER 2009 NAVD 1988



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CASS COUNTY
 HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE
 COUNTY HIGHWAY 4
 PLAN & PROFILE
 PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

H:\Jobs by Number\0006-022 Cass Co. \conf\Watermain-Revised-Construction-Ver2-eat.dwg-rp-0-2/9/2012 1:07 PM (ngjman)

P.I. STA. = 295+17.43
 N = 524756.5563
 E = 2858324.1846

R/W PARCEL
 DUANE F. & MERLE EGEBERG

STA. 316+15.65 = TWP. ROAD LT.
 INP. - TIMBER BRIDGE
 REMOVE
 F & I - 30" x 70' CSP
 F & I - (2) 30" GS PIPE APRONS
 INV. W. = ~~879.86~~ **879.78**
 INV. E. = ~~879.85~~ **879.77**

P.I. STA. = 316+15.65
 N = 524810.9036
 E = 2860421.7030

R/W PARCEL
 ROBERT P. MINCH ETAL

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	45	124

STA. 296+47 = FARM ENT. LT.
 INP. - THREE SPAN TIMBER BRIDGE
 REMOVE
 F & I - 30" x 58' CSP
 F & I - (2) 30" GS PIPE APRONS
 INV. W. = ~~880.87~~ **880.68**
 INV. E. = ~~880.84~~ **880.64**

STA. 315+82 = FIELD ENT. LT.
 INP. - 24" x 26' CSP
 REMOVE
 F & I - 24" x 44' CSP
 F & I - (2) 24" GS PIPE APRONS
 INV. N. = ~~881.90~~ **882.13**
 INV. S. = ~~881.60~~ **882.01**
 RELOCATE BEYOND THE HIGHWAY R/W
 AS DIRECTED BY THE ENGINEER.

STA. 316+35 = FIELD ENT. LT.
 INP. - DRY CROSSING
 REMOVE
 RELOCATE BEYOND THE HIGHWAY R/W
 AS DIRECTED BY THE ENGINEER.

STA. 318+72 = CULVERT
 INP. - 30" x 31' RCP (WITH CONC. HEADWALLS)
 REMOVE
 F & I 24" x 84' CSP
 F & I (2) 24" GS PIPE APRONS
 INV. N. = ~~879.74~~ **879.22**
 INV. S. = ~~876.72~~ **876.05**

STA. 316+35 = FIELD ENT. RT.
 INP. - 24" x 40' CSP
 REMOVE
 F & I - 24" x 50' CSP
 F & I - FLAPGATE FOR 24" CSP
 F & I - (1) GS PIPE APRON
 INV. N. = ~~881.40~~ **880.82**
 INV. S. = ~~881.60~~ **881.77**
 RELOCATE BEYOND THE HIGHWAY R/W
 AS DIRECTED BY THE ENGINEER.

STA. 316+15.65 = TWP. ROAD RT.
 INP. - 7' SPAN x 4.5' RISE RC BOX CULV. 28' LONG (2 LINES)
 REMOVE
 F & I - 96"x67"x104" CSP-A (2 LINES)
 BEVEL ENDS (SEE DETAIL - SHEET 19)
 INV. W. = ~~876.85~~ **SEE AS BUILT LIST**
 INV. E. = ~~876.82~~ **SEE AS BUILT LIST**
 F & I - 56.5 CU. YD. RIPRAP
 (SEE DETAIL - SHEET 20)

STA. 312+26 = SIDE INLET RT.
 INP. - 18" x 20' CSP
 REMOVE
 F & I - 18" x 44' CSP
 F & I - FLAPGATE FOR 18" CSP
 INV. N. = ~~878.00~~ **881.46**
 INV. S. = ~~882.30~~ **881.53**

STA. 306+87 = SIDE INLET RT.
 INP. - 18" x 20' CSP
 REMOVE
 F & I - 18" x 44' CSP
 F & I - FLAPGATE FOR 18" CSP
 INV. N. = ~~878.30~~ **881.20**
 INV. S. = ~~882.50~~ **881.44**

STA. 315+89 = FIELD ENT. RT.
 INP. - 24" x 36' CSP
 REMOVE
 F & I - 24" x 42' CSP
 F & I - FLAPGATE FOR 24" CSP
 F & I - (1) GS PIPE APRON
 INV. N. = ~~882.10~~ **881.08**
 INV. S. = ~~882.30~~ **881.27**
 RELOCATE BEYOND THE HIGHWAY R/W
 AS DIRECTED BY THE ENGINEER.

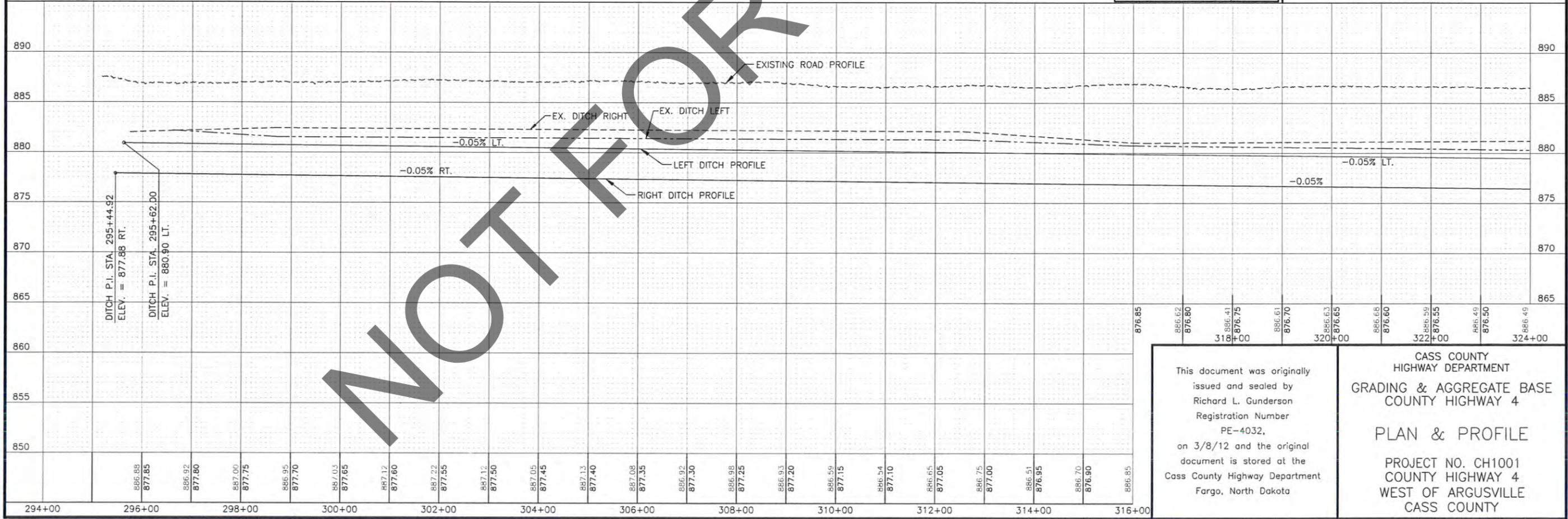
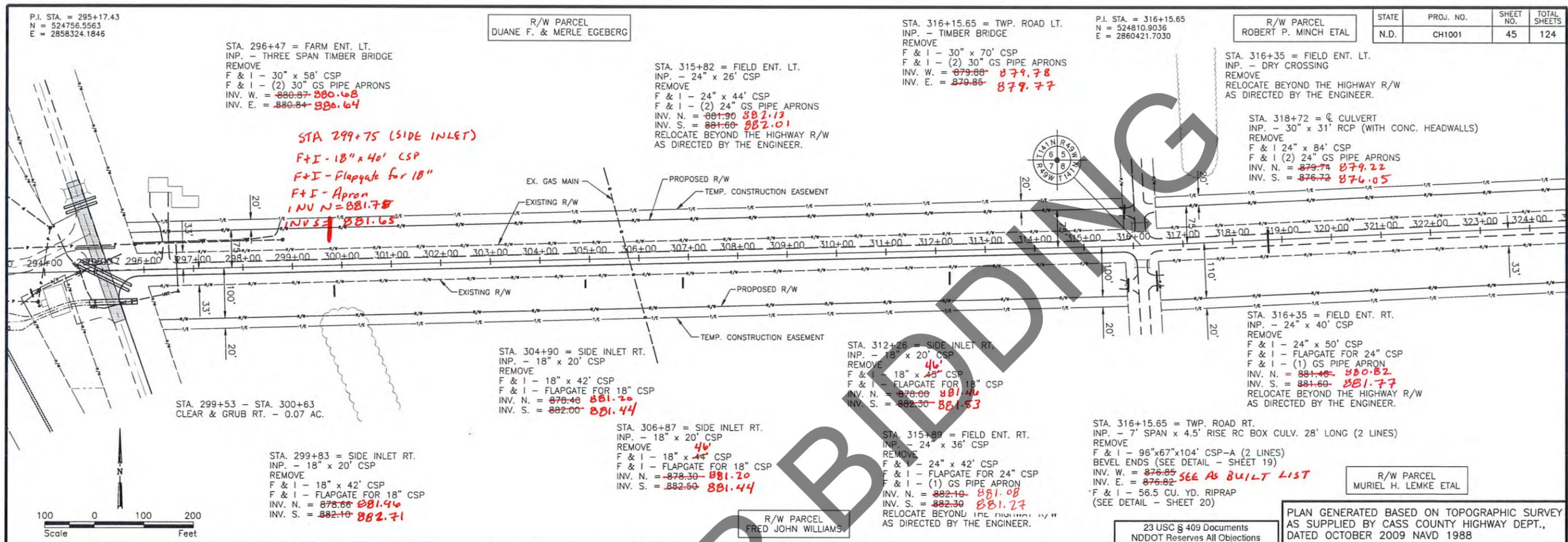
STA. 299+83 = SIDE INLET RT.
 INP. - 18" x 20' CSP
 REMOVE
 F & I - 18" x 42' CSP
 F & I - FLAPGATE FOR 18" CSP
 INV. N. = ~~878.68~~ **881.96**
 INV. S. = ~~882.10~~ **882.71**

STA. 299+53 - STA. 300+63
 CLEAR & GRUB RT. - 0.07 AC.

R/W PARCEL
 FRED JOHN WILLIAMS

23 USC § 409 Documents
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 DATED OCTOBER 2009 NAVD 1988



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CASS COUNTY
 HIGHWAY DEPARTMENT
 GRADING & AGGREGATE BASE
 COUNTY HIGHWAY 4
 PLAN & PROFILE
 PROJECT NO. CH1001
 COUNTY HIGHWAY 4
 WEST OF ARGUSVILLE
 CASS COUNTY

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STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	46	124

R/W PARCEL
ROBERT P. MINCH ETAL

R/W PARCEL
MURIEL H. LEMKE LE

STA. 340+82 = SIDE INLET LT.
INP. - 24" x 22' CSP
REMOVE
F & I - 24" x 44' CSP
INV. N. = ~~880.80~~ 881.01
INV. S. = ~~880.00~~ 880.70
F+I-Flapgate for 24"

STA. 343+10 = CENTERLINE CULVERT
INP. - 24" x 31' RCP (2 LINES WITH CONC. HEADWALL)
REMOVE
F & I - 24" x 94' CSP (2 LINES)
F & I - (4) 24" GS PIPE APRONS
INV. N. = ~~878.52~~ SEE AS BUILT LIST
INV. S. = ~~875.50~~

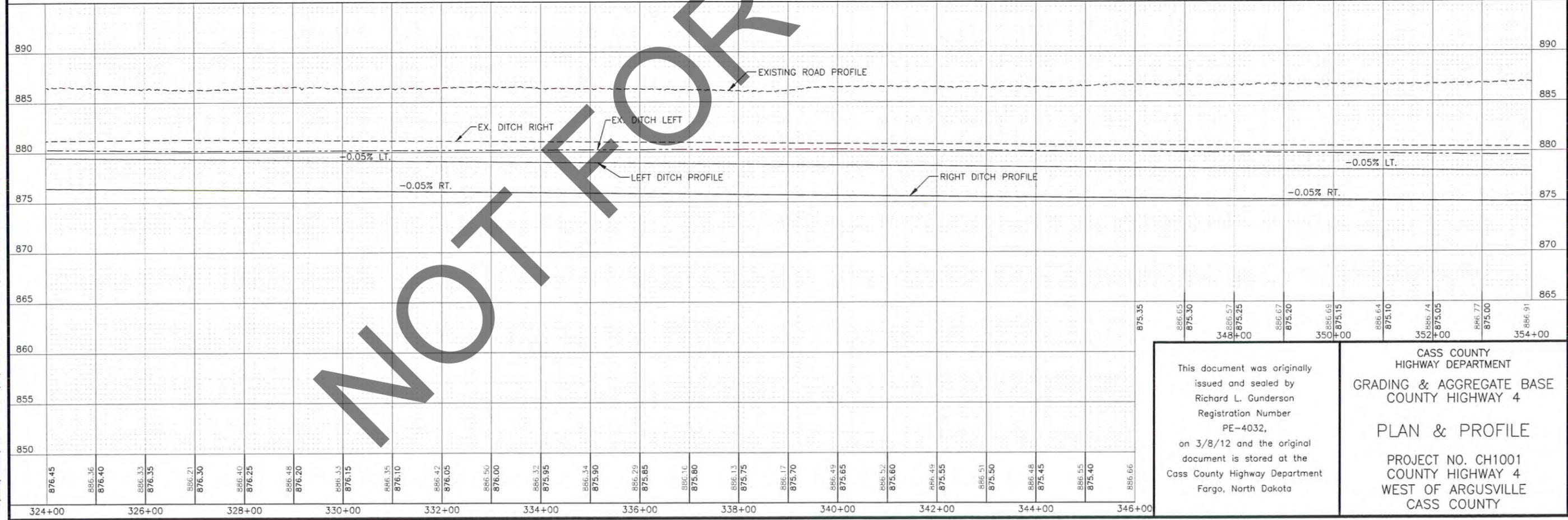
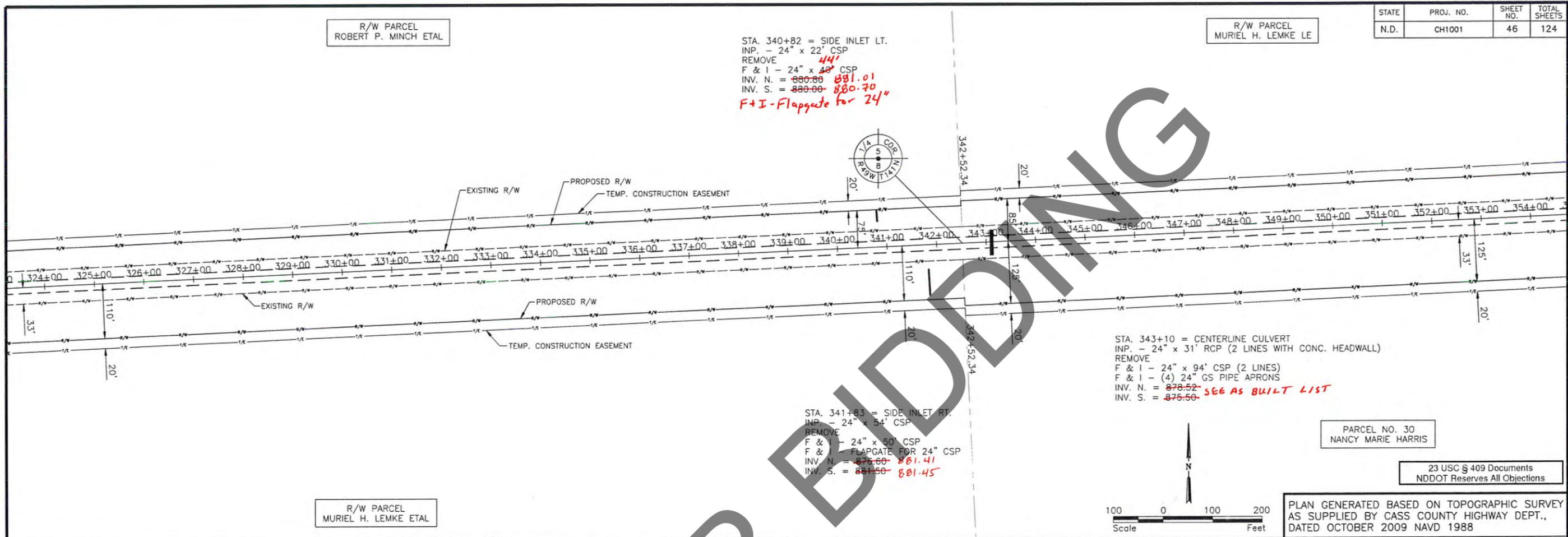
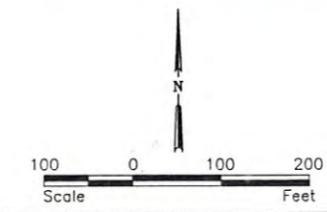
STA. 341+83 = SIDE INLET RT.
INP. - 24" x 54' CSP
REMOVE
F & I - 24" x 50' CSP
F & I - FLAPGATE FOR 24" CSP
INV. N. = ~~875.60~~ 881.41
INV. S. = ~~881.50~~ 881.45

R/W PARCEL
MURIEL H. LEMKE ETAL

PARCEL NO. 30
NANCY MARIE HARRIS

23 USC § 409 Documents
NDDOT Reserves All Objections

PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
AS SUPPLIED BY CASS COUNTY HIGHWAY DEPT.,
DATED OCTOBER 2009 NAVD 1988



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	<p>PLAN & PROFILE</p> <p>PROJECT NO. CH1001 COUNTY HIGHWAY 4 WEST OF ARGUSVILLE CASS COUNTY</p>

H:\job\by Number\6006-022 Cass Co 4\cass\west_ditch_base_with_surface.dwg-192-3\1/2012 10:40 AM (DJohnson)

R/W PARCEL
MURIEL H. LEMKE LE

P.I. STA. = 368+89.04
N = 525043.3241
E = 2865689.9619

R/W PARCEL
LOREN RICHARDS

EOP STA. = 379+31.20
N = 525086.0059
E = 2866731.2484

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
N.D.	CH1001	47	124

STA. 368+50 = FIELD ENT. LT.
INP. - 24" x 50' CSP
REMOVE
F & I - 24" x 42' CSP
F & I - 24" GS PIPE APRONS
INV. N. = ~~881.50~~ 881.19
INV. S. = ~~881.30~~ 881.07
RELOCATE BEYOND THE HIGHWAY R/W
AS DIRECTED BY THE ENGINEER.
F+I- Flapgate for 24"

STA. 368+89.04 = TWP. ROAD LT.
INP. - 8'-10"x6'-10"x33' CSP-A (2 LINES)
REMOVE
F & I - 30" x 100' CSP
F & I - (2) 30" GS PIPE APRONS
INV. W. = ~~877.26~~ 877.21
INV. E. = ~~877.24~~ 877.10

STA. 369+21 = FIELD ENT. LT.
INP. - 24" x 30' CSP
REMOVE
F & I - 24" x 46' CSP
F & I - 24" GS PIPE APRONS
INV. N. = ~~881.70~~ 881.70
INV. S. = ~~881.50~~ 881.70
RELOCATE BEYOND THE HIGHWAY R/W
AS DIRECTED BY THE ENGINEER.
F+I- Flapgate for 24"
EXISTING DITCH R/W

STA. 377+00 = ROCK DROP STRUCTURE LT.
BLEND DITCH INTO DROP STRUCTURE AS
DIRECTED BY THE ENGINEER. RESHAPE ROCK
AS REQUIRED TO FIT DESIGN DITCH GRADE.

STA. 377+14 = CENTERLINE CULVERT
INP. - 13'-11"x8'-7"x9' SPP-A
LEAVE AS IS

END PROJECT CH 1001
STA. 377+14.00

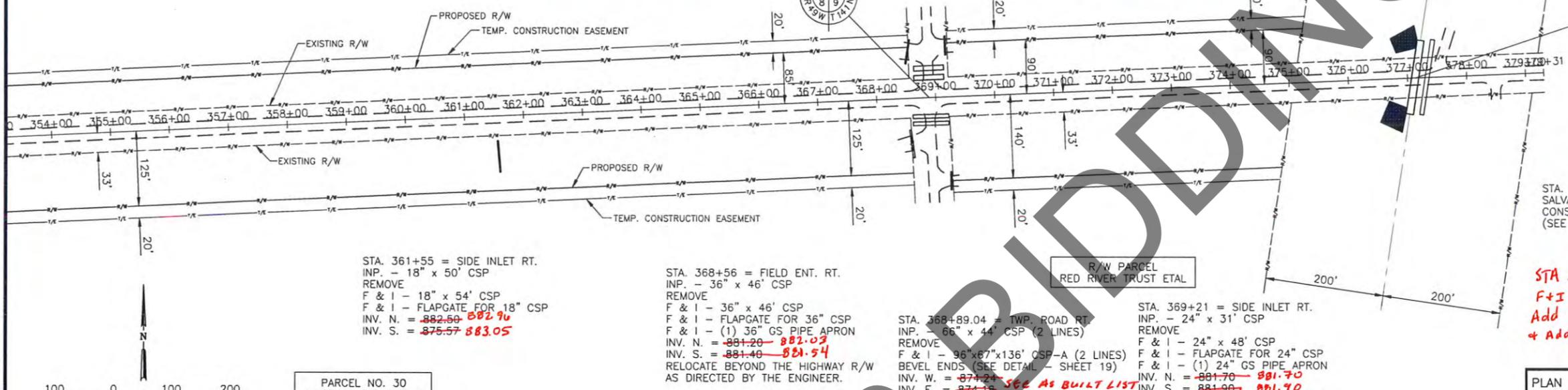
377+00
STA. ~~377+00~~ = CENTERLINE CULVERT
(NEW CULVERT)
F & I - 84" x 126" CSP
BEVEL ENDS (SEE DETAIL - SHEET 19)
INV. N. = ~~873.20~~ 872.70
INV. S. = ~~873.30~~ 873.16
Top LENGTH = 102'
3:1 BEVEL SLOPE

STA. 376+76 = RIPRAP DROP STRUCTURE RT.
SALVAGE RIPRAP
CONSTRUCT RIPRAP DROP STRUCTURE
(SEE DETAIL - SHEET 22)

STA 379+50 (DRAIN 13 INLET) LT
F+I-30" x 10' CSP
Add length to end
+ Add angle

23 USC § 409 Documents
NDDOT Reserves All Objections

PLAN GENERATED BASED ON TOPOGRAPHIC SURVEY
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DATED OCTOBER 2009 NAVD 1988



STA. 361+55 = SIDE INLET RT.
INP. - 18" x 50' CSP
REMOVE
F & I - 18" x 54' CSP
F & I - FLAPGATE FOR 18" CSP
INV. N. = ~~882.50~~ 882.96
INV. S. = ~~875.57~~ 883.05

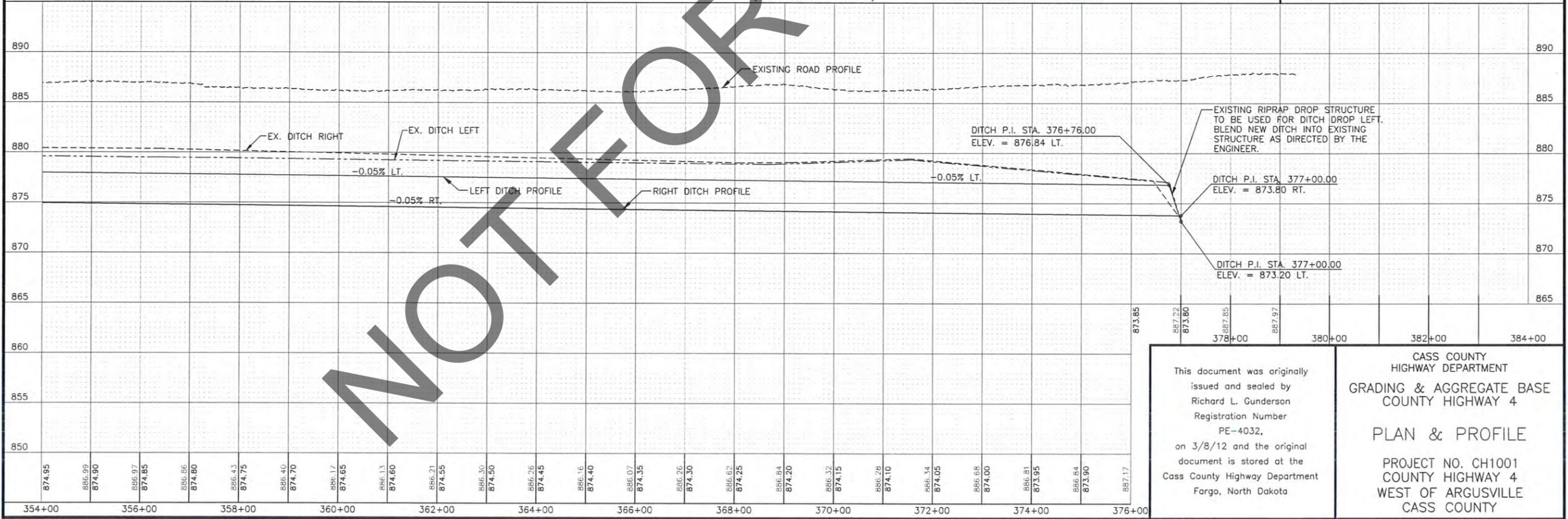
STA. 368+56 = FIELD ENT. RT.
INP. - 36" x 46" CSP
REMOVE
F & I - 36" x 46" CSP
F & I - FLAPGATE FOR 36" CSP
F & I - (1) 36" GS PIPE APRON
INV. N. = ~~881.20~~ 882.03
INV. S. = ~~881.40~~ 881.54
RELOCATE BEYOND THE HIGHWAY R/W
AS DIRECTED BY THE ENGINEER.

STA. 368+89.04 = TWP. ROAD RT.
INP. - 66" x 44" CSP (2 LINES)
REMOVE
F & I - 96"x87"x136' CSP-A (2 LINES)
BEVEL ENDS (SEE DETAIL - SHEET 19)
INV. W. = ~~874.24~~ **SEE AS BUILT LIST**
INV. E. = ~~874.18~~ **SEE AS BUILT LIST**
F & I - 56.5 CU. YD. RIPRAP
(SEE DETAIL - SHEET 20)

STA. 369+21 = SIDE INLET RT.
INP. - 24" x 31" CSP
REMOVE
F & I - 24" x 48' CSP
F & I - FLAPGATE FOR 24" CSP
F & I - (1) 24" GS PIPE APRON
INV. N. = ~~881.70~~ 881.70
INV. S. = ~~881.90~~ 881.70
RELOCATE BEYOND THE HIGHWAY R/W
AS DIRECTED BY THE ENGINEER.



PARCEL NO. 30
NANCY MARIE HARRIS



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issued and sealed by
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Registration Number
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Cass County Highway Department
Fargo, North Dakota

CASS COUNTY
HIGHWAY DEPARTMENT
GRADING & AGGREGATE BASE
COUNTY HIGHWAY 4

PLAN & PROFILE

PROJECT NO. CH1001
COUNTY HIGHWAY 4
WEST OF ARGUSVILLE
CASS COUNTY

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**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

PROPOSAL

Contract No. _____

Note: The envelope containing this proposal should be marked:

"BID FOR HWY 4 FLOOD REPAIRS", in Cass County.

Proposal of _____

Mailing Address

to furnish and deliver all materials and to do and perform all work, in accordance with the Standard Specifications, adopted by North Dakota Department of Transportation October 2008, Standard Drawings currently in effect, and other contract provisions submitted herewith of the North Dakota Department of Transportation except as specifically stated otherwise in the "Special Provisions" contained therein, for the improvement of a certain Public Highways in Cass County, State of North Dakota, on which proposals will be received until 10 o'clock A.M., on the 11th day of July 2013.

NOT FOR BIDDING

**CASS COUNTY HIGHWAY DEPARTMENT
COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

PROPOSAL

COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR

TYPE: FLOOD REPAIRS

LENGTH: N/A

To The Chairman:
Cass County Board of Commissioners
Fargo, North Dakota

In accordance with the advertisement and notice to bidders from the Cass County Highway Department inviting proposals for the work on the project described above, the Bidder proposes to furnish all materials specified, and perform all work in the manner and at the time prescribed. The Bidder understands the quantities of work shown herein are approximate only, and are subject to increase or decrease. The bidder further understands that all quantities of work, whether increased or decreased, are to be performed at the unit prices proposed herein (except as otherwise provided in the contract documents).

The bid schedule, time for completion, other provisions, and bidder's affidavit follows:

**CASS COUNTY HIGHWAY DEPARTMENT
 BID SCHEDULE
 COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR**

BIDDER MUST TYPE OR NEATLY PRINT UNIT PRICES IN NUMERALS,
 MAKE EXTENSIONS FOR EACH ITEM, AND TOTAL, DO NOT CARRY
 UNIT PRICES FURTHER THAN THREE (3) DECIMAL PLACES.

ITEM	SPEC NO.	DESCRIPTION	UNIT	APPROX QUANTITY	UNIT COST	TOTAL
1	103	CONTRACT BOND	LS	1		
2	203	COMMON EXCAVATION - WASTE	CY	500		
3	203	COMMON EXCAVATION - BORROW	CY	1,772		
4	203	TOPSOIL - IMPORTED	CY	156		
5	203	DITCH AND SLOPE RESHAPING	SY	205,333		
6	702	MOBILIZATION	LS	1		
7	704	TRAFFIC CONTROL	LS	1		
8	708	RIPRAP - LOOSE ROCK	CY	559		
9	708	FIBER ROLLS 12IN	LF	1,140		
10	708	SEEDING-TYPE B-CL V	ACRE	42.7		
11	708	MULCHING	ACRE	42.7		
12	708	ECB TYPE 2	SY	760		
13	714	PLACE PIPE CORR STEEL 24IN	LS	1		

TOTAL = _____

RECEIPT OF ADDENDUMS:

NO. 1 _____

NO. 2 _____

NO. 3 _____

COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR

TYPE: FLOOD REPAIRS

TIME FOR COMPLETION:

The undersigned Bidder agrees, if awarded the contract, to prosecute the work with sufficient forces and equipment to complete the contract work within the allowable time specified as follows:

WORKING DAY CONTRACT: N/A working days, counted as provided in Standard Specification No. 108.04. Working days will be counted from N/A or from the actual date on which on-site work is started, whichever is earlier.

COMPLETION DATE CONTRACT: August 30, 2013 provided however, that a minimum of N/A working days, counted as provided in Standard Specification No. 108.04, are guaranteed for the performance of the work. Working days will be counted from N/A or from the actual date on which onsite work is started, whichever is earlier.

NOT FOR BIDDING

COUNTY PROJECT NUMBER CH1001 - FLOOD REPAIR

TYPE: FLOOD REPAIRS

CONTRACT EXECUTION:

The undersigned Bidders agrees, if awarded the contract, to execute the contract form and furnish a contract bond within ten days, as determined by N.D.C.C Section 1-02-15, after date of notice of tentative award, in accordance with the provisions of Sections 103.05 and 103.06 of the Standard Specifications.

AFFIDAVIT:

STATE OF _____)ss.

COUNTY OF _____

The undersigned bidder, being duly sworn, does depose and say that he/she is an authorized representative

Of _____

_____ a,
Mailing Address

____ Individual ____ Partnership ____ Joint Venture ____ Corporation

and that the said bidder has examined and carefully prepared its bid from the plans and specifications and has checked the same in detail before submitting said proposal or bid; and that the said bidder or its agents, office, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal or bid.

Bidder must sign on this line

Type or Print Signature

Title _____

Subscribed and sworn to
before me this day _____

_____ County, _____
State

Notary Public
My commission expires _____

