

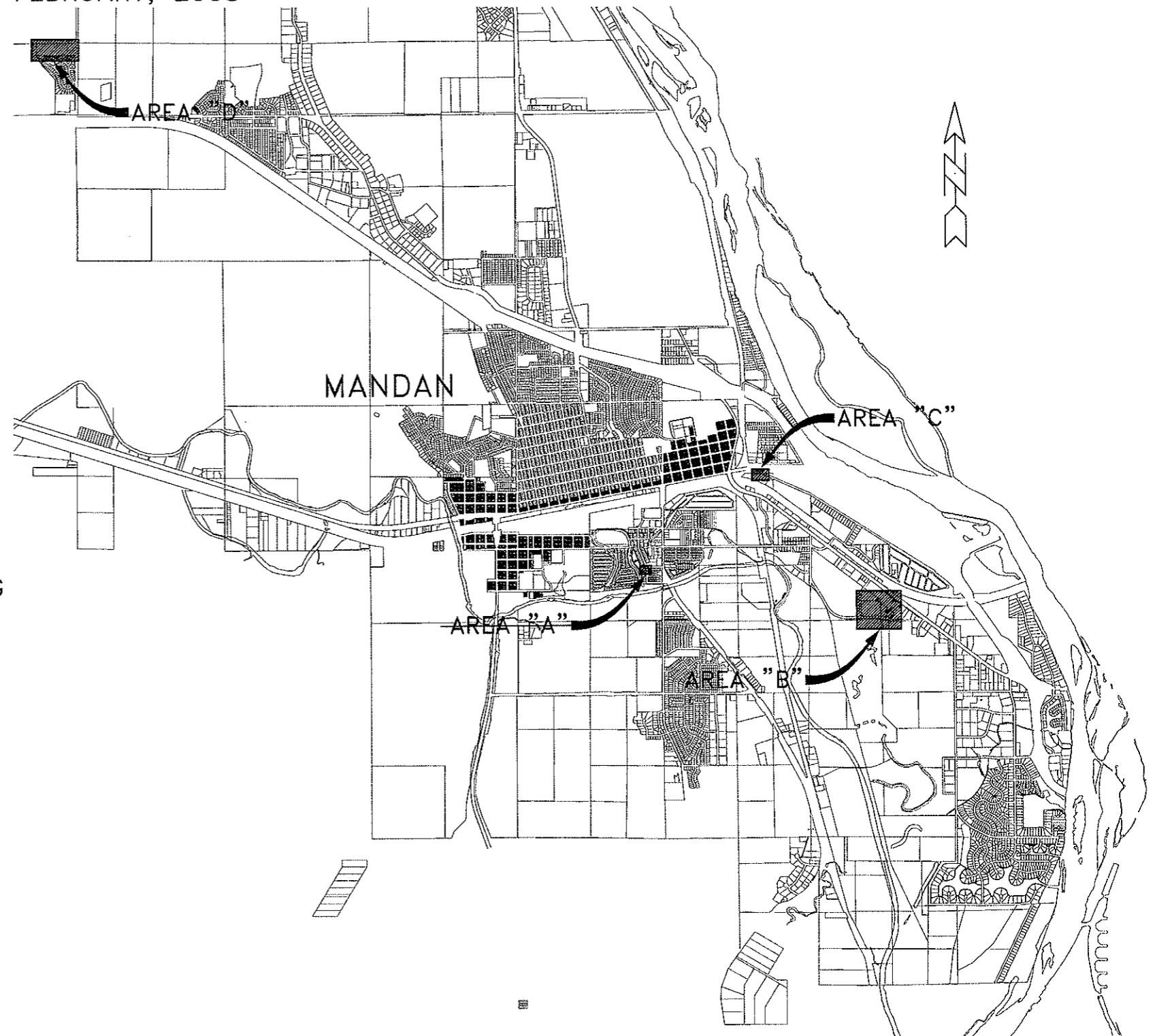
# STREET IMPROVEMENT DISTRICT NO. 138 AS-BUILT

## MANDAN, NORTH DAKOTA

CITY PROJECT NO. 2006-05, 2006-07, 2006-09 & 2006-10  
FEBRUARY, 2008

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AREA "B"	MIDWAY 12TH ADDITION
4	PROJECT LAYOUT
5	32ND AVENUE SE PLAN & PROFILE
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7	LONGSPUR TRAIL PLAN & PROFILE
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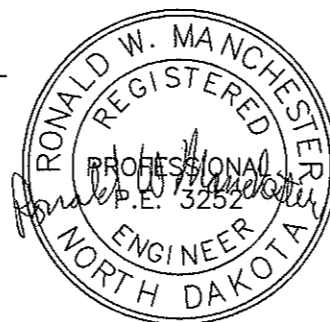


PREPARED BY:  
TOMAN ENGINEERING

*Ronald Manchester*

RONALD MANCHESTER R.P.E. 3252

DATE: *MAR 9, 2009*

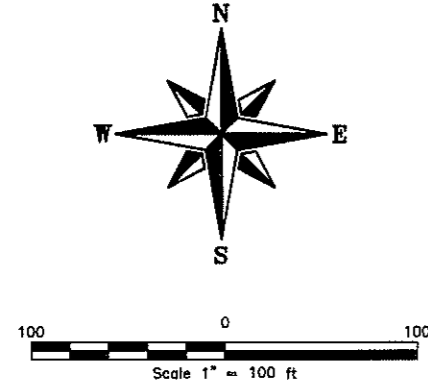


TOMAN ENGINEERING COMPANY  
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS  
601 1ST ST. N.W. • MANDAN, NORTH DAKOTA 58504 • 701-663-6483

2155, 2152, 2150 & 2151

CONTRACTOR:  
NORTHERN IMPROVEMENT CO.  
3320 E. CENTURY AVE.  
1-(701)-223-6695

# MIDWAY 12TH ADDITION PROJECT LAYOUT AS-BUILT

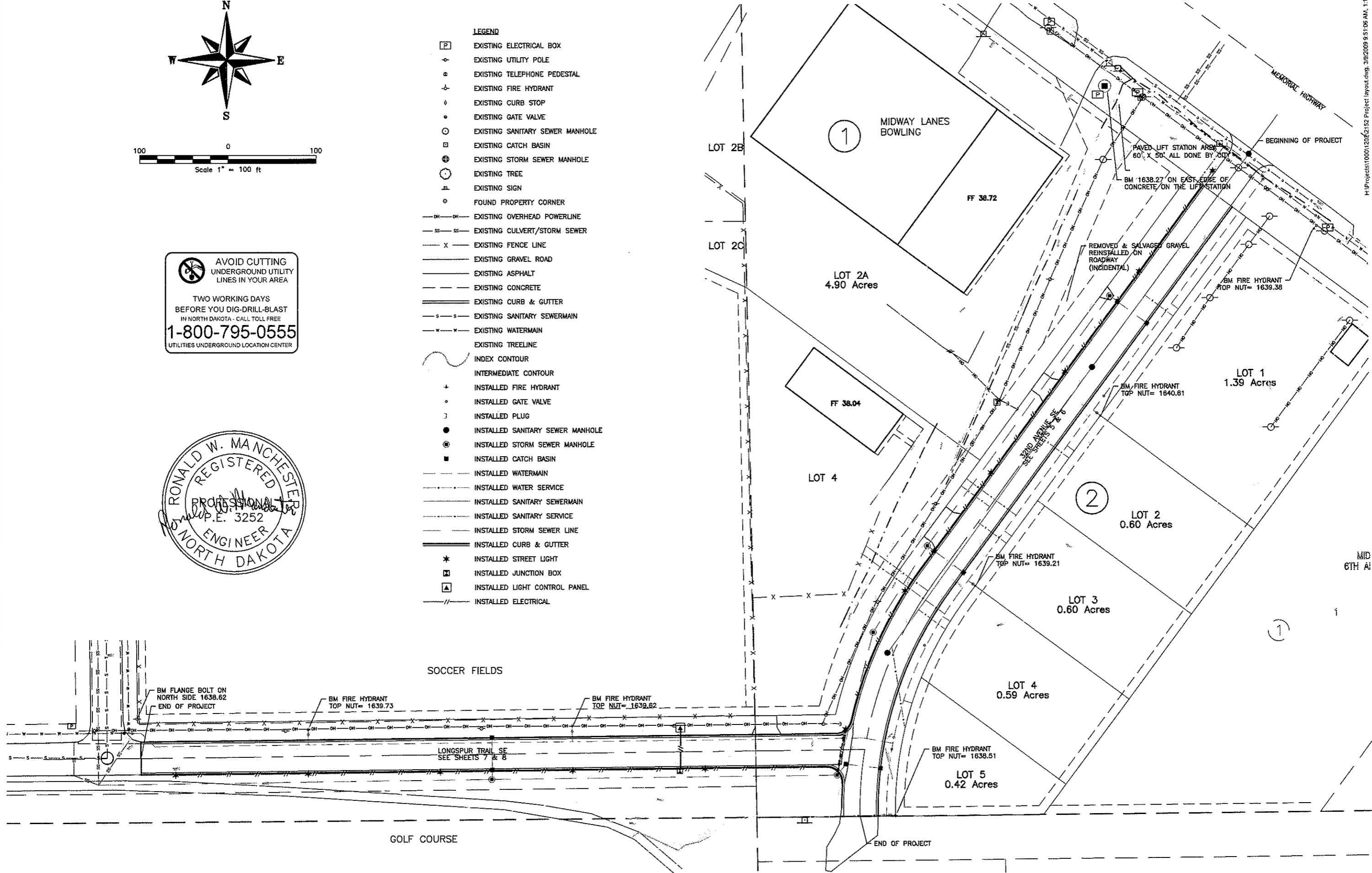


**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE **1-800-795-0555** UTILITIES UNDERGROUND LOCATION CENTER



- LEGEND**
- [P] EXISTING ELECTRICAL BOX
  - EXISTING UTILITY POLE
  - EXISTING TELEPHONE PEDESTAL
  - EXISTING FIRE HYDRANT
  - EXISTING CURB STOP
  - EXISTING GATE VALVE
  - EXISTING SANITARY SEWER MANHOLE
  - EXISTING CATCH BASIN
  - ⊙ EXISTING STORM SEWER MANHOLE
  - EXISTING TREE
  - ▲ EXISTING SIGN
  - FOUND PROPERTY CORNER
  - OH — OH — EXISTING OVERHEAD POWERLINE
  - SS — SS — EXISTING CULVERT/STORM SEWER
  - X — EXISTING FENCE LINE
  - EXISTING GRAVEL ROAD
  - EXISTING ASPHALT
  - EXISTING CONCRETE
  - EXISTING CURB & GUTTER
  - S — S — EXISTING SANITARY SEWERMAIN
  - W — W — EXISTING WATERMAIN
  - EXISTING TREELINE
  - ~ INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - + INSTALLED FIRE HYDRANT
  - INSTALLED GATE VALVE
  - ⌋ INSTALLED PLUG
  - INSTALLED SANITARY SEWER MANHOLE
  - ⊙ INSTALLED STORM SEWER MANHOLE
  - INSTALLED CATCH BASIN
  - INSTALLED WATERMAIN
  - INSTALLED WATER SERVICE
  - INSTALLED SANITARY SEWERMAIN
  - INSTALLED SANITARY SERVICE
  - INSTALLED STORM SEWER LINE
  - INSTALLED CURB & GUTTER
  - \* INSTALLED STREET LIGHT
  - INSTALLED JUNCTION BOX
  - ▲ INSTALLED LIGHT CONTROL PANEL
  - //— INSTALLED ELECTRICAL



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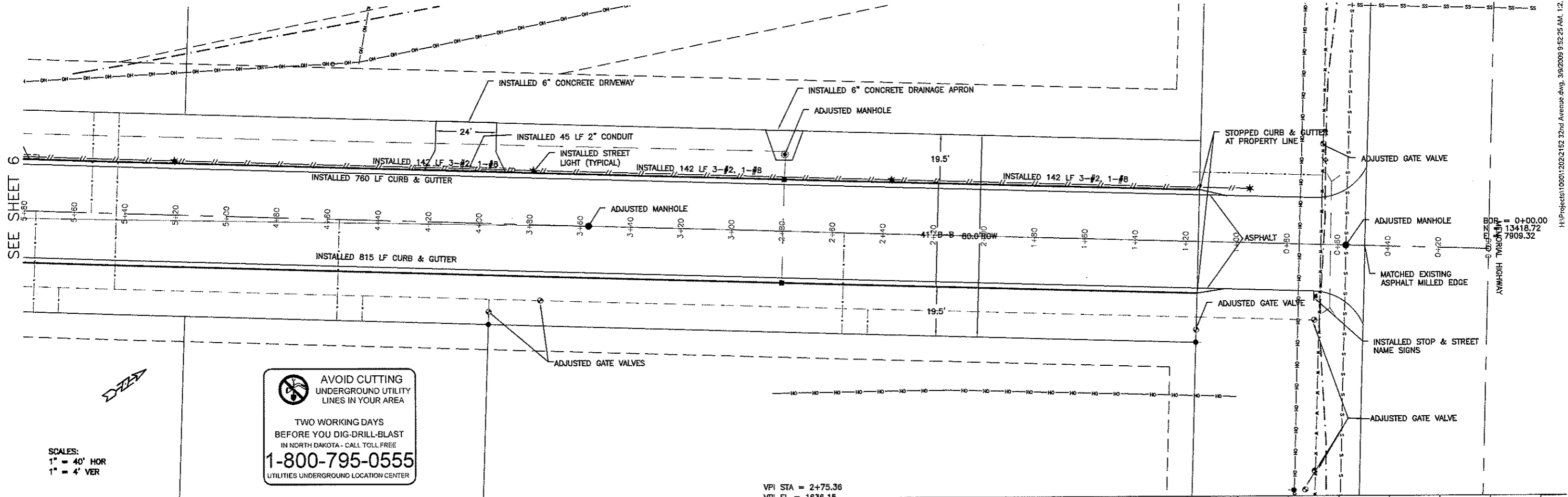
**TOMAN ENGINEERING COMPANY**  
CONSULTING CIVIL ENGINEERS  
501 1ST ST. N.W. • WARDEN, NORTH DAKOTA 58554 • (701) 663-4463

PROJECT: STREET IMP. DISTRICT NO. 138 - AREA "B"  
MIDWAY 12TH ADDITION AS-BUILT  
PROJECT LAYOUT

NO.	DATE	BY	REVISIONS

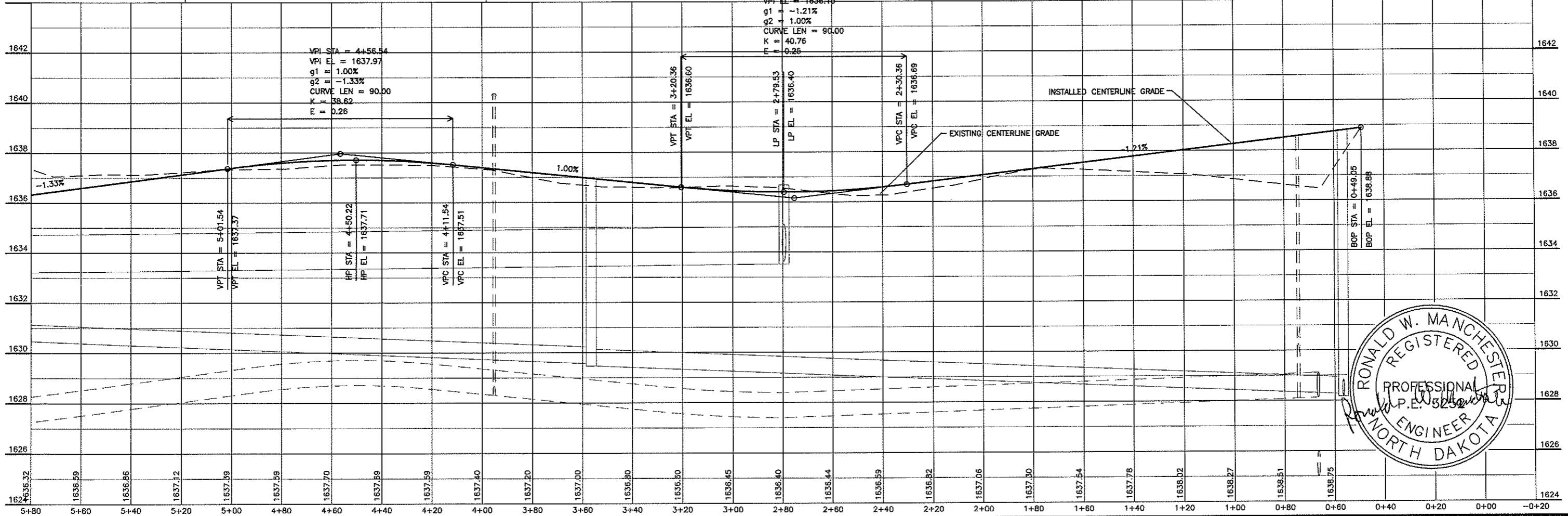
SHEET NUMBER  
**4**  
OF 14 SHEETS

# 32ND AVENUE SE PLAN & PROFILE AS-BUILT




**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**  
 TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE **1-800-795-0555**  
 UTILITIES UNDERGROUND LOCATION CENTER

SCALES:  
 1" = 40' HOR  
 1" = 4' VER



TOMAN ENGINEERING COMPANY  
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 501 1ST ST. N.W. • WASKAM, NORTH DAKOTA 58554 • (701) 683-6483



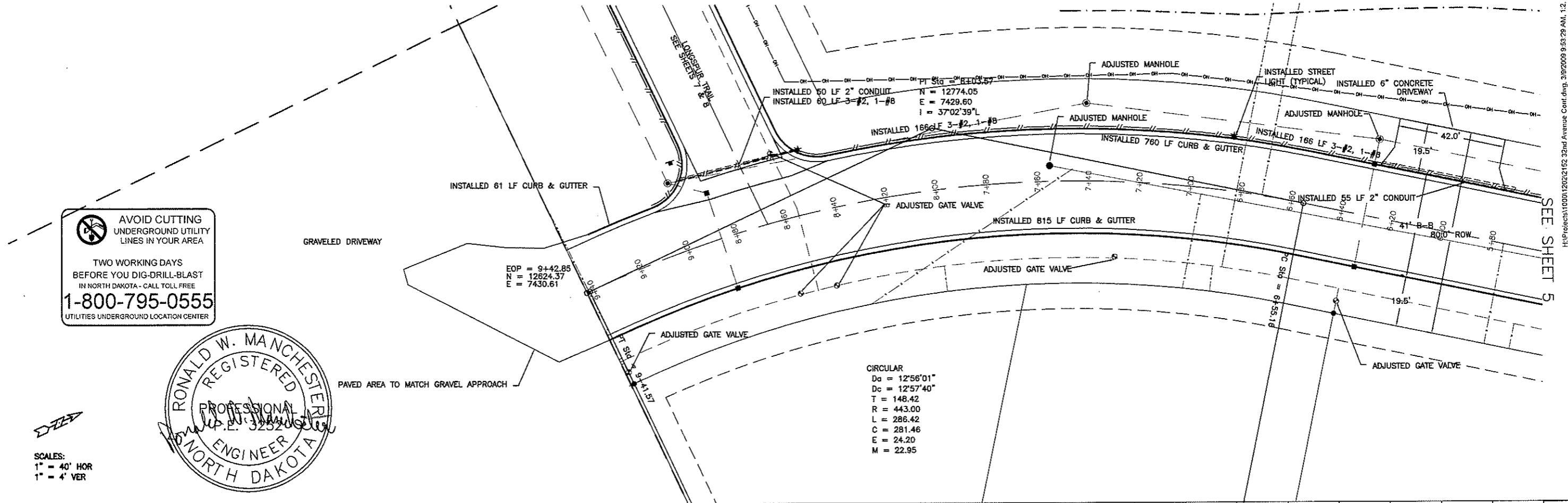
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 STREET IMP. DISTRICT NO. 138 - AREA "B"  
 MIDWAY 12TH ADDITION  
 32ND AVENUE SE PLAN & PROFILE AS-BUILT

NO.	DATE	BY	REVISIONS
1	03/08	RW	AS-BUILT

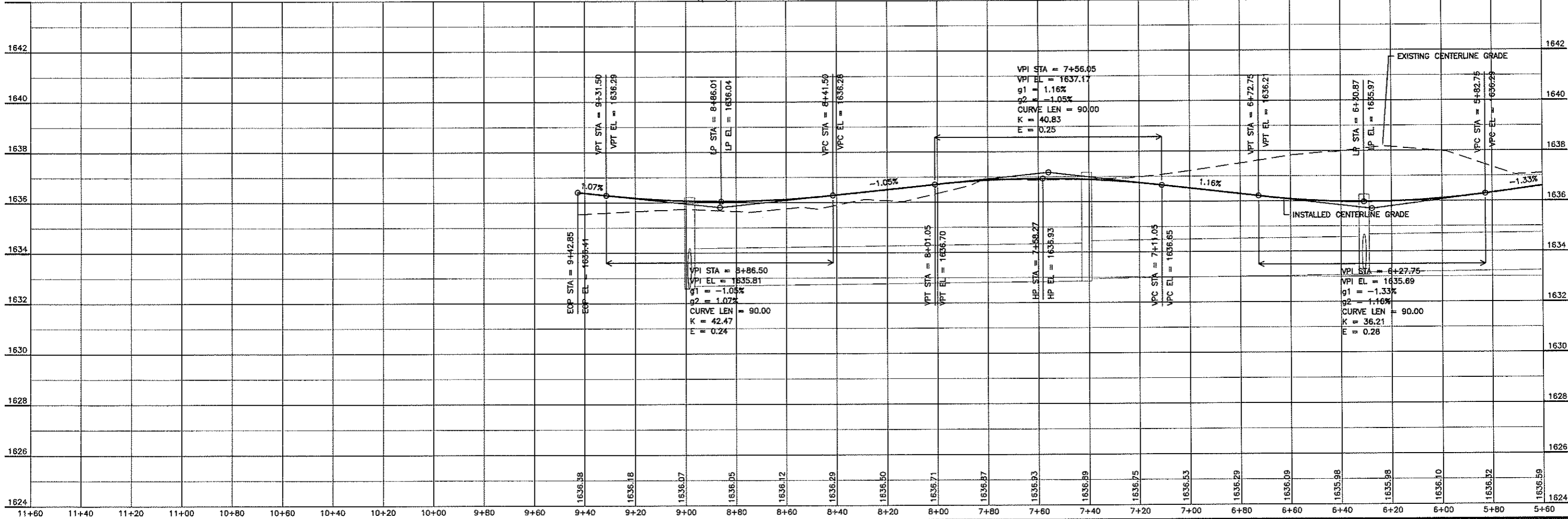
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 OF 14 SHEETS

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# 32ND AVENUE SE PLAN & PROFILE CONT. AS-BUILT



SCALES:  
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 1" = 4' VER



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**TOMAN ENGINEERING COMPANY**  
 CONSULTING CIVIL ENGINEERS  
 501 1ST ST. N.W. • WABSA, NORTH DAKOTA 58554 • (701) 663-6483

PROJECT:  
 STREET IMPROVEMENT DISTRICT NO. 138 - AREA "B"  
 STREET IMP. DISTRICT NO. 138 - AREA "B"  
 MIDWAY 12TH ADDITION AS-BUILT  
 32ND AVENUE SE PLAN & PROFILE CONT.

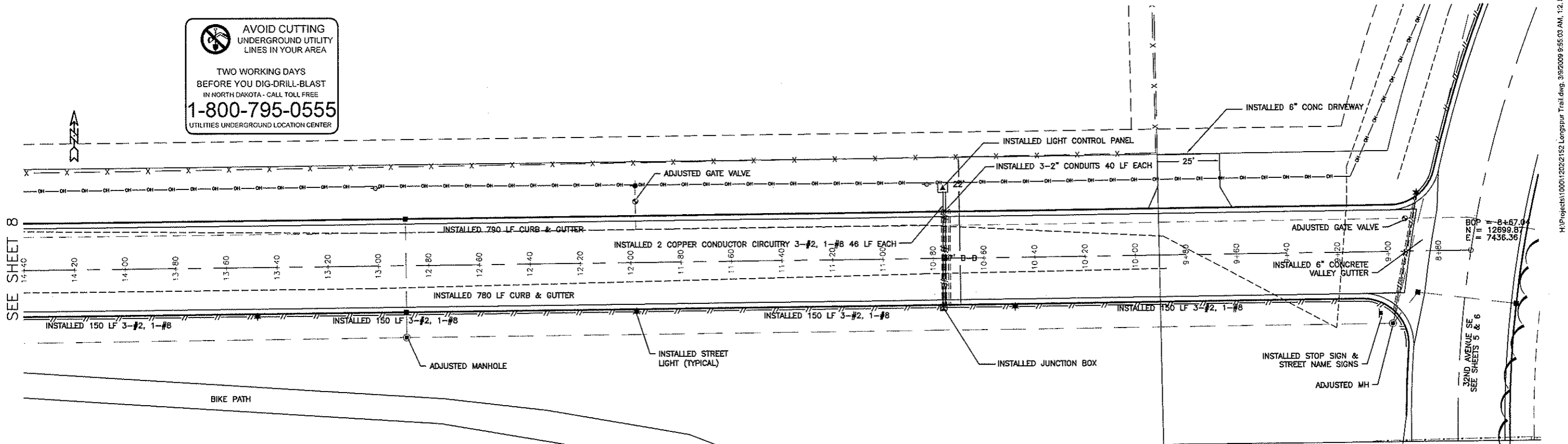
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SHEET NUMBER  
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 OF 14 SHEETS

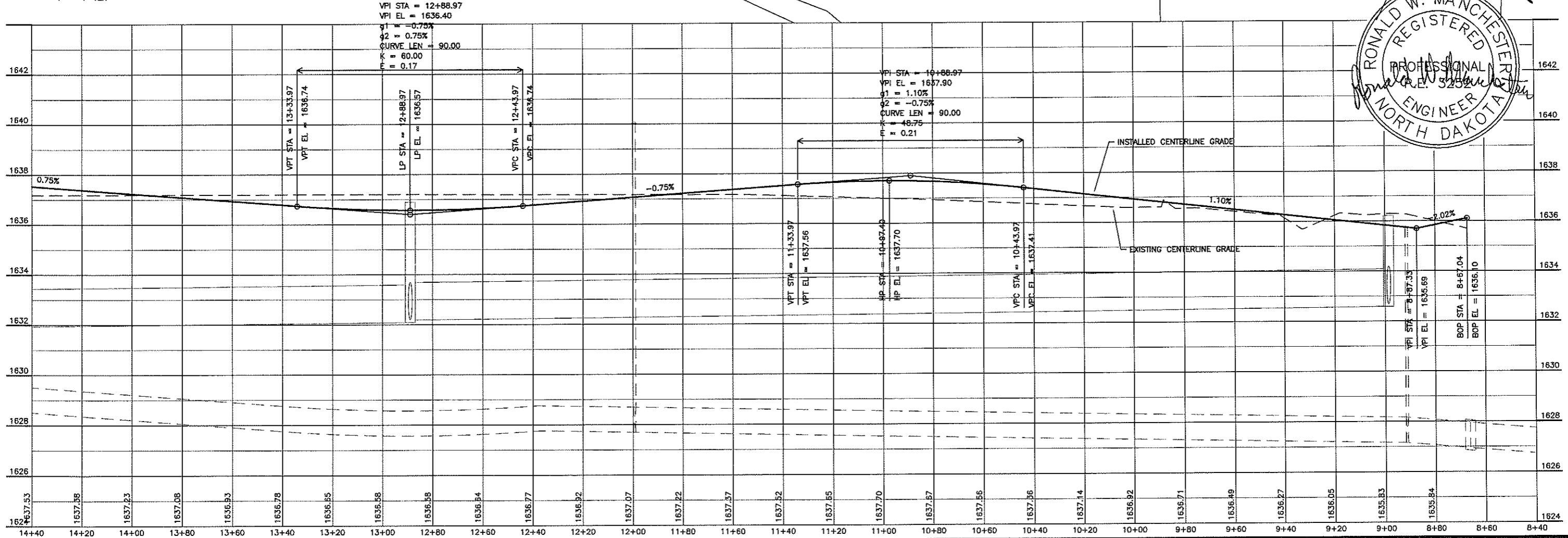
# LONGSPUR TRAIL PLAN & PROFILE AS-BUILT

**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE 1-800-795-0555 UTILITIES UNDERGROUND LOCATION CENTER



SCALES:  
 1" = 40' HOR  
 1" = 4' VER



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**TOMAN ENGINEERING COMPANY**  
 CONSULTING CIVIL ENGINEERS  
 501 1ST ST. N.W. • WARD, NORTH DAKOTA 58554 • (701) 643-4483

PROJECT: STREET IMPROVEMENT DISTRICT NO. 138 - AREA "B"  
 STREET IMP. DISTRICT NO. 138 - AREA "B"  
 MIDWAY 12TH ADDITION AS-BUILT  
 LONGSPUR TRAIL PLAN & PROFILE

NO.	REVISIONS	BY	DATE	APPROVED BY:	DATE

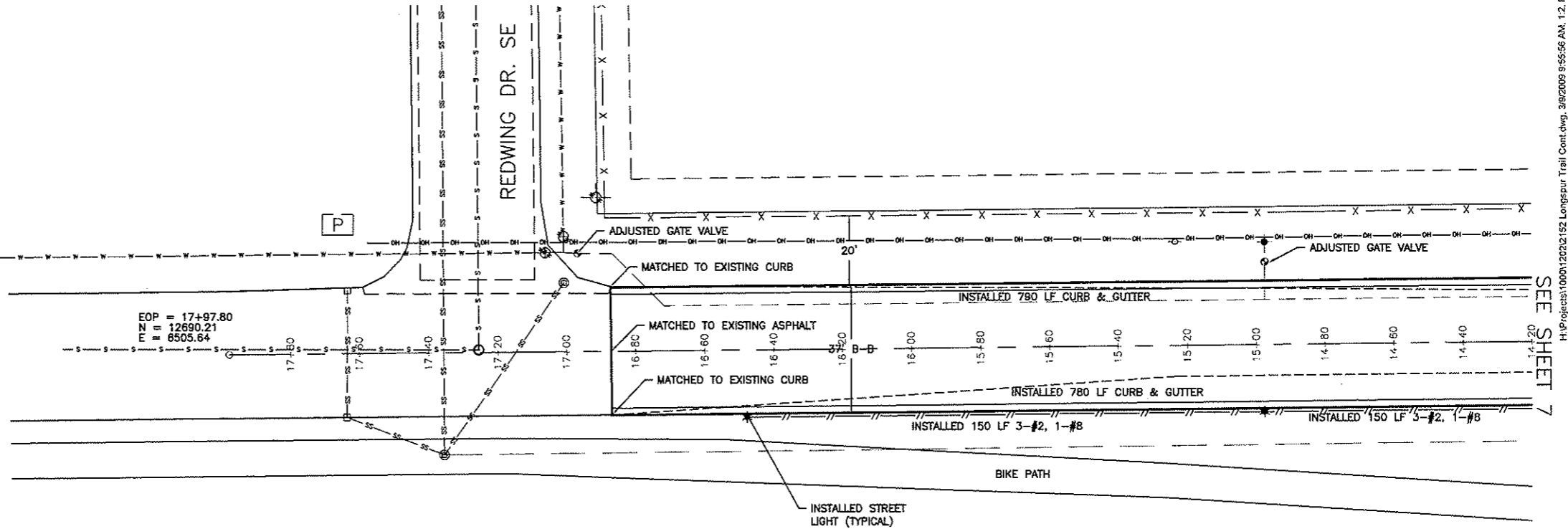
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 SHEET NUMBER 7 OF 14 SHEETS

# LONGSPUR TRAIL PLAN & PROFILE CONT. AS-BUILT



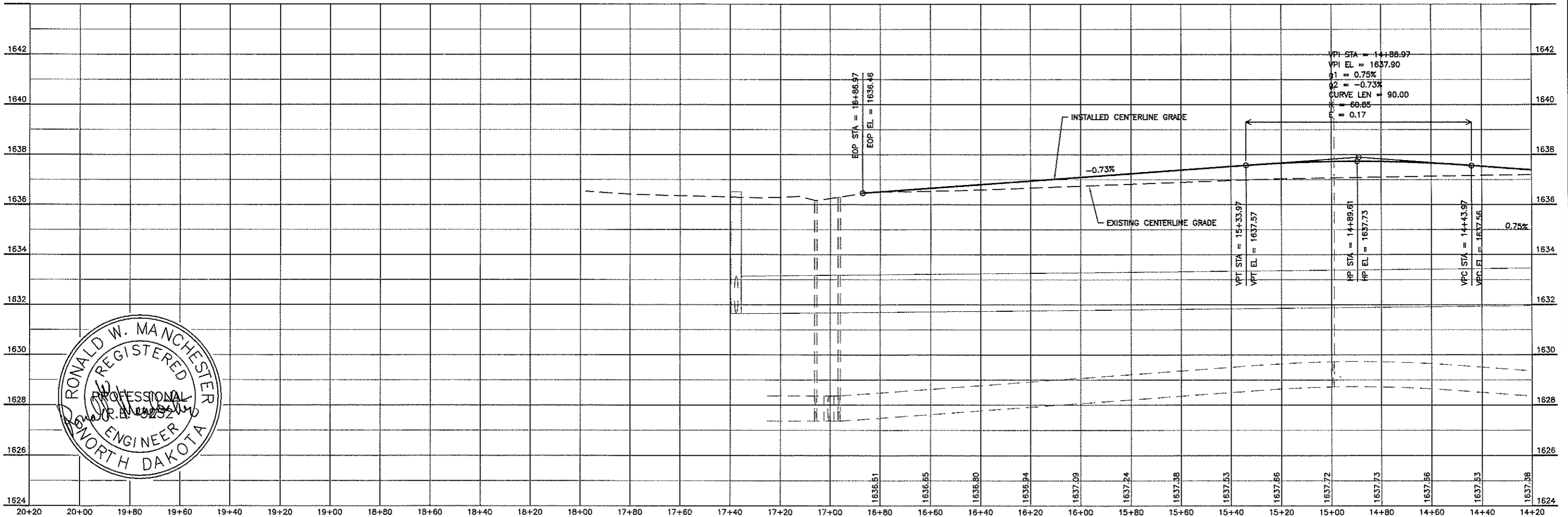
**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE 1-800-795-0555 UTILITIES UNDERGROUND LOCATION CENTER



SEE SHEET 7

SCALES:  
 1" = 40' HOR  
 1" = 4' VER



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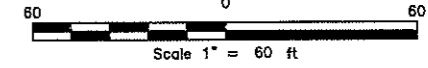
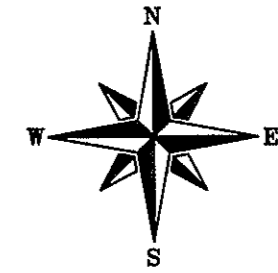
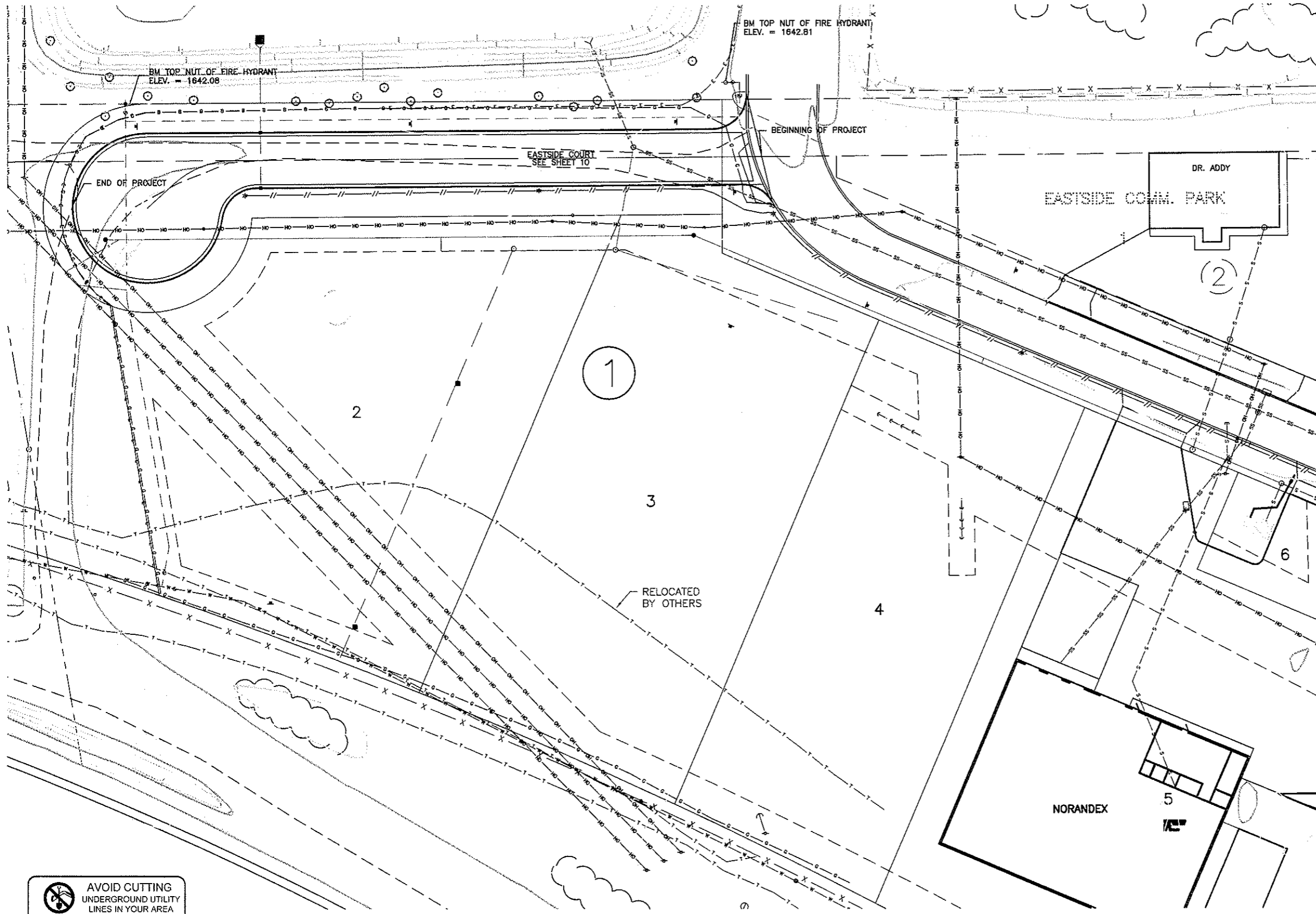


PROJECT: STREET IMP. DISTRICT NO. 138 - AREA "B"  
 MIDWAY 12TH ADDITION AS-BUILT  
 LONGSPUR TRAIL PLAN & PROFILE CONT.

NO.	REVISIONS	BY	DATE	APP'D	DATE

SHEET NUMBER  
 OF 14 SHEETS

# PROJECT LAYOUT AS-BUILT



**LEGEND**

- EXISTING MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING TELEPHONE PEDESTAL
- ☆ EXISTING STREET LIGHT
- ⊕ EXISTING UTILITY POLE
- ⊔ EXISTING ANCHOR POLE
- ⊞ EXISTING ELECTRICAL BOX
- ⊙ EXISTING TREE
- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING GATE VALVE
- ⊞ EXISTING SIGN
- - - EXISTING SANITARY SEWERMAIN
- - - EXISTING WATERMAIN
- - - EXISTING OVERHEAD POWER LINE
- - - EXISTING CURB & GUTTER
- - - EXISTING STORM SEWER
- - - EXISTING GAS LINE
- - - EXISTING TELEPHONE CABLE
- - - EXISTING GRAVEL ROAD
- ⊕ INSTALLED FIRE HYDRANT
- INSTALLED GATE VALVE
- INSTALLED MANHOLE
- INSTALLED CATCH BASIN
- - - INSTALLED CURB & GUTTER
- - - INSTALLED WATERMAIN
- - - INSTALLED SANITARY SEWERMAIN
- - - INSTALLED SANITARY SERVICE
- - - INSTALLED STORM SEWER



**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE 1-800-795-0555 UTILITIES UNDERGROUND LOCATION CENTER

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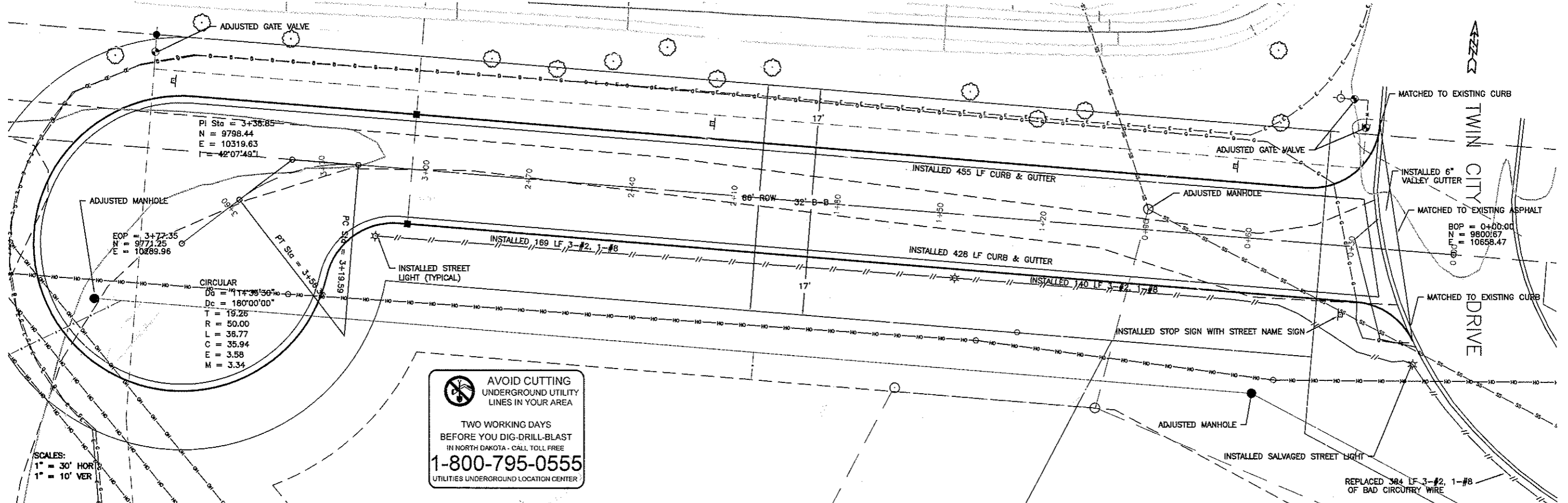


PROJECT: IMP. DISTRICT NO. 138 - AREA "C"  
STREET EASTSIDE COMMERCIAL PARK  
PROJECT LAYOUT AS-BUILT

NO.	DATE	BY	REVISIONS

SHEET NUMBER  
**9**  
OF 14 SHEETS

# EASTSIDE COURT PLAN & PROFILE AS-BUILT



**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE **1-800-795-0555** UTILITIES UNDERGROUND LOCATION CENTER

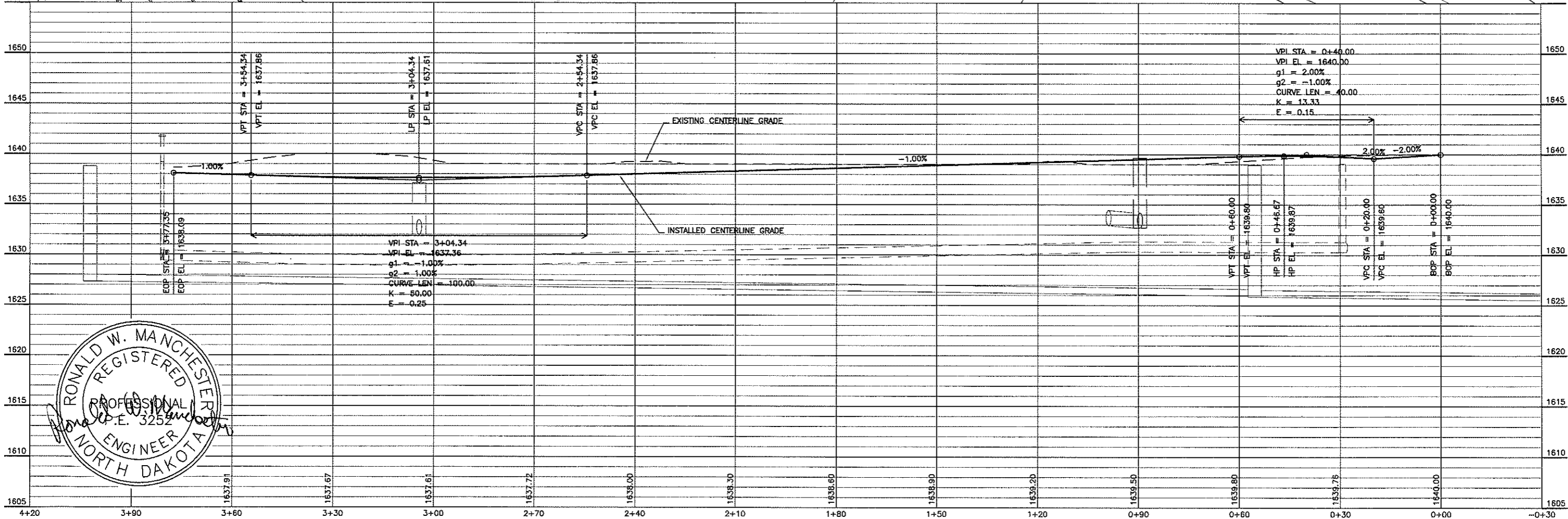
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1" = 10' VER

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N = 9798.44  
E = 10319.63  
T = 42°07'49"

EOP = 3+72.35  
N = 9771.25  
E = 10289.96

CIRCULAR  
Dc = 114°38'39"  
Dc = 180°00'00"  
T = 19.26  
R = 50.00  
L = 38.77  
C = 35.94  
E = 3.58  
M = 3.34

BOP = 0+00.00  
N = 9800.67  
E = 10658.47



RONALD W. MANCHESTER  
REGISTERED PROFESSIONAL ENGINEER  
P.E. 3252  
NORTH DAKOTA

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501 1ST ST. N.W. • MANICHA, NORTH DAKOTA 58554 • (701) 683-4483  
2150

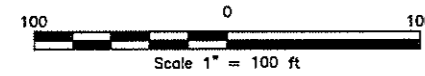
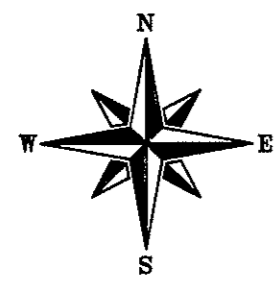
PROJECT: STREET IMP. DISTRICT NO. 138 - AREA "C"  
EASTSIDE COMMERCIAL PARK  
EASTSIDE COURT PLAN & PROFILE AS-BUILT

NO.	REVISIONS	BY	DATE	APP'D	DATE

SHEET NUMBER  
**10**  
OF 14 SHEETS



# ALLEY PROJECT LAYOUT AS-BUILT



- LEGEND**
- P EXISTING ELECTRICAL BOX
  - ⊙ EXISTING TELEPHONE PEDESTAL
  - ⊙ EXISTING TREE
  - ☁ EXISTING BUSH
  - EXISTING GRAVEL ROAD
  - EXISTING ASPHALT
  - INSTALLED GRAVEL APPROACH
  - INSTALLED ASPHALT
  - INSTALLED CULVERT

**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**  
 TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE  
**1-800-795-0555**  
 UTILITIES UNDERGROUND LOCATION CENTER



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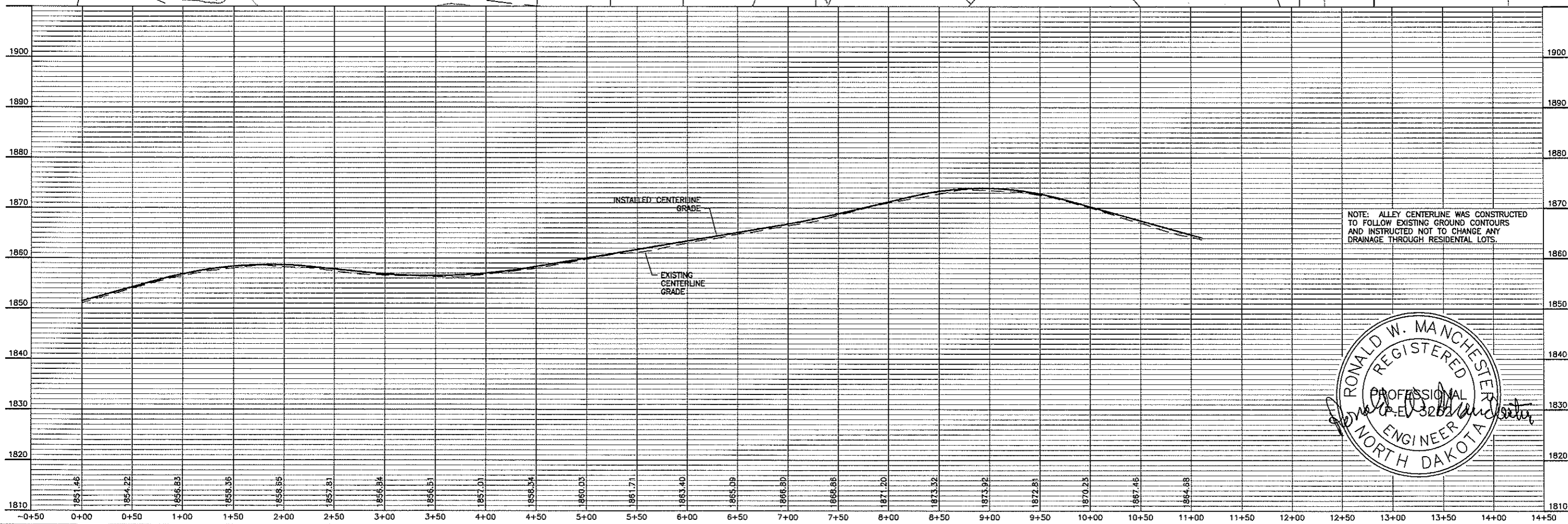
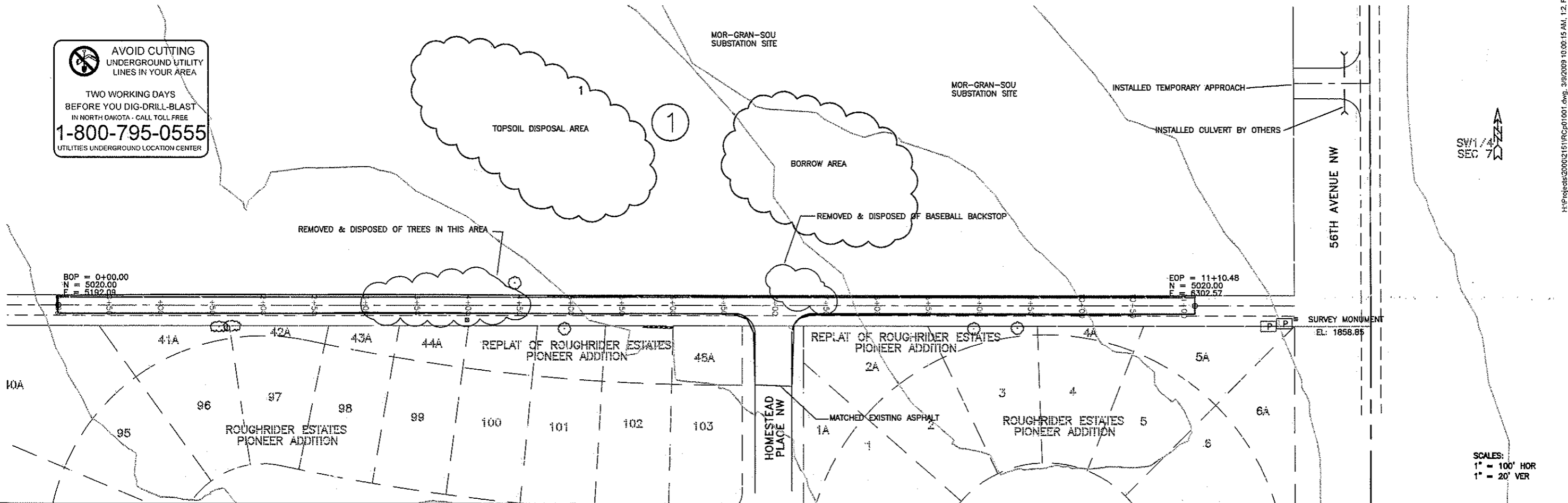
**TOMAN ENGINEERING COMPANY**  
 CONSULTING CIVIL ENGINEERS  
 501 1ST ST. N.W. • MADISON, NORTH DAKOTA 58554 • (701) 685-4485

PROJECT: STREET IMP. DISTRICT NO. 138 - AREA "D"  
 STREET IMP. DISTRICT NO. 138 - AREA "D"  
 REPLAT OF ROUGHRIDER HOMESTEAD ADDITION  
 ALLEY PROJECT LAYOUT AS-BUILT

TITLE: STREET IMPROVEMENT DISTRICT NO. 138 - AREA "D"	
NO.	REVISIONS

# ALLEY PLAN & PROFILE AS-BUILT

**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**  
 TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE 1-800-795-0555  
 UTILITIES UNDERGROUND LOCATION CENTER



**RONALD W. MANCHESTER**  
 REGISTERED PROFESSIONAL ENGINEER  
 NORTH DAKOTA

NOTE: ALLEY CENTERLINE WAS CONSTRUCTED TO FOLLOW EXISTING GROUND CONTOURS AND INSTRUCTED NOT TO CHANGE ANY DRAINAGE THROUGH RESIDENTIAL LOTS.

PROJECT: STREET IMPROVEMENT DISTRICT NO. 138 - AREA "D" - REPLAT OF ROUGHRIDER HOMESTEAD ADDITION ALLEY PLAN & PROFILE AS-BUILT

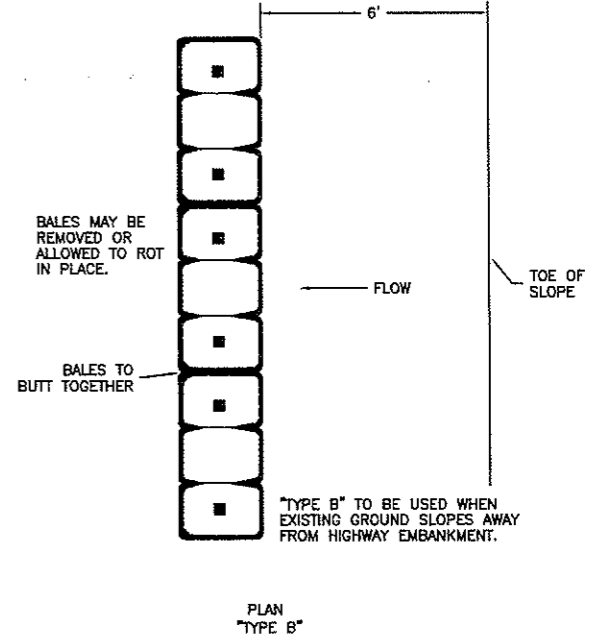
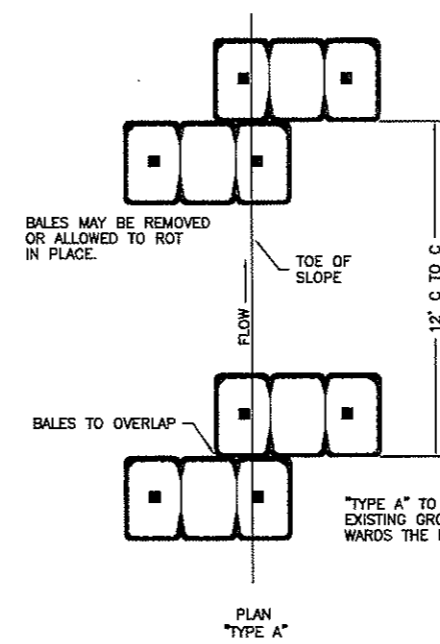
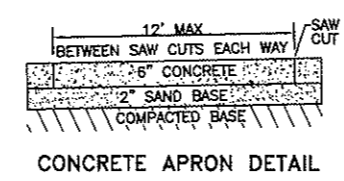
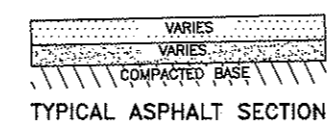
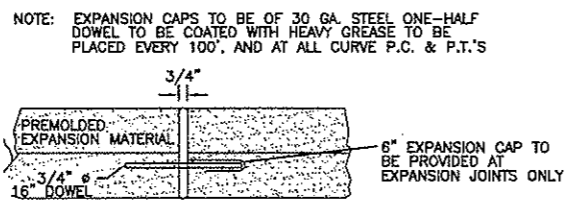
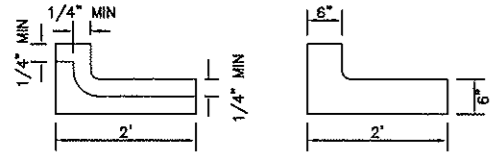
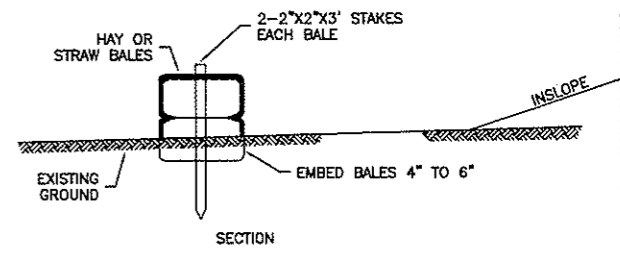
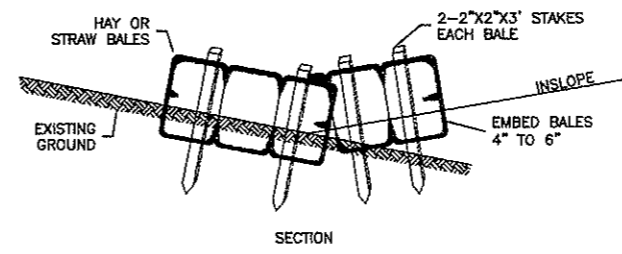
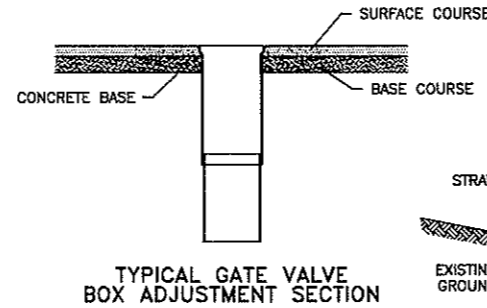
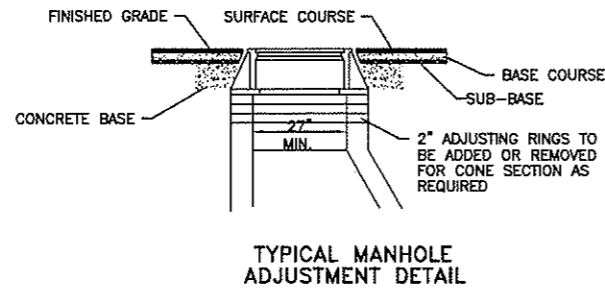
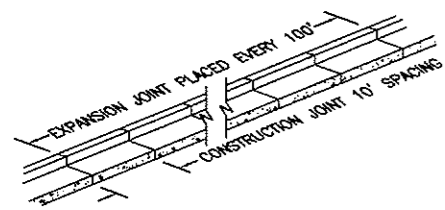
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30	08/08		

SCALE: 1" = 100' HOR, 1" = 20' VER

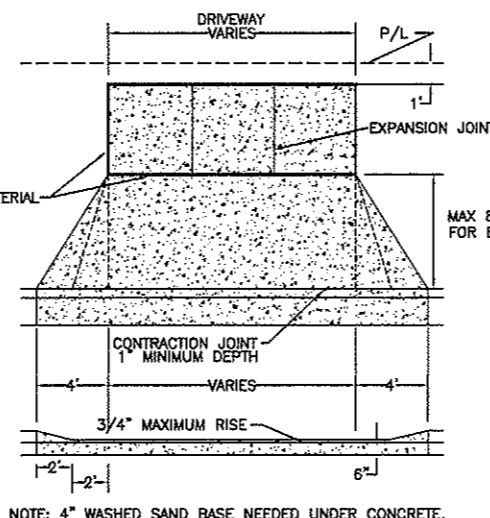
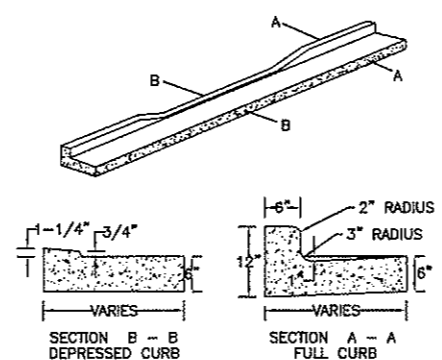
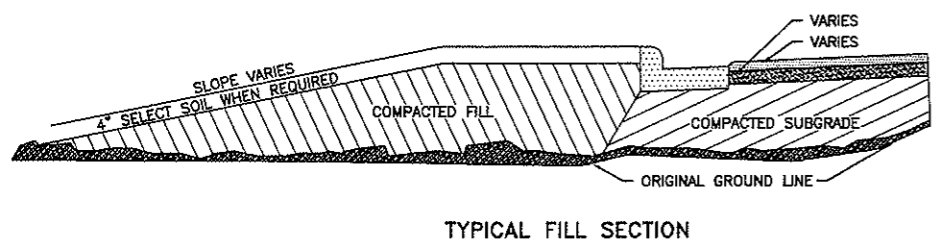
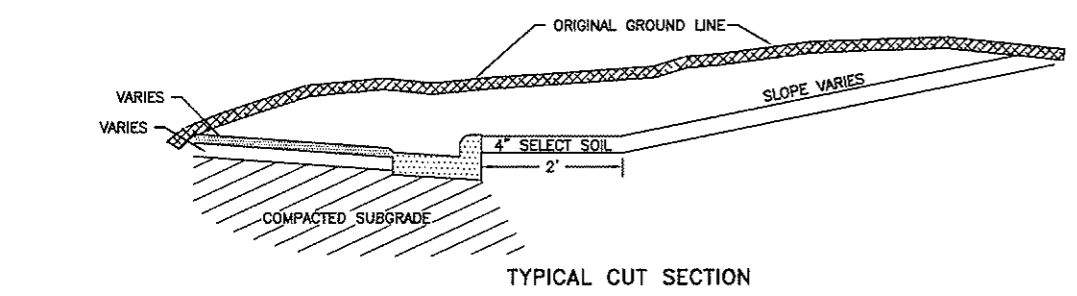
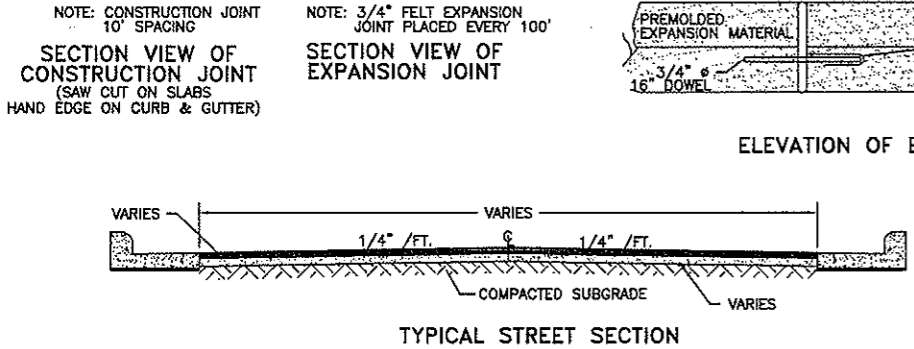
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 DATE 08/08  
 SHEET NO. 12 OF 13 SHEETS

# DETAIL SHEET AS-BUILT

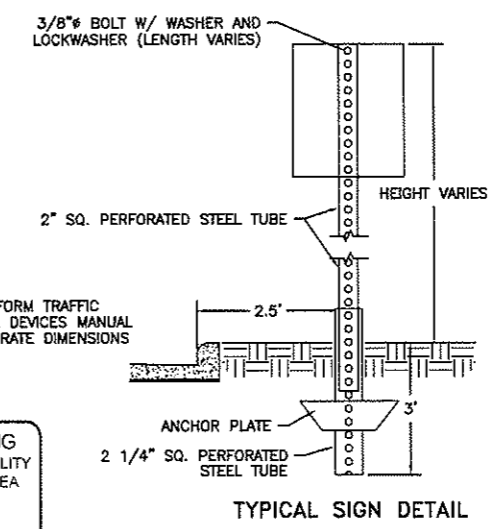
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**BALED HAY OR STRAW EROSION CHECKS**



NOTE: 4" WASHED SAND BASE NEEDED UNDER CONCRETE.



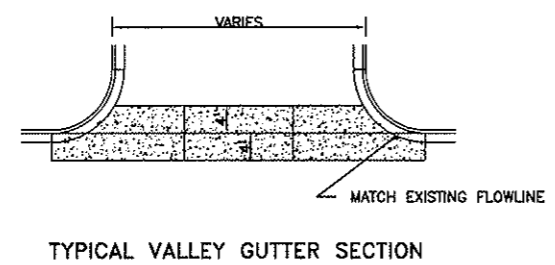
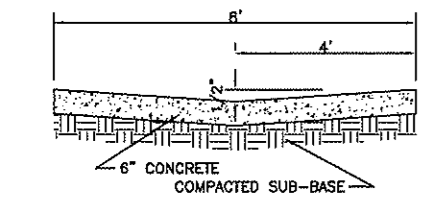
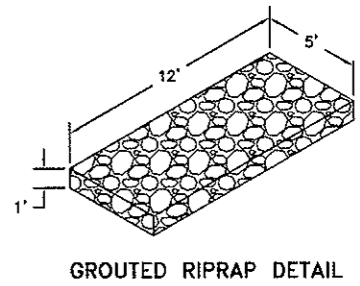
NOTE: SEE UNIFORM TRAFFIC CONTROL DEVICES MANUAL FOR ACCURATE DIMENSIONS

**AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA**

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA - CALL TOLL FREE

1-800-795-0555

UTILITIES UNDERGROUND LOCATION CENTER



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**TOMAN ENGINEERING COMPANY**  
 CONSULTING CIVIL ENGINEERS  
 501 1ST ST. N.W. • WANDAK, NORTH DAKOTA 58554 • (701) 863-9433

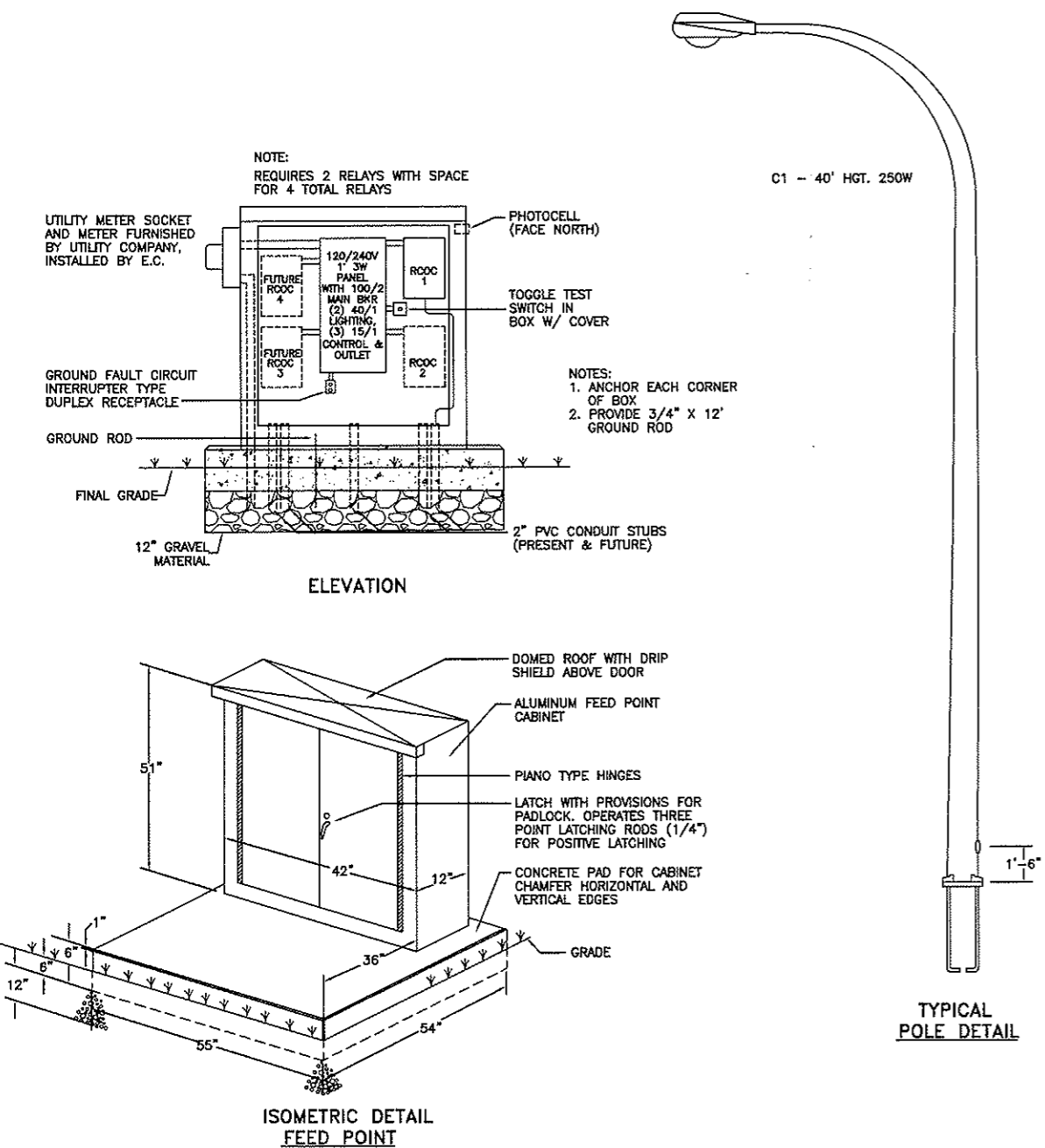
PROJECT: STREET IMPROVEMENT DISTRICT NO. 138  
 DETAIL SHEET AS-BUILT

NO.	DATE	BY	REVISIONS

SHEET NUMBER  
13  
 OF 14 SHEETS

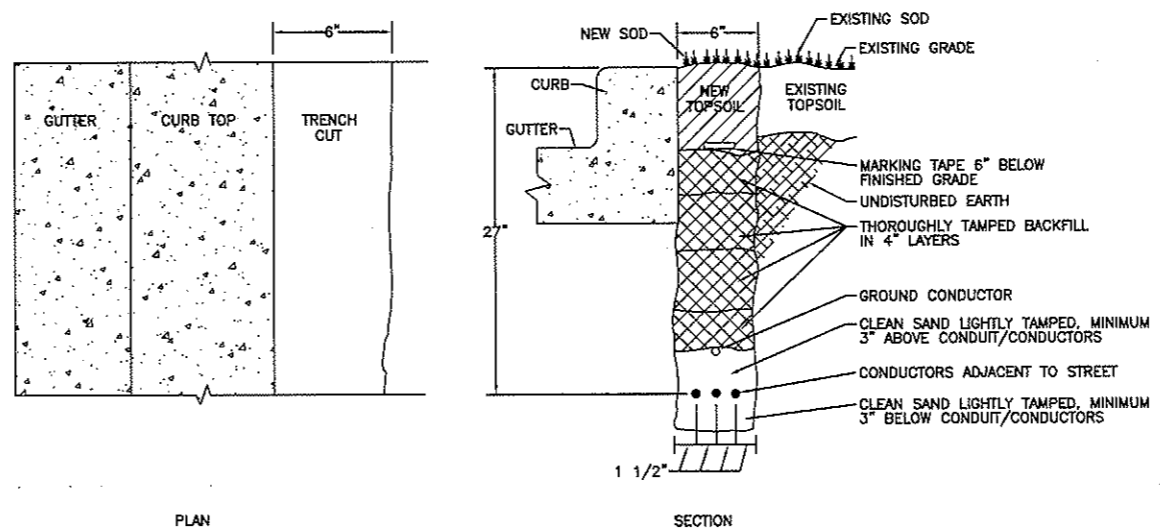
# STREET LIGHT DETAILS AS-BUILT

NO SCALE

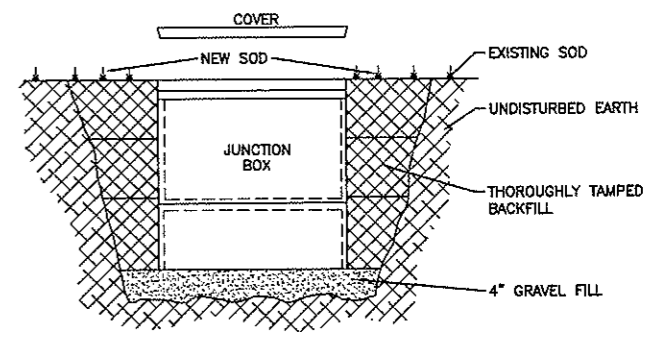
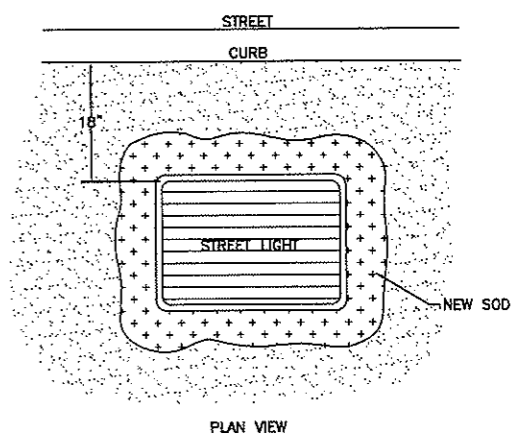
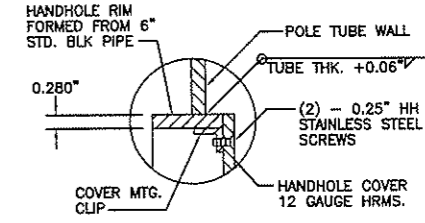
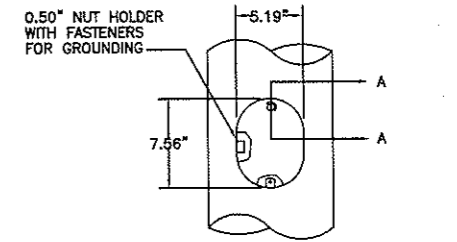
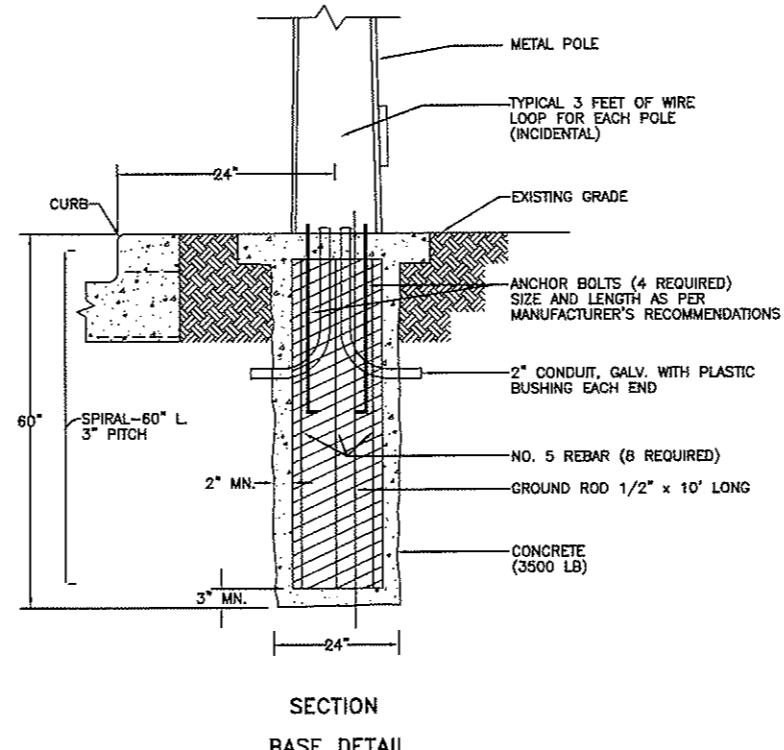
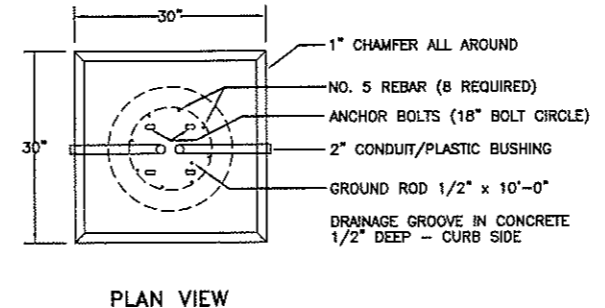


C1 - 40' HGT. 250W

TYPICAL POLE DETAIL



UNDERGROUND CABLE INSTALLATION



JUNCTION BOX DETAIL

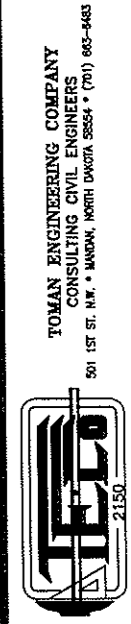
\* PROVIDE MOUSE HOLES AS REQUIRED FOR EXISTING AND NEW CONDUCTORS



AVOID CUTTING UNDERGROUND UTILITY LINES IN YOUR AREA

TWO WORKING DAYS BEFORE YOU DIG-DRILL-BLAST IN NORTH DAKOTA CALL TOLL FREE 1-800-795-0555 UTILITIES UNDERGROUND LOCATION CENTER

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PROJECT: STREET IMPROVEMENT DISTRICT NO. 138  
STREET LIGHT DETAILS AS-BUILT

NO.	DATE	BY	CHK	DATE
REVISIONS				