Level 1 LAYOUT APPROVAL

Programmed Letting Date August 25, 2023

Reviewed By Michael D. Kruse Digitally signed by Michael D. Kruse Date: 2021.12.01 09:04:30 -06'00' 20__
Metro District Preliminary Design Engineer

Reviewed By Sheila Johnson Digitally signed by Sheila Johnson Date: 2021.12.06 11:31:35 -06'00' 20__
Metro District Maintenance Operations Engineer

Reviewed By Lars Impola Digitally signed by Lars Impola Date: 2021.12.08 10:35:40 -06'00' 20__
Metro District Traffic Engineer

Reviewed By Douglas Carter Digitally signed by Douglas Carter Date: 2021.12.14 10:05:45 -06'00' 20__
State Geometrics Engineer

Approved By Lynn Clarkowski Digitally signed by Lynn Clarkowski Date: 2021.12.08 12:32:58 -06'00' 20__
Metro District Engineer

Approved By Tom Styrbicki Digitally signed by Tom Styrbicki Date: 2021.12.14 11:10:01 -06'00' 20__
State Design Engineer

I HEREBY CERTIFY THAT THIS LAYOUT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NAME: Heather Gardner LIC. NO. 56883 DATE: 12/1 2021

LAYOUT No. 1B COPY No. ____

T.H. 169 VICINITY OF SAND CREEK TWP,
LOUISVILLE TWP, JACKSON TWP, SHAKOPEE
FROM TH 21 TO MARYSTOWN RD (CSAH 15)
Bit Mill & Overlay, Concrete Rehab
RCUTs, Acceleration Ln, Median Closures

Prepared September 2021 Scale: Hor. 1 inch = 100 ft.
By R Richter

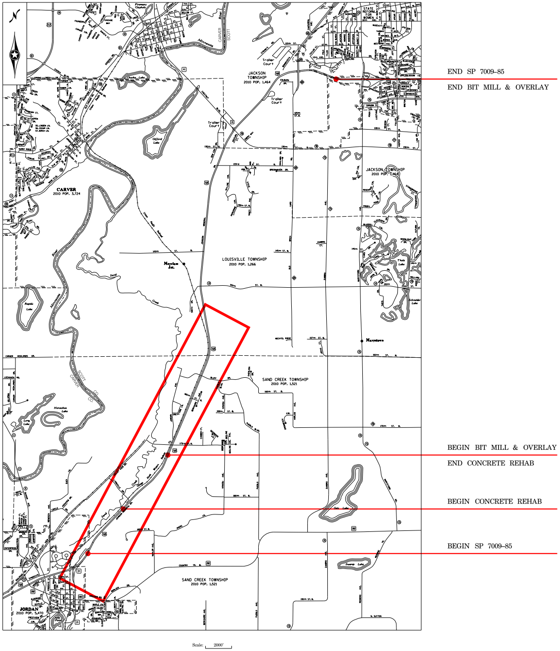
The alignment and grades shown on this map are tentative and subject to change without notice.	Staff Approval Date: 12-14-2021 [redacted]	Traffic volumes shown are for years 2017-2020 - MnDOT Traffic Mapping Application. Peak Hour volumes shown for 2018 supplied by Stantec

S.P. 7009-85 T.H. 169 A.J. T9Z516 PPMS Activity 1140

Copy To: ____ For: ____

DESIGN FILE: pw:\Documents\Projects\DM ROS\169\7009\085\Predesign\Layouts\p700985 gm1b.dgn
DATE: November 30, 2021

SP 7009-85 (TH 169)
SAND CREEK TWP, LOUISVILLE TWP, JACKSON TWP AND SHAKOPEE, SCOTT COUNTY



END SP 7009-85
END BIT MILL & OVERLAY
BEGIN BIT MILL & OVERLAY
END CONCRETE REHAB
BEGIN CONCRETE REHAB
BEGIN SP 7009-85
JACKSON TOWNSHIP 2010 POP. 1,464
CARVER 2010 POP. 3,724
LOUISVILLE TOWNSHIP 2010 POP. 1,266
SAND CREEK TOWNSHIP 2010 POP. 1,521
JORDAN 2010 POP. 5,470
STATE REFORMATORY FOR WOMEN
Trailer Court
Merriam Jct.
Marystown
Minnesota
CARVER SCOTT
Scale: 2000'

PROJECT NEED/PURPOSE AND HISTORY

THE PRESENT RIDE RQI (SMOOTHNESS) OF THIS SECTION RANGES FROM 3.2 TO 3.6 (2013) PLACING THIS SECTION IN THE FAIR TO GOOD CATEGORIES. THE SEGMENT WAS FIRST PAVED OVER BOC IN 1990 AND THE LAST M&O WAS IN 2001. THERE ARE SOME LOCALIZED MICROSURFACE SECTIONS IN THE SOUTH PART OF THE SEGMENT DONE TO SEAL UP THE LARGE CRACKS & SMOOTH OUT THE RIDE. THE PRIMARY ISSUE WITH THIS BOC/BAB SEGMENT IS REFLECTIVE CRACKS IN THE BOC AND THERMAL TRANSVERSE CRACKING & SOME RAVELING ALONG THE LONGITUDINAL JOINTS. THIS HAS A REPUTATION OF SOME FROST HEAVING/WASHBOARD SEGMENTS IN THE SOUTH IN THE LATE WINTER & SPRING WHICH GENERATE COMPLAINTS TO MAINTENANCE.

THE GOAL OF THIS PROJECT IS TO IMPROVE THE RIDE (SMOOTHNESS) AND RESTORE THE PAVEMENT STRUCTURE OF THIS SEGMENT, SO THAT THE RIDE QUALITY INDEX (RQI) OF THIS SECTION OF ROADWAY REMAINS ABOVE 3.1. THIS PROJECT WILL ALSO HELP MEET MN/DOT'S PAVEMENT PERFORMANCE TARGETS.

THE PURPOSE OF THE RCI, RCUTS AND MEDIAN CLOSURES IS TO INCREASE THE SAFETY OF THE CORRIDOR BY ELIMINATING LEFT TURN AND CROSSING MAINLINE RELATED CRASHES.

LAC COMMENTS (09/29/2021):

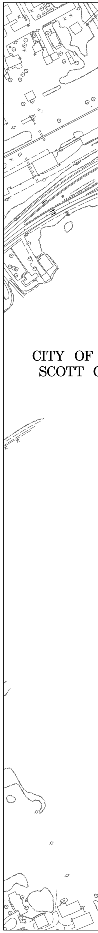
1. CHANGED ACCELERATION LANE TO 1620' per MIKE KRUSE
2. ADD LAYOUT NOTE REGARDING GUARDRAIL
3. ADD NOTE REGARDING MEDIAN CLOSURES AT 166TH ST AND BLUFF DR
4. REMOVE PROPOSED JORDAN AVE
5. MINOR LABELING ISSUES
6. CHANGED DESIGN SPEED FROM 65 MPH TO 70 MPH

GDSU COMMENTS (10/28/2021):

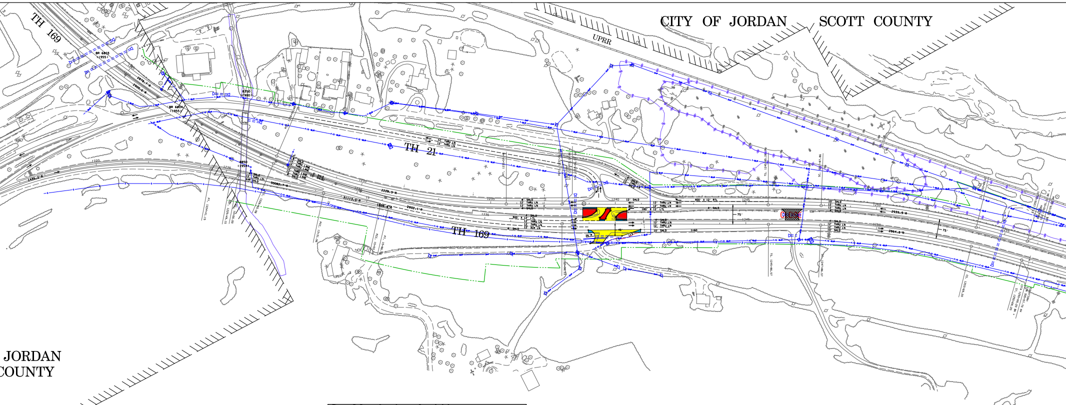
1. REMOVED RIGHT TURN LANE EXTENSION AT STA 341+00
2. PROVIDED SNOWPLOW TURN TEMPLATES
3. MINOR LABELLING

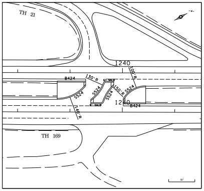
LAYOUT NOTES

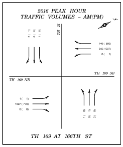
1. THERE ARE NO EXISTING OR NEW DESIGN EXCEPTIONS
2. TH 169 IS AN APPROVED HOUSE MOVING ROUTE
3. TH 169 IS AN OSOW SUPER LOAD CORRIDOR
4. THE MAXIMUM GRADE ON TH 169 IS LESS THAN 1% IN THE CORRIDOR COVERED BY THE LAYOUT
5. CONSTRUCTION OF SP 7009-87 (2022) AND SP 7009-89 (2023) WILL BEGIN PRIOR TO THIS PROJECT
6. ALL PEDESTRIAN ACCOMMODATIONS SHALL MEET ADA/PROWAG REQUIREMENTS
7. ALL CONSTRUCTION WILL BE WITHIN EXISTING R/W
8. MODIFY CABLE MEDIAN GUARDRAIL AS NEEDED

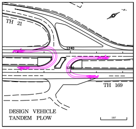


CITY OF
SCOTT C

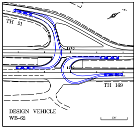

CITY OF JORDAN
SCOTT COUNTY
UPRR
TH 169
TH 21
TH 169
BR 6803 (1955)
BR 6804 (1955)
JORDAN
COUNTY


TH 21
1240
B424
130' R
100' R
S524
S524
150' R
S524
140' R
1240
B424
TH 169

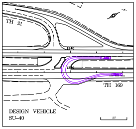

2016 PEAK HOUR
TRAFFIC VOLUMES – AM(PM)
TH 21
146 (580)
545 (1037)
0 (1)
TH 169 SB
TH 169 NB
1 (1)
1507 (779)
0 (0)
TH 169 AT 166TH ST


TH 21
1240
1240
TH 169

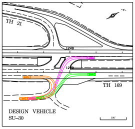
DESIGN VEHICLE
TANDEM PLOW


TH 21
1240
1240
TH 169

DESIGN VEHICLE
WB–62

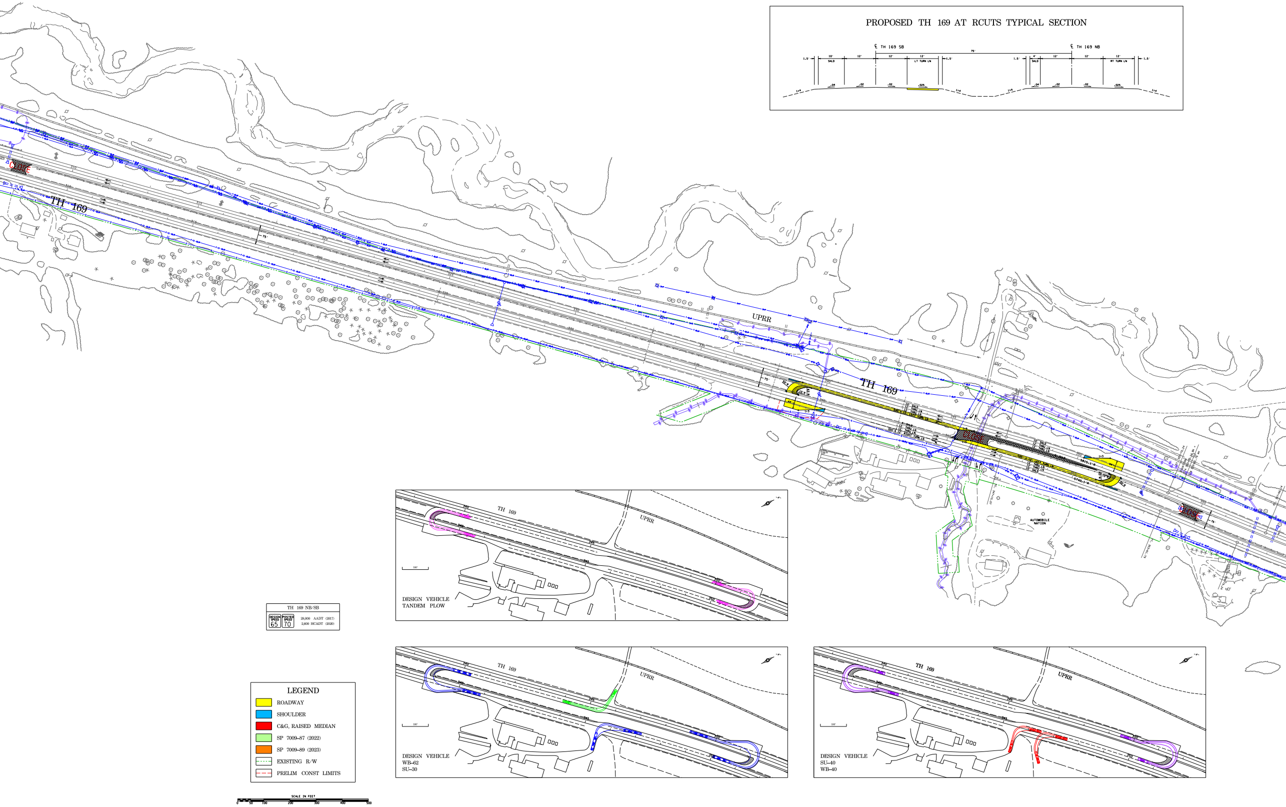

TH 21
1240
1240
TH 169

DESIGN VEHICLE
SU–40


TH 21
1240
1240
TH 169

DESIGN VEHICLE
SU–30

SAND CREEK TOWNSHIP
SCOTT COUNTY



TH 169
UPRR
AUTOMOBILE NATION
75'

PROPOSED TH 169 AT RCUTS TYPICAL SECTION

℄ TH 169 SB
℄ TH 169 NB
75'
1.5'
10'
SHLD
12'
12'
12'
LT TURN LN
1.5'
1.5'
4'
SHLD
12'
12'
12'
RT TURN LN
1.5'
.04
.02
.02
.025
.04
.02
.02
.025
1:4
1:4
1:4
1:4

DESIGN VEHICLE
TANDEM PLOW

DESIGN VEHICLE
WB-62
SU-30

DESIGN VEHICLE
SU-40
WB-40

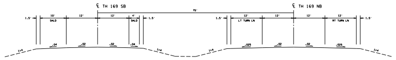
TH 169 NB/SB	
DESIGN SPEED 65 POSTED SPEED 70	28,000 AADT (2017) 2,600 HCADT (2020)

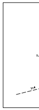
LEGEND

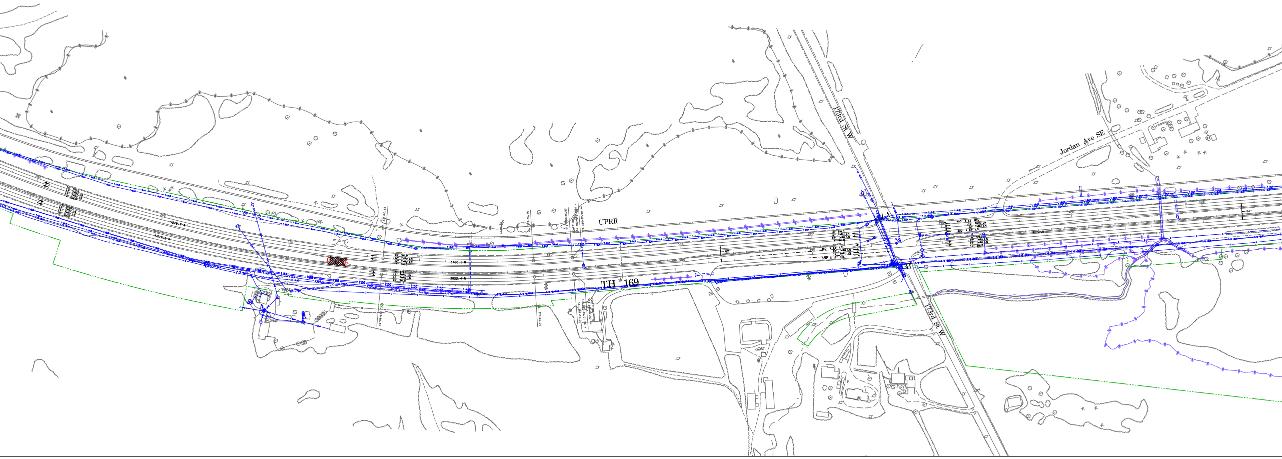
🟨	ROADWAY
🟦	SHOULDER
🟥	C&G, RAISED MEDIAN
🟩	SP 7009–87 (2022)
🟧	SP 7009–89 (2023)
- · -	EXISTING R/W
– –	PRELIM CONST LIMITS

SCALE IN FEET
0
50
100
200
300
400
500

EXISTING TH 169 TYPICAL SECTION

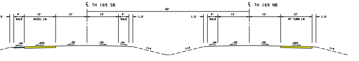

℄ TH 169 SB
℄ TH 169 NB
75'
1.5'
10'
SHLD
12'
12'
4'
SHLD
1.5'
1.5'
12'
LT TURN LN
12'
12'
12'
RT TURN LN
1.5'
.04
.02
.02
.04
.025
.02
.02
.025
1:4
1:4
1:4
1:4




UPRR
TH 169
173rd St W
173rd St W
Jordan Ave SE
62'
62'
10' SHLD
12' THRU LN
12' THRU LN
4' SHLD
3760.1'R
4' SHLD
12' THRU LN
12' THRU LN
10' SHLD
3822.4'R
5727.6'R
5320.7'R
450' x 12' LTL
12' THRU LN
12' THRU LN
300' x 12' RTL
400' x 12' RTL
12' THRU LN
12' THRU LN
400' x 12' LTL
4' SHLD
6' SHLD
12' THRU LN
12' THRU LN
10' SHLD

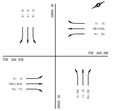
SAND CREEK TOWNSHI
SCOTT COUNTY

PROPOSED TH 169 AT 166TH ST TYPICAL SECTION



℄ TH 169 SB
℄ TH 169 NB
62'
4'
12'
12'
12'
4'
1.5'
1.5'
4'
12'
12'
12'
1.5'
SHLD
ACCEL LN
SHLD
SHLD
RT TURN LN
.04
.025
.02
.02
.04
.04
.02
.02
.025
1:4
1:4
1:4

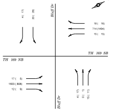
2018 PEAK HOUR
TRAFFIC VOLUMES – AM(PM)



0 (5)
5 (2)
0 (2)
166th St
3 (0)
706 (1525)
15 (22)
TH 169 SB
TH 169 NB
3 (1)
1622 (812)
15 (17)
3 (24)
1 (0)
16 (22)
166th St

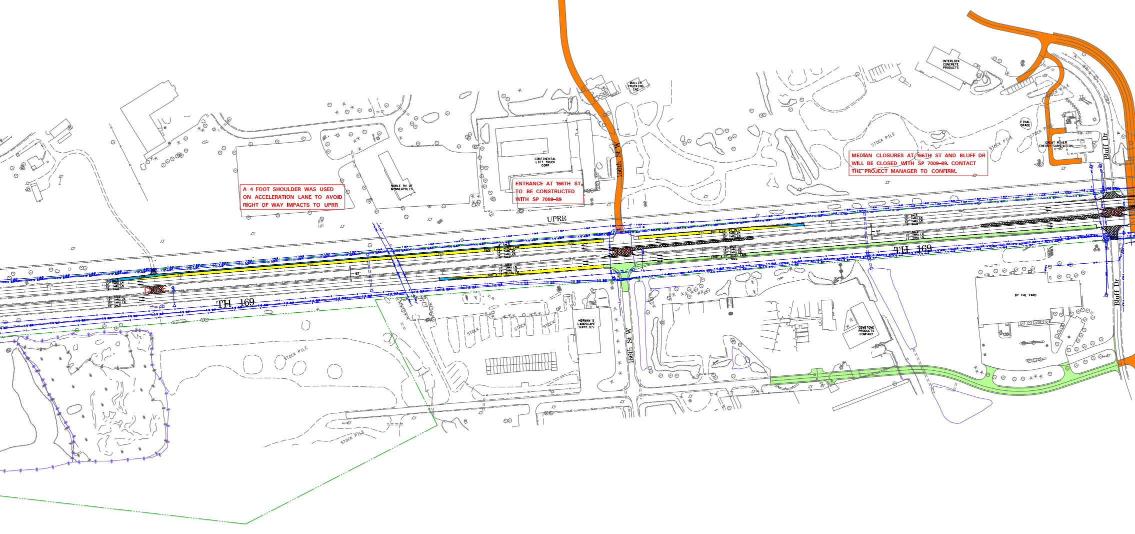
TH 169 AT 166TH ST

2018 PEAK HOUR
TRAFFIC VOLUMES – AM(PM)



4 (17)
20 (28)
Bluff Dr
18 (16)
714 (1494)
15 (15)
TH 169 SB
TH 169 NB
17 (5)
1603 (808)
12 (9)
4 (17)
0 (1)
15 (11)
Bluff Dr

TH 169 AT BLUFF DR



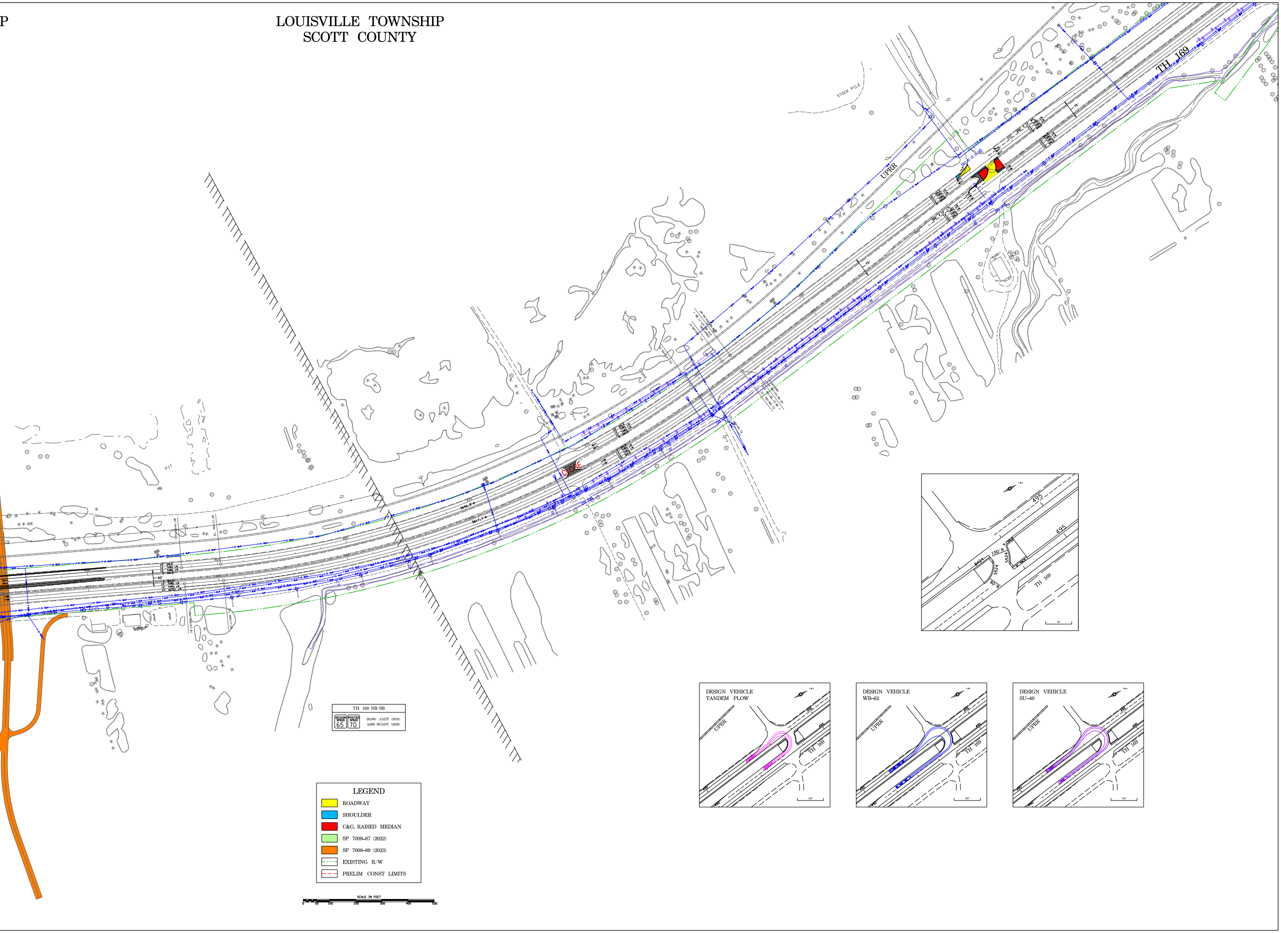
166th St W
UPRR
TH 169
TH 169
166th St W
Bluff Dr
Bluff Dr
CONTINENTAL LIFT TRUCK CORP
NOBLE RV OF MINNEAPOLIS
MULLIN TRUCKING INC
INTERLOCK CONCRETE PRODUCTS
GREAT RIVER ENERGY SUBSTATION
FINAL GRADE
HERMAN'S LANDSCAPE SUPPLIES
CEMSTONE PRODUCTS COMPANY
BY THE YARD
STOCK PILE
STOCK PILE
STOCK PILE
STOCK PILE
STOCK PILE
STOCK
STOCK
STOCK
62'
62'

A 4 FOOT SHOULDER WAS USED ON ACCELERATION LANE TO AVOID RIGHT OF WAY IMPACTS TO UPRR

ENTRANCE AT 166TH ST. TO BE CONSTRUCTED WITH SP 7009-89

MEDIAN CLOSURES AT 166TH ST AND BLUFF DR WILL BE CLOSED WITH SP 7009-89. CONTACT THE PROJECT MANAGER TO CONFIRM.

LOUISVILLE TOWNSHIP
SCOTT COUNTY


TH 169
UPRR
STOCK PILE
PIT
495
495
100' R
90' R
TH 169
DESIGN VEHICLE
TANDEM PLOW
DESIGN VEHICLE
WB–62
DESIGN VEHICLE
SU–40
UPRR
TH 169
SCALE IN FEET
0
50
100
200
300
400
500

TH 169 NB/SB

DESIGN SPEED 65 | POSTED SPEED 70

29,000 AADT (2018)
2,600 HCADT (2020)

LEGEND

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