Level 1 LAYOUT APPROVAL

Programmed Letting Date	JANUARY, 2028	
Reviewed By	John Chock — Digitally signed by John Chock Date: 2026.04.27 09:31:53 -05'00' Metro District Preliminary Design Engineer	20____
Reviewed By	Christian Hoberg — Digitally signed by Christian Hoberg Date: 2026.04.27 16:30:23 -05'00' Metro District Maintenance Operations Engineer	20____
Reviewed By	Ashley Hansen — Digitally signed by Ashley Hansen Date: 2026.04.30 09:31:39 -05'00' Metro District Traffic Engineer	20____
Reviewed By	Douglas Carter — Digitally signed by Douglas Carter Date: 2026.05.29 10:27:41 -05'00' State Geometrics Engineer	20____
Approved By	Carolyn Adamson — Digitally signed by Carolyn Adamson Date: 2026.05.26 14:33:19 -05'00' Metro District Engineer	20____
Approved By	Tom Styrbicki — Digitally signed by Tom Styrbicki Date: 2026.05.29 10:36:53 -05'00' State Design Engineer	20____

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: Savannah Cysiewski — Digitally signed by Savannah Cysiewski Date: 2026.04.27 [illegible] LIC. NO. 63798 DATE: ____ 20____

NAME: Alejandro Molina Mendoza — Digitally signed by Alejandro Molina Mendoza Date: [illegible] LIC. NO. 64636 DATE: ____ 20____

LAYOUT No. 1C COPY No.____

T.H. 61 VICINITY OF CITY OF HASTINGS, DAKOTA CO

FROM 36TH ST W TO 3RD ST W - RECONSTRUCT MAIN LINE AND PROPOSED ROUNDABOUTS AT 36TH AND TH316

Prepared FEB 2026 Scale: Hor. 1 inch = 100 ft.
By R. JONES (AMM, MM, SC, GT, TRT) Vert. 1 inch = 10 ft.

The alignment and grades shown on this map are tentative and subject to change without notice.	Staff Approval Date: 5/29/26 [redacted]	The traffic volumes shown are for year 2022 Source: MNDOT Office of Traffic Forecasting and Analysis Traffic Mapping Application Prepared: FEBRUARY, 2022

S.P. 1913-107 T.H. 61 A.J. T9Z530 PPMS Activity 1140
S.P._______ T.H.___ A.J._____ PPMS Activity____
S.P._______ T.H.___ A.J._____ PPMS Activity____

Copy To:______________ For:_______________

DESIGN FILE: Projects\DM_ROS\061\1913\107\Predesign\Layouts\p1913107_000gem-L0.dgn
DATE: 24-AUG-2026

PROJECT PURPOSE AND NEED STATEMENTS

THIS IS A RECONSTRUCTION PROJECT ON TH 61 IN HASTINGS FROM 36TH STREET TO 3RD STREET. THIS CORRIDOR EXPERIENCES CRASH ISSUES AT MULTIPLE INTERSECTIONS, EXCESSIVE DELAY WITH FORECASTED TRAFFIC, EXCESSIVE VEHICLE SPEEDS, DIFFICULTY FOR PEDESTRIAN CROSSINGS, DISJOINTED TRAFFIC FLOW FOR TRAVELLERS ON THE CORRIDOR AS WELL AS THOSE ENTERING AND EXITING, AND A LACK OF AESTHETICS THAT REFLECT HASTINGS. PROPOSED IMPROVEMENTS INCLUDES REMOVAL OF ON-STREET PARKING, ACCESS MANAGEMENT, TODD FIELD WALL RECONSTRUCTION, NEW SIGNAL AT 18TH STREET, MULTI-LANE ROUNDABOUT AT TH 316 AND SINGLE LANE ROUNDABOUT AT 36TH ST, NEW PED BRIDGE OVER THE VERMILLION RIVER, IMPROVED PEDESTRIAN CROSSINGS OF THE HIGHWAY, AND NEW UTLITIES COMPLETED BY THE CITY. THE PROJECT WILL ALSO IMPROVE THE RIDE AND RESTORE THE PAVEMENT STRUCTURE. IT WILL REBUILD THE DETERIORATING PAVEMENT TO IMPROVE SAFETY, PERFORMANCE, AND LONGEVITY. ALSO ADDRESSES CENTERLINE LONGITUDINAL CRACKS AND THE NUMEROUS SCATTERED UTILITY PATCHES ON BOTH LANES.

THE SECTION FROM THE START OF THE PROJECT TO JUST BEFORE TH316 WILL BE CONSTRUCTED WITH BITUMINOUS AND THE REST OF THE PROJECT WILL BE CONCRETE RECONSTRUCTION.

LAYOUT HISTORY

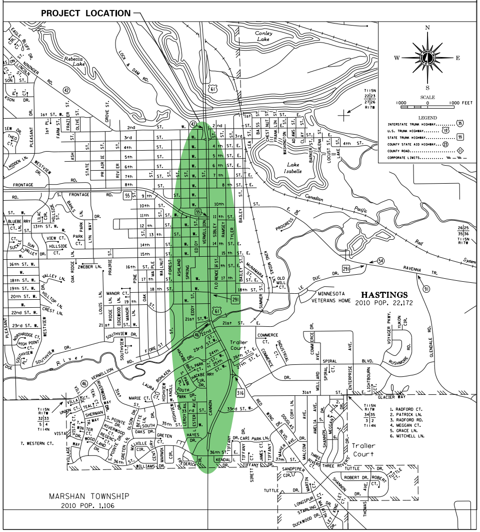
Layout 1 submitted to LAC and GDSU 12/23/2025. As a result of these comments, major changes include:
- Raised channelization for the WB TH 316 to NB TH 61 turn lane.
- Vane striping revised at TH 316/TH61 roundabout.
- Multilane rondabout revised from 14'/18' lanes to 16'/16' lanes.
- Alignment of 18th St revised to flatten curves.

Layout 1A submitted to LAC and GDSU 2/19/2026.As a result of these comments, major changes include:
- Removal of 6' walk West of McNamera Stadium/Todd Field from layout.

Layout 1B submitted to LAC and GDSU 3/31/2026. As a result of these comments, major changes include:
- Geometric changes to TH 316 roundabout to improve turn templates.
- 14' pedestrian bridge drawing added to layout

Layout 1C submitted for signatures 4/20/2026

INDEX MAP


PROJECT LOCATION
Conley Lake
Rebecca Lake
Lake Isabelle
HASTINGS
2010 POP. 22,172
MARSHAN TOWNSHIP
2010 POP. 1,106
MINNESOTA VETERANS HOME
Traller Court
Canadian Pacific Rail System
River
N
S
E
W
SCALE
1000 0 1000 FEET
LEGEND
INTERSTATE TRUNK HIGHWAY
U.S. TRUNK HIGHWAY
STATE TRUNK HIGHWAY
COUNTY STATE AID HIGHWAY
COUNTY ROAD
CORPORATE LIMITS
1. RADFORD CT.
2. PATRICK LN.
3. RADFORD RD.
4. MEGGAN CT.
5. GRACE LN.
6. MITCHELL LN.
7. WESTERN CT.
61
316
42
46
47
54
55
91
291

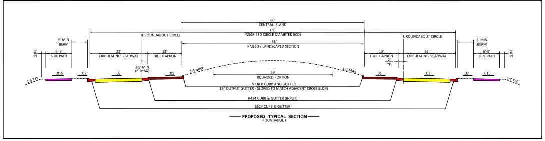
LAYOUT NOTES

- THESE PORTIONS OF TH61 AND TH316 ARE APPROVED HOUSE MOVING ROUTES.
- THESE PORTIONS OF TH61 AND TH316 ARE NOT DESIGNATED AS OSOW SUPER LOAD CORRIDORS.
- PEDESTRIAN FACILITIES MUST MEET ADA / PROWAG REQUIREMENTS.
- THERE ARE NO DESIGN EXCEPTIONS.

CONSTRUCTION HISTORY

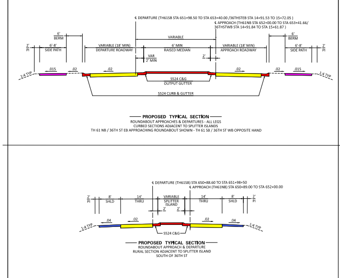
TH61 SP 1913-05/08 (1951)
CONCRETE BASE WIDENING
TH61 SP 1913-20 (1968)
BITUMINOUS SURFACING AND GRAVEL SHOULDER
TH61 SP 1913-26 (1971)
ASPHALTIC CONCRETE
TH61 SP 1913-38 (1981)
BITUMINOUS SURFACING
TH61 SP 1913-46 (1988)
BITUMINOUS OVERLAY
TH61 SP 1913-54 (1998)
BITUMINOUS MILL AND OVERLAY
TH61 SP 1913-70 (2010)
BITUMINOUS MILL AND OVERLAY
TH61 SP 1913-64 (2010)
BRIDGE REPLACEMENT (NEW BR#19004)

TH61 & 36TH ST W TYPICAL SECTION – ROUNDABOUT


66' CENTRAL ISLAND
136' INSCRIBED CIRCLE DIAMETER (ICD)
66' RAISED / LANDSCAPED SECTION
℄ ROUNDABOUT CIRCLE
6' MIN BERM
6'-8' SIDE PATH
2' PI
22' CIRCULATING ROADWAY
13' TRUCK APRON
3.5' MIN (6' MAX)
2' TYP.
1:4 TYP
.015
.02
.01
1/4 MAX
39' ROUNDED PORTION
V OR B CURB AND GUTTER
12" OUTPUT GUTTER - SLOPED TO MATCH ADJACENT CROSS SLOPE
R424 CURB & GUTTER (INPUT)
S524 CURB & GUTTER

PROPOSED TYPICAL SECTION
ROUNDABOUT

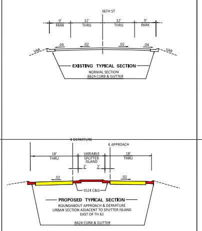
TH61 & 36TH TYPICAL SECTION ROUNDABOUT APPROACH & DEPARTURES


℄ DEPARTURE (TH61SB STA 651+98.50 TO STA 653+40.00 /36THSTEB STA 14+91.53 TO 15+72.05)
℄ APPROACH (TH61NB STA 652+00.00 TO STA 653+41.66/ 36THSTWB STA 14+91.84 TO STA 15+61.87)
6' BERM
6'-8' SIDE PATH
2' PI
VARIABLE (18' MIN) DEPARTURE ROADWAY
VARIABLE
6' MIN RAISED MEDIAN
VAR 2' MIN
VARIABLE (18' MIN) APPROACH ROADWAY
1:4 TYP
.015
.02
S524 C&G OUTPUT GUTTER
S524 CURB & GUTTER
℄ DEPARTURE (TH61SB) STA 650+88.60 TO STA 651+98+50
℄ APPROACH (TH61NB) STA 650+89.00 TO STA 652+00.00
8' SHLD
14' THRU
VARIABLE SPLITTER ISLAND
.04
S524 C&G

PROPOSED TYPICAL SECTION
ROUNDABOUT APPROACHES & DEPARTURES - ALL LEGS
CURBED SECTIONS ADJACENT TO SPLITTER ISLANDS
TH 61 NB / 36TH ST EB APPROACHING ROUNDABOUT SHOWN - TH 61 SB / 36TH ST WB OPPOSITE HAND

PROPOSED TYPICAL SECTION
ROUNDABOUT APPROACH & DEPARTURE
RURAL SECTION ADJACENT TO SPLITTER ISLAND
SOUTH OF 36TH ST

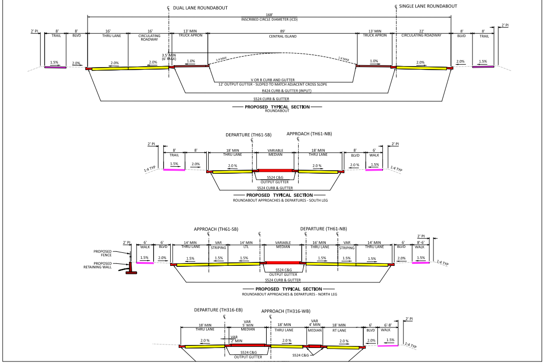
TYPICAL SECTIONS – 36TH ST

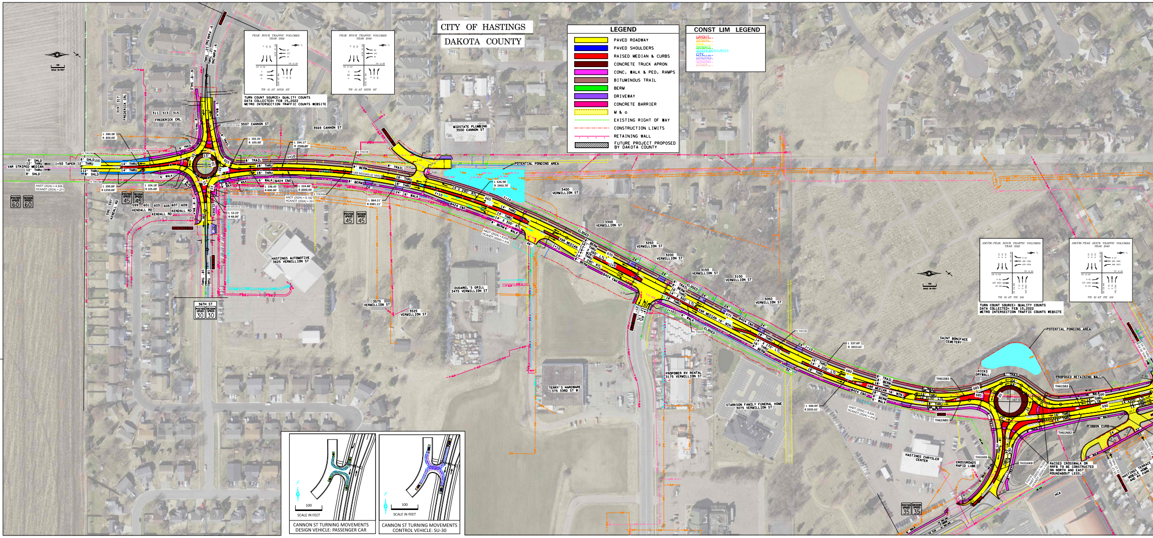

36TH ST
9' PARK
12' THRU
.04
.02
VAR
℄ DEPARTURE
℄ APPROACH
18' THRU
VARIABLE SPLITTER ISLAND
2' 2'
S524 C&G

EXISTING TYPICAL SECTION
NORMAL SECTION
B624 CURB & GUTTER

PROPOSED TYPICAL SECTION
ROUNDABOUT APPROACH & DEPARTURE
URBAN SECTION ADJACENT TO SPLITTER ISLAND
EAST OF TH 61
B424 CURB & GUTTER

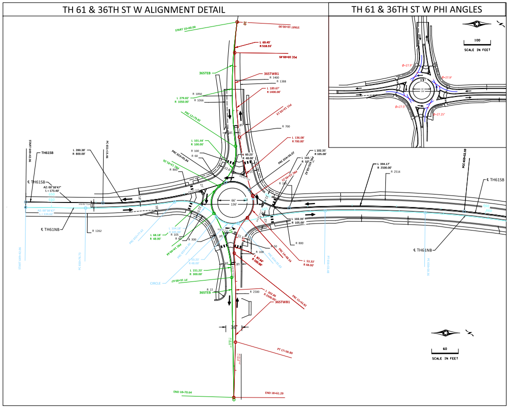
TH61 & TH316 – ROUNDABOUT TYPICAL SECTION


℄ DUAL LANE ROUNDABOUT
℄ SINGLE LANE ROUNDABOUT
168' INSCRIBED CIRCLE DIAMETER (ICD)
2' PI
8' TRAIL
8' BLVD
16' THRU LANE
16' CIRCULATING ROADWAY
13' MIN TRUCK APRON
89' CENTRAL ISLAND
22' CIRCULATING ROADWAY
3.5' MIN (6' MAX)
1.5%
2.0%
1.0%
1/4 MAX
V OR B CURB AND GUTTER
12' OUTPUT GUTTER - SLOPED TO MATCH ADJACENT CROSS SLOPE
R424 CURB & GUTTER (INPUT)
S524 CURB & GUTTER
PROPOSED TYPICAL SECTION
ROUNDABOUT
DEPARTURE (TH61-SB)
APPROACH (TH61-NB)
18' MIN THRU LANE
VARIABLE MEDIAN
6' WALK
1:4 TYP
S524 C&G OUTPUT GUTTER
S524 CURB & GUTTER
PROPOSED TYPICAL SECTION
ROUNDABOUT APPROACHES & DEPARTURES - SOUTH LEG
APPROACH (TH61-SB)
DEPARTURE (TH61-NB)
PROPOSED FENCE
PROPOSED RETAINING WALL
14' MIN THRU LANE
VAR STRIPING
14' MIN LTL
16' MIN THRU LANE
6' BLVD
8'-6' WALK
PROPOSED TYPICAL SECTION
ROUNDABOUT APPROACHES & DEPARTURES - NORTH LEG
DEPARTURE (TH316-EB)
APPROACH (TH316-WB)
18' MIN THRU LANE
VAR 5' MIN MEDIAN
VAR 2' MIN
VAR 4' MIN MEDIAN
18' MIN RT LANE
6'-8' WALK
S524 C&G OUTPUT GUTTER
S524 C&G

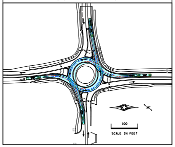

CITY OF HASTINGS
DAKOTA COUNTY
LEGEND
PAVED ROADWAY
PAVED SHOULDERS
RAISED MEDIAN & CURBS
CONCRETE TRUCK APRON
CONC. WALK & PED. RAMPS
BITUMINOUS TRAIL
BERM
DRIVEWAY
CONCRETE BARRIER
M & O
EXISTING RIGHT OF WAY
CONSTRUCTION LIMITS
RETAINING WALL
FUTURE PROJECT PROPOSED BY DAKOTA COUNTY
CONST LIM LEGEND
LAYOUT
DESIGN
ADA
SIGNALS
WATER RESOURCES
CITY
UTILITIES
STAGING
OTHER
TURN COUNT SOURCE: QUALITY COUNTS
DATA COLLECTED: FEB 15,2022
METRO INTERSECTION TRAFFIC COUNTS WEBSITE
3597 CANNON ST
3569 CANNON ST
MIDSTATE PLUMBING 3500 CANNON ST
FREDERICK CRL
KENDALL RD
POTENTIAL PONDING AREA
3400 VERMILLION ST
3300 VERMILLION ST
3250 VERMILLION ST
3200 VERMILLION ST
3150 VERMILLION ST
3100 VERMILLION ST
3050 VERMILLION ST
HASTINGS AUTOMOTIVE 3625 VERMILLION ST
DUGAREL'S GRILL 3475 VERMILLION ST
3575 VERMILLION ST
3525 VERMILLION ST
TERRY'S HARDWARE 375 33RD ST W
PROPOWER RV RENTAL 3175 VERMILLION ST
STARKSON FAMILY FUNERAL HOME 3075 VERMILLION ST
SAINT BONIFACE CEMETERY
HASTINGS CHRYSLER CENTER
CROSSROADS RAPID LUBE
RICKS DRYWALL
PROPOSED RETAINING WALL
RIBBON CURB
RAISED CROSSWALK OR RRFB TO BE CONSTRUCTED ON NORTH AND EAST ROUNDABOUT LEGS.
HASTINGS TERRACE MOBILE HOME AND RV PARK
36TH ST
POSTED SPEED 60 DESIGN SPEED 60
POSTED SPEED 45 DESIGN SPEED 45
POSTED SPEED 30 DESIGN SPEED 30
POSTED SPEED 35 DESIGN SPEED 35
VAR STRIPED MEDIAN
1:50 TAPER
CANNON ST TURNING MOVEMENTS
DESIGN VEHICLE: PASSENGER CAR
CANNON ST TURNING MOVEMENTS
CONTROL VEHICLE: SU-30
SCALE IN FEET

TH 61 & 36TH ST W ALIGNMENT DETAIL

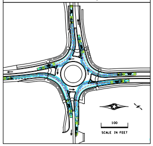
TH 61 & 36TH ST W PHI ANGLES


TH61SB
TH61NB
36STEB
36STWB1
SCALE IN FEET

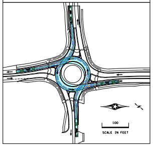
TH 61 & 36TH ST TURN TEMPLATE DESIGN VEHICLE WB-62


SCALE IN FEET

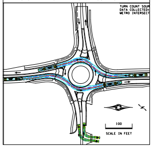
TH 61 & 36TH ST TURN TEMPLATE DESIGN VEHICLE WB-62, S-BUS-36


SCALE IN FEET

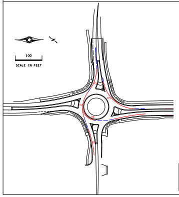
TH 61 & 36TH ST TURN TEMPLATE DESIGN VEHICLE WB-62


SCALE IN FEET

TH 61 & 36TH ST TURN TEMPLATE DESIGN VEHICLE WB-62. PASSENGER CAR


SCALE IN FEET

TH 61 & 36TH ST W FASTEST PATH


SCALE IN FEET

ROUNDABOUT SPEED SUMMARY

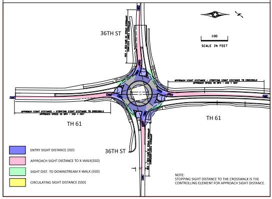
APPROACH	CURVE	RADIUS (ft)	e (ft/ft)	SPEED (mph)	RELATIVE SPEED ① DIFFERENCE (mph)
SOUTH TH 61 NB	R1	110	0.02	21.1	6.4
	R2	113	-0.02	19.6	4.9
	R3	800	0.02	22.9 ②	8.1
	R4	52	-0.02	14.8	0.0
	R5	131	0.02	22.6	7.8
WEST 36TH ST	R1	124	0.02	22.1	7.4
	R2	99	-0.02	18.7	3.9
	R3	350	0.02	22.0 ②	7.2
	R4	52	-0.02	14.8	0.0
	R5	119	0.02	21.8	7.0
NORTH TH 61 SB	R1	135	0.02	22.9	8.1
	R2	96	-0.02	18.5	3.7
	R3	800	0.02	22.7 ②	7.9
	R4	52	-0.02	14.8	0.0
	R5	122	0.02	22.0	7.2
EAST 36TH ST	R1	138	0.02	23.1	8.3
	R2	100	-0.02	18.8	4.0
	R3	700	0.02	23.0 ②	8.2
	R4	52	-0.02	14.8	0.0
	R5	98	0.02	20.2	5.4

① Relative speed difference is from the minimum speed in the roundabout - usually R4

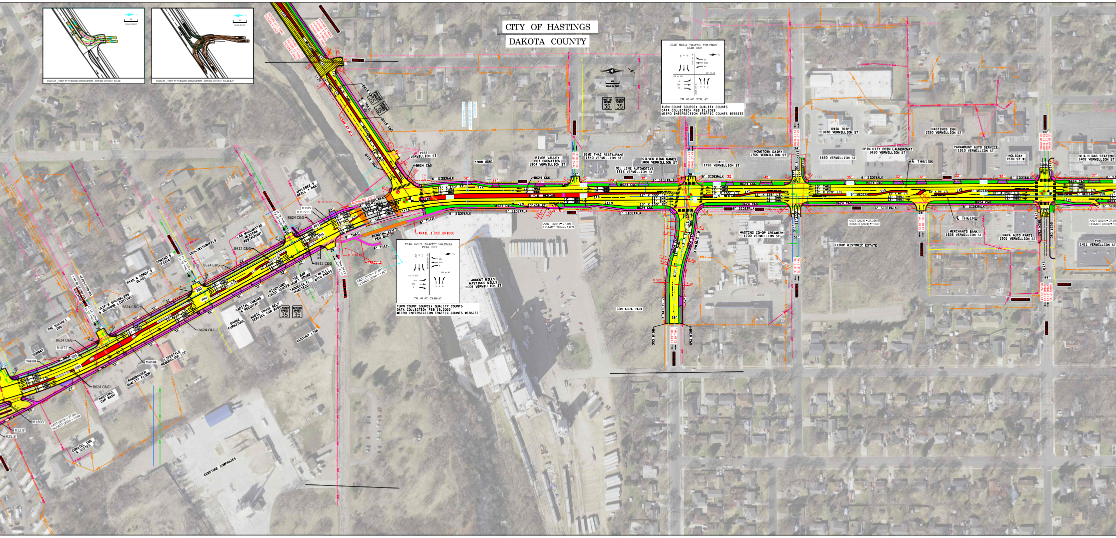
② Predicted Exit Speed (Calculated)

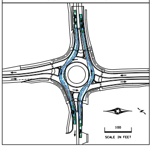
NCHRP Report 672 Roundabouts: An Informational Guide - Vehicle Speed Estimation Equation 6-4

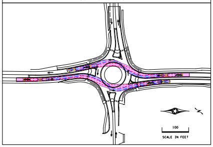
TH 61 & 36TH ST W SIGHT DISTANCE DETAIL

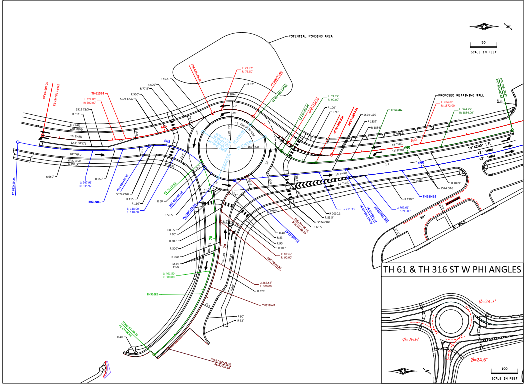

36TH ST
TH 61
TH 61
36TH ST
SCALE IN FEET
APPROACH SIGHT DISTANCE - STOPPING SIGHT DISTANCE TO CROSSWALK
ENTRY SIGHT DISTANCE (ISD)
APPROACH SIGHT DISTANCE TO X-WALK(SSD)
SIGHT DIST. TO DOWNSTREAM X-WALK (SSD)
CIRCULATING SIGHT DISTANCE (SSD)

NOTE:
STOPPING SIGHT DISTANCE TO THE CROSSWALK IS THE CONTROLLING ELEMENT FOR APPROACH SIGHT DISTANCE.

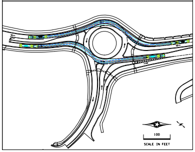

CITY OF HASTINGS
DAKOTA COUNTY
CSAH-47 _ EDDY ST TURNING MOVEMENTS - DESIGN VEHICLE: SU-40
CSAH-47 _ EDDY ST TURNING MOVEMENTS - DESIGN VEHICLE: SU-40 & P
PEAK HOUR TRAFFIC VOLUMES YEAR 2022
TH 61 AT 18TH ST
TURN COUNT SOURCE: QUALITY COUNTS
DATA COLLECTED: FEB 15,2022
METRO INTERSECTION TRAFFIC COUNTS WEBSITE
PEAK HOUR TRAFFIC VOLUMES YEAR 2022
TH 61 AT CSAH-47
TURN COUNT SOURCE: QUALITY COUNTS
DATA COLLECTED: FEB 15,2022
METRO INTERSECTION TRAFFIC COUNTS WEBSITE
POSTED SPEED 35
DESIGN SPEED 35
1922 VERMILLION ST
1908 US61
RIVER VALLEY PET CREMATION 1904 VERMILLION ST
BIMI THAI RESTAURANT 1840 VERMILLION ST
OIL LINE AUTOMOTIVE 1816 VERMILLION ST
SILVER KING GAMES 1806 VERMILLION ST
KFC 1726 VERMILLION ST
HOMETOWN DAIRY 1700 VERMILLION ST
KWIK TRIP 1630 VERMILLION ST
1630 VERMILLION ST
SPIN CITY COIN LAUNDROMAT 1610 VERMILLION ST
HASTINGS INN 1520 VERMILLION ST
PARAMOUNT AUTO SERVICE 1510 VERMILLION ST
HOLIDAY 15TH ST W
M & H GAS STATION 1402 VERMILLION ST
HASTING CO-OP CREAMERY 1700 VERMILLION ST
LEDUC HISTORIC ESTATE
MERCHANTS BANK 1525 VERMILLION ST
NAPA AUTO PARTS 1501 VERMILLION ST
CVS 1411 VERMILLION ST
ARDENT MILLS HASTINGS MILLS 2005 VERMILLION ST
CON AGRA PARK
APPLEBEE'S GRILL + BAR
LAS MARGARITAS MEXICAN RESTAURANT
DEALSWITHWHEELS
DOMINO'S PIZZA
RYAN & GORDY'S GLASS
SKIP'S SPRINKLERS & OUTDOOR LIGHTING
THE NICHOLS INN
SUBWAY
RIVERTOWN EVENT CENTER
THE BAR DRAFT HOUSE
TAQUERIA EL HUASTECO
O'REILLY AUTO PARTS
CAPITAL TOWING & RECOVERY
MAGIC TOUCH SELF SERVICE CAR WASH
GAHNZ FURNITURE
CENTURY LINK
LIFESTYLE REMODELING LLC
RAMSBACHER QUALITY FLOOR
HASTINGS CAR WASH
CORATEL INN & SUITES
CEMSTONE COMPANIES
PENDING 12-FT PED BRIDGE
TRAIL 2 PED BRIDGE
BRIDGE NO. 19075
8' TRAIL
6' SIDEWALK
5'-16' MEDIAN
5' MEDIAN
12' THRU
13' THRU
12' X 300' LTL
12' X 155' LTL
12' X 126' LTL
12' X 270' LTL
12' X 60' LTL
12' X 75' LTL
12' X 250' LTL
12' X 150' LTL
B624 C&G
B612 C&G
B418 C&G
CSAH-47 AL1
℄ TH61SB
℄ TH61NB
TH61SB
TH61NB
EX 16' THRU
EX 19' THRU
EX 17' THRU
EX 18' THRU
EX 10' PARKG
EX 12' THRU
AADT (2024) = 27,396
HCAADT (2024) = 1,639
AADT (2019) = 27,800
HCAADT (2024) = 1,848
R1872'
R1893'
R12.8'
R25.8'
R 1315'
R 1165.91'
R: 1165.92'
R: 1125.92'
CLOSE
SCALE IN FEET


TH 61 & 36TH ST TURN TEMPLATE DESIGN VEHICLE WB-62
100
SCALE IN FEET

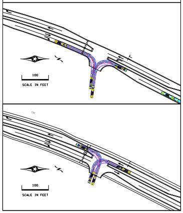

TH 61 & 36TH ST TURN TEMPLATE CONTROL VEHICLE 80' MOBILE HOME
100
SCALE IN FEET

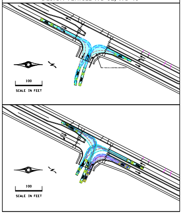

TH 61 & TH 316 ALIGNMENT DETAIL

TH 61 & TH 316 ST W PHI ANGLES
POTENTIAL PONDING AREA
PROPOSED RETAINING WALL
TH61SB1
TH61SB2
TH61NB1
TH61NB2
TH316EB
TH316WB
L: 327.86'
R: 500.00'
L: 79.92'
R: 73.50'
L: 247.93'
R: 635.92'
L: 118.00'
R: 110.00'
L: 784.82'
R: 1872.00'
L: 574.25'
R: 1884.00'
L: 767.61'
R: 1893.00'
L: 103.61'
R: 90.00'
L: 401.50'
R: 300.00'
L: 216.53'
R: 300.00'
PC 682+57.85
START 682+57.85
PC 682+19.25
PRC 684+67.16
PRC 685+95.74
PT 686+75.66
PT 71+47.82
PRC 685+85.18
PCC 686+16.86
8' TRAIL
VAR. BLVD
16' THRU
18' THRU
12'X130' LTL
14' THRU
14'X200' LTL
12' THRU
13' THRU
6' WALK
13' TRUCK APRON
167' ICD
S512 C&G
S524 C&G
R 650'
R 511'
R 500'
R 77.5'
R 59.5'
R 87'
R 115'
R 110'
R 60'
R 83.5'
R 90'
R 300'
R 40'
R 83'
R 106'
R 1869'
R 1905'
R 1884'
R 1837'
685
690
70
50
SCALE IN FEET
Ø=24.7°
Ø=26.6°
Ø=24.6°
100
SCALE IN FEET

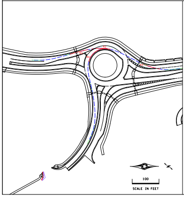

TH 61 & TH 316 TURN TEMPLATE DESIGN VEHICLE WB-62
100
SCALE IN FEET

TH


TH 61 & BUSINESS ENTRANCE TURN TEMPLATE DESIGN VEHICLE WB-40
100
SCALE IN FEET
100
SCALE IN FEET


TH 61 & 33RD ST TURN TEMPLATE DESIGN VEHICLE WB-62, WB-40
100
SCALE IN FEET
100
SCALE IN FEET

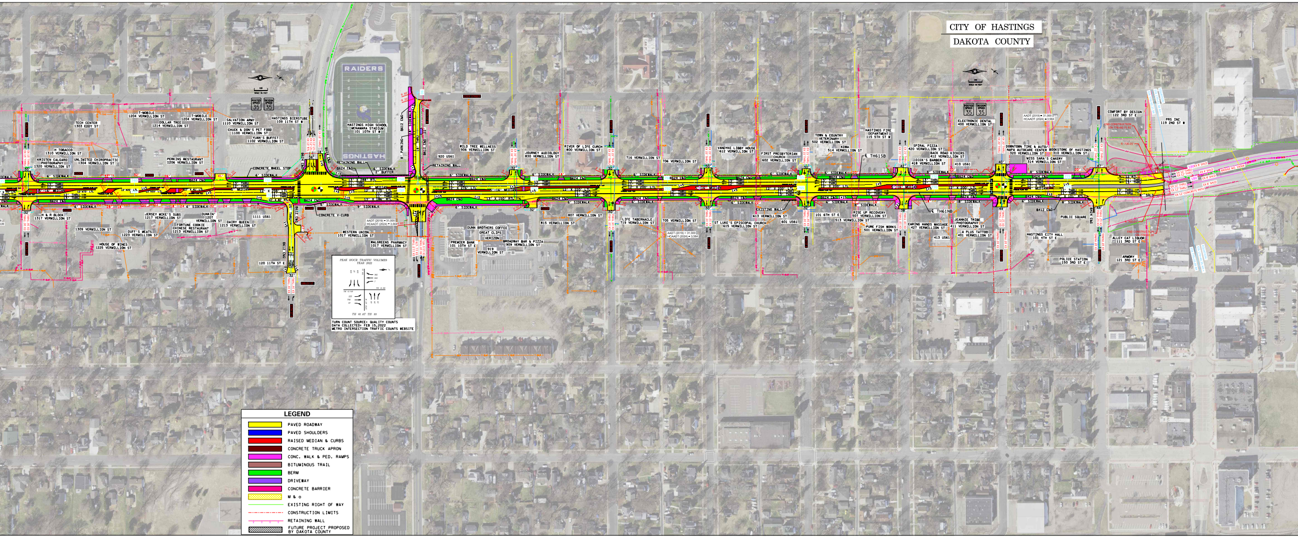
TH 61 & TH 316 FASTE


100
SCALE IN FEET

APPROACH
SOUTH TH 61 NB
NORTH TH 61 SB
EAST TH 316

1 Relative spe
2 Predicted Ex
NCHRP Repo

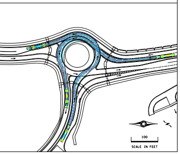
CITY OF HASTINGS
DAKOTA COUNTY


RAIDERS
HASTINGS
HASTINGS HIGH SCHOOL MCNAMARA STADIUM 101 10TH ST W
T-MOBILE 1204 VERMILLION ST
DOLLAR TREE 1214 VERMILLION ST
TECH CENTER 1303 EDDY ST
SALVATION ARMY 1110 VERMILLION ST
CHUCK & DON'S PET FOOD 1100 VERMILLION ST
YUAN'S BUFFET 1102 VERMILLION ST
HASTINGS BIERSTUBE 109 11TH ST W
H TOBACCO 1310 VERMILLION ST
KRISTEN CALGARO PHOTOGRAPHY 1320 VERMILLION ST
UNLIMITED CHIROPRACTIC 1304 VERMILLION ST
PERKINS RESTAURANT 1206 VERMILLION ST
WILD TREE WELLNESS 906 VERMILLION ST
JOURNEY AUDIOLOGY 830 VERMILLION ST
RIVER OF LIFE CHURCH 800 VERMILLION ST
716 VERMILLION ST
706 VERMILLION ST
VANDYKE LIBBY HOUSE 612 VERMILLION ST
FIRST PRESBYTERIAN CHURCH 602 VERMILLION ST
TOWN & COUNTRY VETERINARY 502 VERMILLION ST
KOWA 514 VERMILLION ST
HASTINGS FIRE DEPARTMENT 115 5TH ST W
SPIRAL PIZZA 420 VERMILLION ST
BACK ROAD KICKERS 412 VERMILLION ST
DICK'S BARBER 418 VERMILLION ST
ELECTRONIC DENTAL 400 VERMILLION ST
DOWNTOWN TIRE & AUTO/NAPA AUTOCARE CENTER 320 VERMILLION ST
BOOKSTORE OF HASTINGS 310 VERMILLION ST
MISS SARA'S CAKERY 314 VERMILLION ST
COMFORT BY DESIGN 122 3RD ST E
PRS INC 119 2ND ST E
H & R BLOCK 1317 VERMILLION ST
JERSEY MIKE'S SUBS 1217 VERMILLION ST
1309 VERMILLION ST
DUFF'S MEATS 1223 VERMILLION ST
FORTUNE COOKIE CHINESE RESTAURANT 1213 VERMILLION ST
DAIRY QUEEN 1213 VERMILLION ST
HOUSE OF WINES 1225 VERMILLION ST
1111 US61
120 11TH ST E
WESTERN UNION 1017 VERMILLION ST
WALGREENS PHARMACY 1017 VERMILLION ST
DUNN BROTHERS COFFEE
GREAT CLIPS
VERIZON
PREMIER BANK 101 10TH ST E
BROADWAY BAR & PIZZA 909 VERMILLION ST
919 VERMILLION ST
815 VERMILLION ST
807 VERMILLION ST
LIFE TABERNACLE 719 VERMILLION ST
705 VERMILLION ST
ST LUKE'S EPISCOPAL CHURCH 615 VERMILLION ST
613 VERMILLION ST
601 US61
101 6TH ST E
RISE UP RECOVERY 507 VERMILLION ST
513 VERMILLION ST
PURE FISH WORKS 501 VERMILLION ST
CARING HANDS MASSAGE 427 VERMILLION ST
JEANNIE TRIBE PHOTOGRAPHY 411 VERMILLION ST
413 US61
A PLUS TATTOO 401 VERMILLION ST
HASTINGS CITY HALL 101 4TH ST E
PUBLIC SQUARE
POLICE STATION 150 3RD ST E
ALLEY CAT LIQUOR 111 3RD ST E
ARMORY 121 3RD ST E
TH61SB
TH61NB
6' SIDEWALK
RETAINING WALL
CONCRETE WHEEL STOP
CONCRETE V-CURB
PEAK HOUR TRAFFIC VOLUMES YEAR 2022
TURN COUNT SOURCE: QUALITY COUNTS
DATA COLLECTED: FEB 15,2022
METRO INTERSECTION TRAFFIC COUNTS WEBSITE

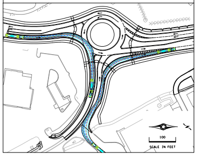
LEGEND

🟨	PAVED ROADWAY
🟦	PAVED SHOULDERS
🟥	RAISED MEDIAN & CURBS
🟫	CONCRETE TRUCK APRON
🟪	CONC. WALK & PED. RAMPS
🟫	BITUMINOUS TRAIL
🟩	BERM
🟪	DRIVEWAY
🟥	CONCRETE BARRIER
▨	M & o
—	EXISTING RIGHT OF WAY
-·-·-	CONSTRUCTION LIMITS
—▾—	RETAINING WALL
▨	FUTURE PROJECT PROPOSED BY DAKOTA COUNTY

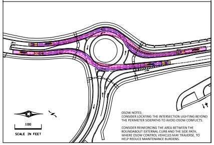
61 & TH 316 TURN TEMPLATE DESIGN VEHICLE WB-62


100
SCALE IN FEET

TH 61 & TH 316 TURN TEMPLATE DESIGN VEHICLE WB-62


100
SCALE IN FEET

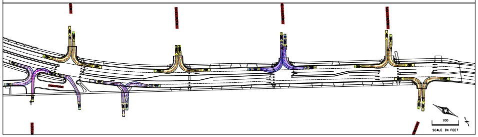
TH 61 & TH 316 TURN TEMPLATE CONTROL VEHICLE
80' MOBILE HOME


100
SCALE IN FEET

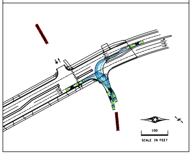
OSOW NOTES:
CONSIDER LOCATING THE INTERSECTION LIGHTING BEYOND THE PERIMETER SIDEPATHS TO AVOID OSOW CONFLICTS.

CONSIDER REINFORCING THE AREA BETWEEN THE ROUNDABOUT EXTERNAL CURB AND THE SIDE PATH, WHERE OSOW CONTROL VEHICLES MAY TRAVERSE, TO HELP REDUCE MAINTENANCE BURDENS.

TH 61 -FROM 25TH TO 21ST ST RIGHT-TURN TEMPLATES


100
SCALE IN FEET

TH 61 & 21ST ST - TURN TEMPLATE


100
SCALE IN FEET

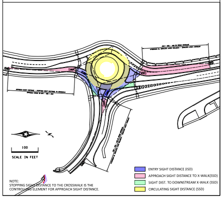
ST PATH

ROUNDABOUT SPEED SUMMARY

CURVE	RADIUS (ft)	e (ft/ft)	SPEED (mph)	RELATIVE SPEED ① DIFFERENCE (mph)
R1	153	0.02	24.0	7.6
R2	137	-0.02	21.1	4.7
R3	1865	0.02	25.4 ②	9.0
R4	70	-0.02	16.4	0.0
R5	198	0.02	26.5	10.1
R1	267	0.02	29.7	13.3
R2	187	-0.02	23.7	7.2
R3	701	0.02	26.9 ②	10.5
R4	63	-0.02	15.9	0.0
R5	N/A	0.02	-	0.0
R1	133	0.02	22.8	6.3
R2	N/A	-0.02	-	0.0
R3	N/A	0.02	-	0.0
R4	71	-0.02	16.6	0.0
R5	138	0.02	23.1	6.7

ed difference is from the minimum speed in the roundabout - usually R4
it Speed (Calculated)
ort 672 Roundabouts: An Informational Guide - Vehicle Speed Estimation Equation 6-4

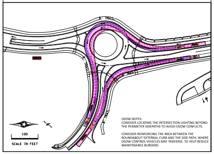
TH 61 & TH 316 SIGHT DISTANCE DETAIL


100
SCALE IN FEET

NOTE:
STOPPING SIGHT DISTANCE TO THE CROSSWALK IS THE CONTROLLING ELEMENT FOR APPROACH SIGHT DISTANCE.

🟦	ENTRY SIGHT DISTANCE (ISD)
🟥	APPROACH SIGHT DISTANCE TO X-WALK(SSD)
🟩	SIGHT DIST. TO DOWNSTREAM X-WALK (SSD)
🟨	CIRCULATING SIGHT DISTANCE (SSD)

TH 61 & TH 316 TURN TEMPLATE CONTROL VEHICLE
80' MOBILE HOME


TRAIL
100
SCALE IN FEET

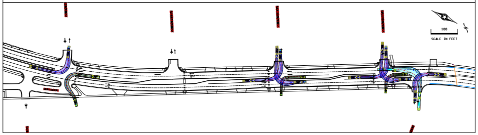
OSOW NOTES:
CONSIDER LOCATING THE INTERSECTION LIGHTING BEYOND THE PERIMETER SIDEPATHS TO AVOID OSOW CONFLICTS.

CONSIDER REINFORCING THE AREA BETWEEN THE ROUNDABOUT EXTERNAL CURB AND THE SIDE PATH, WHERE OSOW CONTROL VEHICLES MAY TRAVERSE, TO HELP REDUCE MAINTENANCE BURDENS.

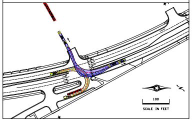
LEGEND

——	CENTERLINE TEMPLATE PATH
- - -	FRONT TIRES
- - -	REAR TIRES
▭	VEHICLE BODY/OVERHANG

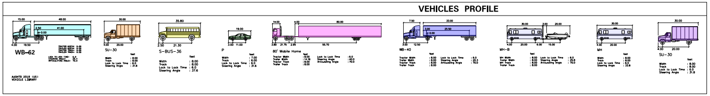
TH 61 -FROM 25TH TO 21ST ST LEFT-TURN TEMPLATES

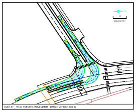

100
SCALE IN FEET

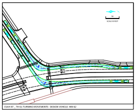
TH 61 & 23RD ST - TURN TEMPLATE

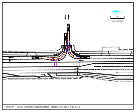

100
SCALE IN FEET

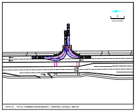
VEHICLES PROFILE

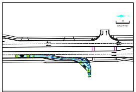

WB-62
SU-30
S-BUS-36
P
80' Mobile Home
WB-40
MH-B
MH
SU-30
AASHTO 2018 (US)
VEHICLE LIBRARY

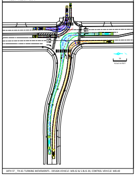

50
SCALE IN FEET
CSAH-47 _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62

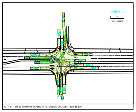

50
SCALE IN FEET
CSAH-47 _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62

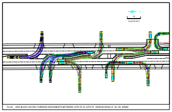

50
SCALE IN FEET
19TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36

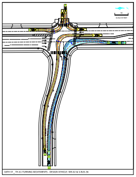

50
SCALE IN FEET
19TH ST _ TH-61 TURNING MOVEMENTS - CONTROL VEHICLE: WB-40

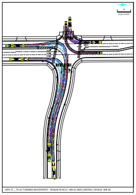

50
SCALE IN FEET
ARDENT MILLS DRIVEWAY

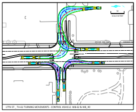

50
SCALE IN FEET
18TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62 & S-BUS-36; CONTROL VEHICLE: WB-40

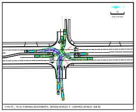

50
SCALE IN FEET
17TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P

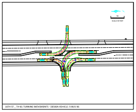

50
SCALE IN FEET
TH-61 _ MID-BLOCK ACCESS TURNING MOVEMENTS BETWEEN 14TH ST & 12TH ST -DESIGN VEHICLE: SU-30, WB40

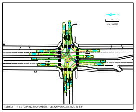

18TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62 & S-BUS-36

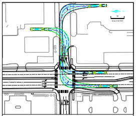

50
SCALE IN FEET
18TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62 AND CONTROL VEHICLE: WB-40

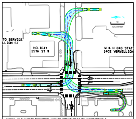

50
SCALE IN FEET
17TH ST _ TH-61 TURNING MOVEMENTS - CONTROL VEHICLE: WB-62 & WB_40

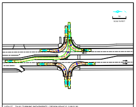

50
SCALE IN FEET
17TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: P - CONTROL VEHICLE: WB-40

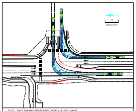

50
SCALE IN FEET
16TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36

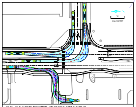

50
SCALE IN FEET
15TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P

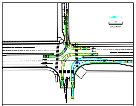

50
SCALE IN FEET
15TH ST _ TH-61 TURNING MOVEMENTS - CONTROL VEHICLE: WB-62

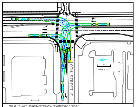

TO SERVICE
LLION ST
HOLIDAY
15TH ST W
M & H GAS STAT
1402 VERMILLION
50
SCALE IN FEET
15TH ST _ TH-61 TURNING MOVEMENTS - CONTROL VEHICLE: WB-62 AND DESIGN VEHICLE: P

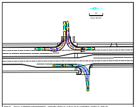

50
SCALE IN FEET
14TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36

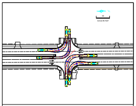

50
SCALE IN FEET
TH-55 _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62

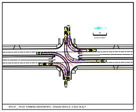

50
SCALE IN FEET
TH-55 _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62 & WB-40

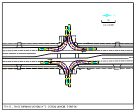

50
SCALE IN FEET
10TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36, P, AND WB-62

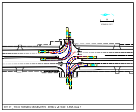

10TH STREET E
50
SCALE IN FEET
10TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-62

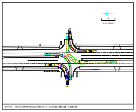

50
SCALE IN FEET
9TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & CONTROL VEHICLE: WB-40

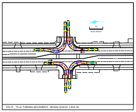

50
SCALE IN FEET
8TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P

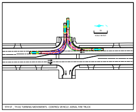

50
SCALE IN FEET
8TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P

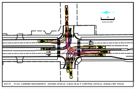

50
SCALE IN FEET
7TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36

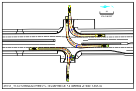

50
SCALE IN FEET
6TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P

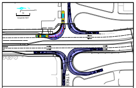

50
SCALE IN FEET
6TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36

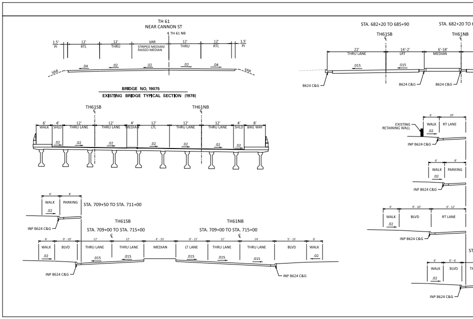

50
SCALE IN FEET
5TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36


50
SCALE IN FEET
5TH ST _ TH-61 TURNING MOVEMENTS - CONTROL VEHICLE: AERIAL FIRE TRUCK

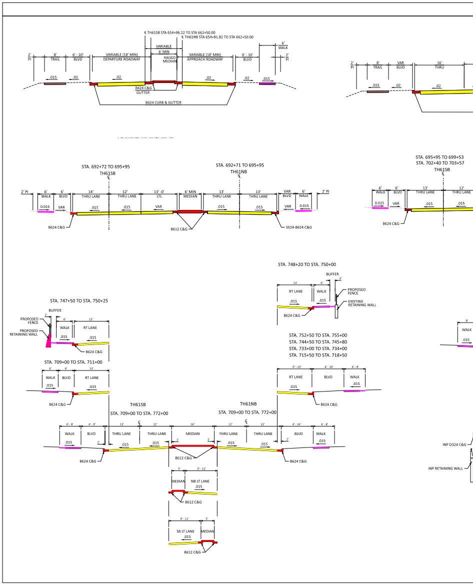

50
SCALE IN FEET
4TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: S-BUS-36 & P; CONTROL VEHICLE: AERIAL FIRE TRUCK


50
SCALE IN FEET
4TH ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: P & CONTROL VEHICLE: S-BUS-36

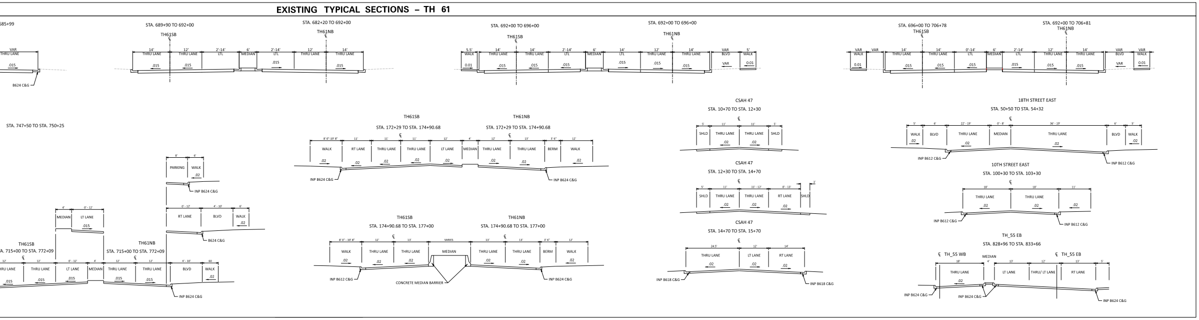

50
SCALE IN FEET
3RD ST _ TH-61 TURNING MOVEMENTS - DESIGN VEHICLE: WB-40


TH 61
NEAR CANNON ST
℄ TH 61 NB
1.5'
PI
12'
RTL
12'
THRU
VAR
STRIPED MEDIAN/
RAISED MEDIAN
12'
THRU
12'
RTL
1.5'
PI
VAR
.04
.02
.02
.02
.04
VAR
TH61SB
℄
TH61NB
℄
6'
WALK
4'
SHLD
12'
THRU LANE
12'
THRU LANE
4'
MEDIAN
12'
LTL
12'
THRU LANE
12'
THRU LANE
4'
SHLD
8'
BIKE WAY
.02
.02
.02
.02
.02
.02
.02
6'
WALK
8'
PARKING
.02
INP B624 C&G
STA. 709+50 TO STA. 711+00
TH61SB
STA. 709+00 TO STA. 715+00
TH61NB
STA. 709+00 TO STA. 715+00
℄
℄
6'
WALK
0' - 10'
BLVD
12'
THRU LANE
12'
THRU LANE
4' - 15'
MEDIAN
0' - 12'
LT LANE
12'
THRU LANE
14'
THRU LANE
5' - 15'
BLVD
6'
WALK
.02
.015
.015
.015
.015
.015
.02
INP B624 C&G
INP B624 C&G
STA. 682+20 TO 685+90
STA. 682+20 TO
TH61SB
℄
TH61NB
℄
22'
THRU LANE
14'-2'
LRT
6'-18'
MEDIAN
.015
.015
B624 C&G
B624 C&G
B624 C&G
EXISTING
RETAINING WALL
6'
WALK
10'
RT LANE
.02
INP B624 C&G
6'
WALK
8'
PARKING
.02
INP B624 C&G
6'
WALK
0' - 10'
BLVD
0' - 12'
RT LANE
.02
INP B624 C&G
ST
6'
WALK
0' - 6'
BLVD
TH
.02
INP B624 C&G

BRIDGE NO, 19075
EXISTING BRIDGE TYPICAL SECTION (1978)

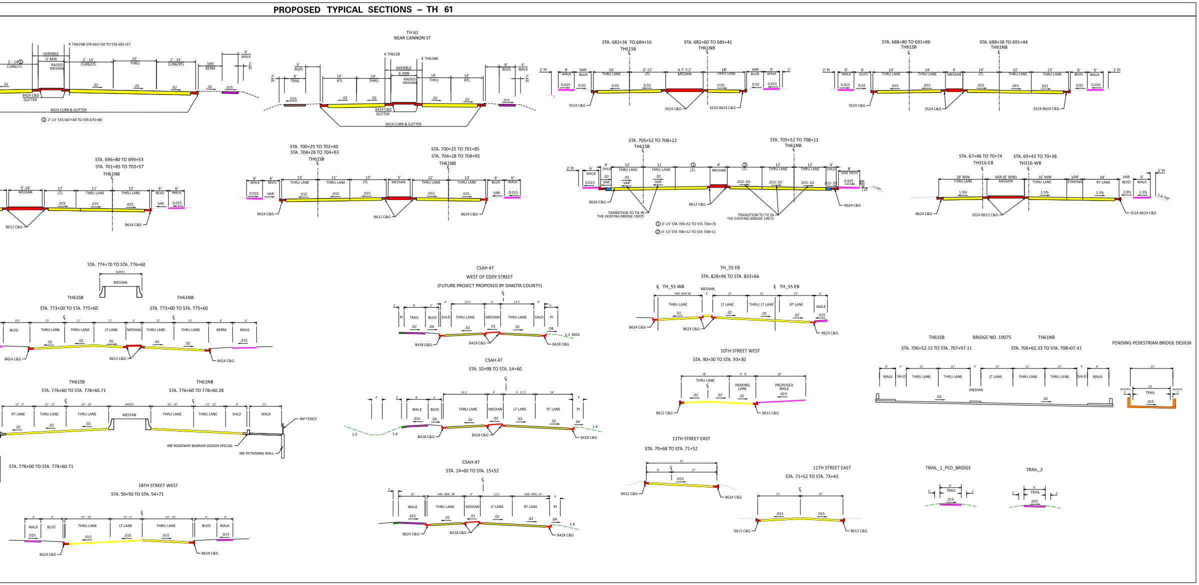

℄ TH61SB STA 654+96.22 TO STA 662+50.00
℄ TH61NB STA 654+81.82 TO STA 662+50.00
2'
PI
8'
TRAIL
6' - 10'
BLVD
VARIABLE (18' MIN)
DEPARTURE ROADWAY
VARIABLE
6' MIN
RAISED
MEDIAN
VARIABLE (18' MIN)
APPROACH ROADWAY
6' - 10'
BLVD
6'
WALK
2'
PI
.015
.02
.02
.02
.02
.015
B424 C&G
GUTTER
B424 CURB & GUTTER
2'
PI
8'
TRAIL
VAR
BLVD
16'
THRU
.015
.02
.02
STA. 692+72 TO 695+95
TH61SB
℄
STA. 692+71 TO 695+95
TH61NB
℄
2' PI
6'
WALK
6'
BLVD
14'
THRU LANE
12'
THRU LANE
13' -0'
LTL
6' MIN
MEDIAN
13'
THRU LANE
13'
THRU LANE
VAR
BLVD
6'
WALK
2' PI
0.015
VAR
.015
.015
VAR
.015
.015
VAR
0.015
B624 C&G
B612 C&G
S524-B624 C&G
STA. 695+95 TO 699+53
STA. 702+40 TO 703+57
TH61SB
℄
6'
WALK
6'
BLVD
13'
THRU LANE
12'
THRU LANE
0.015
VAR
.015
.015
B624 C&G
STA. 748+20 TO STA. 750+00
BUFFER
13'
RT LANE
6'
WALK
3'
PROPOSED
FENCE
.015
.015
EXISTING
RETAINING WALL
B624 C&G
STA. 747+50 TO STA. 750+25
BUFFER
2'
6'
WALK
13'
RT LANE
PROPOSED
FENCE
PROPOSED
RETAINING WALL
.015
.015
B624 C&G
STA. 709+00 TO STA. 711+00
6'
WALK
4'
BLVD
13'
RT LANE
.015
.015
B624 C&G
STA. 752+50 TO STA. 755+00
STA. 744+50 TO STA. 745+80
STA. 733+00 TO STA. 734+00
STA. 715+50 TO STA. 718+50
0' - 13'
RT LANE
4' - 10'
BLVD
6' - 8'
WALK
.015
.015
B624 C&G
TH61SB
STA. 709+00 TO STA. 772+00
TH61NB
STA. 709+00 TO STA. 772+00
℄
℄
6' - 8'
WALK
4' - 9'
BLVD
2'
13'
THRU LANE
12'
THRU LANE
16'
MEDIAN
1'
1'
12'
THRU LANE
13'
THRU LANE
2'
4' - 14'
BLVD
6' - 8'
WALK
.015
.015
.015
.015
.015
.015
B624 C&G
B612 C&G
B624 C&G
5'
MEDIAN
0' - 12'
NB LT LANE
.015
B612 C&G
0' - 12'
SB LT LANE
5'
MEDIAN
.015
B612 C&G
8'
WALK
.015
INP D324 C&G
INP RETAINING WALL

EXISTING TYPICAL SECTIONS – TH 61



685+99
STA. 689+90 TO 692+00
TH61SB
STA. 682+20 TO 692+00
TH61NB
STA. 692+00 TO 696+00
TH61SB
STA. 692+00 TO 696+00
TH61NB
STA. 696+00 TO 706+78
TH61SB
STA. 692+00 TO 706+81
TH61NB
B624 C&G
STA. 747+50 TO STA. 750+25
TH61SB
STA. 172+29 TO STA. 174+90.68
TH61NB
STA. 172+29 TO STA. 174+90.68
INP B624 C&G
CSAH 47
STA. 10+70 TO STA. 12+30
CSAH 47
STA. 12+30 TO STA. 14+70
CSAH 47
STA. 14+70 TO STA. 15+70
INP B618 C&G
18TH STREET EAST
STA. 50+50 TO STA. 54+32
INP B612 C&G
10TH STREET EAST
STA. 100+30 TO STA. 103+30
TH_55 EB
STA. 828+96 TO STA. 833+66
TH_55 WB
TH_55 EB
MEDIAN
TH61SB
STA. 715+00 TO STA. 772+09
TH61NB
STA. 715+00 TO STA. 772+09
TH61SB
STA. 174+90.68 TO STA. 177+00
TH61NB
STA. 174+90.68 TO STA. 177+00
CONCRETE MEDIAN BARRIER
INP B624 C&G
WALK
THRU LANE
RT LANE
LT LANE
LTL
MEDIAN
BLVD
BERM
SHLD
PARKING

PROPOSED TYPICAL SECTIONS – TH 61



TH61NB STA 662+50 TO STA 682+67
VARIABLE
6' MIN
RAISED MEDIAN
CURB/LTL
B424 C&G GUTTER
B424 CURB & GUTTER
① 2'-13' STA 667+40 TO STA 670+00
TH 61
NEAR CANNON ST
TH61SB
TH61NB
TRAIL
B424 C&G GUTTER
B424 CURB & GUTTER
STA. 682+36 TO 684+16
TH61SB
STA. 682+60 TO 685+41
TH61NB
S524 C&G
S524-B624 C&G
STA. 688+80 TO 691+86
TH61SB
STA. 688+38 TO 691+44
TH61NB
STA. 696+80 TO 699+53
STA. 701+85 TO 703+57
TH61NB
B612 C&G
B624 C&G
STA. 700+25 TO 702+40
STA. 704+28 TO 704+93
TH61SB
STA. 700+25 TO 701+85
STA. 704+28 TO 704+93
TH61NB
STA. 705+52 TO 708+22
TH61SB
STA. 705+52 TO 708+11
TH61NB
TRANSITION TO TIE IN THE EXISTING BRIDGE 19075
① 0'-13' STA 705+52 TO STA 706+76
② 0'-13' STA 706+12 TO STA 708+11
SIDE PATH
STA. 67+46 TO 70+74
TH316-EB
STA. 69+43 TO 70+38
TH316-WB
S524-B612 C&G
S524-B624 C&G
STA. 774+70 TO STA. 776+60
MEDIAN
TH61SB
STA. 773+00 TO STA. 775+60
TH61NB
STA. 773+00 TO STA. 775+60
B424 C&G
B612 C&G
CSAH 47
WEST OF EDDY STREET
(FUTURE PROJECT PROPOSED BY DAKOTA COUNTY)
B418 C&G
1:3 MAX
TH_55 EB
STA. 828+96 TO STA. 833+66
TH_55 WB
TH_55 EB
TH61SB
STA. 776+60 TO STA. 778+60.71
TH61NB
STA. 776+60 TO 778+60.28
INP FENCE
INP ROADWAY BARRIER DESIGN SPECIAL
INP RETAINING WALL
STA. 778+00 TO STA. 778+60.71
CSAH 47
STA. 10+98 TO STA. 14+60
10TH STREET WEST
STA. 90+30 TO STA. 93+30
PARKING LANE
PROPOSED WALK
TH61SB
BRIDGE NO. 19075
TH61NB
STA. 706+52.12 TO STA. 707+97.11
STA. 706+62.33 TO STA. 708+07.41
PENDING PEDESTRIAN BRIDGE DESIGN
BUFFER
TRAIL
11TH STREET EAST
STA. 70+68 TO STA. 71+52
11TH STREET EAST
STA. 71+52 TO STA. 73+43
CSAH 47
STA. 14+60 TO STA. 15+52
B624 C&G
B418 C&G
18TH STREET WEST
STA. 50+50 TO STA. 54+71
TRAIL_1_PED_BRIDGE
TRAIL_2
WALK
THRU LANE
RT LANE
LT LANE
LTL
MEDIAN
BLVD
SHLD
PI