LAYOUT HISTORY

SHOULDER WIDTHS CHANGE FROM 10' TO 9', EXCEPT BETWEEN 3RD AVE S. 4TH AVE S. AND WESTON AVE 7TH AVE N. WILL REMAIN AT 10' ON BOTH SIDES.

SIDEWALK ON BOTH SIDES, THROUGH OUT PROJECT.

HANDICAP PARKING IMPROVEMENTS IN FRONT OF CHURCHES.

FHWA PROVIDED CONCEPTS OF MINI ROUNDABOUTS IN THE DOWNTOWN AREA AND MODELED THEM.

DRIVEWAYS AND ENTRANCES TO MATCH EXISTING WIDTHS AND NOT TO EXCEED STRANDARD PLATE.

LAYOUT 1 CHANGE, TYPICAL SECTIONS SHOW A 2" BACK OF CURB HEIGHT ON MINI ROUNDABOUT ISLAND AND MEDIAN SECTION.

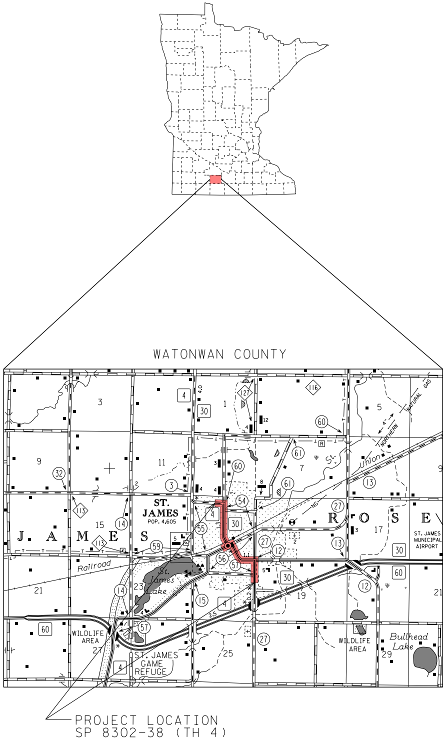
LAYOUT No. 2 COPY No.
T.H. 4 VICINITY OF SAINT JAMES
FROM 200 FEET SOUTH OF 10TH AVE SOUTH TO
11TH AVE NORTH.
Prepared December 17 2014 Scale: Hor. 1 inch = 50 ft.
By GILES A., TOM H., PATTY T.

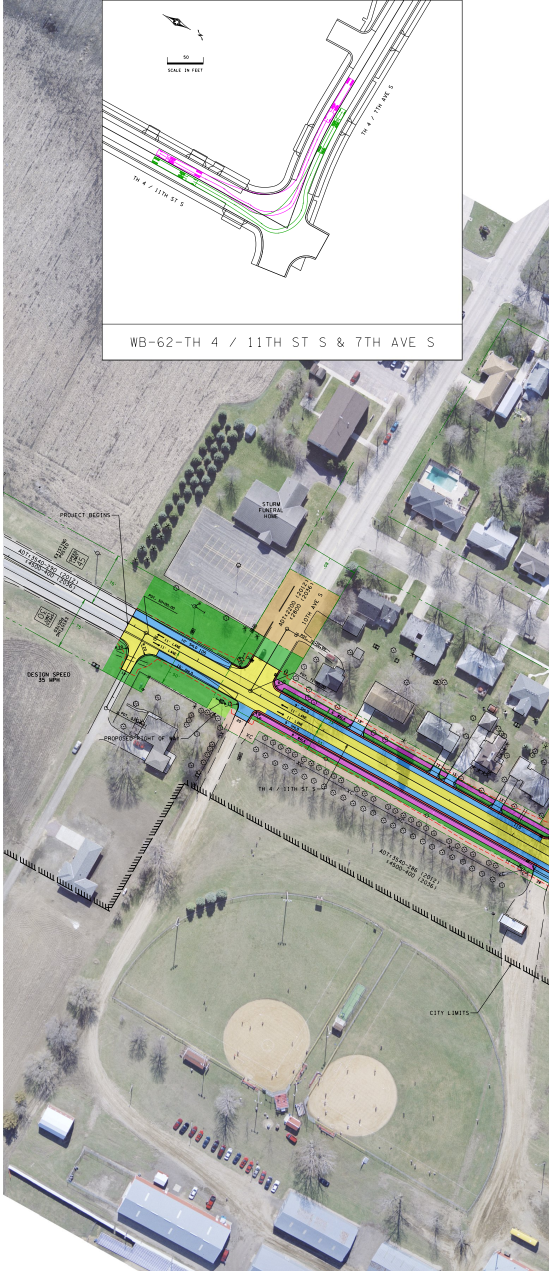
The alignment and grades shown on this map are tentative and subject to change without notice.	Staff Approval Date: 4-6-2015 🟥	The traffic volumes shown are estimated for year 2036 Prepared JULY 14 2014

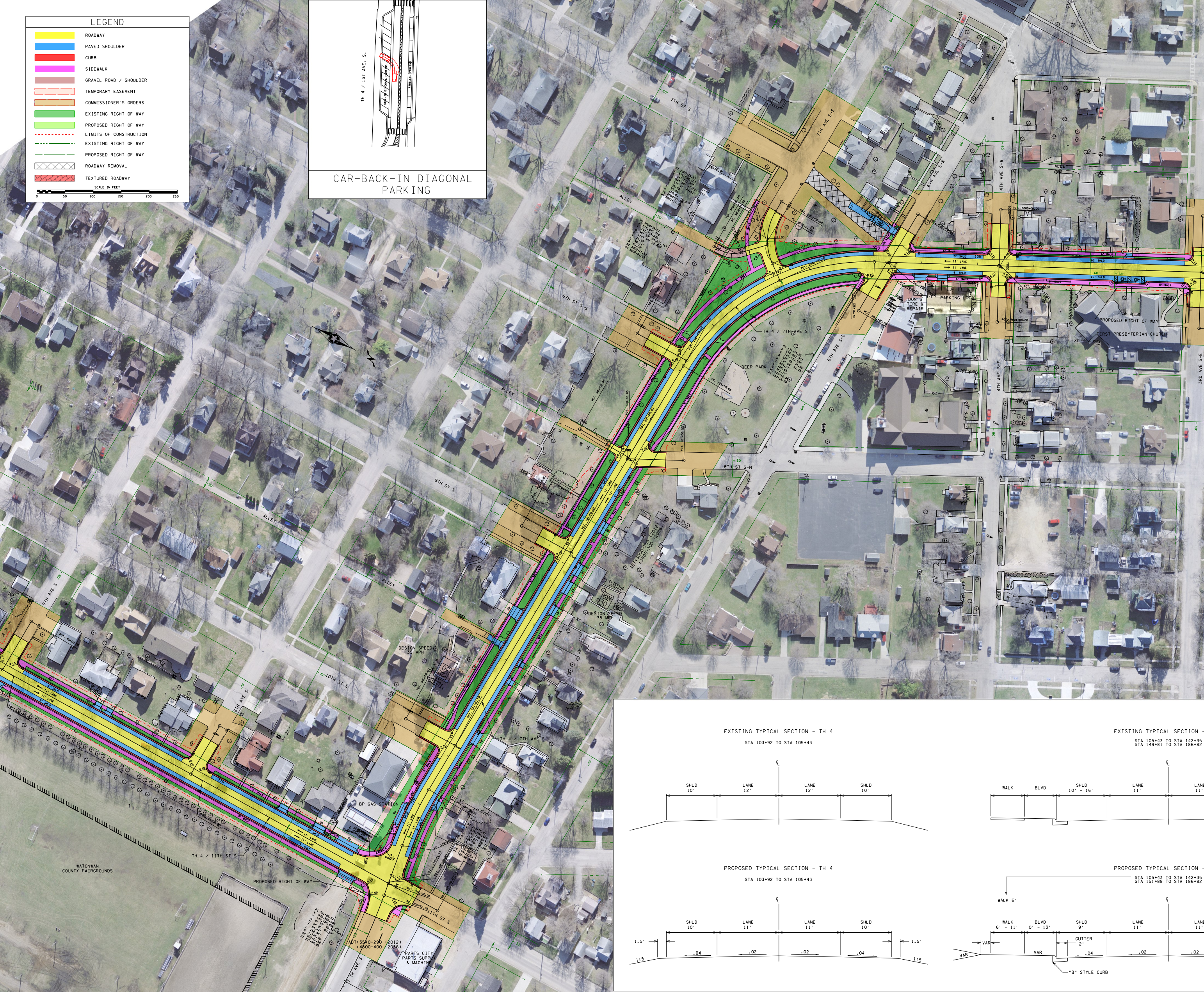
S.P. 8302-38 T.H. 4 A.J. T71583 PPMS Activity 1140
S.P. T.H. A.J. PPMS Activity
S.P. T.H. A.J. PPMS Activity
Copy To: For:

DESIGN FILE: IP_PWP:d1432723\p830238_cl.dgn
DATE: 10-APR-2015 13:26

INDEX MAP


WATONWAN COUNTY
ST. JAMES
POP. 4,605
J. A. M. E. S
R. O. S. E
Railroad
St. James Lake
Union
NORTHERN NATURAL GAS
ST. JAMES MUNICIPAL AIRPORT
WILDLIFE AREA
ST. JAMES GAME REFUGE
Bullhead Lake
4
30
60
15
PROJECT LOCATION
SP 8302-38 (TH 4)


50
SCALE IN FEET
TH 4 / 11TH ST S
TH 4 / 7TH AVE S
WB-62-TH 4 / 11TH ST S & 7TH AVE S
PROJECT BEGINS
STURM FUNERAL HOME
EXISTING POSTED
SPEED LIMIT 45
SPEED LIMIT 30
ADT:3540-290 (2012)
:4500-400 (2036)
75'
DESIGN SPEED 35 MPH
POT. 50+00.00
11' LANE
10' SHLD
9' SHLD
6' WALK
8' WALK
50'
33'
R 20
ADT:2200 (2012)
:2800 (2036)
10TH AVE S
80'
POT. 70+00.00
POT. 71+00.00
PROPOSED RIGHT OF WAY
TH 4 / 11TH ST S
ADT:3540-286 (2012)
:4500-400 (2036)
CITY LIMITS


TH 4 / 7TH AVE S
TH 4 / 11TH ST S
7TH ST S
7TH AVE S-S
6TH AVE S-W
6TH AVE S-E
4TH AVE S-E
3RD AVE S-E
8TH ST S-S
8TH ST S-N
9TH ST S
10TH ST S
11TH ST S
9TH AVE S
8TH AVE S
7 TH AVE S
ALLEY
DEER PARK
DON'S TIRE & REPAIR
PARKING LOT
PROPOSED RIGHT OF WAY
FIRST PRESBYTERIAN CHURCH
BP GAS STATION
PARTS CITY PARTS SUPPLY & MACHINE
WATONWAN COUNTY FAIRGROUNDS
DESIGN SPEED 35 MPH
EXISTING POSTED
SPEED LIMIT 30
ADT:3000-255 (2012)
:3800-300 (2036)
ADT:3540-290 (2012)
:4500-400 (2036)
11' LANE
9' SHLD
10' SHLD
6' WALK
8' WALK
XC
TH 4 / 1ST AVE. S.
BACK-IN DIAGONAL PARKING
PARELLEL PARKING
6'

LEGEND

🟨	ROADWAY
🟦	PAVED SHOULDER
🟥	CURB
🟪	SIDEWALK
▬	GRAVEL ROAD / SHOULDER
▭	TEMPORARY EASEMENT
🟧	COMMISSIONER'S ORDERS
🟩	EXISTING RIGHT OF WAY
🟩	PROPOSED RIGHT OF WAY
- - - -	LIMITS OF CONSTRUCTION
—·—·—	EXISTING RIGHT OF WAY
—·—	PROPOSED RIGHT OF WAY
▨	ROADWAY REMOVAL
▨	TEXTURED ROADWAY

SCALE IN FEET

0 50 100 150 200 250

CAR-BACK-IN DIAGONAL PARKING

EXISTING TYPICAL SECTION - TH 4

STA 103+92 TO STA 105+43

℄
SHLD 10'
LANE 12'
LANE 12'
SHLD 10'

EXISTING TYPICAL SECTION -

STA 105+43 TO STA 142+35
STA 149+81 TO STA 186+82

℄
WALK
BLVD
SHLD 10' - 16'
LANE 11'
LANE 11'

PROPOSED TYPICAL SECTION - TH 4

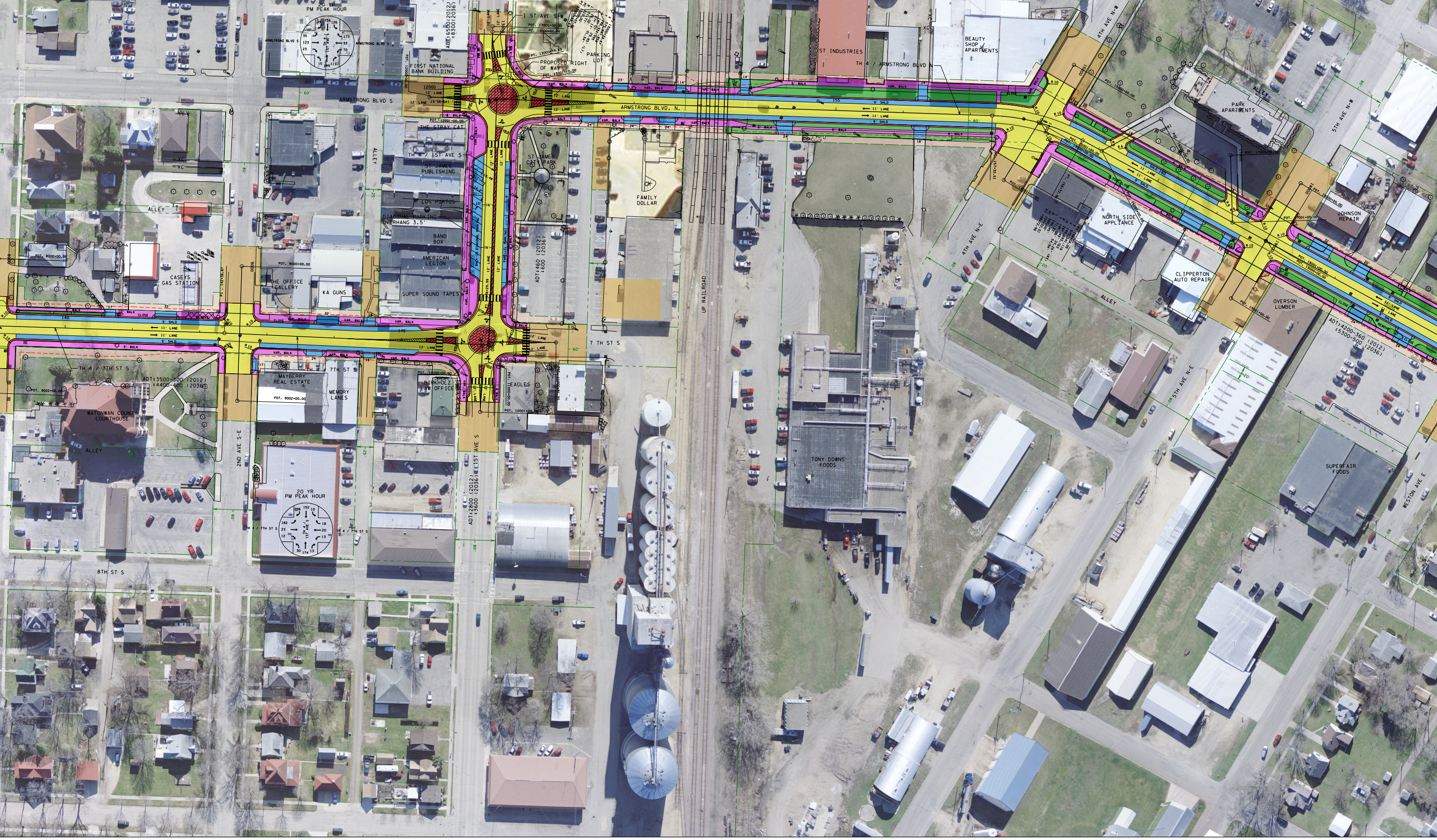
STA 103+92 TO STA 105+43

℄
SHLD 10'
LANE 11'
LANE 11'
SHLD 10'
1.5'
1.5'
.04
.02
.02
.04
1:5
1:5

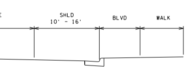
PROPOSED TYPICAL SECTION -

STA 105+43 TO STA 142+35
STA 151+88 TO STA 186+82

WALK 6'
℄
WALK 6' - 11'
BLVD 0' - 13'
SHLD 9'
LANE 11'
LANE 11'
GUTTER 2'
VAR
VAR
VAR
.04
.02
.02
"B" STYLE CURB

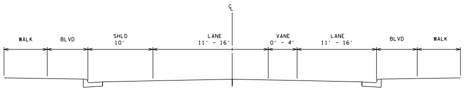

20 YR
PM PEAK HOUR
ARMSTRONG BLVD S
TH 4 / 1ST AVE S
39 156 126
35 123 23
173 93 70
15 189 111
ADT:6500(2012)
:8300(2036)
1 ST AVE S-W
POT. 13000+00.00
PC. 13000+07.86
PT. 13000+59.63
POT. 13001+10.00
PROPOSED RIGHT OF WAY
PARKING LOT
FIRST NATIONAL BANK BUILDING
12000
12' LANE
ARMSTRONG BLVD S
ARMSTRONG BLVD. N.
60'
24'
23'
14'
VAR. WALK
6' WALK
8' WALK
POT. 12001+00.00
THE STRAY CAT
TH 4 / 1ST AVE S
ST JAMES PUBLISHING
ST JAMES CITY PARK
ALLEY
LOS PORTOS
DIAGONAL PARKING OVERHANG 3.5'
BAND BOX
AMERICAN LEGION
SUPER SOUND TAPES
BACK-IN DIAGONAL PARKING
PARELLEL PARKING
16'
ADT:460 (2012)
:600 (2036)
FAMILY DOLLAR
XC
ALLEY
10'
25'
80'
POT. 8000+00.00
CASEYS GAS STATION
PI. 142+36.87
POT. 9000+00.00
9000
THE OFFICE GALLERY
KA GUNS
6' WALK
10' WALK
CLOSE
REMOVE
140
9' SHLD
11' LANE
9' WALK
R10
145
7 TH ST S
TH 4 / 7TH ST S
ADT:3500-300 (2012)
:4400-400 (2036)
POT. 8002+00.00
WATONWAN COUNTY COURTHOUSE
ALLEY
2ND AVE S-E
MAYBERRY REAL ESTATE
POT. 9002+00.00
MEMORY LANES
BIRKHOLZ LAW OFFICE
POT. 10000+00.00
EAGLES
POT. 11000+00.00
POT. 10001+00.00
1ST AVE S
20 YR
PM PEAK HOUR
206 152 10
182 23 12
18 20 13
30 174 13
TH 4 / 7TH ST S
TH 4 / 1ST AVE S
ADT:2800 (2012)
:3600 (2036)
8TH ST S
7 TH ST S
UP RAILROAD
TONY DOWNS FOODS
ST INDUSTRIES
TH 4 / ARMSTRONG BLVD N
BEAUTY SHOP / APARTMENTS
155
4TH AVE N-W
15000
POT. 15000+00.00
ALLEY
PARK APARTMENTS
5TH AVE N-W
POT. 15001+00.00
POT. 14000+00.00
POT. 14001+00.00
POT. 16000+00.00
POT. 16001+00.00
POT. 17000+00.00
POT. 18000+00.00
POT. 18001+00.00
POT. 19000+00.00
POT. 19001+00.00
160
R6
NORTH SIDE APPLIANCE
JOHNSON REPAIR
CLIPPERTON AUTO REPAIR
OVERSON LUMBER
ALLEY
4TH AVE N-E
5TH AVE N-E
ADT:4200-360 (2012)
:5300-500 (2036)
SUPERFAIR FOODS
WESTON AVE E
20'
80'

- TH 4


SHLD
10' - 16'
BLVD
WALK

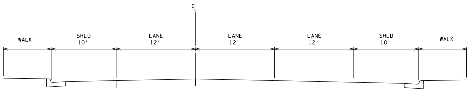
EXISTING TYPICAL SECTION - TH 4

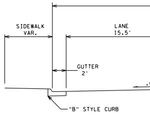
STA 142+35 TO STA 146+19


℄
WALK
BLVD
SHLD
10'
LANE
11' - 16'
VANE
0' - 4'
LANE
11' - 16'
BLVD
WALK

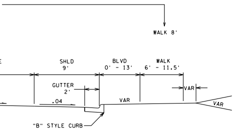
EXISTING TYPICAL SECTION - TH 4

STA 146+19 TO STA 149+81


℄
WALK
SHLD
10'
LANE
12'
LANE
12'
LANE
12'
SHLD
10'
WALK

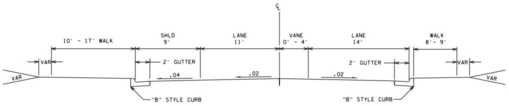

SIDEWALK
VAR.
LANE
15.5'
GUTTER
2'
"B" STYLE CURB

- TH 4


WALK 8'
SHLD
9'
BLVD
0' - 13'
WALK
6' - 11.5'
GUTTER
2'
.04
VAR
VAR
VAR
"B" STYLE CURB

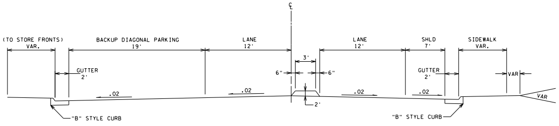
PROPOSED TYPICAL SECTION - TH 4

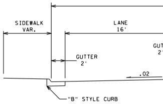
PAINTED VANE
STA 142+35 TO STA 146+19

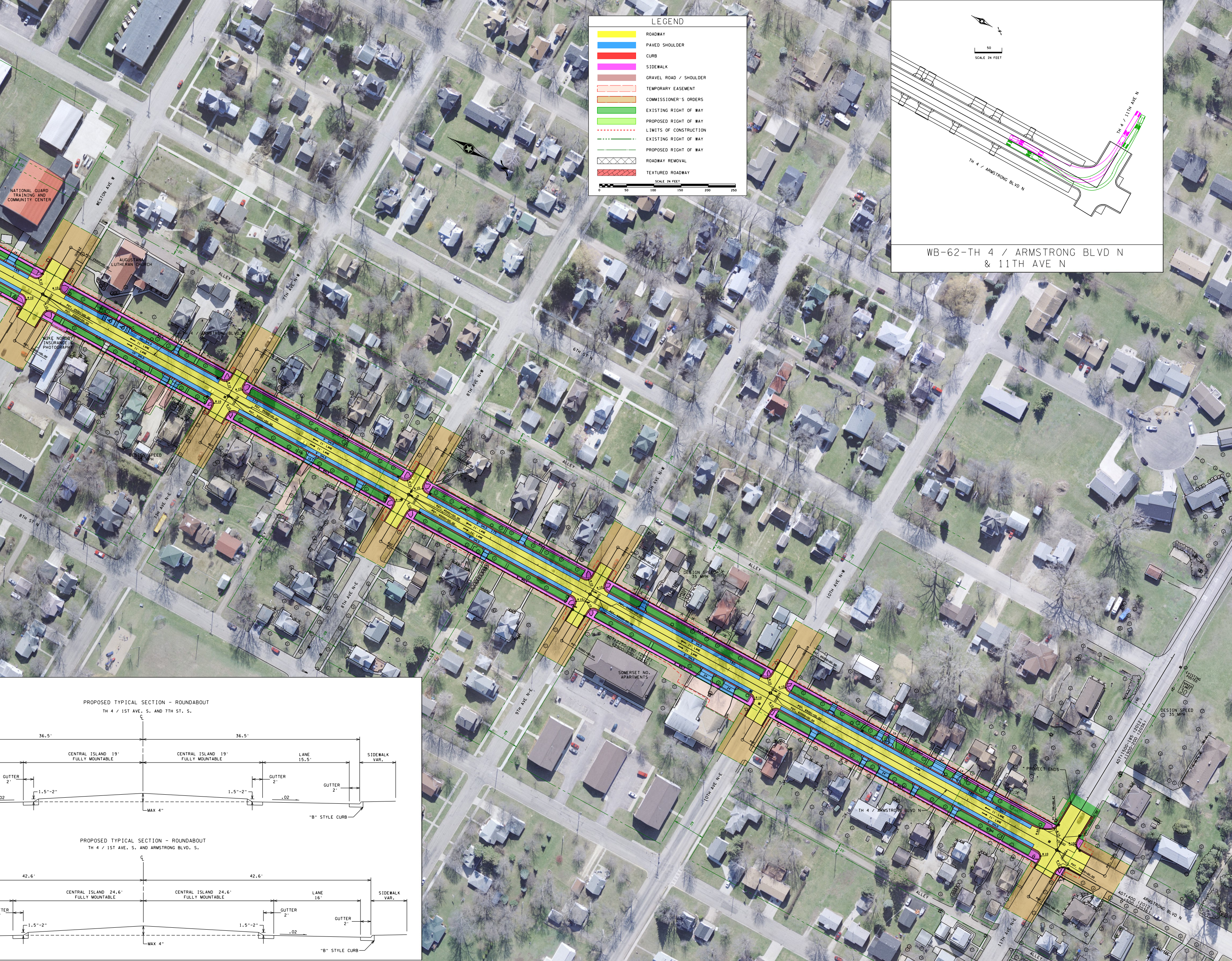

℄
10' - 17' WALK
SHLD
9'
LANE
11'
VANE
0' - 4'
LANE
14'
WALK
8'- 9'
VAR
VAR
VAR
VAR
2' GUTTER
2' GUTTER
.04
.02
.02
"B" STYLE CURB
"B" STYLE CURB

PROPOSED TYPICAL SECTION - TH 4

TH 4 / 1ST AVE S.


℄
(TO STORE FRONTS)
VAR.
BACKUP DIAGONAL PARKING
19'
LANE
12'
3'
6"
6"
LANE
12'
SHLD
7'
SIDEWALK
VAR.
GUTTER
2'
GUTTER
2'
VAR
VAR
.02
.02
.02
.02
2'
"B" STYLE CURB
"B" STYLE CURB


SIDEWALK
VAR.
LANE
16'
GUTTER
2'
.02
"B" STYLE CURB


NATIONAL GUARD TRAINING AND COMMUNITY CENTER
WESTON AVE W
AUGUSTANA LUTHERAN CHURCH
MIKE NORDBY INSURANCE & PHOTOGRAPHY
TH 4 / ARMSTRONG BLVD N
ALLEY
7TH AVE N-W
7TH AVE N-E
8TH ST N
6TH ST N
8TH AVE N-W
8TH AVE N-E
9TH AVE N-W
9TH AVE N-E
10TH AVE N-W
10TH AVE N-E
11TH AVE N-E
DESIGN SPEED 35 MPH
EXISTING POSTED SPEED LIMIT 30
POT. 25000+00.00
POT. 25001+00.00
POT. 20000+00.00
POT. 20001+00.00
POT. 30001+00.00
POT. 35000+00.00
POT. 35001+00.00
POT. 40000+00.00
POT. 40001+00.00
POT. 45000+00.00
POT. 45001+00.00
POT. 50000+00.00
POT. 50001+00.00
POT. 55000+00.00
POT. 55001+00.00
POT. 60000+00.00
POT. 65001+00.00
POT. 70000+00.00
POT. 75000+00.00
POT. 75001+00.00
10' SHLD
9' SHLD
11' LANE
6' WALK
CLOSE
R 10
R 15
R 60
20'
60'
SOMERSET NO. APARTMENTS
ADT:2250-190 (2012)
:2900-200 (2036)
PROJECT ENDS
PI 186+88.47
ADT:1500-185 (2012)
:1900-200 (2036)
ADT:400 (2012)
:500 (2036)
ARMSTRONG BLVD N
TH 4 / 11TH AVE N
TH 4 / ARMSTRONG BLVD N
50
SCALE IN FEET
WB-62-TH 4 / ARMSTRONG BLVD N
& 11TH AVE N

LEGEND

🟨	ROADWAY
🟦	PAVED SHOULDER
🟥	CURB
🟪	SIDEWALK
🟫	GRAVEL ROAD / SHOULDER
▭	TEMPORARY EASEMENT
🟧	COMMISSIONER'S ORDERS
🟩	EXISTING RIGHT OF WAY
🟩	PROPOSED RIGHT OF WAY
- - - -	LIMITS OF CONSTRUCTION
—·—·—	EXISTING RIGHT OF WAY
—·—·—	PROPOSED RIGHT OF WAY
☒	ROADWAY REMOVAL
▨	TEXTURED ROADWAY

SCALE IN FEET
0 50 100 150 200 250

PROPOSED TYPICAL SECTION - ROUNDABOUT

TH 4 / 1ST AVE. S. AND 7TH ST. S.

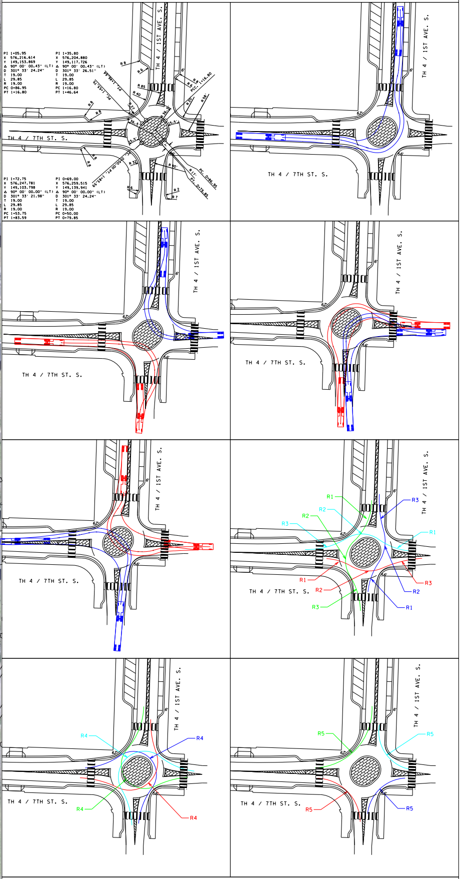
℄
36.5'
36.5'
CENTRAL ISLAND 19'
FULLY MOUNTABLE
CENTRAL ISLAND 19'
FULLY MOUNTABLE
LANE
15.5'
SIDEWALK
VAR.
GUTTER
2'
GUTTER
2'
GUTTER
2'
1.5"-2"
1.5"-2"
.02
.02
MAX 4"
"B" STYLE CURB

PROPOSED TYPICAL SECTION - ROUNDABOUT

TH 4 / 1ST AVE. S. AND ARMSTRONG BLVD. S.

℄
42.6'
42.6'
CENTRAL ISLAND 24.6'
FULLY MOUNTABLE
CENTRAL ISLAND 24.6'
FULLY MOUNTABLE
LANE
16'
SIDEWALK
VAR.
GUTTER
2'
GUTTER
2'
1.5"-2"
1.5"-2"
.02
MAX 4"
"B" STYLE CURB

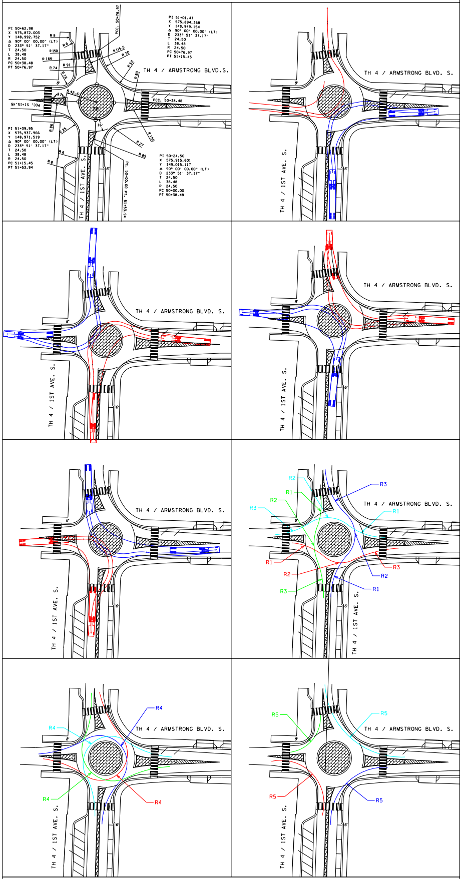
WB-62-TH 4 / 1ST AVE. S. & 7TH ST. S.


PI 1+05.95
X 576,216.614
Y 149,153.869
Δ 90° 00' 00.43" (LT)
D 301° 33' 24.24"
T 19.00
L 29.85
R 19.00
PC 0+86.95
PT 1+16.80
PI 1+35.80
X 576,204.880
Y 149,117.726
Δ 90° 00' 00.43" (LT)
D 301° 33' 26.51"
T 19.00
L 29.85
R 19.00
PC 1+16.80
PT 1+46.64
PI 1+72.75
X 576,247.781
Y 149,103.798
Δ 90° 00' 00.00" (LT)
D 301° 33' 21.98"
T 19.00
L 29.85
R 19.00
PC 1+53.75
PT 1+83.59
PI 0+69.00
X 576,259.515
Y 149,139.941
Δ 90° 00' 00.00" (LT)
D 301° 33' 24.24"
T 19.00
L 29.85
R 19.00
PC 0+50.00
PT 0+79.85
PC. 1+53.75
PT. 1+46.64
PC. 0+50.00 PT. 1+83.59
PCC. 1+16.80
R 8
R 6
R 85
R 40
R 30
TH 4 / 1ST AVE. S.
TH 4 / 7TH ST. S.
6'
R1
R2
R3
R4
R5

ROUNDABOUT DESIGN SPEED SUMMARY TH 4 / 1ST AVE. S. & 7TH ST. S.					
APPROACH	CURVE	RADIUS	E	SPEED	DIFFERENCE
		(ft)	(ft/ft)	(mph)	(mph) *
SB 1ST AVE. S.	R1	77	0.02	18.4	4.9
	R2	38	-0.02	13.2	0.8
	R3	100	0.02	20.4	8.0
	R4	33	-0.02	12.5	0.1
	R5	82	0.02	18.9	6.5
EB 7TH ST S.	R1	77	0.02	18.4	5.3
	R2	48	-0.02	14.3	1.9
	R3	160	0.02	24.4	12.0
	R4	39	-0.02	13.3	0.9
	R5	62	0.02	16.9	4.5
NB 1ST AVE. S.	R1	88	0.02	19.2	6.0
	R2	53	-0.02	14.9	2.5
	R3	147	0.02	23.6	11.2
	R4	32	-0.02	12.4	*
	R5	55	0.02	16.2	3.8
WB 7TH ST. S.	R1	88	0.02	19.4	6.5
	R2	40	-0.02	13.4	1.0
	R3	103	0.02	20.6	8.2
	R4	36	-0.02	12.9	0.5
	R5	54	0.02	16.1	3.7

* RELATIVE SPEED DIFFERENCE IS FROM THE MINIMUM SPEED IN ROUNDABOUT, USUALLY R4

WB-62-TH 4 / 1ST AVE. S. & ARMSTRONG BLVD. S.


PI 50+62.98
X 575,872.003
Y 148,992.752
Δ 90° 00' 00.00" (LT)
D 233° 51' 37.17"
T 24.50
L 38.48
R 24.50
PC 50+38.48
PT 50+76.97
PI 51+01.47
X 575,894.368
Y 148,949.154
Δ 90° 00' 00.00" (LT)
D 233° 51' 37.17"
T 24.50
L 38.48
R 24.50
PC 50+76.97
PT 51+15.45
PI 51+39.95
X 575,937.966
Y 148,971.519
Δ 90° 00' 00.00" (LT)
D 233° 51' 37.17"
T 24.50
L 38.48
R 24.50
PC 51+15.45
PT 51+53.94
PI 50+24.50
X 575,915.601
Y 149,015.117
Δ 90° 00' 00.00" (LT)
D 233° 51' 37.17"
T 24.50
L 38.48
R 24.50
PC 50+00.00
PT 50+38.48
PCC. 50+76.97
PCC. 50+38.48
PCC. 51+15.45
PC. 50+00.00 PT. 51+53.94
R 8
R 6
R 150
R 166
R 91
R 74
R 18
R 115.5
R 70
R 53
R 80
R 42.6
R 2
R 86
R 25
R 27
R 85
50
16'
6'
TH 4 / ARMSTRONG BLVD. S.
TH 4 / 1ST AVE. S.
R1
R2
R3
R4
R5

ROUNDABOUT DESIGN SPEED SUMMARY TH 4 / 1ST AVE. S & ARMSTRONG BLVD. S.					
APPROACH	CURVE	RADIUS (ft)	E (ft/ft)	SPEED (mph)	DIFFERENCE (mph) *
SB 1ST AVE. S.	R1	90	0.02	19.6	6.0
	R2	64	-0.02	15.9	2.9
	R3	135	0.02	22.9	9.9
	R4	43	-0.02	13.8	0.8
	R5	48	0.02	15.3	2.3
WB ARMSTRONG BLVD. S.	R1	79	0.02	18.6	5.6
	R2	37	-0.02	13	*
	R3	175	0.02	25.3	12.3
	R4	37	-0.02	13	*
	R5	60	0.02	16.7	3.7
NB 1ST AVE. S.	R1	88	0.02	19.4	6.2
	R2	40	-0.02	13.4	0.4
	R3	95	0.02	20	7
	R4	38	-0.02	13.2	0.2
	R5	75	0.02	18.2	5.2
EB ARMSTRONG BLVD. S.	R1	88	0.02	18.9	5.7
	R2	45	-0.02	14	1
	R3	100	0.02	20.4	7.4
	R4	38	-0.02	13.2	0.2
	R5	106	0.02	20.8	7.8

* RELATIVE SPEED DIFFERENCE IS FROM THE MINIMUM SPEED IN ROUNDABOUT, USUALLY R4