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 No. 1 COPY No.

T.H. 4 VICINITY OF SAINT JAMES

FROM 0.2 MILES SOUTH OF 10TH AVE SOUTH TO

11TH AVE NORTH.

Prepared October 06, 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:

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: 09-OCT-2014 10:43

Level 1 LAYOUT APPROVAL

Programmed Letting Date 2/26/2016

Prepared By ____ 20__
District Design or Preliminary Design Engineer

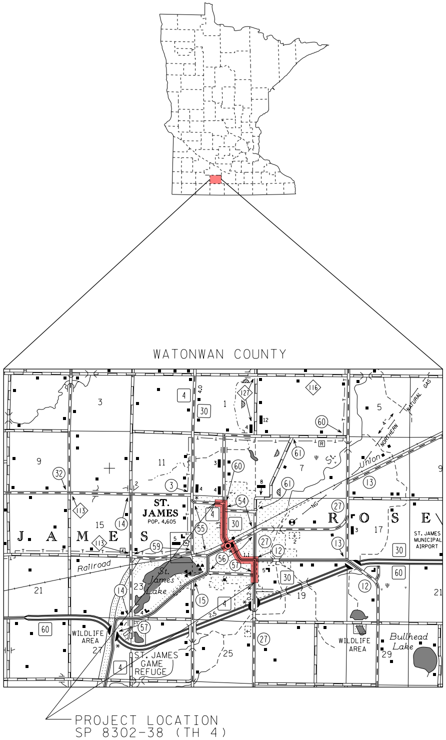
Reviewed By ____ 20__
District Traffic Engineer

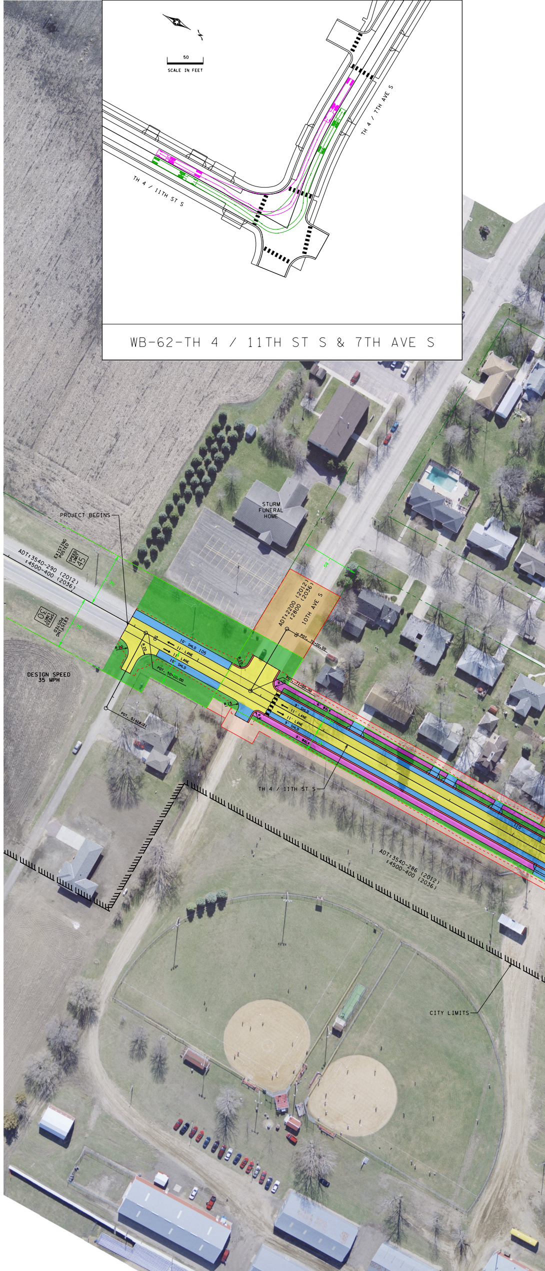
Reviewed By ____ 20__
State Geometrics Engineer

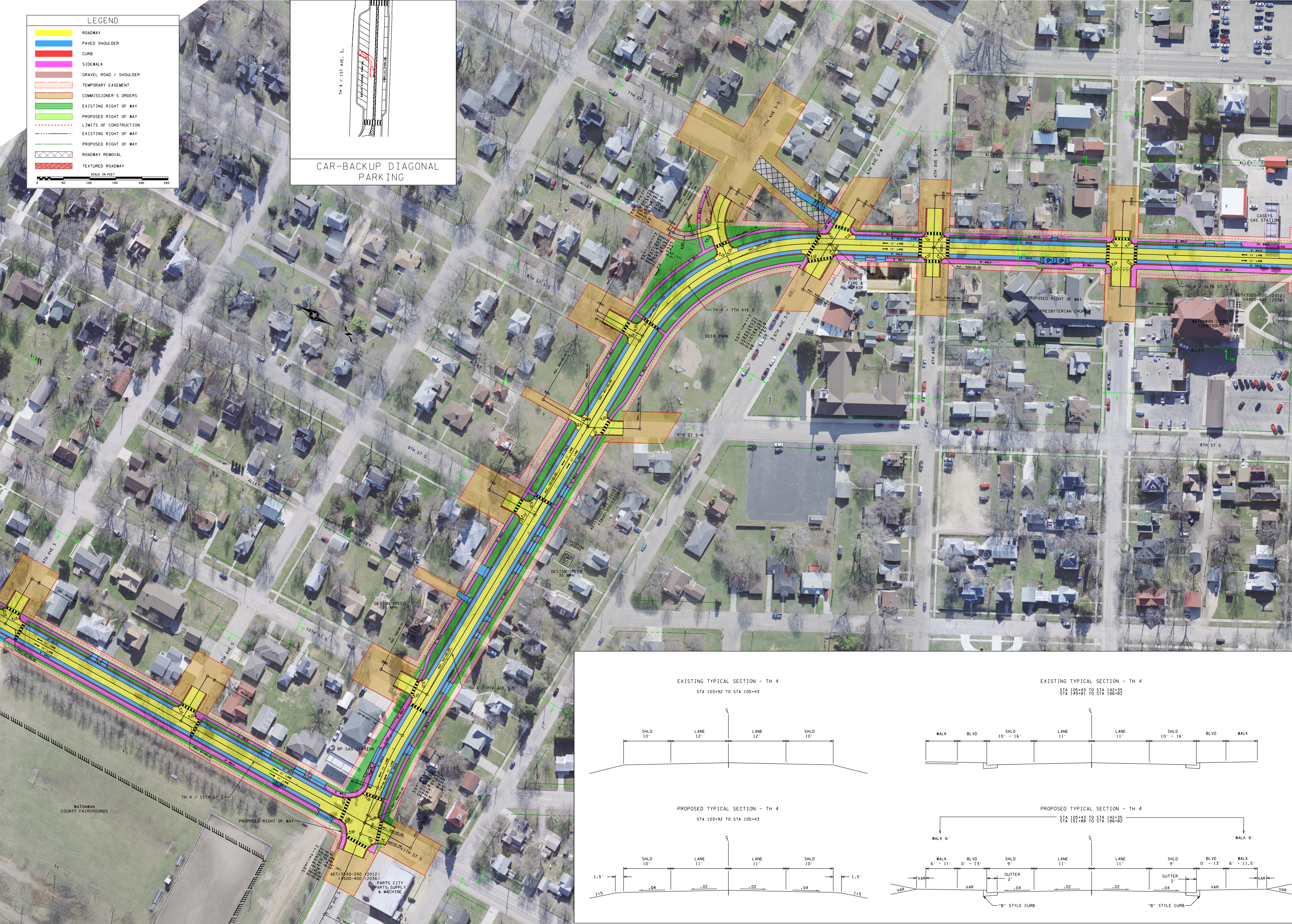
Approved By ____ 20__
Transportation District Engineer

Approved By ____ 20__
State Design Engineer

INDEX MAP


WATONWAN COUNTY
ST. JAMES
POP. 4,605
J A M E S
R O S E
Railroad
St. James Lake
ST. JAMES MUNICIPAL AIRPORT
WILDLIFE AREA
ST. JAMES GAME REFUGE
WILDLIFE AREA
Bullhead Lake
Union
NORTHERN
NATURAL GAS
4
30
60
15
60
116
PROJECT LOCATION
SP 8302-38 (TH 4)


50
SCALE IN FEET
TH 4 / 7TH AVE S
TH 4 / 11TH ST S
WB-62-TH 4 / 11TH ST S & 7TH AVE S
PROJECT BEGINS
STURM FUNERAL HOME
EXISTING POSTED
SPEED LIMIT 45
ADT:3540-290 (2012)
:4500-400 (2036)
SPEED LIMIT 30
EXISTING POSTED
75'
75'
DESIGN SPEED
35 MPH
ADT:2200 (2012)
:2800 (2036)
10TH AVE S
80'
POT. 70+00.00
POT. 50+00.00
POT. 51+18.21
POT. 71+00.00
10' SHLD 105
11' LANE
11' LANE
10' SHLD
R 20
R 20
R 10
R 10
R 15
9' SHLD
11' LANE
11' LANE
9' SHLD
6' WALK
8' WALK
110
TH 4 / 11TH ST S
ADT:3540-286 (2012)
:4500-400 (2036)
CITY LIMITS


7TH ST S
7TH AVE S-S
6TH AVE S-W
4TH AVE S-W
ALLEY
ALLEY
ALLEY
CASEYS GAS STATION
6' WALK
9' SHLD
← 11' LANE
→ 11' LANE
9' SHLD
8' WALK
10' SHLD
10' WALK
9' WALK
CLOSE
R 10
POT. 4000+00.00
POT. 4001+00.00
POT. 5000+00.00
POT. 5001+00.00
POT. 6000+00.00
POT. 6001+00.00
POT. 7000+00.00
POT. 7001+00.00
POT. 8000+00.00
POT. 8002+00.00
DON'S TIRE & REPAIR
PARKING LOT
PROPOSED RIGHT OF WAY
FIRST PRESBYTERIAN CHURCH
TH 4 / 11TH ST S
ADT:3500-300 (2012)
:4400-400 (2036)
WATONWAN COUNTY COURTHOUSE
6TH AVE S-E
4TH AVE S-E
3RD AVE S-E
TH 4 / 7TH AVE S
DEER PARK
8TH ST S-N
8TH ST S
8TH ST S-S
9TH ST S
10TH ST S
9TH AVE S
8TH AVE S
EXISTING POSTED SPEED LIMIT 30
DESIGN SPEED 35 MPH
DESIGN SPEED 35 MPH
TH 4 / 7TH AVE S
BP GAS STATION
TH 4 / 11TH ST S
PROPOSED RIGHT OF WAY
WATONWAN COUNTY FAIRGROUNDS
ADT:3540-290 (2012)
:4500-400 (2036)
PARTS CITY PARTS SUPPLY & MACHINE
11TH ST S
7TH AVE S
POT. 90+00.00
POT. 91+00.00
POT. 300+00.00
POT. 400+00.00
POT. 401+00.00
POT. 500+00.00
POT. 501+00.00
PT 120+30.93
PI 119+75.91
PC 119+20.54
PI 301+06.82
PC 300+22.38
PT 301+90.96

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

TH 4 / 1ST AVE. S.
BACKUP DIAGONAL PARKING
PARELLEL PARKING

CAR-BACKUP DIAGONAL PARKING

EXISTING TYPICAL SECTION - TH 4

STA 103+92 TO STA 105+43

℄
SHLD 10'
LANE 12'
LANE 12'
SHLD 10'

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

EXISTING TYPICAL SECTION - TH 4

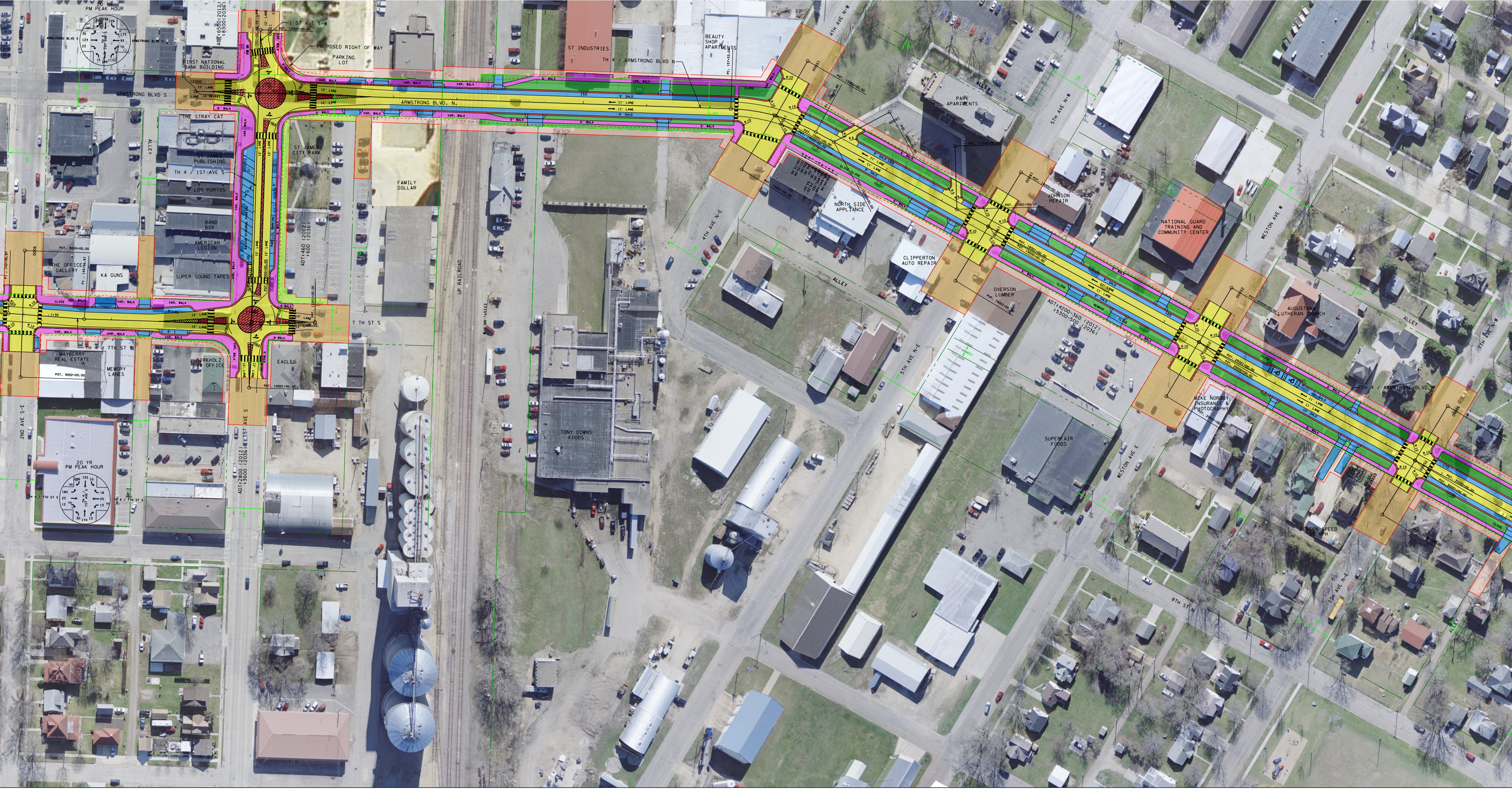
STA 105+43 TO STA 142+35
STA 149+81 TO STA 186+82

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

PROPOSED TYPICAL SECTION - TH 4

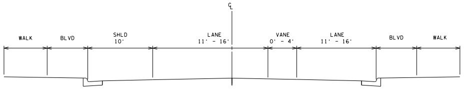
STA 105+43 TO STA 142+35
STA 151+88 TO STA 186+82

WALK 6'
WALK 8'
℄
WALK 6' - 11'
BLVD 0' - 13'
SHLD 9'
LANE 11'
LANE 11'
SHLD 9'
BLVD 0' - 13'
WALK 6' - 11.5'
VAR
VAR
GUTTER 2'
GUTTER 2'
.04
.02
.02
.04
VAR
VAR
VAR
VAR
"B" STYLE CURB
"B" STYLE CURB


20 YR PM PEAK HOUR
ARMSTRONG BLVD S
1ST AVE S-W
PROPOSED RIGHT OF WAY
PARKING LOT
FIRST NATIONAL BANK BUILDING
ADT 1650 (2012) 18300 (2036)
ST INDUSTRIES
TH 4 / ARMSTRONG BLVD N
BEAUTY SHOP APARTMENTS
4TH AVE N-W
ARMSTRONG BLVD. N.
THE STRAY CAT
ST JAMES PUBLISHING
ST JAMES CITY PARK
FAMILY DOLLAR
TH 4 / 1ST AVE S
LOS PORTOS
BAND BOX
AMERICAN LEGION
SUPER SOUND TAPES
THE OFFICE GALLERY
KA GUNS
ADT 1460 (2012) 1600 (2036)
UP RAILROAD
7 TH ST S
MAYBERRY REAL ESTATE
MEMORY LANES
BIRKHOLZ LAW OFFICE
EAGLES
2ND AVE S-E
20 YR PM PEAK HOUR
1ST AVE S
ADT 2800 (2012) 5600 (2036)
TONY DOWNS FOODS
PARK APARTMENTS
5TH AVE N-W
ALLEY
NORTH SIDE APPLIANCE
JOHNSON REPAIR
4TH AVE N-E
CLIPPERTON AUTO REPAIR
NATIONAL GUARD TRAINING AND COMMUNITY CENTER
OVERSON LUMBER
ADT 4200-360 (2012) 5300-500 (2036)
WESTON AVE W
AUGUSTANA LUTHERAN CHURCH
5TH AVE N-E
MIKE NORDBY INSURANCE & PHOTOGRAPHY
SUPERFAIR FOODS
WESTON AVE E
TH 4 / ARMSTRONG BLVD N
DESIGN SPEED 25 MPH
8TH ST N
7TH AVE N-E
7TH AVE N-W

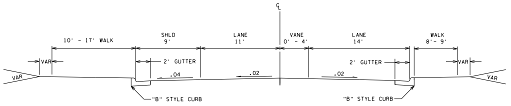
EXISTING TYPICAL SECTION - TH 4

STA 142+35 TO STA 146+19


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

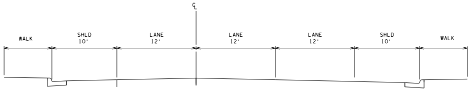
PROPOSED TYPICAL SECTION - TH 4

PAINTED VANE
STA 142+35 TO STA 146+19


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

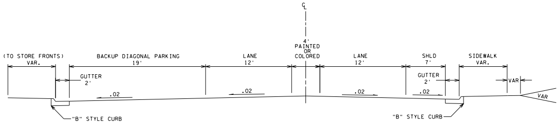
EXISTING TYPICAL SECTION - TH 4

STA 146+19 TO STA 149+81


CL
WALK
SHLD 10'
LANE 12'
LANE 12'
LANE 12'
SHLD 10'
WALK

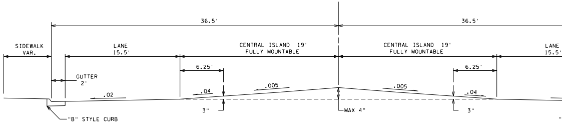
PROPOSED TYPICAL SECTION - TH 4

TH 4 / 1ST AVE S.


CL
(TO STORE FRONTS) VAR.
BACKUP DIAGONAL PARKING 19'
LANE 12'
4' PAINTED OR COLORED
LANE 12'
SHLD 7'
SIDEWALK VAR.
GUTTER 2'
GUTTER 2'
VAR
.02
.02
.02
.02
VAR
"B" STYLE CURB
"B" STYLE CURB

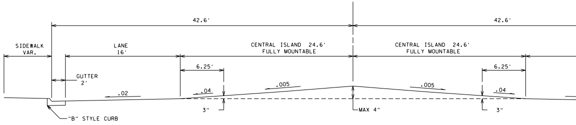
PROPOSED TYPICAL SECTION - ROUNDABOUT

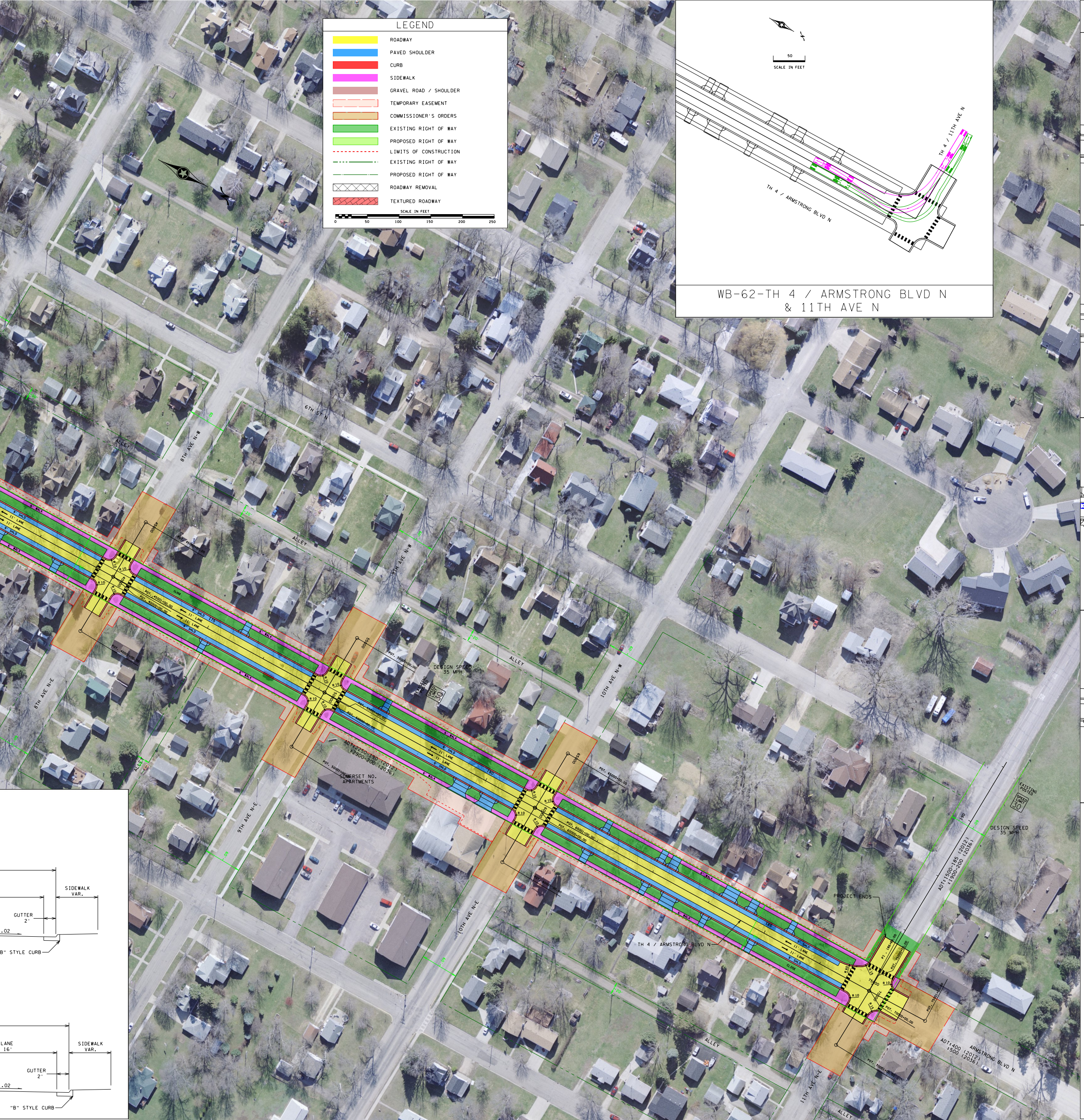
TH 4 / 1ST AVE. S. AND 7TH AVE. S.


CL
36.5'
36.5'
SIDEWALK VAR.
LANE 15.5'
CENTRAL ISLAND 19' FULLY MOUNTABLE
CENTRAL ISLAND 19' FULLY MOUNTABLE
LANE 15.5'
6.25'
6.25'
GUTTER 2'
.02
.04
.005
.005
.04
3"
MAX 4"
3"
"B" STYLE CURB

PROPOSED TYPICAL SECTION - ROUNDABOUT

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


CL
42.6'
42.6'
SIDEWALK VAR.
LANE 16'
CENTRAL ISLAND 24.6' FULLY MOUNTABLE
CENTRAL ISLAND 24.6' FULLY MOUNTABLE
6.25'
6.25'
GUTTER 2'
.02
.04
.005
.005
.04
3"
MAX 4"
3"
"B" STYLE CURB


6TH ST N
8TH AVE N-W
9TH AVE N-W
10TH AVE N-W
8TH AVE N-E
9TH AVE N-E
10TH AVE N-E
11TH AVE N-E
ALLEY
SOMERSET NO. APARTMENTS
DESIGN SPEED 35 MPH
EXISTING POSTED
SPEED LIMIT 30
ADT:2250-190 (2012)
:2900-200 (2036)
ADT:1500-185 (2012)
:1900-200 (2036)
ADT:400 (2012)
:500 (2036)
PROJECT ENDS
TH 4 / ARMSTRONG BLVD N
ARMSTRONG BLVD N
6' WALK
9' SHLD
11' LANE
CLOSE
R 10
R 15
R 60
POT. 55000+00.00
POT. 55001+00.00
POT. 50000+00.00
POT. 50001+00.00
POT. 60000+00.00
POT. 70000+00.00
POT. 70001+00.00
POT. 75000+00.00
POT. 75001+00.00
P1 . 186+85.00
20'
SIDEWALK VAR.
GUTTER 2'
LANE 16'
.02
"B" STYLE CURB
50
SCALE IN FEET
TH 4 / 11TH AVE N
TH 4 / ARMSTRONG BLVD N

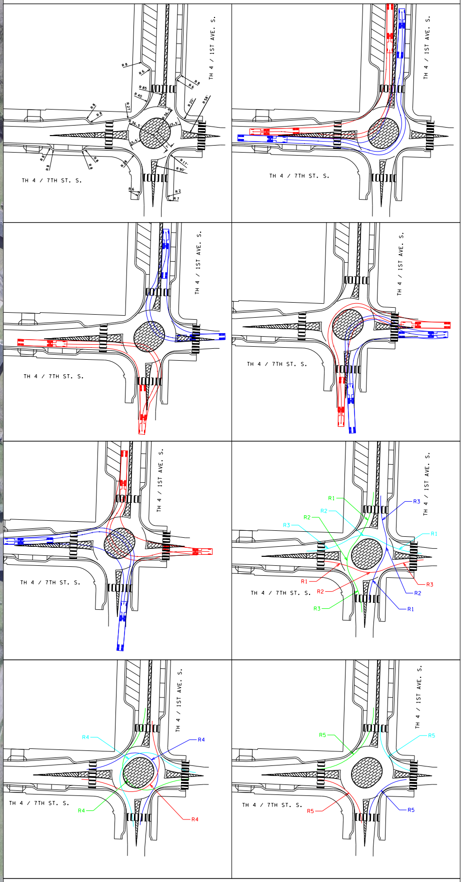
LEGEND

🟨	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

WB-62-TH 4 / ARMSTRONG BLVD N
& 11TH AVE N

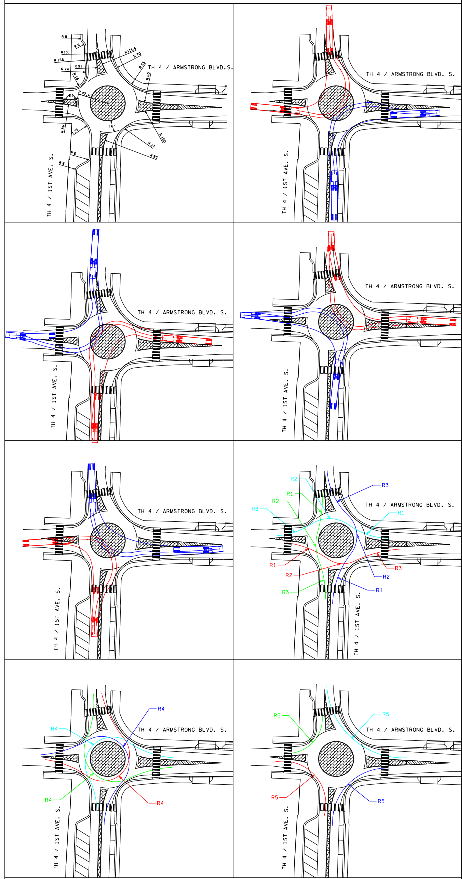
WB-62-TH 4 / 1ST AVE. S. & 7TH AVE. S.


TH 4 / 1ST AVE. S.
TH 4 / 7TH ST. S.
R1
R2
R3
R4
R5

ROUNDABOUT DESIGN SPEED SUMMARY TH 4 / 1ST AVE. S. & 7TH AVE. S.					
APPROACH	CURVE	RADIUS	E	SPEED	DIFFERENCE
		(ft)	(ft/ft)	(mph)	(mph) *
SB 1ST AVE. S.	R1	120	0.02	21.9	9.5
	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	127	0.02	22.3	9.9
	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	118	0.02	21.7	9.3
	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 AVE. S.	R1	131	0.02	22.6	10.2
	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

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

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


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	172	0.02	25.1	12.1
	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	129	0.02	22.5	9.5
	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	120	0.02	21.9	8.9
	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	102	0.02	20.5	7.5
	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

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