GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS
AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER
UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT
SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL
UTILITIES PRIOR TO CONSTRUCTION.

N

CONFIGURATION WITH HEAD NUMBERS

4-VLFY	3-V	3-H	3-VA	EVP DETECTOR	1-P
R Y FY G — 5, 9	R Y G — 3, 8 / 10, 12	R Y G — 2, 7, 11	R Y G — 1, 4, 6	◁ — ① ② ③	🚶 — 13, 14

R10-3BL 9" X 12"
START CROSSING Watch For Vehicles / DON'T START Finish Crossing If Started / DON'T CROSS / ← TO CROSS PUSH BUTTON
INSTALL ON SB10

R10-3BR 9" X 12"
START CROSSING Watch For Vehicles / DON'T START Finish Crossing If Started / DON'T CROSS / ← TO CROSS PUSH BUTTON
INSTALL ON SB9

USH 41 NB on ramp

USH 41 SB

USH 41 NB

ELECTRIC FEED FOR L-461 FROM S-1403

L-461 CABINET

S-1403

MH

C.S.W.

TO UNDERDECK LIGHTING

Abandoned 24" PB

275' TO NEAR RIGHT SIGNAL

Asphalt

Concrete Sidewalk

USH 41 NB off ramp

SB5   20'
SB4   3"
11 R Y G 3
SB3   10 R Y G
25'   2 R Y G   1
3"
SB6   3"
3 R Y G
100' TO NEAR RIGHT SIGNAL
260' TO NEAR RIGHT SIGNAL
1"   1"

Empty   OH

INL   4 R Y G
SB7   Grass   Asphalt
1 R Y G   5 6
SB2   Overlap "A"
30'   2T   11
6'

MH   MH

STH 96 (WISCONSIN AVE)
35 MPH Speed Limit

7 R Y G   3"   25'
2
SB8
Concrete Sidewalk
SIGN
MH   MH
INL

C Y G   8
SB1

SB10   B
12T   12T
3"   3.3"
CB1
30'   43   42
41   30
12 R Y G   Overlap "F"
SB9   9   11
2T   6'

FILLER CAPS

MH

Changed luminaires to LED B

LEGEND

PULL BOX 24" X 36"	◐
PULL BOX 24" X 42"	⑪
SIGNAL STANDARD, PEDESTAL MOUNT	•
SIGNAL POLE, MAST-ARM MOUNT	↓ (XX)
EVP DETECTOR	◁
LUMINAIRE (250W)	•—◗
CONTROL CABINET BASE	⊠
2" CONDUIT (unless otherwise noted)	— — —
LOOP DETECTOR (in 1" conduit)	⑪ 2T / 30'
MICROWAVE DETECTION ZONE	⑷1 MICROWAVE
MICROWAVE UNIT (Intersector)	⬭
SIGNAL HEAD NUMBER MOUNTING CONFIGURATION	3 R Y G
PEDESTRIAN HEAD NUMBER MOUNTING CONFIGURATION	24 🚶
PEDESTRIAN STANDARD W/PUSH BUTTON	B •—⊢
YIELD SIGN	Y ▽

Updated 5-19-2014

REVISION

Rev. No.	NEW TS2 CABINET (EPAC), ADD FYA, ADD EB DETECTION/EVP & CHANGE OPERATION				
	APPROVAL RECOMMENDED		APPROVED		
	REGION		CENTRAL OFFICE		
	Date	By	Date	By	
5	4-19-13	RJS	4-19-13	JLB	
10-1-08	New TTI Cabinet, Add EVP, Add Lighting & Add Ped Ph 4				
1-24-06	Reconfigure Ramp Loops				
2-25-02	Upgrade Cabinet & Controller				
1-22-87	Renumbered Detectors & Phasing and Detector Logic Changes				

TRAFFIC CONTROL SIGNAL
USH 41 NB & STH 96 (Wisconsin Ave)
TOWN OF GRAND CHUTE
OUTAGAMIE COUNTY

SIGNAL NO. 309   CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3-24-84   Gerald R. Kurtz
                      REGION TRAFFIC ENGINEER

APPROVED
Date 4-12-84   H. O. Price
                      STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS   PAGE 1 OF 2

PROJECT NO: 0083-03-01 | HWY: USH 41 | COUNTY: OUTAGAMIE | TRAFFIC CONTROL SIGNAL S-309 | SHEET | E

FILE NAME : F:\d3_traffi\S-309,rev5.dgn   PLOT DATE : 19-MAY-2014 08:30   PLOT BY : dotc5s   PLOT NAME : S-309,rev5,up   PLOT SCALE : 40:1   WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

Top head symbols: ↱ | OL "A" ← | NOT USED | ↑ | FLASH

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **		Ø2 R/W	Ø2 CLEAR TO **		Ø3 R/W	Ø3 CLEAR TO **		Ø4 R/W	Ø4 CLEAR TO **		FLASH
Ø1	5, 9	G	-	-		-	-	-						-
Ø2	1, 2, 3, 4	R	R	R		G	Y	R						
Ø3														
Ø4	10, 11, 12	R	R	R		R	R	R			G	Y	R	R
Ø5														
Ø6	6, 7, 8	R	R	R		R	R	R			R	R	R	R
Ø7														
Ø8														
PED Ø6	13, 14	D	D	D		D	D	D			D	D	D	R
OL "A"	5, 9	-	Y	R		FY	Y	R			R	R	R	R

RING 2

Head symbols: NOT USED | → ⇄ | NOT USED | NOT USED

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **		Ø6 R/W	Ø6 CLEAR TO **		Ø7 R/W	Ø7 CLEAR TO **		Ø8 R/W	Ø8 CLEAR TO **
Ø1	5, 9		-	-		-	-	-					
Ø2	1, 2, 3, 4					R	R	R					
Ø3													
Ø4	10, 11, 12					R	R	R					
Ø5													
Ø6	6, 7, 8					G	Y	R					
Ø7													
Ø8													
PED Ø6	13, 14					*	D	D					
OL "A"	5, 9					R	R	R					

BARRIER

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2, 4
2	6	1, 4
3		
4	NONE	1, 2, 6
5		
6	1 or 2	4
7		
8		

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK.

D = DON'T WALK

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR RACK CHANNEL	DETECTOR OPERATION CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	3	X			1	1				6x30	2
21	1	X			2	2			X	6x20	4
22	2	X			2	2				6x20	3
41	7	X			4	4		X		6x30	2
42	5	X			4	4				6x30	2
43	6	X			4	4				6x30	2
61	11	X			6	6				Micro	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				YES
2			MIN	YES
3				
4				YES
5				
6			MIN	YES
7				
8				

OVERLAP SPECIAL

	Protected	Permissive
OL "A"	1	2
OL "B"		
OL "C"		
OL "D"		

TYPE OF INTERCONNECT COMMUNICATION

NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	

*LOCATION OF MASTER CONTROLLER NO: S-309
SIGNAL SYSTEM #: SS0078

TYPE OF COORDINATION

NONE	
TBC	x
TRAFFIC RESPONSIVE	
ADAPTIVE	

TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	
3M	x
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING

BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

4. PROVIDE FOR HAND CONTROL

5. EMERGENCY VEHICLE PREEMPTION
   -UPON PREEMPTION, THE SIGNAL SHALL CLEAR TO PHASES 2+6 OR 1+6 OR 4.
   -ANY GREEN INTERVAL IN EFFECT SHALL TIME A MINIMUM 5 SECOND DURATION BEFORE ENTERING THE PREEMPT SEQUENCE. ELAPSED GREEN TIME PRIOR TO THE PREEMPT CALL SHALL BE CONSIDERED THE MINIMUM TIME.
   -ANY CLEARANCE INTERVAL IN EFFECT SHALL TIME ITS FULL NORMAL DURATION BEFORE ENTERING THE PREEMPT SEQUENCE.
   -THE SIGNAL SHALL DWELL IN PHASES 2+6 OR 1+6 OR 4 DURING PREEMPTION.
   -UPON TERMINATION OF PREEMPTION, VEHICLE CALLS SHALL BE PLACED IN ALL PHASES ACTIVE DURING NORMAL PHASE CYCLING.
   -FLASHING YELLOW ARROW SHALL BE DISABLED.

EMERGENCY VEHICLE PREEMPTION

EMERGENCY VEHICLE DETECTOR	①	②	③
MOVEMENT	→ (left/right arrows)	↗	↑
PHASE	2+6	1+6	4
3M CHANNEL	A	B	C

Updated 5-19-2014

USH 41 NB & STH 96 (Wisconsin Ave) TOWN OF GRAND CHUTE OUTAGAMIE COUNTY

SIGNAL NO. 309
CONTROLLER TYPE: EPAC TS2
DATE: 4-19-2013
PAGE NO. 2 OF 2

PROJECT NO: 0083-03-01   HWY: USH 41   COUNTY: OUTAGAMIE   SEQUENCE OF OPERATIONS S-309   SHEET   E

FILE NAME : F:\d3_traffi\S-309.rev5.dgn   PLOT DATE : 19-MAY-2014 08:30   PLOT BY : dotc5s   PLOT NAME : S-309.seq.rev5.up   PLOT SCALE : 40:1   WISDOT/CADDS SHEET 42