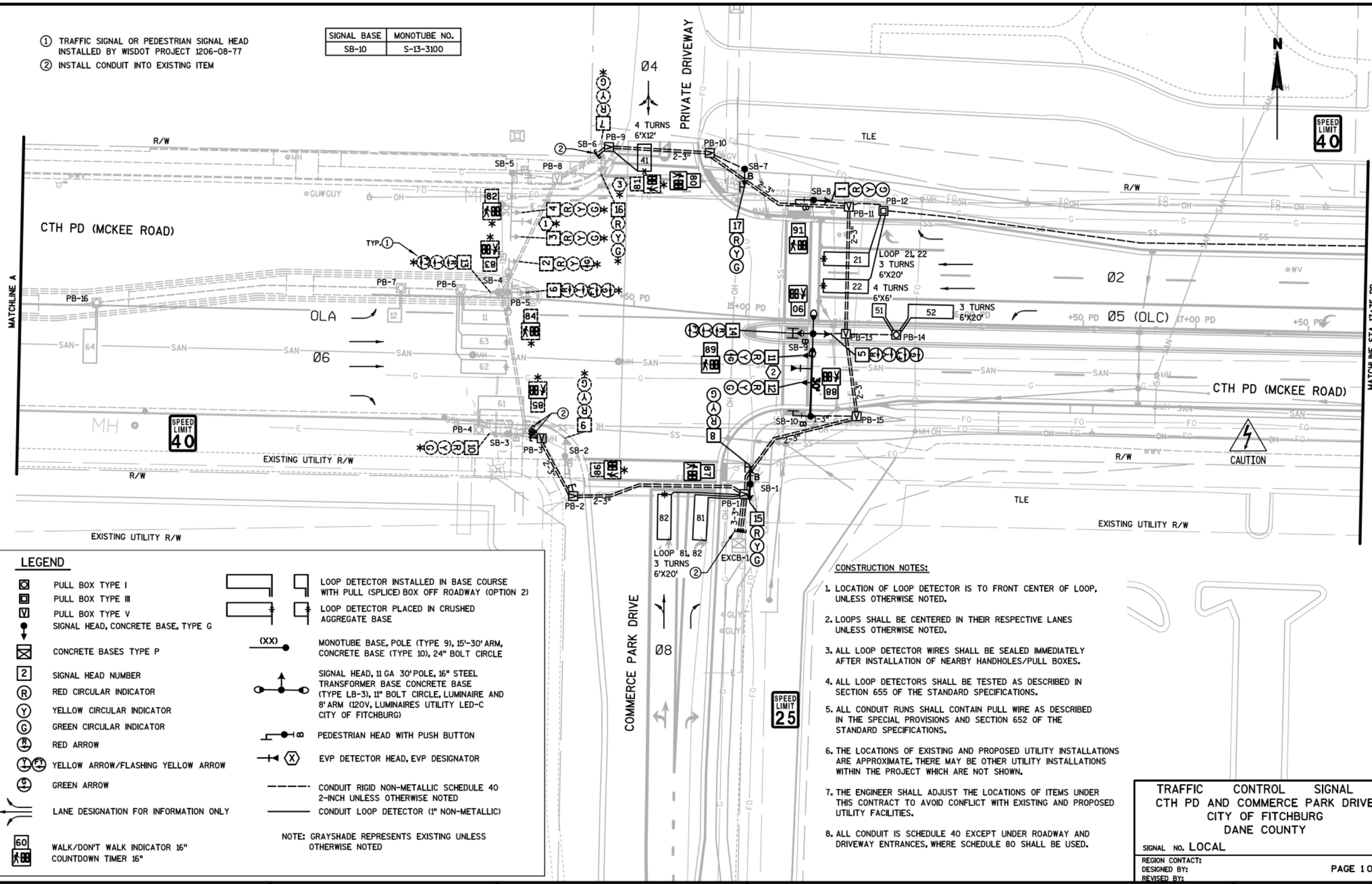
① TRAFFIC SIGNAL OR PEDESTRIAN SIGNAL HEAD INSTALLED BY WISDOT PROJECT 1206-08-77

② INSTALL CONDUIT INTO EXISTING ITEM

SIGNAL BASE	MONOTUBE NO.
SB-10	S-13-3100



LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- SIGNAL HEAD, CONCRETE BASE, TYPE G
- CONCRETE BASES TYPE P
- 2 — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y / FY — YELLOW ARROW/FLASHING YELLOW ARROW
- G — GREEN ARROW
- LANE DESIGNATION FOR INFORMATION ONLY
- 60 — WALK/DON'T WALK INDICATOR 16" COUNTDOWN TIMER 16"
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- (XX) — MONOTUBE BASE, POLE (TYPE 9), 15'-30' ARM, CONCRETE BASE (TYPE 10), 24" BOLT CIRCLE
- SIGNAL HEAD, 11 GA 30' POLE, 16" STEEL TRANSFORMER BASE CONCRETE BASE (TYPE LB-3), 11" BOLT CIRCLE, LUMINAIRE AND 8' ARM (120V, LUMINAIRES UTILITY LED-C CITY OF FITCHBURG)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- X — EVP DETECTOR HEAD, EVP DESIGNATOR
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. ALL LOOP DETECTOR WIRES SHALL BE SEALED IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. ALL LOOP DETECTORS SHALL BE TESTED AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.

TRAFFIC CONTROL SIGNAL
CTH PD AND COMMERCE PARK DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - COMMERCE PARK DRIVE	SHEET	E

LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

N

CONSTRUCTION NOTES:

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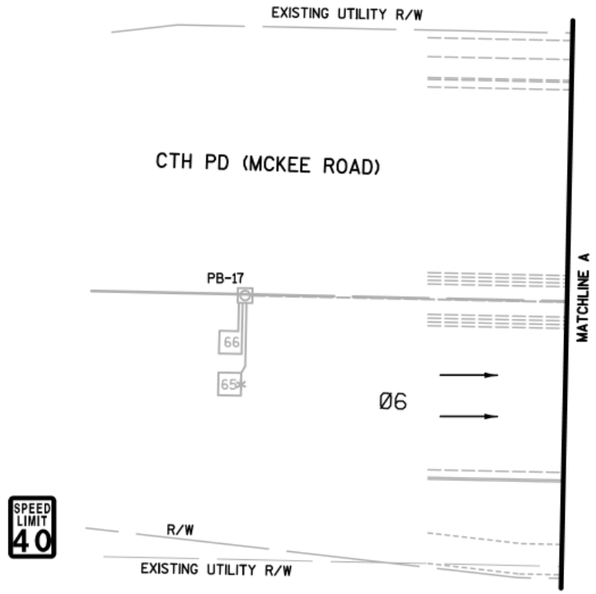
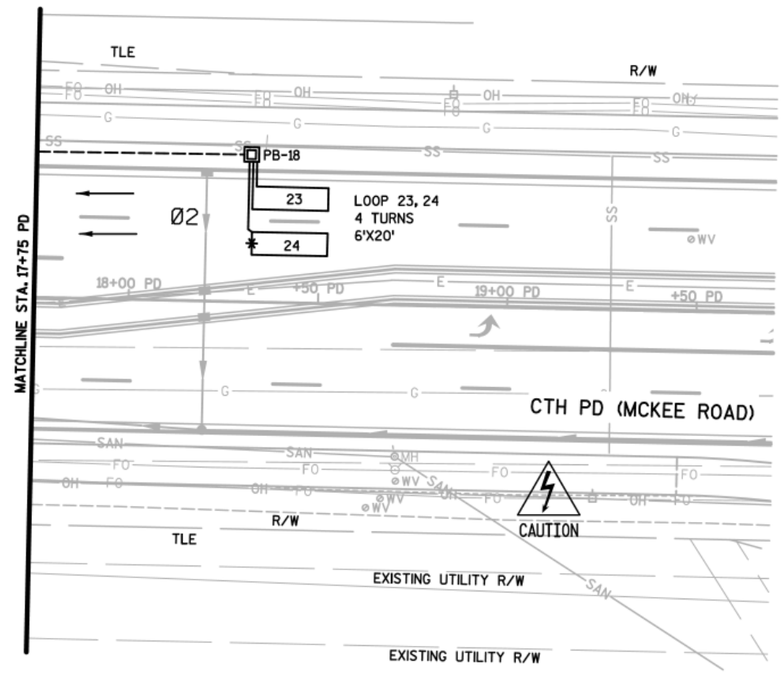
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.





TRAFFIC CONTROL SIGNAL
COUNTY PD AND COMMERCE PARK DRIVE
CITY OF FITCHBURG
DANE COUNTY

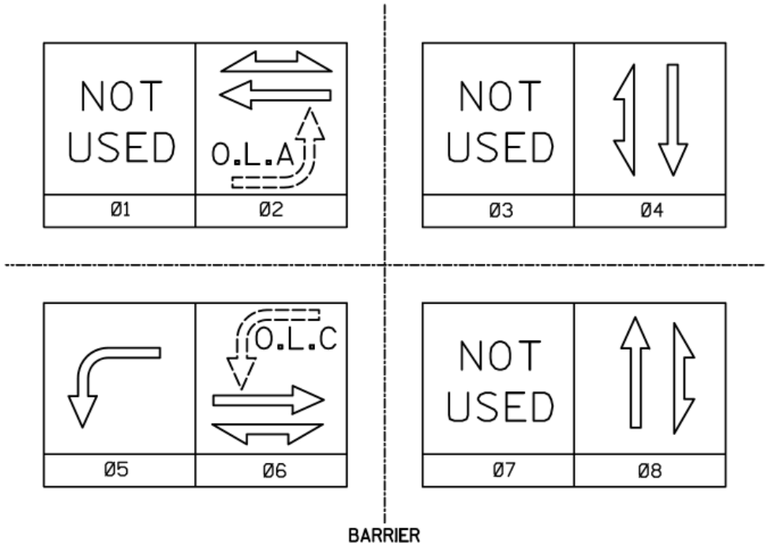
SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - COMMERCE PARK DRIVE	SHEET	E

	HEAD NUMBERS	FLASH
Ø1		
Ø2	1-4	R
Ø3		
Ø4	7-9	R
Ø5	5-6	R
Ø6	10-12	R
Ø7		
RING 1 Ø8	15-17	R
O.L. A	13-14	R
O.L. B		
O.L. C	5-6	R
O.L. D		
Ø2P	80,81	
Ø4P	82-85	
Ø6P	86,87	
Ø8P	88-91	



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =
NONE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"		Ø2
O.L. "B"		
O.L. "C"	Ø5	Ø6
O.L. "D"		

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	12	23	24	---	52	64	65	66
PHASE CALLED	2				5			
PHASE EXTENDED	2	2	2		5	6	6	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	---	---						
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	11	21	22	41	51	61	62	63
PHASE CALLED		2	2	4	5	6	6	6
PHASE EXTENDED	2	2	2	4	5	6	6	6
DISCONNECT TIME								
CALLING DELAY				15		15		
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	81	82						
PHASE CALLED	8	8						
PHASE EXTENDED	8	8						
DISCONNECT TIME								
CALLING DELAY	15							
EXTENSION STRETCH								
LOOP FUNCTION								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	1	2	3
MOVEMENT	←	→	↱
PHASE	2+5	6	8

AFTER PREEMPTION SEQUENCE 2+5 OR 6, CONTROLLER SHALL RETURN TO PHASES 2+6.

GENERAL NOTES:
1. SEQUENCE OF OPERATIONS PROVIDED FOR INFORMATION ONLY

CTH PD &
COMMERCE PARK
CITY OF FITCHBURG
DANE

SIGNAL NO. LOCAL

CONTROLLER TYPE: Econolite

DATE ----

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	SEQUENCE OF OPERATIONS	SHEET	E

FILE NAME : S:\MAD\1200--1299\1275\027\Micros\PLAN\024102_ph.dgn PLOT DATE : 7/25/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

CTH PD & COMMERCE PARK DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-1	12/C	8	SB	R	R	J 4
				Y	O	
				G	G	
		15	NB	R	R/BLK	J 8
				Y	O/BLK	
				G	G/BLK	
		87	J 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-2	7/C	9	SB	R	R	J 4
				Y	O	
				G	G	
		86	J 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-3	7/C	10	EB	R	R	J 6
				Y	O	
				G	G	
		85	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-4	15/C	2	WB	R	R	J 2
				Y	O	
				↑ G	G	
		6	WBL	← R	R/BLK	J5 & O.L.C
				← Y	O/BLK	
				←FY	BLU/BLK	
				← G	G/BLK	
		13	EBL	← R	R/W	O.L.A
				← Y	BLU/W	
				←FY	G/W	
		83	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
		84	J 4 PED	D/WALK	BLK	
				WALK	BLU	
CONTROL CABINET TO SB-5	12/C	3	WB	R	R	J 2
				Y	O	
				G	G	
		4	WB	R	R/BLK	J 2
				Y	O/BLK	
				G	G/BLK	
		82	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-6	12/C	7	SB	R	R	J 4
				Y	O	
				G	G	
		16	NB	R	R/BLK	J 8
				Y	O/BLK	
				G	G/BLK	
		81	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-7	7/C	17	NB	R	R	J 8
				Y	O	
				G	G	
		80	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-8	7/C	1	WB	R	R	J 2
				Y	O	
				G	G	
		91	J 8 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

CTH PD & COMMERCE PARK DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-9	12/C	5	WBL	← R	R/BLK	J5 & O.L.C
				← Y	BLU/BLK	
				←FY	O/BLK	
				← G	G/BLK	
		14	EBL	← R	R	O.L.A
				← Y	O	
				←FY	G	
		89	J 8 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
		90	J 8 PED	D/WALK	BLK	
				WALK	BLU	
CONTROL CABINET TO SB-10	12/C	11	EB	R	R	J 6
				Y	O	
				↑ G	G	
		12	EB	R	R/BLK	J 6
				Y	O/BLK	
				G	G/BLK	
		88	J 8 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

EQUIPMENT GROUNDING CONDUCTOR 10 AWG (GREEN)	
FROM	TO
EXCB-1	SB-1
SB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-5
SB-5	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	SB-9
SB-9	SB-10
SB-10	EXCB-1

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
EXCB-1	SB-4
EXCB-1	SB-9

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
EXCB-1	SB-5 (HEAD 1)
EXCB-1	SB-10 (HEAD 2)
EXCB-1	SB-6 (HEAD 3)

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

TRAFFIC CONTROL SIGNAL

CTH PD & COMMERCE PARK DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

DESIGNED BY: STRAND
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	CABLE ROUTING	SHEET	E

LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- SIGNAL HEAD, CONCRETE BASE, TYPE G
- CONCRETE BASES TYPE P
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW/FLASHING YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)
- WALK/DON'T WALK INDICATOR 16" COUNTDOWN TIMER 16"
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT
- (XX) MONOTUBE BASE, POLE (TYPE 9), 15'-30' ARM, CONCRETE BASE (TYPE 10), 24" BOLT CIRCLE
- SIGNAL HEAD, 11 GA 30' POLE, 16" STEEL TRANSFORMER BASE CONCRETE BASE (TYPE LB-3), 11" BOLT CIRCLE, LUMINAIRE AND 8' ARM (120V, LUMINAIRES UTILITY LED-C CITY OF FITCHBURG)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- EVP DETECTOR HEAD, EVP DESIGNATOR
- WALK/DON'T WALK INDICATOR 12" COUNTDOWN TIMER 12"

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

N

SPEED LIMIT 25

SPOKE DRIVE

CTH PD (MCKEE ROAD)

TLE

EXISTING UTILITY R/W

R/W

Ø4

LOOP 41, 42, 43
3 TURNS
6'X20'

Ø1 (OLA)

Ø6

Ø2

OLC

LOOP 63, 64
5 TURNS
6'X20'
300' TO NEAR RIGHT

LOOP 61, 62
4 TURNS
6'X20'

4 TURNS
6'X20'

4 TURNS
6'X6'

LOOP 21, 22
3 TURNS
6'X20'

3 TURNS
6'X20'

(2) CONDUIT SPECIAL 3-INCH

2-3"

1-3"

PB-1 PB-2 PB-3 PB-4 PB-5 PB-6 PB-7 PB-8 PB-9 PB-10 PB-11 PB-12 PB-13 PB-15

SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8

EXSB-1 EXSB-9 EXSB-10 EXCB-1

SPEED LIMIT 40

CAUTION

MATCHLINE STA. 28+50 PD

SIGNAL BASE	MONOTUBE NO.
SB-3	S-13-3101
SB-8	S-13-3102

① RELOCATEING EXISTING TRAFFIC SIGNAL POLE, MONOTUBE ARM, TRAFFIC SIGNAL HEADS, AND PEDESTRIAN SIGNAL EQUIPMENT WILL BE PAID AS "RELOCATING TRAFFIC SIGNAL EQUIPMENT"

② DASHED SIGNAL AND PEDESTRIAN HEADS REPRESENT EXISTING EQUIPMENT TO BE SALVAGED AND REINSTALLED

③ INSTALL CONDUIT INTO EXISTING ITEM

④ RELOCATEING EXISTING TRAFFIC SIGNAL POLE, MONOTUBE ARM, AND TRAFFIC SIGNAL HEADS WILL BE PAID AS "RELOCATING TRAFFIC SIGNAL EQUIPMENT"

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. ALL LOOP DETECTOR WIRES SHALL BE SEALED IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. ALL LOOP DETECTORS SHALL BE TESTED AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
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7. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.

TRAFFIC CONTROL SIGNAL
CTH PD AND SPOKE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - SPOKE DRIVE	SHEET	E

LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

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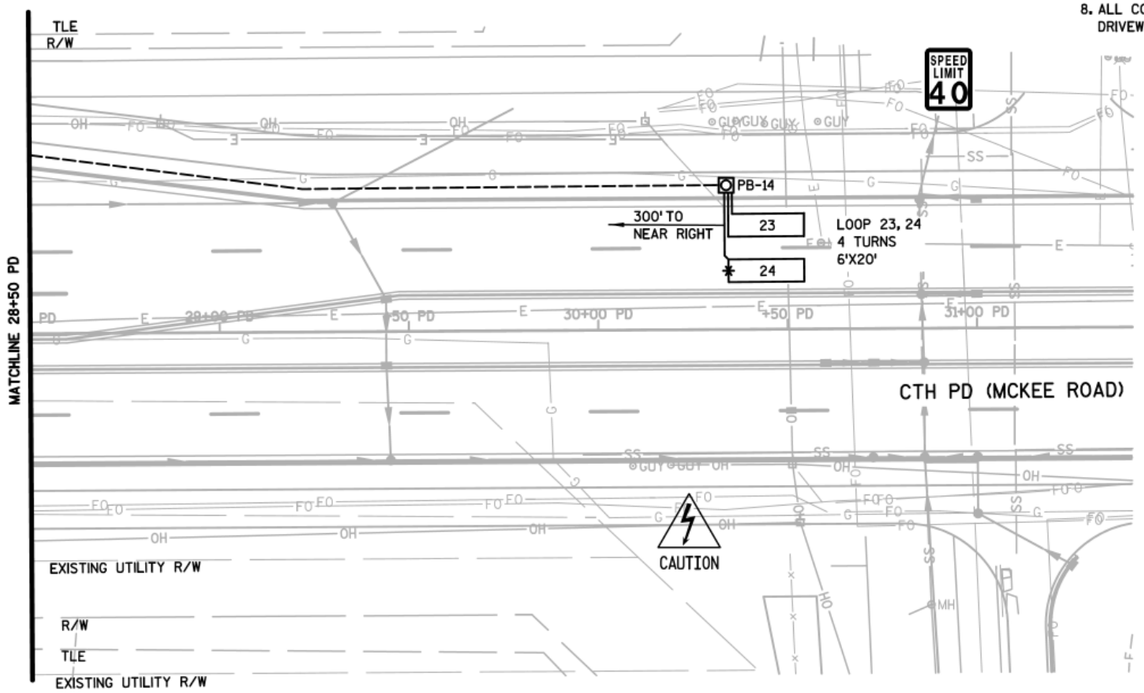
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.



TRAFFIC CONTROL SIGNAL
CTH PD AND SPOKE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

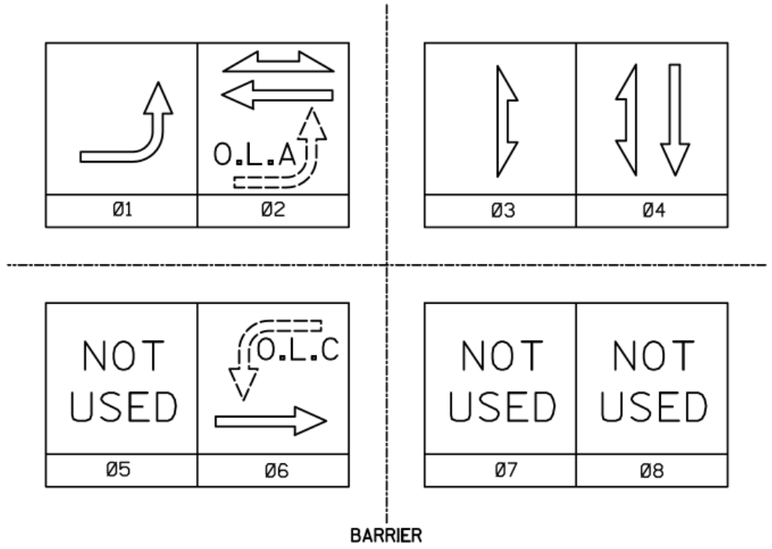
REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - SPOKE DRIVE	SHEET	E

	HEAD NUMBERS	FLASH
Ø1	12-13	R
Ø2	1-3	R
Ø3		
Ø4	6-8	R
Ø5		
Ø6	9-11	R
Ø7		
Ø8		
O.L. A	12-13	R
O.L. B		
O.L. C	4-5	R
O.L. D		
Ø2P	80,81	
Ø3P	84,85	
Ø4P	82,83	
Ø6P		

RING 1



N

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =
NONE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	Ø1	Ø2
O.L. "B"		
O.L. "C"		Ø6
O.L. "D"		

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
DETECTOR #(S)	12	23	24	---	43	52	63	64									DETECTOR #(S)
PHASE CALLED																	PHASE CALLED
PHASE EXTENDED	1	2	2		4	6	6	6									PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY																	CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
DETECTOR #(S)	11	21	22	41	42	51	61	62									DETECTOR #(S)
PHASE CALLED	1	2	2	4	4	6	6	6									PHASE CALLED
PHASE EXTENDED	1	2	2	4	4	6	6	6									PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY				15													CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	1	2
MOVEMENT	←	⇉
PHASE	2	1+6

AFTER PREEMPTION SEQUENCE 2 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

GENERAL NOTES:
1. SEQUENCE OF OPERATIONS PROVIDED FOR INFORMATION ONLY

CTH PD &
SPOKE DRIVE
CITY OF FITCHBURG
DANE

SIGNAL NO. LOCAL

CONTROLLER TYPE: Econolite

DATE ---- PAGE NO. 3 OF 4

PROJECT NO: 5849-02-02 | HWY: CTH PD | COUNTY: DANE | SEQUENCE OF OPERATIONS | SHEET E

CTH PD & SPOKE DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO EXSB-1	7/C	1	WB	R	R	J 2
				Y	O	
				G	G	
		85	J 3 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-2	12/C	4	WBL	← R	R	O.L.C
				← Y	O	
				←FY	G	
		13	EBL	← R	R/BLK	J 1 & O.L.A
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
			J 3 PED	PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-3	12/C	10	EB	R	R	J 6
				Y	O	
				↑ G	G	
		11	EB	R	R/BLK	J 6
				Y	O/BLK	
				G	G/BLK	
		84	J 3 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-4	5/C	7	SB	R	R	J 4
				Y	O	
				G	G	
CONTROL CABINET TO SB-5	5/C	8	SB	R	R	J 4
				Y	O	
				G	G	
CONTROL CABINET TO SB-6	7/C	9	EB	R	R	J 6
				Y	O	
				G	G	
		83	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-7	12/C	5	WBL	← R	R	O.L.C
				← Y	O	
				←FY	G	
		12	EBL	← R	R/BLK	J 1 & O.L.A
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
			J 4 PED	PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-8	12/C	2	WB	R	R	J 2
				Y	O	
				↑ G	G	
		3	WB	R	R/BLK	J 2
				Y	O/BLK	
				G	G/BLK	
		82	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

CTH PD & SPOKE DRIVE TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO EXSB-9	7/C	6	SB	R	R	J 4
				Y	O	
				G	G	
		81	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO EXSB-10	7/C	80	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

EQUIPMENT GROUNDING CONDUCTOR 10 AWG (GREEN)	
FROM	TO
EXCB-1	EXSB-1
EXSB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-5
SB-5	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	EXSB-9
EXSB-9	EXSB-10
EXSB-10	EXCB-1

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
EXCB-1	EXSB-9
EXSB-9	SB-7
EXCB-1	EXSB-10
EXSB-10	SB-2

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
EXCB-1	SB-8 (HEAD 1)
EXCB-1	SB-3 (HEAD 2)

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

TRAFFIC CONTROL SIGNAL

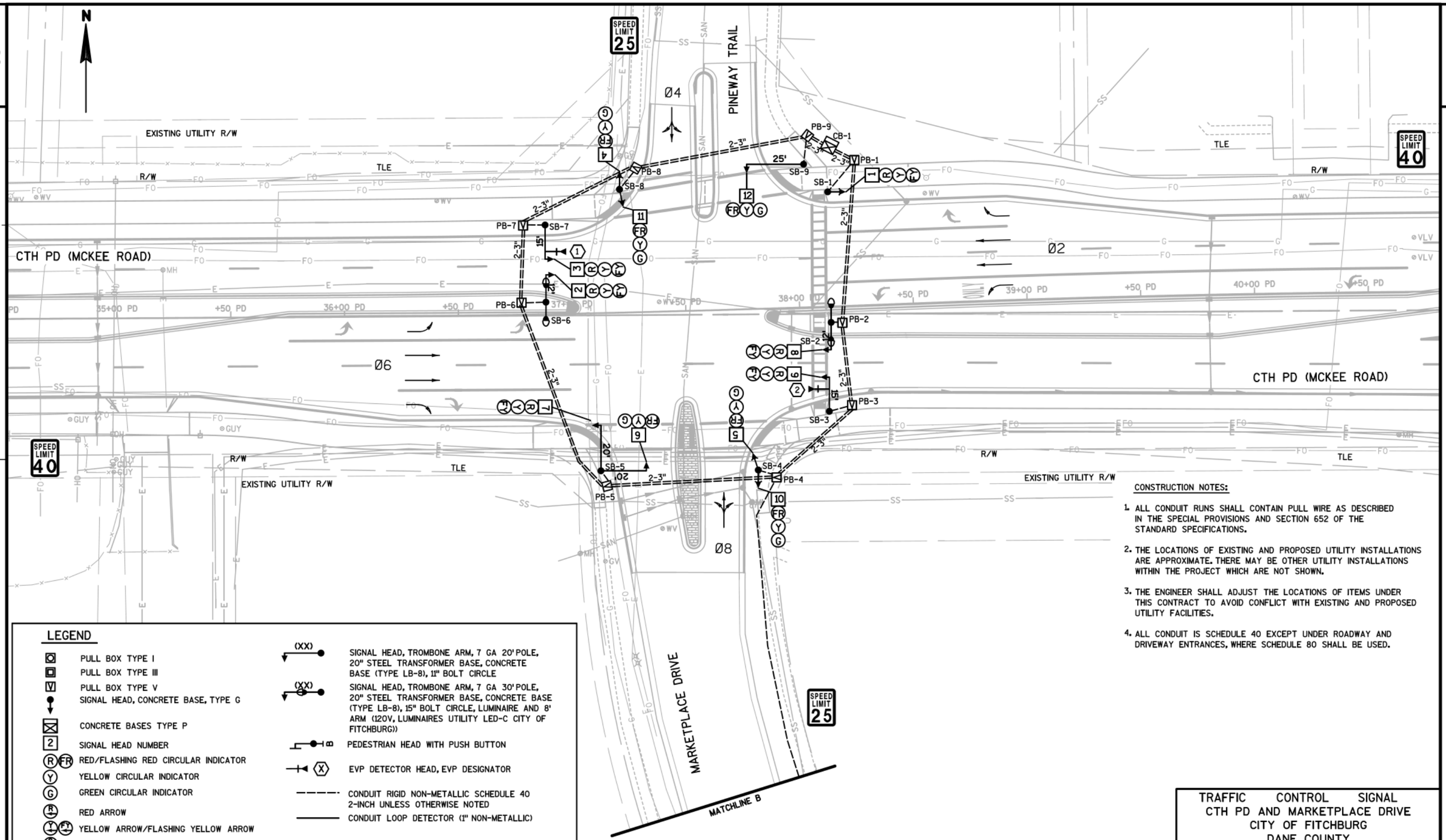
CTH PD & SPOKE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

DESIGNED BY: STRAND
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	CABLE ROUTING	SHEET	E



LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- SIGNAL HEAD, CONCRETE BASE, TYPE G
- CONCRETE BASES TYPE P
- SIGNAL HEAD NUMBER
- RED/FLASHING RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW/FLASHING YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFORMATION ONLY
- (XX) SIGNAL HEAD, TROMBONE ARM, 7 GA 20' POLE, 20" STEEL TRANSFORMER BASE, CONCRETE BASE (TYPE LB-8), 11" BOLT CIRCLE
- (XX) SIGNAL HEAD, TROMBONE ARM, 7 GA 30' POLE, 20" STEEL TRANSFORMER BASE, CONCRETE BASE (TYPE LB-8), 15" BOLT CIRCLE, LUMINAIRE AND 8' ARM (120V, LUMINAIRES UTILITY LED-C CITY OF FITCHBURG))
- PEDESTRIAN HEAD WITH PUSH BUTTON
- EVP DETECTOR HEAD, EVP DESIGNATOR
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

CONSTRUCTION NOTES:

1. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
4. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.

TRAFFIC CONTROL SIGNAL
CTH PD AND MARKETPLACE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY:
REVISED BY:

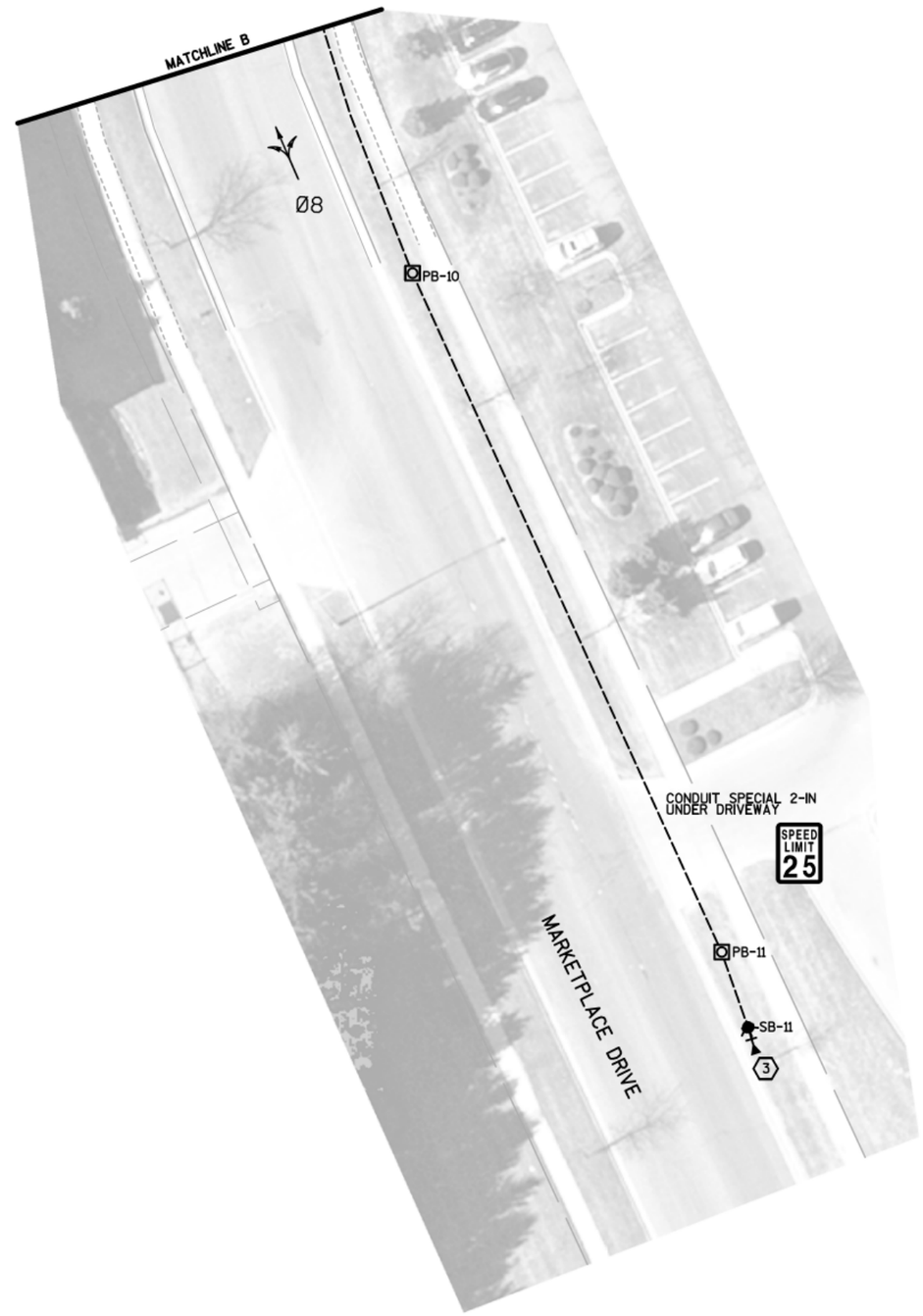
PAGE 1 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - MARKETPLACE DRIVE	SHEET	E

LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- COMFIRMATION BEACON
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED



CONSTRUCTION NOTES:

1. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
4. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.

TRAFFIC CONTROL SIGNAL
CTH PD AND MARKETPLACE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

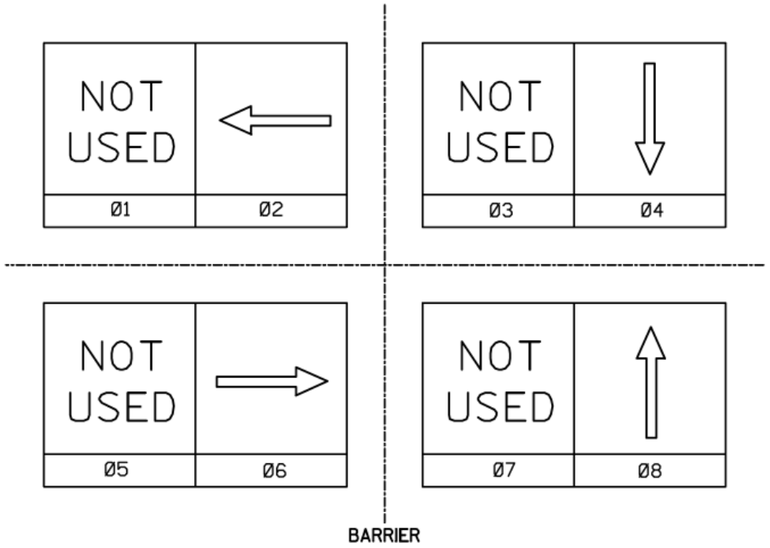
REGION CONTACT:
DESIGNED BY:
REVISED BY:

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - MARKETPLACE DRIVE	SHEET	E

FILE NAME : S:\MAD\1200--1299\1275\027\Micros\PLAN\024111_sg.dgn PLOT DATE : 7/25/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	1-3	Y
Ø3		
Ø4	4-6	R
Ø5		
Ø6	7-9	Y
Ø7		
Ø8	10-12	R
O.L. A		
O.L. B		
O.L. C		
O.L. D		
Ø2P		
Ø3P		
Ø4P		
Ø6P		

RING 1



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

OVERLAPS

O.L. "A" =	NONE
O.L. "B" =	
O.L. "C" =	
O.L. "D" =	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"		
O.L. "B"		
O.L. "C"		
O.L. "D"		

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
DETECTOR #(S)																	DETECTOR #(S)
PHASE CALLED																	PHASE CALLED
PHASE EXTENDED																	PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY																	CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
DETECTOR #(S)																	DETECTOR #(S)
PHASE CALLED																	PHASE CALLED
PHASE EXTENDED																	PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY																	CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	1	2	3
MOVEMENT	←	→	↑
PHASE	2	6	8

AFTER PREEMPTION SEQUENCE 2 OR 6, CONTROLLER SHALL RETURN TO PHASES 2+6.

GENERAL NOTES:

1. SEQUENCE OF OPERATIONS PROVIDED FOR INFORMATION ONLY

CTH PD &
MARKETPLACE DRIVE
CITY OF FITCHBURG
DANE

SIGNAL NO. LOCAL

CONTROLLER TYPE: Econolite

DATE ---- PAGE NO. 3 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	SEQUENCE OF OPERATIONS	SHEET	E

CTH PD AND MARKETPLACE DRIVE INTERSECTION TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-1	5/C	1	WBT	R	R	J 2
				Y	O	
				FY	G	
CONTROL CABINET TO SB-2	5/C	8	EBT	R	R	J 6
				Y	O	
				FY	G	
CONTROL CABINET TO SB-3	5/C	9	EBT	R	R	J 6
				Y	O	
				FY	G	
CONTROL CABINET TO SB-4	12/C	5	SBT	FR	R	J 4
				Y	O	
				G	G	
		10	NBT	FR	R/BLK	J 8
				Y	O/BLK	
				G	G/BLK	
CONTROL CABINET TO SB-5	12/C	6	SBT	FR	R	J 4
				Y	O	
				G	G	
		7	EBT	R	R/BLK	J 6
				Y	O/BLK	
				FY	G/BLK	
CONTROL CABINET TO SB-6	5/C	2	WBT	R	R	J 2
				Y	O	
				FY	G	
CONTROL CABINET TO SB-7	5/C	3	WBT	R	R	J 2
				Y	O	
				FY	G	
CONTROL CABINET TO SB-8	12/C	4	SBT	FR	R	J 4
				Y	O	
				G	G	
		11	NBT	FR	R/BLK	J 8
				Y	O/BLK	
				G	G/BLK	
CONTROL CABINET TO SB-9	5/C	12	NBT	FR	R	J 8
				Y	O	
				G	G	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG (GREEN)	
FROM	TO
CB-1	SB-1
SB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-5
SB-5	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	SB-9
SB-9	SB-10
SB-10	CB-1

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
CB-1	SB-2
CB-1	SB-7

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB-1	SB-8 (HEAD 1)
CB-1	SB-3 (HEAD 2)
CB-1	SB-11 (HEAD 3)

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

TRAFFIC CONTROL SIGNAL

CTH PD & MARKETPLACE DRIVE
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

DESIGNED BY: STRAND
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	CABLE ROUTING	SHEET	E

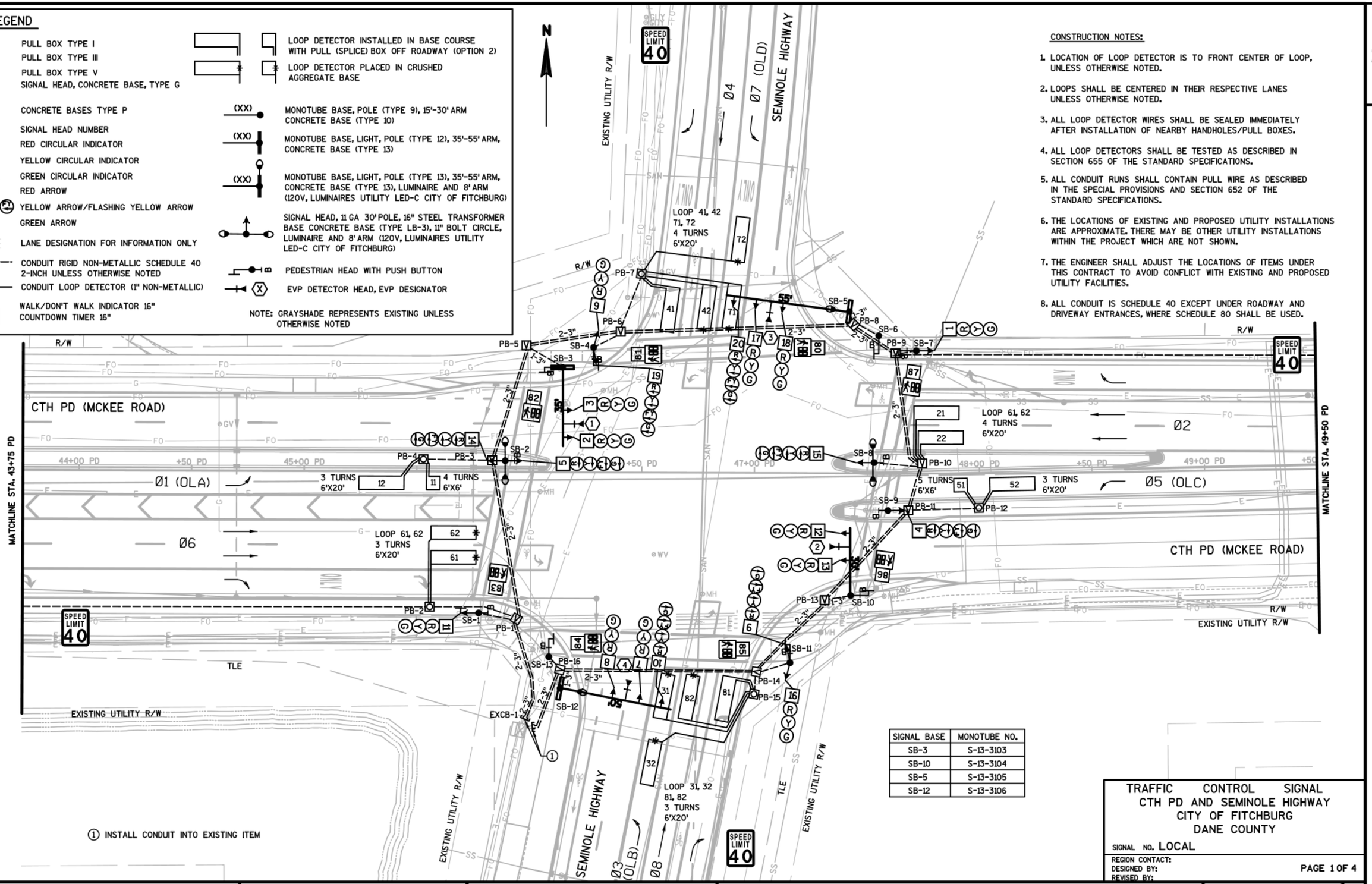
LEGEND

- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- SIGNAL HEAD, CONCRETE BASE, TYPE G
- CONCRETE BASES TYPE P
- 2 — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y — YELLOW ARROW/FLASHING YELLOW ARROW
- G — GREEN ARROW
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)
- 60 — WALK/DON'T WALK INDICATOR 16" COUNTDOWN TIMER 16"
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- (XX) — MONOTUBE BASE, POLE (TYPE 9), 15'-30' ARM CONCRETE BASE (TYPE 10)
- (XX) — MONOTUBE BASE, LIGHT, POLE (TYPE 12), 35'-55' ARM, CONCRETE BASE (TYPE 13)
- (XX) — MONOTUBE BASE, LIGHT, POLE (TYPE 13), 35'-55' ARM, CONCRETE BASE (TYPE 13), LUMINAIRE AND 8' ARM (120V, LUMINAIRES UTILITY LED-C CITY OF FITCHBURG)
- SIGNAL HEAD, 11 GA 30' POLE, 16" STEEL TRANSFORMER BASE CONCRETE BASE (TYPE LB-3), 11" BOLT CIRCLE, LUMINAIRE AND 8' ARM (120V, LUMINAIRES UTILITY LED-C CITY OF FITCHBURG)
- PEDESTRIAN HEAD WITH PUSH BUTTON
- X — EVP DETECTOR HEAD, EVP DESIGNATOR

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. ALL LOOP DETECTOR WIRES SHALL BE SEALED IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. ALL LOOP DETECTORS SHALL BE TESTED AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.



SIGNAL BASE	MONOTUBE NO.
SB-3	S-13-3103
SB-10	S-13-3104
SB-5	S-13-3105
SB-12	S-13-3106

TRAFFIC CONTROL SIGNAL
CTH PD AND SEMINOLE HIGHWAY
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - SEMINOLE HIGHWAY	SHEET	E

2

LEGEND

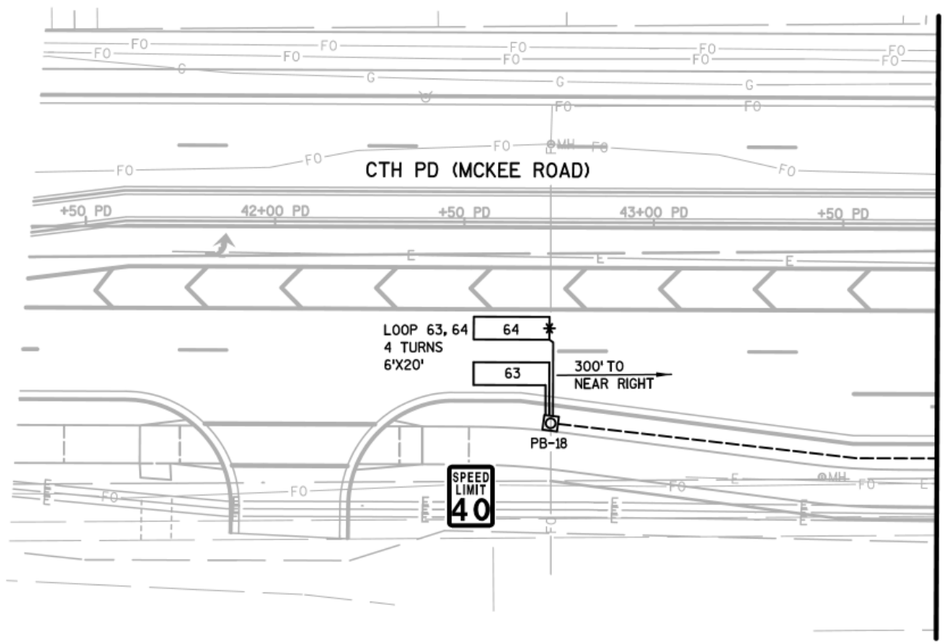
- PULL BOX TYPE I
- PULL BOX TYPE III
- PULL BOX TYPE V
- LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
- LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE
- LANE DESIGNATION FOR INFORMATION ONLY
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- CONDUIT LOOP DETECTOR (1" NON-METALLIC)

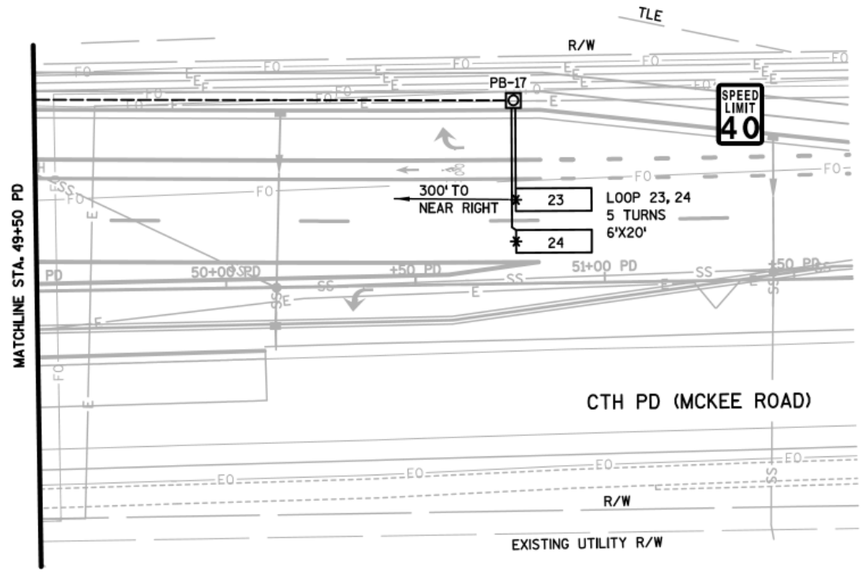
NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

N

CONSTRUCTION NOTES:

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF LOOP, UNLESS OTHERWISE NOTED.
2. LOOPS SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE NOTED.
3. ALL LOOP DETECTOR WIRES SHALL BE SEALED IMMEDIATELY AFTER INSTALLATION OF NEARBY HANDHOLES/PULL BOXES.
4. ALL LOOP DETECTORS SHALL BE TESTED AS DESCRIBED IN SECTION 655 OF THE STANDARD SPECIFICATIONS.
5. ALL CONDUIT RUNS SHALL CONTAIN PULL WIRE AS DESCRIBED IN THE SPECIAL PROVISIONS AND SECTION 652 OF THE STANDARD SPECIFICATIONS.
6. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
7. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING AND PROPOSED UTILITY FACILITIES.
8. ALL CONDUIT IS SCHEDULE 40 EXCEPT UNDER ROADWAY AND DRIVEWAY ENTRANCES, WHERE SCHEDULE 80 SHALL BE USED.





TRAFFIC CONTROL SIGNAL
CTH PD AND SEMINOLE HIGHWAY
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

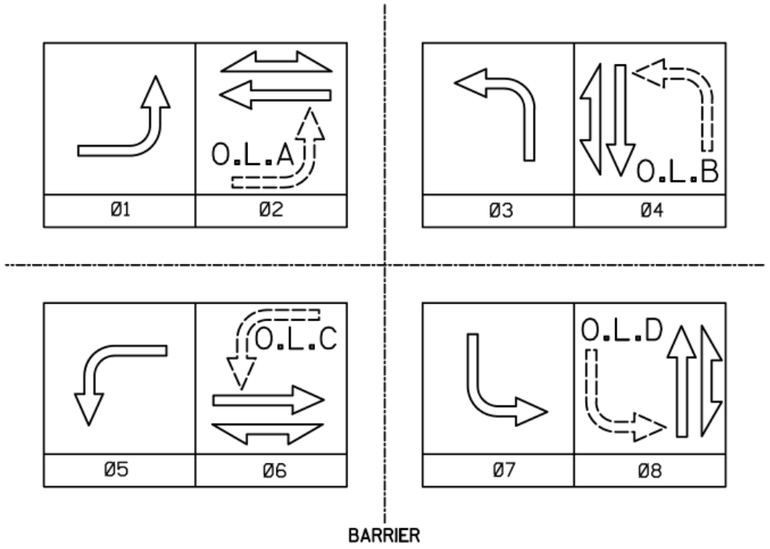
REGION CONTACT:
DESIGNED BY:
REVISED BY:

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	TRAFFIC SIGNAL PLAN - SEMINOLE HIGHWAY	SHEET	E

FILE NAME : S:\MAD\1200--1299\1275\027\Micros\PLAN\024116_sg.dgn PLOT DATE : 7/25/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	14-15	R
Ø2	1-3	R
Ø3	19-20	R
Ø4	6-8	R
Ø5	4-5	R
Ø6	11-13	R
Ø7	9-10	R
Ø8	16-18	R
O.L. A	14-15	R
O.L. B	19-20	R
O.L. C	4-5	R
O.L. D	9-10	R
Ø2P	80,81	
Ø4P	82,83	
Ø6P	84,85	
Ø8P	86,87	

RING 1



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	X
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

OVERLAPS

O.L. "A" =	NONE
O.L. "B" =	
O.L. "C" =	
O.L. "D" =	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	Ø1	Ø2
O.L. "B"	Ø3	Ø4
O.L. "C"	Ø5	Ø6
O.L. "D"	Ø7	Ø8

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR *(S)	12	23	24	32	---	---	52	63
PHASE CALLED								
PHASE EXTENDED	1	2	2	3			5	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR *(S)	64	72	---	---				
PHASE CALLED								
PHASE EXTENDED	6	7						
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR *(S)	11	21	22	31	41	42	51	61
PHASE CALLED	1	2	2	3	4	4	5	6
PHASE EXTENDED	1	2	2	3	4	4	5	6
DISCONNECT TIME								
CALLING DELAY					15			
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR *(S)	62	71	81	82				
PHASE CALLED	6	7	8	8				
PHASE EXTENDED	6	7	8	8				
DISCONNECT TIME								
CALLING DELAY			15					
EXTENSION STRETCH								
LOOP FUNCTION								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	1	2	3	4
MOVEMENT				
PHASE	5+2	1+6	3+8	7+4

AFTER PREEMPTION SEQUENCE 5+2 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 3+8 OR 7+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

GENERAL NOTES:
1. SEQUENCE OF OPERATIONS PROVIDED FOR INFORMATION ONLY

CTH PD &
SEMINOLE HIGHWAY
CITY OF FITCHBURG
DANE

SIGNAL NO. LOCAL

CONTROLLER TYPE: Econolite

DATE ----

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	SEQUENCE OF OPERATIONS	SHEET	E

FILE NAME : S:\MAD\1200--1299\1275\027\Micros\PLAN\024117_ph.dgn PLOT DATE : 7/25/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

CTH PD & SEMINOLE HIGHWAY TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-1	7/C	11	EB	R	R	J 6
				Y	O	
				G	G	
		83	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-2	12/C	5	WBL	← R	R	J5 & O.L.C
				← Y	O	
				←FY	BLK	
				← G	G	
		14	EBL	← R	R/BLK	J 1& O.L.A
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
			J 4 PED	PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-3	12/C	2	WB	R	R	J 2
				Y	O	
				G	G	
		3	WB	R	R/BLK	J 2
				Y	O/BLK	
				G	G/BLK	
		82	J 4 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-4	12/C	6	SB	R	R	J 4
				Y	O	
				G	G	
		19	NBL	← R	R/BLK	J3 & O.L.B
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
		81	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-5	15/C	17	NB	R	R	J 8
				Y	O	
				G	G	
		18	NB	R	R/W	J 8
				Y	BLU/W	
				G	G/W	
		20	NBL	← R	R/BLK	J3 & O.L.B
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
CONTROL CABINET TO SB-6	7/C	80	J 2 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-7	7/C	1	WB	R	R	J 2
				Y	O	
				G	G	
		87	J 8 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-8	7/C	15	EBL	← R	R	J 1& O.L.A
				← Y	O	
				←FY	BLK	
				← G	G	
			J 8 PED	PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-9	7/C	4	WBL	← R	R	J5 & O.L.C
				← Y	O	
				←FY	BLK	
				← G	G	
			J 8 PED	PED BUTTON	W/BLK	BUTTON

CTH PD & SEMINOLE HIGHWAY TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-10	12/C	12	EB	R	R	J 6
				Y	O	
				G	G	
		13	EB	R	R/BLK	J 6
				Y	O/BLK	
				G	G/BLK	
		86	J 8 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-11	12/C	9	SBL	← R	R/BLK	J7 & O.L.D
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
		16	NB	R	R	J 8
				Y	O	
				G	G	
		85	J 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-12	15/C	7	SB	R	R	J 4
				Y	O	
				G	G	
		8	SB	R	R/W	J 4
				Y	BLU/W	
				G	G/W	
		10	SBL	← R	R/BLK	J7 & O.L.D
				← Y	O/BLK	
				←FY	BLK/W	
				← G	G/BLK	
CONTROL CABINET TO SB-13	7/C	84	J 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

EQUIPMENT GROUNDING CONDUCTOR 10 AWG (GREEN)	
FROM	TO
EXCB-1	SB-1
SB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-5
SB-5	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	SB-9
SB-9	SB-10
SB-10	SB-11
SB-11	SB-12
SB-12	SB-13
SB-13	EXCB-1

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
EXCB-1	SB-2
SB-2	SB-5
EXCB-1	SB-12
SB-12	SB-8

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
EXCB-1	SB-3 (HEAD 1)
EXCB-1	SB-10 (HEAD 2)
EXCB-1	SB-5 (HEAD 3)
EXCB-1	SB-12 (HEAD 4)

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

TRAFFIC CONTROL SIGNAL

CTH PD & SEMINOLE HIGHWAY
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

DESIGNED BY: STRAND
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 5849-02-02	HWY: CTH PD	COUNTY: DANE	CABLE ROUTING	SHEET	E