PROJECT ID: 1000-08-81, 3700-50-26/27

COUNTY: CHIPPEWA, DUNN, & EAU CLAIRE

ORDER OF SHEETS

TOTAL SHEETS =

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1008-08-81		
3700-50-26		
3700-50-27		

VARIOUS HIGHWAYS, VARIOUS LOCATIONS

VARIOUS INTERSECTIONS
SIGNAL HEAD PER LANE

USH 12, STH 25, STH 93, STH 124, & STH 312

CTH AA/GOLF ROAD TO STH 93
TOIP DEVICE IMPLEMENTATION

USH 53

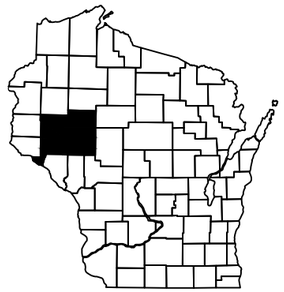
GOLF ROAD INTERSECTION
SIGNAL HEAD PER LANE AND
FLASHING YELLOW ARROW IMPLEMENTATION

STH 93

EAU CLAIRE

CHIPPEWA, DUNN, & EAU CLAIRE

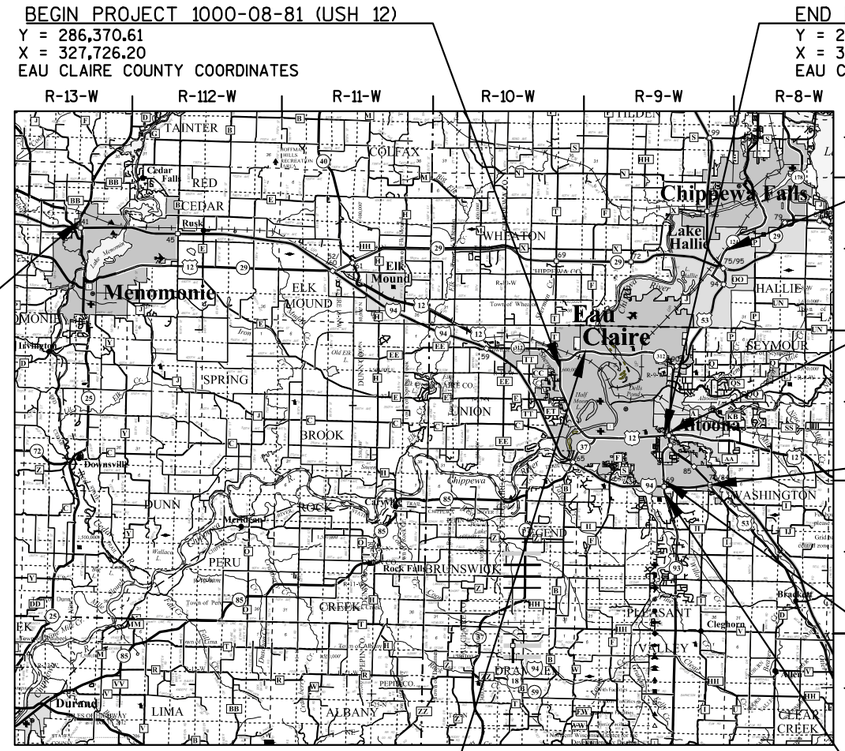
60% PLANS
JULY 2016



STATE PROJECT NUMBER
1000-08-81

STATE PROJECT NUMBER
3700-50-26

STATE PROJECT NUMBER
3700-50-27



BEGIN PROJECT 1000-08-81 (USH 12)
Y = 286,370.61
X = 327,726.20
EAU CLAIRE COUNTY COORDINATES

END PROJECT 1000-08-81 (USH 12)
Y = 272,680.11
X = 350,087.40
EAU CLAIRE COUNTY COORDINATES

PROJECT 1000-08-81 (STH 124)
Y = 116,575.34
X = 166,116.09
CHIPPEWA COUNTY COORDINATES

PROJECT 1000-08-81 (STH 25)
Y = 183,584.668
X = 159,820.94
DUNN COUNTY COORDINATES

END PROJECT 3700-50-26
Y = 274,747.16
X = 350,627.04
EAU CLAIRE COUNTY COORDINATES

BEGIN PROJECT 3700-50-26
Y = 262,546.64
X = 359,416.11
EAU CLAIRE COUNTY COORDINATES

PROJECT 3700-50-27
Y = 263,991.95
X = 349,70148
EAU CLAIRE COUNTY COORDINATES

PROJECT 1000-08-81 (STH 312)
Y = 290,017.92
X = 332,903.37
EAU CLAIRE COUNTY COORDINATES

PROJECT 1000-08-81 (STH 93)
Y = 260,508.88
X = 349,982.51
EAU CLAIRE COUNTY COORDINATES

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 3.00

TOTAL NET LENGTH OF CENTERLINE = 0.00 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS); DUNN COUNTY, CHIPPEWA COUNTY, AND EAU CLAIRE COUNTY.

ORIGINAL PLANS PREPARED BY

AECOM

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	DAVID KOEPP
Regional Examiner	
Regional Supervisor	TIM MASON

APPROVED FOR THE DEPARTMENT

DATE: (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

LOCATE ELECTRICAL SERVICE METER BREAKER PEDESTALS AND WOOD POLES WITH METER SOCKETS ON HIGHWAY RIGHT-OF-WAY AND OUTSIDE OF FENCE, OR AS DIRECTED BY ENGINEER.

THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER. FINAL TREE AND SHRUBS CLEARING LOCATIONS WILL BE DETERMINED BASED ON INSTALLED CAMERA VIEWSHEDS AS DETERMINED BY ENGINEER IN FILED AFTER CAMERAS ARE INSTALLED.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

NOTIFY THE REGION FIELD TRAFFIC UNIT BY CALLING (715) 839-3787 A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING ANY DEVICES.

NOTIFY THE REGION FIELD TRAFFIC UNIT TO HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING CABLE INTO SYSTEM. TO MAKE ARRANGEMENTS, CALL (715) 839-3787

INSTALL RING AND COVER GROUNDING ON EXISTING PULL BOXES AS LISTED IN MISCELLANEOUS QUANTITIES.

INSTALL CULVERT END MARKERS AT EACH NEW UNDERGROUND ITS FACILITY THAT EXTENDS LESS THAN 5 FEET ABOVE THE GROUND, INCLUDING, BUT NOT LIMITED TO, PULL BOXES, VAULTS, AND ELECTRICAL SERVICE METER BREAKER PEDESTALS.

ORDER OF DETAIL SHEETS

CONSTRUCTION DETAILS

TRAFFIC SIGNAL PLANS

ITS PLANS

2

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL OR P.L.	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
R.L. OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(WEST CENTRAL REGION)
1300 W. CLAIRMONT STREET
EAU CLAIRE, WI 54702
CHRIS WILLGER
(715) 839-1609
christopherj.willger@wisconsin.gov

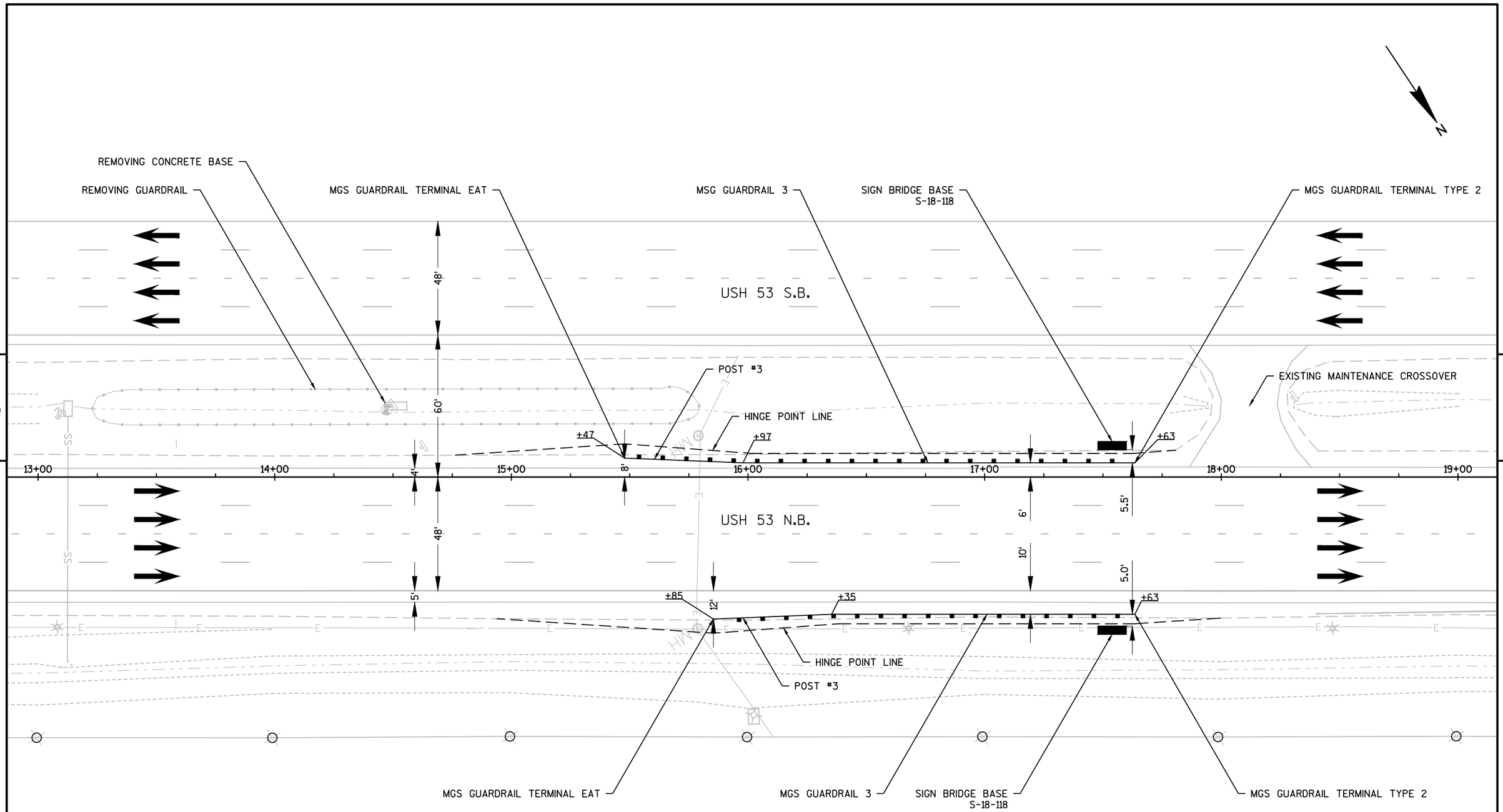
WISDOT

WISCONSIN DEPARTMENT OF TRANSPORTATION
(NORTHWEST REGION)
718 WEST CLAIREMONT AVE
EAU CLAIRE WI 54701
DAVE KOEPP
(715) 836-2078
david.koepp@dot.wi.gov

UTILITIES

2

PROJECT NO:1000-08-81, 3700-50-26/27 | HWY: VARIOUS | COUNTY: CHIPPEWA, DUNN, & EAU CLAIRE | GENERAL NOTES | SHEET E



PROJECT NO: 3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	PLAN: SIGN BASE AND GUARDRAIL LAYOUT	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\20-SHEETS\050201_PN.DWG PLOT DATE : 7/29/2016 11:35 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

N

R/W

USH 53 SB

USH 53 NB

R/W

R/W

EXCV2

V

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

EAU CLAIRE STATE PATROL POST

V

EXCV1

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

A

A

ITS STANDARD ABBREVIATIONS

CV ---------- COMMUNICATIONS VAULT

ITS LEGEND

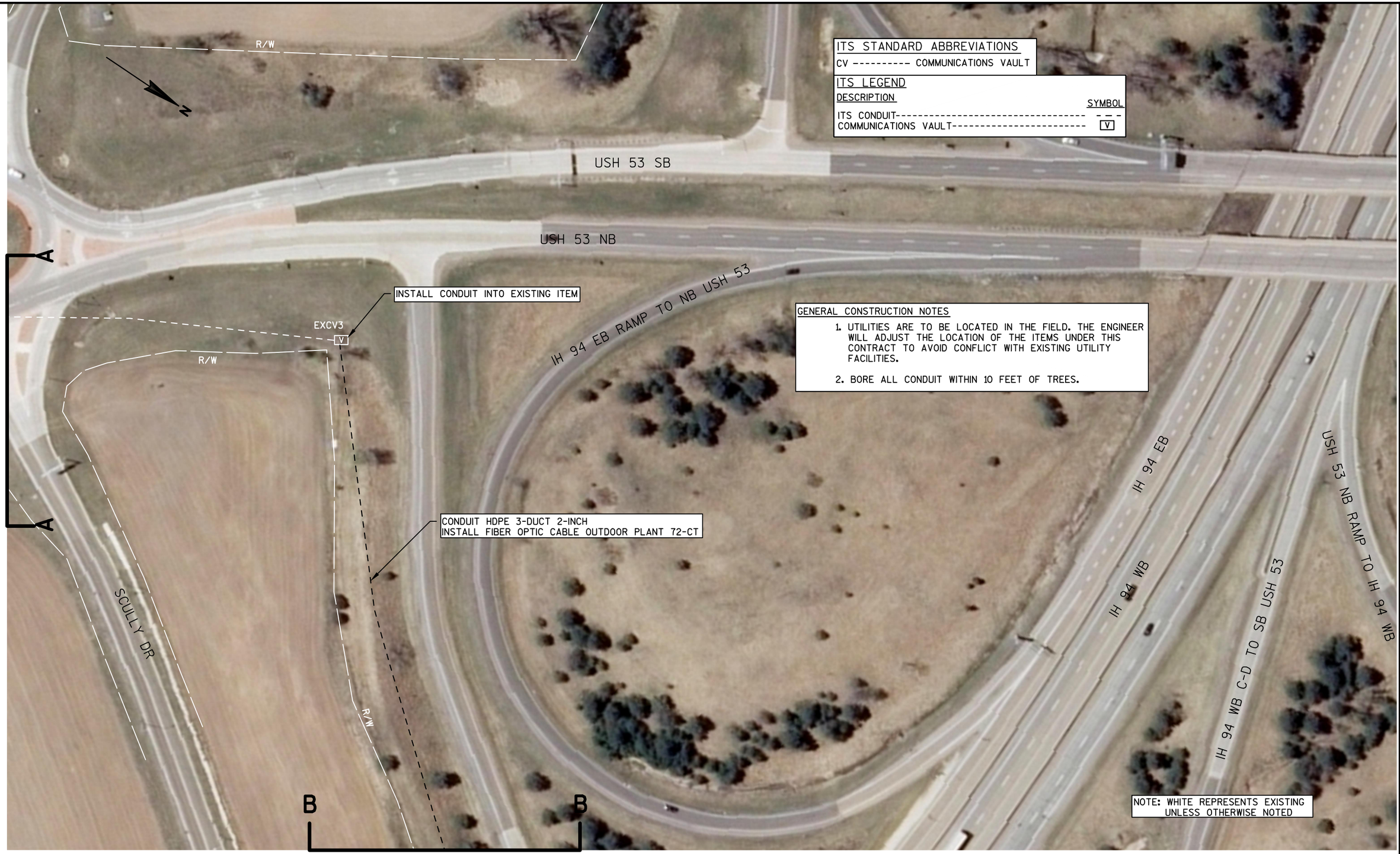
DESCRIPTION	SYMBOL
ITS CONDUIT----------	- - -
COMMUNICATIONS VAULT----------	V

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2

2



ITS STANDARD ABBREVIATIONS

CV ---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2

N

B

B

C

C

IH 94 EB RAMP TO USH 53 NB

USH 53 NB RAMP TO IH 94 EB

IH 94 EB

IH 94 WB

IH 94 NB C-D TO USH 53 SB RAMP

IH 94 WB RAMP TO USH 53 NB

R/W

QP1

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CV1
V

FIBER TRACER MARKER POST REQ'D

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

ITS STANDARD ABBREVIATIONS

CV ---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V
QUANTITY POINT (NON-PHYSICAL ITEM)	▲

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:27 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

EXCP1
EXPB1
PB3
CCTV-18-0009
USH 53 SB
USH 53 NB
USH 53 NB RAMP TO IH 94 WB
PB2
PB1
CV2
IH 94 WB RAMP TO USH 53 NB
R/W
D
D
C
C

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

FIBER TRACER MARKER POST REQ'D

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

ITS STANDARD ABBREVIATIONS

CCTV--------- CLOSED CIRCUIT TELEVISION
PB---------- PULL BOX
CV---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
POLE MOUNTED CABINET	
POLE	
PULL BOX	PB
ITS CONDUIT	
COMMUNICATIONS VAULT	V

CONSTRUCTION NOTES

1. (1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
2. INSTALL IN EXISTING CONDUIT (1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
3. INSTALL CONDUIT INTO EXISTING ITEM

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

2

2

COMMONWEALTH AVE

R/W

KEYSTONE CROSSING

N

USH 53 SB

USH 53 NB

GATEWAY DR

R/W

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

QP2

CV3

FIBER TRACER MARKER POST REQ'D

CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

ITS STANDARD ABBREVIATIONS

CV ---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V
QUANTITY POINT (NON-PHYSICAL ITEM)	▲

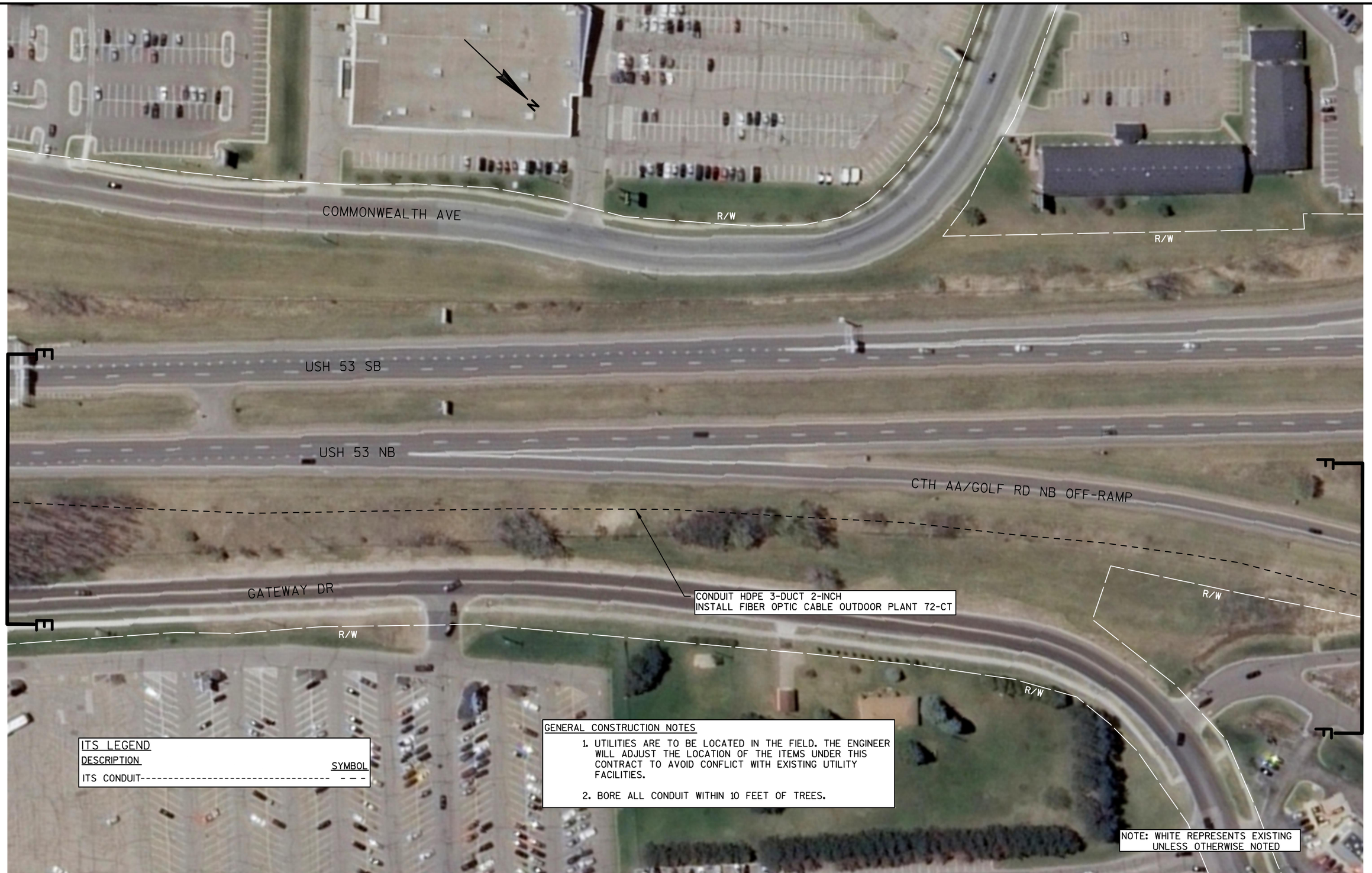
GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2



PROJECT NO:3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

2

N

R/W

CTH AA/GOLF RD SB ON-RAMP

CTH AA/GOLF RD

CTH AA/GOLF RD SB OFF-RAMP

R/W

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

USH 53 SB

USH 53 NB

SEE DETAIL ON THE FOLLOWING PAGE

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

ITS STANDARD ABBREVIATIONS

CCTV--------- CLOSED CIRCUIT TELEVISION
PB----------- PULL BOX
CV----------- COMMUNICATIONS VAULT
EXSC --------- EXISTING SIGNAL CABINET

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
POLE MOUNTED CABINET	
POLE	
PULL BOX	
ITS CONDUIT	
COMMUNICATIONS VAULT	V
QUANTITY POINT (NON-PHYSICAL ITEM)	
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	
EXISTING SIGNAL CABINET	
ELECTRICAL SERVICE METER BREAKER PEDESTAL	

CP1

PB10

PB9

PB8

S 18-0604

EXSC1

EXPB2

PB7

V

CV4

QP3

CTH AA/GOLF RD NB OFF-RAMP

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CTH AA/GOLF RD NB ON-RAMP

R/W

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:35 PM
PLOT BY : SALOMONSEN, DEREK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.
3. NOTIFY THE NORTHWEST REGION TRAFFIC SECTION AT (715) 839-3787 TO LOCATE THE RAMP GATE CONCRETE BASES 5 BUSINESS DAYS PRIOR TO POURING THE RAMP GATE CONCRETE BASES.

CONSTRUCTION NOTES

① METER BREAKER PEDESTAL AT EXISTING SIGNAL CABINET TO BE USED FOR CCTV-18-XXXX ELECTRIC SERVICE.

② (1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

③ INSTALL CONDUIT INTO EXISTING ITEM

④ INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CTH AA/GOLF RD NB ON-RAMP

R/W

(2) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
1-2" INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
1-2" INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

FIBER TRACER MARKER POST REQ'D

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

V CV4

CCTV-18-XXXX
INSTALL ON BASE CAMERA POLE 50-FT
(1) INSTALL CAMERA POLE (DEPARTMENT-FURNISHED)
(1) INSTALL CAMERA ASSEMBLY (DEPARTMENT-FURNISHED)
(1) INSTALL POLE MOUNTED CABINET (DEPARTMENT-FURNISHED)
(1) ELECTRICAL SERVICE BREAKER DISCONNECT BOX
(2) PLAQUES SEQUENCE IDENTIFICATION

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(3) ELECTRICAL WIRE LIGHTING 6 AWG

S 18-0604 PB7 PB6

PB8

EXSC

RAMP

EXPB2

① ③ ④

CP1

PB9

PB10

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(3) ELECTRICAL WIRE LIGHTING 6 AWG

MH

CTH AA/GOLF RD (WB)

CTH AA/GOLF RD (EB)

CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

QP3

CTH AA/GOLF RD NB OFF-RAMP

CAMERA ARM ALIGNMENT
ALIGN BOLT CIRCLE TO BE SQUARE TO THIS LINE

USH 53 SB

USH 53 NB

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

R/W OUTSIDE OF SHEET LIMITS

ITS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION
PB	PULL BOX
CV	COMMUNICATIONS VAULT
RG	RAMP CLOSURE GATE SOLAR
EXSC	EXISTING SIGNAL CABINET
SP	SOLAR POWER SYSTEM

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
POLE MOUNTED CABINET	
POLE	
PULL BOX	
ITS CONDUIT	
COMMUNICATIONS VAULT	V
RAMP CLOSURE GATES SOLAR XX FT	
QUANTITY POINT (NON-PHYSICAL ITEM)	
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	
EXISTING SIGNAL CABINET	
ELECTRICAL SERVICE METER BREAKER PEDESTAL	
SOLAR POWER SYSTEM	

NOTE: GRAYSHADE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO: 3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

2

2

R/W

CTH AA/GOLF RD SB OFF-RAMP

OAKWOOD MALL DR

N

USH 53 SB

USH 53 NB

CV5
V

CTH AA/GOLF RD NB ON-RAMP

S HASTINGS WAY

R/W

FIBER TRACER MARKER POST REQ'D

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

ITS STANDARD ABBREVIATIONS

CV---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO: 3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

2

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

OAKWOOD MALL DR

R/W

N

BP: 10+00.00

EP: 24+00.00

USH 53 SB

USH 53 NB

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

DMS1

DMS-18-XXXX
(1) INSTALL OVERHEAD FREEWAY DMS FULL MATRIX (DEPARTMENT-FURNISHED)
(INSTALL DMS TO FACE NORTHBOUND TRAFFIC)

MB1 FC1 CV6 PB12

① ② ③

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

FIBER TRACER MARKER POST REQ'D

S HASTINGS WAY

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

DMS-18-XXXX
INSTALL ON BASE ITS CONTROLLER CABINET
(1) INSTALL ITS FIELD CABINET (DEPARTMENT-FURNISHED)
(1) INSTALL DMS CONTROLLER (DEPARTMENT-FURNISHED)
(1) ELECTRICAL SERVICE BREAKER DISCONNECT BOX
(2) PLAQUES SEQUENCE IDENTIFICATION

CONSTRUCTION NOTES

① (1) CONDUIT RIGID NONTEMALLIC SCHEDULE 40 2-INCH
(4) ELECTRICAL WIRE LIGHTING 6 AWG

② (2) CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
1-3" FOR DMS POWER CABLES
1-3" FOR DMS COMMUNICATION CABLE

③ (1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

ITS STANDARD ABBREVIATIONS

DMS --------- OVERHEAD DYNAMIC MESSAGE SIGN
PB---------- PULL BOX
CV---------- COMMUNICATIONS VAULT
FC---------- ITS FIELD CABINET
MB---------- ELECTRICAL METER BREAKER PEDESTAL

ITS LEGEND

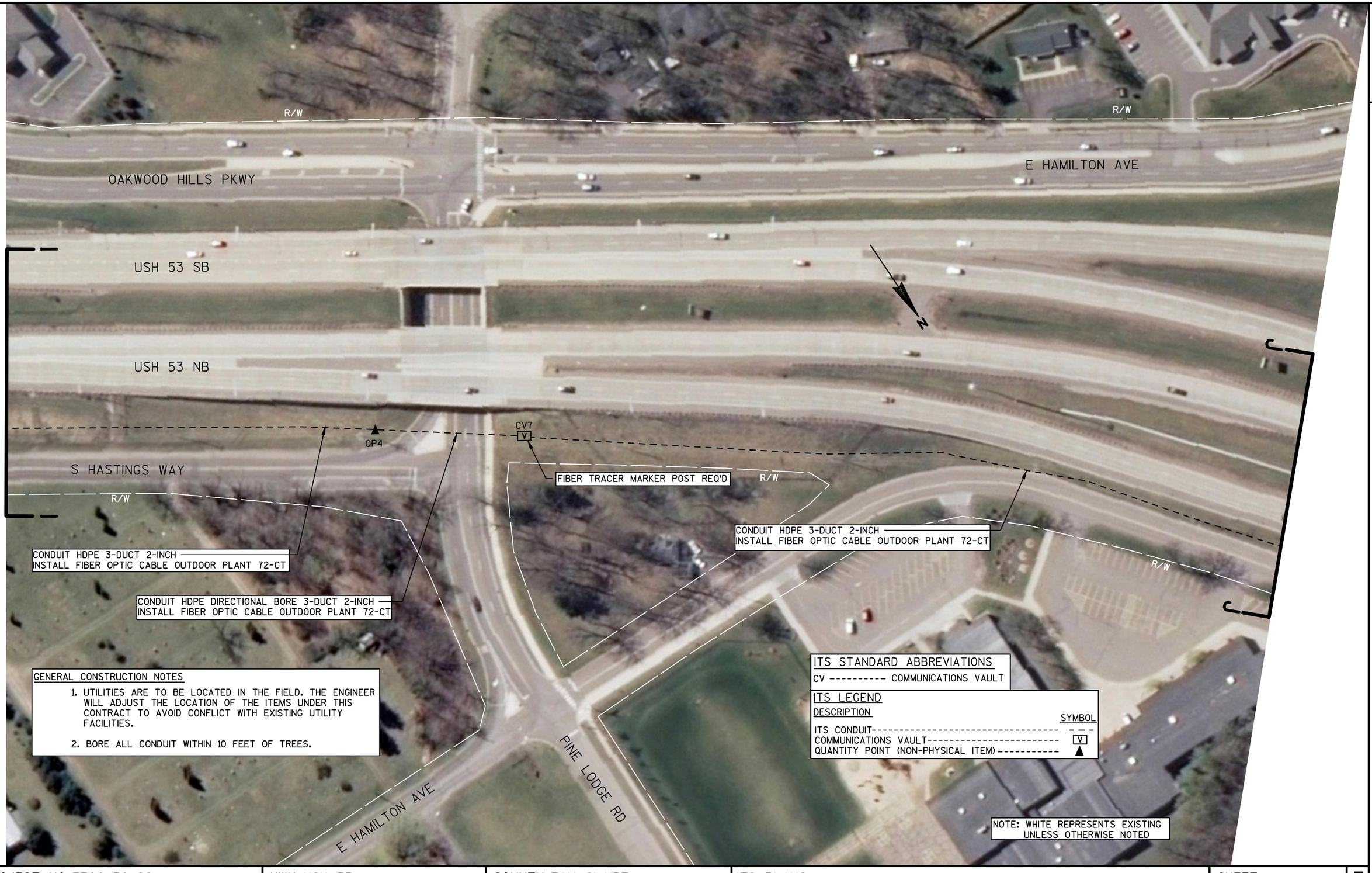
DESCRIPTION	SYMBOL
OVERHEAD DYNAMIC MESSAGE SIGN	
ITS FIELD CABINET	
PULL BOX	PB
ITS CONDUIT	
COMMUNICATIONS VAULT	V
ELECTRICAL SERVICE METER BREAKER PEDESTAL	⊠
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	⊞

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

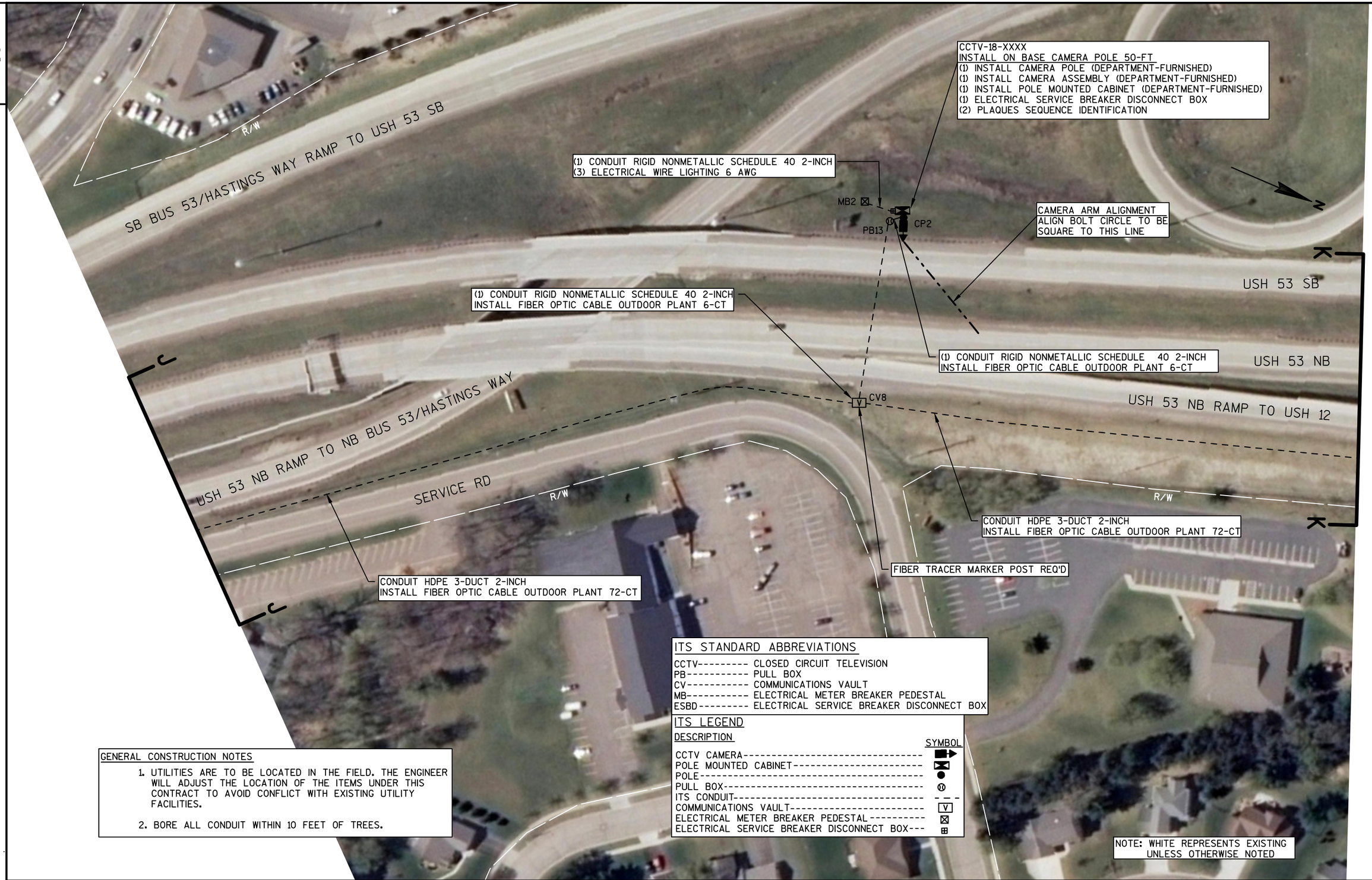
FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:29 PM
PLOT BY : SALOMONSEN, DEREK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2



ITS STANDARD ABBREVIATIONS

CCTV--------- CLOSED CIRCUIT TELEVISION
PB----------- PULL BOX
CV----------- COMMUNICATIONS VAULT
MB----------- ELECTRICAL METER BREAKER PEDESTAL
ESBD--------- ELECTRICAL SERVICE BREAKER DISCONNECT BOX

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
POLE MOUNTED CABINET	
POLE	
PULL BOX	
ITS CONDUIT	
COMMUNICATIONS VAULT	V
ELECTRICAL METER BREAKER PEDESTAL	
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:29 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

INSTALL IN EXISTING CONDUIT (BRIDGE PARAPET)
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

INSTALL CONDUIT INTO EXISTING ITEM

EXPB4

(1) CONDUIT RIGIDNONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

EXRG1

PB15

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

PB14

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT

INSTALL CONDUIT INTO EXISTING ITEM

H
HUT1

R/W

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

R/W

CV10
V

EXPB3

EXPB9

USH 53 SB RAMP TO STH 93

FIBER TRACER MARKER POST REQ'D

CONDUIT HDPE 3-DUCT 2-INCH
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT

USH 12 RAMP TO STH 93

STH 93 RAMP TO USH 53/USH 12

USH 53 SB

USH 53 NB

USH 53 NB C-D ROAD

CONDUIT HDPE DIRECTIONAL BORE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

FIBER TRACER MARKER POST REQ'D

V
CV9

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

R/W

NOTE: WHITE REPRESENTS EXISTING
UNLESS OTHERWISE NOTED

ITS STANDARD ABBREVIATIONS

PB---------- PULL BOX
CV---------- COMMUNICATIONS VAULT
EXRG-------- EXISTING RAMP CLOSURE GATE
HUT--------- ITS HUT

ITS LEGEND

DESCRIPTION	SYMBOL
PULL BOX	(PB)
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V
RAMP CLOSURE GATE	▭
ITS HUT	H

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:29 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

G18-XX
RAMP CLOSURE GATES SOLAR 30-FT

RG5

PB16

SP3

S 18-1006
EXSC2

EXPB8

EXPB7

EXPB6

EXBP5

INSTALL IN EXISTING CONDUIT (BRIDGE PARAPET)
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

R/W

R/W

R/W

STH 93

STH 93 OFF-RAMP FROM SB BUS 53/HASTINGS WAY

SB BUS 53/HASTINGS WAY

STH 93 ON-RAMP TO SB BUS 53/HASTINGS WAY

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.
3. NOTIFY THE NORTHWEST REGION TRAFFIC SECTION AT (715) 839-3787 TO LOCATE THE RAMP GATE CONCRETE BASES 5 BUSINESS DAYS PRIOR TO POURING THE RAMP GATE CONCRETE BASES.

CONSTRUCTION NOTES

(1) INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

ITS STANDARD ABBREVIATIONS

PB---------- PULL BOX
RG---------- RAMP CLOSURE GATE SOLAR
EXSC-------- EXISTING SIGNAL CABINET
SP---------- SOLAR POWER SYSTEM

ITS LEGEND

DESCRIPTION	SYMBOL
PULL BOX	
ITS CONDUIT	
RAMP CLOSURE GATES SOLAR XX FT	
EXISTING SIGNAL CABINET	
SOLAR POWER SYSTEM	

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT
(1) INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT

EXPB10
EXPB11
EXPB12
EXPB13
EXPB14
EXPB15
EXPB16
EXCP2
CCTV-18-0010
EXPB17
EXPB18
EXPB19
EXPB20
EXSC3
S 18-1030
EXPB21
EXPB22
EXPB23
EXPB24

R/W

STH 93 OFF-RAMP FROM USH 53
USH 12 ON-RAMP TO USH 53
USH 53 SB
USH 53 NB
STH 93 ON-RAMP TO USH 53 NB
USH 12 OFF-RAMP FROM STH 93 & USH 53
USH 12 OFF-RAMP FROM USH 53 NB
USH 12 ON-RAMP TO USH 53 NB
USH 12 (CLAIREMONT AVE)

ITS STANDARD ABBREVIATIONS

CCTV--------- CLOSED CIRCUIT TELEVISION
PB----------- PULL BOX
CV----------- COMMUNICATIONS VAULT
EXSC--------- EXISTING SIGNAL CABINET

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
POLE MOUNTED CABINET	
POLE	
PULL BOX	
ITS CONDUIT	
COMMUNICATIONS VAULT	V
EXISTING SIGNAL CABINET	

R/W OUTSIDE OF SHEET LIMITS

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY: USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

2

ITS STANDARD ABBREVIATIONS

PB---------- PULL BOX
CV---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
PULL BOX	PB
ITS CONDUIT	
COMMUNICATIONS VAULT	V

GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

R/W

R/W

R/W

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CONDUIT HDPE 3-DUCT 2-INCH
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

INSTALL IN EXISTING CONDUIT (BRIDGE PARAPET)
INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT

CV11
V

EXPB25

STH 93 OFF-RAMP FROM USH 53 NB

EXPB26

EXPB27

USH 53 SB

INSTALL CONDUIT INTO EXISTING ITEM

INSTALL CONDUIT INTO EXISTING ITEM

USH 53 NB

USH 12 ON-RAMP TO USH 53 NB

R/W

R/W

R/W

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:30 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

ITS STANDARD ABBREVIATIONS

CV---------- COMMUNICATIONS VAULT

ITS LEGEND

DESCRIPTION	SYMBOL
ITS CONDUIT	- - -
COMMUNICATIONS VAULT	V

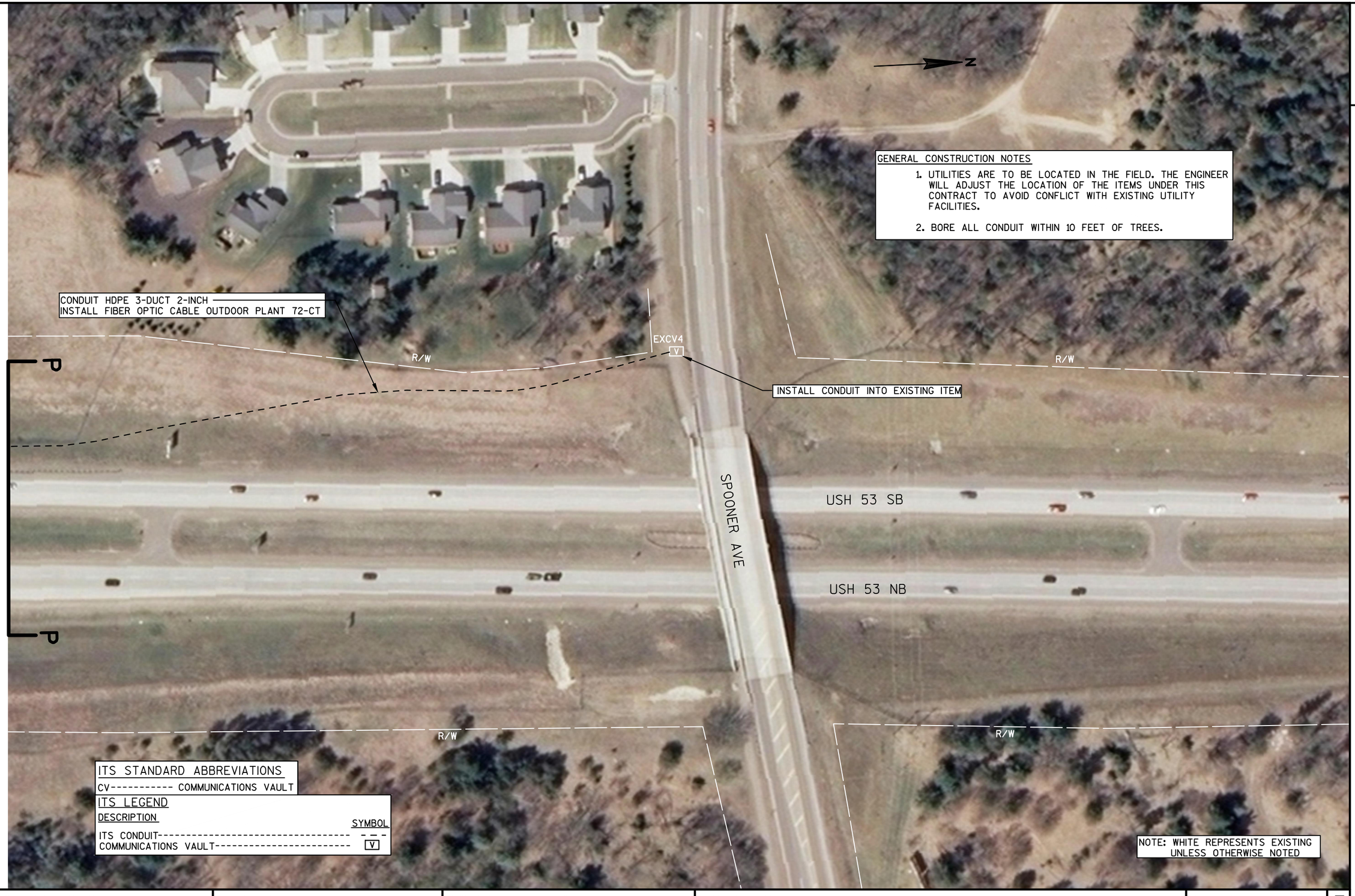
GENERAL CONSTRUCTION NOTES

1. UTILITIES ARE TO BE LOCATED IN THE FIELD. THE ENGINEER WILL ADJUST THE LOCATION OF THE ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
2. BORE ALL CONDUIT WITHIN 10 FEET OF TREES.

NOTE: WHITE REPRESENTS EXISTING UNLESS OTHERWISE NOTED

PROJECT NO: 3700-50-26	HWY: USH 53	COUNTY: EAU CLAIRE	ITS PLANS	SHEET	E

2



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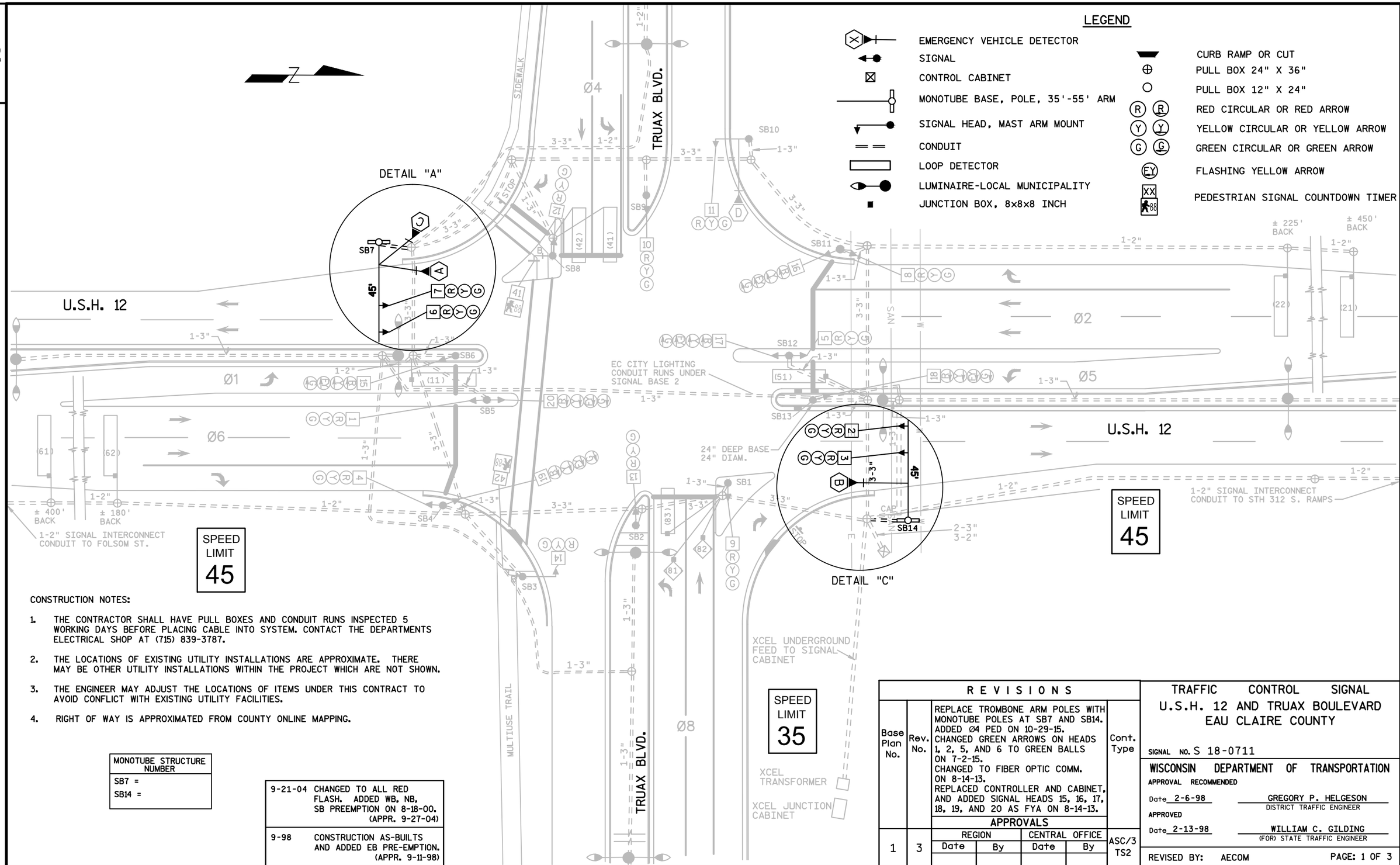
PROJECT NO:3700-50-26	HWY:USH 53	COUNTY:EAU CLAIRE	ITS PLANS	SHEET	E

FILE NAME : P:\60483055\900_WORK\910_CAD\WORKING FOLDERS\ITS\USH 53 ITS.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 1:31 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EMERGENCY VEHICLE DETECTOR
- SIGNAL
- CONTROL CABINET
- MONOTUBE BASE, POLE, 35'-55' ARM
- SIGNAL HEAD, MAST ARM MOUNT
- CONDUIT
- LOOP DETECTOR
- LUMINAIRE-LOCAL MUNICIPALITY
- JUNCTION BOX, 8x8x8 INCH
- CURB RAMP OR CUT
- PULL BOX 24" X 36"
- PULL BOX 12" X 24"
- RED CIRCULAR OR RED ARROW
- YELLOW CIRCULAR OR YELLOW ARROW
- GREEN CIRCULAR OR GREEN ARROW
- FLASHING YELLOW ARROW
- PEDESTRIAN SIGNAL COUNTDOWN TIMER



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB7 =
SB14 =

9-21-04	CHANGED TO ALL RED FLASH. ADDED WB, NB, SB PREEMPTION ON 8-18-00. (APPR. 9-27-04)
9-98	CONSTRUCTION AS-BUILTS AND ADDED EB PRE-EMPTION. (APPR. 9-11-98)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
		REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB7 AND SB14. ADDED Ø4 PED ON 10-29-15. CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-2-15. CHANGED TO FIBER OPTIC COMM. ON 8-14-13. REPLACED CONTROLLER AND CABINET, AND ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA ON 8-14-13.	
		APPROVALS	
		REGION / CENTRAL OFFICE	
		Date / By / Date / By	
1	3		ASC/3 TS2

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND TRUAX BOULEVARD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0711

WISCONSIN DEPARTMENT OF TRANSPORTATION

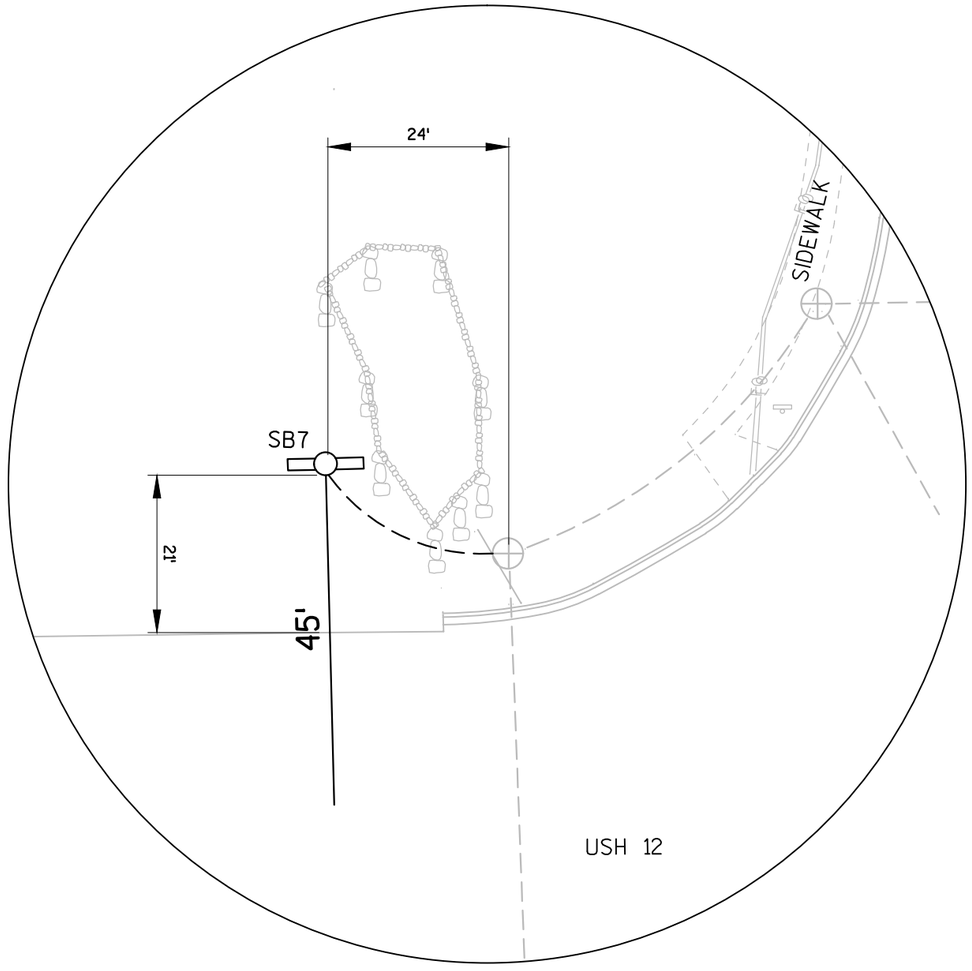
APPROVAL RECOMMENDED
Date 2-6-98 — GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED
Date 2-13-98 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

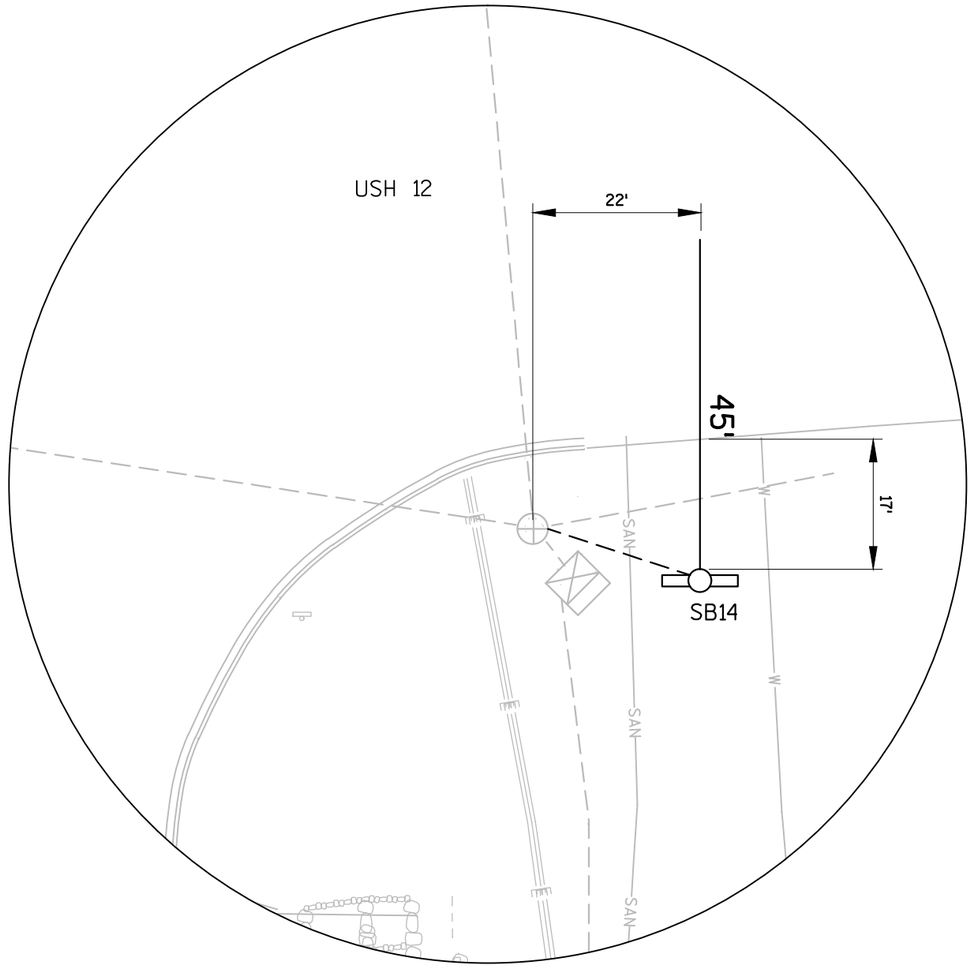
REVISED BY: AECOM — PAGE: 1 OF 3

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & TRUAX BLVD.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND TRUAX BOULEVARD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0711

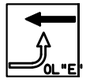
PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & TRUAX BLVD.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 2:59 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



NOT USED

	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 **
Ø1	15, 16, 17	G	Y R	-	- -			R	R R
Ø2	5, 6, 7, 8	R	R R	G	Y R			R	R R
Ø3									
Ø4	12, 13, 14	R	R R	R	R R			G	Y R
RING 1 Ø5	18, 19, 20	R	R R	R	R R			R	R R
Ø6	1, 2, 3, 4	R	R R	R	R R			R	R R
Ø7									
Ø8	9, 10, 11	R	R R	R	R R			R	R R
OL"E"	15, 16, 17	-	- -	FY	Y R			-	- -
OL"G"	18, 19, 20	-	- -	-	- -			-	- -
Ø4P	41, 42	DW	DW DW	DW	DW DW			*	DW DW

FLASH: R R R - - -

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	15, 16, 17	R	R R	R	R R			R	R R
Ø2	5, 6, 7, 8	R	R R	R	R R			R	R R
Ø3									
Ø4	12, 13, 14	R	R R	R	R R			R	R R
RING 2 Ø5	18, 19, 20	G	Y R	-	- -			R	R R
Ø6	1, 2, 3, 4	R	R R	G	Y R			R	R R
Ø7									
Ø8	9, 10, 11	R	R R	R	R R			G	Y R
OL"E"	15, 16, 17	-	- -	-	- -			-	- -
OL"G"	18, 19, 20	-	- -	FY	Y R			-	- -
Ø4P	41, 42	DW	DW DW	DW	DW DW			DW	DW DW

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 20'	3
21	2	X			2	2				6' X 20'	4
22	3	X			2	2				6' X 20'	3
41	4	X			4	4				6' X 25'	3
42	5	X			4	4				6' X 25'	4
51	6	X			5	5				6' X 20'	3
61	7	X			6	6				6' X 20'	4
62	8	X			6	6				6' X 20'	3
81	9	X			8	8				6' X 6'	3
82	10	X			8	8				6' X 6'	3
83	11	X			8	8				6' X 20'	3

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO:	S-
SIGNAL SYSTEM :	SS-18-0134

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

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CONTROLLER TYPE: ASC/3 TS2

REVISION:
REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB7 AND SB14.
ADDED Ø4 PED ON 10-29-15.
CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-2-15.
CHANGED TO FIBER OPTIC COMM. ON 8-14-13.
REPLACED CONTROLLER AND CABINET, AND ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA ON 8-14-13.

BASE PLAN NO: 1 REVISION NO: 3

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 AND TRUAX BLVD. | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0711) | SHEET:

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP B\S 18-0711.DWG

PLOT DATE : 7/29/2016 10:31 AM

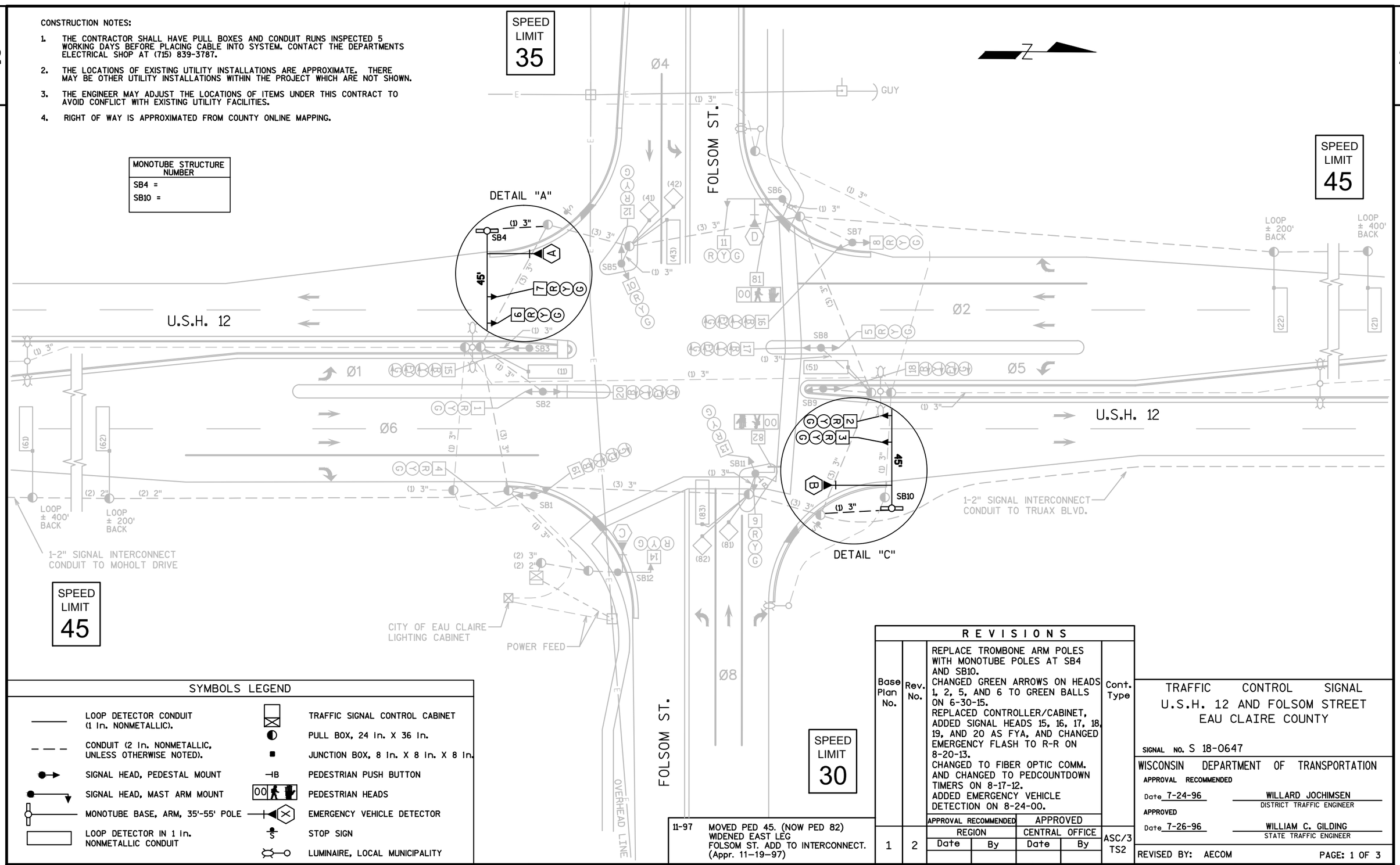
WISDOT/CADDS SHEET 42

2

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB4 =
SB10 =



SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT (2 In. NONMETALLIC, UNLESS OTHERWISE NOTED).
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, ARM, 35'-55' POLE
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- JUNCTION BOX, 8 In. X 8 In. X 8 In.
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN HEADS
- EMERGENCY VEHICLE DETECTOR
- STOP SIGN
- LUMINAIRE, LOCAL MUNICIPALITY

11-97 MOVED PED 45. (NOW PED 82) WIDENED EAST LEG FOLSOM ST. ADD TO INTERCONNECT. (Appr. 11-19-97)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
1	2	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10. CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 6-30-15. REPLACED CONTROLLER/CABINET, ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA, AND CHANGED EMERGENCY FLASH TO R-R ON 8-20-13. CHANGED TO FIBER OPTIC COMM. AND CHANGED TO PEDCOUNTDOWN TIMERS ON 8-17-12. ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00.	ASC/3 TS2

APPROVAL RECOMMENDED		APPROVED	
REGION		CENTRAL OFFICE	
Date	By	Date	By

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND FOLSOM STREET
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0647

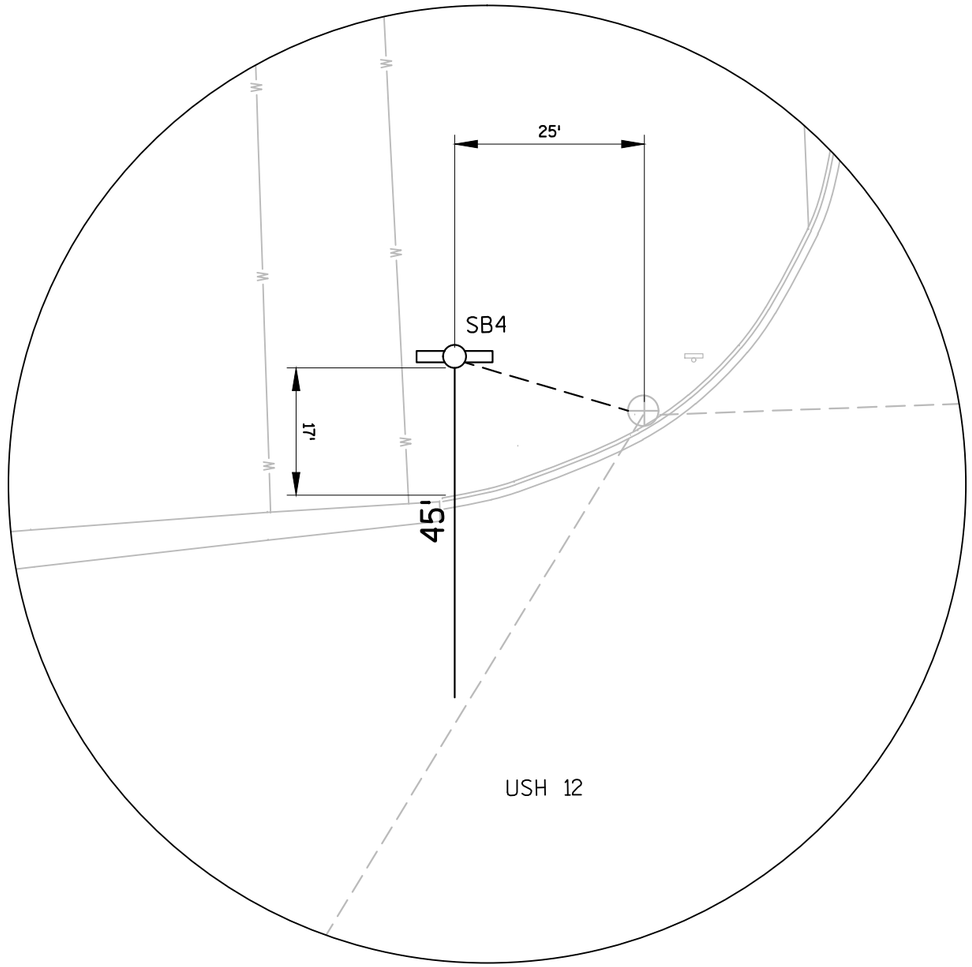
WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7-24-96 — WILLARD JOCHIMSEN, DISTRICT TRAFFIC ENGINEER

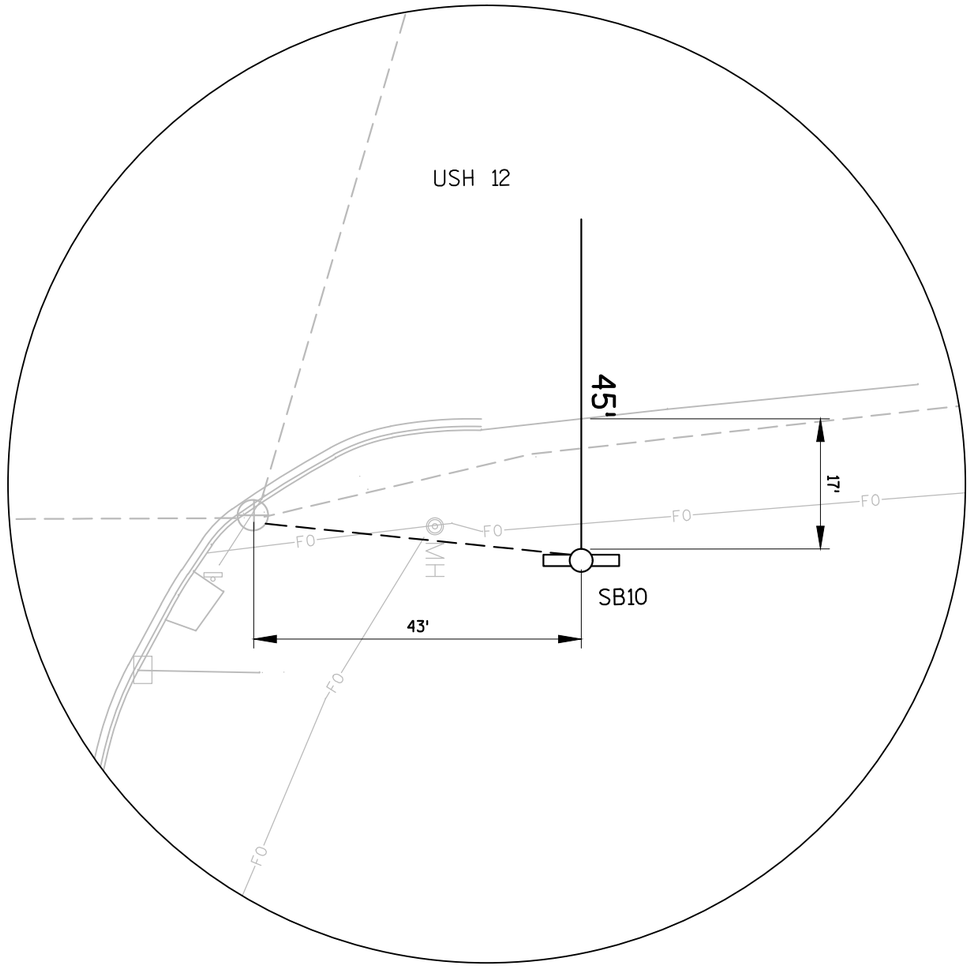
APPROVED
Date 7-26-96 — WILLIAM C. GILDING, STATE TRAFFIC ENGINEER

REVISED BY: AECOM

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & FOLSOM STREET | COUNTY: EAU CLAIRE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 20 40 | SHEET: E



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND FOLSOM STREET
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0647

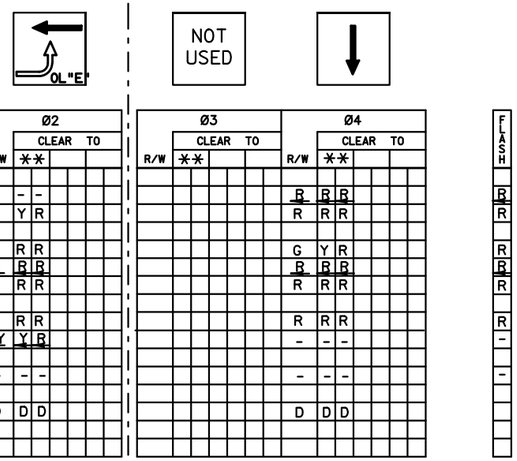
PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & FOLSOM STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:00 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



* WHEN CALLED TIMED STEADY "WALK", FOLLOWED BY FLASHING "DON'T WALK" WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY "DON'T WALK".

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 20'	3
21	2	X			2	2				6' X 20'	4
22	3	X			2	2				6' X 20'	3
41	4	X			4	4				6' X 6'	3
42	6	X			4	4				6' X 6'	3
43	6	X			4	4				6' X 20'	3
51	7	X			5	5				6' X 20'	3
61	8	X			6	6				6' X 20'	4
62	9	X			6	6				6' X 20'	3
81	10	X			8	8				6' X 6'	3
82	12	X			8	8				6' X 6'	3
83	12	X			8	8				6' X 20'	3

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0134	

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

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	→	↓	↑
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CONTROLLER TYPE: ASC/3 TS2

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10.
CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 6-30-15.
REPLACED CONTROLLER/CABINET, ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA, AND CHANGED EMERGENCY FLASH TO R-R ON 8-20-13.
CHANGED TO FIBER OPTIC COMM.
CHANGED TO PEDCOUNTDOWN TIMERS ON 8-17-12.
ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00.

BASE PLAN NO: 1 REVISION NO: 2

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & FOLSOM STREET | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0647) | SHEET:

CONSTRUCTION NOTES:

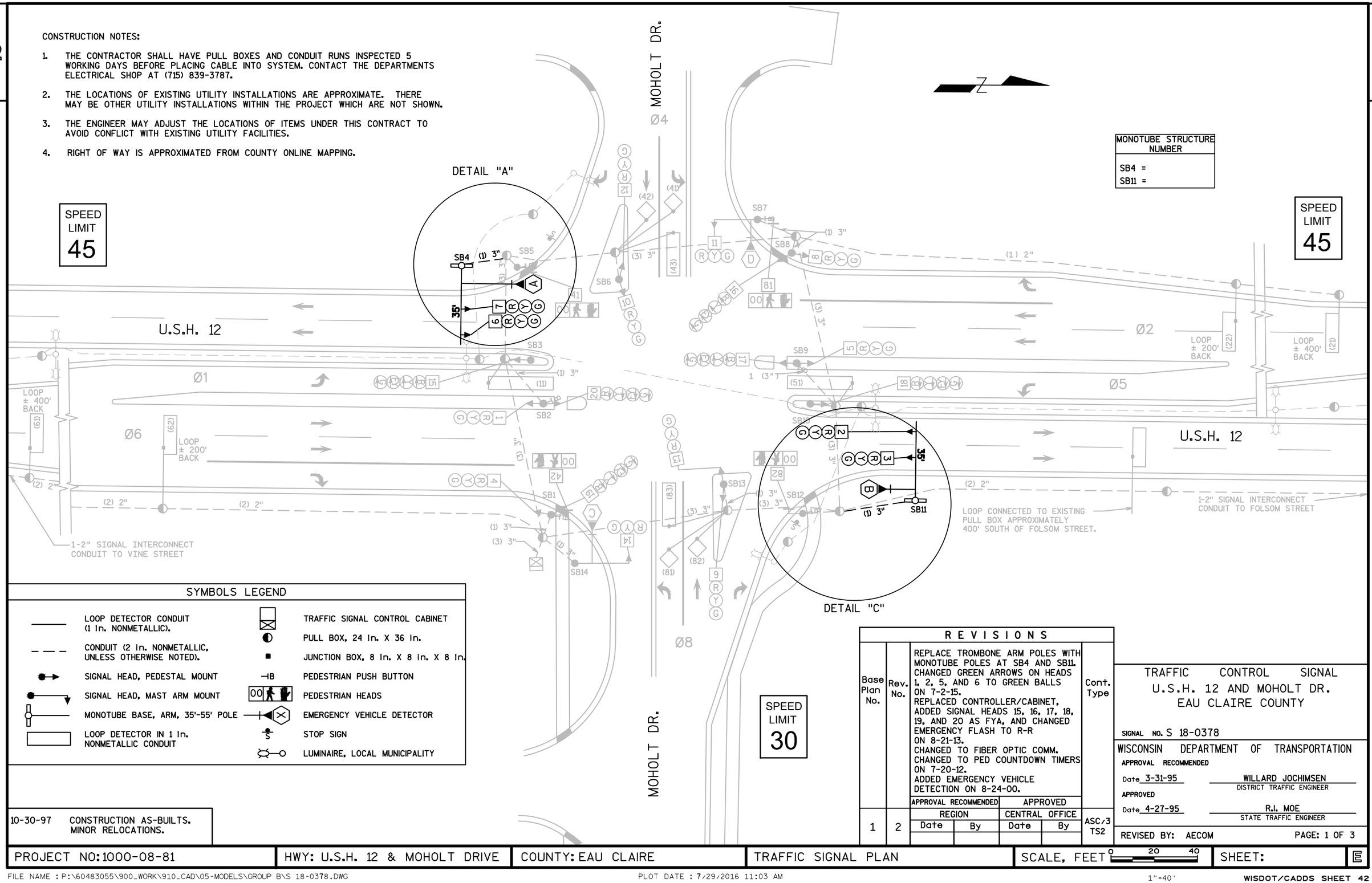
1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB4 =
SB11 =

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 30



SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT (2 In. NONMETALLIC, UNLESS OTHERWISE NOTED).
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, ARM, 35'-55' POLE
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- JUNCTION BOX, 8 In. X 8 In. X 8 In.
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN HEADS
- EMERGENCY VEHICLE DETECTOR
- STOP SIGN
- LUMINAIRE, LOCAL MUNICIPALITY

10-30-97 CONSTRUCTION AS-BUILTS. MINOR RELOCATIONS.

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
		REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB11. CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-2-15. REPLACED CONTROLLER/CABINET, ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA, AND CHANGED EMERGENCY FLASH TO R-R ON 8-21-13. CHANGED TO FIBER OPTIC COMM. CHANGED TO PED COUNTDOWN TIMERS ON 7-20-12. ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00.	
		APPROVAL RECOMMENDED: REGION Date / By — APPROVED: CENTRAL OFFICE Date / By	
1	2		ASC/3 TS2

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND MOHOLT DR.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0378

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3-31-95 — WILLARD JOCHIMSEN, DISTRICT TRAFFIC ENGINEER

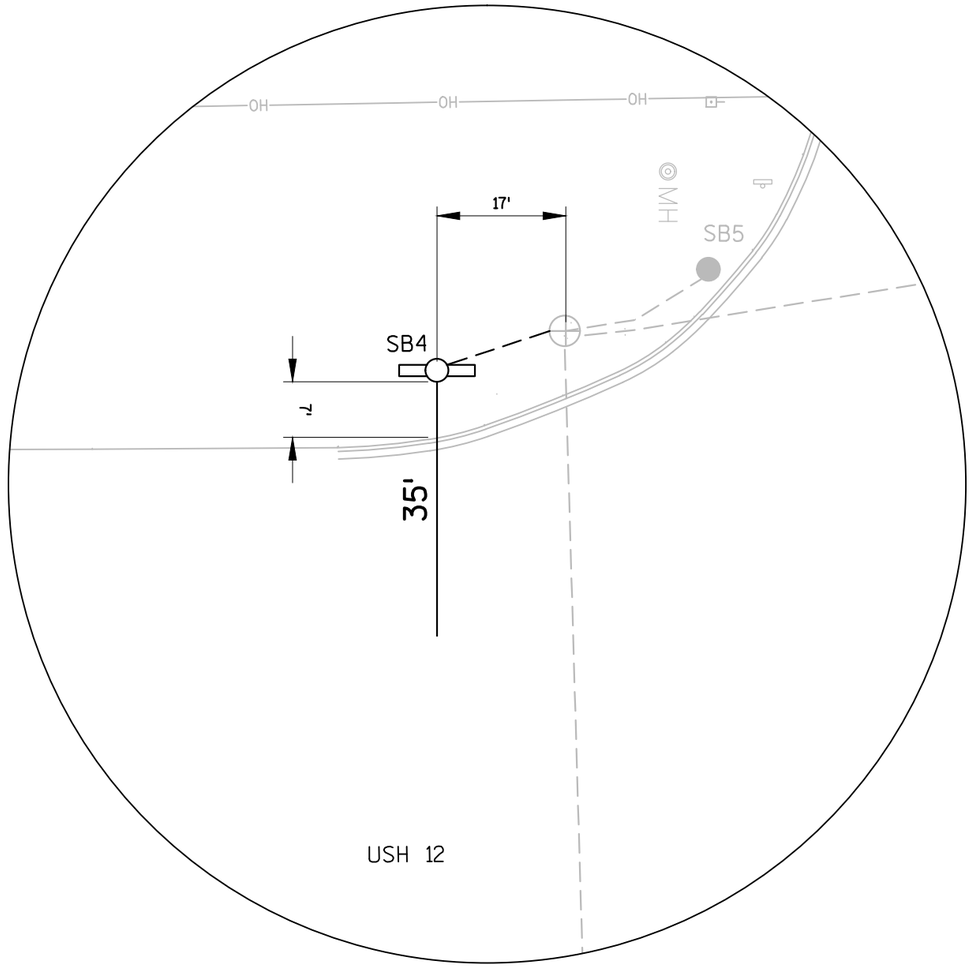
APPROVED
Date 4-27-95 — R.I. MOE, STATE TRAFFIC ENGINEER

REVISED BY: AECOM — PAGE: 1 OF 3

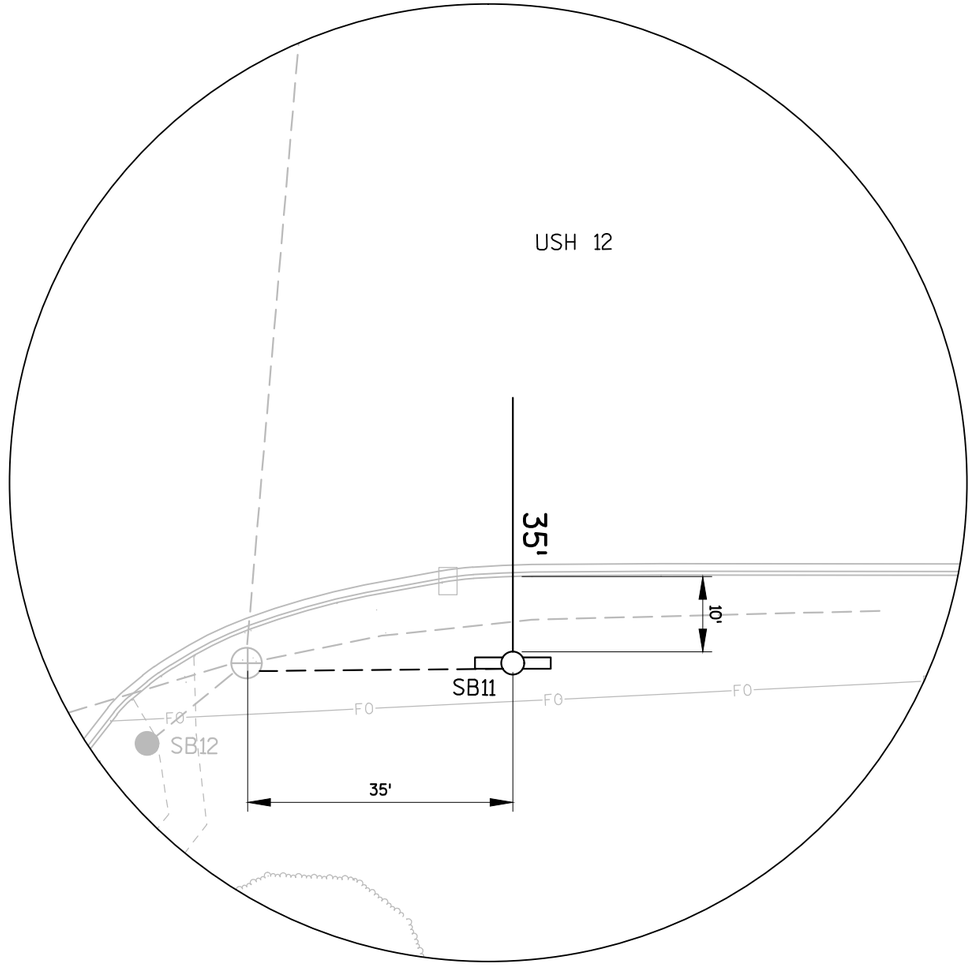
PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & MOHOLT DRIVE	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP B\S 18-0378.DWG — PLOT DATE : 7/29/2016 11:03 AM — 1"=40'

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND MOHOLT DR.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0378

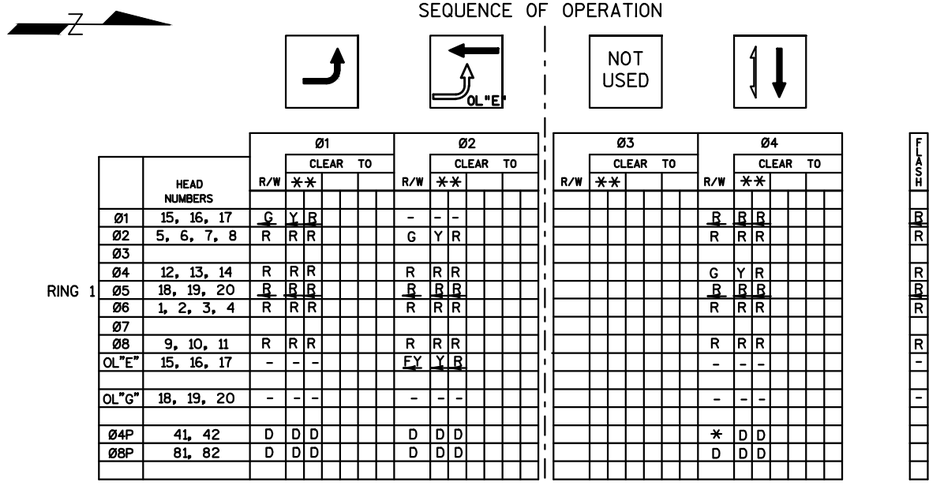
PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: USH 12 & MOHOLT DRIVE	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:01 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



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	15, 16, 17	G	Y R	-	- -			R	R R	R
Ø2	5, 6, 7, 8	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	12, 13, 14	R	R R	R	R R			G	Y R	R
Ø5	18, 19, 20	R	R R	R	R R			R	R R	R
Ø6	1, 2, 3, 4	R	R R	R	R R			R	R R	R
Ø7										
Ø8	9, 10, 11	R	R R	R	R R			R	R R	R
OL"E"	15, 16, 17	-	- -	FY	Y R			-	- -	-
OL"G"	18, 19, 20	-	- -	-	- -			-	- -	-
Ø4P	41, 42	D	D D	D	D D			*	D D	
Ø8P	81, 82	D	D D	D	D D			D	D D	

RING 2

	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	15, 16, 17	R	R R	R	R R			R	R R
Ø2	5, 6, 7, 8	R	R R	R	R R			R	R R
Ø3									
Ø4	12, 13, 14	R	R R	R	R R			R	R R
Ø5	18, 19, 20	G	Y R	-	- -			R	R R
Ø6	1, 2, 3, 4	R	R R	G	Y R			R	R R
Ø7									
Ø8	9, 10, 11	R	R R	R	R R			G	Y R
OL"E"	15, 16, 17	-	- -	-	- -			-	- -
OL"G"	18, 19, 20	-	- -	FY	Y R			-	- -
Ø4P	41, 42	D	D D	D	D D			D	D D
Ø8P	81, 82	D	D D	D	D D			*	D D

* WHEN CALLED TIMED STEADY "WALK", FOLLOWED BY FLASHING "DON'T WALK" WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY "DON'T WALK".

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 30'	
21	2	X			2	2				6' X 18'	
22	3	X			2	2				6' X 18'	
41	4	X			4	4				6' X 6'	
42	5	X			4	4				6' X 6'	
43	6	X			4	4				6' X 20'	
51	7	X			5	5				6' X 30'	
61	8	X			6	6				6' X 18'	
62	9	X			6	6				6' X 18'	
81	10	X			8	8				6' X 6'	
82	11	X			8	8				6' X 6'	
83	12	X			8	8				6' X 20'	

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO:	S-
SIGNAL SYSTEM :	SS-18-0134

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

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	← ↰	↱ →	↓	↑
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CONTROLLER TYPE: ASC/3 TS2

REVISION:

REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB11.
CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-2-15.
REPLACED CONTROLLER/CABINET, ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA, AND CHANGED EMERGENCY FLASH TO R-R ON 8-21-13.
CHANGED TO FIBER OPTIC COMM.
CHANGED TO PED COUNTDOWN TIMERS ON 7-20-12.
ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00.

BASE PLAN NO: 1 REVISION NO: 2

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & MOHOLT DRIVE | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0378) | SHEET:

SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT (2 In. NONMETALLIC, UNLESS OTHERWISE NOTED).
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, ARM, 35'-55' POLE
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- JUNCTION BOX, 8 In. X 8 In. X 8 In.
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN HEADS
- EMERGENCY VEHICLE DETECTOR
- STOP SIGN
- LUMINAIRE, LOCAL MUNICIPALITY

NOTE: SYSTEM LOOPS 9-11 NOT USED

NOTE: SYSTEM LOOPS 5-7 NOT USED

SPEED LIMIT 30

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 30

VINE ST.

U.S.H. 12

PEDESTRIAN UNDERPASS

DETAIL "A"

DETAIL "C"

Ø1 Ø2 Ø4 Ø5 Ø6 Ø8

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12

SYS. 5 SYS. 6 SYS. 7 SYS. 9 SYS. 10 SYS. 11

LOOP ± 200' BACK

LOOP ± 400' BACK

(LANE DROP)

1 - 2" SIGNAL INTERCONNECT CONDUIT TO MOHOLT DRIVE

1 - 2" SIGNAL INTERCONNECT CONDUIT TO CAMERON STREET

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB6 =
SB12 =

8-24-04	CHANGED TO RED FLASH & REMOVED PED SIGNALS. ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00. (APPR. 9-7-04)
10-30-97	CONSTRUCTION AS-BUILTS WITH MINOR RELOCATIONS.

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
		REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB12. CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-3-15. REPLACED CONTROLLER/CABINET AND ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA ON 8-27-13. CHANGED TO FIBER OPTIC COMM.	
		APPROVAL RECOMMENDED	APPROVED
1	3	REGION Date / By	CENTRAL OFFICE Date / By	ASC/3 TS2

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND VINE ST.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0598

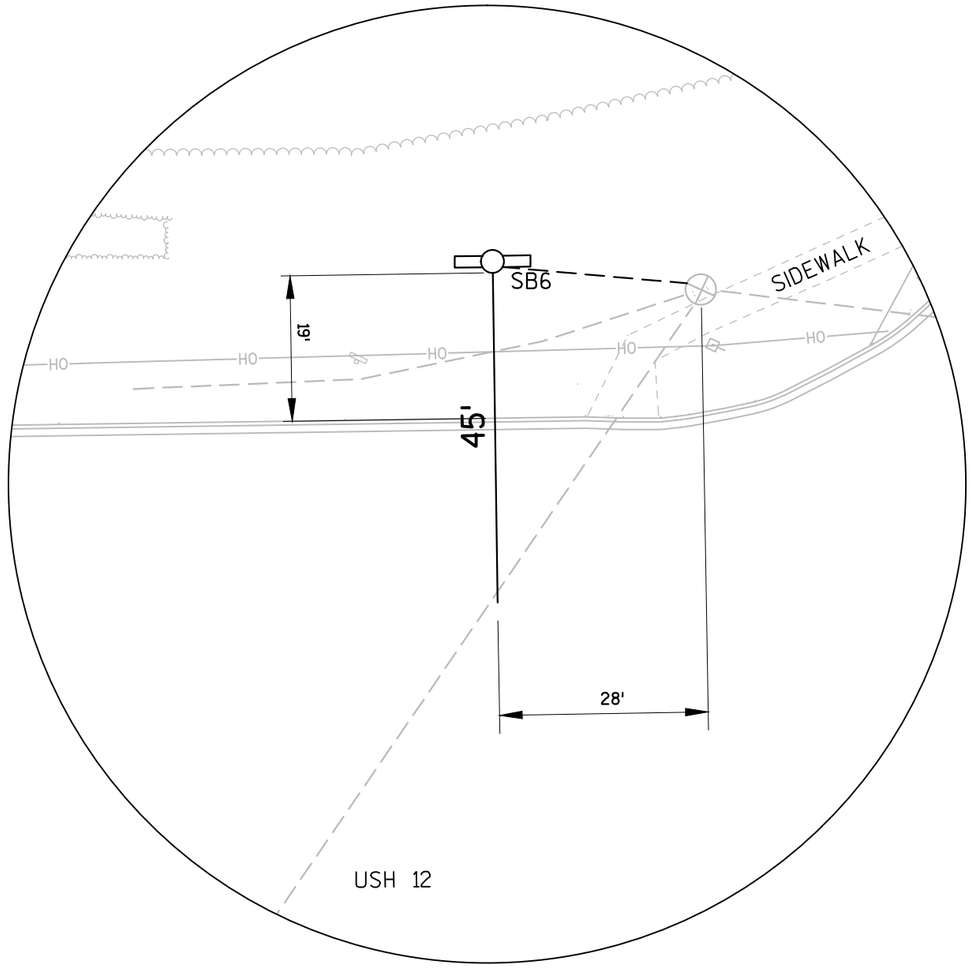
WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3-31-95 — WILLARD JOCHIMSEN, DISTRICT TRAFFIC ENGINEER

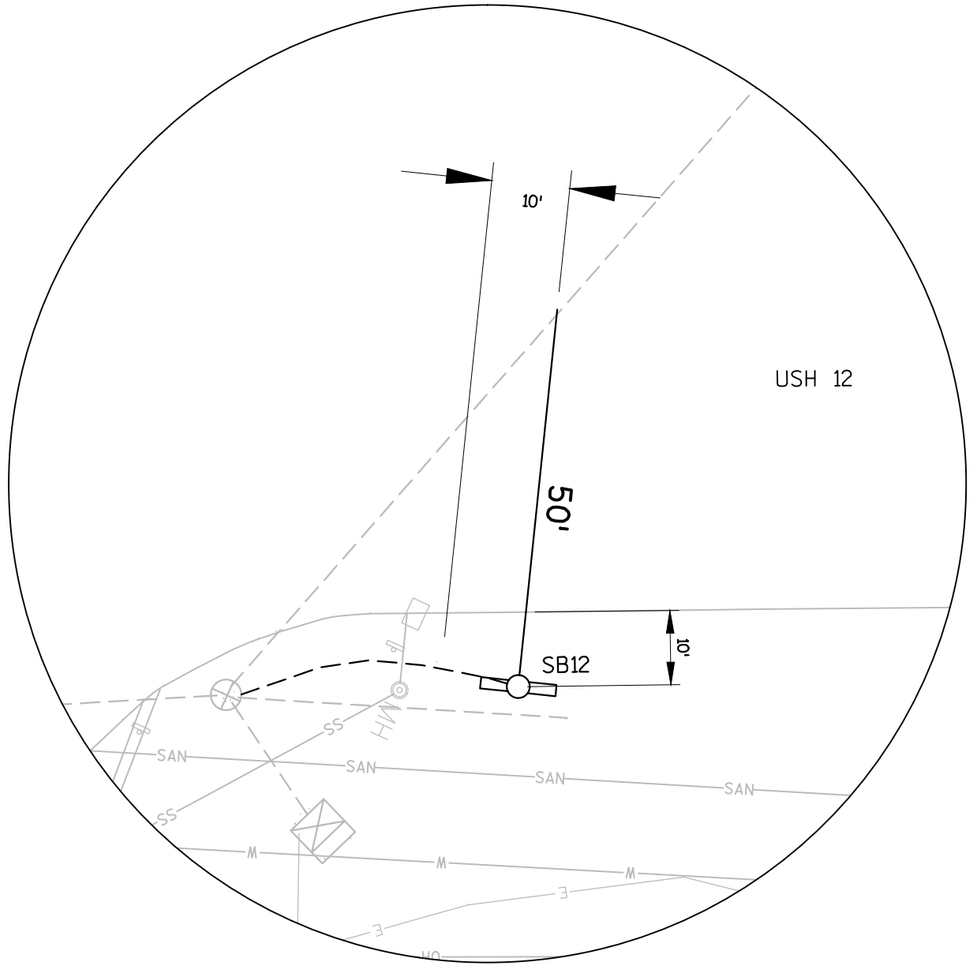
APPROVED
Date 4-27-95 — R.I. MOE, STATE TRAFFIC ENGINEER

REVISED BY: AECOM — PAGE: 1 OF 3

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & VINE STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND VINE ST.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0598

PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: USH 12 & VINE STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION

NOT USED

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 **
Ø1	15,16,17	G	Y R	-	- -			R	R R
Ø2	5,6,7,8,21	R	R R	G	Y R			R	R R
Ø3									
Ø4	12,13,14	R	R R	R	R R			G	Y R
Ø5	18,19,20	R	R R	R	R R			R	R R
Ø6	1,2,3,4,22	R	R R	R	R R			R	R R
Ø7									
Ø8	9,10,11	R	R R	R	R R			R	R R
OL"E"	15,16,17	-	- -	FY	Y R			-	- -
OL"G"	18,19,20	-	- -	-	- -			-	- -

FLASH: R, R, R, R, R, R, R, -, -

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	15,16,17	R	R R	R	R R			R	R R
Ø2	5,6,7,8,21	R	R R	R	R R			R	R R
Ø3									
Ø4	12,13,14	R	R R	R	R R			R	R R
Ø5	18,19,20	G	Y R	-	- -			R	R R
Ø6	1,2,3,4,22	R	R R	G	Y R			R	R R
Ø7									
Ø8	9,10,11	R	R R	R	R R			G	Y R
OL"E"	15,16,17	-	- -	-	- -			-	- -
OL"G"	18,19,20	-	- -	FY	Y R			-	- -

RING 2

BARRIER

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

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 30'	
21	2	X			2	2				6' X 18'	
22	3	X			2	2				6' X 18'	
41	6	X			4	4				6' X 6'	
42	5	X			4	4				6' X 6'	
43	6	X			4	4				6' X 15'	
51	7	X			5	5				6' X 30'	
61	8	X			6	6				6' X 30'	
62	9	X			6	6				6' X 30'	
81	12	X			8	8				6' X 6'	
82	11	X			8	8				6' X 6'	
83	12	X			8	8				6' X 15'	

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	

*LOCATION OF CELL MODEM CONTROLLER NO: S-

SIGNAL SYSTEM : SS-18-0134

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

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

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CONTROLLER TYPE: ASC/3 TS2

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB12.
CHANGED GREEN ARROWS ON HEADS 1, 2, 5, AND 6 TO GREEN BALLS ON 7-3-15.
REPLACED CONTROLLER/CABINET AND ADDED SIGNAL HEADS 15, 16, 17, 18, 19, AND 20 AS FYA ON 8-27-13.
CHANGED TO FIBER OPTIC COMM.

BASE PLAN NO: 1 REVISION NO: 3

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & VINE STREET | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0598) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB13 =
SB14 =

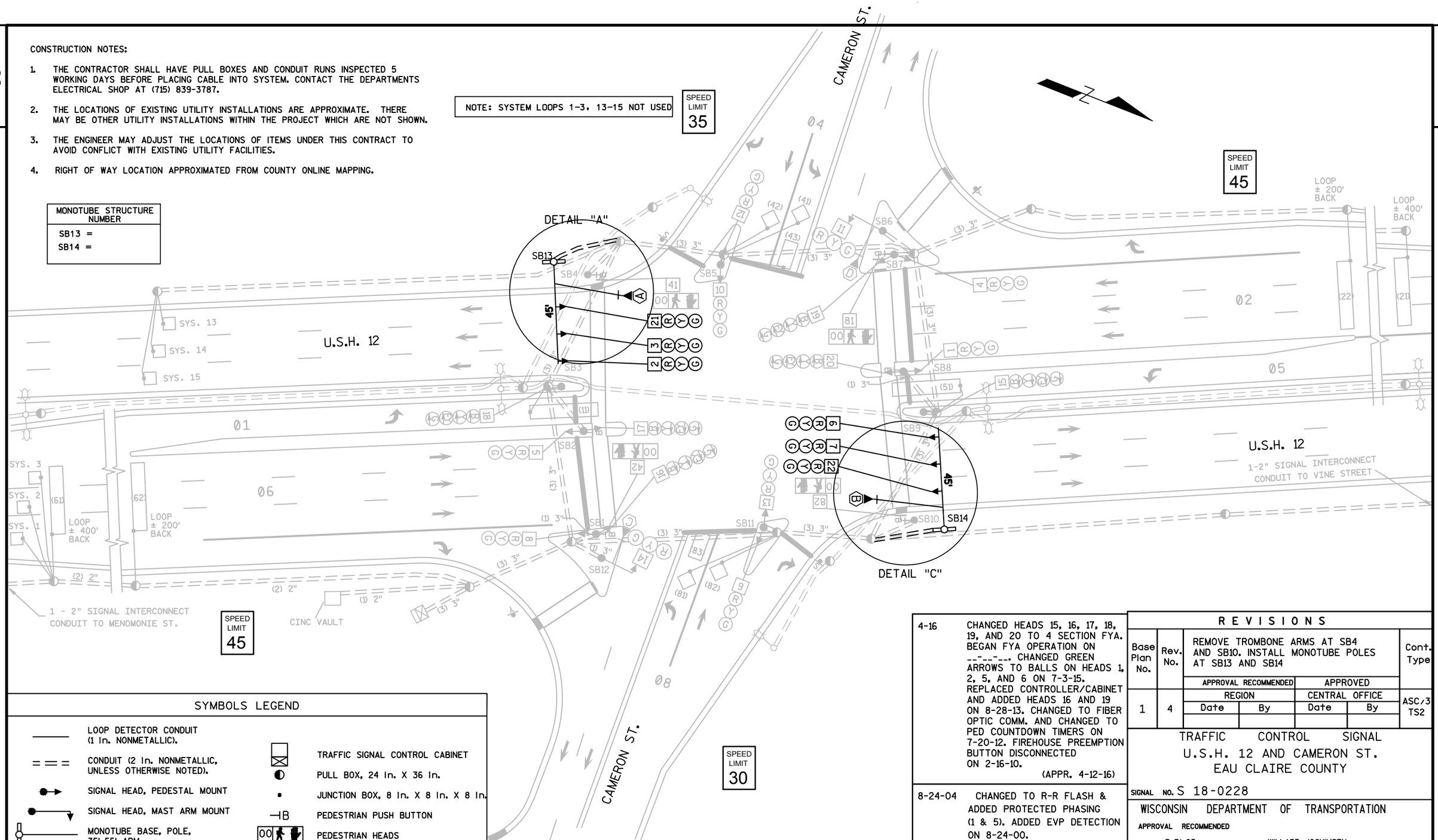
NOTE: SYSTEM LOOPS 1-3, 13-15 NOT USED

SPEED LIMIT 35

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 30



SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT (2 In. NONMETALLIC, UNLESS OTHERWISE NOTED).
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- JUNCTION BOX, 8 In. X 8 In. X 8 In.
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN HEADS
- EMERGENCY VEHICLE DETECTOR
- STOP SIGN
- YIELD SIGN

4-16	CHANGED HEADS 15, 16, 17, 18, 19, AND 20 TO 4 SECTION FYA. BEGAN FYA OPERATION ON __-__-__. CHANGED GREEN ARROWS TO BALLS ON HEADS 1, 2, 5, AND 6 ON 7-3-15. REPLACED CONTROLLER/CABINET AND ADDED HEADS 16 AND 19 ON 8-28-13. CHANGED TO FIBER OPTIC COMM. AND CHANGED TO PED COUNTDOWN TIMERS ON 7-20-12. FIREHOUSE PREEMPTION BUTTON DISCONNECTED ON 2-16-10. (APPR. 4-12-16)
8-24-04	CHANGED TO R-R FLASH & ADDED PROTECTED PHASING (1 & 5). ADDED EVP DETECTION ON 8-24-00. (APPR. 7-6-04)
1997	CONSTRUCTION AS-BUILTS AND ADDED FIREHOUSE PRE-EMPT. (APPR. 10-30-97)

REVISIONS

Base Plan No.	Rev. No.	REMOVE TROMBONE ARMS AT SB4 AND SB10. INSTALL MONOTUBE POLES AT SB13 AND SB14				Cont. Type
		APPROVAL RECOMMENDED		APPROVED		
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
1	4					ASC/3 TS2

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND CAMERON ST.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0228

WISCONSIN DEPARTMENT OF TRANSPORTATION

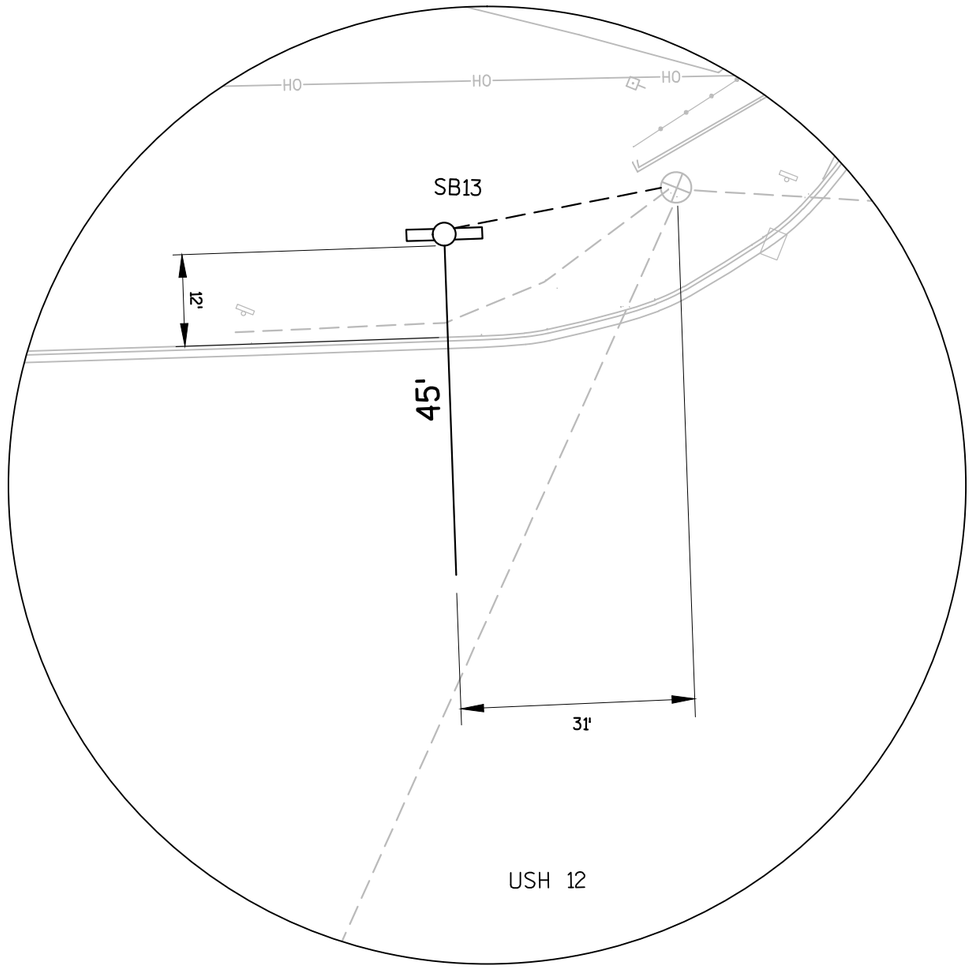
APPROVAL RECOMMENDED
Date 3-31-95 — WILLARD JOCHIMSEN, DISTRICT TRAFFIC ENGINEER

APPROVED
Date 4-27-95 — R.I. MOE, STATE TRAFFIC ENGINEER

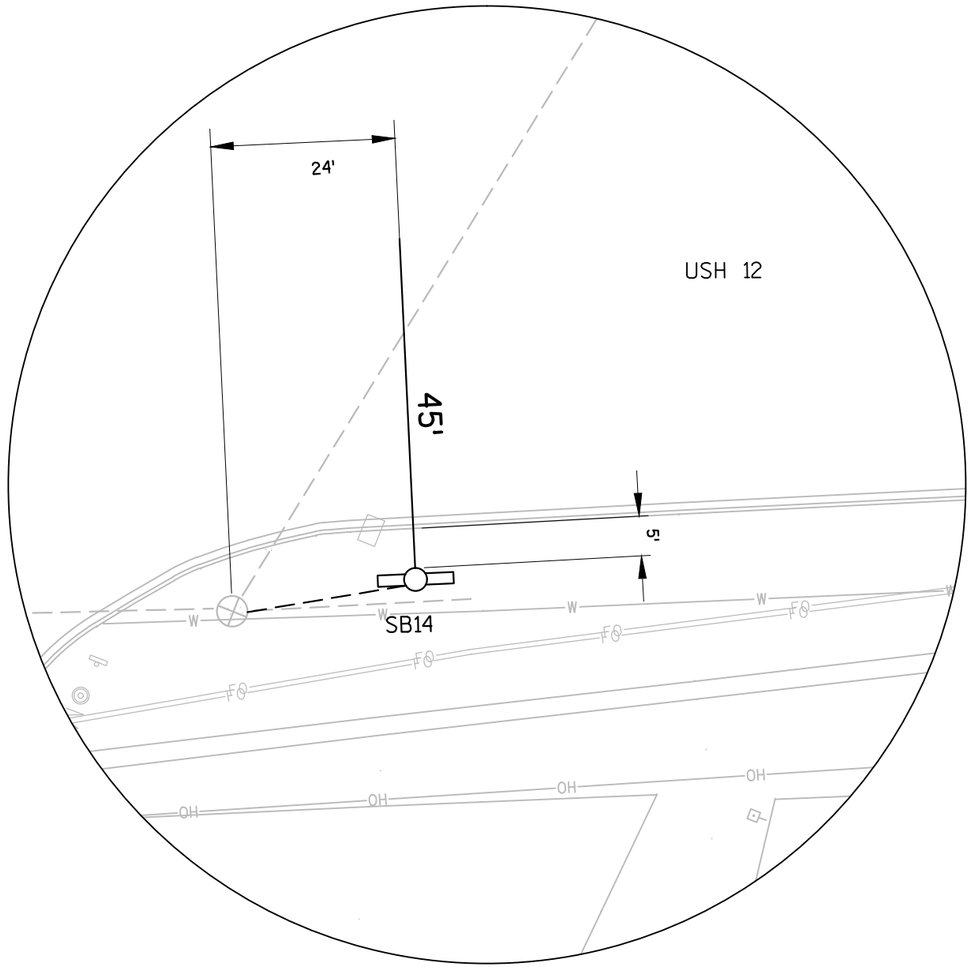
REVISED BY: AECOM — PAGE: 1 OF 3

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & CAMERON STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND CAMERON ST.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0228

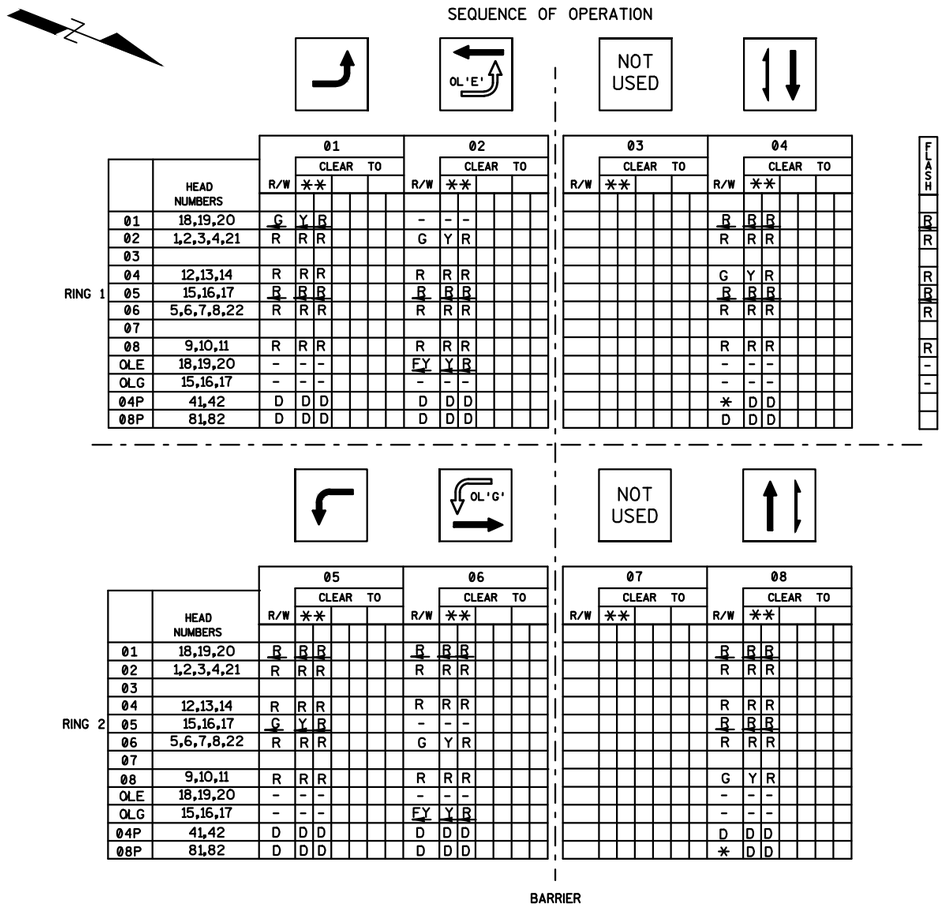
PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & CAMERON STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:02 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION



	HEAD NUMBERS	01 R/W	01 CLEAR TO **	02 R/W	02 CLEAR TO **	03 R/W	03 CLEAR TO **	04 R/W	04 CLEAR TO **
01	18,19,20	G	Y R	-	- -			R	R R
02	1,2,3,4,21	R	R R	G	Y R			R	R R
03									
04	12,13,14	R	R R	R	R R			G	Y R
05	15,16,17	R	R R	R	R R			R	R R
06	5,6,7,8,22	R	R R	R	R R			R	R R
07									
08	9,10,11	R	R R	R	R R			R	R R
OLE	18,19,20	-	- -	FY	Y R			-	- -
OLG	15,16,17	-	- -	-	- -			-	- -
04P	41,42	D	D D	D	D D			*	D D
08P	81,82	D	D D	D	D D			D	D D

FLASH: R R R R R - -

	HEAD NUMBERS	05 R/W	05 CLEAR TO **	06 R/W	06 CLEAR TO **	07 R/W	07 CLEAR TO **	08 R/W	08 CLEAR TO **
01	18,19,20	R	R R	R	R R			R	R R
02	1,2,3,4,21	R	R R	R	R R			R	R R
03									
04	12,13,14	R	R R	R	R R			R	R R
05	15,16,17	G	Y R	-	- -			R	R R
06	5,6,7,8,22	R	R R	G	Y R			R	R R
07									
08	9,10,11	R	R R	R	R R			G	Y R
OLE	18,19,20	-	- -	-	- -			-	- -
OLG	15,16,17	-	- -	FY	Y R			-	- -
04P	41,42	D	D D	D	D D			D	D D
08P	81,82	D	D D	D	D D			*	D D

* WHEN CALLED TIMED STEADY "WALK" FOLLOWED BY FLASHING "DON'T WALK", WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY "DON'T WALK".

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

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 30'	
21	2	X			2	2				6' X 30'	
22	3	X			2	2				6' X 30'	
41	6	X			4	4				6' X 6'	
42	5	X			4	4				6' X 6'	
43	6	X			4	4				6' X 12'	
51	7	X			5	5				6' X 30'	
61	8	X			6	6				6' X 30'	
62	9	X			6	6				6' X 30'	
81	12	X			8	8				6' X 6'	
82	11	X			8	8				6' X 6'	
83	12	X			8	8				6' X 12'	

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E" =	1	2
O.L. "F" =		
O.L. "G" =	5	6
O.L. "H" =		

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0134	

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	→	↓	↑
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CONTROLLER TYPE: ASC/3-1000

REVISION: REMOVE TROMBONE ARMS AT SB4 AND SB10. INSTALL MONOTUBE POLES AT SB13 AND SB14

BASE PLAN NO: 1 REVISION NO: 3

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & CAMERON STREET | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0228) | SHEET: E

2

MONOTUBE STRUCTUR NUMBER
SB7 =
SB16 =

NOTE: LOOP 31 NOT USED

SPEED LIMIT 30

MENOMONIE ST.

SPEED LIMIT 45

DETAIL "A"

SB7

SB8

SB9

SB10

SB11

SB12

SB13

SB14

SB15

SB16

SB6

SB5

SB4

SB3

SB2

SB1

U.S.H. 12/CLAIREMONT AVE.

U.S.H. 12/CLAIREMONT AVE.

01

02

03

04

05

06

(11)

(21)

(22)

(31) (32) (33) (34)

(41) (42) (43) (44)

(51)

(61)

(62)

1 - 2" SIGNAL INTERCONNECT CONDUIT TO CRAIG RD.

ABANDONED

1 - 2" SIGNAL INTERCONNECT CONDUIT TO CAMERON STREET

DETAIL "C"

NOTE: LOOP 44 NOT USED

SPEED LIMIT 45

SPEED LIMIT 30

MENOMONIE ST.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, CITY-OWNED
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- PULL BOX, 12 In. X 24 In.
- PEDESTRIAN PUSH BUTTON
- LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR

REVISIONS						
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB17. INSTALL POLE WITH PED HEAD AND PUSH BUTTON AT SB15.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
1	4					ASC/3 TS1

4-16	CHANGED HEADS 17, 18, 19, AND 20 TO 4 SECTION FYA AND ADDED HEADS 21 AND 22 AS FYA. BEGAN FYA OPERATION ON __-__-__. CHANGED GREEN ARROWS TO GREEN BALLS ON HEADS 1, 2, 4, AND 5 ON 7-15-15. REPLACED MMU ON 1-21-15. REPLACED CONTROLLER ON 5-21-14. (APPR. 4-12-16)
8-08	CHANGED PHASES 1 AND 5 TO "PROTECTED ONLY", REPLACED CONTROLLER & CABINET AND ADDED FIBER OPTIC COMMUNICATION. ADDED EMERGENCY VEHICLE DETECTION ON 8-24-00. (APPR. 8-12-08)
4-97	CHANGED CONTROLLER TO LC 8000. ADD TO STEIN BLVD. INTERCONNECT. ALL RED FLASH. (APPR. 4-17-97)

TRAFFIC CONTROL SIGNAL

U.S.H. 12 AND MENOMONIE ST.

EAU CLAIRE COUNTY

SIGNAL NO. S 18-0040

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date 7-31-91 — WILLARD JOCHIMSEN, DISTRICT CHIEF TRAFFIC ENGINEER

APPROVED

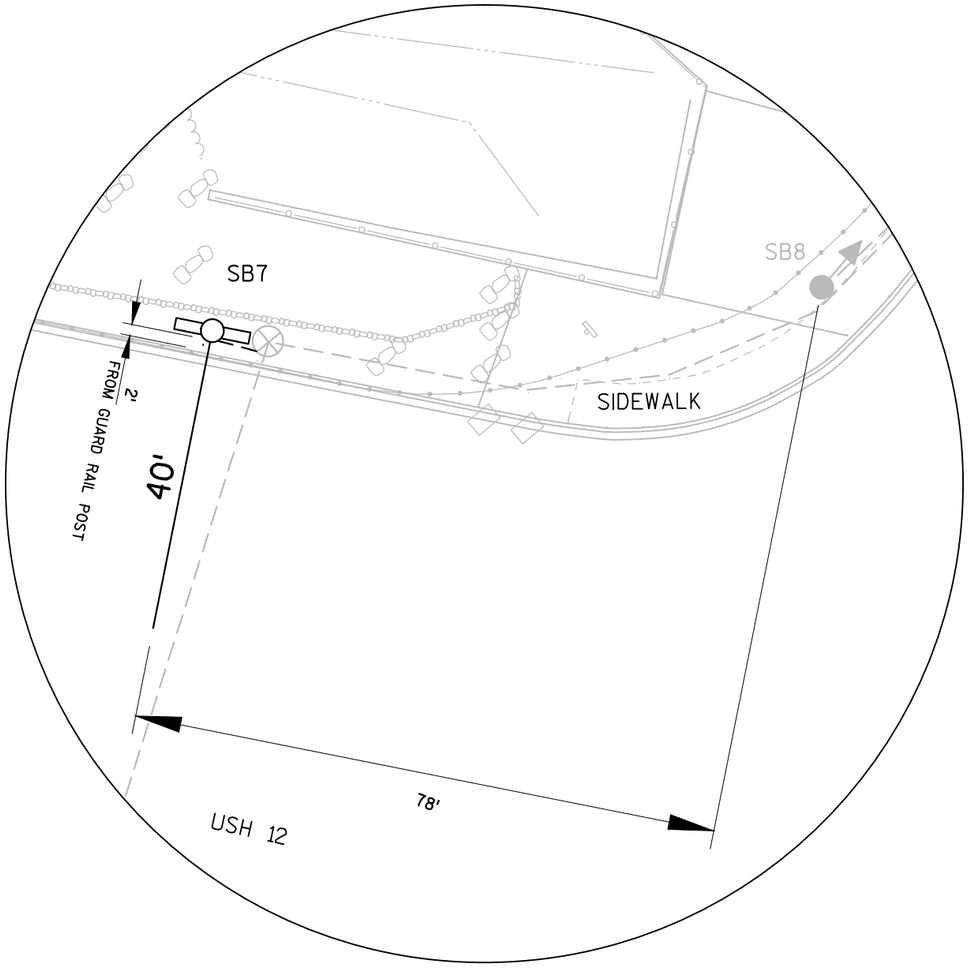
Date 8-7-91 — PETER F. RUSCH, STATE TRAFFIC ENGINEER

REVISED BY: AECOM

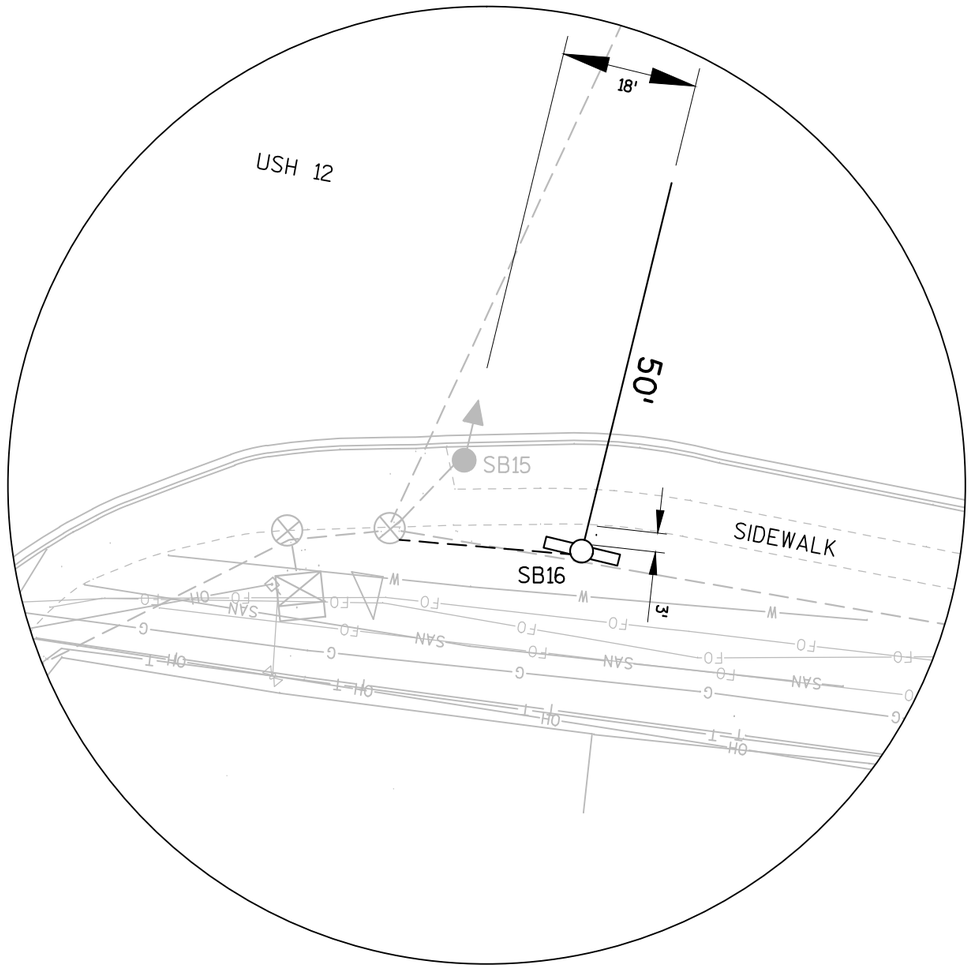
PAGE: 1 OF 3

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & MENOMONIE ST.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 30 60	SHEET: E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 AND MENOMONIE ST.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0040

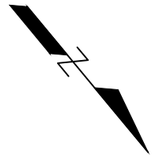
PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & MENOMONIE ST.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:03 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



RING 1

	HEAD NUMBERS	01 R/W	01 **	02 R/W	02 **	03 R/W	03 **	04 R/W	04 **	FLASH
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO	
01	19,20,21	G Y R		- - -		R R R		R R R		R
02	3,4,5,6,23	R R R		G Y R		R R R		R R R		R
03	7,8,9,10	R R R		R R R		G G Y R		R R R		R
04	11,12,13,14	R R R		R R R		R R R		G G Y R		R
05	17,18,22	R R R		R R R		R R R		R R R		R
06	1,2,15,16,22	R R R		R R R		R R R		R R R		R
OLA	19,20,21	- - -		FY Y R		- - -		- - -		-
OLC	17,18,22	- - -		- - -		- - -		- - -		-
04P	41,42	D D D		D D D		D D D		* * D		

NOT USED

NOT USED

RING 2

	HEAD NUMBERS	05 R/W	05 **	06 R/W	06 **	07 R/W	07 **	08 R/W	08 **
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO
01	19,20,21	R R R		R R R					
02	3,4,5,6,23	R R R		R R R					
03	7,8,9,10	R R R		R R R					
04	11,12,13,14	R R R		R R R					
05	17,18,22	G Y R		- - -					
06	1,2,15,16,22	R R R		G Y R					
OLA	19,20,21	- - -		- - -					
OLC	17,18,22	- - -		FY Y R					
04P	41,42	D D D		D D D					

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4
2	5 OR 6	1,3,4
3		1,2,4,5,6
4		1,2,3,5,6
5	1 OR 2	3,4,6
6	1 OR 2	3,4,5

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6'x30'	
21	2	2	X			2	2				6'x30'	
22	2	2	X			2	2				6'x30'	
*31		3		(NOT	USED)						6'x6'	
32	3	4	X			3	3				6'x6'	
33	3	5	X			3	3				6'x6'	
34	3	5	X			3	3				6'x30'	
41	4	6	X			4	4				6'x25'	
42	4	7	X			4	4				6'x25'	
43	4	8	X			4	4				6'x25'	
*44		9		(NOT	USED)						6'x25'	
51	5	10	X			5	5				6'x30'	
61	6	11	X			6	6				6'x30'	
62	6	11	X			6	6				6'x30'	

* WIRED IN CABINET FOR FUTURE USE.

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0132	

TYPE OF DOT LIGHTING	
NONE	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE CONTROL CABINET	

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	SB	NB	WB	EB
PHASES	2+5	1+6	4	3

NOTES: FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1)

SIGNAL NO. S 18-0040

REVISIONS: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB17. INSTALL POLE WITH PED HEAD AND PUSH BUTTON AT SB15.

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & MENOMONIE ST. | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0040) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB12 =
SB16 =

NOTE: SYSTEM LOOPS 110-112 NOT USED

NOTE: LOOP 13 NOT USED

NOTE: LOOP 23 NOT USED

NOTE: LOOP 63 NOT USED

NOTE: LOOP 53 NOT USED

DETAIL "A"

DETAIL "C"

SPEED LIMIT 30

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 30

CRAIG ROAD

NORTH FRONTAGE RD

U.S.H. 12/CLAIREMONT AVE

MATCHLINE A

MATCHLINE B

SHARED USE PATH

SIDEWALK

200' TO STOP BAR

Ø1 Ø2 Ø3 Ø4 Ø5 Ø6

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- 00 LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

4-16 CHANGED HEADS 5, 6, 11, AND 12 TO 4 SECTION FYA AND ADDED HEADS 25 AND 26 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROWS TO BALLS ON HEADS 3, 4, 9, AND 10 ON 8-4-15. REPLACED CONTROLLER AND MMU ON 8-13-14. (APPR. 4-12-16)

REVISIONS

Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB12 AND SB16				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
2	2	Date	By	Date	By	ASC/3 TS1

TRAFFIC CONTROL SIGNAL

U.S.H. 12 & CRAIG ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0287

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 6-27-08 — DAVID FENSKE, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 7-3-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & CRAIG ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

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PLOT DATE : 7/29/2016 2:55 PM

1"=40'

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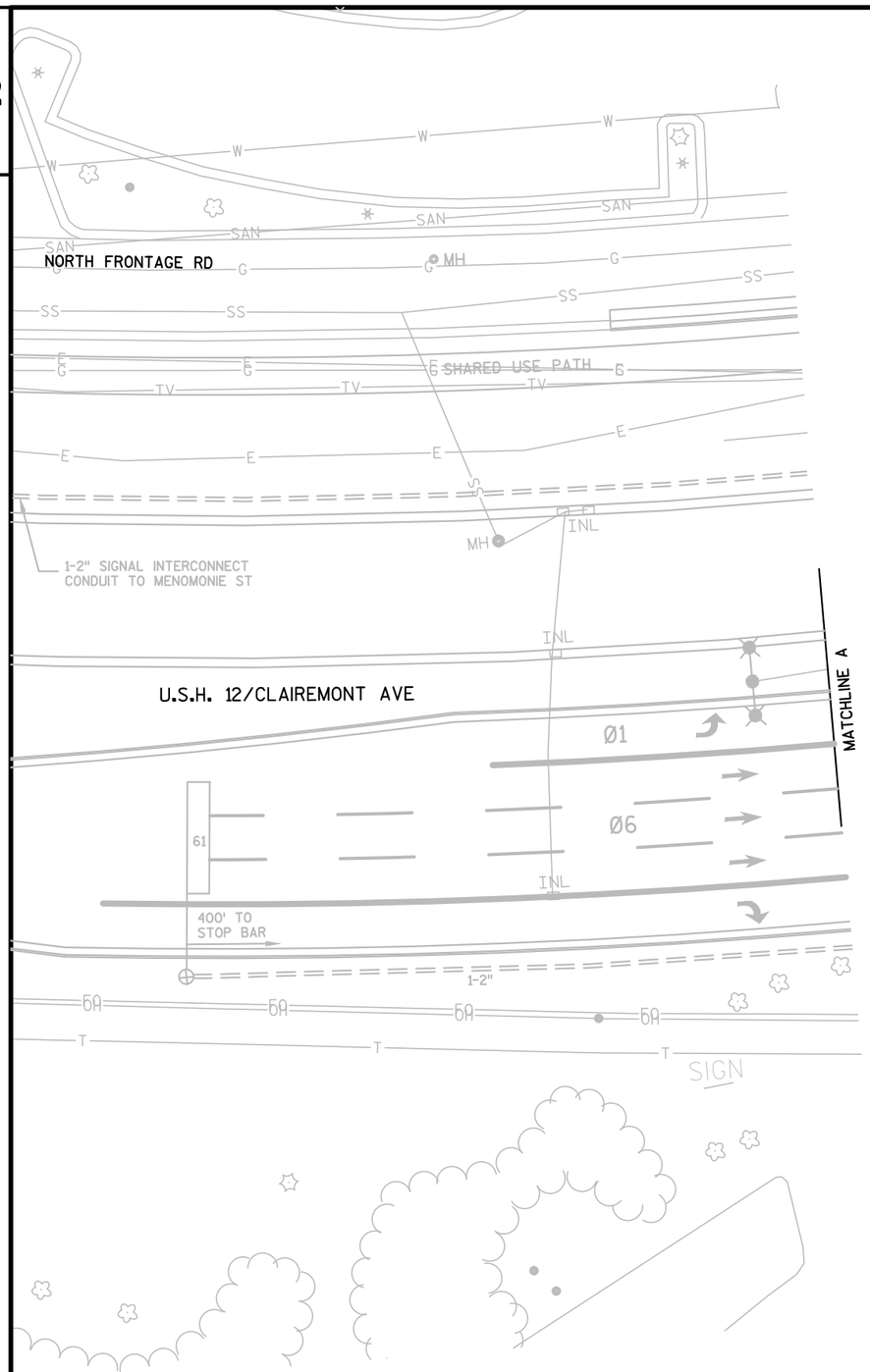

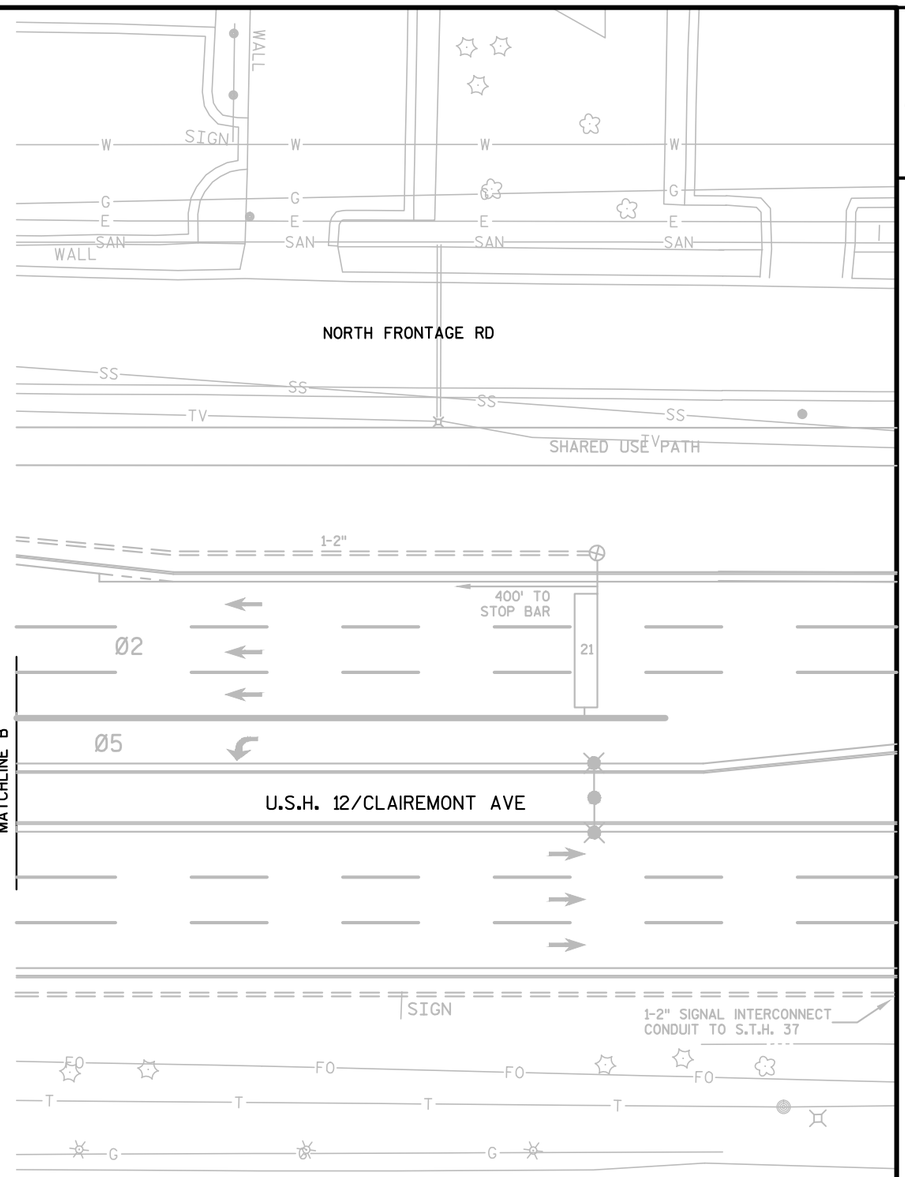

TRAFFIC CONTROL SIGNAL

U.S.H. 12 & CRAIG ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0287

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & CRAIG ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0287.DWG

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1"=40'

WISDOT/CADDS SHEET 42

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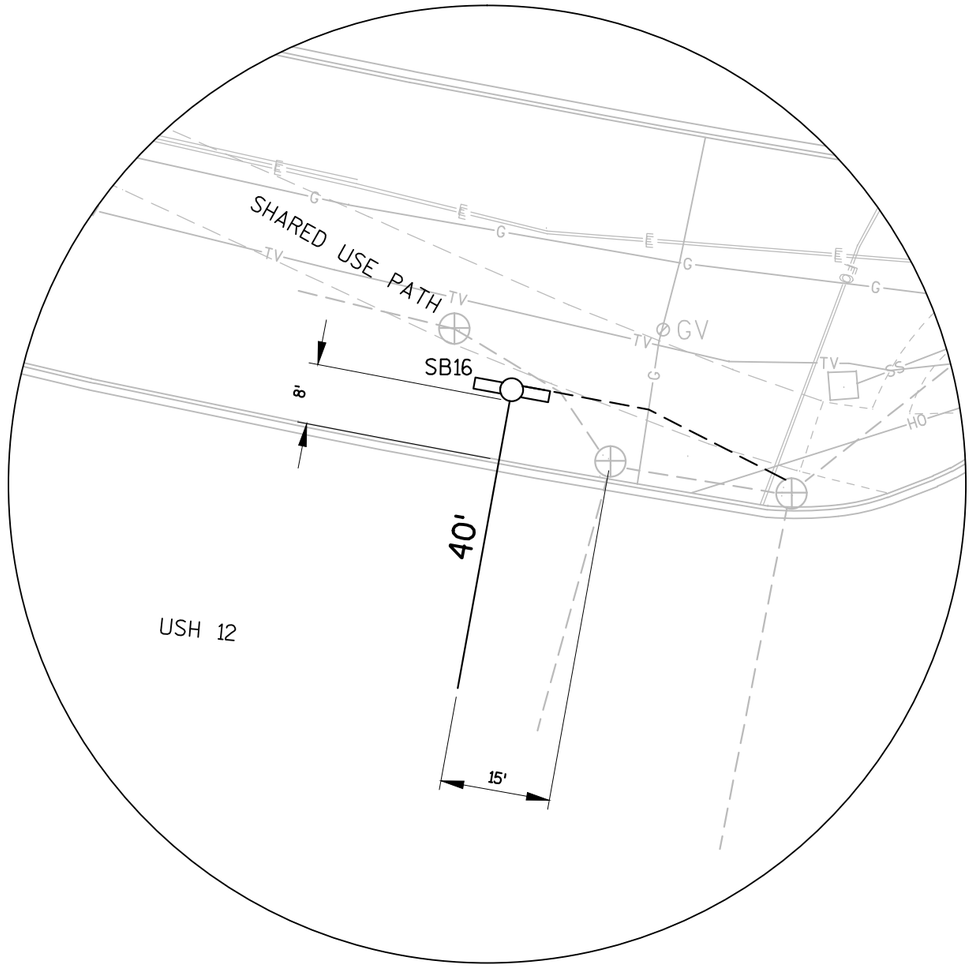
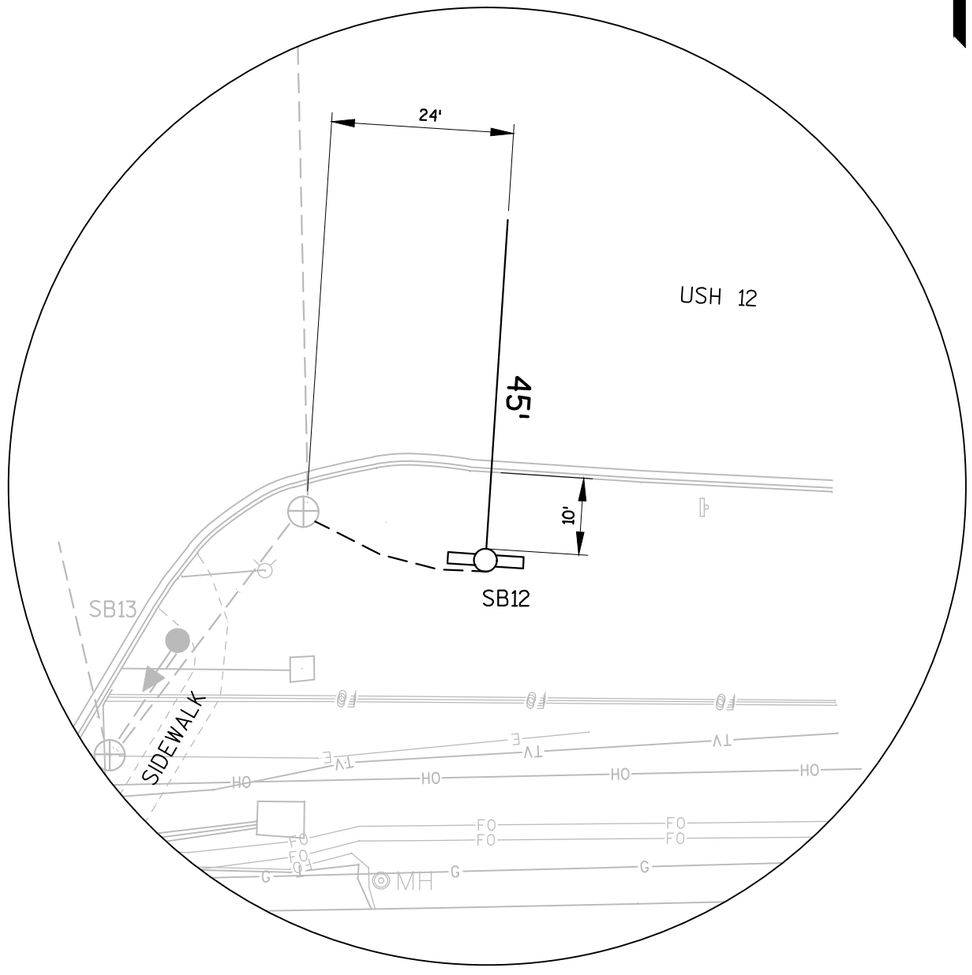


DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & CRAIG ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0287

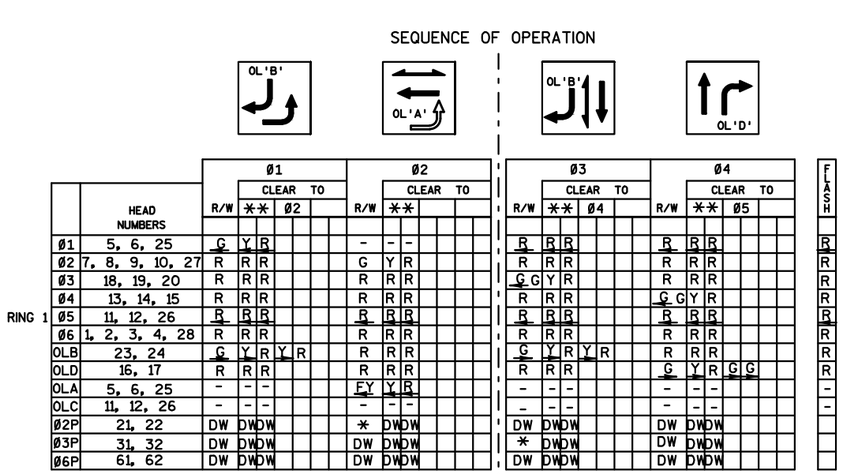
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & CRAIG ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:04 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 Ø2	Ø2 R/W	Ø2 **	Ø3 R/W	Ø3 **	Ø3 Ø4	Ø4 R/W	Ø4 **	Ø4 Ø5	FLASH
Ø1	5, 6, 25	G	Y	R	-	-	R	R	R	R	R	R	R
Ø2	7, 8, 9, 10, 27	R	R	R	G	Y	R	R	R	R	R	R	R
Ø3	18, 19, 20	R	R	R	R	R	G G	Y	R	R	R	R	R
Ø4	13, 14, 15	R	R	R	R	R	R	R	R	G G	Y	R	R
Ø5	11, 12, 26	R	R	R	R	R	R	R	R	R	R	R	R
Ø6	1, 2, 3, 4, 28	R	R	R	R	R	R	R	R	R	R	R	R
OLB	23, 24	G	Y	R Y R	R	R	G	Y	R Y R	R	R	R	R
OLD	16, 17	R	R	R	R	R	R	R	R	G	Y	R G G	R
OLA	5, 6, 25	-	-	-	FY	Y	R	-	-	-	-	-	-
OLC	11, 12, 26	-	-	-	-	-	-	-	-	-	-	-	-
Ø2P	21, 22	DW	DW	DW	*	DW	DW	DW	DW	DW	DW	DW	
Ø3P	31, 32	DW	DW	DW	DW	DW	*	DW	DW	DW	DW	DW	
Ø6P	61, 62	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 Ø6	Ø6 R/W	Ø6 **	Ø7 R/W	Ø7 **	Ø8 R/W	Ø8 **
Ø1	5, 6, 25	R	R	R	R	R	R	R	R	R
Ø2	7, 8, 9, 10, 27	R	R	R	R	R	R	R	R	R
Ø3	18, 19, 20	R	R	R	R	R	R	R	R	R
Ø4	13, 14, 15	R	R	R	R	R	R	R	R	R
Ø5	11, 12, 26	G	Y	R	-	-	R	R	R	R
Ø6	1, 2, 3, 4, 28	R	R	R	G	Y	R	R	R	R
OLB	23, 24	R	R	R	R	R	R	R	R	R
OLD	16, 17	G	Y	R Y R	R	R	R	R	R	R
OLA	5, 6, 25	-	-	-	-	-	R	R	R	R
OLC	11, 12, 26	-	-	-	FY	Y	R	R	R	R
Ø2P	21, 22	DW	DW	DW	DW	DW	R	R	R	R
Ø3P	31, 32	DW	DW	DW	DW	DW	R	R	R	R
Ø6P	61, 62	DW	DW	DW	*	DW	R	R	R	R

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4
2	5 OR 6	1, 3, 4
3		1, 2, 4, 5, 6
4		1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6
6	1 OR 2	3, 4, 5

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	9	2	X			1	1				6' X 6'	4
*13		3		(NOT	USED)						8' X 8'	4
21	2	4	X			2	2				6' X 30'	5
22	2	4	X			2	2				6' X 30'	3
*23		5		(NOT	USED)						6' X 6'	3
31	3	6	X			3	3		X		6' X 20'	3
32	10	7	X			3	3		X		6' X 6'	4
33	3	8	X			3	3		X		6' X 20'	4
34	11	9	X			3	3				6' X 6'	5
41	4	10	X			4	4				6' X 20'	3
42	12	11	X			4	4		X		6' X 6'	4
43	4	12	X			4	4				6' X 20'	4
44	13	13	X			4	4				6' X 6'	3
51	5	14	X			5	5				6' X 20'	3
52	14	15	X			5	5				6' X 6'	4
*53		16		(NOT	USED)						8' X 8'	3
61	6	17	X			6	6				6' X 30'	4
62	6	17	X			6	6				6' X 30'	3
*63		18		(NOT	USED)						6' X 6'	3
*110		19		(NOT	USED)						7' X 7'	3
*111		20		(NOT	USED)						7' X 7'	4
*112		21		(NOT	USED)						7' X 7'	3

* WIRED IN CABINET FOR FUTURE USE.

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1 + Ø3
O.L. "C" =
O.L. "D" = Ø4 + Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0132	

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	NB	SB
PHASES	2+5	1+6	4+OLD	3+OLB

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

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

GENERAL NOTES:

1. ANY ACTUATED PHASE 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).

CONTROLLER TYPE: ASC/3-2100

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB12 AND SB16

BASE PLAN NO: 2 REVISION NO: 1

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

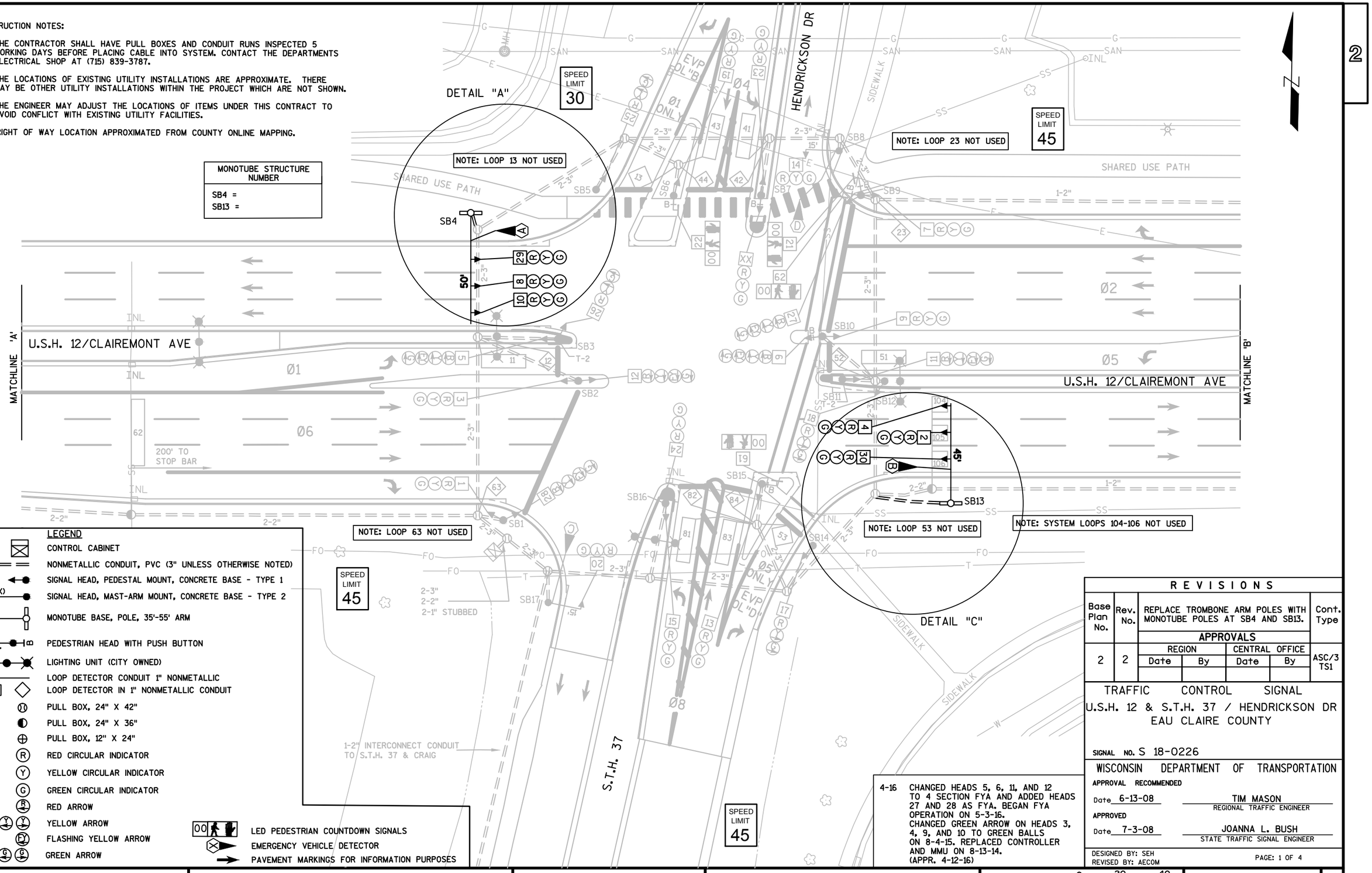
PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & CRAIG ROAD | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0287) | SHEET: E

2

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB4 =
SB13 =



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- 00 LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

4-16 CHANGED HEADS 5, 6, 11, AND 12 TO 4 SECTION FYA AND ADDED HEADS 27 AND 28 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROW ON HEADS 3, 4, 9, AND 10 TO GREEN BALLS ON 8-4-15. REPLACED CONTROLLER AND MMU ON 8-13-14. (APPR. 4-12-16)

REVISIONS					
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB13.			Cont. Type
		APPROVALS			
		REGION		CENTRAL OFFICE	
2	2	Date	By	Date	By	ASC/3 TS1

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & S.T.H. 37 / HENDRICKSON DR
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0226

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 6-13-08 — TIM MASON, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 7-3-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & STH 37/HENDRICKSON DR.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

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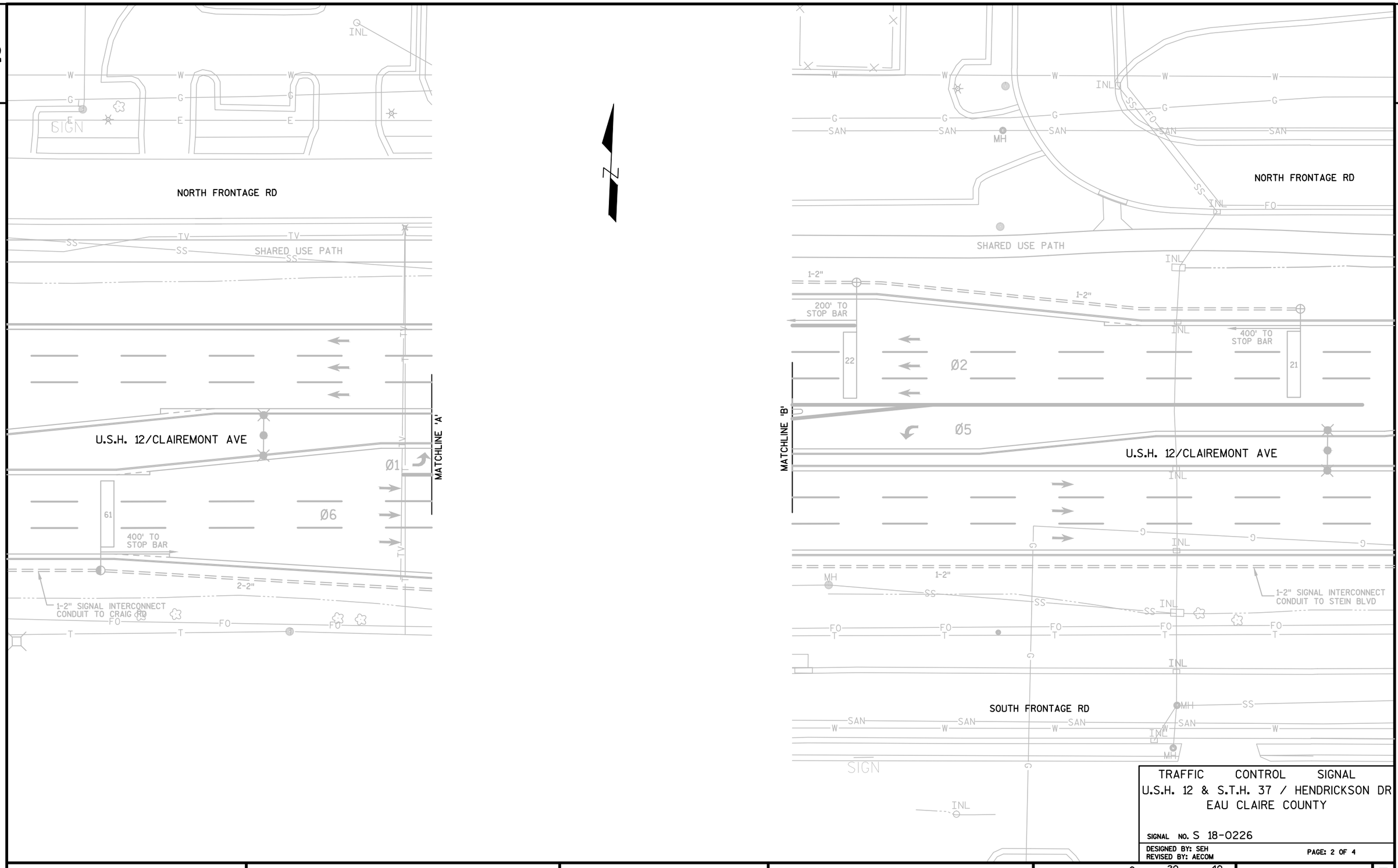
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
U.S.H. 12 & S.T.H. 37 / HENDRICKSON DR
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0226

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & STH 37/HENDRICKSON DR.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:	E

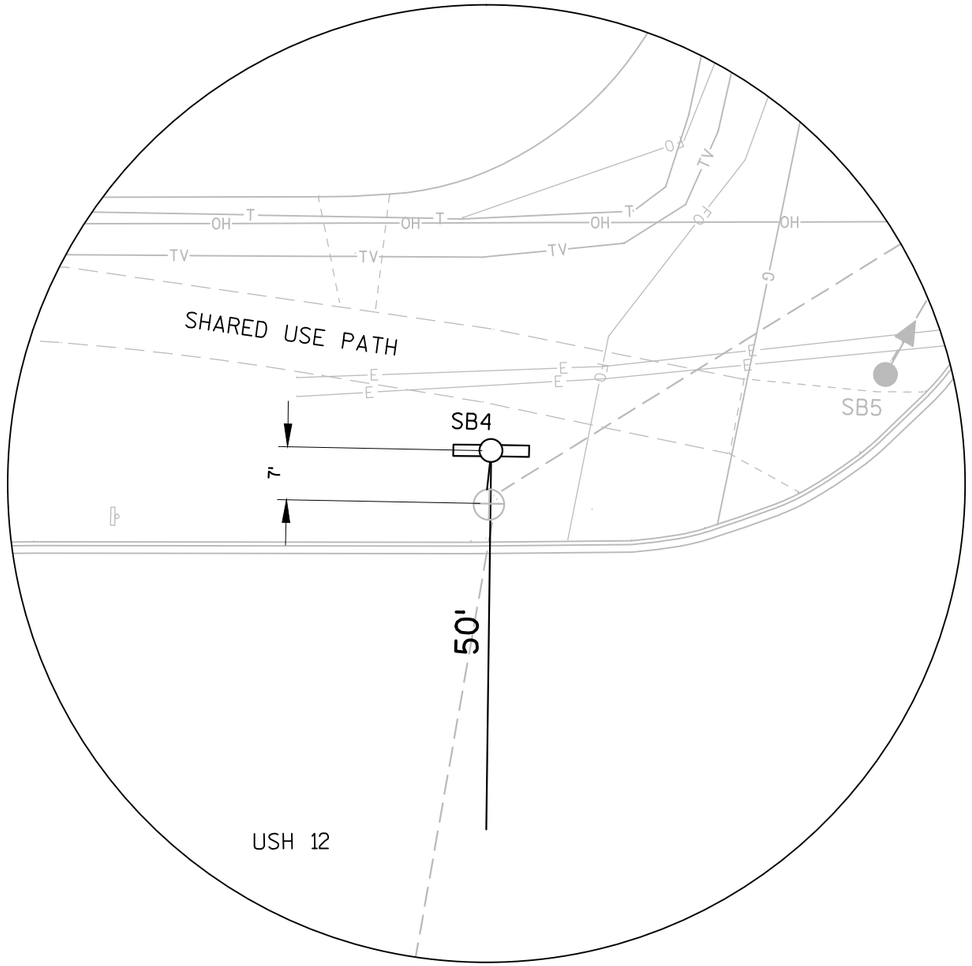
FILE NAME :P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0226.DWG

PLOT DATE : 7/29/2016 2:57 PM

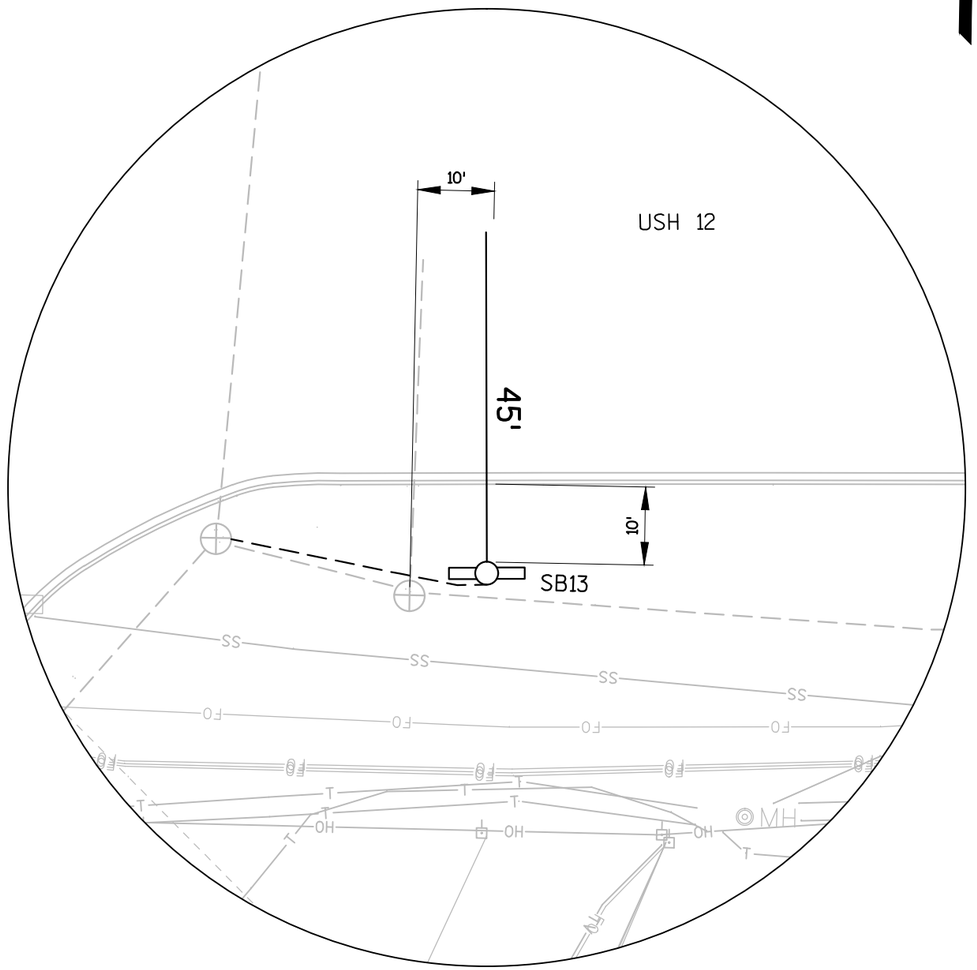
1"=40'

WISDOT/CADDS SHEET 42

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & STH 37 / HENDRICKSON DR
EAU CLAIRE COUNTY

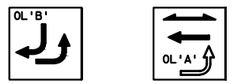
SIGNAL NO. S 18-0226

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

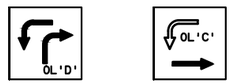
PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & STH 37/HENDRICKSON DR.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION



NOT USED

RING 1		HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 CLEAR TO	Ø2 R/W	Ø2 **	Ø2 CLEAR TO	Ø3 R/W	Ø3 **	Ø3 CLEAR TO	Ø4 R/W	Ø4 **	Ø4 CLEAR TO	FLASH
	Ø1	5, 6, 27	G	Y R		-	- -					R	R R		R
	Ø2	7, 8, 9, 10, 29	R	R R		G	Y R					R	R R		R
	Ø3														
	Ø4	19, 20, 23, 24	R	R R		R	R R					G	Y R		R
	Ø5	11, 12, 28	R	R R		R	R R					R	R R		R
	Ø6	1, 2, 3, 4, 30	R	R R		R	R R					R	R R		R
	Ø7														
	Ø8	13, 14, 15, 16	R	R R		R	R R					R	R R		R
	OLB	25, 26	G	Y R		R	R R					R	R R		R
	OLD	17, 18	R	R R		R	R R					R	R R		R
	OLA	5, 6, 27	-	- -		FY	Y R					-	- -		
	OLC	11, 12, 28	-	- -		-	- -					-	- -		
	Ø2P	21, 22	DW	DW DW		*	DW DW					DW	DW DW		
	Ø8P	81, 82	DW	DW DW		DW	DW DW					DW	DW DW		



NOT USED

RING 2		HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 CLEAR TO	Ø6 R/W	Ø6 **	Ø6 CLEAR TO	Ø7 R/W	Ø7 **	Ø7 CLEAR TO	Ø8 R/W	Ø8 **	Ø8 CLEAR TO
	Ø1	5, 6, 27	R	R R		R	R R					R	R R	
	Ø2	7, 8, 9, 10, 29	R	R R		R	R R					R	R R	
	Ø3													
	Ø4	19, 20, 23, 24	R	R R		R	R R					R	R R	
	Ø5	11, 12, 28	G	Y R		-	- -					R	R R	
	Ø6	1, 2, 3, 4, 30	R	R R		G	Y R					R	R R	
	Ø7													
	Ø8	13, 14, 15, 16	R	R R		R	R R					G	Y R	
	OLB	25, 26	R	R R		R	R R					R	R R	
	OLD	17, 18	G	Y R		R	R R					R	R R	
	OLA	5, 6, 27	-	- -		-	- -					-	- -	
	OLC	11, 12, 28	-	- -		FY	Y R					-	- -	
	Ø2P	21, 22	DW	DW DW		DW	DW DW					DW	DW DW	
	Ø8P	81, 82	DW	DW DW		DW	DW DW					*	DW DW	

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	9	2	X			1	1				6' X 6'	4
*13		3		(NOT	USED)						8' X 8'	3
21	2	4	X			2	2				6' X 30'	4
22	2	4	X			2	2				6' X 30'	3
*23		5		(NOT	USED)						6' X 6'	3
41	4	6	X			4	4				6' X 20'	3
42	10	7	X			4	4				6' X 6'	4
43	4	8	X			4	4				6' X 20'	4
44	11	9	X			4	4				6' X 6'	5
51	5	10	X			5	5				6' X 20'	3
52	12	11	X			5	5				6' X 6'	4
*53		12		(NOT	USED)						8' X 8'	3
61	6	13	X			6	6				6' X 30'	4
62	6	13	X			6	6				6' X 30'	3
*63		14		(NOT	USED)						6' X 6'	3
81	8	15	X			8	8				6' X 20'	3
82	13	16	X			8	8				6' X 6'	4
83	8	17	X			8	8				6' X 20'	4
84	14	18	X			8	8				6' X 6'	5
*104		19		(NOT	USED)						7' X 7'	3
*105		20		(NOT	USED)						7' X 7'	4
*106		21		(NOT	USED)						7' X 7'	3

*WIRED IN CABINET FOR FUTURE USE.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0132	

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

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
5. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
6. OL "B" TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
7. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1
O.L. "C" =
O.L. "D" = Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+OLB	8+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

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

CONTROLLER TYPE:	ASC/3-2100
REVISION:	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB13.
REVISION DATE: FEB. 2017	PAGE: 4 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & STH 37/HENDRICKSON DR.	COUNTY: EAU CLAIRE	SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0226)	SHEET:

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED USING COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB7 =
SB14 =

NOTE: SYSTEM LOOPS 100-102 NOT USED

NOTE: LOOP 13 NOT USED

NOTE: LOOP 23 NOT USED

NOTE: LOOP 63 NOT USED

NOTE: LOOP 91 NOT USED

NOTE: LOOP 57 NOT USED

DETAIL "A"

DETAIL "C"

NORTH FRONTAGE RD

UNIVERSITY DR

SHARED USE PATH

SIDEWALK

CVTC PEDESTRIAN OVERPASS

U.S.H. 12/CLAIREMONT AVE

MATCHLINE A

MATCHLINE B

SPEED LIMIT 45

200' TO STOP BAR

CVTC ENTRANCE

EVP ØL"B"

EVP ØL"D"

Ø1 ONLY

Ø5 ONLY

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW INDICATOR
- YELLOW ARROW INDICATOR
- FLASHING YELLOW ARROW
- GREEN ARROW INDICATOR
- LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

4-16 CHANGE PHASES FOR ø5 AND ø6 TO REMOVE HARD WIRED LEAD-LAG. CHANGE HEADS 5, 6, 10, 11, 12 TO 4 SECTION FYA AND ADD HEADS 3 AND 25. CHANGED GREEN ARROWS ON HEADS 4 AND 9 TO GREEN BALLS ON 8-6-15. CHANGED CONTROLLER TO ASC/3-2100 AND CHANGED CONFLICT MONITOR TO RENO MMU ON 8-13-14. MOVED EB EVP DETECTOR TO BACK OF SIGNAL HEAD 12 ON 8-5-09. (APPR. 4-12-16)

REVISIONS						
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB7 AND SB14.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
2	2					ASC/3 TS1

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & UNIVERSITY DRIVE/
CVTC ENTRANCE
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0147

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-5-08 — DAVID FENSKE, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-9-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & UNIVERSITY AVE.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

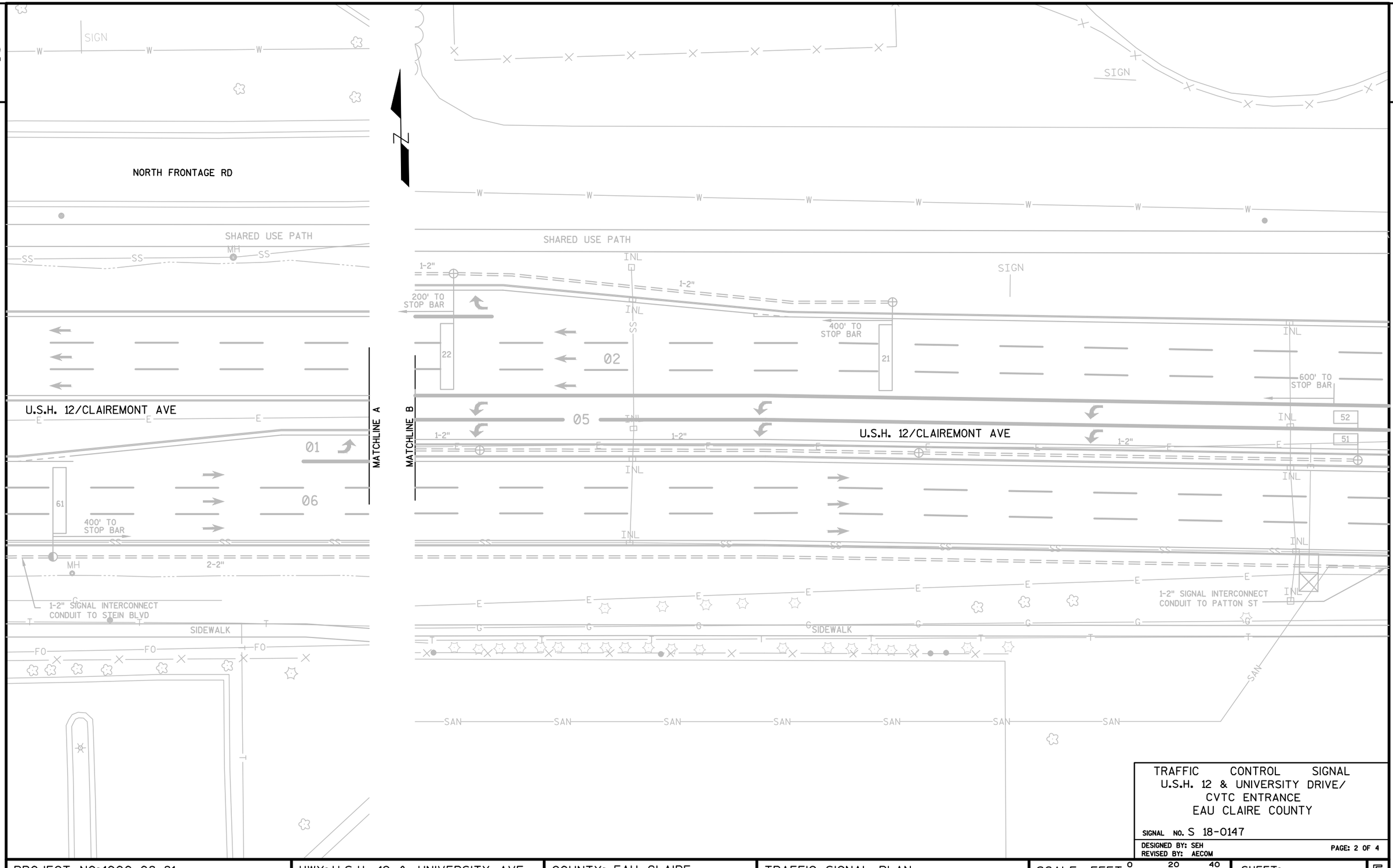
FILE NAME : P:\60483055\900_Work\910_CAD\05-MODELS\Group B\S 18-0147.dwg

PLOT DATE : 7/29/2016 2:59 PM

1"=40'

WISDOT/CADDS SHEET 42

2



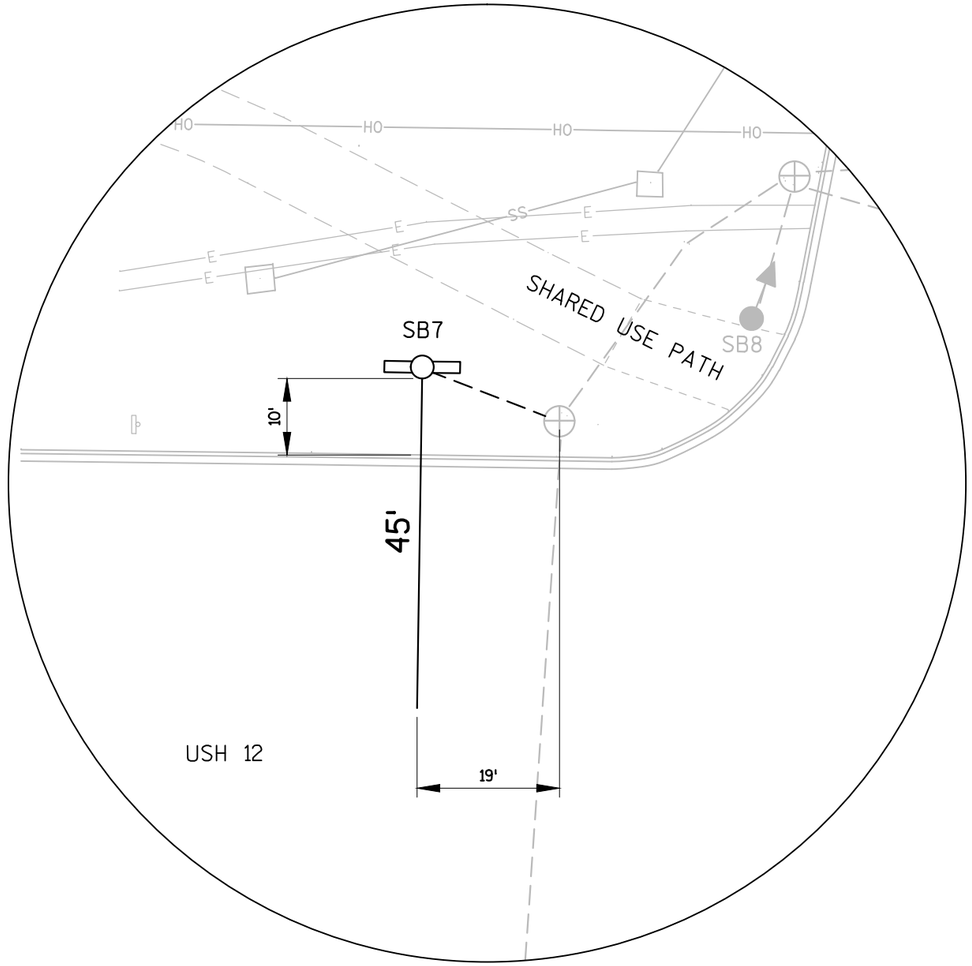
TRAFFIC CONTROL SIGNAL
U.S.H. 12 & UNIVERSITY DRIVE/
CVTC ENTRANCE
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0147

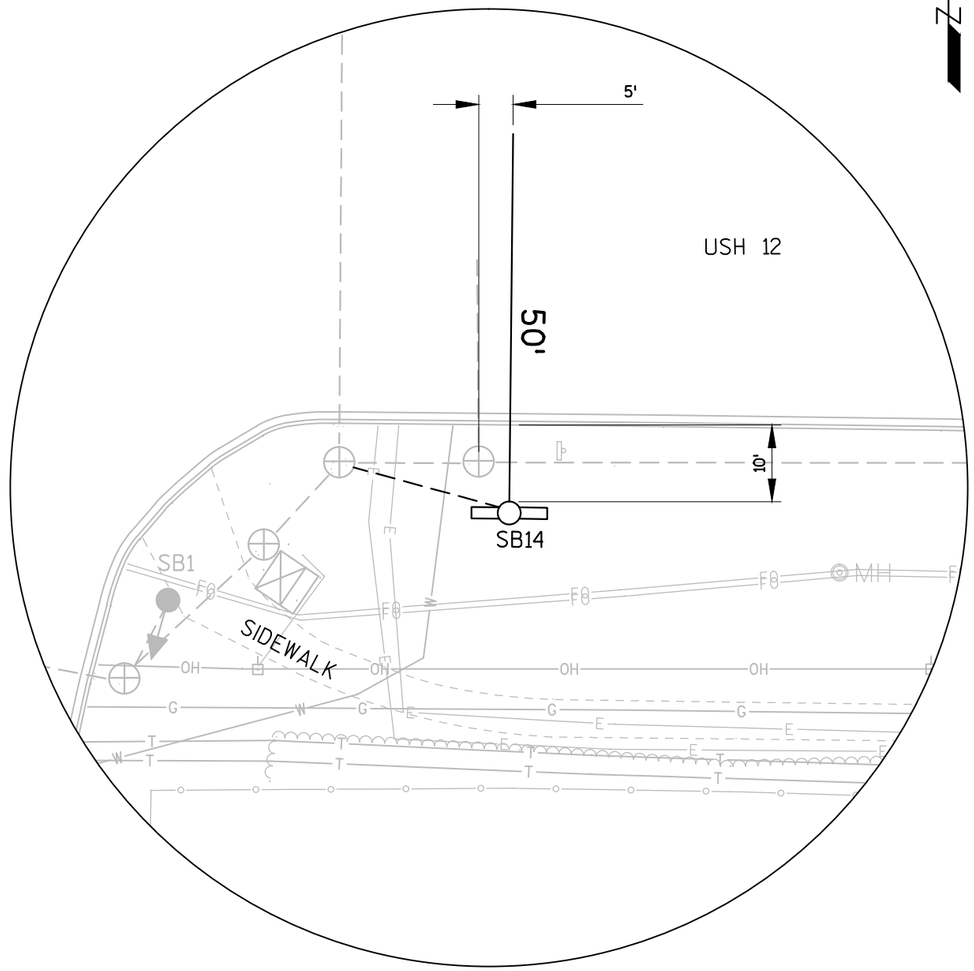
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & UNIVERSITY AVE.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & UNIVERSITY DRIVE/
CVTC ENTRANCE
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0147

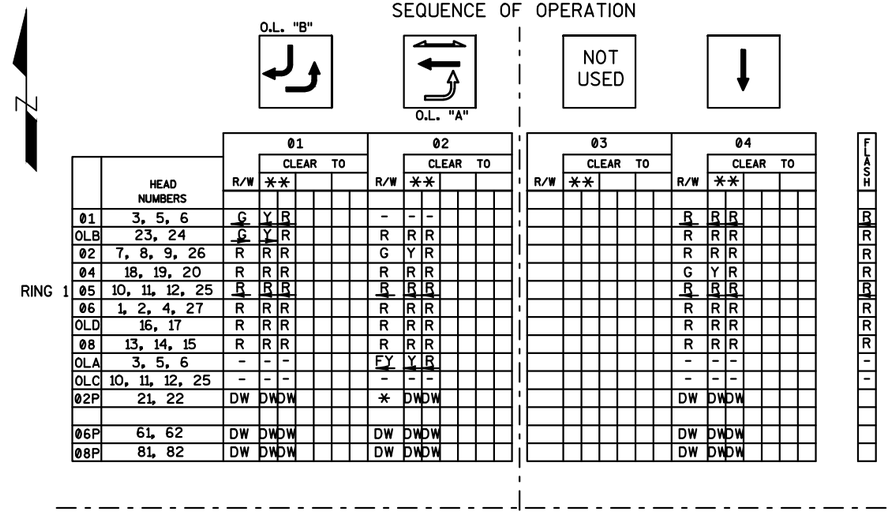
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & UNIVERISTY DR.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:05 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION



	HEAD NUMBERS	01 R/W	01 CLEAR TO **	02 R/W	02 CLEAR TO **	03 R/W	03 CLEAR TO **	04 R/W	04 CLEAR TO **	FLASH
01	3, 5, 6	G	Y R	-	- -			R	R R	R
OLB	23, 24	G	Y R	R	R R			R	R R	R
02	7, 8, 9, 26	R	R R	G	Y R			R	R R	R
04	18, 19, 20	R	R R	R	R R			G	Y R	R
05	10, 11, 12, 25	R	R R	R	R R			R	R R	R
06	1, 2, 4, 27	R	R R	R	R R			R	R R	R
OLD	16, 17	R	R R	R	R R			R	R R	R
08	13, 14, 15	R	R R	R	R R			R	R R	R
OLA	3, 5, 6	-	- -	FY	Y R			-	- -	-
OLC	10, 11, 12, 25	-	- -	-	- -			-	- -	-
02P	21, 22	DW	DW DW	*	DW DW			DW	DW DW	
06P	61, 62	DW	DW DW	DW	DW DW			DW	DW DW	
08P	81, 82	DW	DW DW	DW	DW DW			DW	DW DW	

	HEAD NUMBERS	05 R/W	05 CLEAR TO **	06 R/W	06 CLEAR TO **	07 R/W	07 CLEAR TO **	08 R/W	08 CLEAR TO **
01	3, 5, 6	R	R R	R	R R			R	R R
OLB	23, 24	R	R R	R	R R			R	R R
02	7, 8, 9, 26	R	R R	R	R R			R	R R
04	18, 19, 20	R	R R	R	R R			R	R R
05	10, 11, 12, 25	G	Y R	-	- -			R	R R
06	1, 2, 4, 27	R	R R	G	Y R			R	R R
OLD	16, 17	G	Y R	R	R R			R	R R
08	13, 14, 15	R	R R	R	R R			G	Y R
OLA	3, 5, 6	-	- -	-	- -			-	- -
OLC	10, 11, 12, 25	-	- -	FY	Y R			-	- -
02P	21, 22	DW	DW DW	DW	DW DW			DW	DW DW
06P	61, 62	DW	DW DW	*	DW DW			DW	DW DW
08P	81, 82	DW	DW DW	DW	DW DW			*	DW DW

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	9	2	X			1	1				6' X 6'	4
*13		3	(NOT	USED)							8' X 8'	3
21	2	4	X			2	2				6' X 30'	5
22	2	4	X			2	2				6' X 30'	3
*23		5	(NOT	USED)							6' X 6'	3
41	4	6	X			4	4				6' X 20'	3
42	4	7	X			4	4				6' X 20'	4
43	10	8	X			4	4		(X = 3")		6' X 6'	5
44	11	9	X			4	4				6' X 6'	6
**51		12		X					(X = 16")		7' X 11'	6
**52		12		X					(X = 16")		7' X 11'	5
53	5	13	X			5	5				6' X 20'	3
54	5	13	X			5	5				6' X 20'	4
55	12	14	X			5	5				6' X 6'	4
56	13	15	X			5	5				6' X 6'	3
*57		16	(NOT	USED)							8' X 8'	3
61	6	10	X			6	6				6' X 30'	5
62	6	10	X			6	6				6' X 30'	3
*63		11	(NOT	USED)							6' X 6'	3
81	8	17	X			8	8				6' X 20'	3
82	8	18	X			8	8				6' X 20'	4
83	14	19	X			8	8		(X = 3")		6' X 6'	4
84	15	20	X			8	8				6' X 6'	3
91*		21	(NOT	USED)							6' X 20'	3
100*		22	(NOT	USED)							7' X 7'	4
101*		23	(NOT	USED)							7' X 7'	3
102*		24	(NOT	USED)							7' X 7'	4

*WIRED IN CABINET FOR FUTURE USE.
**QUEUE DETECTORS WIRED TO BACK PANEL THAT CALLS DUMMY PED 05 AFTER DELAY IS SATISFIED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
5. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
6. OL "B" TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
7. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM: SS - 18-0132	

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

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = 01
O.L. "C" =
O.L. "D" = 05

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+OLB	8+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

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

CONTROLLER TYPE: ASC/3 TS1

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB7 AND SB14.

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & UNIVERSITY AVE. | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0147) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB8 =
SB17 =

NOTE: LOOP 13 NOT USED

NOTE: SYSTEM LOOPS 107-109 NOT USED

NOTE: LOOP 45 NOT USED

NOTE: LOOP 23 NOT USED

NOTE: LOOP 63 NOT USED

NOTE: LOOP 55 NOT USED

NOTE: LOOP 85 NOT USED

SPEED LIMIT 45

SPEED LIMIT 30

DETAIL 'A'

DETAIL 'C'

NORTH FRONTAGE RD

SOUTH FRONTAGE RD

U.S.H. 12/CLAIREMONT AVE

STEIN BLVD

SHARED USE PATH

SIDEWALK

200' TO STOP BAR

MATCHLINE 'A'

MATCHLINE 'B'

FILLER CAPS

SIGN

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- YELLOW ARROW INDICATOR
- GREEN ARROW INDICATOR
- FLASHING YELLOW ARROW
- LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

REVISIONS				
Base Plan No.	Rev. No.			Cont. Type
		REMOVE TROMBONE ARM AT SB16 AND INSTALL MONOTUBE POLE AT SB17. REPLACE TROMBONE ARM POLE AT SB8 WITH MONOTUBE POLE. CHANGE HEADS 5,6,10,11 AND 12 TO 4 SECTIONS FYA, ADD HEADS 3 & 25, AND CHANGE PHASES FOR Ø5 & Ø6 TO REMOVE HARD WIRED LEAD-LAG. CHANGED GREEN ARROWS ON HEADS 4 AND 9 TO GREEN BALLS ON 7-2-15. REPLACED CONTROLLER AND MMU ON 8-13-14.		
		APPROVALS		
		REGION: Date / By	CENTRAL OFFICE: Date / By	
2	1			ASC/3 TS1

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & STEIN BOULEVARD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0180

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-5-08 — DAVID FENSKE, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-9-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & STEIN BLVD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

FILE NAME : P:\60483055\900_Work\910_CAD\05-MODELS\Group B\S 18-0180.dwg

PLOT DATE : 7/29/2016 3:00 PM

1"=40'

WISDOT/CADDS SHEET 42

2

INL

W SIGN W-G W-G

G G

INL

SAN SAN SAN SAN SAN

NORTH FRONTAGE RD

FO FO FO FO

SHARED USE PATH

E E E E

U.S.H. 12/CLAIREMONT AVE

Ø1

MATCHLINE 'A'

61

Ø6

400' TO
STOP BAR

INL

1-2" SIGNAL INTERCONNECT
CONDUIT TO S.T.H. 37/HENDRICKSON

T FO T FO T FO FO

SOUTH FRONTAGE RD

SS SS SS SS

MH SAN SAN SAN SAN

W W W W

N

FO FO FO FO FO FO

W W W W W

SAN SAN SAN MH

INL

NORTH FRONTAGE RD

INL SS

SHARED USE PATH

SS SS SS SS

MH INL

1-2"

INL SS

400' TO
STOP BAR

21

Ø2

MATCHLINE 'B'

Ø5

INL

U.S.H. 12/CLAIREMONT AVE

INL

INL

1-2" SIGNAL INTERCONNECT
CONDUIT TO UNIVERSITY AVE

FO FO FO FO FO

T T T T T

SIDEWALK

FO

FO

FO

SIGN

FO

2

TRAFFIC CONTROL SIGNAL

U.S.H. 12 & STEIN BOULEVARD

EAU CLAIRE COUNTY

SIGNAL NO. S 18-0180

DESIGNED BY: SEH

REVISED BY: AECOM

PAGE: 2 OF 4

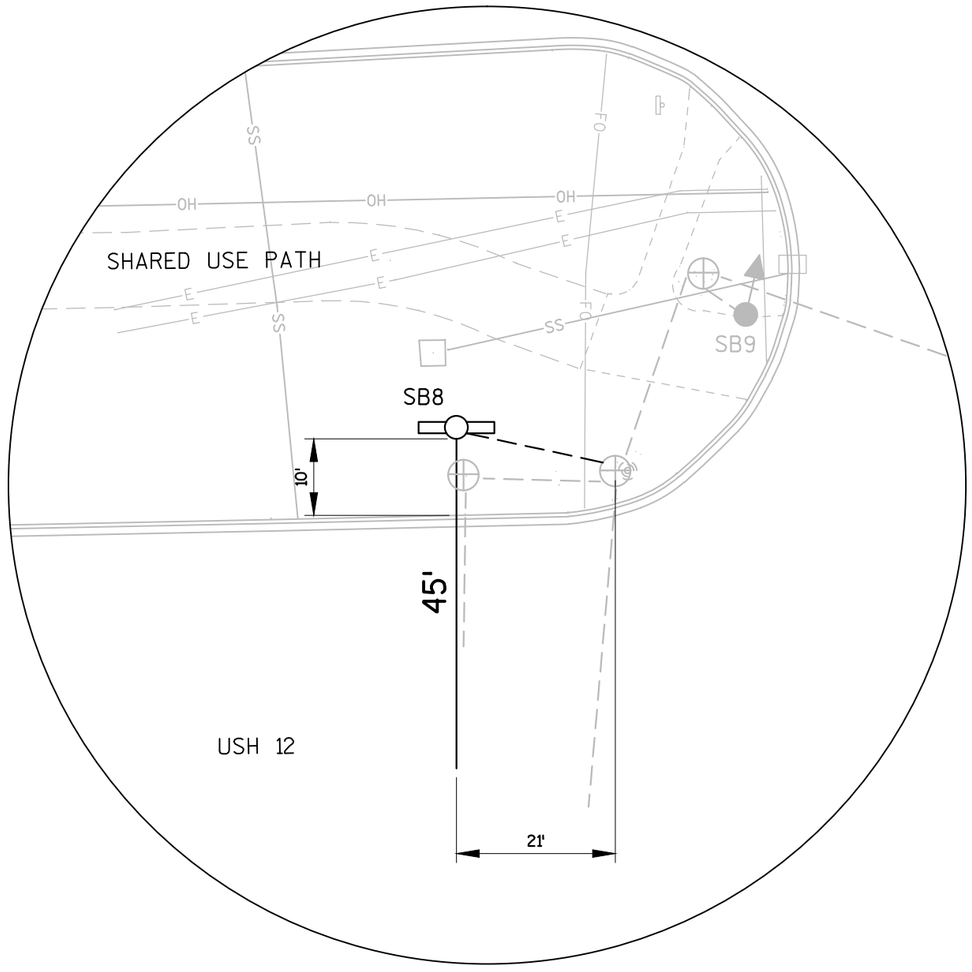
PROJECT NO:1000-08-81	HWY: USH 12 & STEIN BLVD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

FILE NAME : P:\60483055\900_Work\910_CAD\05-MODELS\Group B\S 18-0180.dwg

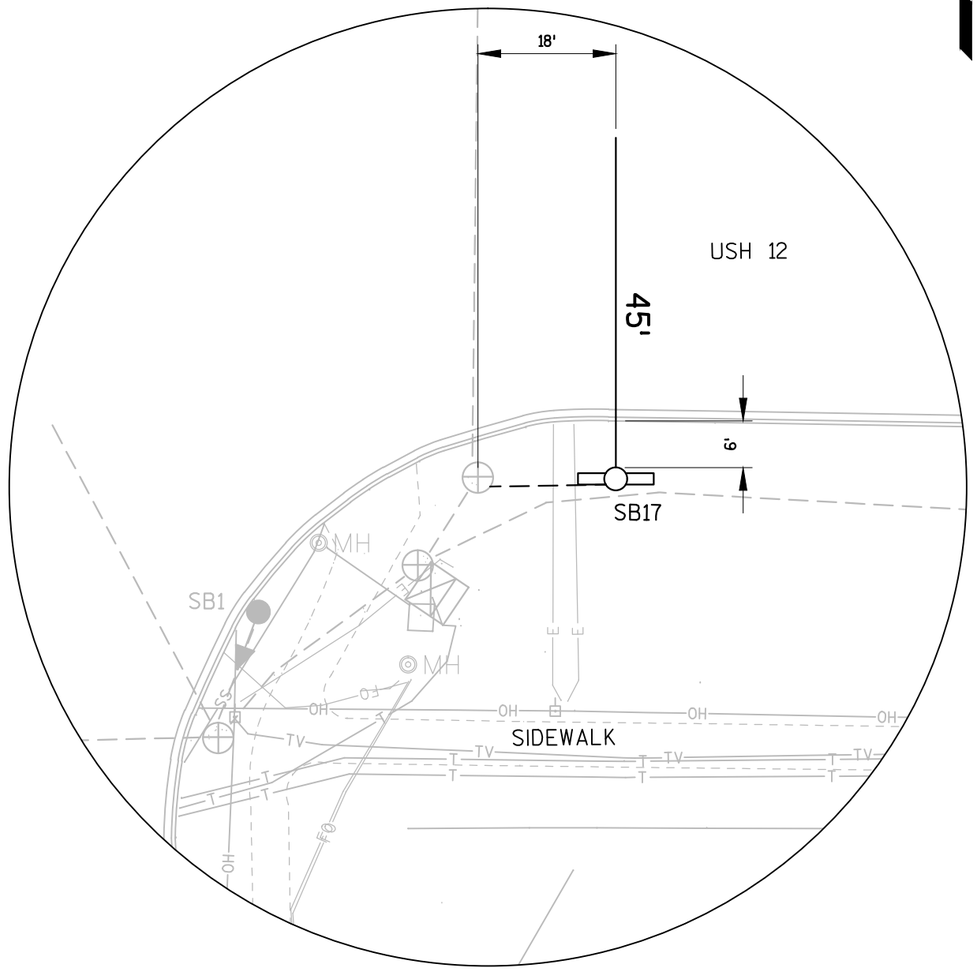
PLOT DATE : 7/29/2016 3:00 PM

1"=40'

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & STEIN BOULEVARD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0180

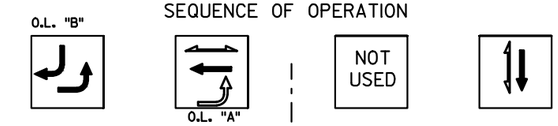
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & STEIN BLVD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:06 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø2 R/W	Ø2 **	Ø3 R/W	Ø3 **	Ø4 R/W	Ø4 **	FLASH
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO	
Ø1	3, 5, 6	G	Y R	-	- -			R	R R	R
OLB	23, 24	G	Y R	R	R R			R	R R	R
Ø2	7, 8, 9, 26	R	R R	G	Y R			R	R R	R
Ø4	18, 19, 20	R	R R	R	R R			G	Y R	R
Ø5	10, 11, 12, 25	R	R R	R	R R			R	R R	R
Ø6	1, 2, 4, 27	R	R R	R	R R			R	R R	R
OLD	16, 17	R	R R	R	R R			R	R R	R
Ø8	13, 14, 15	R	R R	R	R R			R	R R	R
OLA	3, 5, 6	-	- -	FY	Y R			-	- -	-
OLC	10, 11, 12, 25	-	- -	-	- -			-	- -	-
Ø2P	21, 22	DW	DW DW	*	DW DW			DW	DW DW	
Ø4P	41, 42	DW	DW DW	DW	DW DW			*	DW DW	
Ø6P	61, 62	DW	DW DW	DW	DW DW			DW	DW DW	
Ø8P	81, 82	DW	DW DW	DW	DW DW			DW	DW DW	

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø6 R/W	Ø6 **	Ø7 R/W	Ø7 **	Ø8 R/W	Ø8 **
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO
Ø1	3, 5, 6	R	R R	R	R R			R	R R
OLB	23, 24	R	R R	R	R R			R	R R
Ø2	7, 8, 9, 26	R	R R	R	R R			R	R R
Ø4	18, 19, 20	R	R R	R	R R			R	R R
Ø5	10, 11, 12, 25	G	Y R	-	- -			R	R R
Ø6	1, 2, 4, 27	R	R R	G	Y R			R	R R
OLD	16, 17	G	Y R	R	R R			R	R R
Ø8	13, 14, 15	R	R R	R	R R			G	Y R
OLA	3, 5, 6	-	- -	-	- -			-	- -
OLC	10, 11, 12, 25	-	- -	FY	Y R			-	- -
Ø2P	21, 22	DW	DW DW	DW	DW DW			DW	DW DW
Ø4P	41, 42	DW	DW DW	DW	DW DW			DW	DW DW
Ø6P	61, 62	DW	DW DW	*	DW DW			DW	DW DW
Ø8P	81, 82	DW	DW DW	DW	DW DW			*	DW DW

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5	2, 4, 6, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	2	1, 4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	15	2	X			1	1				6' X 6'	4
13		3	(NOT	USED)							8' X 8'	3
21	2	4	X			2	2				6' X 30'	4
22	2	4	X			2	2				6' X 30'	3
23		5	(NOT	USED)							6' X 6'	3
41	4	6	X			4	4		(X = 3")		6' X 20'	3
42	4	7	X			4	4				6' X 20'	4
43	16	8	X			4	4		(X = 3")		6' X 6'	4
44	14	9	X			4	4				6' X 6'	5
**45		10	X			4	4				3' X 3'	6
51	5	13	X			5	5				6' X 20'	3
52	5	13	X			5	5				6' X 20'	4
53	10	14	X			5	5				6' X 6'	4
54	13	15	X			5	5				6' X 6'	3
55		16	(NOT	USED)							8' X 8'	3
61	6	11	X			6	6				6' X 30'	4
62	6	11	X			6	6				6' X 30'	3
63		12	(NOT	USED)							6' X 6'	3
81	8	17	X			8	8				6' X 20'	3
82	8	18	X			8	8				6' X 20'	4
83	12	19	X			8	8		(X = 3")		6' X 6'	4
84	11	20	X			8	8				6' X 6'	3
**85		21	X			8	8				3' X 3'	6
107*		22	(NOT	USED)							7' X 7'	3
108*		23	(NOT	USED)							7' X 7'	4
109*		24	(NOT	USED)							7' X 7'	3

* WIRED IN CABINET FOR FUTURE USE.

** BICYCLE LOOP DETECTORS WIRED IN CABINET FOR FUTURE USE.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0132	

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. BIKE PUSH BUTTONS TO CALL PHASES 4 AND 8. PHASES 4 AND 8 ARE ON LOCKING.
5. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
6. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
7. OL "B" TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
8. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

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

CONTROLLER LOGIC

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

NOTE: PHASES 4 AND 8 LOCKING BECAUSE OF BIKE BUTTONS WIRED AS VEHICLE CALLS.

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1
O.L. "C" =
O.L. "D" = Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+OLB	8+OLD

NOTES: FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CONTROLLER TYPE: ASC/3-2100

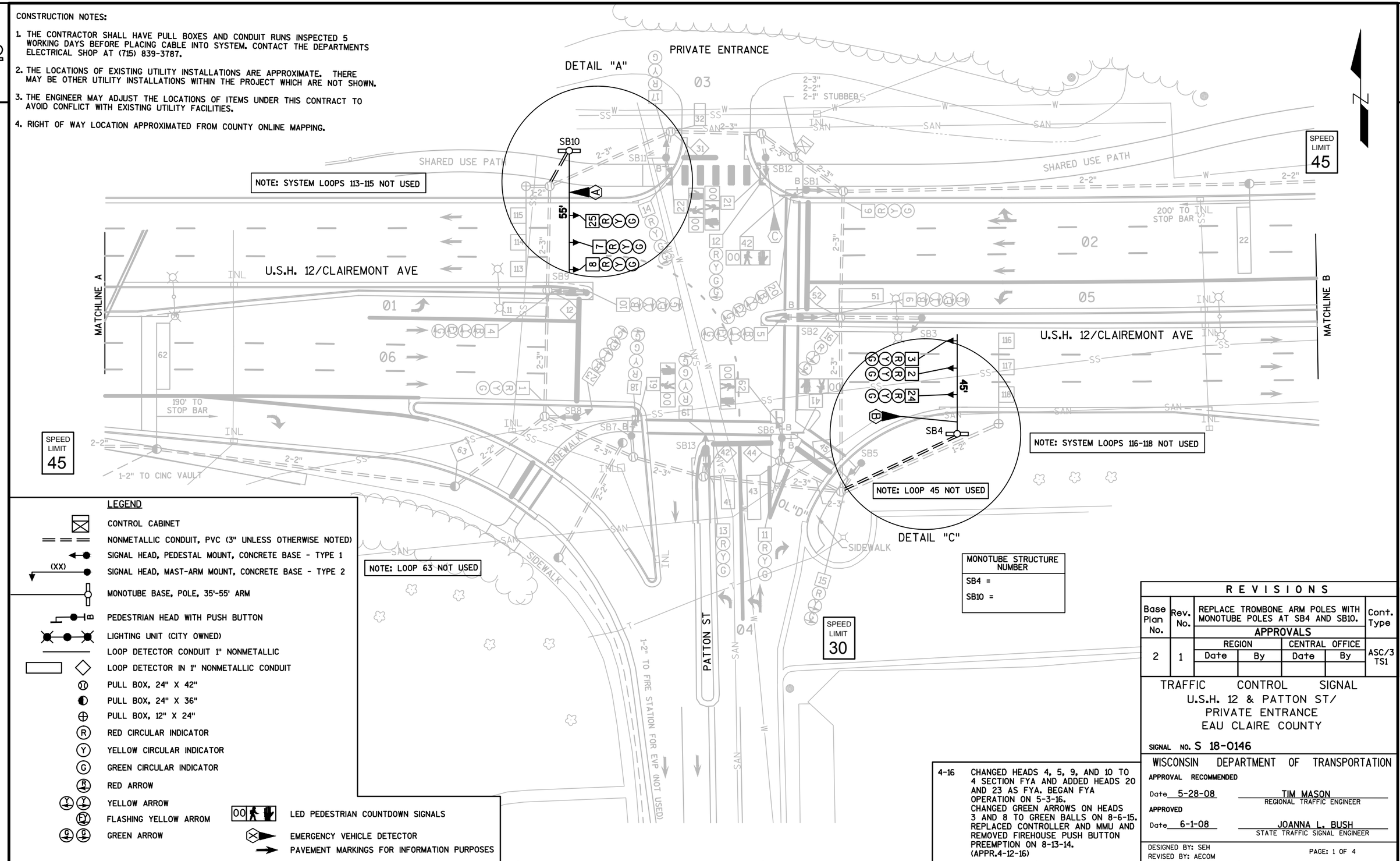
REVISION:
REMOVE TROMBONE ARM AT SB16 AND INSTALL MONOTUBE POLE AT SB17. REPLACE TROMBONE ARM POLE AT SB8 WITH MONOTUBE POLE.
CHANGE HEADS 5,6,10,11 AND 12 TO 4 SECTIONS FYA, ADD HEADS 3 & 25, AND CHANGE PHASES FOR Ø5 & Ø6 TO REMOVE HARD WIRED LEAD-LAG.
CHANGED GREEN ARROWS ON HEADS 4 AND 9 TO GREEN BALLS ON 7-2-15.
REPLACED CONTROLLER AND MMU ON 8-13-14.

REVISION DATE: FEB. 2017

PROJECT NO: 1000-08-81 | HWY: USH 12 & STEIN BLVD | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0180) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.



MONOTUBE STRUCTURE NUMBER

SB4 =	
SB10 =	

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROM
- (G) (G) GREEN ARROW
- 00 LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

REVISIONS					
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10.			Cont. Type
		APPROVALS			
		REGION		CENTRAL OFFICE	
		Date	By	Date	By
2	1				ASC/3 TS1

4-16 CHANGED HEADS 4, 5, 9, AND 10 TO 4 SECTION FYA AND ADDED HEADS 20 AND 23 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROWS ON HEADS 3 AND 8 TO GREEN BALLS ON 8-6-15. REPLACED CONTROLLER AND MMU AND REMOVED FIREHOUSE PUSH BUTTON PREEMPTION ON 8-13-14. (APPR.4-12-16)

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & PATTON ST/
PRIVATE ENTRANCE
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0146

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-28-08 TIM MASON, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 6-1-08 JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & PATTON ST/P.E.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0146.DWG PLOT DATE : 7/29/2016 3:02 PM 1"=40'

2

2

STATE ST

SHARED USE PATH

U.S.H. 12/CLAIREMONT AVE

MATCHLINE A

61

435' TO STOP BAR

Ø6

2-2"

1-2" SIGNAL INTERCONNECT CONDUIT TO UNIVERSITY AVE

STATE ST

MATCHLINE B

SHARED USE PATH

1-2" SIGNAL INTERCONNECT CONDUIT TO RUDOLPH RD

2-2"

400' TO STOP BAR

21

Ø2

Ø5

U.S.H. 12/CLAIREMONT AVE

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & PATTON ST/
PRIVATE ENTRANCE
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0146

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 2 OF 4

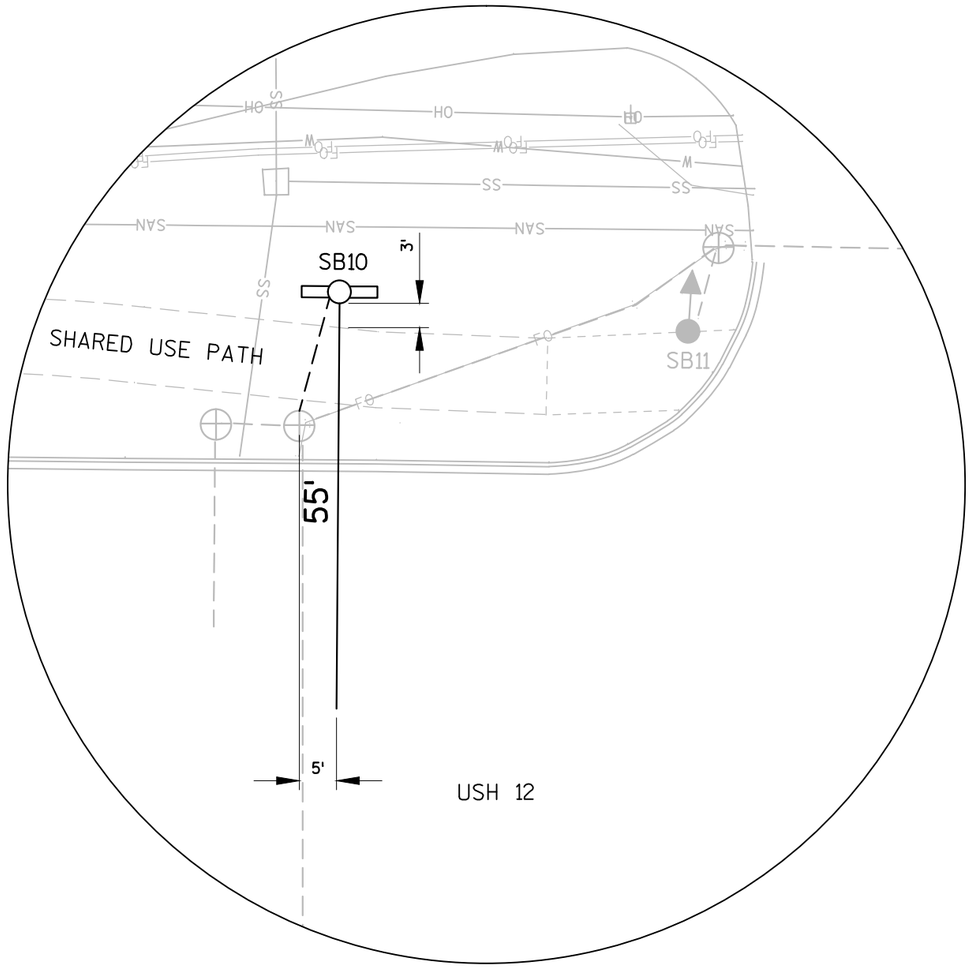
PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & PATTON ST/P.E.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 20 40	SHEET: E

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0146.DWG

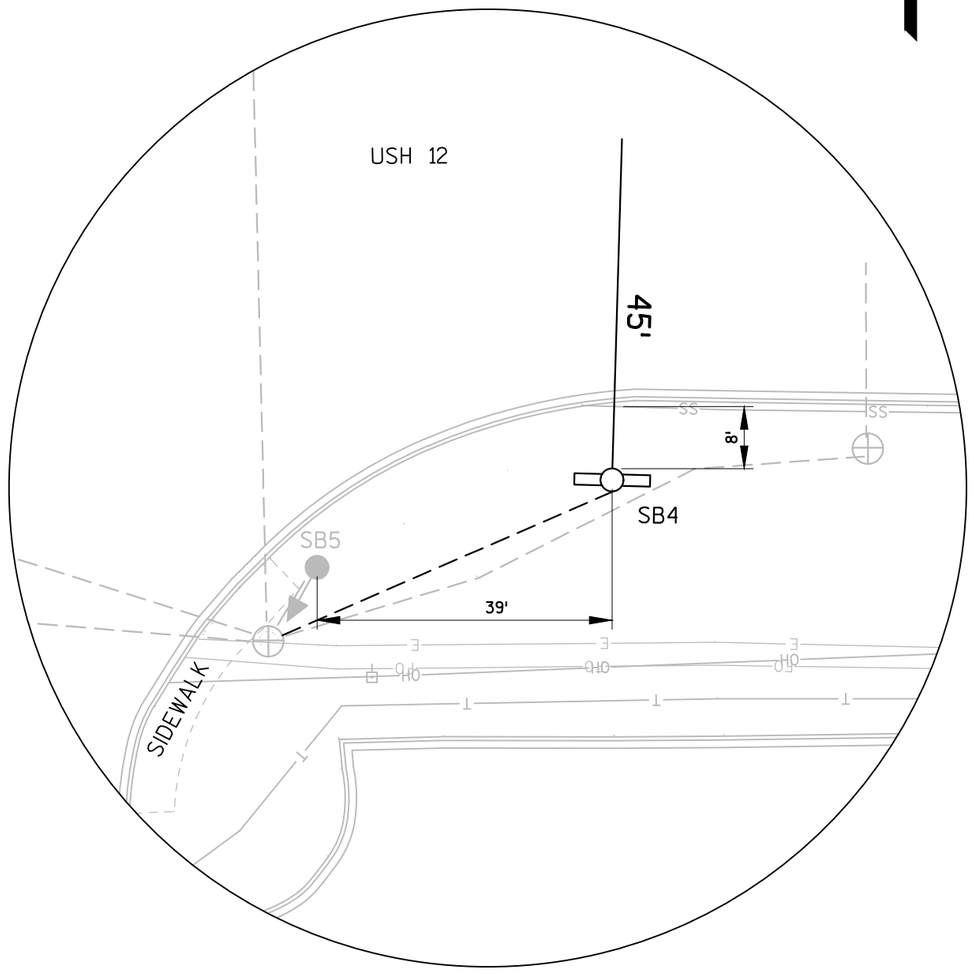
PLOT DATE : 7/29/2016 3:02 PM

1"=40'

WISDOT/CADDS SHEET 42



DETAIL 'A'



DETAIL 'C'

N

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & PATTON ST/
PRIVATE ENTRANCE
EAU CLAIRE COUNTY

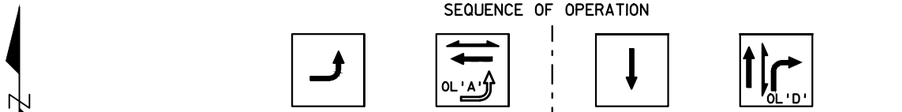
SIGNAL NO. S 18-0146

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

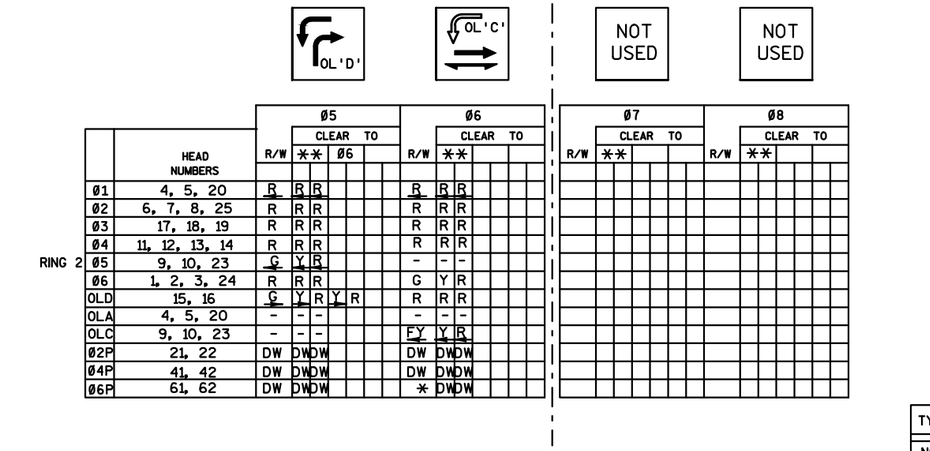
PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & PATTON ST/P.E.	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION



	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
		**		**		**		**	Ø5	
Ø1	4, 5, 20	G Y R		- - -		R R R		R R R		R
Ø2	6, 7, 8, 25	R R R		G Y R		R R R		R R R		R
Ø3	17, 18, 19	R R R		R R R		G G Y R		R R R		R
Ø4	11, 12, 13, 14	R R R		R R R		R R R		G G Y R		R
Ø5	9, 10, 23	R R R		R R R		R R R		R R R		R
Ø6	1, 2, 3, 24	R R R		R R R		R R R		R R R		R
OLD	15, 16	R R R		R R R		R R R		G Y R G G		R
OLA	4, 5, 20	- - -		FY Y R		- - -		- - -		-
OLC	9, 10, 23	- - -		- - -		- - -		- - -		-
Ø2P	21, 22	DW DW DW		* DW DW		DW DW DW		DW DW DW		
Ø4P	41, 42	DW DW DW		DW DW DW		DW DW DW		* DW DW		
Ø6P	61, 62	DW DW DW		DW DW DW		DW DW DW		DW DW DW		

RING 1



	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
		**	Ø6	**		**		**	
Ø1	4, 5, 20	R R R		R R R					
Ø2	6, 7, 8, 25	R R R		R R R					
Ø3	17, 18, 19	R R R		R R R					
Ø4	11, 12, 13, 14	R R R		R R R					
Ø5	9, 10, 23	G Y R		- - -					
Ø6	1, 2, 3, 24	R R R		G Y R					
OLD	15, 16	G Y R Y R		R R R					
OLA	4, 5, 20	- - -		- - -					
OLC	9, 10, 23	- - -		FY Y R					
Ø2P	21, 22	DW DW DW		DW DW DW					
Ø4P	41, 42	DW DW DW		DW DW DW					
Ø6P	61, 62	DW DW DW		* DW DW					

RING 2

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4
2	5 OR 6	1, 3, 4
3		1, 2, 4, 5, 6
4		1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6
6	1 OR 2	3, 4, 5

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	9	2	X			1	1				6' X 6'	4
21	2	3	X			2	2				6' X 30'	4
22	2	3	X			2	2				6' X 30'	3
31	10	4	X			3	3				6' X 6'	4
32	3	5	X			3	3				5' X 10'	3
41	4	6	X			4	4				6' X 15'	4
42	11	7	X			4	4				6' X 6'	5
43	4	8	X			4	4				6' X 20'	3
44	12	9	X			4	4				6' X 6'	4
45*		10		(NOT USED)							8' X 8'	3
51	5	11	X			5	5				6' X 20'	3
52	13	12	X			5	5				6' X 6'	3
61	6	13	X			6	6			(X=1")	6' X 30'	4
62	6	14	X			6	6				6' X 30'	3
63*		15		(NOT USED)							6' X 6'	3
113*		16		(NOT USED)							7' X 7'	3
114*		17		(NOT USED)							7' X 7'	4
115*		18		(NOT USED)							7' X 7'	3
116*		19		(NOT USED)							7' X 7'	3
117*		20		(NOT USED)							7' X 7'	4
118*		21		(NOT USED)							7' X 7'	3

*WIRED IN CABINET FOR FUTURE USE.

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" = Ø4 + Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM: SS-18-0132	

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	1	2	3
MOVEMENT			
DIRECTION	WB	EB	NB
PHASES	2+5	1+6	4+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

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

GENERAL NOTES:

1. ANY ACTUATED PHASE 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).

CONTROLLER TYPE: ASC/3-2100
REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10.
REVISION DATE: FEB. 2017 PAGE: 4 OF 4

PROJECT NO: 1000-08-81 | HWY: U.S.H. 12 & PATTON ST/P.E. | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0146) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

NOTE: SYSTEM LOOPS 119-121 NOT USED

MONOTUBE STRUCTURE NUMBER
SB9 =
SB17 =

NORTH FRONTAGE RD
RUDOLPH RD
SHARED USE PATH
U.S.H. 12/CLAIREMONT AVE
SOUTH FRONTAGE ROAD
SIDEWALK
MATCHLINE A
MATCHLINE B
SPEED LIMIT 30
SPEED LIMIT 45
SPEED LIMIT 45
SPEED LIMIT 30
Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8
62 200' TO STOP BAR
NOTE: LOOP 14 NOT USED
NOTE: LOOP 23 (NOT USED)
NOTE: LOOP 63 NOT USED
NOTE: LOOP 53 NOT USED
DETAIL "A"
DETAIL "B"
DETAIL "C"
SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15 SB16 SB17

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- 00 LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR

4-16 CHANGED HEADS 5, 6, 11, AND 12 TO 4-SECTION FYA AND ADDED HEADS 25 AND 26 AS FYA. BEGAN FYA OPERATION ON 5-3-16.
CHANGED GREEN ARROWS ON HEADS 3, 4, 9, AND 10 TO GREEN BALLS ON 7-21-15.
REPLACED CONTROLLER AND MMU ON 8-12-14. (APPR. 4-12-16)

REVISIONS

Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB9 AND SB17.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
2	2					ASC/3 2100

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & RUDOLPH RD.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0141

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-19-08 DAVID FENSKE, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-27-08 JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & RUDOLPH ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

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PLOT DATE : 7/29/2016 3:12 PM
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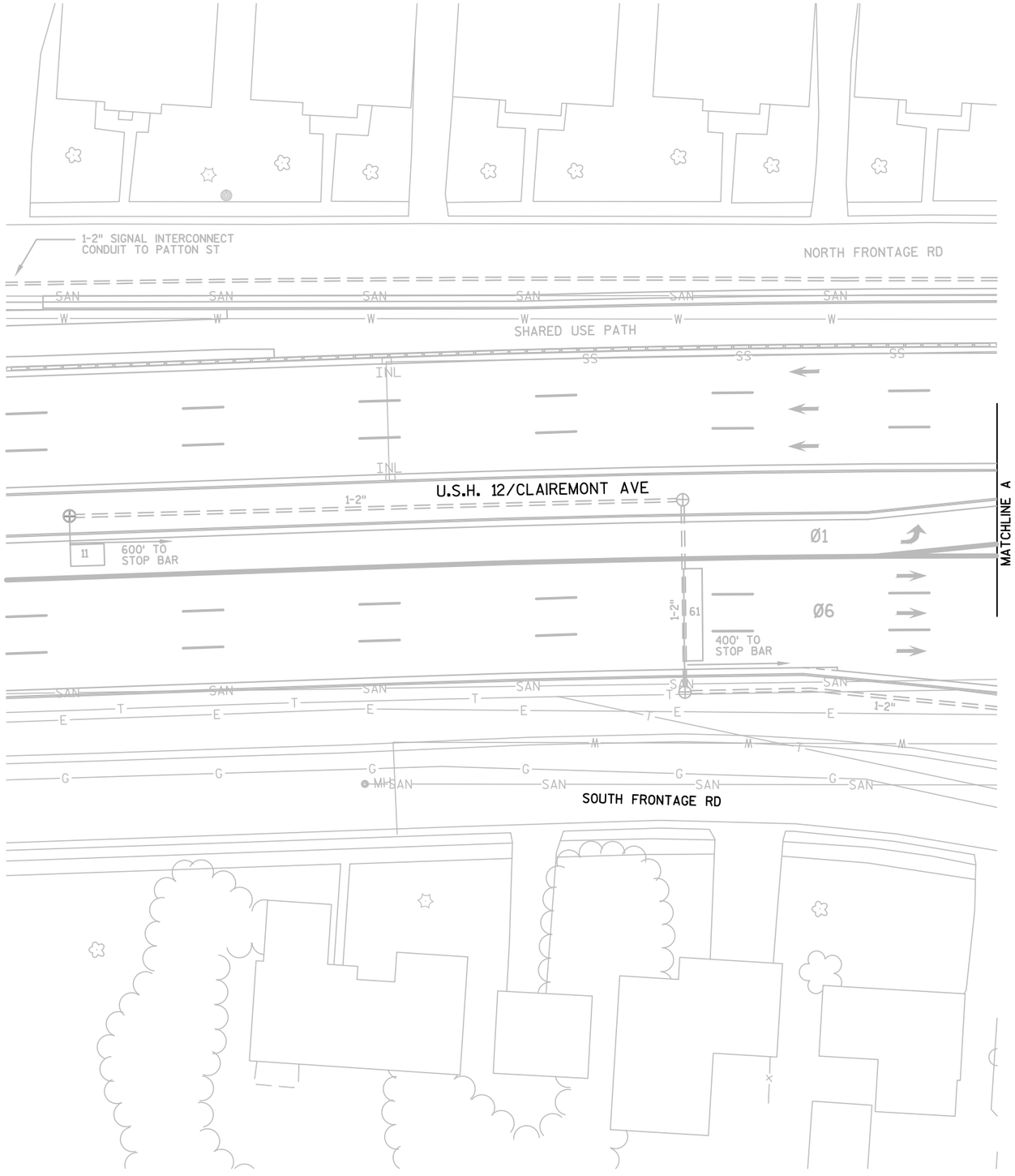
WISDOT/CADDS SHEET 42

2



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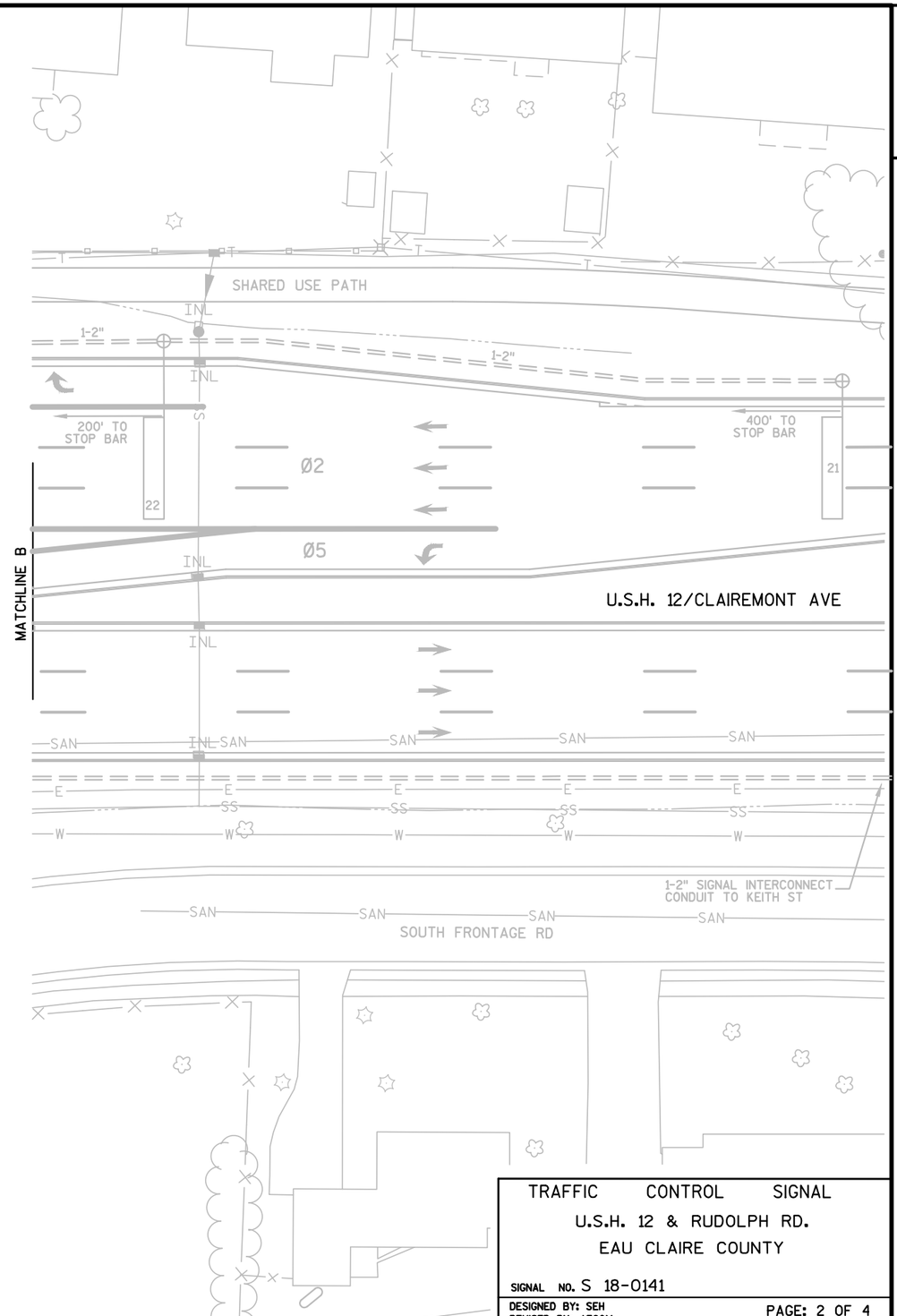

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TRAFFIC CONTROL SIGNAL
U.S.H. 12 & RUDOLPH RD.
EAU CLAIRE COUNTY

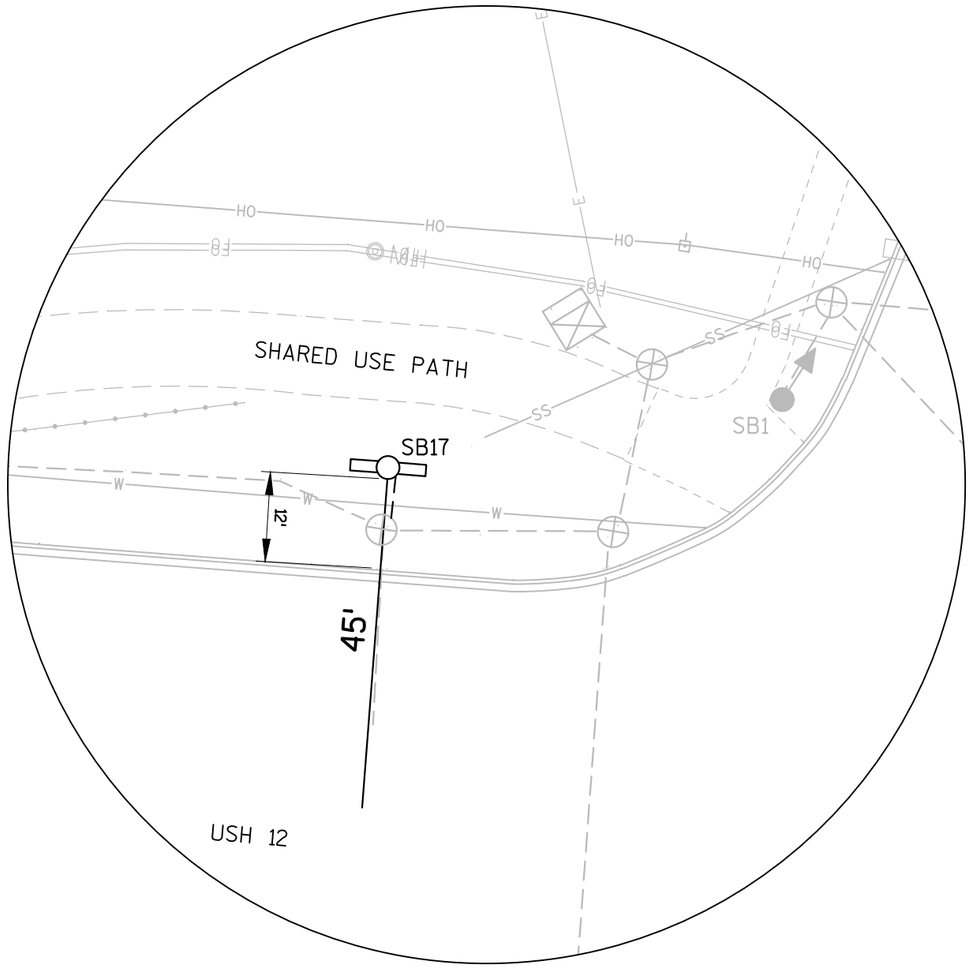
SIGNAL NO. S 18-0141

DESIGNED BY: SEH
REVISED BY: AECOM

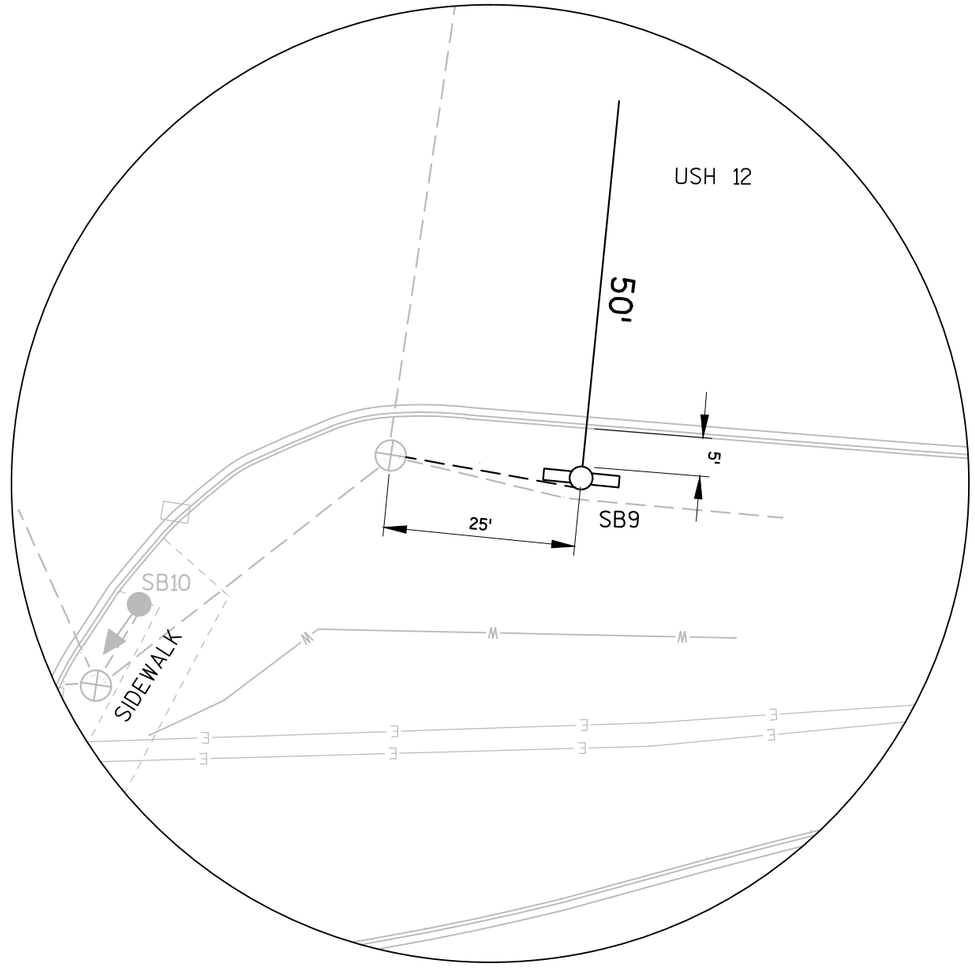
PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & RUDOLPH ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & RUDOLPH RD.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0141

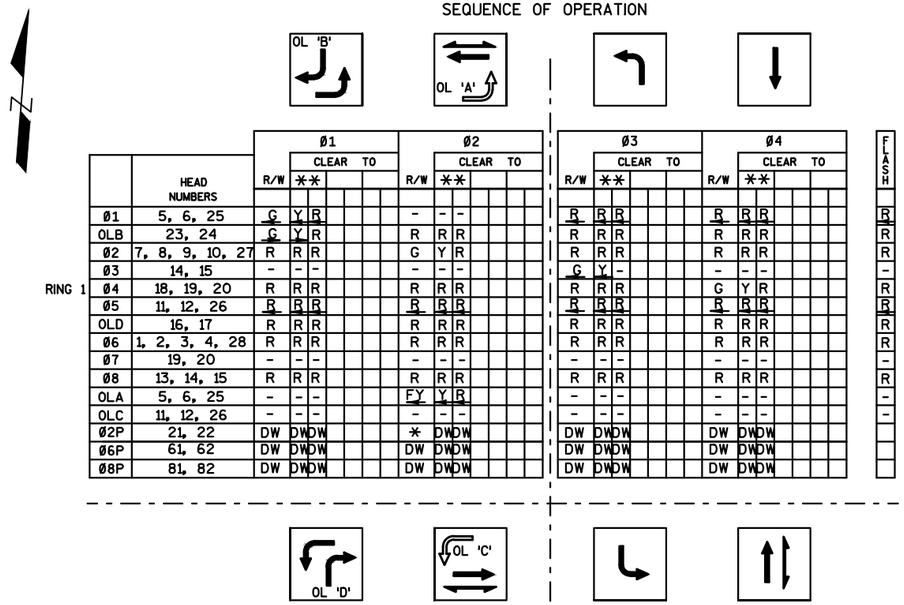
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & RUDOLPH ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:07 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



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, 6, 25	G Y R	- - -		R R R		R R R		R
OLB	23, 24	G Y R	R R R		R R R		R R R		R
Ø2	7, 8, 9, 10, 27	R R R	G Y R		R R R		R R R		R
Ø3	14, 15	- - -	- - -		G Y -		- - -		-
Ø4	18, 19, 20	R R R	R R R		R R R		G Y R		R
Ø5	11, 12, 26	R R R	R R R		R R R		R R R		R
OLD	16, 17	R R R	R R R		R R R		R R R		R
Ø6	1, 2, 3, 4, 28	R R R	R R R		R R R		R R R		R
Ø7	19, 20	- - -	- - -		- - -		- - -		-
Ø8	13, 14, 15	R R R	R R R		R R R		R R R		R
OLA	5, 6, 25	- - -	FY Y R		- - -		- - -		-
OLC	11, 12, 26	- - -	- - -		- - -		- - -		-
Ø2P	21, 22	DW DW DW	* DW DW		DW DW DW		DW DW DW		
Ø6P	61, 62	DW DW DW	DW DW DW		DW DW DW		DW DW DW		
Ø8P	81, 82	DW DW DW	DW DW DW		DW DW DW		DW DW DW		

RING 2

	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, 6, 25	R R R		R R R		R R R		R R R	
OLB	23, 24	R R R		R R R		R R R		R R R	
Ø2	7, 8, 9, 10, 27	R R R		R R R		R R R		R R R	
Ø3	14, 15	- - -		- - -		- - -		- - -	
Ø4	18, 19, 20	R R R		R R R		R R R		R R R	
Ø5	11, 12, 26	G Y R		- - -		R R R		R R R	
OLD	16, 17	G Y R		R R R		R R R		R R R	
Ø6	1, 2, 3, 4, 28	R R R		G Y R		R R R		R R R	
Ø7	19, 20	- - -		- - -		G Y -		- - -	
Ø8	13, 14, 15	R R R		R R R		R R R		G Y R	
OLA	5, 6, 25	- - -		- - -		- - -		- - -	
OLC	11, 12, 26	- - -		FY Y R		- - -		- - -	
Ø2P	21, 22	DW DW DW		DW DW DW		DW DW DW		* DW DW	
Ø6P	61, 62	DW DW DW		* DW DW		DW DW DW		DW DW DW	
Ø8P	81, 82	DW DW DW		DW DW DW		DW DW DW		* DW DW	

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	7 OR 8	1, 2, 4, 5, 6
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	1 OR 2	3, 4, 5, 7, 8
7	3 OR 4	1, 2, 5, 6, 8
8	3 OR 4	1, 2, 5, 6, 7

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
**11	1	1		X					(X=24")		7' X 11'	5
12	1	2	X			1	1				6' X 20'	3
13	9	3	X			1	1				6' X 6'	4
*14		4		(NOT USED)							8' X 8'	3
21	2	5	X			2	2				6' X 30'	4
22	2	5	X			2	2				6' X 30'	3
*23		6		(NOT USED)							6' X 6'	3
31	3	7	X			3	3				6' X 20'	4
32	11	8	X			3	3				6' X 6'	6
41	4	9	X			4	4				6' X 20'	4
42	10	10	X			4	4				6' X 6'	3
***43	10	11	X			4	4				3' X 3'	6
51	5	12	X			5	5				6' X 20'	3
52	14	13	X			5	5				6' X 6'	4
*53		14		(NOT USED)							8' X 8'	3
61	6	15	X			6	6				6' X 30'	4
62	6	15	X			6	6				6' X 30'	3
*63		16		(NOT USED)							6' X 6'	3
71	7	17	X			7	7				6' X 20'	3
72	13	18	X			7	7				6' X 6'	4
81	8	19	X			8	8				6' X 20'	3
82	16	20	X			8	8				6' X 6'	5
***83	16	21	X			8	8				3' X 3'	6
*119		22		(NOT USED)							7' X 7'	3
*120		23		(NOT USED)							7' X 7'	4
*121		24		(NOT USED)							7' X 7'	3

* WIRED IN CABINET FOR FUTURE USE.

** QUEUE DETECTOR 11 CALLS DUMMY PED Ø1 AFTER DELAY IS SATISFIED.

*** BICYCLE LOOP DETECTORS WIRED IN CABINET FOR FUTURE USE.

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1
O.L. "C" =
O.L. "D" = Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM	
CONTROLLER NO: S-	
SIGNAL SYSTEM: SS-18-0133	

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

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. NO RED SHOWN ON THE CHART FOR PHASES 3 AND 7 SINCE COMPOSITE HEADS ARE USED.
5. BIKE PUSH BUTTONS TO CALL VEHICLE PHASES 4 AND 8. PHASES 4 AND 8 ARE ON LOCKING.
6. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
7. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
8. OL 'B' TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
9. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+7+OLB	3+8+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CONTROLLER TYPE: ASC/3-2100

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB9 AND SB17.

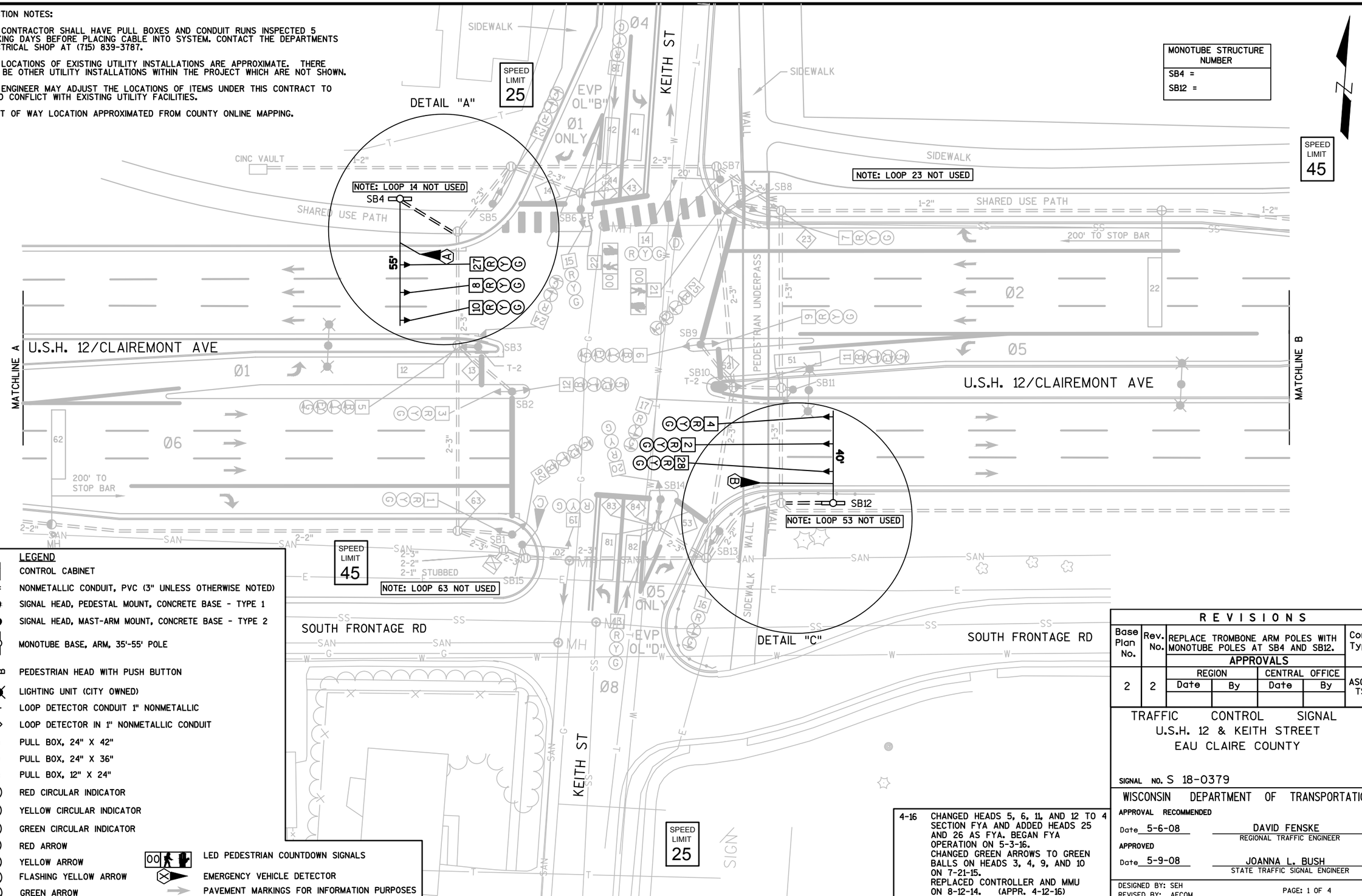
BASE PLAN NO: 2 REVISION NO: 1

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB4 =
SB12 =



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, ARM, 35'-55' POLE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES

REVISIONS						
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB12.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
2	2					ASC/3 TS1

4-16 CHANGED HEADS 5, 6, 11, AND 12 TO 4 SECTION FYA AND ADDED HEADS 25 AND 26 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROWS TO GREEN BALLS ON HEADS 3, 4, 9, AND 10 ON 7-21-15. REPLACED CONTROLLER AND MMU ON 8-12-14. (APPR. 4-12-16)

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & KEITH STREET
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0379

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-6-08 — DAVID FENSKE, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-9-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & KEITH STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

2

2

N

SHARED USE PATH

INL

U.S.H. 12/CLAIREMONT AVE

MATCHLINE A

11

Ø1

Ø6

1-2"

61

400' TO STOP BAR

SS

MH

SAN

2-2"

1-2" SIGNAL INTERCONNECT CONDUIT TO RUDOLPH RD

SOUTH FRONTAGE RD

G

W

MATCHLINE B

Ø2

21

1-2"

400' TO STOP BAR

1-2" SIGNAL INTERCONNECT CONDUIT TO FAIRFAX ST

E

TRAFFIC CONTROL SIGNAL

U.S.H. 12 & KEITH STREET

EAU CLAIRE COUNTY

SIGNAL NO. S 18-0379

DESIGNED BY: SEH

REVISED BY: AECOM

PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & KEITH STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

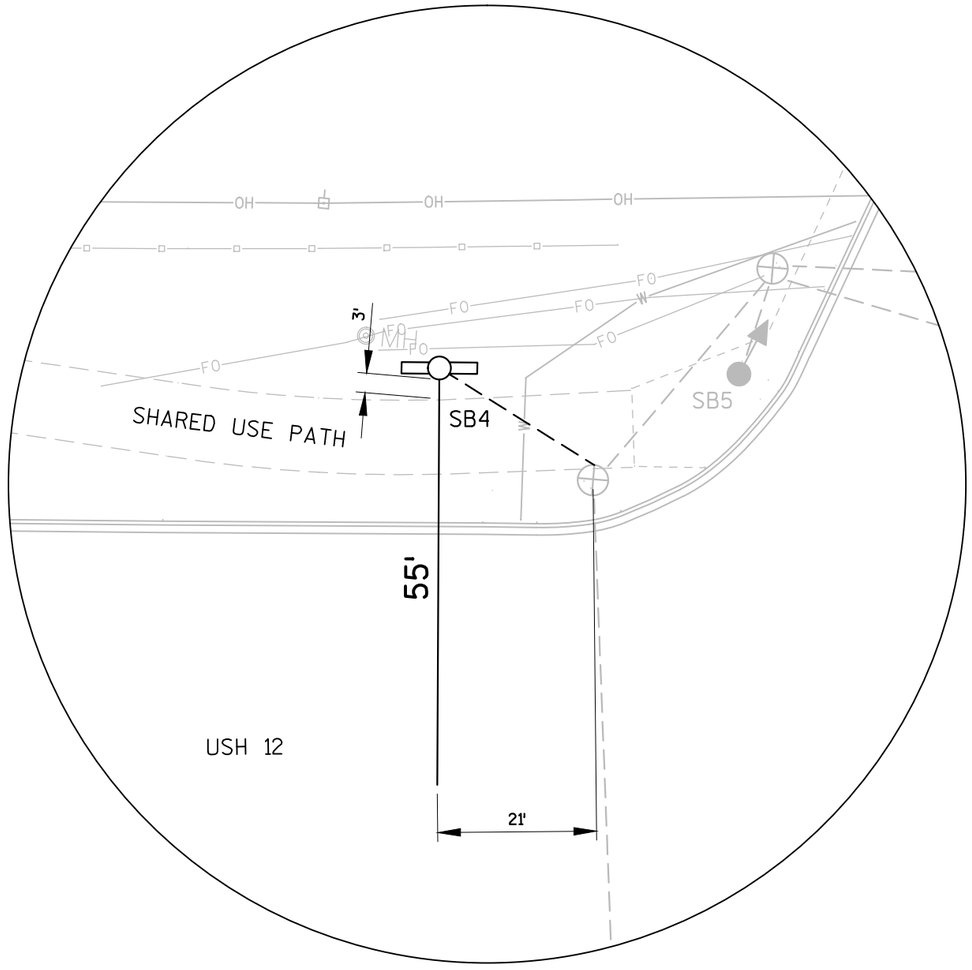
FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0379.DWG

PLOT DATE : 7/29/2016 3:05 PM

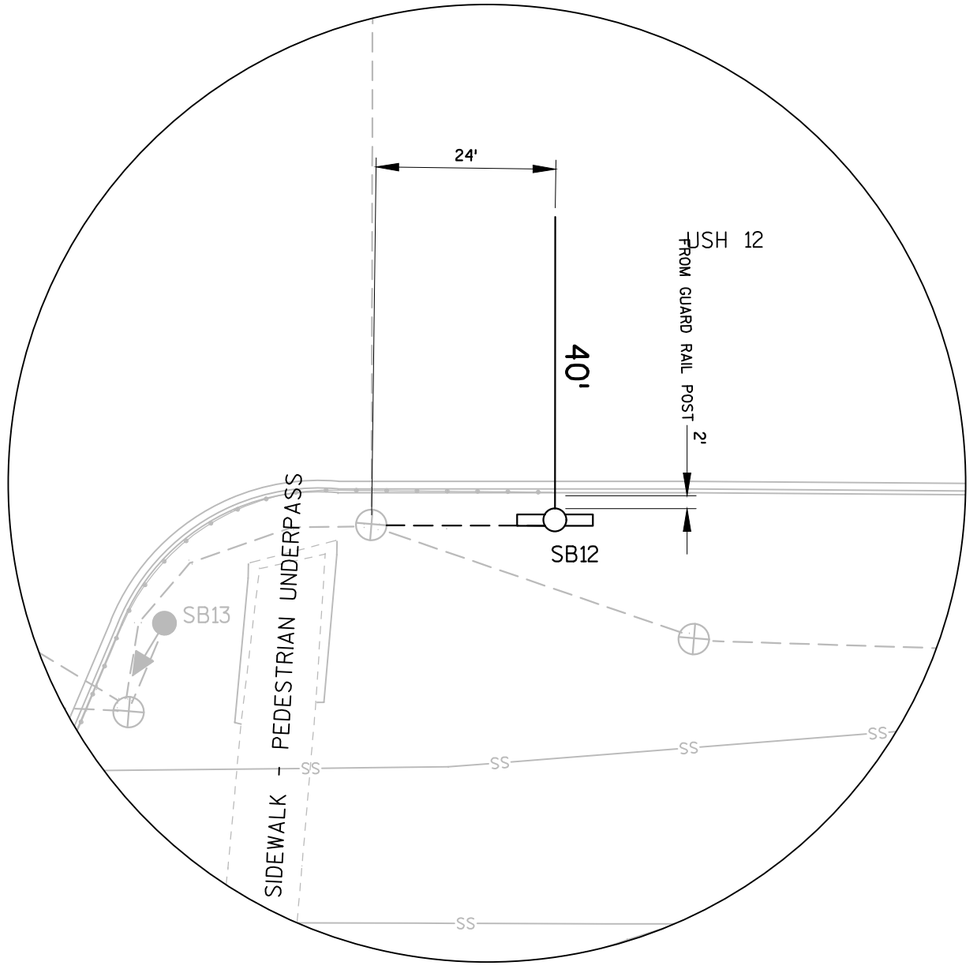
1"=40'

WISDOT/CADDS SHEET 42

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & KEITH STREET
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0379

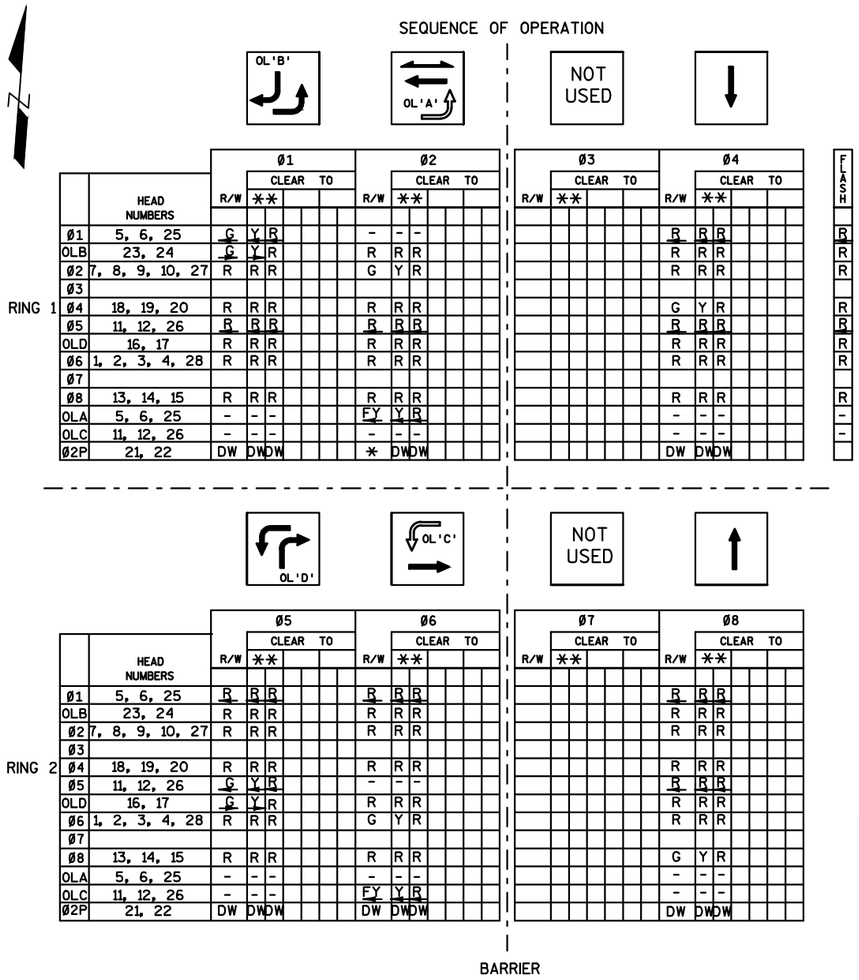
DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & KEITH STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:08 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø2 R/W	Ø2 **	Ø3 R/W	Ø3 **	Ø4 R/W	Ø4 **	FLASH
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO	
Ø1	5, 6, 25	G	Y R	-	- -			R	R R	R
OLB	23, 24	G	Y R	R	R R			R	R R	R
Ø2	7, 8, 9, 10, 27	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	18, 19, 20	R	R R	R	R R			G	Y R	R
Ø5	11, 12, 26	R	R R	R	R R			R	R R	R
OLD	16, 17	R	R R	R	R R			R	R R	R
Ø6	1, 2, 3, 4, 28	R	R R	R	R R			R	R R	R
Ø7										
Ø8	13, 14, 15	R	R R	R	R R			R	R R	R
OLA	5, 6, 25	-	- -	FY	Y R			-	- -	-
OLC	11, 12, 26	-	- -	-	- -			-	- -	-
Ø2P	21, 22	DW	DW DW	*	DW DW			DW	DW DW	

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø6 R/W	Ø6 **	Ø7 R/W	Ø7 **	Ø8 R/W	Ø8 **
			CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO
Ø1	5, 6, 25	R	R R	R	R R			R	R R
OLB	23, 24	R	R R	R	R R			R	R R
Ø2	7, 8, 9, 10, 27	R	R R	R	R R			R	R R
Ø3									
Ø4	18, 19, 20	R	R R	R	R R			R	R R
Ø5	11, 12, 26	G	Y R	-	- -			R	R R
OLD	16, 17	G	Y R	R	R R			R	R R
Ø6	1, 2, 3, 4, 28	R	R R	G	Y R			R	R R
Ø7									
Ø8	13, 14, 15	R	R R	R	R R			G	Y R
OLA	5, 6, 25	-	- -	-	- -			-	- -
OLC	11, 12, 26	-	- -	FY	Y R			-	- -
Ø2P	21, 22	DW	DW DW	DW	DW DW			DW	DW DW

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
**11		1		X					X=24"		7' X 11'	5
12	1	2	X			1	1				6' X 20'	3
13	9	3	X			1	1				6' X 6'	4
*14		4		(NOT	USED)						8' X 8'	3
21	2	5	X			2	2				6' X 30'	4
22	2	5	X			2	2				6' X 30'	3
*23		6		(NOT	USED)						6' X 6'	3
41	4	7	X			4	4				6' X 20'	3
42	4	8	X			4	4				6' X 20'	4
43	10	9	X			4	4				6' X 6'	4
44	11	10	X			4	4				6' X 6'	5
51	5	11	X			5	5				6' X 20'	3
52	12	12	X			5	5				6' X 6'	4
*53		13		(NOT	USED)						8' X 8'	3
61	6	14	X			6	6				6' X 30'	4
62	6	14	X			6	6				6' X 30'	3
*63		15		(NOT	USED)						6' X 6'	3
81	8	16	X			8	8				6' X 20'	3
82	8	17	X			8	8				6' X 20'	4
83	13	18	X			8	8				6' X 6'	4
84	14	19	X			8	8				6' X 6'	3

* WIRED IN CABINET FOR FUTURE USE.

** QUEUE DETECTOR 11 CALLS DUMMY PED Ø1 AFTER DELAY IS SATISFIED.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0133	

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

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

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1
O.L. "C" =
O.L. "D" = Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+OLB	8+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
5. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
6. OL "B" TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
7. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

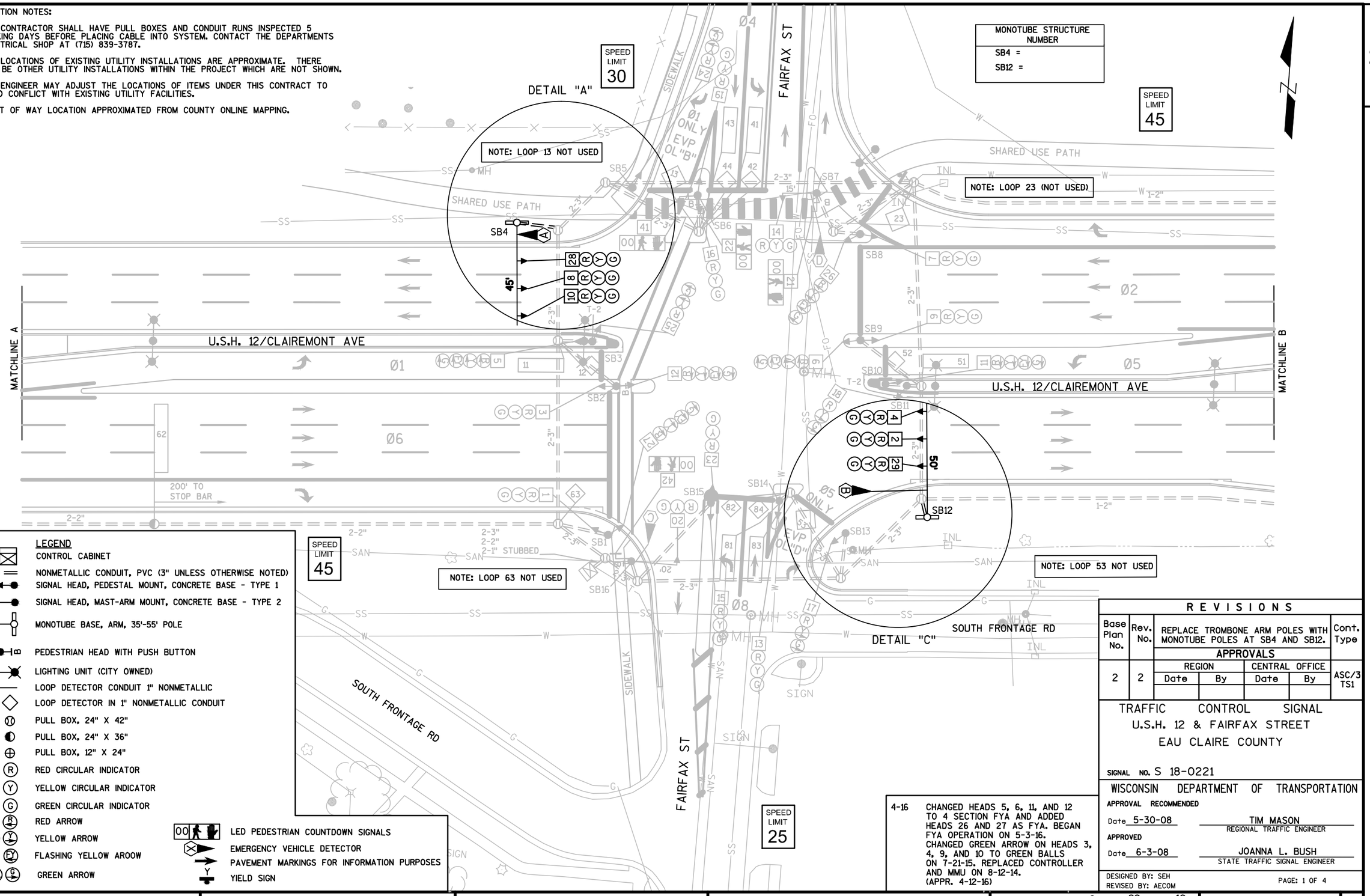
CONTROLLER TYPE:	ASC/3-2100
REVISION	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB12.
BASE PLAN NO: 2	REVISION NO: 1
REVISION DATE: FEB. 2017	PAGE: 4 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & KEITH STREET	COUNTY: EAU CLAIRE	SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0379)	SHEET: E

2

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT, PVC (3" UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, PEDESTAL MOUNT, CONCRETE BASE - TYPE 1
- (XX) SIGNAL HEAD, MAST-ARM MOUNT, CONCRETE BASE - TYPE 2
- MONOTUBE BASE, ARM, 35'-55' POLE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LIGHTING UNIT (CITY OWNED)
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW AROOW
- (G) GREEN ARROW
- 00 LED PEDESTRIAN COUNTDOWN SIGNALS
- EMERGENCY VEHICLE DETECTOR
- PAVEMENT MARKINGS FOR INFORMATION PURPOSES
- Y YIELD SIGN

REVISIONS						
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB12.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
2	2	Date	By	Date	By	ASC/3 TS1

4-16 CHANGED HEADS 5, 6, 11, AND 12 TO 4 SECTION FYA AND ADDED HEADS 26 AND 27 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROW ON HEADS 3, 4, 9, AND 10 TO GREEN BALLS ON 7-21-15. REPLACED CONTROLLER AND MMU ON 8-12-14. (APPR. 4-12-16)

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & FAIRFAX STREET
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0221

WISCONSIN DEPARTMENT OF TRANSPORTATION

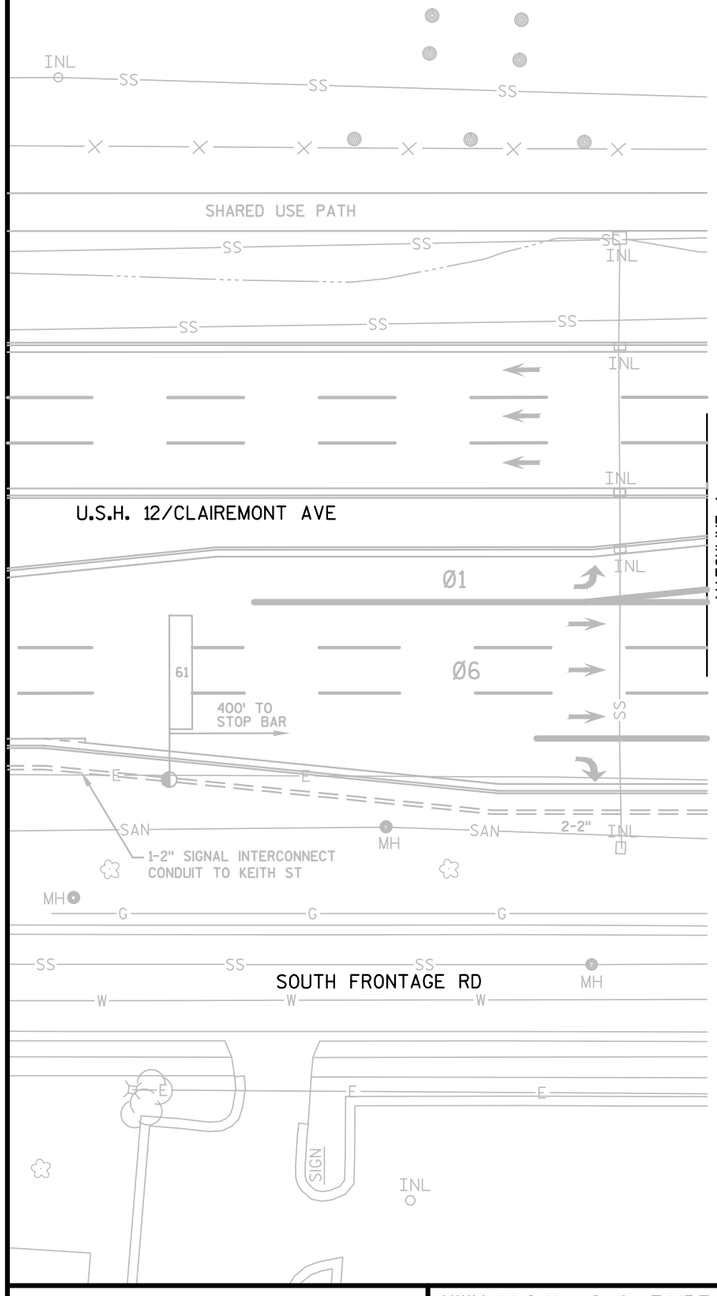
APPROVAL RECOMMENDED
Date 5-30-08 — TIM MASON, REGIONAL TRAFFIC ENGINEER

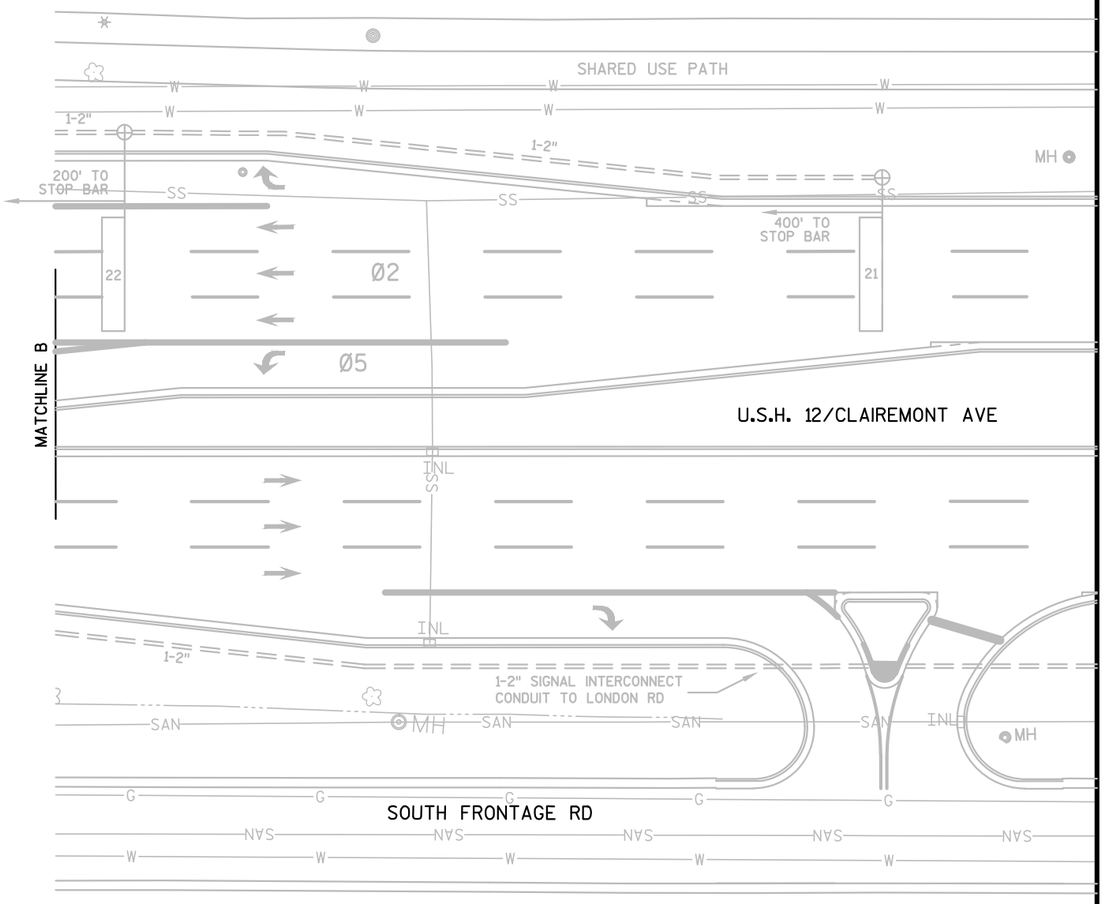
APPROVED
Date 6-3-08 — JOANNA L. BUSH, STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & FAIRFAX STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:





TRAFFIC CONTROL SIGNAL
U.S.H. 12 & FAIRFAX STREET
EAU CLAIRE COUNTY

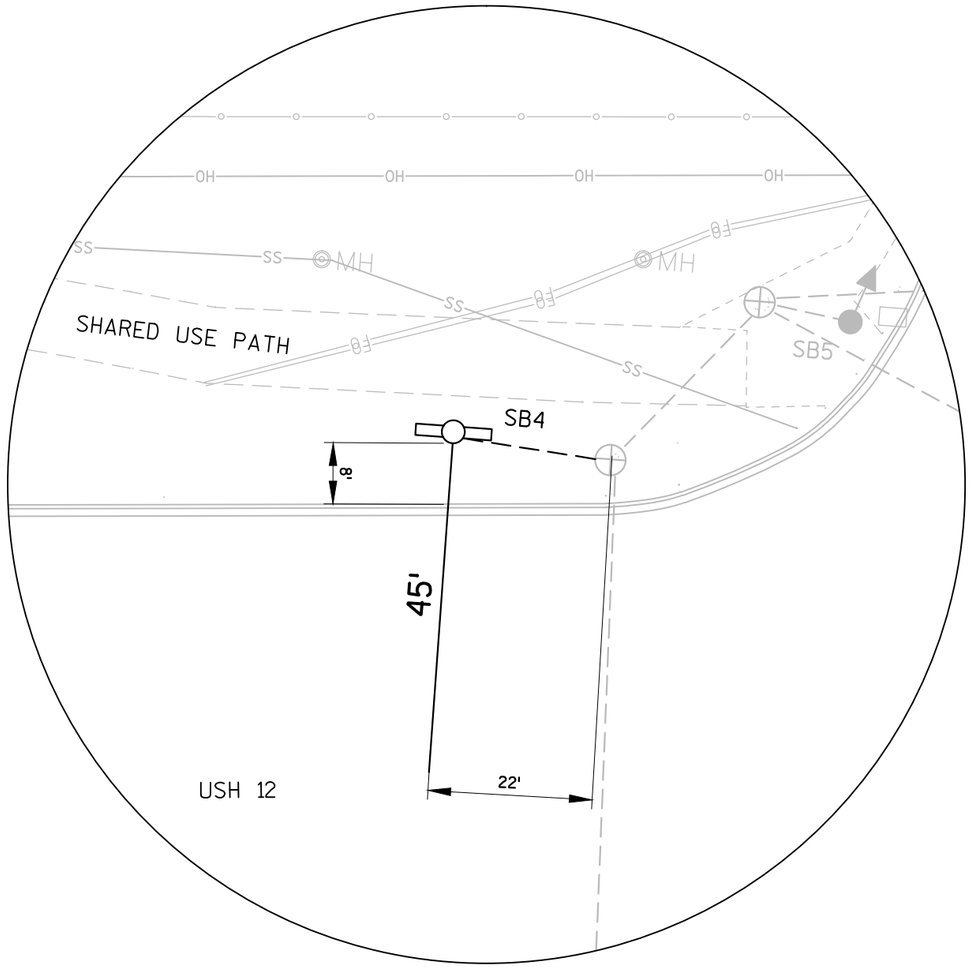
SIGNAL NO. S 18-0221

DESIGNED BY: SEH
REVISED BY: AECOM

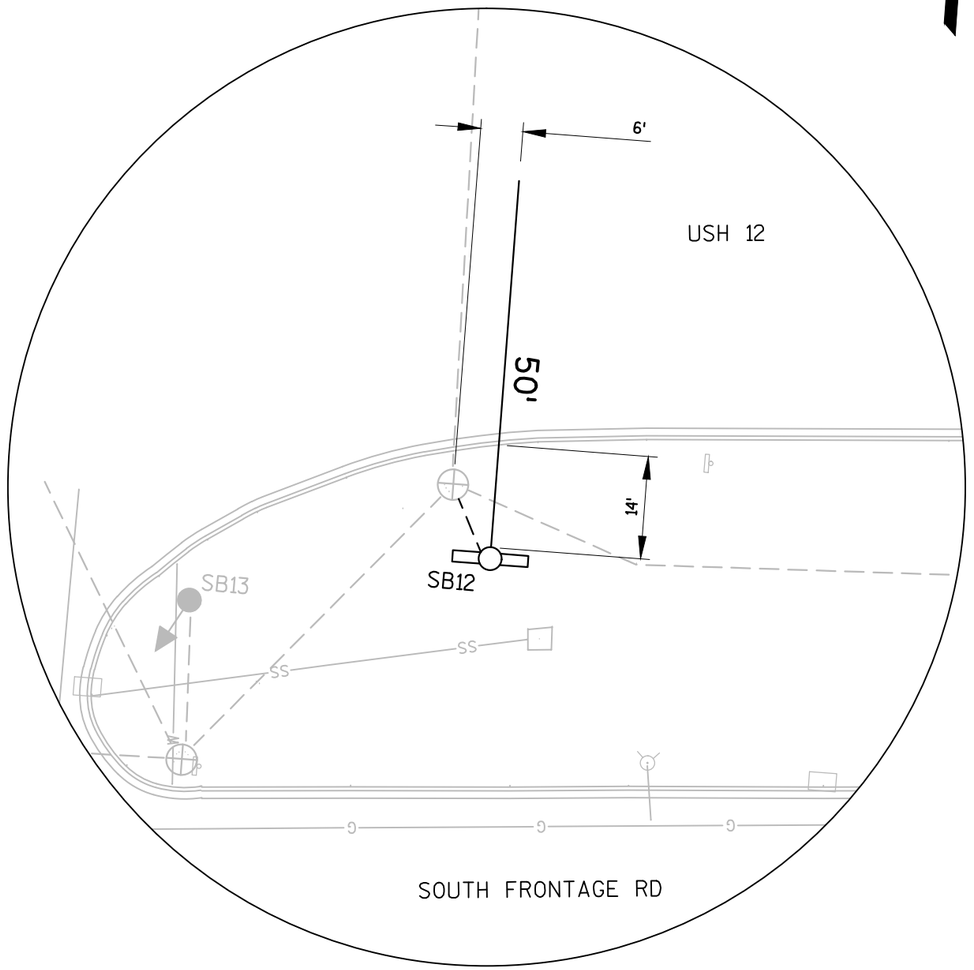
PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & FAIRFAX STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
U.S.H. 12 & FAIRFAX STREET
EAU CLAIRE COUNTY

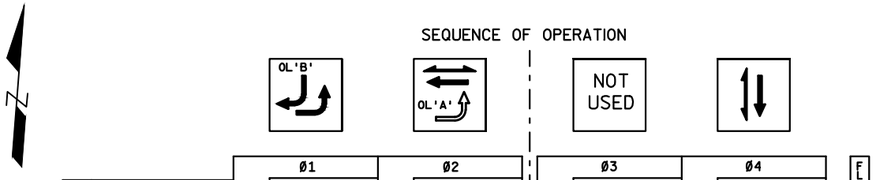
SIGNAL NO. S 18-0221

DESIGNED BY: SEH
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & FAIRFAX STREET	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION



	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **					Ø2 R/W	Ø2 CLEAR TO **				
Ø1	5, 6, 26	G	Y	R				-	-	-			
OLB	24, 25	G	Y	R				R	R	R			
Ø2	7, 8, 9, 10, 28	R	R	R				G	Y	R			
Ø3													
Ø4	19, 20, 23	R	R	R				R	R	R			
Ø5	11, 12, 27	R	R	R				R	R	R			
OLD	17, 18	R	R	R				R	R	R			
Ø6	1, 2, 3, 4, 29	R	R	R				R	R	R			
OLA	5, 6, 26	-	-	-				FY	Y	R			
OLC	11, 12, 27	-	-	-				-	-	-			
Ø8	13, 14, 15, 16	R	R	R				R	R	R			
Ø2P	21, 22	DW	DW	DW				*	DW	DW			
Ø4P	41, 42	DW	DW	DW				DW	DW	DW			

RING 1

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **					Ø6 R/W	Ø6 CLEAR TO **				
Ø1	5, 6, 26	R	R	R				R	R	R			
OLB	24, 25	R	R	R				R	R	R			
Ø2	7, 8, 9, 10, 28	R	R	R				R	R	R			
Ø3													
Ø4	19, 20, 23	R	R	R				R	R	R			
Ø5	11, 12, 27	G	Y	R				-	-	-			
OLD	17, 18	G	Y	R				R	R	R			
Ø6	1, 2, 3, 4, 29	R	R	R				G	Y	R			
OLA	5, 6, 26	-	-	-				-	-	-			
OLC	11, 12, 27	-	-	-				FY	Y	R			
Ø8	13, 14, 15, 16	R	R	R				R	R	R			
Ø2P	21, 22	DW	DW	DW				DW	DW	DW			
Ø4P	41, 42	DW	DW	DW				DW	DW	DW			

RING 2

	Ø3 R/W	Ø3 CLEAR TO **					Ø4 R/W	Ø4 CLEAR TO **					FLASH
Ø1							R	R	R				R
OLB							R	R	R				R
Ø2							R	R	R				R
Ø3													
Ø4							G	Y	R				R
Ø5							R	R	R				R
OLD							R	R	R				R
Ø6							R	R	R				R
OLA							-	-	-				
OLC							-	-	-				
Ø8							R	R	R				R
Ø2P							DW	DW	DW				
Ø4P							*	DW	DW				

	Ø7 R/W	Ø7 CLEAR TO **					Ø8 R/W	Ø8 CLEAR TO **				
Ø1							R	R	R			
OLB							R	R	R			
Ø2							R	R	R			
Ø3												
Ø4							R	R	R			
Ø5							R	R	R			
OLD							R	R	R			
Ø6							R	R	R			
OLA							-	-	-			
OLC							-	-	-			
Ø8							G	Y	R			
Ø2P							DW	DW	DW			
Ø4P							DW	DW	DW			

BARRIER

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

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6' X 20'	3
12	9	2	X			1	1				6' X 6'	4
*13		3		(NOT	USED)						8' X 8'	3
21	2	4	X			2	2				6' X 30'	4
22	2	4	X			2	2				6' X 30'	3
*23		5		(NOT	USED)						6' X 6'	3
41	4	6	X			4	4				6' X 20'	3
42	10	7	X			4	4				6' X 6'	4
43	4	8	X			4	4				6' X 20'	4
44	11	9	X			4	4				6' X 6'	5
51	5	10	X			5	5				6' X 20'	3
52	12	11	X			5	5				6' X 6'	4
*53		12		(NOT	USED)						8' X 8'	3
61	6	13	X			6	6				6' X 30'	4
62	6	13	X			6	6				6' X 30'	3
*63		14		(NOT	USED)						6' X 6'	3
81	8	15	X			8	8				6' X 20'	3
82	13	16	X			8	8				6' X 6'	4
83	8	17	X			8	8				6' X 20'	4
84	14	18	X			8	8				6' X 6'	5

*WIRED IN CABINET FOR FUTURE USE

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0133	

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

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" = Ø1
O.L. "C" =
O.L. "D" = Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT	←	↓→	↓	↑→
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4+OLB	8+OLD

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PHASE 1 CONSISTS OF THE EB LEFT MOVEMENT AND THE SB RIGHT MOVEMENT TIMING CONCURRENTLY.
5. PHASE 5 CONSISTS OF THE WB LEFT MOVEMENT AND THE NB RIGHT MOVEMENT TIMING CONCURRENTLY.
6. OL "B" TO TIME WITH PHASE 1 WHILE IN NORMAL OPERATION AND PHASE 4 WHEN THE SB (CHANNEL 3) EVP HAS BEEN ACTIVATED.
7. OL "D" TO TIME WITH PHASE 5 WHILE IN NORMAL OPERATION AND PHASE 8 WHEN THE NB (CHANNEL 4) EVP HAS BEEN ACTIVATED.

CONTROLLER TYPE: ASC/3-2100

REVISION:
REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB12.

BASE PLAN NO: 2 REVISION NO: 1

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

PROJECT NO: 1000-08-81	HWY: U.S.H. 12 & FAIRFAX STREET	COUNTY: EAU CLAIRE	SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0221)	SHEET:

2

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB9 =
SB16 =

NOTE: SYSTEM LOOPS 913-924 NOT USED

NOTE: LOOP 38 NOT USED

NOTE: LOOP 45 NOT USED

LEGEND

- CONTROL CABINET
- PROPOSED NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- (XX) SIGNAL HEAD, MAST-ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- PROPOSED LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- EVP DETECTOR
- 8 SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- XX PEDESTRIAN SIGNAL
- CITY-OWNED LIGHTING UNIT

MATCH LINE D

MATCH LINE A

MATCH LINE B

BUSINESS 53 SB OFF RAMP

BUSINESS 53 SB ON RAMP

USH 12

MULTI - USE TRAIL

LONDON ROAD

SPEED LIMIT 35

SPEED LIMIT 45

SPEED LIMIT 30

Ø1 Ø2 Ø3 Ø4 Ø5 Ø6

LOOP BACK 220'

LOOP FOR EAST RAMPS BACK 405'

DETAIL "A"

DETAIL "C"

2-3" 3-2" 2-1" STUBS

4-16 CHANGED HEADS 4 AND 5 TO 4 SECTION FYA AND ADDED HEAD 24 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROW TO GREEN BALL ON HEADS 3, 8, AND 9 ON 7-16-15. REPLACED CONTROLLER AND MMU ON 8-12-14. (APPR. 4-12-16)

REVISIONS						
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB9 AND SB16.				Cont. Type
		APPROVALS				
		REGION		CENTRAL OFFICE		
		Date	By	Date	By	
2	2					ASC/3 TS1

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
WEST RAMP/LONDON ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0160

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 4-27-07 GREGORY P. HELGESON, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-1-07 BALU ANANTHANARAYANAN, FOR STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 W. RAMPS/LONDON ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY LOCATION APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB9 =
SB16 =

NOTE: LOOP 38 NOT USED

NOTE: SYSTEM LOOPS 913-924 NOT USED

NOTE: LOOP 45 NOT USED

LEGEND

- CONTROL CABINET
- PROPOSED NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST-ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- PROPOSED LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- EVP DETECTOR
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- PEDESTRIAN SIGNAL
- CITY-OWNED LIGHTING UNIT

MATCH LINE D

MATCH LINE A

MATCH LINE B

BUSINESS 53 SB OFF RAMP

BUSINESS 53 SB ON RAMP

USH 12

MULTI - USE TRAIL

LONDON ROAD

SPEED LIMIT 35

SPEED LIMIT 45

SPEED LIMIT 30

DETAIL "A"

DETAIL "C"

ALTERNATE MOUNT LOCATION

ALTERNATE MOUNT LOCATION

ALTERNATE MOUNT LOCATION

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15 SB16

Ø1 Ø2 Ø3 Ø4 Ø5 Ø6

LOOP BACK 220'

LOOP FOR EAST RAMPS BACK 405'

2-3" STUBS

4-16 CHANGED HEADS 4 AND 5 TO 4 SECTION FYA AND ADDED HEAD 24 AS FYA. BEGAN FYA OPERATION ON 5-3-16. CHANGED GREEN ARROW TO GREEN BALL ON HEADS 3, 8, AND 9 ON 7-16-15. REPLACED CONTROLLER AND MMU ON 8-12-14. (APPR. 4-12-16)

REVISIONS					
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB9 AND SB16. RELOCATE MULTI-USE TRAIL NEAR SB9.			Cont. Type
		APPROVALS			
		REGION		CENTRAL OFFICE	
		Date	By	Date	By
2	2				ASC/3 TS1

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
WEST RAMP/LONDON ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0160

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date 4-27-07 GREGORY P. HELGESON, REGIONAL TRAFFIC ENGINEER

APPROVED

Date 5-1-07 BALU ANANTHANARAYANAN, FOR STATE TRAFFIC SIGNAL ENGINEER

DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 W. RAMPS/LONDON ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

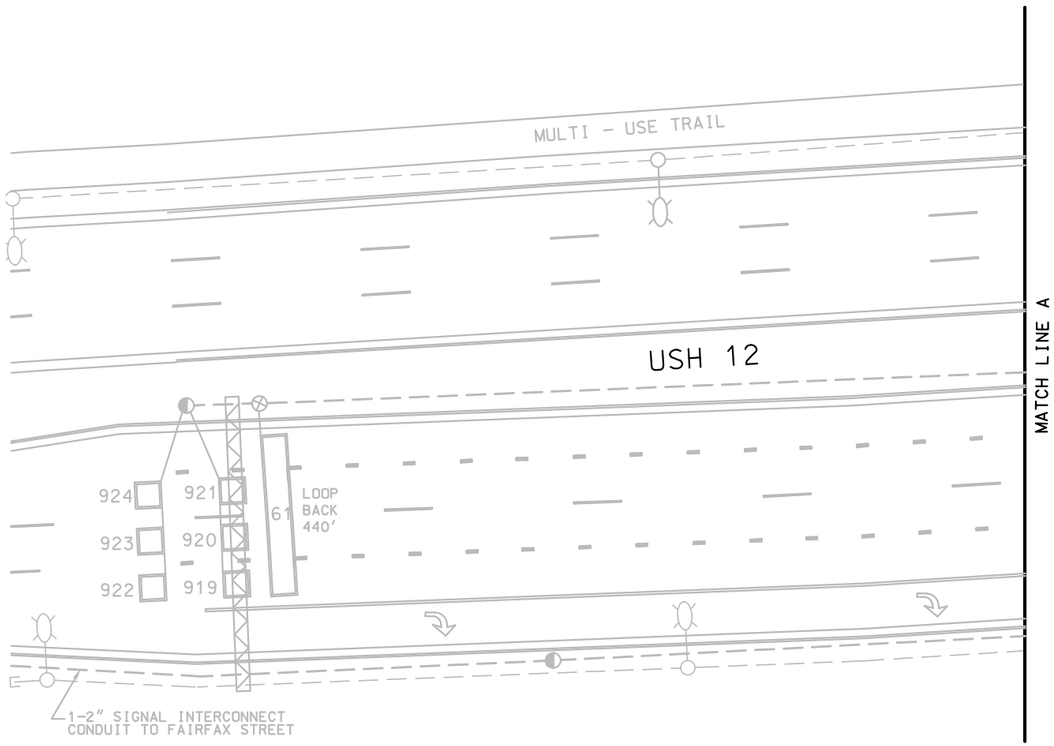
FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP A\S 18-0160_OPTION 2.DWG

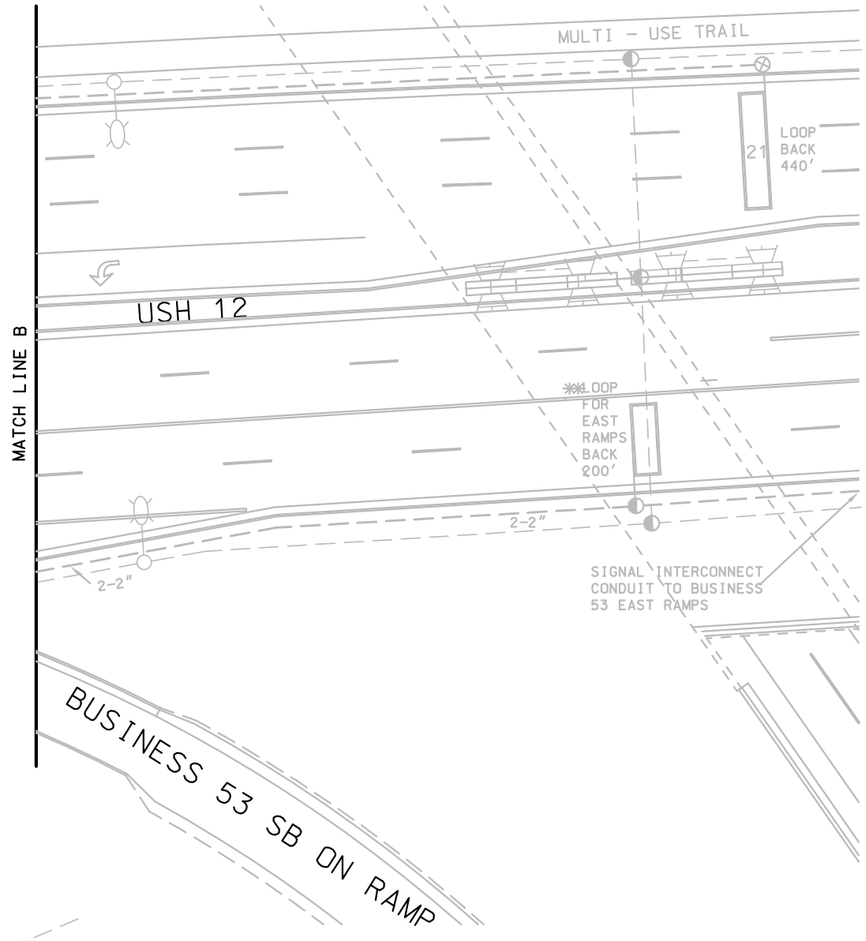
PLOT DATE : 7/29/2016 3:15 PM

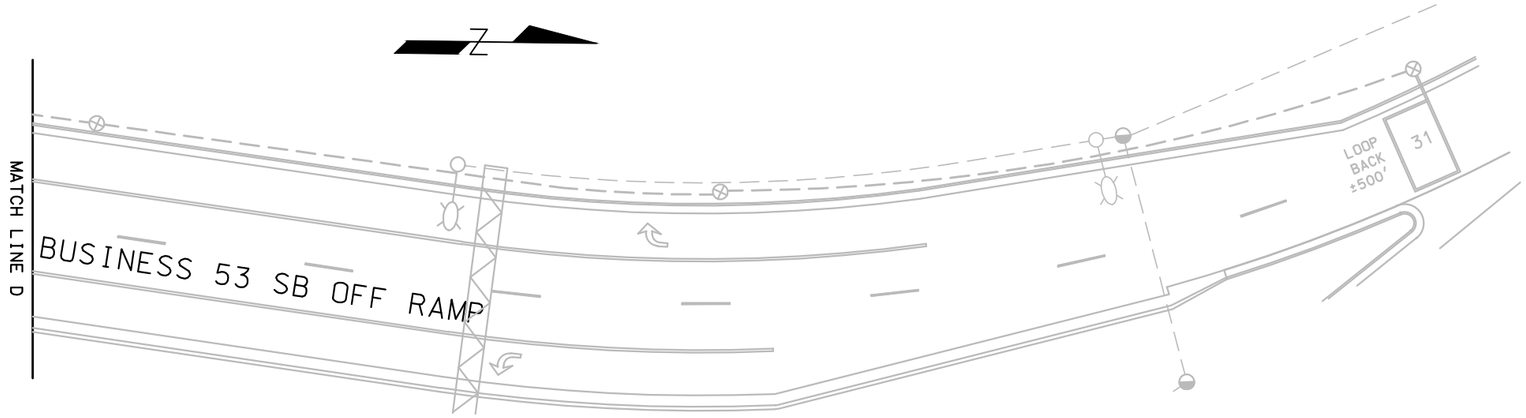
1"=40'

WISDOT/CADDS SHEET 42

2







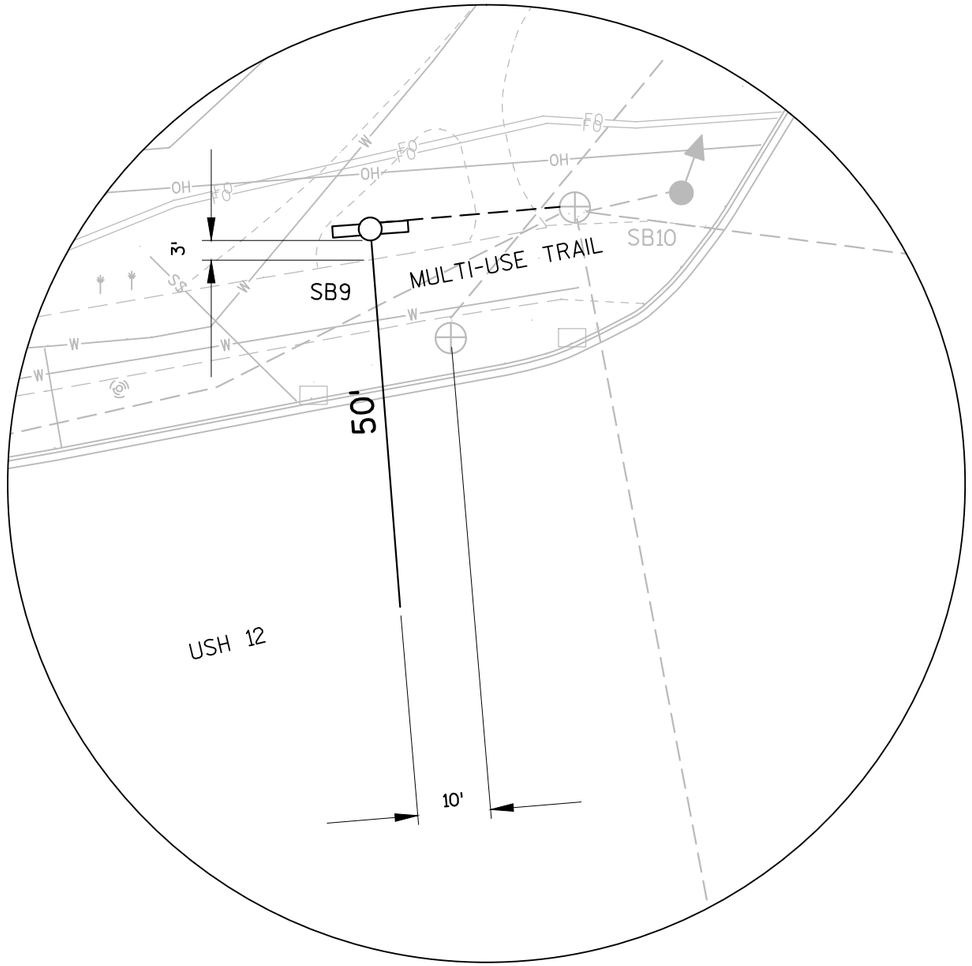
TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
WEST RAMP/ LONDON ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0160

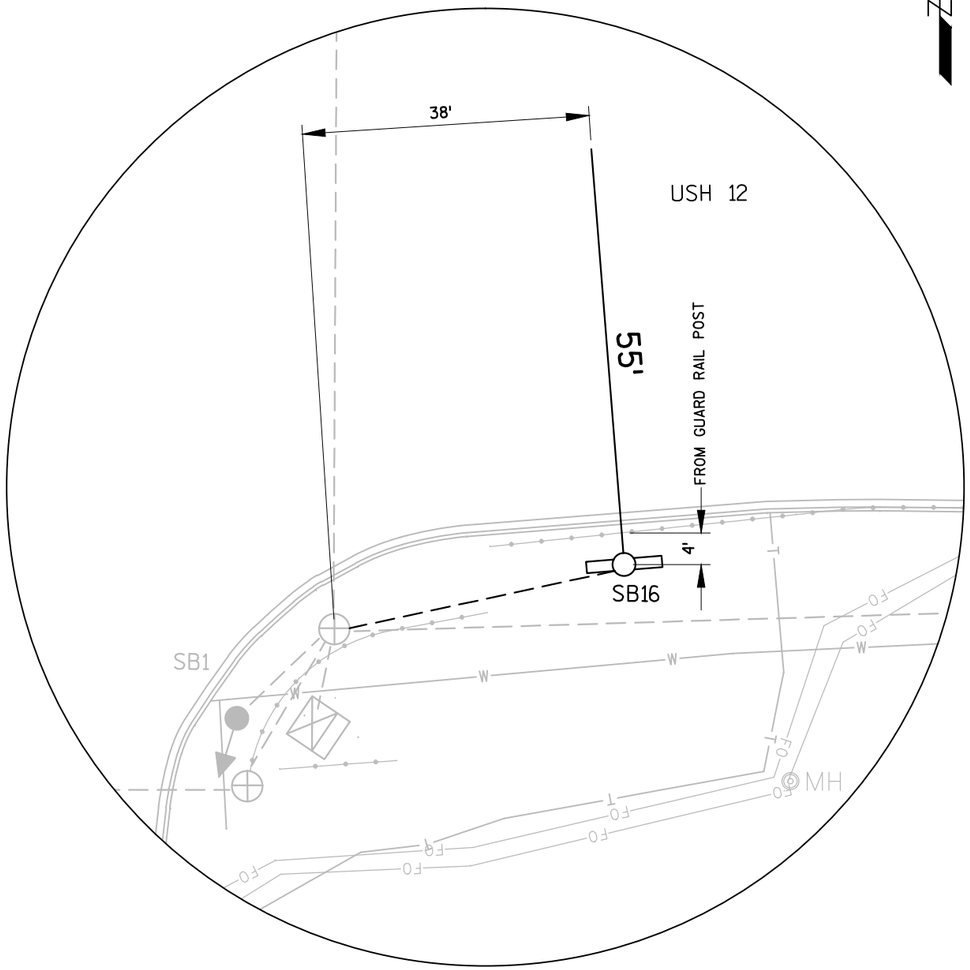
DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 2 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 W. RAMPS/LONDON ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
WEST RAMP/LONDON ROAD
EAU CLAIRE COUNTY

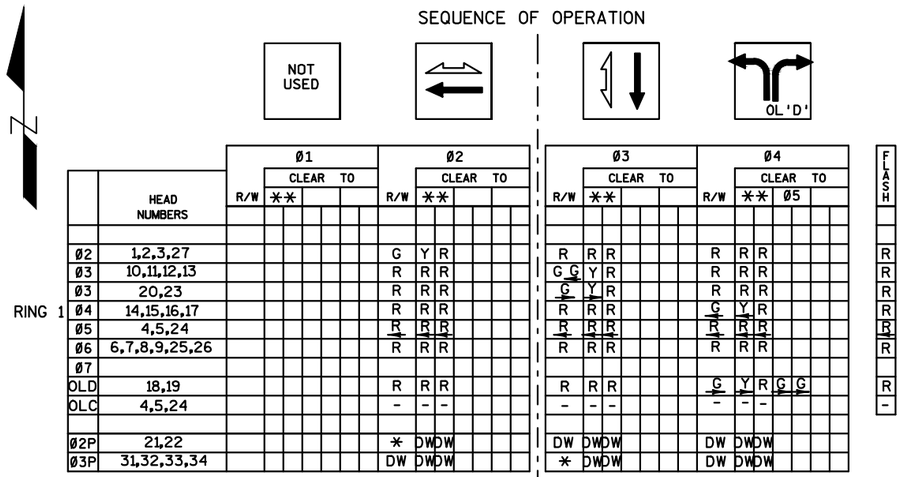
SIGNAL NO. S 18-0160

DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 W.RAMPS/LONDON ROAD	COUNTY:EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION



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

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK WITH PED COUNTDOWN TIME ACTIVATED, THEN GOES TO STEADY DON'T WALK

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
2	(OL "D" AND 5) OR 6	3,4
3		(OL "D"),2,4,5,6
4	OL "D"	2,3,5,6
5	OL "D" AND 2	3,4,6
6	2	(OL "D"),3,4,5

GENERAL 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)

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
21	2	1	X			2	2				6'X30'	3
22	2	1	X			2	2				6'X30'	3
**31		2		(NOT	USED)	3					12'X20'	3
32	3	3	X			3	3				6'X20'	3
33	3	3	X			3	3				6'X6'	4
34	3	4	X			3	3				6'X20'	4
35	3	4	X			3	3				6'X6'	3
36	3	5	X			3	3				6'X20'	3
37	3	5	X			3	3				6'X6'	4
*38	3	6		(NOT	USED)						6'X6'	4
41	4	7	X			4	4				5'X19'	3
42	4	7	X			4	4				5'X5'	4
43	4	8	X			4	4				5'X19'	4
44	4	8	X			4	4				5'X5'	3
*45	4	9		(NOT	USED)						6'X6'	4
51	5	10	X			5	5				6'X20'	3
52	5	10	X			5	5				6'X6'	4
61	6	11	X			6	6				6'X40'	2
62	6	11	X			6	6				6'X40'	2
*913			(NOT	USED)							6'X6'	4
*914			(NOT	USED)							6'X6'	4
*915			(NOT	USED)							6'X6'	4
*916			(NOT	USED)							6'X6'	4
*917			(NOT	USED)							6'X6'	4
*918			(NOT	USED)							6'X6'	4
*919			(NOT	USED)							6'X6'	4
*920			(NOT	USED)							6'X6'	4
*921			(NOT	USED)							6'X6'	4
*922			(NOT	USED)							6'X6'	4
*923			(NOT	USED)							6'X6'	4
*924			(NOT	USED)							6'X6'	4

*WIRED IN CABINET FOR FUTURE USE
**RAMP QUEUE LOOP 31 WIRED IN CABINET AS CALLS ONLY LOOP FOR FUTURE USE.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM	
CONTROLLER NO : S-	
SIGNAL SYSTEM : SS-18-0133	

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT	←	→	↱	↓
DIRECTION	WB	EB	NB	SB
PHASES	2+5	6	4+OLD	3

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL
2	X	6	MIN.
3			
4			
5	X	2	
6	X	2	MIN.

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" = Ø4 AND Ø5

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E" =		
O.L. "F" =		
O.L. "C" =	5	6
O.L. "H" =		

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE BRAND: GTT	X
QUEUE DETECTION	X

TYPE OF DOT LIGHTING	
NONE	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE CONTROL CABINET	

CONTROLLER TYPE: ASC/3-2100

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB9 AND SB16.

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

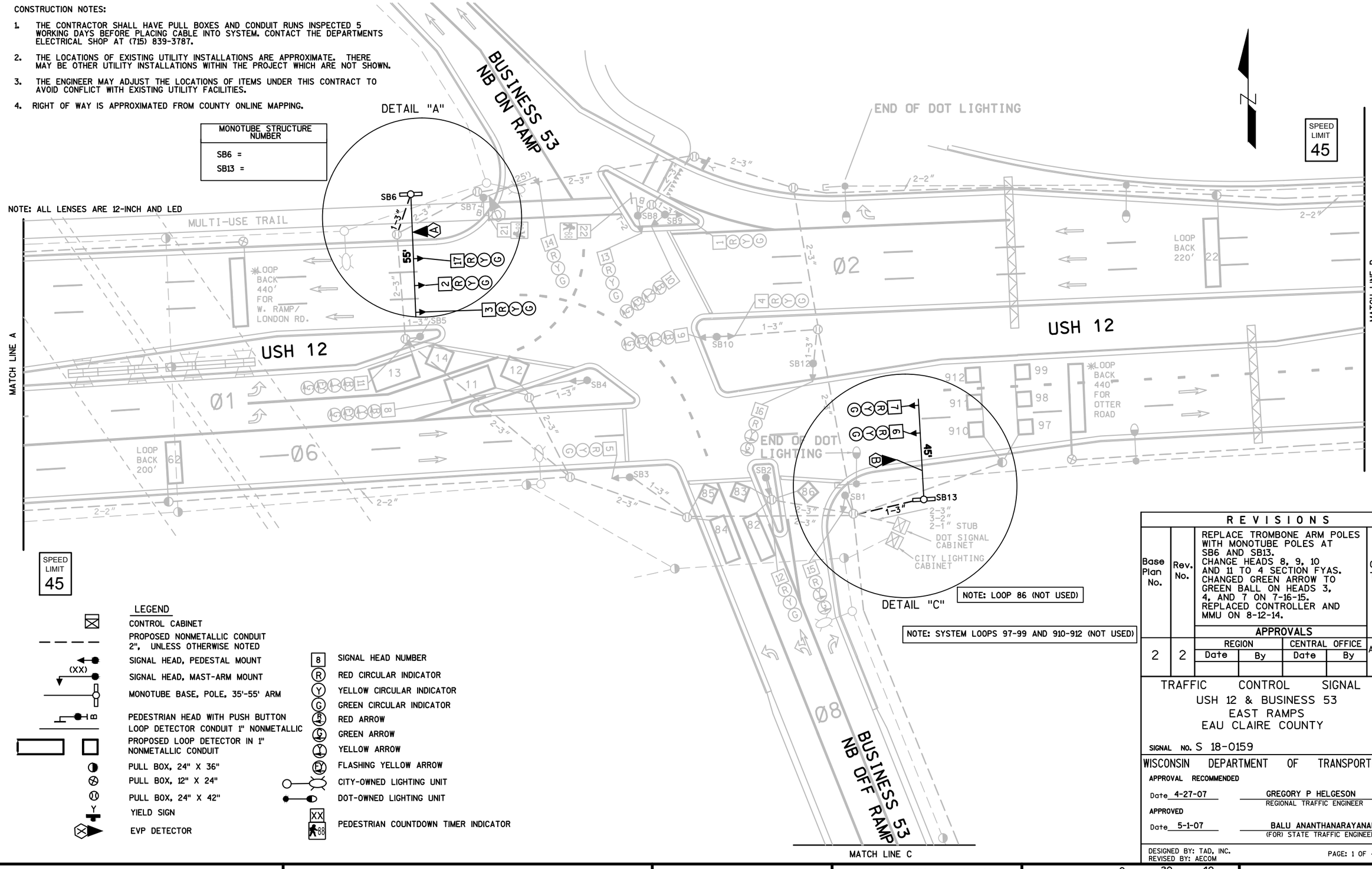
PROJECT NO: 1000-08-81 | HWY: USH 12 & BUSINESS 53 W. RAMPS/LONDON RD | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0160) | SHEET:

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB6 =
SB13 =

NOTE: ALL LENSES ARE 12-INCH AND LED



NOTE: LOOP 86 (NOT USED)

NOTE: SYSTEM LOOPS 97-99 AND 910-912 (NOT USED)

LEGEND

- CONTROL CABINET
- PROPOSED NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- (XX) SIGNAL HEAD, MAST-ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- PROPOSED LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- YIELD SIGN
- EVP DETECTOR
- 8 SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (G) GREEN ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- CITY-OWNED LIGHTING UNIT
- DOT-OWNED LIGHTING UNIT
- XX PEDESTRIAN COUNTDOWN TIMER INDICATOR

REVISIONS			
Base Plan No.	Rev. No.	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB13. CHANGE HEADS 8, 9, 10 AND 11 TO 4 SECTION FYAS. CHANGED GREEN ARROW TO GREEN BALL ON HEADS 3, 4, AND 7 ON 7-16-15. REPLACED CONTROLLER AND MMU ON 8-12-14.	Cont. Type
		APPROVALS	
		REGION: Date / By — CENTRAL OFFICE: Date / By	
2	2		ASC/3 TS1

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
EAST RAMPS
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0159

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 4-27-07 — GREGORY P HELGESON, REGIONAL TRAFFIC ENGINEER

APPROVED
Date 5-1-07 — BALU ANANTHANARAYANAN, (FOR) STATE TRAFFIC ENGINEER

DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 1 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 EAST RAMPS	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:

FILE NAME : P:\60483055\900_Work\910_CAD\05-MODELS\Group B\S 18-0159.dwg

PLOT DATE : 7/29/2016 3:17 PM

1"=40'

WISDOT/CADDS SHEET 42

2

2

MATCH LINE C

BUSINESS 53
NB OFF RAMP

N

MATCH LINE A

USH 12

LOOP
BACK
220'
FOR
WEST RAMP/
LONDON RD.

61
LOOP
BACK
405'

2-2"

2-3"

2-2"

BUSINESS 53
SB ON RAMP

SIGNAL INTERCONNECT CONDUIT
TO WEST RAMP/LONDON ROAD

MATCH LINE B

SIGNAL INTERCONNECT
CONDUIT TO OTTER ROAD

2-2"

21
LOOP
BACK
340'

USH 12

LOOP
BACK
220'
FOR
OTTER RD

LOOP
BACK
±500'

81

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
EAST RAMPS
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0159

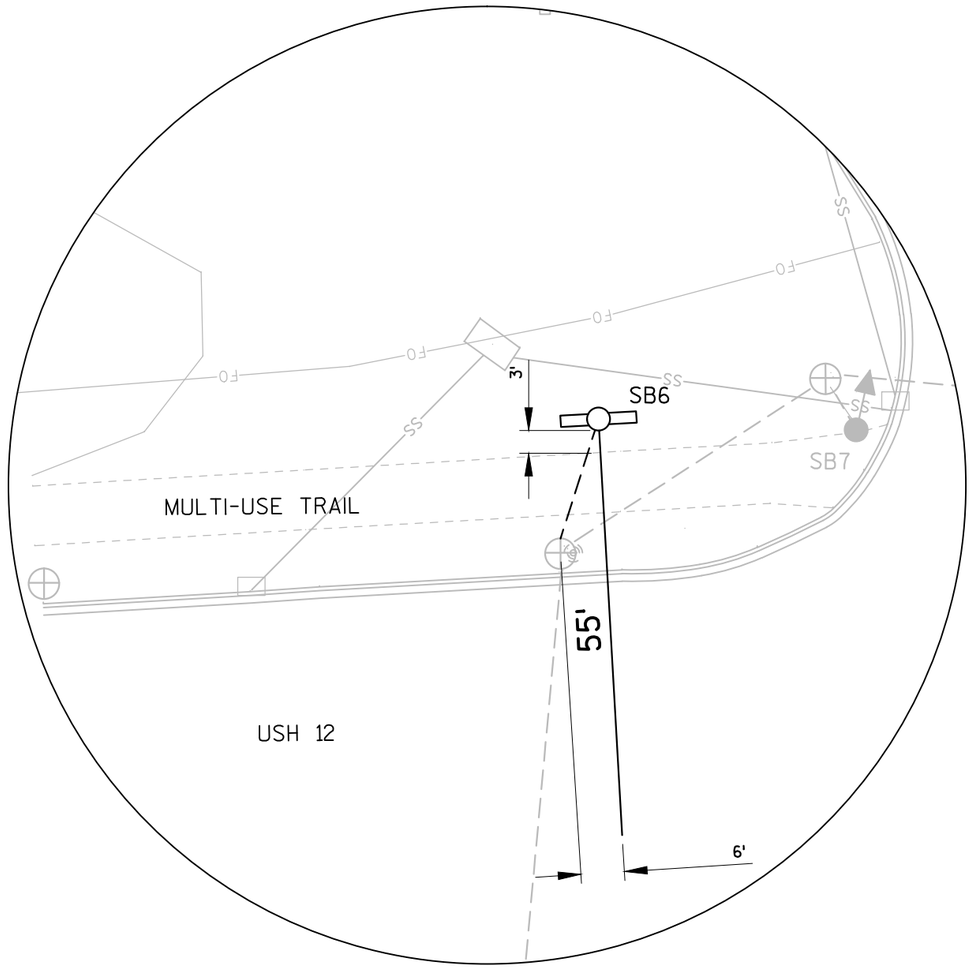
SCALE 0 20

DESIGNED BY: TAD, INC.
REVISED BY: AECOM

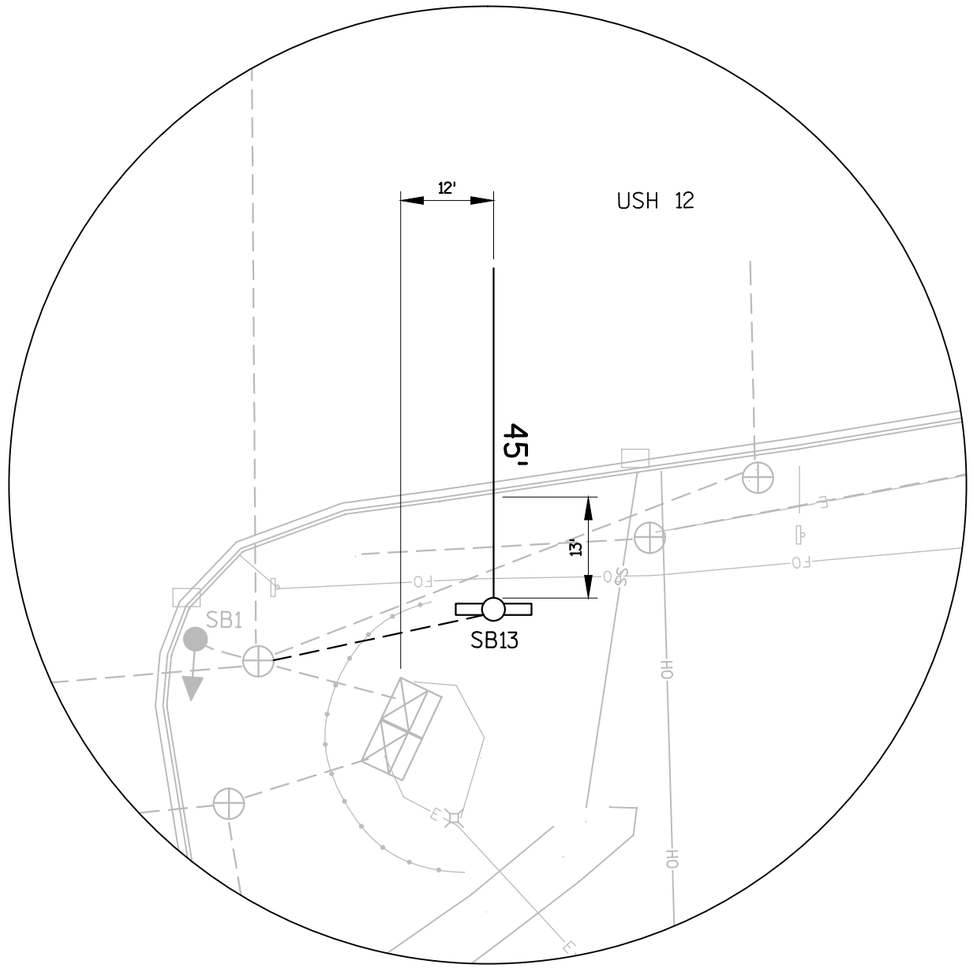
PAGE: 2 OF 4

PROJECT NO:1000-08-81	HWY: USH 12 & BUSINESS 53 EAST RAMPS	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:	E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
USH 12 & BUSINESS 53
EAST RAMPS
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0159

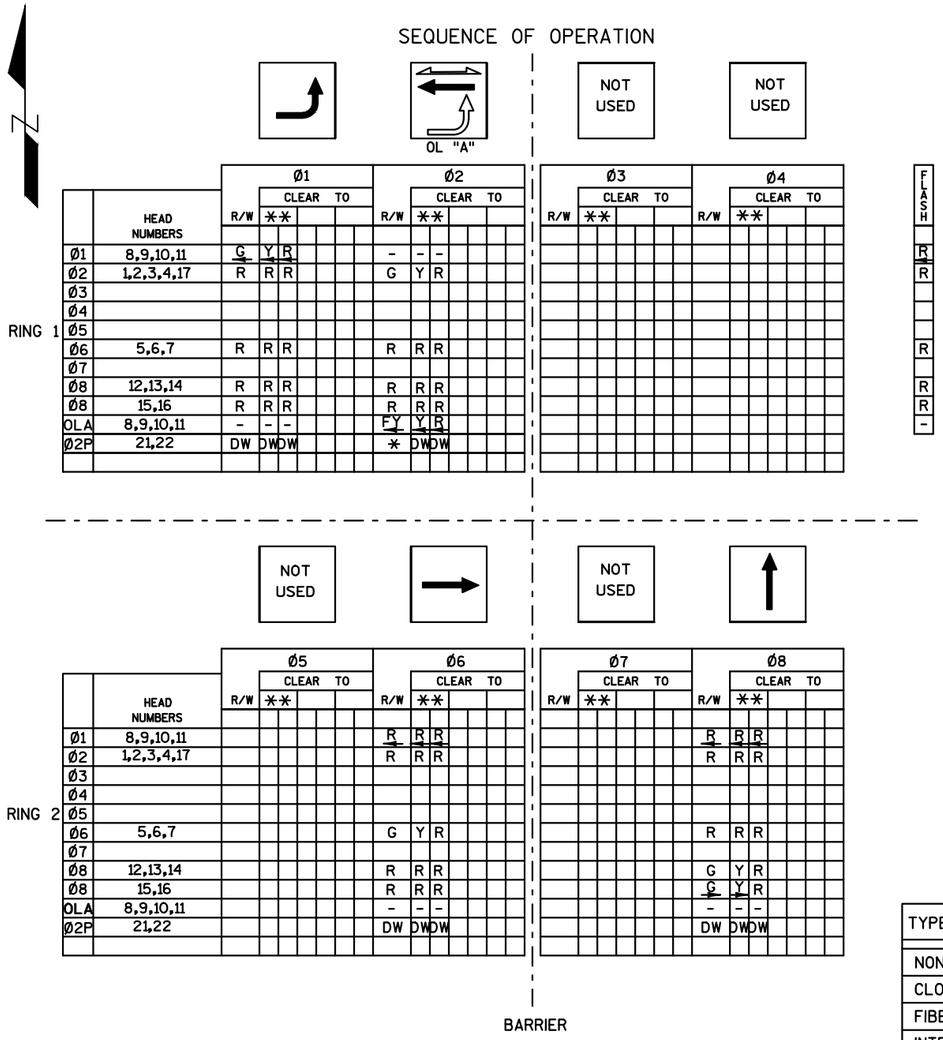
DESIGNED BY: TAD, INC.
REVISED BY: AECOM

PAGE: 3 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 EAST RAMPS	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:11 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



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

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
6	1 OR 2	8
8		1,2,6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
			CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	1	X			1	1				10'X20'	3
12	1	1	X			1	1				9'X9'	4
13	1	2	X			1	1				10'X20'	4
14	1	2	X			1	1				9'X9'	3
21	2	3	X			2	2				6'X30'	4
22	2	9	X			2	2			(X=1.25")	6'X30'	3
61	6	4	X			6	6				6'X18'	3
62	6	4	X			6	6				6'X18'	3
**81	8	5		X		8			(X=10")		12'X15'	4
82	8	6	X			8	8				6'X20'	4
83	8	6	X			8	8				6'X6'	3
84	8	7	X			8	8		(X=2")		6'X20'	3
85	8	7	X			8	8		(X=2")		6'X6'	4
*86	8	8	(NOT	USED)							6'X6'	4
*97			(NOT	USED)							6'X6'	4
*98			(NOT	USED)							6'X6'	4
*99			(NOT	USED)							6'X6'	4
*910			(NOT	USED)							6'X6'	4
*911			(NOT	USED)							6'X6'	4
*912			(NOT	USED)							6'X6'	4

*WIRED IN CABINET FOR FUTURE USE.
**RAMP QUEUE DETECTOR 81 WIRED TO CALL PREEMPT 3 AFTER DELAY IS SATISFIED.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL
1	X	6	
2	X	6	MIN.
6	X	2	MIN.
8			

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A" =	1	2
O.L. "F" =		
O.L. "G" =		
O.L. "H" =		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-18-0133	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE BRAND: GTT	X
QUEUE DETECTION	X

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT	←	↰		↑
DIRECTION	WB	EB		NB
PHASES	2	1+6		8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TYPE OF DOT LIGHTING	
NONE	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE CONTROL CABINET	

GENERAL 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. ROADWAY LIGHTING EAST OF THE RAMP IS DOT-OWNED AND FED FROM THE LIGHTING CABINET AT OTTER ROAD.
4. WHEN PREEMPT 1 AT S 18-1030 (USH 12 & USH 53 SPUI) IS ACTIVATED, PREEMPT 6 AT S 18-0373 (USH 12 & OTTER ROAD) AND S 18-0159 (USH 12 & BUS 53 EAST RAMPS) ARE ALSO ACTIVATED THROUGH MOXA ETHERNET RELAYS.

CONTROLLER TYPE: TS1 ASC/3-2100

REVISION:
REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB13.
CHANGE HEADS 8, 9, 10 AND 11 TO 4 SECTION FYAS.
CHANGED GREEN ARROW TO GREEN BALL ON HEADS 3, 4, AND 7 ON 7-16-15.
REPLACED CONTROLLER AND MMU ON 8-12-14.

REVISION DATE: FEB. 2017 PAGE: 4 OF 4

PROJECT NO: 1000-08-81	HWY: USH 12 & BUSINESS 53 EAST RAMPS	COUNTY: EAU CLAIRE	SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-159)	SHEET: E

2

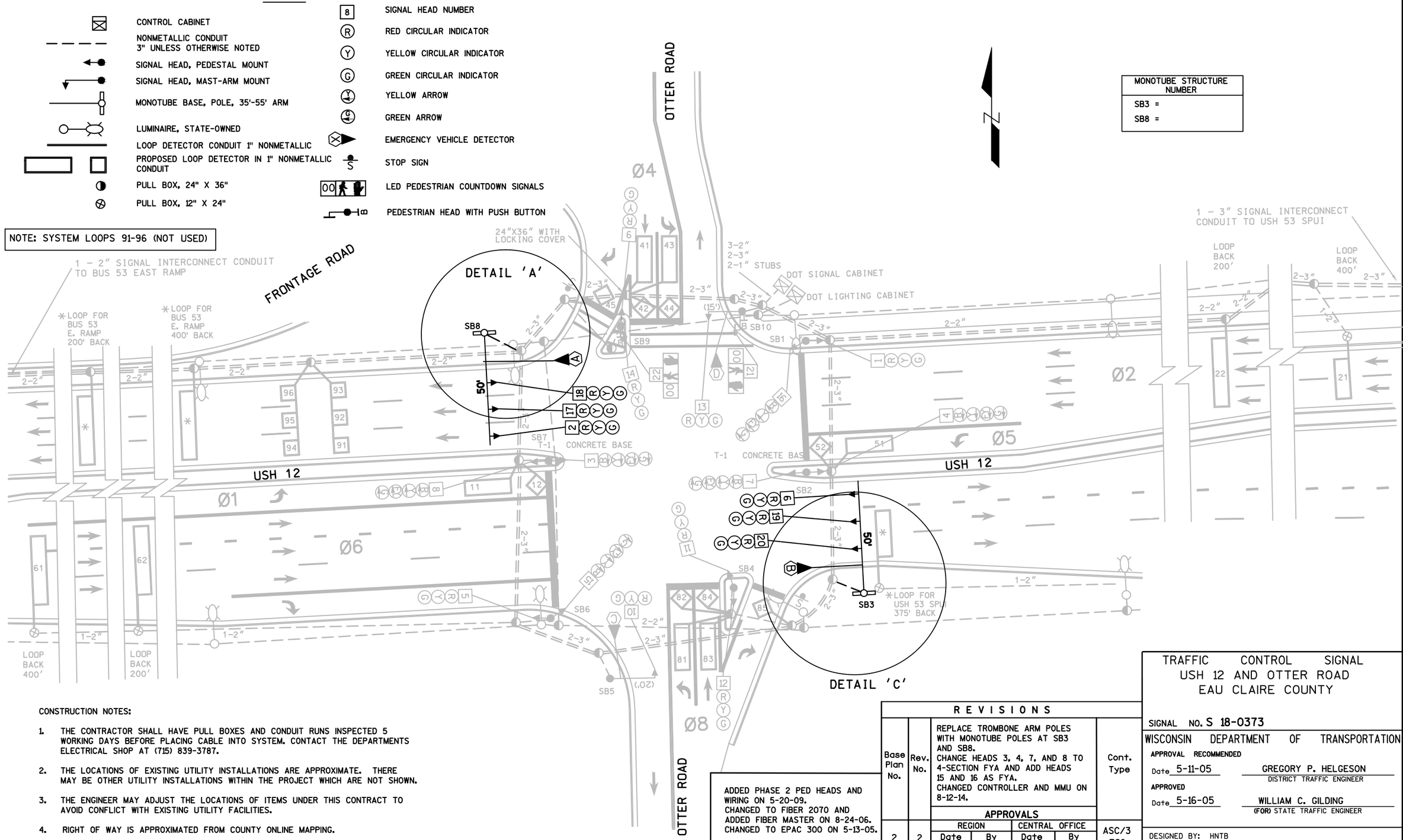
2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 3" UNLESS OTHERWISE NOTED
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST-ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, STATE-OWNED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- PROPOSED LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- EMERGENCY VEHICLE DETECTOR
- STOP SIGN
- LED PEDESTRIAN COUNTDOWN SIGNALS
- PEDESTRIAN HEAD WITH PUSH BUTTON

NOTE: SYSTEM LOOPS 91-96 (NOT USED)

MONOTUBE STRUCTURE NUMBER
SB3 =
SB8 =



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

ADDED PHASE 2 PED HEADS AND WIRING ON 5-20-09.
CHANGED TO FIBER 2070 AND ADDED FIBER MASTER ON 8-24-06.
CHANGED TO EPAC 300 ON 5-13-05.
(APPR. 5-14-09)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
2	2	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB8. CHANGE HEADS 3, 4, 7, AND 8 TO 4-SECTION FYA AND ADD HEADS 15 AND 16 AS FYA. CHANGED CONTROLLER AND MMU ON 8-12-14.	ASC/3 TS2

APPROVALS

REGION Date	REGION By	CENTRAL OFFICE Date	CENTRAL OFFICE By

TRAFFIC CONTROL SIGNAL
USH 12 AND OTTER ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0373

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 5-11-05 — GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED
Date 5-16-05 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

DESIGNED BY: HNTB
REVISED BY: AECOM

PAGE: 1 OF 3

PROJECT NUMBER: 1000-08-81	HWY: USH 12 AND OTTER ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

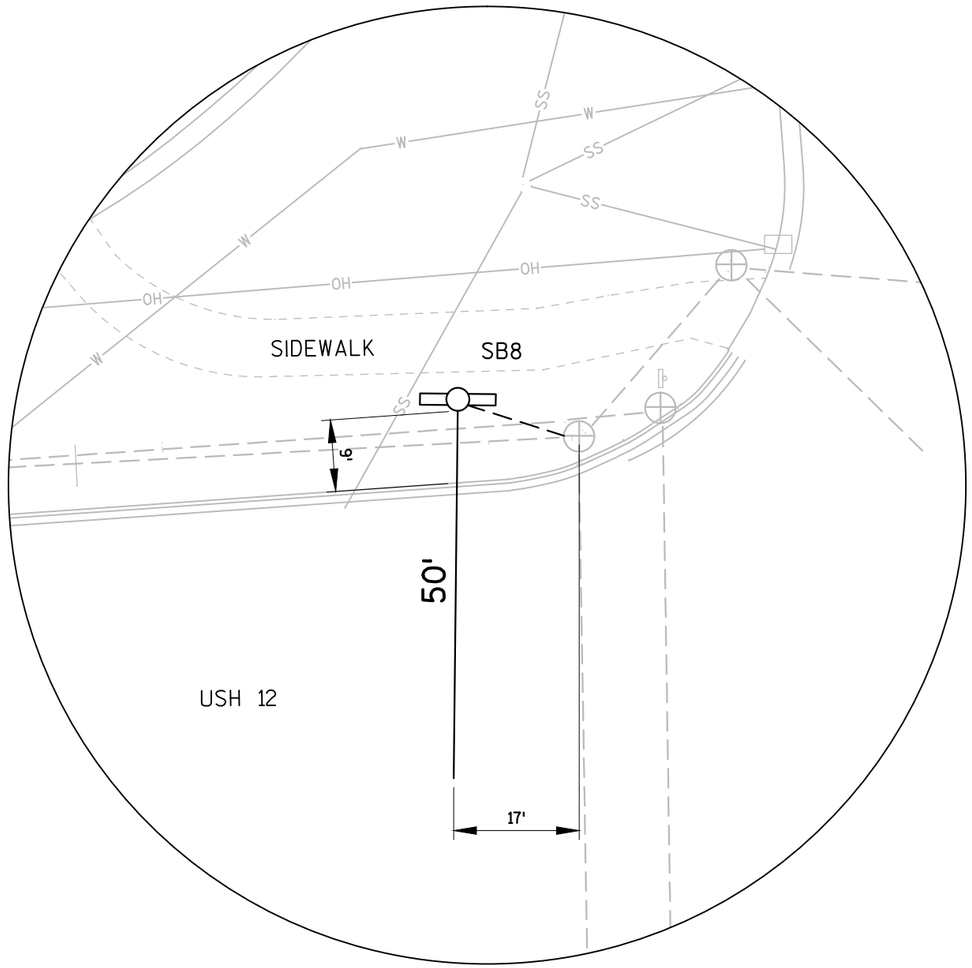
FILE NAME :P:\60483055\900_Work\910_CAD\05-MODELS\Group C\S 18-0373.dwg

PLOT DATE : 7/29/2016 3:19 PM

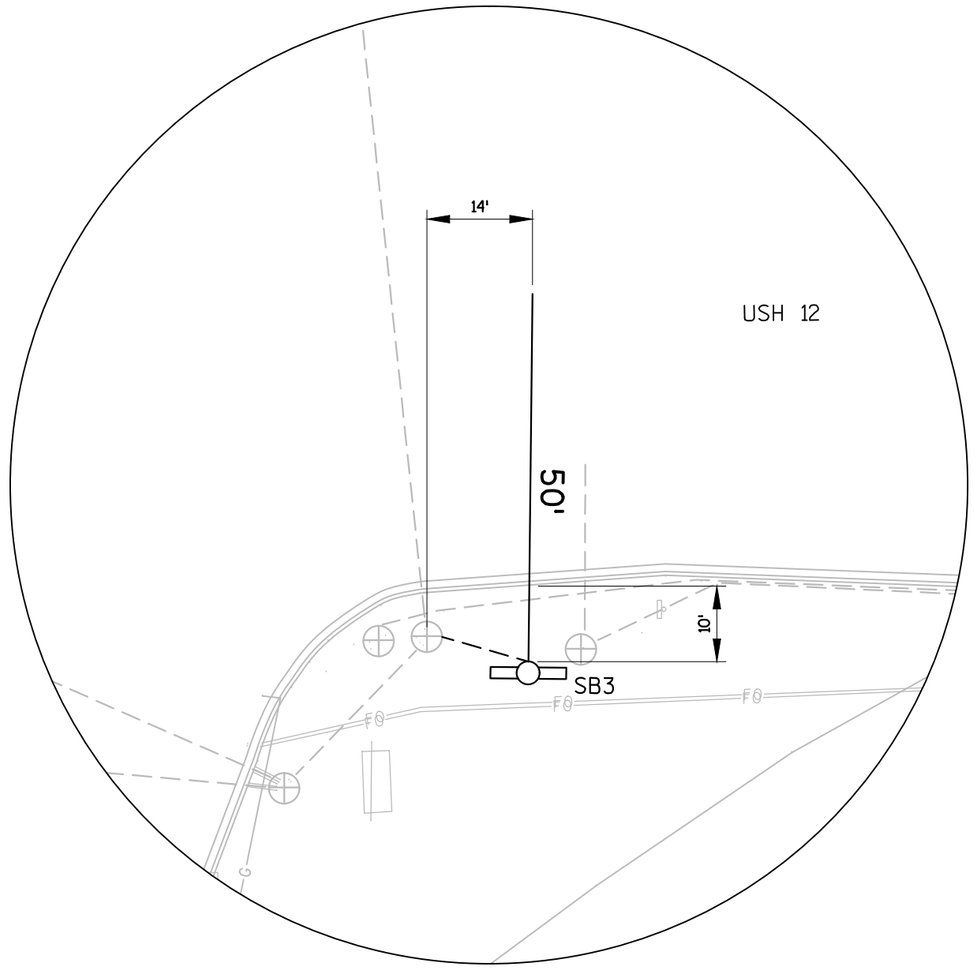
1"=40'

WISDOT/CADDS SHEET 42

2



DETAIL 'A'



DETAIL 'C'

N

TRAFFIC CONTROL SIGNAL
USH 12 AND OTTER ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0373

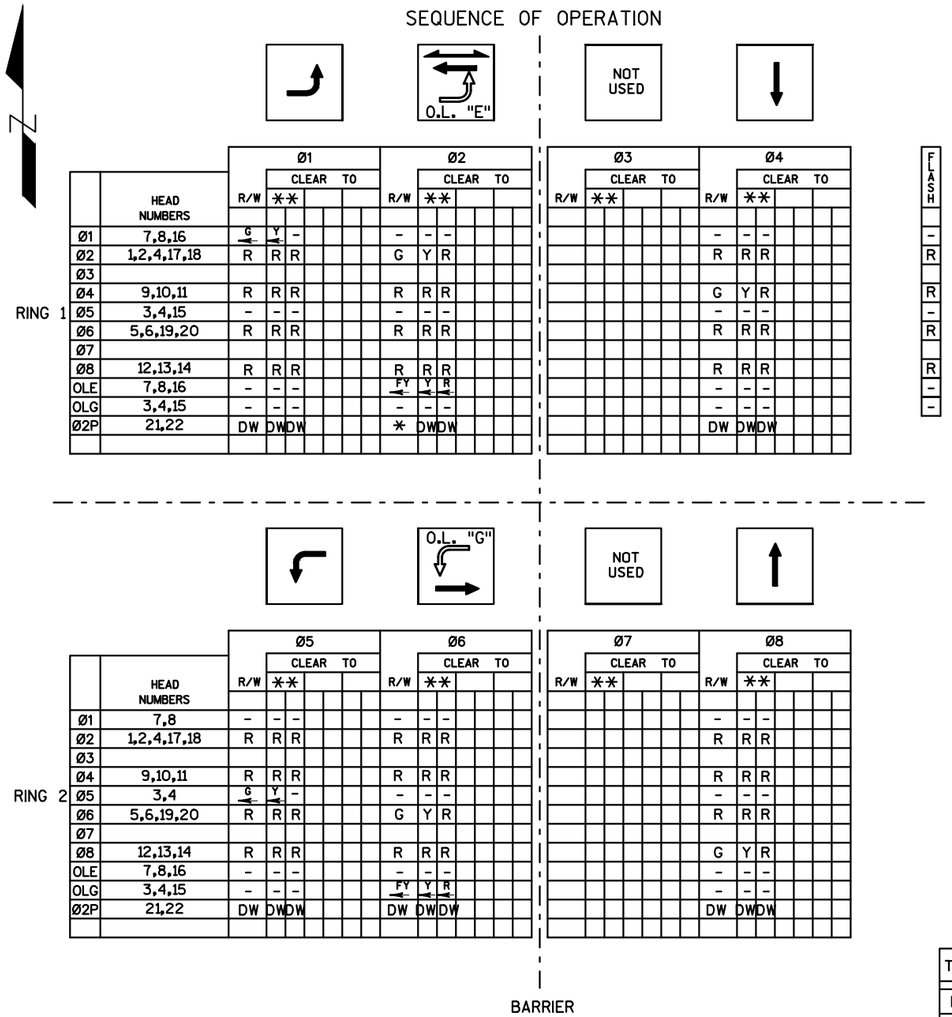
DESIGNED BY: HNTB
REVISED BY: AECOM

PAGE: 2 OF 3

PROJECT NO: 1000-08-81	HWY: USH 12 AND OTTER ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:12 PM
PLOT BY : DUFFEY, BRIAN
PLOT NAME :

SEQUENCE OF OPERATION



* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
8	4	1,2,5,6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6'X20'	3
12	2	X			1	1				6'X6'	4
21	3	X			2	2				6'X18'	4
22	4	X			2	2				6'X30'	3
41	5	X			4	4				6'X20'	3
42	6	X			4	4				6'X6'	4
43	7	X			4	4		(X=3")		6'X20'	4
44	8	X			4	4		(X=3")		6'X6'	3
**45		X								6'X6'	4
51	9	X			5	5				6'X20'	3
52	10	X			5	5				6'X6'	4
61	11	X			6	6				6'X30'	4
62	12	X			6	6				6'X30'	3
81	13	X			8	8		(X=3")		6'X20'	3
82	14	X			8	8		(X=3")		6'X6'	4
83	15	X			8	8				6'X20'	4
84	16	X			8	8				6'X6'	3
**85		X								6'X6'	4
*91										6'X6'	3
*92										6'X6'	3
*93										6'X6'	3
*94										6'X6'	3
*95										6'X6'	3
*96										6'X6'	3

* WIRED IN THE CABINET FOR FUTURE SYSTEM LOOPS.

** WIRED IN THE CABINET FOR FUTURE USE.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO:	S
SIGNAL SYSTEM *:	SS- -

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	→	↓	↑
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL 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 I AT LEFT)
3. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. WHEN PREEMPT I (SB RAMP QUEUE DETECTION) AT S I8-1030 (USH I2 & USH 53 SPUI) IS ACTIVATED, PREEMPT I AT S I8-0373 (USH I2 & OTTER RD) AND S I8-0159 (USH I2 & BUS 53 EAST RAMPS) ARE ALSO ACTIVATED THROUGH MOXA ETHERNET RELAYS.

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E" =	1	2
O.L. "F" =		
O.L. "G" =	5	6
O.L. "H" =		

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

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

CONTROLLER TYPE: ASC/3 TS2

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB8.
CHANGE HEADS 3, 4, 7, AND 8 TO 4-SECTION FYA AND ADD HEADS 15 AND 16 AS FYA.
CHANGED CONTROLLER AND MMU ON 8-12-14.

BASE PLAN NO: 2 REVISION NO: 2

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NUMBER: 1000-08-81 | HWY: USH 12 AND OTTER ROAD | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0373) | SHEET:

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

LOORCH AVENUE

ELECTRICAL SERVICE FEED

EC COOPERATIVE JUNCTION BOX

DIRECT BURIED SERVICE FEED

CITY LIGHTING CABINET

DOT SIGNAL CABINET

(2) 3"

(3) 2"

(2) 1" STUBS

1-2" TO CTH II

DETAIL 'A'

CONTAINS CITY LIGHTING WIRE

T-1 (FOR FUTURE USE)

T-1 WITH PED PUSH BUTTON ON 4.5' STANDARD

LOOP ± 400' BACK

LOOP ± 200' BACK

LOOP ± 200' BACK

1 - 2" SIGNAL INTERCONNECT CONDUIT TO I-94 SOUTH RAMPS

LOOP ± 400' BACK

S.T.H. 93

S.T.H. 93

MULTI-USE TRAIL

MULTI-USE TRAIL

LORCH AVE.

Ø1 Ø2 Ø4 Ø5 Ø6 Ø8

DETAIL 'C'

MONOTUBE STRUCTURE NUMBER
SB6 =
SB12 =

LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
CONDUIT (2" NONMETALLIC UNLESS OTHERWISE NOTED).
SIGNAL HEAD, PEDESTAL MOUNT
SIGNAL HEAD, MAST ARM MOUNT
MONOTUBE BASE, POLE, 35'-55' ARM
LUMINAIRE, LOCAL MUNICIPALITY
LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
TRAFFIC SIGNAL CONTROL CABINET
PULL BOX, 24 In. X 36 In.
EMERGENCY VEHICLE DETECTOR
STOP SIGN
PEDESTRIAN PUSH BUTTON
LED PEDESTRIAN SIGNAL HEAD

CHANGED CONTROLLER AND ADDED FIBER COMMUNICATION (APPR. 7-23-09)
10-20-05 ADDED PHASE 4 PED SIGNALS AND WIRED CABINET FOR (FUTURE) PHASE 6 PED. (APPR. 10-18-05)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
1	3	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB12. CHANGED CONTROLLER AND MMU ON 9-25-14. CHANGED PED HEADS TO COUNTDOWN STYLE ON 7-25-12.	ASC/3 TS1

APPROVALS

REGION Date	REGION By	CENTRAL OFFICE Date	CENTRAL OFFICE By

TRAFFIC CONTROL SIGNAL
S.T.H. 93 & LORCH AVE.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0894

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 1-3-05 — GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED
Date 1-13-05 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

DESIGNED BY: OWEN AYRES AND ASSOCIATES
REVISED BY: AECOM

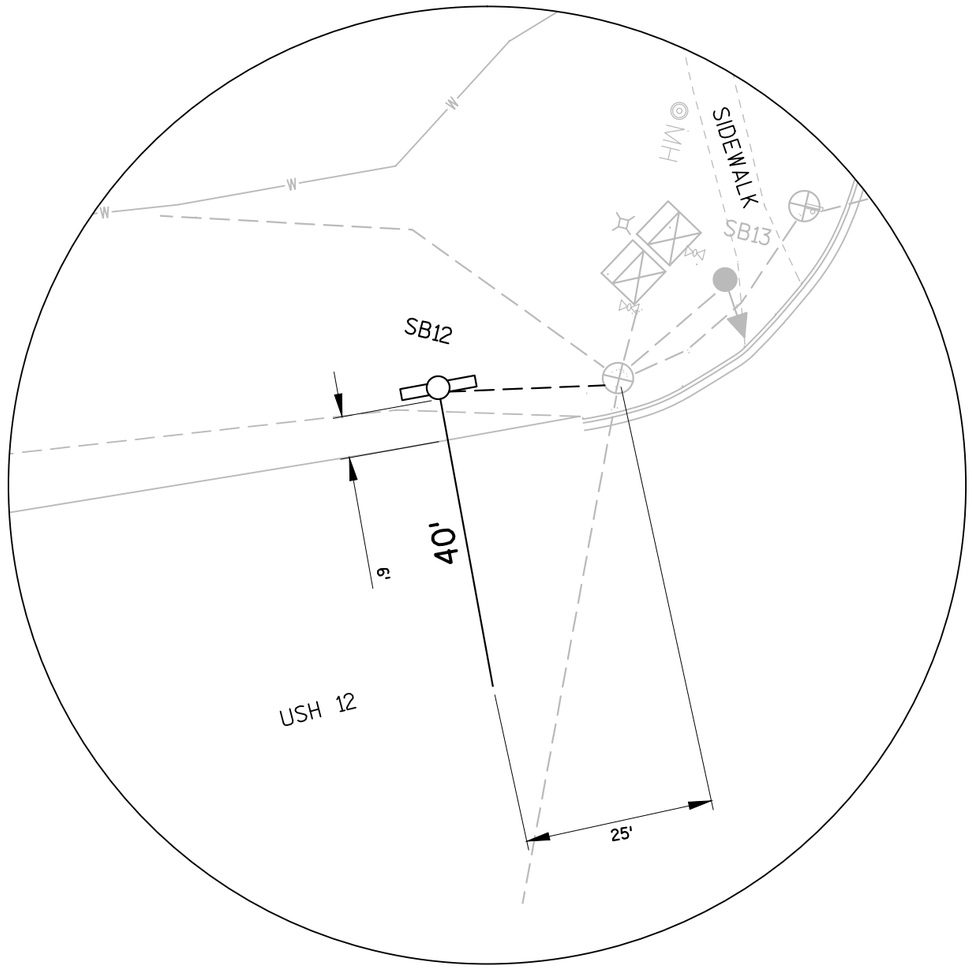
PAGE: 1 OF 3

PROJECT NUMBER: 1000-08-81	HWY: STH 93 & LORCH AVENUE	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE: 0 20 40 1"=40'	SHEET: E

FILE NAME : P:\60483055\900_Work\910_CAD\05-MODELS\Group C\S 18-0894.dwg

PLOT DATE : 7/29/2016 3:22 PM

WISDOT/CADDS SHEET 42



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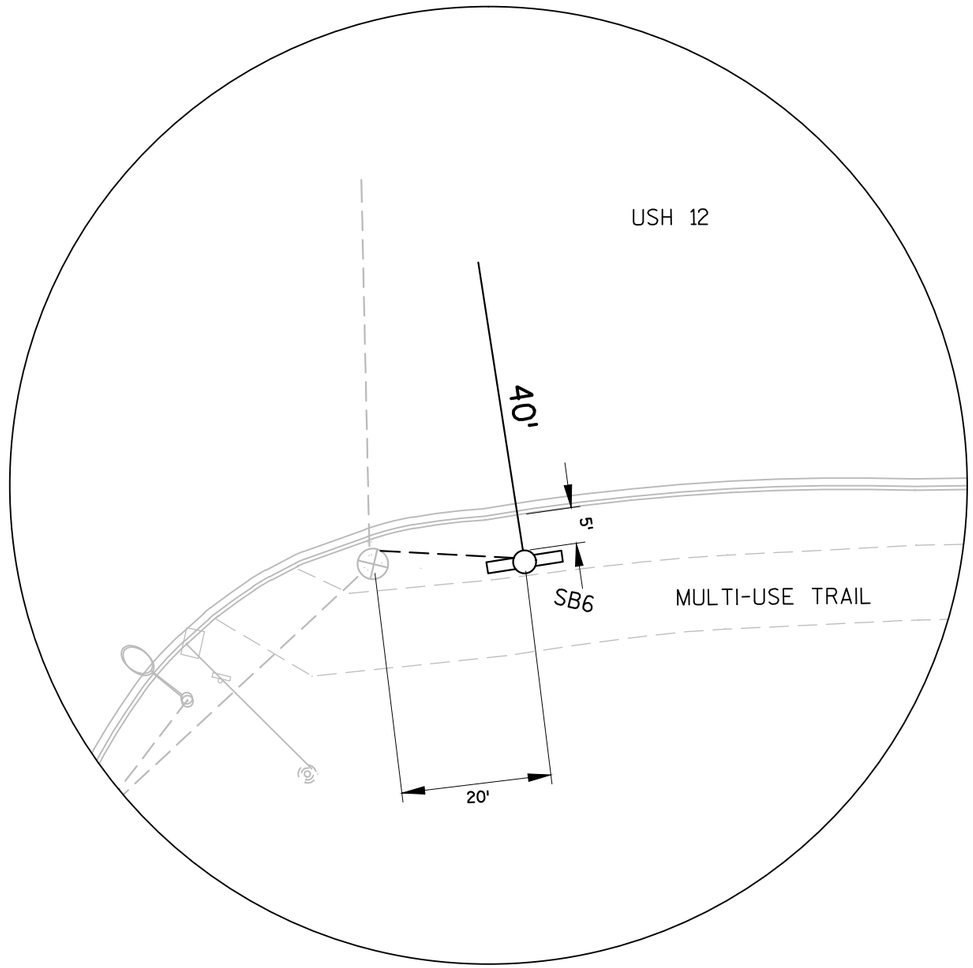


DETAIL 'C'

TRAFFIC CONTROL SIGNAL
S.T.H. 93 & LORCH AVE.
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0894

DESIGNED BY: OWEN AYRES AND ASSOCIATES PAGE: 2 OF 3
REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: STH 93 & LORCH AVENUE	COUNTY:EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION

NOT USED

	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	5,13	G	Y -	-	- -			-	- -	-
Ø2	6,7,11,12,15	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	1,3,9	R	R R	R	R R			G	Y R	R
RING 1 Ø5	6,12	-	- -	-	- -			-	- -	-
Ø6	4,5,13,14,16	R	R R	R	R R			R	R R	R
Ø7										
Ø8	2,8,10	R	R R	R	R R			R	R R	R
Ø4P	41,42	D	D D	D	D D			*	D D	

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	5,13	-	- -	-	- -			-	- -
Ø2	6,7,11,12,15	R	R R	R	R R			R	R R
Ø3									
Ø4	1,3,9	R	R R	R	R R			R	R R
RING 2 Ø5	6,12	G	Y -	-	- -			-	- -
Ø6	4,5,13,14,16	R	R R	G	Y R			R	R R
Ø7									
Ø8	2,8,10	R	R R	R	R R			G	Y R
Ø4P	41,42	D	D D	D	D D			D	D D

BARRIER

* WHEN CALLED, TIMED STEADY "WALK", FOLLOWED BY FLASHING "DON'T WALK", THEN STEADY "DON'T WALK".

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
8	4	1,2,5,6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	1	X			1	1				6'x20'	2
12	1	1	X			1	1				6'x6'	3
21	2	2	X			2	2				6'x20'	4
22	2	2	X			2	2				6'x20'	3
41	4	3	X			4	4				6'x20'	2
42	4	3	X			4	4				6'x6'	3
43	4	4	X			4	4		(X=4")		6'x20'	3
44	4	4	X			4	4		(X=4")		6'x6'	4
51	5	5	X			5	5				6'x20'	3
52	5	5	X			5	5				6'x6'	4
61	6	6	X			6	6				6'x20'	4
62	6	6	X			6	6				6'x20'	3
81	8	7	X			8	8		(X=4")		6'x20'	3
82	8	7	X			8	8		(X=4")		6'x6'	4
83	8	8	X			8	8				6'x20'	3
84	8	8	X			8	8				6'x6'	3

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF DOT LIGHTING	
NONE	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE CONTROL CABINET	

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM *: SS-18-0141	

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	4
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL 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. WHEN ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. NO RED SHOWN ON THE CHART FOR Ø1 & Ø5 SINCE COMPOSITE HEADS ARE USED.

CONTROLLER TYPE: ASC/3 TS1

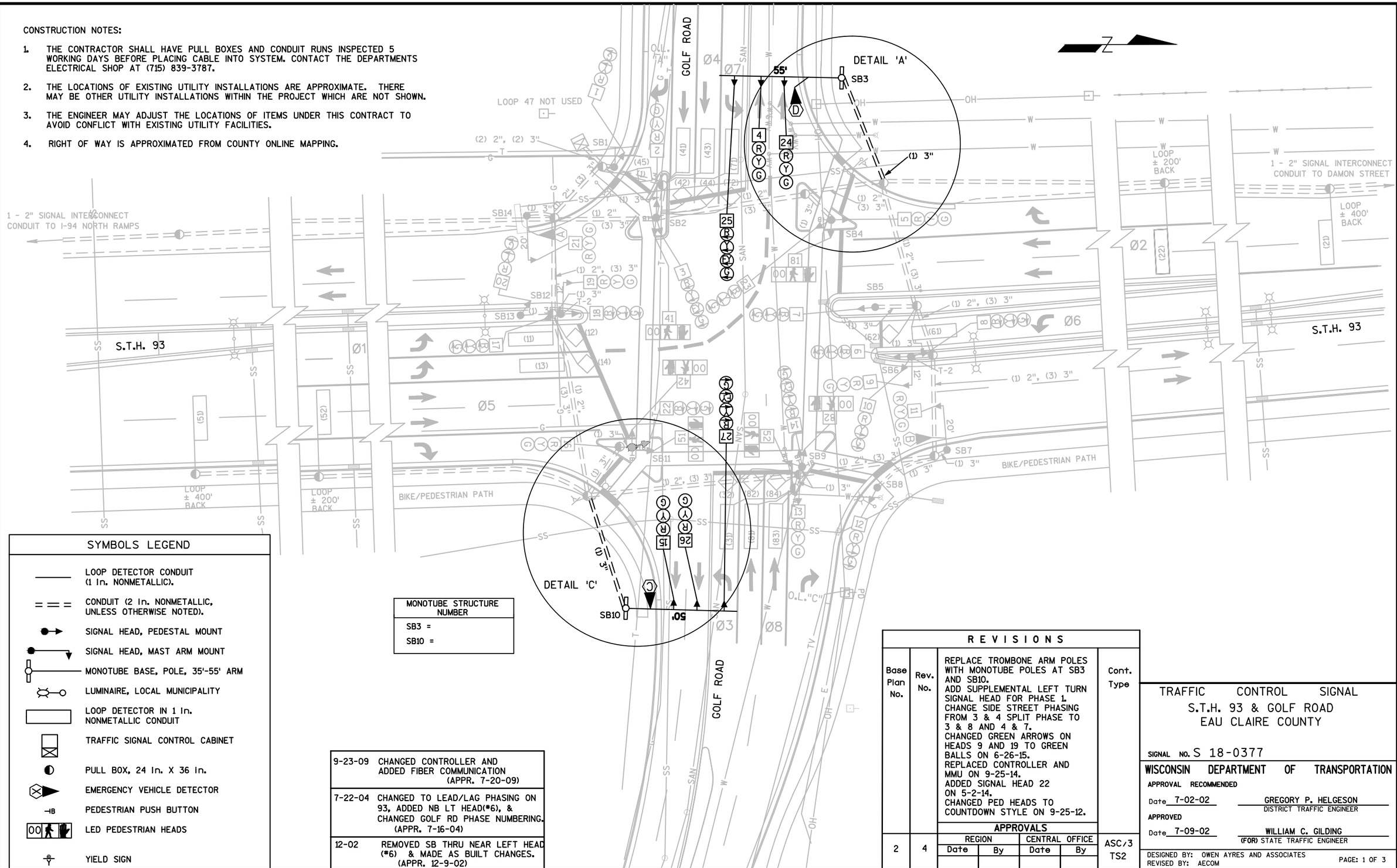
REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB6 AND SB12.
CHANGED CONTROLLER AND MMU ON 9-25-14.
CHANGED PED HEADS TO COUNTDOWN STYLE ON 7-25-12.

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NUMBER: 1000-08-81 | HWY: STH 93 & LORCH AVENUE | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0894) | SHEET: E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.



SYMBOLS LEGEND

- LOOP DETECTOR CONDUIT (1 In. NONMETALLIC).
- CONDUIT (2 In. NONMETALLIC, UNLESS OTHERWISE NOTED).
- SIGNAL HEAD, PEDESTAL MOUNT
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, POLE, 35'-55' ARM
- LUMINAIRE, LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1 In. NONMETALLIC CONDUIT
- TRAFFIC SIGNAL CONTROL CABINET
- PULL BOX, 24 In. X 36 In.
- EMERGENCY VEHICLE DETECTOR
- PEDESTRIAN PUSH BUTTON
- LED PEDESTRIAN HEADS
- YIELD SIGN

MONOTUBE STRUCTURE NUMBER
SB3 =
SB10 =

9-23-09	CHANGED CONTROLLER AND ADDED FIBER COMMUNICATION (APPR. 7-20-09)
7-22-04	CHANGED TO LEAD/LAG PHASING ON 93, ADDED NB LT HEAD(*6), & CHANGED GOLF RD PHASE NUMBERING. (APPR. 7-16-04)
12-02	REMOVED SB THRU NEAR LEFT HEAD (*6) & MADE AS BUILT CHANGES. (APPR. 12-9-02)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
2	4	REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB10. ADD SUPPLEMENTAL LEFT TURN SIGNAL HEAD FOR PHASE 1. CHANGE SIDE STREET PHASING FROM 3 & 4 SPLIT PHASE TO 3 & 8 AND 4 & 7. CHANGED GREEN ARROWS ON HEADS 9 AND 19 TO GREEN BALLS ON 6-26-15. REPLACED CONTROLLER AND MMU ON 9-25-14. ADDED SIGNAL HEAD 22 ON 5-2-14. CHANGED PED HEADS TO COUNTDOWN STYLE ON 9-25-12.	ASC/3 TS2

APPROVALS

REGION		CENTRAL OFFICE	
Date	By	Date	By

TRAFFIC CONTROL SIGNAL
S.T.H. 93 & GOLF ROAD
EAU CLAIRE COUNTY

SIGNAL No. S 18-0377

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7-02-02 — GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED
Date 7-09-02 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

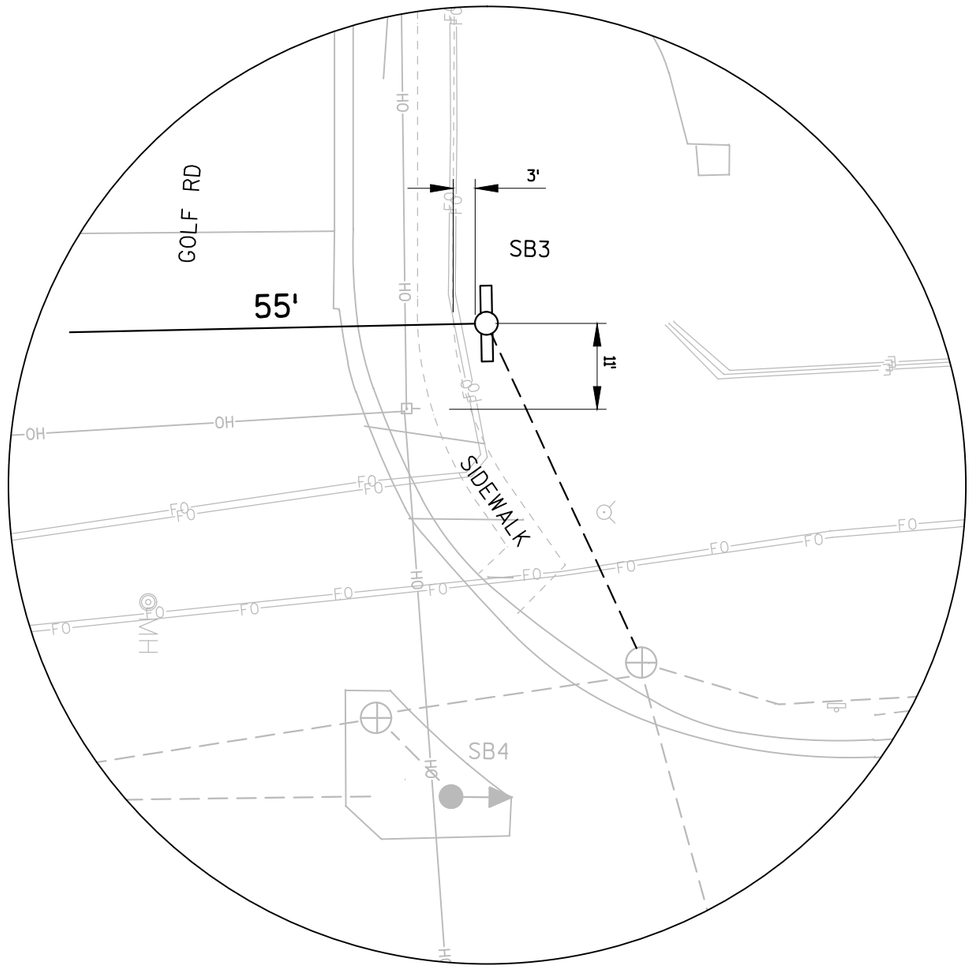
DESIGNED BY: OWEN AYRES AND ASSOCIATES
REVISED BY: AECOM

PAGE: 1 OF 3

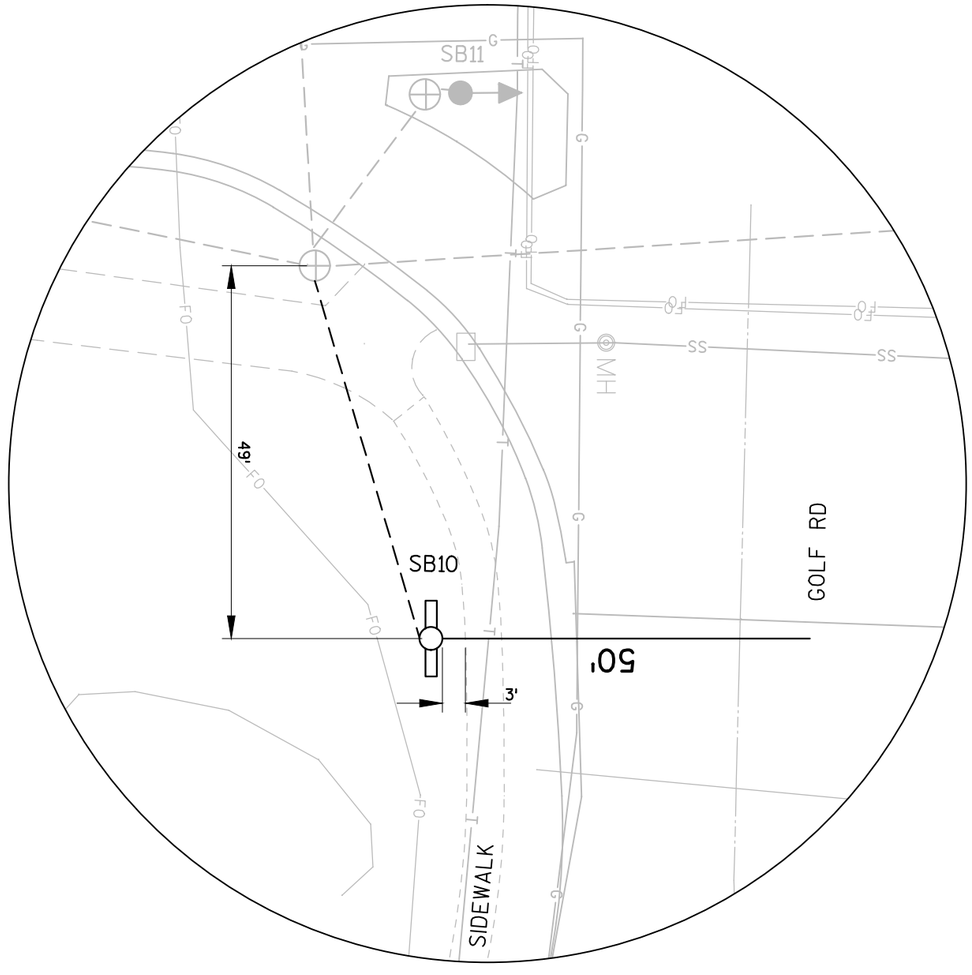
PROJECT NUMBER: 3700-50-27	HWY: S.T.H. 93 & GOLF ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

FILE NAME :P:\60483055\900_Work\910_CAD\05-MODELS\Group C\S 18-0377.dwg
PLOT DATE : 7/29/2016 3:22 PM
1"=40'
WISDOT/CADDS SHEET 42

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
S.T.H. 93 & GOLF ROAD
EAU CLAIRE COUNTY

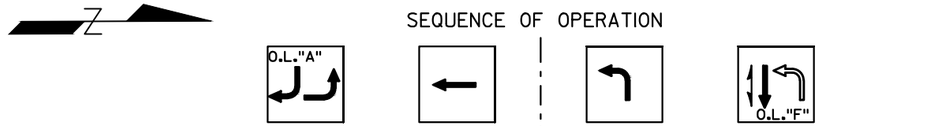
SIGNAL NO. S 18-0377

DESIGNED BY: OWEN AYRES AND ASSOCIATES PAGE: 2 OF 3
REVISED BY: AECOM

PROJECT NO: 3700-50-27	HWY: S.T.H. 93 & GOLF ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

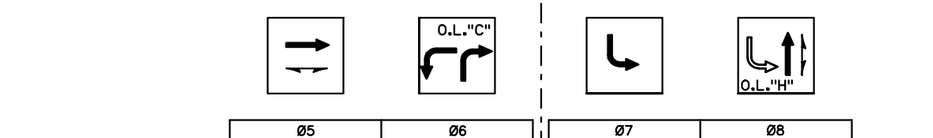
FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:13 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :

SEQUENCE OF OPERATION



RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 CLEAR TO	Ø2 R/W	Ø2 **	Ø2 CLEAR TO	Ø3 R/W	Ø3 **	Ø3 CLEAR TO	Ø4 R/W	Ø4 **	Ø4 CLEAR TO	FLASH
Ø1	6,7,17,23	G	Y R		R	R R		R	R R		R	R R		R
Ø2	5,19,21	R	R R		G	Y R		R	R R		R	R R		R
Ø3	3,25	R	R R		R	R R		G	Y R		R	R R		R
Ø4	2,15,26	R	R R		R	R R		R	R R		G	Y R		R
Ø5	9,11,16	R	R R		R	R R		R	R R		R	R R		R
Ø6	8,18,22	R	R R		R	R R		R	R R		R	R R		R
Ø7	14,27	R	R R		R	R R		R	R R		R	R R		R
Ø8	13,4,24	R	R R		R	R R		R	R R		R	R R		R
OL"A"	1,20	G	Y R		R	R R		R	R R		R	R R		R
OL"C"	10,12	R	R R		R	R R		R	R R		R	R R		R
OL"F"	3,25	-	- -		-	- -		-	- -		FY	Y R		-
OL"H"	14,27	-	- -		-	- -		-	- -		-	- -		-
Ø4P	41,42	D	D D		D	D D		D	D D		*	D D		
Ø5P	51,52	D	D D		D	D D		D	D D		D	D D		
Ø8P	81,82	D	D D		D	D D		D	D D		D	D D		



RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 CLEAR TO	Ø6 R/W	Ø6 **	Ø6 CLEAR TO	Ø7 R/W	Ø7 **	Ø7 CLEAR TO	Ø8 R/W	Ø8 **	Ø8 CLEAR TO
Ø1	6,7,17,23	R	R R		R	R R		R	R R		R	R R	
Ø2	5,19,21	R	R R		R	R R		R	R R		R	R R	
Ø3	3,25	R	R R		R	R R		R	R R		R	R R	
Ø4	2,15,26	R	R R		R	R R		R	R R		R	R R	
Ø5	9,11,16	G	Y R		R	R R		R	R R		R	R R	
Ø6	8,18,22	R	R R		G	Y R		R	R R		R	R R	
Ø7	14,27	R	R R		R	R R		G	Y R		R	R R	
Ø8	13,4,24												
OL"A"	1,20	R	R R		R	R R		R	R R		R	R R	
OL"C"	10,12	R	R R		G	Y R		R	R R		R	R R	
OL"F"	3,25	-	- -		-	- -		-	- -		-	- -	
OL"H"	14,27	-	- -		-	- -		-	- -		FY	Y R	
Ø4P	41,42	D	D D		D	D D		D	D D		D	D D	
Ø5P	51,52	*	D D		D	D D		D	D D		D	D D	
Ø8P	81,82	D	D D		D	D D		D	D D		*	D D	

BARRIER

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

* WHEN CALLED, TIMED STEADY "WALK", THEN FLASHING "DON'T WALK" WITH PED COUNTDOWN TIMER, THEN ACTIVATED STEADY "DON'T WALK."

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	O.L."A" & (5 OR (6 & O.L."C"))	2,3,4,7,8
2	5 OR (6 & O.L."C")	1,3,4,O.L."A",7,8
3	7 OR 8	1,2,4,5,6,O.L."A",O.L."C"
4	7 OR 8	1,2,3,5,6,O.L."A",O.L."C"
5	(1 & O.L."A") OR 2	3,4,6,7,8,O.L."C"
6	O.L."C" & ((1 & O.L."A") OR 2)	3,4,5,7,8
7	3 OR 4	1,2,5,6,8,O.L."A",O.L."C"
8	3 OR 4	1,2,5,6,7,O.L."A",O.L."C"

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6'x20'	4
12	2	X			1	1				6'x6'	3
13	3	X			1	1				6'x20'	3
14	4	X			1	1				6'x6'	4
21	5	X			2	2				6'x20'	4
22	6	X			2	2				6'x20'	3
31	7	X			3	3				6'x20'	3
32	8	X			3	3				6'x6'	4
41	13	X			4	4				6'x20'	3
42	14	X			4	4				6'x6'	4
43	15	X			4	4				6'x20'	4
44	16	X			4	4				6'x6'	3
*45										6'x6'	3
51	19	X			5	5				6'x20'	4
52	20	X			5	5				6'x20'	3
61	21	X			6	6				6'x20'	3
62	22	X			6	6				6'x6'	4
71	17	X			4	4				6'x20'	3
72	18	X			4	4				6'x6'	4
81	9	X			3	3				6'x20'	4
82	10	X			3	3				6'x6'	3
83	11	X			3	3				6'x20'	3
84	12	X			3	3				6'x6'	4

* WIRED IN CABINET FOR FUTURE USE.

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E" =		
O.L. "F" =	3	4
O.L. "G" =		
O.L. "H" =	7	8

OVERLAPS

O.L. "A" = Ø1
O.L. "B" =
O.L. "C" = Ø6
O.L. "D" =

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+6	1+5	4+7+OLA	3+8+OLC

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL NOTES:

1. ANY ACTUATED PHASE 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. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN.

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM	
CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-18-0141

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

TYPE OF DOT LIGHTING	
NONE	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE CONTROL CABINET	

CONTROLLER TYPE: ASC/3 TS2

REVISION:

REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB10.
ADD SUPPLEMENTAL LEFT TURN SIGNAL HEAD FOR PHASE 1.
CHANGE SIDE STREET PHASING FROM 3 & 4 SPLIT PHASE TO 3 & 8 AND 4 & 7.
CHANGED GREEN ARROWS ON HEADS 9 AND 19 TO GREEN BALLS ON 6-26-15.
REPLACED CONTROLLER AND MMU ON 9-25-14.
ADDED SIGNAL HEAD 22 ON 5-2-14.
CHANGED PED HEADS TO COUNTDOWN STYLE ON 9-25-12.

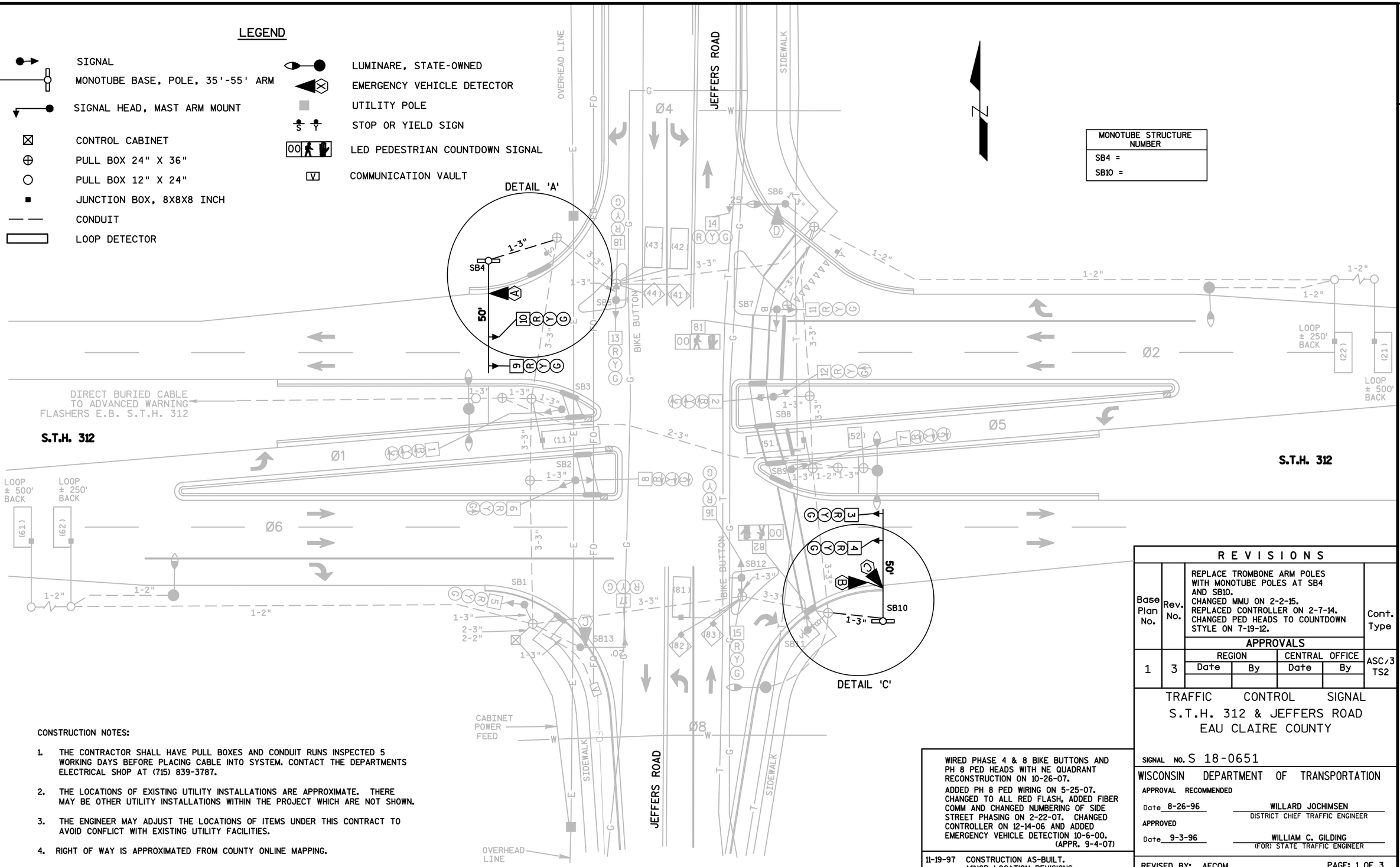
REVISION DATE: FEB. 2017 PAGE: 3 OF 3

2

2

LEGEND

- SIGNAL
- MONOTUBE BASE, POLE, 35'-55' ARM
- SIGNAL HEAD, MAST ARM MOUNT
- CONTROL CABINET
- PULL BOX 24" X 36"
- PULL BOX 12" X 24"
- JUNCTION BOX, 8X8X8 INCH
- CONDUIT
- LOOP DETECTOR
- LUMINARE, STATE-OWNED
- EMERGENCY VEHICLE DETECTOR
- UTILITY POLE
- STOP OR YIELD SIGN
- LED PEDESTRIAN COUNTDOWN SIGNAL
- COMMUNICATION VAULT



MONOTUBE STRUCTURE NUMBER	
SB4 =	
SB10 =	

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

WIRED PHASE 4 & 8 BIKE BUTTONS AND PH 8 PED HEADS WITH NE QUADRANT RECONSTRUCTION ON 10-26-07.
ADDED PH 8 PED WIRING ON 5-25-07. CHANGED TO ALL RED FLASH, ADDED FIBER COMM AND CHANGED NUMBERING OF SIDE STREET PHASING ON 2-22-07. CHANGED CONTROLLER ON 12-14-06 AND ADDED EMERGENCY VEHICLE DETECTION 10-6-00. (APPR. 9-4-07)

11-19-97 CONSTRUCTION AS-BUILT. MINOR LOCATION REVISIONS.

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
		REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10. CHANGED MMU ON 2-2-15. REPLACED CONTROLLER ON 2-7-14. CHANGED PED HEADS TO COUNTDOWN STYLE ON 7-19-12.	
		APPROVALS	
		REGION: Date / By — CENTRAL OFFICE: Date / By	
1	3		ASC/3 TS2

TRAFFIC CONTROL SIGNAL
S.T.H. 312 & JEFFERS ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0651

WISCONSIN DEPARTMENT OF TRANSPORTATION

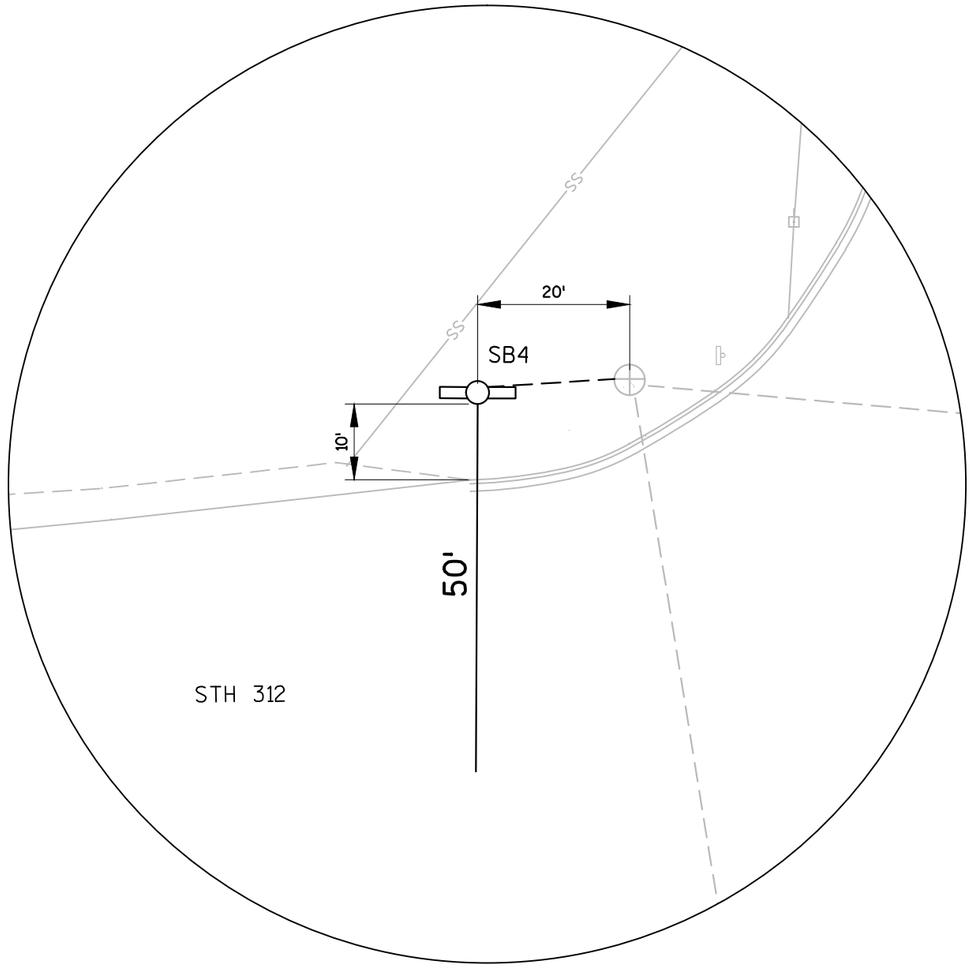
APPROVAL RECOMMENDED
Date 8-26-96 — WILLARD JOCHIMSEN, DISTRICT CHIEF TRAFFIC ENGINEER

APPROVED
Date 9-3-96 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

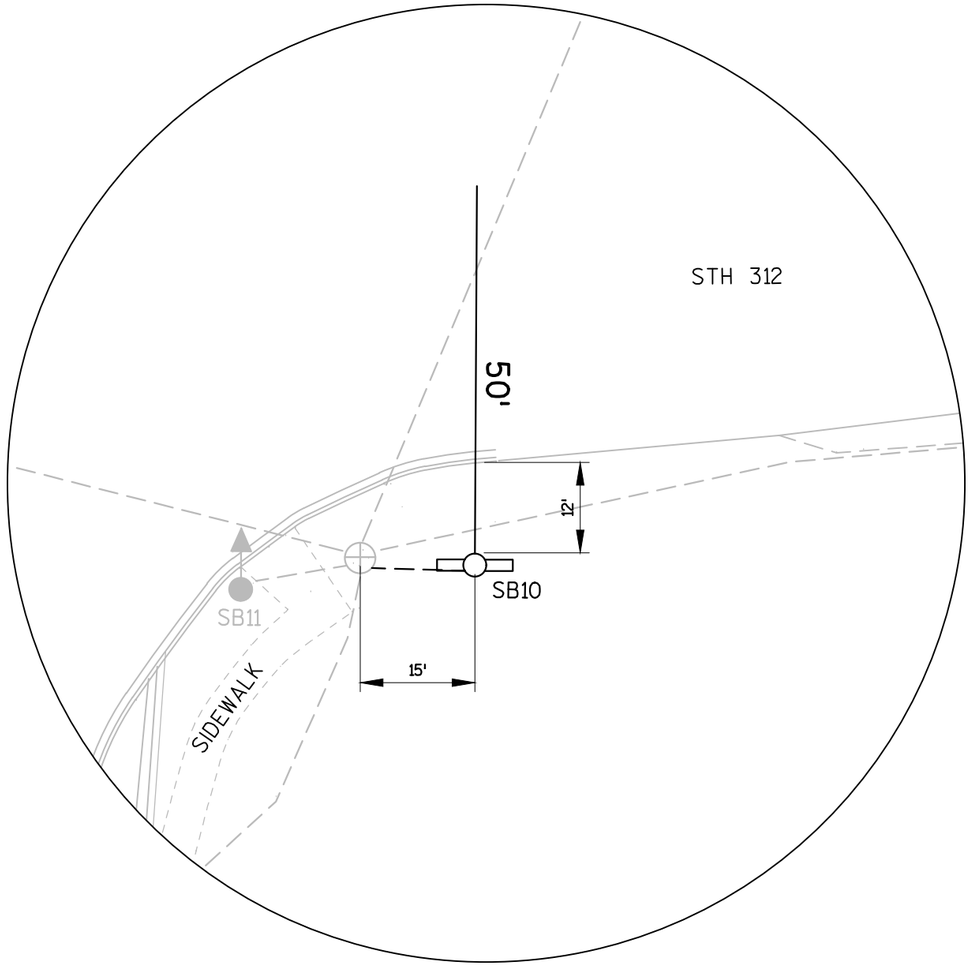
REVISED BY: AECOM

PROJECT NUMBER: 1000-08-81	HWY: STH 312 AND JEFFERS ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
S.T.H. 312 & JEFFERS ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0651

PAGE: 2 OF 3

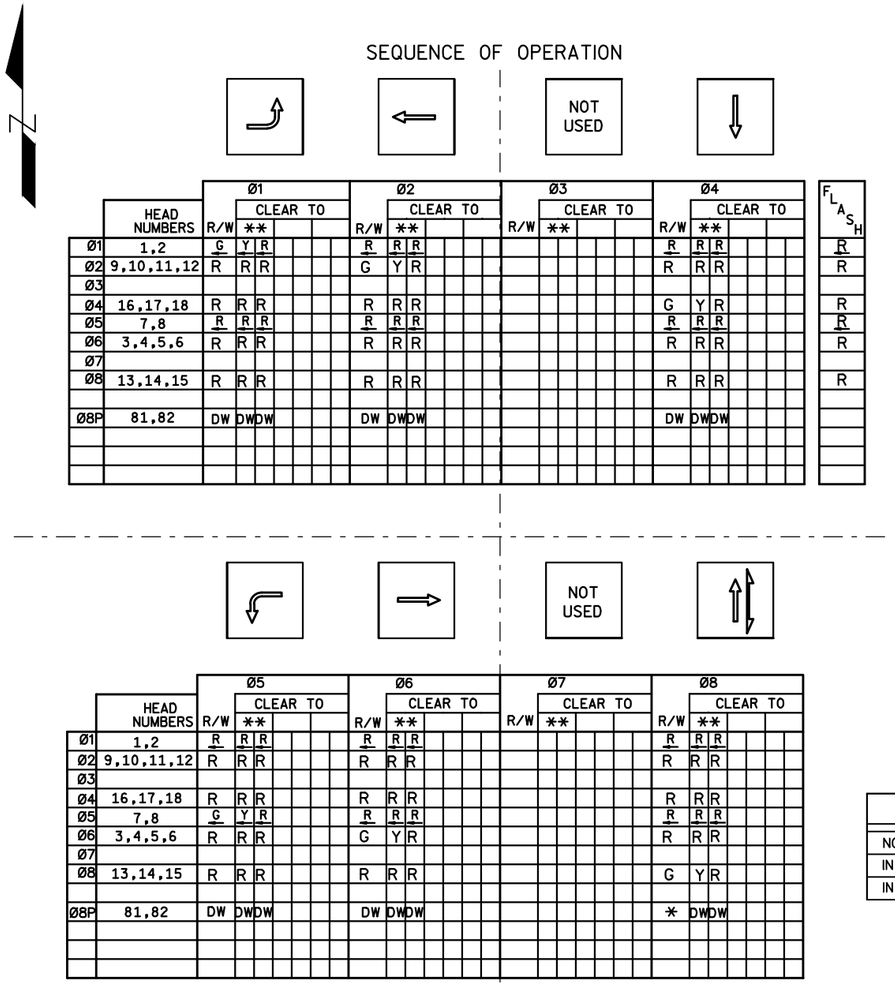
REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: STH 312 AND JEFFERS ROAD	COUNTY: EAU CLAIRE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60483055\900_WORK\910_CAD\05-MODELS\FIELD REVIEW_UTILITIES_EAU CLAIRE.DWG
LAYOUT NAME - ****
PLOT DATE : 7/29/2016 3:14 PM PLOT BY : DUFFEY, BRIAN PLOT NAME :
WISDOT/CADDS SHEET 42

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

SEQUENCE OF OPERATION



	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	1,2	G	Y R	R	R R			R	R R	R
Ø2	9,10,11,12	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	16,17,18	R	R R	R	R R			G	Y R	R
Ø5	7,8	R	R R	R	R R			R	R R	R
Ø6	3,4,5,6	R	R R	R	R R			R	R R	R
Ø7										
Ø8	13,14,15	R	R R	R	R R			R	R R	R
Ø8P	81,82	DW	DW DW	DW	DW DW			DW	DW DW	

	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	1,2	R	R R	R	R R			R	R R
Ø2	9,10,11,12	R	R R	R	R R			R	R R
Ø3									
Ø4	16,17,18	R	R R	R	R R			R	R R
Ø5	7,8	G	Y R	R	R R			R	R R
Ø6	3,4,5,6	R	R R	G	Y R			R	R R
Ø7									
Ø8	13,14,15	R	R R	R	R R			G	Y R
Ø8P	81,82	DW	DW DW	DW	DW DW			*	DW DW

* WHEN CALLED, TIMED STEADY "WALK", FOLLOWED BY FLASHING "DON'T WALK" WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY "DON'T WALK".

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
8	4	1,2,5,6

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6'x20'	3
21	2	X			2	2				6'x20'	4
22	3	X			2	2				6'x20'	3
41	4	X			4	4		(X=3")		6'x6'	4
42	5	X			4	4		(X=3")		6'x20'	3
43	6	X			4	4				6'x20'	3
44	7	X			4	4				6'x6'	3
51	8	X			5	5				6'x30'	3
52	9	X			5	5				8'x6'	3
61	10	X			6	6				6'x20'	4
62	11	X			6	6				6'x20'	3
81	12	X			8	8		(X=3")		6'x20'	3
82	13	X			8	8		(X=3")		6'x6'	3
83	14	X			8	8				6'x6'	3

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ?	PHASE RECALL
1	X	6	
2	X	6	MIN
4	X	8	
5	X	2	
6	X	2	MIN
8	X	4	

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF DOT LIGHTING	
NONE	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE CONTROL CABINET	

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM *: SS-18-0143	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	WB	EB	SB	NB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

GENERAL 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. PROVIDE BICYCLIST PUSH BUTTON WIRING TO CALL PHASES 4 AND 8
4. WHEN PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

S.T.H. 312 & JEFFERS ROAD
EAU CLAIRE COUNTY

SIGNAL NO. S 18-0651

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB4 AND SB10.
CHANGED MMU ON 2-2-15.
REPLACED CONTROLLER ON 2-7-14.
CHANGED PED HEADS TO COUNTDOWN STYLE ON 7-19-12.

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NUMBER: 1000-08-81 | HWY: STH 312 & JEFFERS ROAD | COUNTY: EAU CLAIRE | SEQUENCE OF OPERATIONS (SIGNAL NO. S 18-0373) | SHEET: E

2

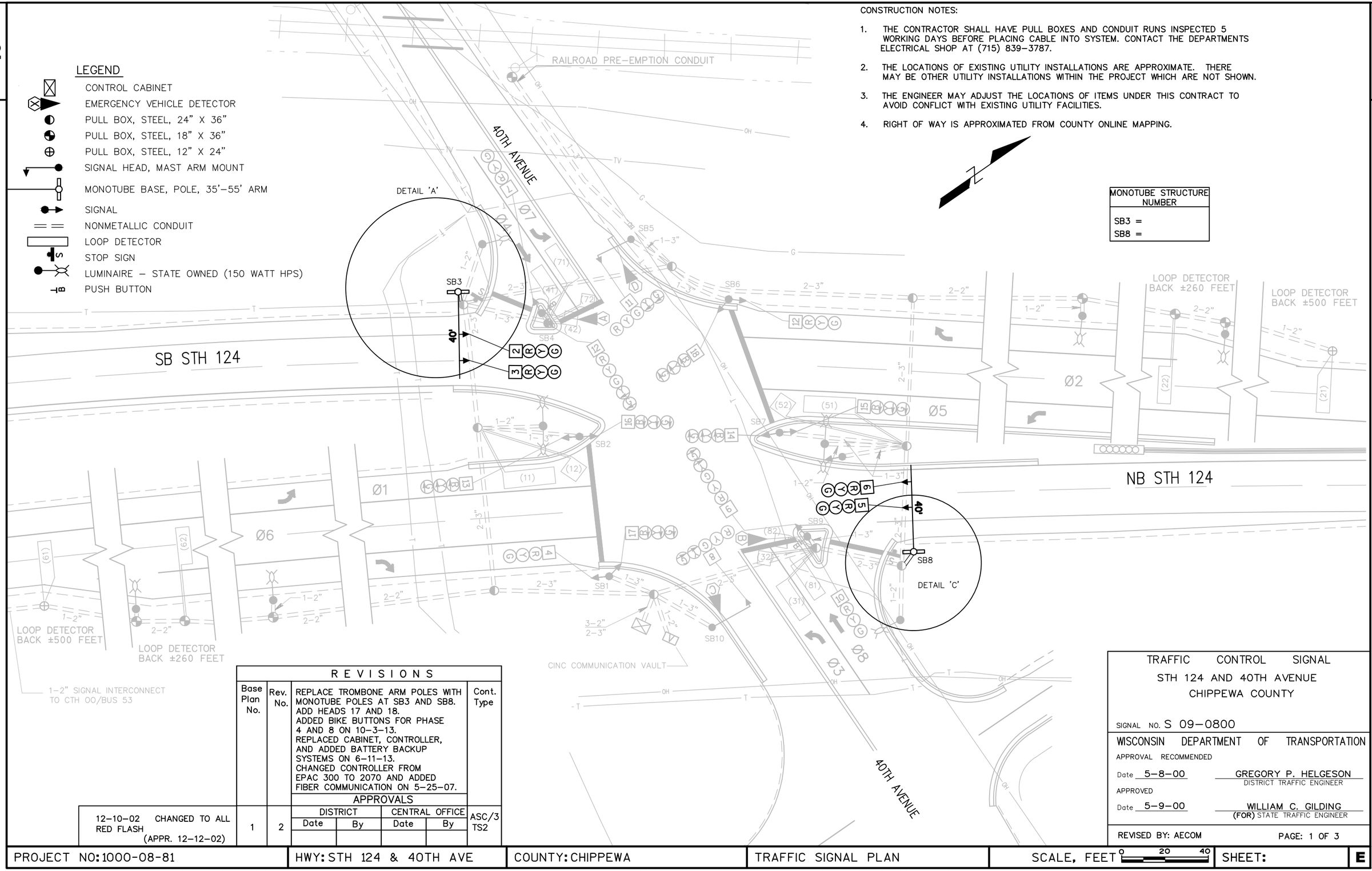
LEGEND

- CONTROL CABINET
- EMERGENCY VEHICLE DETECTOR
- PULL BOX, STEEL, 24" X 36"
- PULL BOX, STEEL, 18" X 36"
- PULL BOX, STEEL, 12" X 24"
- SIGNAL HEAD, MAST ARM MOUNT
- MONOTUBE BASE, POLE, 35'–55' ARM
- SIGNAL
- NONMETALLIC CONDUIT
- LOOP DETECTOR
- STOP SIGN
- LUMINAIRE – STATE OWNED (150 WATT HPS)
- PUSH BUTTON

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839–3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB3 =
SB8 =



REVISIONS						
Base Plan No.	Rev. No.					Cont. Type
		REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB8. ADD HEADS 17 AND 18. ADDED BIKE BUTTONS FOR PHASE 4 AND 8 ON 10–3–13. REPLACED CABINET, CONTROLLER, AND ADDED BATTERY BACKUP SYSTEMS ON 6–11–13. CHANGED CONTROLLER FROM EPAC 300 TO 2070 AND ADDED FIBER COMMUNICATION ON 5–25–07.				
		APPROVALS				
		DISTRICT		CENTRAL OFFICE		ASC/3 TS2
		Date	By	Date	By	
12–10–02 CHANGED TO ALL RED FLASH (APPR. 12–12–02)	1	2				

TRAFFIC CONTROL SIGNAL
STH 124 AND 40TH AVENUE
CHIPPEWA COUNTY

SIGNAL NO. S 09–0800

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date 5–8–00 — GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED

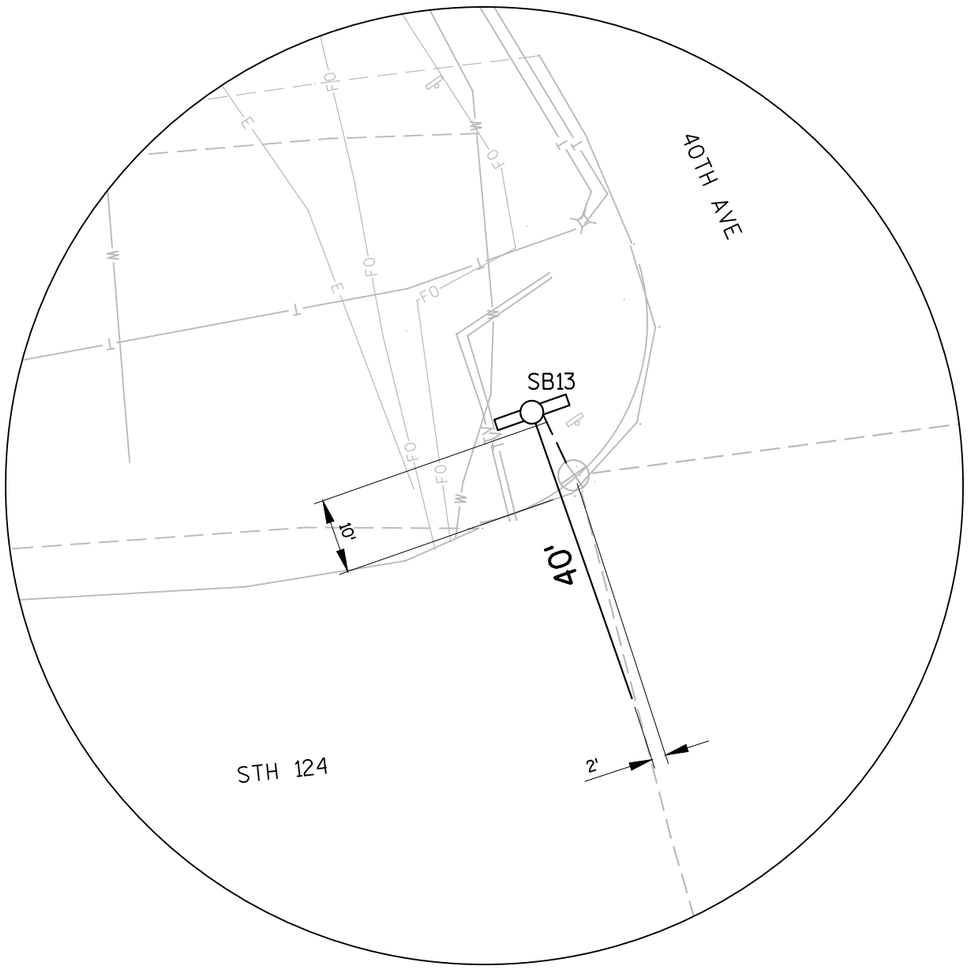
Date 5–9–00 — WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

REVISED BY: AECOM

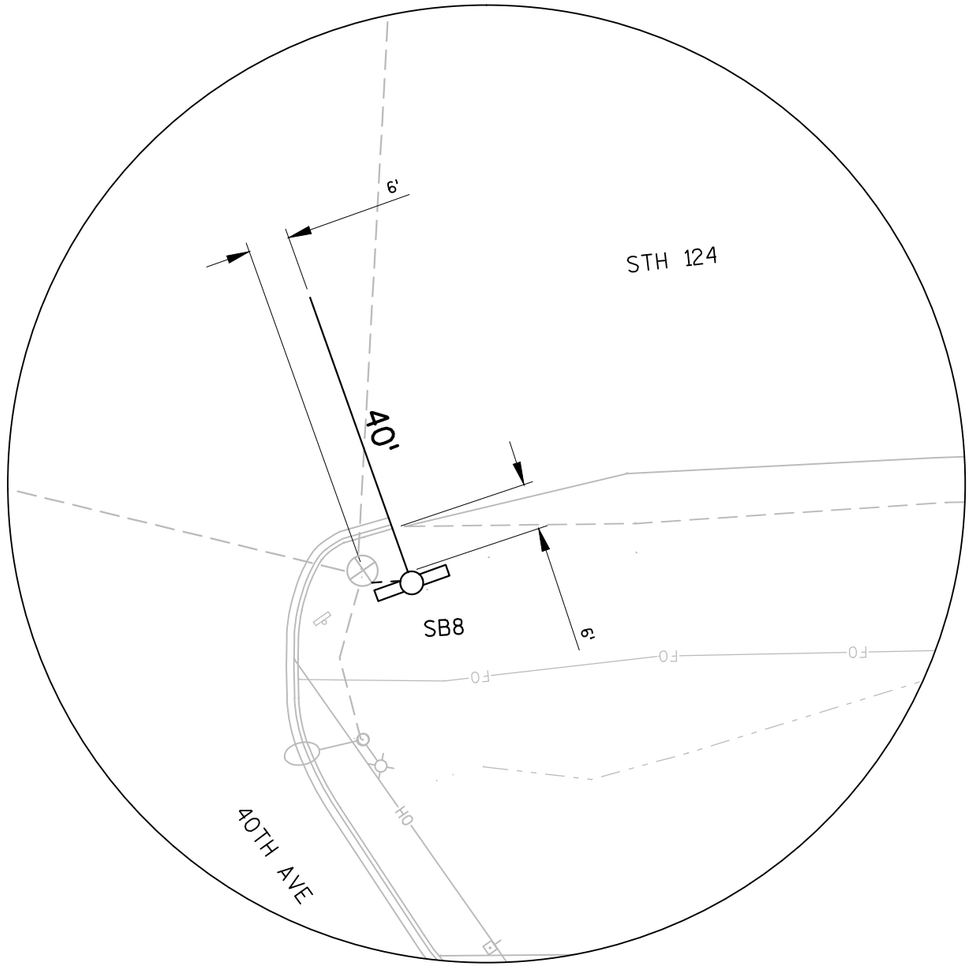
PAGE: 1 OF 3

PROJECT NO: 1000-08-81	HWY: STH 124 & 40TH AVE	COUNTY: CHIPPEWA	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET:	E

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
STH 124 AND 40TH AVENUE
CHIPPEWA COUNTY

SIGNAL NO. S 09-0800

PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: STH 124 & 40TH AVE	COUNTY: CHIPPEWA	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION

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	13,14,18	G	Y R	R	R R	-	- -	R	R R	R
Ø2	1,2,3	R	R R	G	Y R	-	- -	R	R R	R
Ø3	11,12	-	- -	-	- -	G	Y -	-	- -	-
Ø4	7,8,9	R	R R	R	R R	-	- -	G	Y R	R
Ø5	15,16,17	R	R R	R	R R	-	- -	R	R R	R
Ø6	4,5,6	R	R R	R	R R	-	- -	R	R R	R
Ø7	8,9	-	- -	-	- -	-	- -	-	- -	-
Ø8	10,11,12	R	R R	R	R R	-	- -	R	R R	R

RING 2

	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	13,14,18	R	R R	R	R R	-	- -	R	R R
Ø2	1,2,3	R	R R	R	R R	-	- -	R	R R
Ø3	11,12	-	- -	-	- -	-	- -	-	- -
Ø4	7,8,9	R	R R	R	R R	-	- -	R	R R
Ø5	15,16,17	G	Y R	R	R R	-	- -	R	R R
Ø6	4,5,6	R	R R	G	Y R	-	- -	R	R R
Ø7	8,9	-	- -	-	- -	G	Y -	-	- -
Ø8	10,11,12	R	R R	R	R R	-	- -	G	Y R

BARRIER

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

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
3	7 OR 8	
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
7		
8	3 OR 4	1,2,5,6

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1)
3. NO RED SHOWN FOR 03 or 07 SINCE COMPOSITE HEADS ARE USED.
4. WHEN PHASES 4 AND 8 ARE TIMNG CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISIVE LEFT TURN.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE (FEET)	NUMBER OF TURNS
11	1	X			1	1				25'x6'	3
12	1	X			1	1				6'x6'	4
21	3	X			2	2				18'x6'	4
22	4	X			2	2				18'x6'	3
31	13	X			3	3				20'x6'	3
32	13	X			3	3				6'x6'	4
41	7	X			4	4				15'x6'	3
42	7	X			4	4				6'x6'	3
51	9	X			5	5				25'x6'	3
52	9	X			5	5				6'x6'	4
61	11	X			6	6				18'x6'	4
62	12	X			6	6				18'x6'	3
71	5	X			7	7				20'x6'	3
72	5	X			7	7				6'x6'	4
81	15	X			8	8				20'x6'	3
82	16	X			8	8				6'x6'	3

CONTROLLER LOGIC

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

OVERLAPS

O.L."A"=
O.L."B"=
O.L."C"=
O.L."D"=

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	↱	↓	↰
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4+7	3+8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	X
GTT	X
TOMAR	

TYPE OF INTERCONNECT COMMUNICATION	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
*LOCATION OF CELL MODEM CONTROLLER NO: S-	
SIGNAL SYSTEM: SS-09-0148	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE CONTROL CABINET	

RAILROAD PRE-EMPTION

VEHICLE ACTUATION	PRE-EMPTED PHASES ON
EASTBOUND	4+7

PRE-EMPTION NOTES:

1. FULL CLEARANCE INTERVALS AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.
2. UPON RR PREEMPTION, THE SIGNAL SHALL CLEAR TO ALL RED PERIOD, THEN PHASE 4 AND 7, AND THEN THE PHASE 4 AND 7 RR PREEMPTION QUEUE CLEARANCE INTERVAL.
3. PHASES 2, 3, 5, AND 6 SHALL REMAIN OPERATIONAL DURING THE RR PREEMPTION HOLD PERIOD.
4. NORMAL SIGNAL OPERATION SHALL RESUME IN PHASES 4 AND 8 FOLLOWING THE TERMINATION OF THE RR PREEMPTION HOLD PERIOD.

SIGNAL NO: S 09-0800

REVISION: REPLACE TROMBONE ARM POLES WITH MONOTUBE POLES AT SB3 AND SB8. ADD HEADS 17 AND 18. ADDED BIKE BUTTONS FOR PHASE 4 AND 8 ON 10-3-13. REPLACED CABINET, CONTROLLER, AND ADDED BATTERY BACKUP SYSTEMS ON 6-11-13. CHANGED CONTROLLER FROM EPAC 300 TO 2070 AND ADDED FIBER COMMUNICATION ON 5-25-07.

REVISION DATE: FEB. 2017 PAGE: 3 OF 3

PROJECT NO: 1000-08-81	HWY: STH 124 & 40TH AVE	COUNTY: CHIPPEWA	SEQUENCE OF OPERATIONS (SIGNAL NO. S 09-0800)	SHEET:	E

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS BEFORE PLACING CABLE INTO SYSTEM. CONTACT THE DEPARTMENTS ELECTRICAL SHOP AT (715) 839-3787.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. RIGHT OF WAY IS APPROXIMATED FROM COUNTY ONLINE MAPPING.

MONOTUBE STRUCTURE NUMBER
SB3 =
SB11 =

SPEED LIMIT 25

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 25

CEDAR FALLS ROAD

CEDAR FALLS ROAD

STH 25

STH 25

DETAIL 'A'

DETAIL 'C'

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11

Ø1 Ø2 Ø3 Ø4 Ø5 Ø6

45'

45'

SERVICE - POWER POLE

SERVICE FEED

DAMAGED/UNUSABLE T-2 BASE

CID

LOOP DETECTOR 200' BACK FROM STOPLINE

LOOP DETECTOR ± 400' BACK FROM STOPLINE

LOOP DETECTOR ± 400' FROM STOPLINE

LOOP DETECTOR ± 200' FROM STOPLINE

1-2" SIGNAL INTERCONNECT CONDUIT TO I-94 N. RAMPS

LEGEND

- SIGNAL HEAD
- MONOTUBE BASE, POLE, 35'-55' ARM
- SIGNAL CONTROL CABINET
- PULL BOX 24" X 36"
- PULL BOX 12" X 24"
- CONDUIT
- LOOP DETECTOR
- LUMINAIRE-CITY OWNED
- UTILITY POLE
- STOP SIGN
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LED PEDESTRIAN COUNTDOWN SIGNALS

** ON HEADS 1 & 2 - YELLOW AND GREEN RIGHT ARROWS ON DURING PHASE 4 ONLY.

6-13-03 CHANGED CONTROLLER TO EPAC 300 WITH COMMUNICATION & ADDED PHASE 3 PED WIRING FOR FUTURE ACTIVATION. (APPR. 11-10-03)
9-30-02 ADDED NB RIGHT TURN ARROWS THAT TIME WITH ONLY PHASE 4 ON HEADS 1 AND 2. (APPR. 9-24-02)
8-30-01 ADDED ALL RED FLASH AND PHASES 1 AND 5 (APPR. 8-3-01)
10-18-99 ADDED SPLIT PHASING 3 & 4 (APPR. 10-15-99)

REVISIONS

Base Plan No.	Rev. No.		Cont. Type
		REMOVE TROMBONE ARM POLE AT SB8, INSTALL MONOTUBE POLE AT SB11, AND REPLACE TROMBONE ARM POLE WITH MONOTUBE POLEAT SB3. CHANGE PHASE 1 AND 5 TO PROTECTED/PERMISSIVE FYAS AND ADD SIGNAL HEADS 15 AND 16 AS FYA. CHANGED CONTROLLER AND MMU ON 11-19-15. ADDED PHASE 3 PED ON 6-27-13. MOVED SIGNAL HEAD 2 ON 11-17-06.	
		APPROVALS	
1	5	DISTRICT Date / By; CENTRAL OFFICE Date / By	ASC/3 TS2

TRAFFIC CONTROL SIGNAL

S.T.H. 25 & CEDAR FALLS ROAD

DUNN COUNTY

SIGNAL NO. S 17-0693

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date 10-13-97 GREGORY P. HELGESON, DISTRICT TRAFFIC ENGINEER

APPROVED

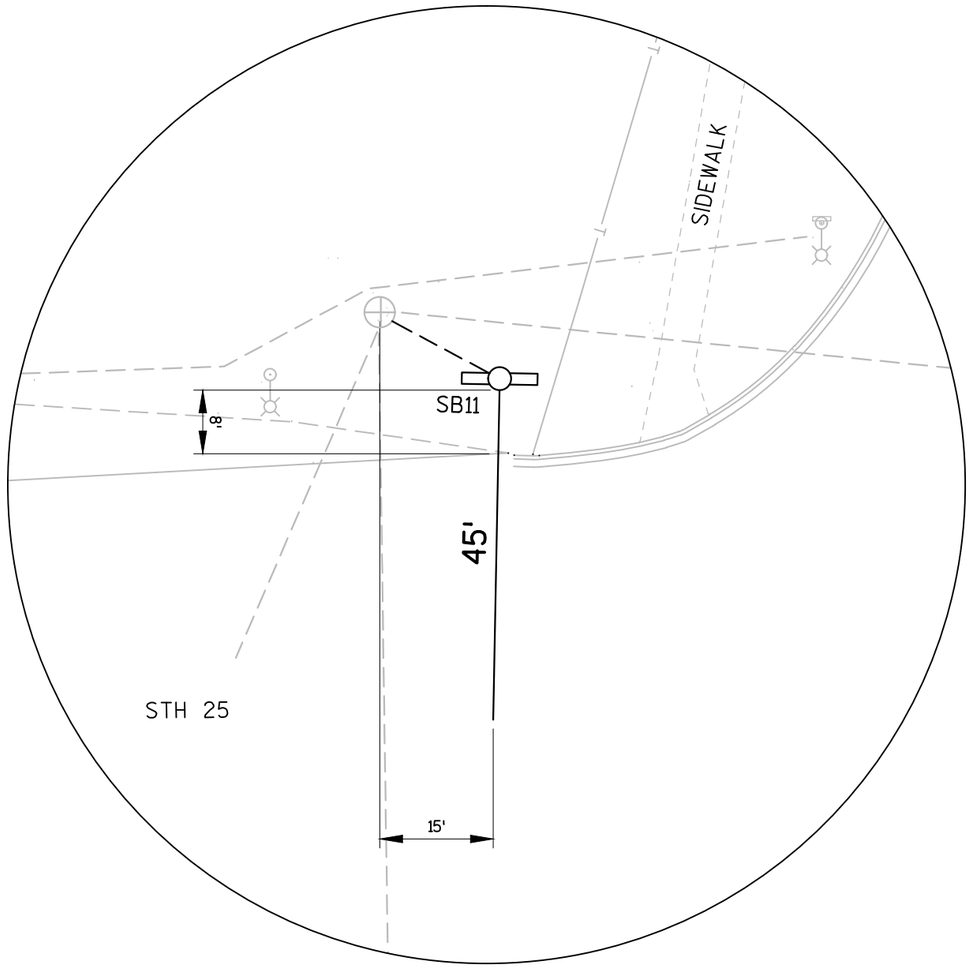
Date 10-30-97 WILLIAM C. GILDING, (FOR) STATE TRAFFIC ENGINEER

REVISED BY: AECOM PAGE: 1 OF 3

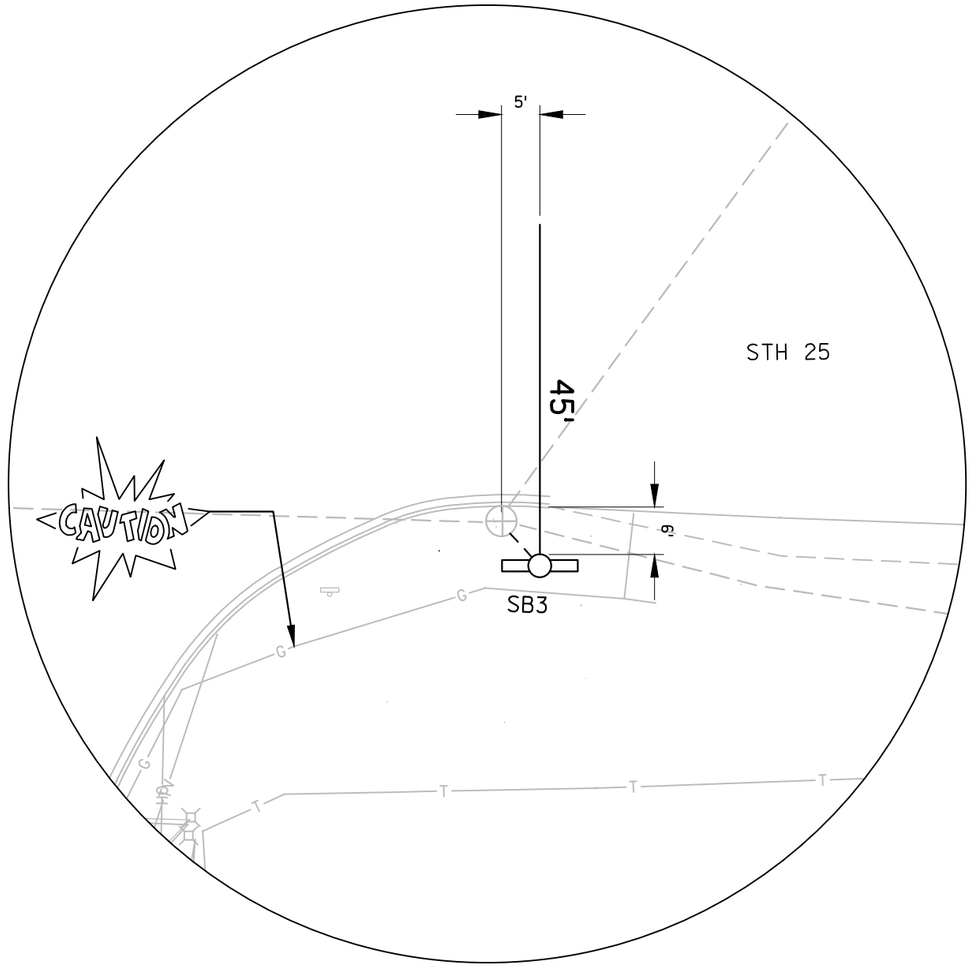
PROJECT NO: 1000-08-81	HWY: S.T.H. 25 & CEDAR FALLS ROAD	COUNTY: DUNN	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET: E

FILE NAME : P:\60483055\900_WORK\910_CAD\05-MODELS\GROUP C\S 17-0693.DWG PLOT DATE : 7/29/2016 10:12 AM 1"=40'

2



DETAIL 'A'



DETAIL 'C'

TRAFFIC CONTROL SIGNAL
S.T.H. 25 & CEDAR FALLS ROAD
DUNN COUNTY

SIGNAL NO. S 17-0693

PAGE: 2 OF 3

REVISED BY: AECOM

PROJECT NO: 1000-08-81	HWY: STH 25 & CEDAR FALLS ROAD	COUNTY: DUNN	TRAFFIC SIGNAL PLAN	SHEET	E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 CLEAR TO	Ø2 R/W	Ø2 **	Ø2 CLEAR TO	Ø3 R/W	Ø3 **	Ø3 CLEAR TO	Ø4 R/W	Ø4 **	Ø4 CLEAR TO	FLASH
Ø1	3,4,16	G	Y R		-	- -		-	- -		-	- -		-
Ø2	5,6,17	R	R R		G	Y R		R	R R		R	R R		R
Ø3	12,13,14	R	R R		R	R R		G G	Y R		R	R R		R
Ø4	9,10,11	R	R R		R	R R		R	R R		G G	Y R		R
Ø5	1,19	-	- -		-	- -		-	- -		G	Y -		-
Ø6	7,8,15	-	- -		-	- -		-	- -		-	- -		-
OLE	3,4,16	-	- -		FY	Y R		R	R R		R	R R		R
OLG	7,8,15	-	- -		-	- -		-	- -		-	- -		
Ø3P	31, 32	DW	DW DW		DW	DW DW		*	DW DW		DW	DW DW		

NOT USED

NOT USED

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 CLEAR TO	Ø6 R/W	Ø6 **	Ø6 CLEAR TO	Ø7 R/W	Ø7 **	Ø7 CLEAR TO	Ø8 R/W	Ø8 **	Ø8 CLEAR TO
Ø1	3,4,16	-	- -		-	- -							
Ø2	5,6,17	R	R R		R	R R							
Ø3	12,13,14	R	R R		R	R R							
Ø4	9,10,11	R	R R		R	R R							
Ø5	1,19	-	- -		-	- -							
Ø6	7,8,15	G	Y R		-	- -							
OLE	3,4,16	R	R R		G	Y R							
OLG	7,8,15	-	- -		-	- -							
Ø3P	31, 32	DW	DW DW		FY	Y R							
					DW	DW DW							

BARRIER

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK.

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

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	LOOP SIZE	NUMBER OF TURNS
11	1	X			1	1				6' X 20'	3
21	2	X			2	2				6' X 18'	4
22	3	X			2	2				6' X 18'	3
31	4	X			3	3				6' X 6'	4
32	5	X			3	3				6' X 20'	3
33	6	X			3	3		(X=3")		6' X 6'	3
34	7	X			3	3		(X=3")		6' X 20'	4
41	8	X			4	4		(X=3")		6' X 20'	3
42	9	X			4	4				6' X 20'	4
51	10	X			5	5				6' X 25'	3
61	11	X			6	6				6' X 18'	4
62	12	X			6	6				6' X 18'	3

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E" =	1	2
O.L. "F" =		
O.L. "G" =	5	6
O.L. "H" =		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
LOCATION OF CELL MDOEM CONTROLLER NO: S-	
SIGNAL SYSTEM : SS-17-0150	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4
2	5 OR 6	1, 3, 4
3		1, 2, 4, 5, 6
4		1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6
6	1 OR 2	3, 4, 5

GENERAL 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. NO RED SHOWN ON THE CHART FOR PHASE 4 (NB RIGHT) SINCE COMPOSITE HEADS ARE USED.
4. THE NB RIGHT TURN ARROWS TIME WITH ONLY PHASE 4.

CONTROLLER TYPE: ASC/3 TS2

REVISION:

REMOVE TROMBONE ARM POLE AT SB8, INSTALL MONOTUBE POLE AT SB11, AND REPLACE TROMBONE ARM POLE WITH MONOTUBE POLEAT SB3.
CHANGE PHASE 1 AND 5 TO PROTECTED/PERMISSIVE FYAS AND ADD SIGNAL HEADS 15 AND 16 AS FYA.
CHANGED CONTROLLER AND MMU ON 11-19-15.
ADDED PHASE 3 PED ON 6-27-13.
MOVED SIGNAL HEAD 2 ON 11-17-06.

BASE PLAN NO: 1 REVISION NO: 5

REVISION DATE: FEB. 2017 PAGE 3 OF 3