

USH 10/STH 441 & STH 47
CITY OF MENASHA
WINNEBAGO COUNTY

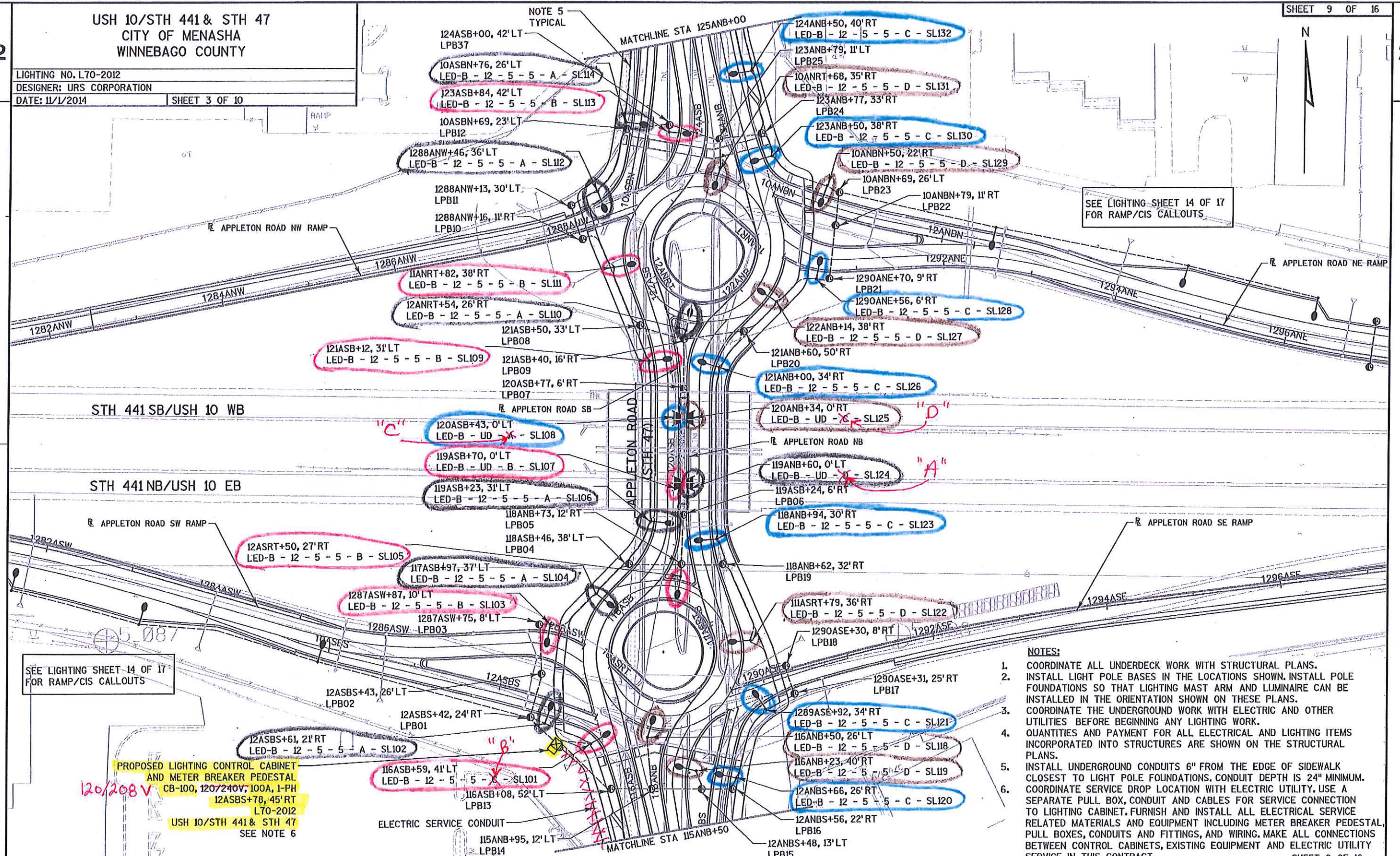
LIGHTING NO. L70-2012
DESIGNER: URS CORPORATION
DATE: 11/1/2014

SHEET 3 OF 10

SHEET 9 OF 16

2

2



NOTES:

1. COORDINATE ALL UNDERDECK WORK WITH STRUCTURAL PLANS.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH ELECTRIC AND OTHER UTILITIES BEFORE BEGINNING ANY LIGHTING WORK.
4. QUANTITIES AND PAYMENT FOR ALL ELECTRICAL AND LIGHTING ITEMS INCORPORATED INTO STRUCTURES ARE SHOWN ON THE STRUCTURAL PLANS.
5. INSTALL UNDERGROUND CONDUITS 6" FROM THE EDGE OF SIDEWALK CLOSEST TO LIGHT POLE FOUNDATIONS. CONDUIT DEPTH IS 24" MINIMUM. COORDINATE SERVICE DROP LOCATION WITH ELECTRIC UTILITY. USE A SEPARATE PULL BOX, CONDUIT AND CABLES FOR SERVICE CONNECTION TO LIGHTING CABINET. FURNISH AND INSTALL ALL ELECTRICAL SERVICE RELATED MATERIALS AND EQUIPMENT INCLUDING METER BREAKER PEDESTAL, PULL BOXES, CONDUITS AND FITTINGS, AND WIRING. MAKE ALL CONNECTIONS BETWEEN CONTROL CABINETS, EXISTING EQUIPMENT AND ELECTRIC UTILITY SERVICE IN THIS CONTRACT.

SHEET 9 OF 16

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN

SHEET

193

E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheet\15177578\023509_1p.dgn

PLOT DATE : 10/24/2014

PLOT BY : Bryan Larson

PLOT NAME :

PLOT SCALE : 100:0 ft:in / in.

WISDOT/CADD SHEET 42

2

USH 10/STH 441 & STH 47

CITY OF MENASHA

WINNEBAGO COUNTY

LIGHTING NO. L70-2012

DESIGNER: URS CORPORATION

DATE: 11/1/2014

SHEET 4 OF 10

A =

CB-100	1	2"
A	2	#6
B	2	#6

B =

CB-100	1	3"
A	2	#6
B	2	#6

C =

CB-100	1	2"
B	2	#6

R APPLETON ROAD NW RAMP

1282ANW

1284ANW

1286ANW

STH 441SB/USH 10 WB

STH 441NB/USH 10 EB

R APPLETON ROAD SW RAMP

1282ASW

1284ASW

SEE LIGHTING SHEET 15 OF 17
FOR RAMP/CIS CALLOUTS &
CIRCUITING

D =

CB-100	1	2"
C	2	#6
D	2	#6

E =

CB-100	1	3"
C	2	#6
D	2	#6

F =

CB-100	1	2"
D	4	#6

G =

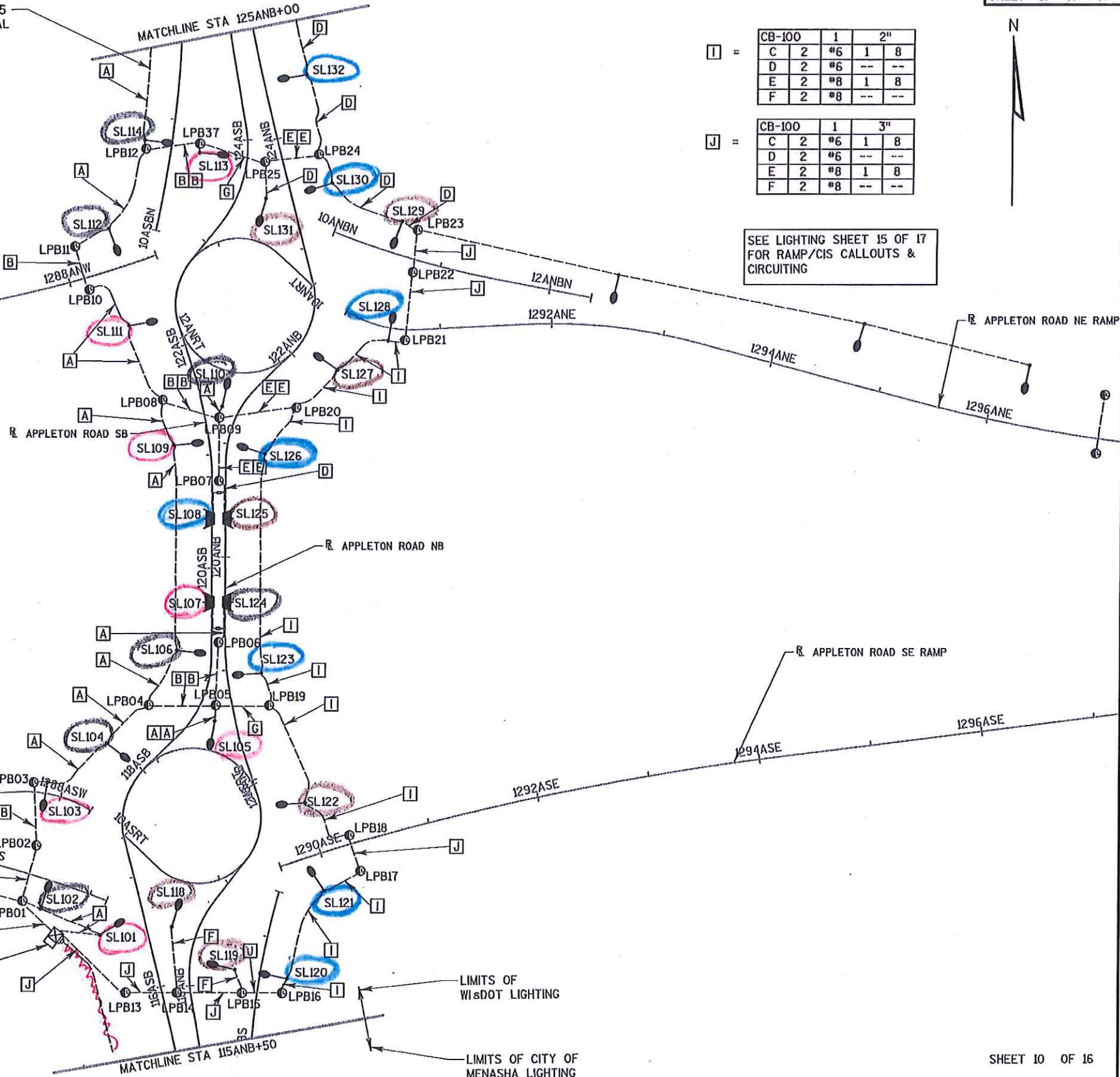
CB-100	1	3"

H =

CB-100	1	3"
E	2	#6
F	2	#6

PROPOSED LIGHTING CONTROL CABINET
AND METER BREAKER PEDESTAL
CB-100, 120/240V, 100A, 1-PH, 3-W
12ASBS+78, 45 RT
L70-2012

NOTE 5
TYPICAL



I =

CB-100	1	2"
C	2	#6
D	2	#6
E	2	#8
F	2	#8

J =

CB-100	1	3"
C	2	#6
D	2	#6
E	2	#8
F	2	#8

SEE LIGHTING SHEET 15 OF 17
FOR RAMP/CIS CALLOUTS &
CIRCUITING

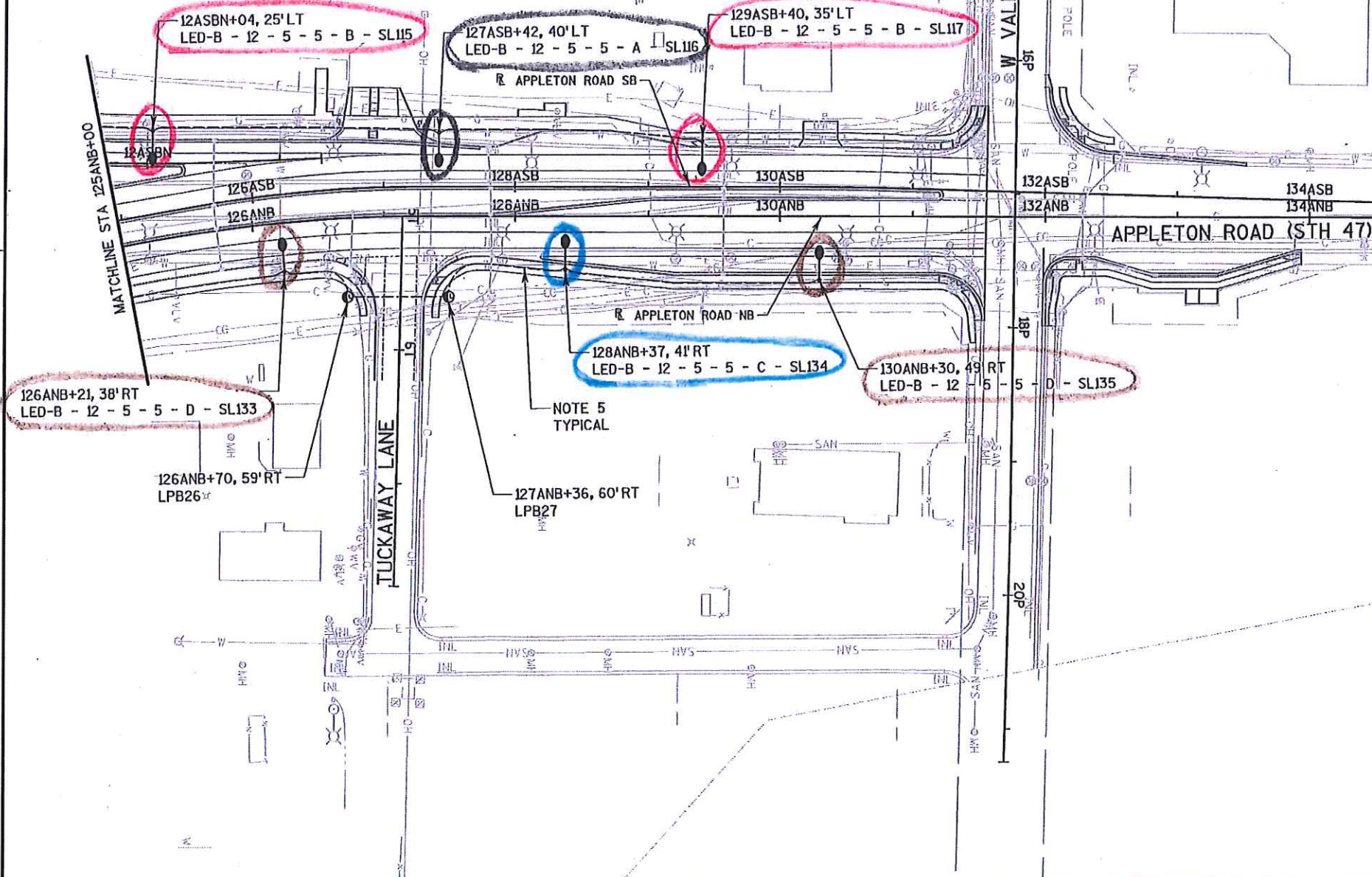
USH 10/STH 441 & STH 47
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2012

DESIGNER: URS CORPORATION

DATE: 11/1/2014

SHEET 5 OF 10



NOTES:

1. COORDINATE ALL WORK WITH OTHER PLANS.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH MENASHA UTILITIES AND OTHER UTILITIES BEFORE BEGINNING ANY LIGHTING WORK.
4. QUANTITIES AND PAYMENT FOR ALL ELECTRICAL AND LIGHTING ITEMS INCORPORATED INTO STRUCTURES ARE SHOWN ON THE STRUCTURAL PLANS.
5. INSTALL UNDERGROUND CONDUITS 6" FROM THE EDGE OF SIDEWALK CLOSEST TO LIGHT POLE FOUNDATIONS. DEPTH OF CONDUIT IS 24" MINIMUM.

SHEET 11 OF 16

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN

SHEET 195

E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15177578\023511.lp.dgn

PLOT DATE : 12/11/2014

PLOT BY : Jessica meddough

PLOT NAME :

PLOT SCALE : 100.000 ft / in.

WISDOT/CADDs SHEET 42

2

USH 10/STH 441 & STH 47

CITY OF MENASHA

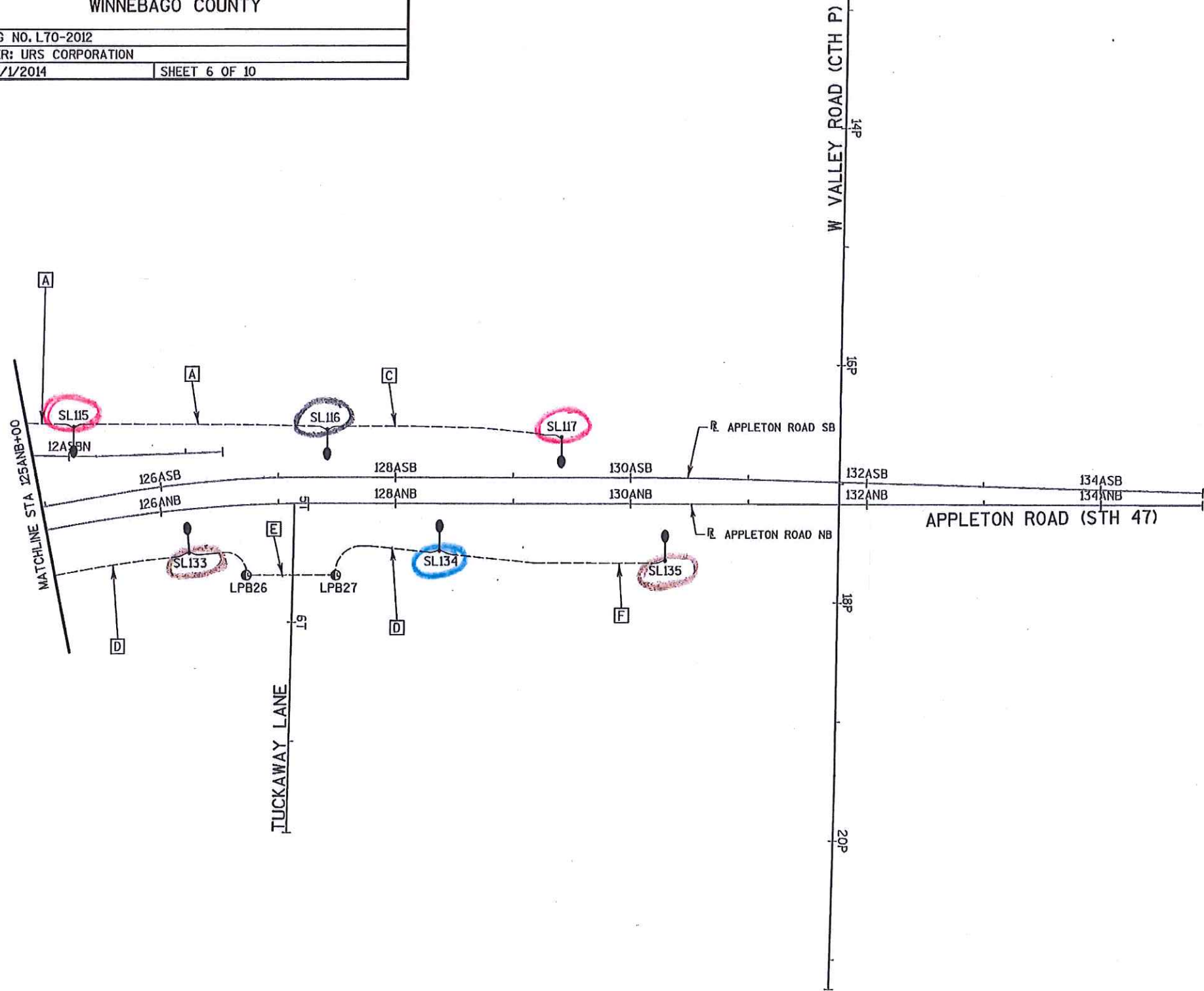
WINNEBAGO COUNTY

LIGHTING NO. L70-2012

DESIGNER: URS CORPORATION

DATE: 11/1/2014

SHEET 6 OF 10



2

CB-100

1

2"

A

2

#6

1

8

B

2

#6

--

--

A

CB-100

1

3"

A

2

#6

1

8

B

2

#6

--

--

B

CB-100

1

2"

B

2

#6

1

8

C

CB-100

1

2"

C

2

#6

1

8

D

2

#6

--

--

D

CB-100

1

3"

C

2

#6

1

8

D

2

#6

--

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E

CB-100

1

2"

D

2

#6

1

8

F

CB-100

1

2"

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G

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN - WIRING SCHEMATIC

SHEET 196

E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15177578\023512-WD_lp.dgn

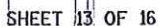
PLOT DATE : 12/11/2014

PLOT BY : Jessica Meddaugh

PLOT NAME :

PLOT SCALE : 100:0 ft:in / in.

WISDOT/CADD SHEET 42



2

USH 10/STH 441 & STH 47
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2012
DESIGNER: URS CORPORATION
DATE: 11/1/2014

SHEET 9 OF 10

UNDERDECK LIGHTING - MAJOR QUANTITIES

ITEM	UNIT	B-70-113	B-70-114
ELECTRICAL WIRE LIGHTING 10 AWG	LF	600	600
UNDERDECK LIGHTING EQUIPMENT GROUNDING	LS	1	1
1" LIQUIDTIGHT CONDUIT	LF	12	12
1" STEEL CONDUIT	LF	100	100
2" STEEL CONDUIT	LF	30	30
18X12X6-INCH JUNCTION BOX	EA	2	2
4X4X4-INCH JUNCTION BOX	EA	1	1

THE ABOVE ITEMS AND QUANTITIES ARE APPROXIMATE.

ALL ITEMS LISTED ABOVE WILL BE PAID FOR UNDER THE FOLLOWING PAY ITEMS:

ITEM No. 659.0600.001 UNDERDECK LIGHTING (B-70-113)
ITEM No. 659.0600.002 UNDERDECK LIGHTING (B-70-114)

NOTES:

- COORDINATE ALL WORK WITH THE STRUCTURAL PLANS.
- ALL UNDERDECK LIGHTING WORK IS PAID FOR ON A LUMP SUM BASIS PER BRIDGE UNDER ITEM 659.0600, AS SHOWN IN THE ESTIMATED QUANTITIES ABOVE.
- WIRING AND CIRCUITING OF UNDERDECK LIGHTS IS THE SAME AS THE STREET LIGHT CIRCUITS ON EACH SIDE OF APPLETON ROAD.
- ALL UNDERDECK LIGHTING WORK TO CONFORM TO WISDOT STANDARDS AND SPECIFICATIONS.
- FOLLOW WISDOT SDD FOR UNDERDECK LIGHTING FOR ALL DETAILS NOT SHOWN HERE.
- FURNISH AND INSTALL ELECTRICAL CONDUCTORS FOR UNDERDECK LIGHTING BRANCH CIRCUITS 2-1/C #10 AND 1/C #10 GROUND FOR EACH CIRCUIT.
- SPLICE #10 CONDUCTORS FOR EACH UNDERDECK LUMINAIRE FROM THE WALL MOUNTED JUNCTION BOXES. SPLICES MUST BE WATER PROOF AND ARE ONLY ALLOWED FOR WIRING TO THE PROPOSED UNDERDECK LIGHTING FIXTURES.
- UNDERDECK LUMINAIRES ARE THE WISDOT APPROVED UNDERDECK LED LIGHT FIXTURES AS SHOWN ON THE LATEST EDITION OF THE QUALIFIED ELECTRICAL PRODUCTS LIST (QEPL).
- FURNISH AND INSTALL LIQUIDTIGHT FLEXIBLE CONDUITS BETWEEN RIGID CONDUITS CROSSING MOVING BRIDGE SECTIONS.
- LUMINAIRE SHALL BE BLACK IN COLOR AND FEATURE A WIRE VANDAL GUARD. FURNISH AND INSTALL STAINLESS STEEL BIRD SPIKES AS SHOWN. VANDAL GUARDS AND BIRD SPIKES SHALL BE INCIDENTAL TO THE UNDERDECK LIGHTING BID ITEM.
- ATTACH BIRD SPIKES WITH REMOVABLE FASTENERS FOR FUTURE MAINTENANCE ACCESS TO JUNCTION BOXES & LUMINAIRES.

UNDERDECK - LED-B - D - SL128

UNDERDECK - LED-B - B - SL127

UNDERDECK - LED-B - C - SL125

UNDERDECK - LED-B - A - SL124

ALL UNDERDECK LIGHTING EQUIPMENT AND WIRING
BEYOND THIS PULL BOX IS INCLUDED IN THE
UNDERDECK LIGHTING PAY ITEMS.

ALL UNDERDECK LIGHTING EQUIPMENT AND WIRING
BEYOND THIS PULL BOX IS INCLUDED IN THE
UNDERDECK LIGHTING PAY ITEMS.

SHEET 15 OF 16

2

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN - UNDERDECK LIGHTING PLAN B-70-113/114

SHEET

199

E

FILE NAME : \\S1102K306\projects\Transportation\US 10 WIS 441\CADD\sheet\15177578\023515_1p.dgn

PLOT DATE : 1/8/2015

PLOT BY : nick.becker

PLOT NAME :

PLOT SCALE : 100:0 ft:in / in.

WISDOT/CADD SHEET 42

SHEET 15 OF 16

New Circuit Color Scheme

SHEET 6 OF 16

WISDOT SYSTEMS

2

1

A	BLACK
B	RED
C	BROWN
D	BLUE
E	YELLOW
F	ORANGE

240V PHASE-PHASE
208

- L70-2012 / USH 41 & USH 10 @ STH 47 / CITY OF MENASHA / WINNEBAGO COUNTY
- CB 100 / SOUTHWEST QUADRANT OF INTERCHANGE
- ~~120/240 VOLT~~ / SINGLE PHASE / 100 AMP SERVICE 120/208 Volts
- METER BREAKER PEDESTAL
- CIRCUIT DESCRIPTIONS:
 - CKT. A/B - STH47 SOUTHBOUND LIGHTS
 - CKT. C/D - STH47 NORTHBOUND LIGHTS
 - CKT. E/F - EB MAINLINE EXIT RAMP CIS & WB MAINLINE EXIT RAMP CIS LIGHTS

NON-WISDOT SYSTEMS

2

A	BLACK
B	RED
C	BROWN
D	BLUE
E	YELLOW
F	ORANGE

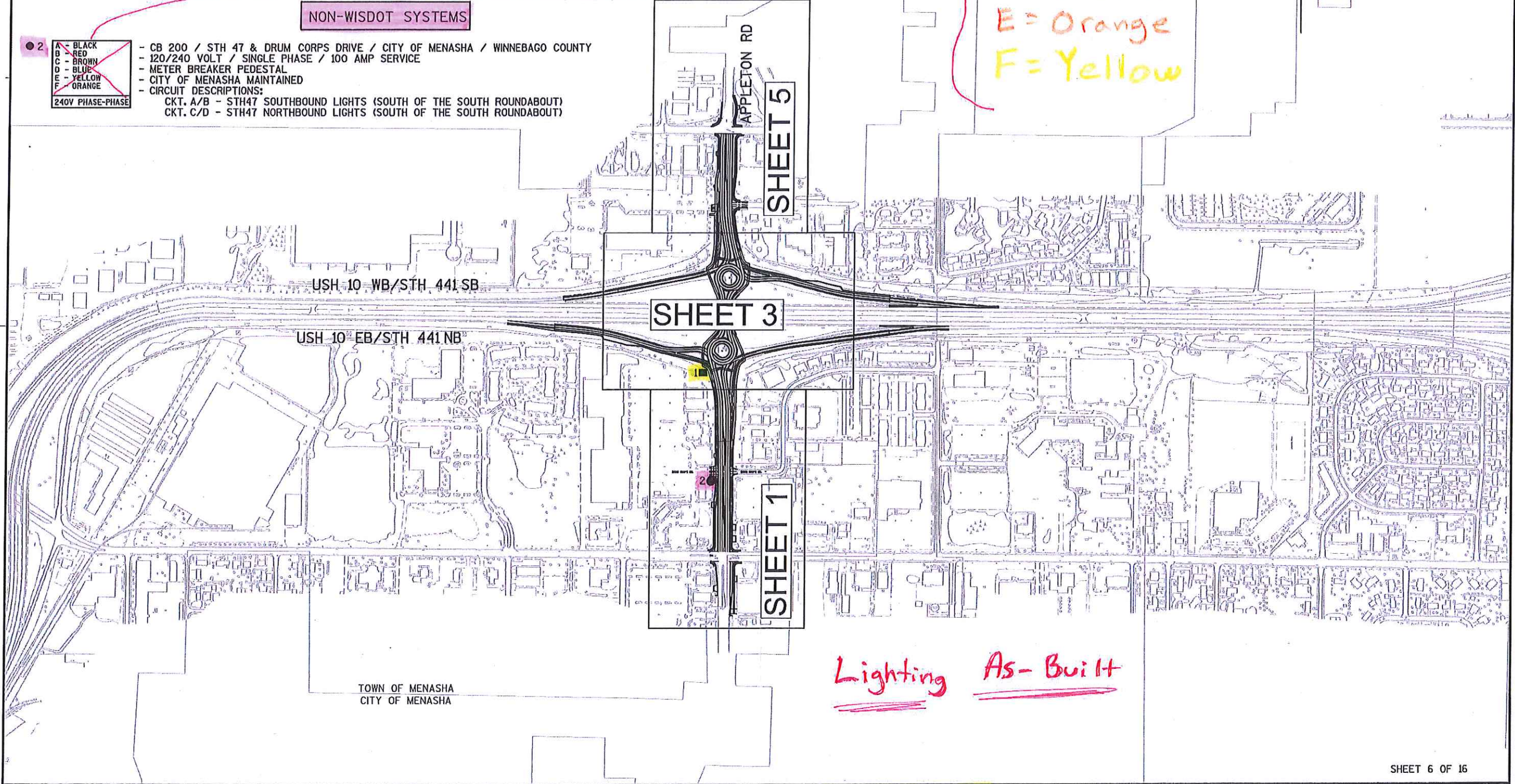
240V PHASE-PHASE

- CB 200 / STH 47 & DRUM CORPS DRIVE / CITY OF MENASHA / WINNEBAGO COUNTY
- 120/240 VOLT / SINGLE PHASE / 100 AMP SERVICE
- METER BREAKER PEDESTAL
- CITY OF MENASHA MAINTAINED
- CIRCUIT DESCRIPTIONS:
 - CKT. A/B - STH47 SOUTHBOUND LIGHTS (SOUTH OF THE SOUTH ROUNDABOUT)
 - CKT. C/D - STH47 NORTHBOUND LIGHTS (SOUTH OF THE SOUTH ROUNDABOUT)

A = Black
B = Red
C = Blue
D = Brown
E = Orange
F = Yellow



2



Lighting As-Built

SHEET 6 OF 16

CITY OF MENASHA FACILITY

SHEET 7 OF 16

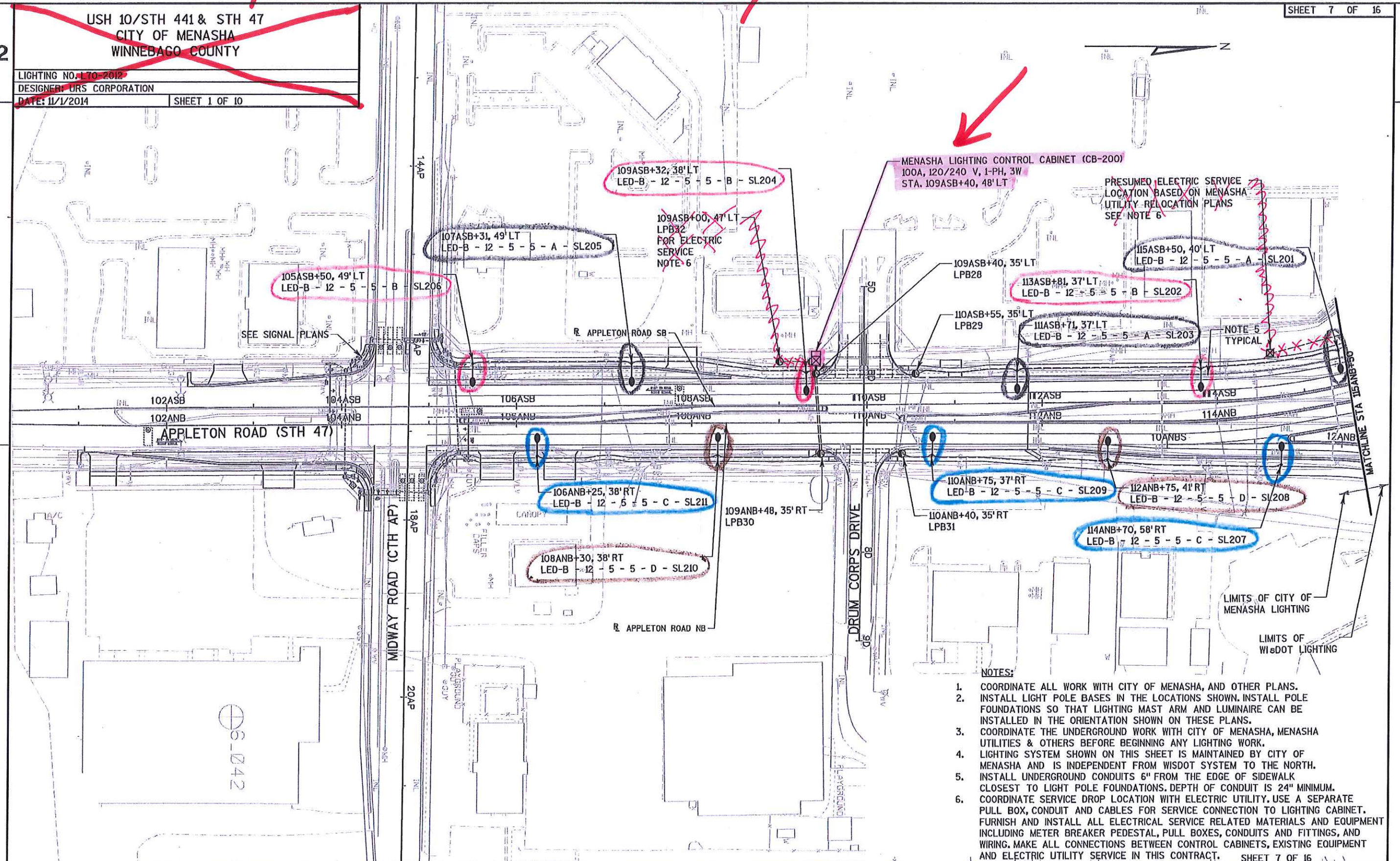
2

USH 10/STH 441 & STH 47
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. 170-2012
DESIGNER: URS CORPORATION
DATE: 11/1/2014

SHEET 1 OF 10

2



NOTES:

1. COORDINATE ALL WORK WITH CITY OF MENASHA, AND OTHER PLANS.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH CITY OF MENASHA, MENASHA UTILITIES & OTHERS BEFORE BEGINNING ANY LIGHTING WORK.
4. LIGHTING SYSTEM SHOWN ON THIS SHEET IS MAINTAINED BY CITY OF MENASHA AND IS INDEPENDENT FROM WISDOT SYSTEM TO THE NORTH.
5. INSTALL UNDERGROUND CONDUITS 6" FROM THE EDGE OF SIDEWALK CLOSEST TO LIGHT POLE FOUNDATIONS. DEPTH OF CONDUIT IS 24" MINIMUM.
6. COORDINATE SERVICE DROP LOCATION WITH ELECTRIC UTILITY. USE A SEPARATE PULL BOX, CONDUIT AND CABLES FOR SERVICE CONNECTION TO LIGHTING CABINET. FURNISH AND INSTALL ALL ELECTRICAL SERVICE RELATED MATERIALS AND EQUIPMENT INCLUDING METER BREAKER PEDESTAL, PULL BOXES, CONDUITS AND FITTINGS, AND WIRING. MAKE ALL CONNECTIONS BETWEEN CONTROL CABINETS, EXISTING EQUIPMENT AND ELECTRIC UTILITY SERVICE IN THIS CONTRACT.

SHEET 7 OF 16

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN

SHEET

191

E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheet\15177578\023507...lp.dgn

PLOT DATE : 10/24/2014

PLOT BY : Bryan Larson

PLOT NAME :

PLOT SCALE : 100:0 ft:in / 1in.

WISDOT/CADD SHEET 42

CITY OF MENASHA FACILITY

SHEET 8 OF 16

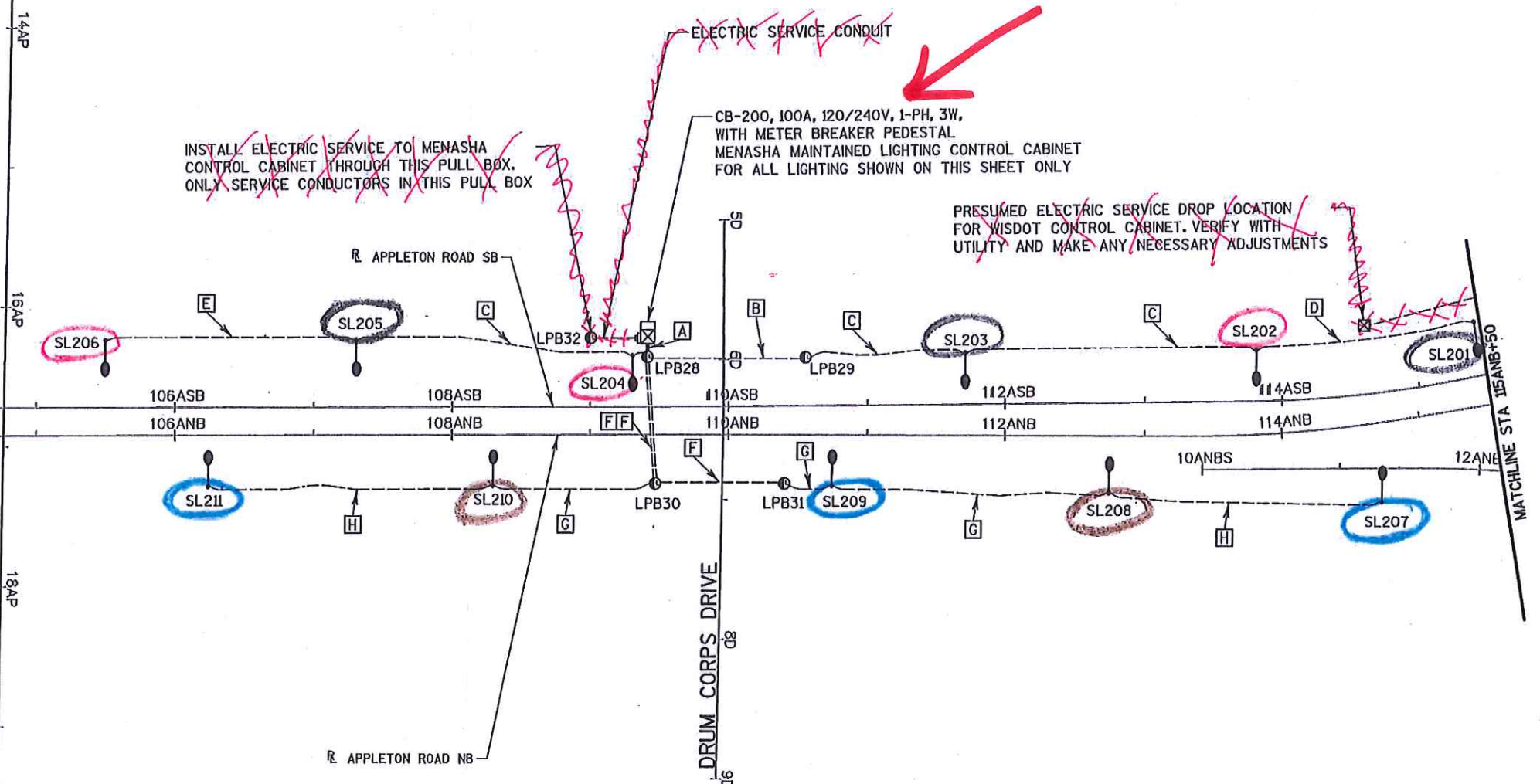
2

USH 10/STH 441 & STH 47
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2012
DESIGNER: URS CORPORATION
DATE: 11/1/2014

SHEET 2 OF 10

2



[A] =	CB-200	3	3"
	A	4	#8 1 8
	B	4	#8 1 8
	C	4	#8 1 8
[B] =	CB-200	1	3"
	A	2	#8 1 8
[C] =	CB-200	1	2"
	A	2	#8 1 8
[D] =	CB-200	1	2"
	A	2	#8 1 8
[E] =	CB-200	1	2"
	B	2	#8 1 8
[F] =	CB-200	1	3"
	C	2	#8 1 8
	D	2	#8 ---
[G] =	CB-200	1	2"
	C	2	#8 1 8
	D	2	#8 ---
[H] =	CB-200	1	2"
	C	2	#8 1 8

SHEET 8 OF 16

PROJECT NO: 1517-75-78

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN - WIRING SCHEMATIC

SHEET

192

E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15177578\023508-WD_lp.dgn

PLOT DATE : 10/24/2014

PLOT BY : Bryan Larson

PLOT NAME :

PLOT SCALE : 100:0 ft/in / in.

WISDOT/CADD SHEET 42