

5

TYPE A-35-S35  
2-ONE WAY SIGNALS (OVERHEAD)

\* REMOVE:  
TYPE 20C (POLE MOUNTED 270°)  
2-PED INDICATIONS  
1-PED PB & SIGNS  
SALVAGE & REINSTALL:  
2-SIGNAL HEADS  
F & I:  
1-TYPE 20C BRACKET (POLE MOUNTED 270°)  
2-C.D. PED INDICATIONS

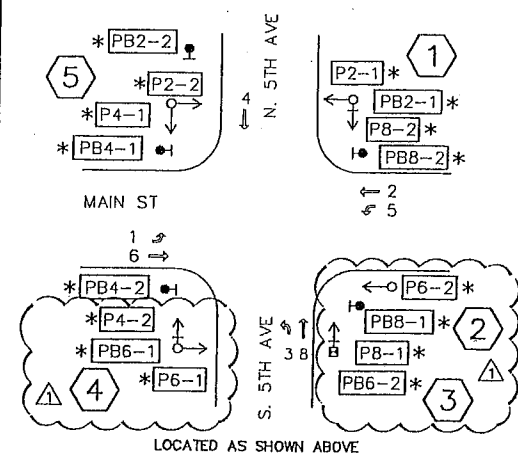
ONE WAY EVP DETECTOR AND CONFIRMATORY  
LIGHT FOR Ø2 & Ø5  
LUMINAIRE @ 355°  
SWING AWAY HINGES  
R10-12 SIGN

\* F & I:  
EXTEND INTO HH 9:  
3" R.S.C.  
3-12/C#14  
1-3/C#14 (EVP)  
1-3/C#20 (EVP)  
1-3/C#14 (LUM)

4 TYPE A-20  
ONE WAY SIGNAL (OVERHEAD)  
\* REMOVE:  
TYPE 10C (POLE MOUNTED 270")  
2-PED INDICATIONS  
1-PED PB & SIGNS  
SALVAGE & REINSTALL:  
1-SIGNAL HEAD  
F & I:  
1-TYPE 10C (POLE MOUNTED 270")  
2-CD PED INDICATIONS  
1-PED PB & SIGN (R10-3E)  
ONE WAY EVF DETECTOR AND CONFIRMATORY  
LIGHT FOR Ø4  
SWING AWAY HINGES  
\* F & I:  
EXTEND INTO HH 6:  
3" R.S.C.  
2-12/C#14  
1-3/C#14 (EVF)  
1-3/C#20 (EVF)

| EXISTING SIGNAL FACES |                                   |   |   |   |   |
|-----------------------|-----------------------------------|---|---|---|---|
| SIGNAL<br>FACE        | ALL SIGNAL FACES<br>SHALL BE 12". |   |   |   |   |
|                       | R                                 | Y | G | Y | G |
| 1-1                   | ●                                 | ● | ● | ← | ← |
| 2-1, 2-2              | ●                                 | ● | ● |   |   |
| 3-1, 3-2              | ●                                 | ● | ● | ← | ← |
| 4-1, 4-2              | ●                                 | ● | ● |   |   |
| 5-1                   | ●                                 | ● | ● | ← | ← |
| 6-1, 6-2              | ●                                 | ● | ● |   |   |
| 8-1, 8-2              | ●                                 | ● | ● |   |   |

### CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



| △ LOOP DETECTORS |           |           |          |
|------------------|-----------|-----------|----------|
| NUMBER           | SIZE (FT) | LOCATION  | FUNCTION |
| D1-1             | 2-6x6     | 20' & 50' | 1        |
| D1-2             | 2-6x6     | 5' & 35'  | 1        |
| D3-1             | 2-6x6     | 20' & 50' | 1        |
| D3-2             | 2-6x6     | 5' & 35'  | 1        |
| D4-1             | 2-6x6     | 0' & 15'  | 1        |
| D5-1             | 2-6x6     | 20' & 50' | 1        |
| D5-2             | 2-6x6     | 5' & 35'  | 1        |
| D8-1             | 2-6x6     | 0' & 15'  | 7        |

LOCATION = DISTANCE FROM  
CROSSWALK/STOP BAR TO  
FRONT OF LOOP DETECTOR.  
LOOP DETECTOR FUNCTIONS:  
1=CALL AND EXTEND  
7=DELAYED CALL, IMMEDIATE EXTEND

\* PED PB STATION (PB2-2)  
1-PED PB & SIGN (R10-3E)  
# EXTEND INTO HH 10:  
2" R.S.C.  
1-2/C #14

\* PED PB STATION (PB4-1)  
1-PED PB & SIGN (R10-3E)  
EXTEND INTO HH 9:  
2" R.S.C.  
1-2/C #14

\* 4" R.S.C. —  
5-12/C#14  
2-3/C#14 (EVP)  
2-3/C#20 (EVP)  
5-2/C#14  
1-3/C#14 (LUN)  
+ 2" R.S.C. —  
+ 1-6PR #19 —

\* 4" R.S.C. —  
2-12/C#14  
1-3/C#14 (EVP)  
1-3/C#20 (EVP)  
2-2/C#14

\* 3" R.S.C. — \*  
2-12/C#14  
1-3/C#14 (EVP)  
1-3/C#20 (EVP)  
1-2/C#14

\* PED PB STATION (PB4-2)  
1-PED PB & SIGN (R10-3E)  
EXTEND INTO HH 7:  
2" R.S.C.  
1-2/C #14

\* 4" R.S.C. —  
5-12/C#14  
2-3/C#14 (EVP)  
2-3/C#20 (EVP)  
8-2/C#14  
1-3/C#14 (LUM)

## CONDUIT AND POWER

| CONTROLLER EQUIPMENT PAD |                |
|--------------------------|----------------|
| * EXTEND INTO HH 1:      |                |
| 4" R.S.C.                | 4" R.S.C.      |
| 4-12/C#14                | 5-12/C#14      |
| 2-3/C#14 (EVP)           | 2-3/C#14 (EVP) |
| 2-3/C#20 (EVP)           | 2-3/C#20 (EVP) |
| 9-2/C#14                 | 8-2/C#14       |
| 1-3/C#14 (LUM)           | 1-3/C#14 (LUM) |

\* PED PB STATION (PBB-2)  
1-PED PB & SIGN (R10-3E)  
EXTEND INTO HH 2:  
2" R.S.C.  
1-2/C #14

1 TYPE A-20  
2- ONE WAY SIGNALS (OVERHEAD)  
\* REMOVE:  
TYPE 10C (POLE MOUNTED 270")  
2-PED INDICATIONS  
1-PED PB & SIGN  
SALVAGE & REINSTALL:  
1-SIGNAL HEAD  
F & I:  
1-TYPE 10C (POLE MOUNTED 270")  
2-C.D. PED INDICATIONS  
1-PED PB & SIGN (R10-3E)  
ONE WAY EVP DETECTOR  
AND CONFIRMATORY LIGHT FOR ø3 & ø8  
\* F & I:  
EXTEND INTO HH 1:  
3" R.S.C.  
2-12/C#14  
1-3/C#14 (EVP)  
1-3/C#20 (EVP)  
1-2/C#14

ALL SIGNAL EQUIPMENT ON THIS SHEET IS IN PLACE AND SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED. A BOX AND ASTERISK (\*) DENOTES WORK TO BE COMPLETED BY CONTRACTOR.

ITEMS DENOTED WITH A † ARE INCIDENTAL TO THE INTERCONNECT PAY ITEMS.

2 TYPE A-35-S35  
2-ONE WAY SIGNALS (OVERHEAD)

\* REMOVE:  
TYPE 10B (POLE MOUNTED 225")  
TYPE 30A (POLE MOUNTED 90")  
2-PED INDICATIONS  
1-PED PB & SIGNS  
SALVAGE & REINSTALL:  
1-SIGNAL HEAD  
F & I:  
1-TYPE 10B BRACKET (POLE MOUNTED 225")  
1-C.D. PED INDICATION  
ONE WAY EVP DETECTOR AND CONFIRMATORY  
LIGHT FOR #1 & #6  
LUMINAIRE @ 355"  
SWING AWAY HINGES  
R10-12 SIGN

\* F & I:  
EXTEND INTO HH 4:  
3" R.S.C.  
2-12/C#14  
1-3/C#14 (EVP)  
1-3/C#20 (EVP)  
1-3/C#14 (LUM)

\* (3) 1-ONE WAY MOUNT  
1-C.D. PED INDICATION  
1-PED PB & SIGN (R10-3E)  
EXTEND INTO HH 5:  
2" R.S.C.  
1-2/C #14

GENERAL DESCRIPTION OF WORK: REVISE SIGNAL SYSTEM.  
THE SIGNAL SYSTEM IS BEING MODIFIED TO REPLACE AND ADD  
PUSH BUTTONS IN APS-READY CONFIGURATION; INCORPORATE  
COUNTDOWN PED HEADS; MODIFY VEHICULAR INDICATIONS TO  
LED; REPLACE LOOP DETECTORS, HANDHOLES, CONDUIT, AND  
WIRING; AND REPAINT THE SIGNAL.

(NOTES (REVISION DATE 2-14-2012):

1. THE EXACT LOCATION OF HANDHOLES, LOOP DETECTORS, PUSH BUTTON STATIONS, PUSH BUTTONS, AND PEDESTRIAN RAMPS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS. HANDHOLES SHALL BE INSTALLED ENTIRELY WITHIN PAVERS OR CONCRETE SIDEWALK SURFACES.
3. THE CONTRACTOR SHALL LOCATE AND VERIFY INPLACE UTILITIES PRIOR TO COMMENCING WORK.
4. EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION COUNTDOWN HAND/WALKING PERSON INDICATION. SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED AND INSTALLED BY CONTRACTOR (INCIDENTAL).
5. ALL VEHICLE SIGNAL INDICATIONS AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
6. ALL PEDESTRIAN SIGNAL HOUSINGS AND VISORS SHALL BE FABRICATED USING BLACK POLYCARBONATE MATERIALS. SEE SPECIAL PROVISIONS.
7. LOOP DETECTOR WIRE SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
8. ALL CABLES AND HANDHOLES BETWEEN THE CABINET AND LOOP DETECTORS, EVP DETECTORS, AND TERMINAL BLOCKS SHALL BE REMOVED AND FURNISHED AND INSTALLED BY THE CONTRACTOR.
9. ALL CONDUIT SHALL BE FURNISHED AND INSTALLED EXCEPT FOR CONDUIT WITHIN ONE (1) FOOT OF SIGNAL FOUNDATIONS AND CONDUIT BETWEEN THE CABINET AND SOURCE OF POWER. NEW CONDUIT TO FOUNDATIONS SHALL TIE INTO THE INPLACE CONDUIT WITHIN ONE (1) FOOT OF THE FOUNDATIONS.
10. SEE SPECIAL PROVISIONS FOR RESTRICTIONS ON WHEN THE INPLACE SIGNALS MAY BE TAKEN OUT OF SERVICE.
11. TEN (10) FEET OF EACH CABLE SHALL BE COILED IN EACH HANDHOLE.
12. ALL CONDUIT SHALL BE INSTALLED PRIOR TO THE BITUMINOUS, CONCRETE, OR PAVEMENT INSTALLATION.
13. NEW TERMINAL BLOCKS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH POLE BASE. SEE SPECIAL PROVISIONS.
14. THE CONTRACTOR SHALL LABEL ALL CABLES AND CONDUCTORS IN THE TRANSFORMER BASES AND CABINET. SEE SPECIAL PROVISIONS.
15. THE CONTRACTOR SHALL REMOVE AND FURNISH AND INSTALL MORTAR (GROUT) BETWEEN THE TRANSFORMER BASES OF THE MAST ARM POLE STANDARDS AND THE MAST ARM POLE CONCRETE FOUNDATIONS.

| No. | Date     | Revisions   | App. | DRAWING NAME            |
|-----|----------|-------------|------|-------------------------|
| 1   | 03/16/12 | ADDENDUM #3 | BJB  | EAST-MAINST_TSIGP07.dwg |
|     |          |             |      | DESIGNED BY: RBC        |
|     |          |             |      | DRAWN BY: HMW           |
|     |          |             |      | CHECKED BY: DJC         |
|     |          |             |      | DATE: 02/14/2012        |
|     |          |             |      | PROJECT NO. 160300017   |



**Kimley-Horn  
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Brandon J. Bourdon  
BRANDON J. BOURDON, P.E.

DATE: 02/14/2012 MN LIC. NO. 43709



# CITY OF ANOKA

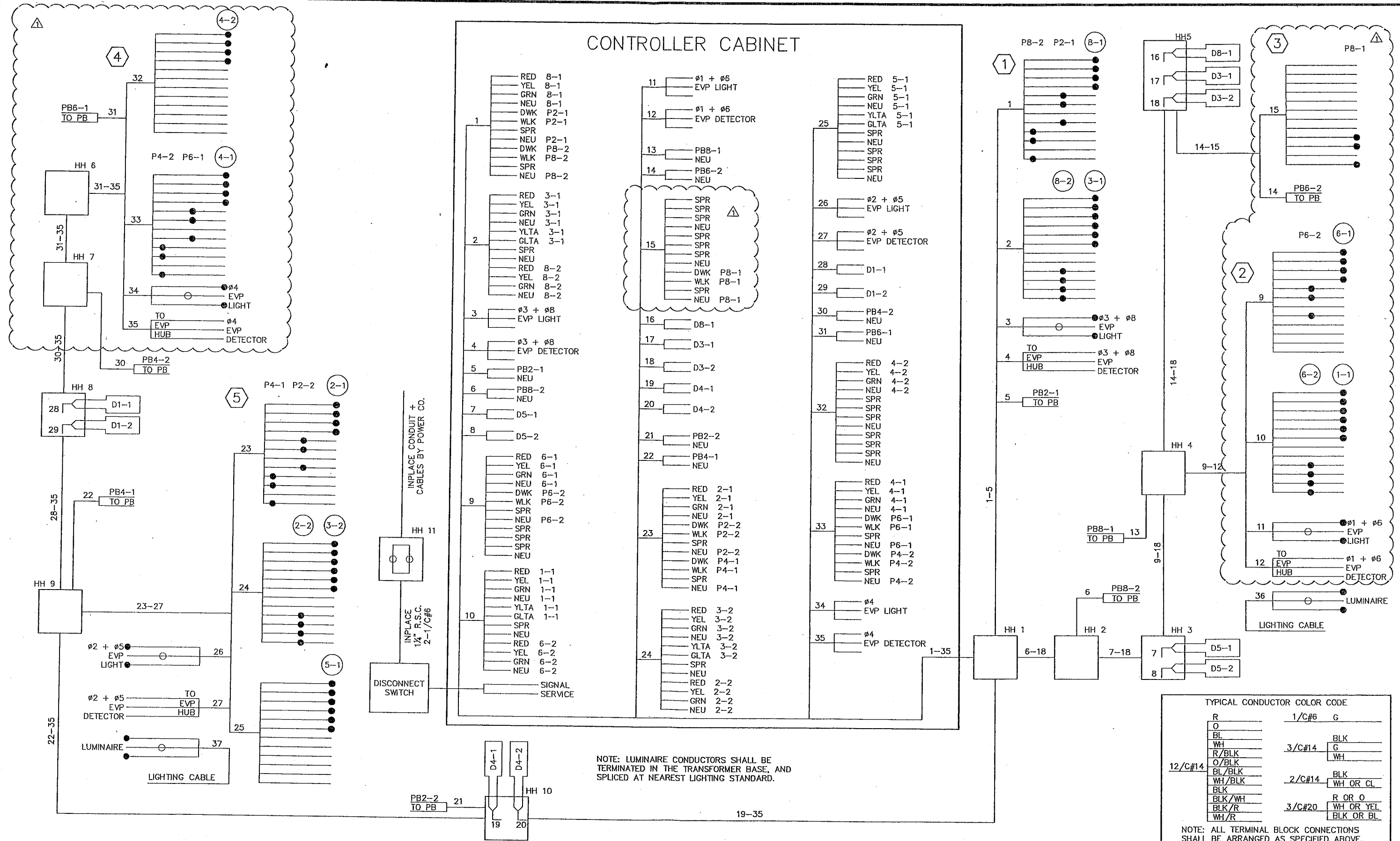
## EAST MAIN STREET IMPROVEMENTS

TRAFFIC SIGNAL SYSTEM  
INTERSECTION LAYOUT  
SYSTEM "D" - MAIN ST & FIFTH AVE

|                                |         |
|--------------------------------|---------|
| CITY PROJECT                   | 2012-02 |
| COUNTY PROJECT                 |         |
| S.A.P. 103-134-006,103-020-016 |         |
| S.P.                           |         |

SHEET NO.  
116

K:\TWC\_Civil\City\ANOKA\East Main\Main\TSIGP08.dwg March 16, 2012 - 8:30am



| No. | Date     | Revisions   | App. | DRAWING NAME            |
|-----|----------|-------------|------|-------------------------|
| 1   | 03/16/12 | ADDENDUM #3 | BJB  | EAST-MAINST_TSIGP08.dwg |
|     |          |             |      | DESIGNED BY: RBC        |
|     |          |             |      | DRAWN BY: HMW           |
|     |          |             |      | CHECKED BY: DJC         |
|     |          |             |      | DATE: 02/14/2012        |
|     |          |             |      | PROJECT NO. 160300017   |



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*Brandon J. Bourdon*  
BRANDON J. BOURDON, P.E.

DATE: 02/14/2012 MN LIC. NO. 43709



**CITY OF ANOKA**  
EAST MAIN STREET IMPROVEMENTS

TRAFFIC SIGNAL SYSTEM  
WIRING DIAGRAM  
SYSTEM "D" - MAIN ST & FIFTH AVE

|                                |         |           |
|--------------------------------|---------|-----------|
| CITY PROJECT                   | 2012-02 | SHEET NO. |
| COUNTY PROJECT                 |         | 117       |
| S.A.P. 103-134-006,103-020-016 |         |           |
| S.P.                           |         |           |