

PLOTTED/REVISED: 18-JAN-2023

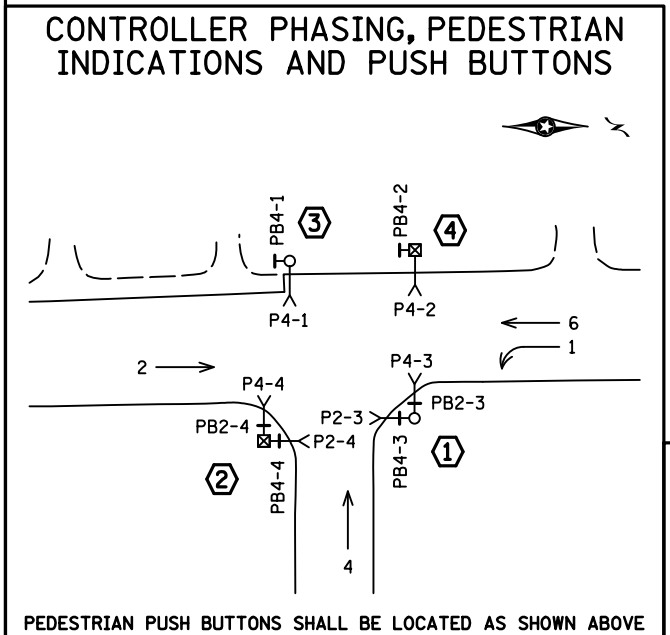
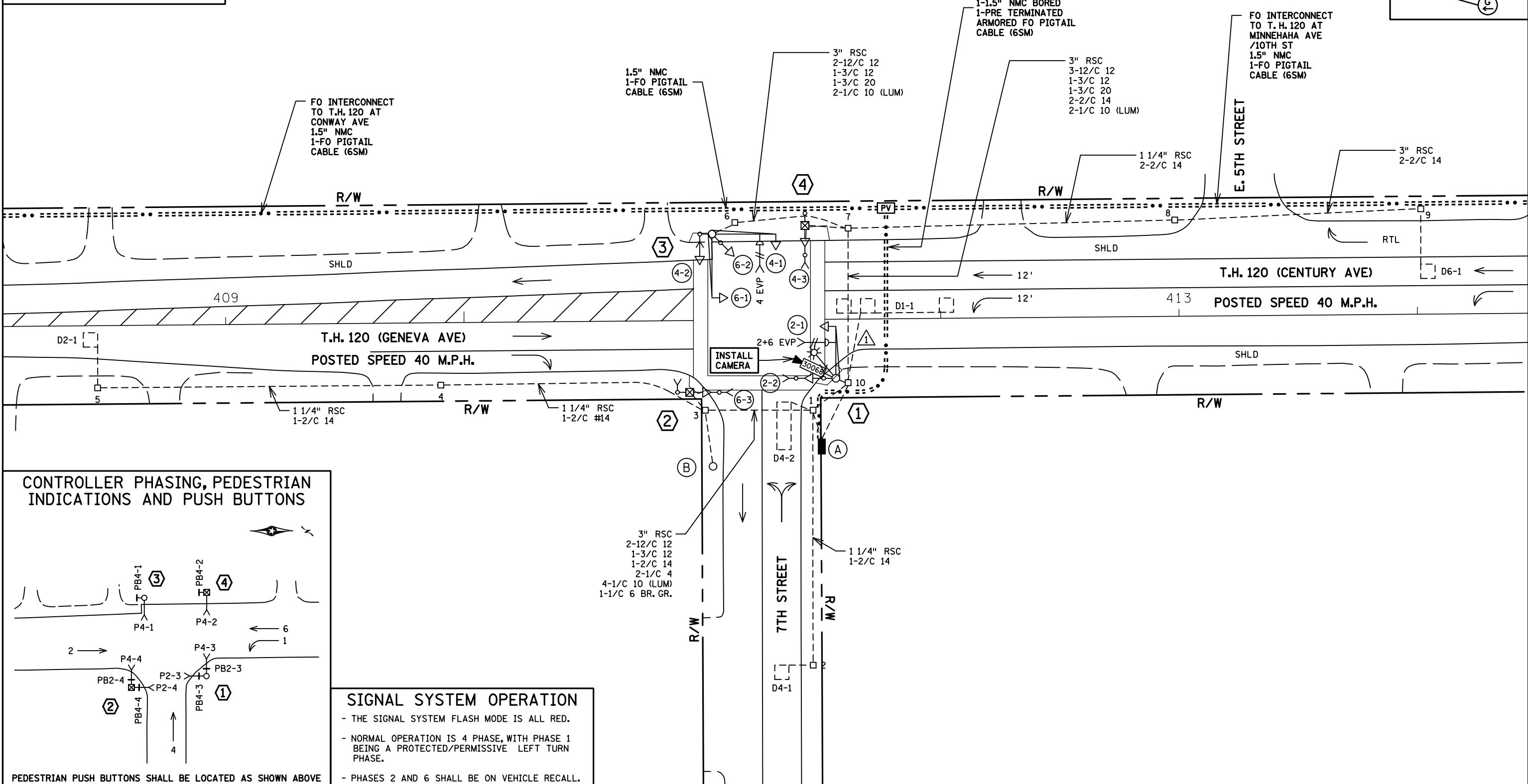
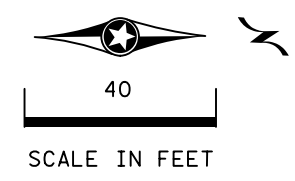
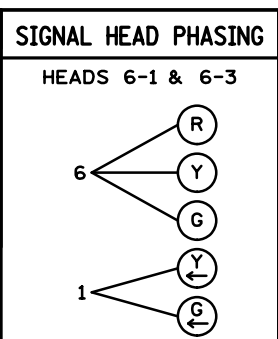
DISTRICT #: Metro
PLOT NAME: layout
PATH & FILENAME: Projects\DM_POS\20\00000\Traffic\Signal\3.03_7TH ST N\735670\735670_sgl.dgn

| LOOP DETECTOR CHART | | | |
|---------------------|-----------|-----------|------|
| NUMBER | SIZE (FT) | LOCATION | TYPE |
| D1-1 | 3-6x6 | 5, 15, 48 | PVC |
| D2-1 | 6x6 | 250 | PVC |
| D4-1 | 6x6 | 120 | SAW |
| D4-2 | 6x20 | 5 | SAW |
| D6-1 | 6x6 | 250 | PVC |

-ALL LOOP DETECTORS ARE PVC UNLESS NOTED OTHERWISE
-LOCATION: DISTANCE FROM CROSSWALK /STOP BAR IN FEET

| SIGNAL HEAD CHART | | | | | |
|-------------------|---|---|---|---|---|
| FACE | R | Y | G | Y | G |
| 2-1, 2-2 | ○ | ○ | ○ | | |
| 4-1, 4-2, 4-3 | ○ | ○ | ○ | | |
| 6-1, 6-3 | ○ | ○ | ○ | ← | ← |
| 6-2 | ○ | ○ | ○ | | |

-ALL SIGNAL INDICATIONS ARE 12"
-ALL SIGNAL HEADS HAVE BACKGROUND SHIELDS



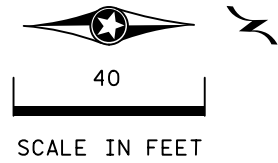
SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 1 BEING A PROTECTED/PERMISSIVE LEFT TURN PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

| | | | | | | | | |
|--|---------|--------------------------|-------------------------------|----------------------|---|--------------------------------|----------------|----------------|
| BY | DATE | REVISIONS | SYSTEM ID: 1735670 | T.E. 6048 | S.A.P. NO. | DRAWN BY:GDS | CKD BY:GBB | DATE:05-03-18 |
| SJK | 1/18/23 | AS-BUILT PLAN SP 6227-83 | METER ADDRESS: 6015 7TH ST. N | OLD SYSTEM ID: 21434 | CERTIFIED BY _____ | LICENSED PROFESSIONAL ENGINEER | LIC. NO. 19863 | DATE: 06-06-18 |
| INTERSECTION LAYOUT REVISE SIGNAL SYSTEM C T.H. 120 AT 7TH ST. IN OAKDALE AND MAPLEWOOD, WASHINGTON AND RAMSEY COUNTIES | | | | | STATE PROJ.NO. 6227-83 (T.H.120) SHEET NO. 42 OF 89 SHEETS | | | |

DISTRICT #: Metro
 PLOT NAME: pole notes
 PATH & FILENAME: Projects\DM_POS\20\0000\Traffic\Signal\3.03_7TH ST N\735670\T735670_sgl.dgn

PLOTTED/REVISED: 18-JAN-2023



3 A100 POLE FOUNDATION
 TYPE A100-A-25-25
 2-ONE-WAY SIGNALS OVERHEAD AT 0' AND 11'
 TYPE 10B POLE MOUNTED 90 DEG
 TYPE 10A POLE MOUNTED 270 DEG
 1-ONE WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASE 4)
 LUMINAIRE-200W H.P.S.
 1-PED PB AND SIGN
 1-R10-12 SIGN ADJACENT TO HEAD (6-1)
 2-TYPE D SIGNS
 EXTEND INTO HH 6:
 3" RSC
 2-12/C 12
 1-3/C 12
 1-3/C 20
 2-1/C 10 (LUM)

2 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 TYPE 1D
 2-PED PB'S AND SIGNS
 EXTEND INTO HH 3:
 3" RSC
 2-12/C 12
 1-3/C 12

4 PEDESTAL FOUNDATION
 10' PEDESTAL POLE PLUS BASE
 TYPE 1C
 1-PED PB AND SIGN
 EXTEND INTO HH 7:
 3" RSC
 1-12/C 12
 2-3/C 12

1 P90 POLE FOUNDATION
 TYPE P90-A-20-D40-9 (DAVIT AT 350 DEG)
 1-X6-350/CAM 400 EXTENSION
 (MOUNTED AT 350 DEG)
 (INCLUDES LIGHTNING ROD)
 7/16" GROUND BRAID
 1-VIDEO CAMERA WITH MOUNT

 ONE-WAY SIGNAL OVERHEAD
 TYPE 10C POLE MOUNTED 180 DEG
 1-TWO WAY EVP DETECTOR AND
 CONFIRMATORY LIGHT (PHASES 2+6)
 LUMINAIRE-200W H.P.S.
 2-PED PB'S AND SIGNS
 1-TYPE D SIGN
 EXTEND INTO HH 10:
 3" RSC
 3-12/C 12
 2-3/C 12
 1-3/C 20
 2-1/C 10 (LUM)

 1-7/16" GROUND BRAID
 TO GROUND ROD
 1-COM CABLE (CAT 5E)

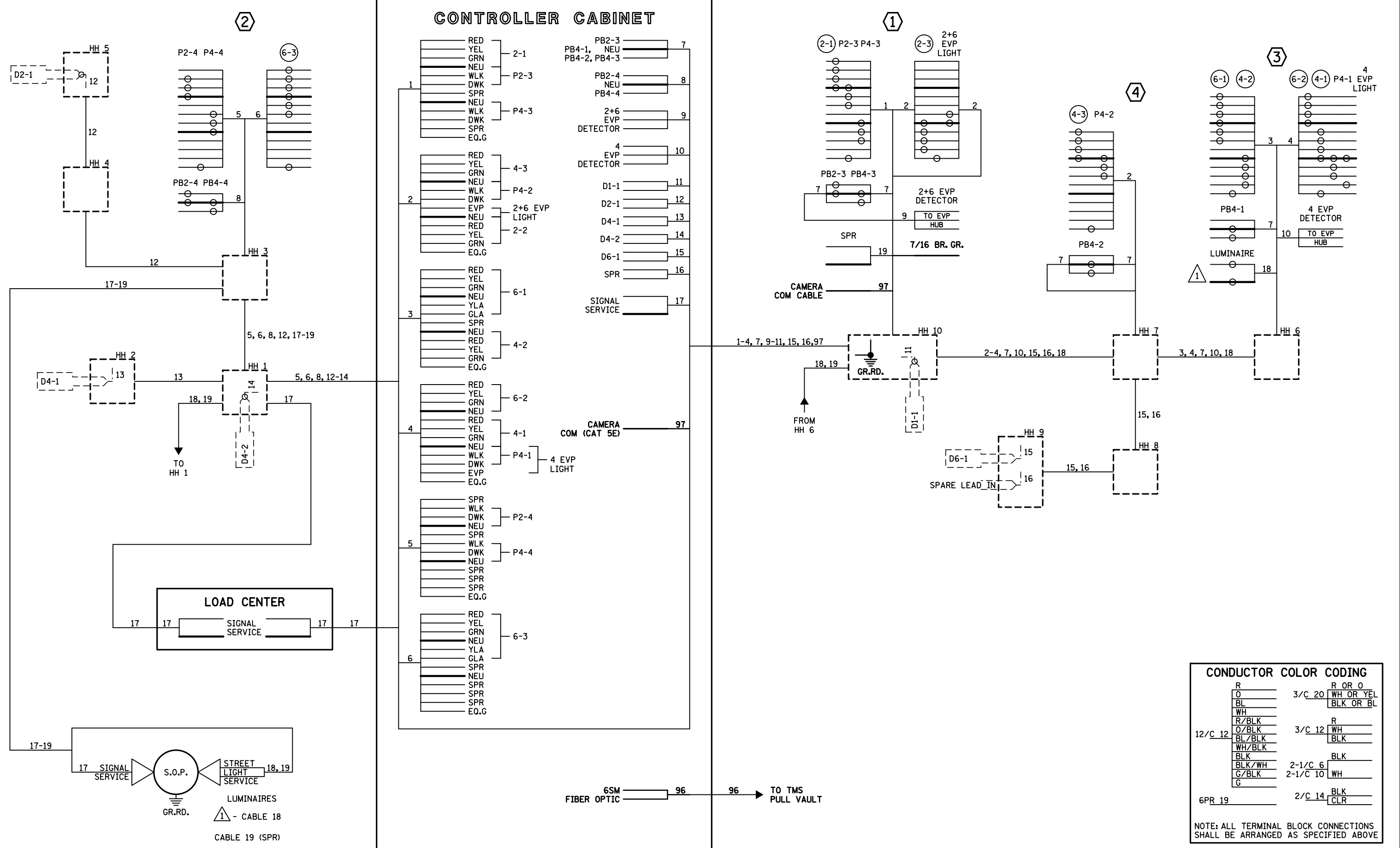
A EQUIPMENT PAD
 LOAD CENTER
 CONTROLLER AND
 CABINET
 4" RSC TO HH 10: 4" RSC TO HH 1:
 4-12/C 12 2-12/C 12
 1-3/C 12 1-3/C 12
 2-3/C 20 3-2/C 14
 3-2/C 14
 1-COM CABLE (CAT 5E)

 3/4" RSC STUBBED OUT
 (CAPPED BOTH ENDS)
 CONTROLLER CABINET TO
 PULL VAULT:
 1-1.5" NMC
 1-PRE TERMINATED ARMORED
 FO PIGTAIL CABLE (6SM)
 LOAD CENTER TO
 CONTROLLER CABINET:
 2" IMC
 2-1/C 4
 1-1/C 6 BR. GR.
 HH 1 TO HH 10:
 2" IMC
 4-1/C 10 (LUM)

B SOP-WOOD POLE
 (BY XCEL ENERGY)
 1 1/4" RSC RISER, WEATHERHEAD
 3-1/C 4
 SERVICE EQUIPMENT
 1 1/4" RSC RISER
 EXTEND INTO HH 3:
 2-1/C 4
 4-1/C 10 (LUM)
 1-1/C 6 BR. GR.

| | | | | | | | | | | |
|-----|---------|--------------------------|-------------------------------|-----------|---|----------------------------------|----------------|---------------------------|---------------|--|
| BY | DATE | REVISIONS | SYSTEM ID: 1735670 | T.E. 6048 | INTERSECTION NOTES REVISE SIGNAL SYSTEM C T.H. 120 AT 7TH ST. IN OAKDALE AND MAPLEWOOD, WASHINGTON AND RAMSEY COUNTIES | S.A.P. NO. | DRAWN BY:GDS | CKD BY:GBB | DATE:05-03-18 | |
| SJK | 1/18/23 | AS-BUILT PLAN SP 6227-83 | METER ADDRESS: 6015 7TH ST. N | | | CERTIFIED BY _____ | LIC. NO. 19863 | DATE: 06-06-18 | | |
| | | | OLD SYSTEM ID: 21434 | | | STATE PROJ.NO. 6227-83 (T.H.120) | | SHEET NO. 43 OF 89 SHEETS | | |

DISTRICT #: Metro
 IPLOT NAME: wiring diagram
 PATH & FILENAME: Projects\DM_POS\20\00000\Traffic\Signals\3.03_7TH ST N\735670\735670_sgl.dgn
 PLOTTED/REVISED: 18-JAN-2023



| CONDUCTOR COLOR CODING | | | |
|------------------------|----------|-----------|--|
| R | | R OR O | |
| O | 3/C 20 | WH OR YEL | |
| BL | | BLK OR BL | |
| WH | | | |
| R/BLK | | R | |
| O/BLK | 3/C 12 | WH | |
| BL/BLK | | BLK | |
| WH/BLK | | | |
| BLK | | BLK | |
| BLK/WH | 2-1/C 6 | | |
| G/BLK | 2-1/C 10 | WH | |
| G | | | |
| 6PR 19 | 2/C 14 | BLK | |
| | | CLR | |

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

| BY | DATE | REVISIONS |
|-----|---------|--------------------------|
| SJK | 1/18/23 | AS-BUILT PLAN SP 6227-83 |

SYSTEM ID: 1735670 T.E. 6048
 METER ADDRESS: 6015 7TH ST. N
 OLD SYSTEM ID: 21434

FIELD WIRING DIAGRAM
REVISE SIGNAL SYSTEM C
T.H. 120 AT 7TH ST.
IN OAKDALE AND MAPLEWOOD,
WASHINGTON AND RAMSEY COUNTIES

| | | | |
|----------------------------------|----------------|---------------------------|---------------|
| S.A.P. NO. | DRAWN BY:GDS | CKD BY:GGB | DATE:05-03-18 |
| CERTIFIED BY _____ | LIC. NO. 19863 | DATE: 06-06-18 | |
| STATE PROJ.NO. 6227-83 (T.H.120) | | SHEET NO. 44 OF 89 SHEETS | |

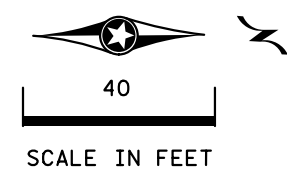
| LOOP DETECTOR CHART | | | |
|---------------------|-----------|-----------|------|
| NUMBER | SIZE (FT) | LOCATION | TYPE |
| D1-1 | 3-6x6 | 5, 15, 48 | PVC |
| D2-1 | 6x6 | 250 | PVC |
| D4-1 | 6x6 | 120 | SAW |
| D4-2 | 6x20 | 5 | SAW |
| D6-1 | 6x6 | 250 | PVC |

-ALL LOOP DETECTORS ARE PVC UNLESS NOTED OTHERWISE
-LOCATION: DISTANCE FROM CROSSWALK /STOP BAR IN FEET

| SIGNAL HEAD CHART | | | | | |
|-------------------|---|---|---|---|---|
| FACE | R | Y | G | Y | G |
| 2-1, 2-2 | ○ | ○ | ○ | | |
| 4-1, 4-2, 4-3 | ○ | ○ | ○ | | |
| 6-1, 6-3 | ○ | ○ | ○ | ← | ← |
| 6-2 | ○ | ○ | ○ | | |

-ALL SIGNAL INDICATIONS ARE 12"
-ALL SIGNAL HEADS HAVE BACKGROUND SHIELDS

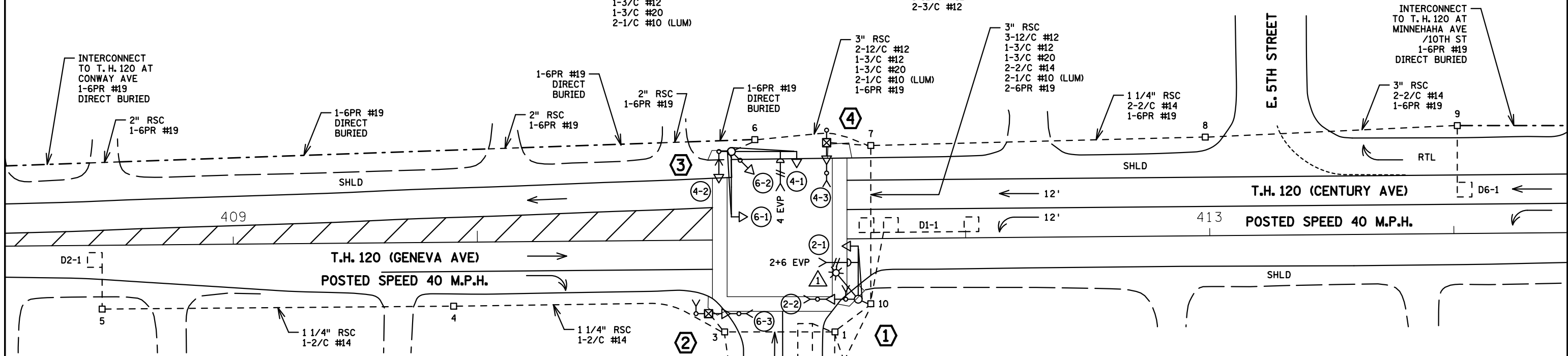
| SIGNAL HEAD PHASING | |
|---------------------|-----|
| HEADS 6-1 & 6-3 | |
| 6 | (R) |
| | (Y) |
| | (G) |
| 1 | (Y) |
| | (G) |



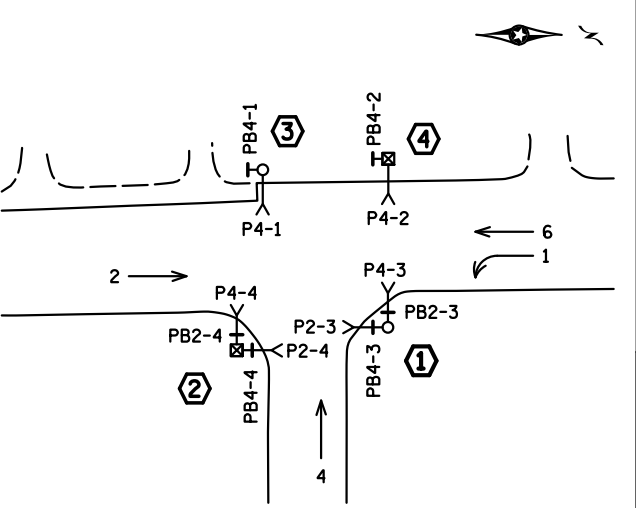
PLOTTED/REVISED: 3/11/2016

3 A100 POLE FOUNDATION
TYPE A100-A-25-25
2-ONE-WAY SIGNALS OVERHEAD AT 0' AND 11'
TYPE 10B POLE MOUNTED 90 DEG
TYPE 10A POLE MOUNTED 270 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4)
1-PED PB AND SIGN
1-R10-12 SIGN ADJACENT TO HEAD (6-1)
2-TYPE D SIGNS
EXTEND INTO HH 6:
3" RSC
2-12/C #12
1-3/C #12
1-3/C #20
2-1/C #10 (LUM)

4 PEDESTAL FOUNDATION
10' PEDESTAL POLE PLUS BASE
TYPE 1C
1-PED PB AND SIGN
EXTEND INTO HH 7:
3" RSC
1-12/C #12
2-3/C #12



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



2 PEDESTAL FOUNDATION
10' PEDESTAL POLE PLUS BASE
TYPE 1D
2-PED PB'S AND SIGNS
EXTEND INTO HH 3:
3" RSC
2-12/C #12
1-3/C #12

B SOP-WOOD POLE (BY XCEL ENERGY)
1 1/4" RSC RISER, WEATHERHEAD
3-1/C #4
SERVICE EQUIPMENT
1 1/4" RSC RISER
EXTEND INTO HH 3:
2-1/C #4
4-1/C #10 (LUM)
1-1/C #6 BR. GR.

1 P90 POLE FOUNDATION
TYPE P90-A-20-D40-9 (DAVIT AT 350 DEG)
ONE-WAY SIGNAL OVERHEAD
TYPE 10C POLE MOUNTED 180 DEG
1-TWO WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+6)
LUMINAIRE-200W HPS
2-PED PB'S AND SIGNS
1-TYPE D SIGN
EXTEND INTO HH 10:
3" RSC
3-12/C #12
2-3/C #12
1-3/C #20
2-1/C #10 (LUM)

A EQUIPMENT PAD
LOAD CENTER
CONTROLLER AND CABINET
4" RSC TO HH 10: 4" RSC TO HH 1:
4-12/C #12 2-12/C #12
1-3/C #12 1-3/C #12
2-3/C #20 3-2/C #14
3-2/C #14
2-6PR #19

1" RSC STUBBED OUT (CAPPED BOTH ENDS)
LOAD CENTER TO CONTROLLER CABINET:
2" IMC
2-1/C #4
1-1/C #6 BR. GR.
HH 1 TO HH 10:
2" IMC
4-1/C #10 (LUM)

SIGNAL SYSTEM OPERATION
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 4 PHASE, WITH PHASE 1 BEING A PROTECTED/PERMISSIVE LEFT TURN PHASE.
- PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

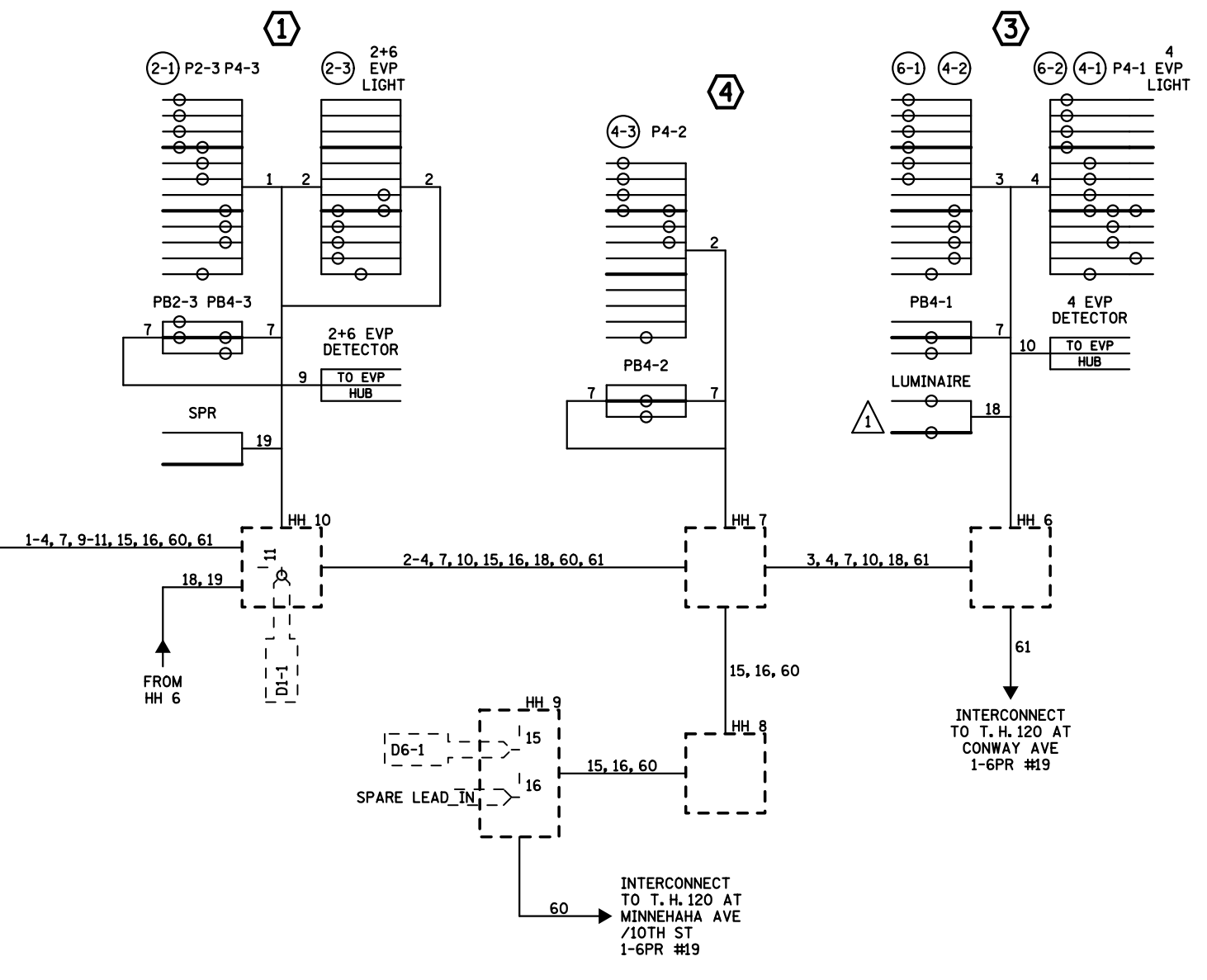
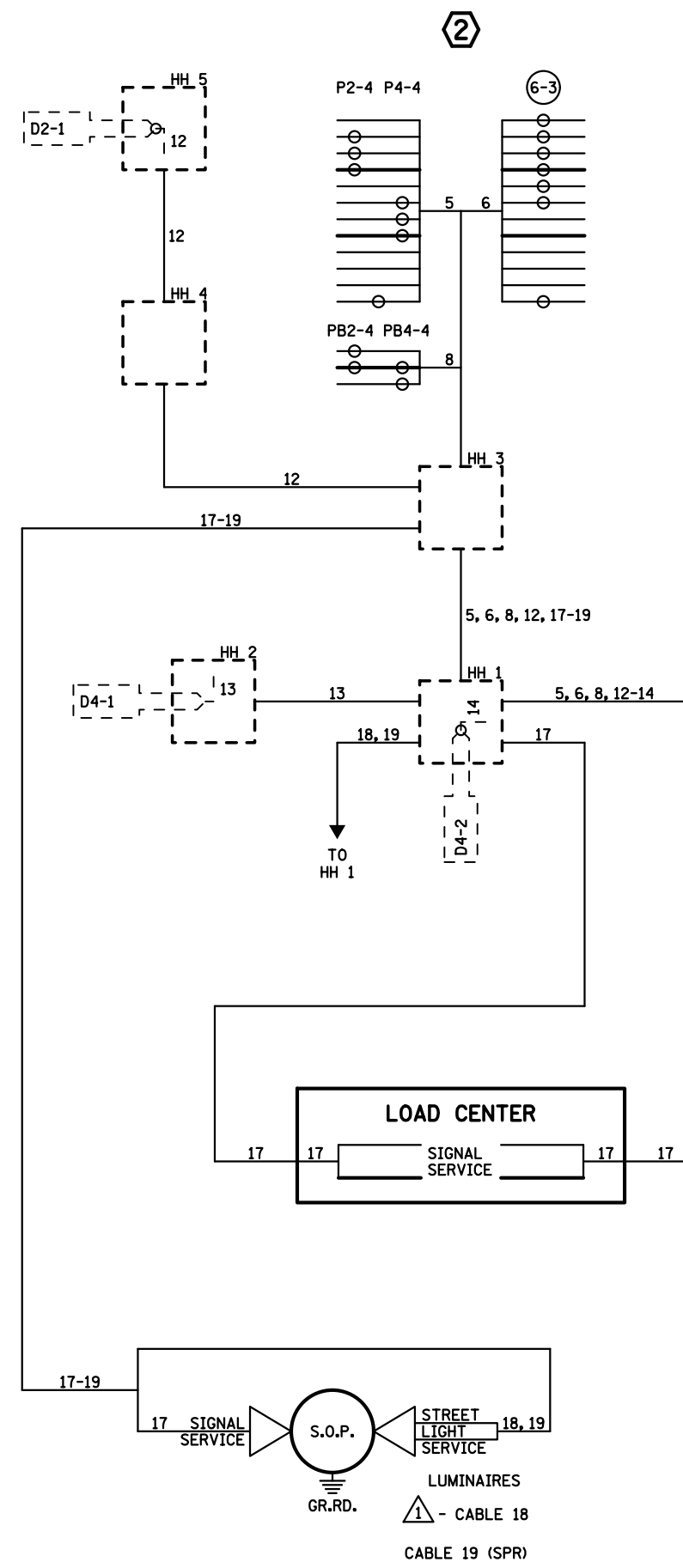
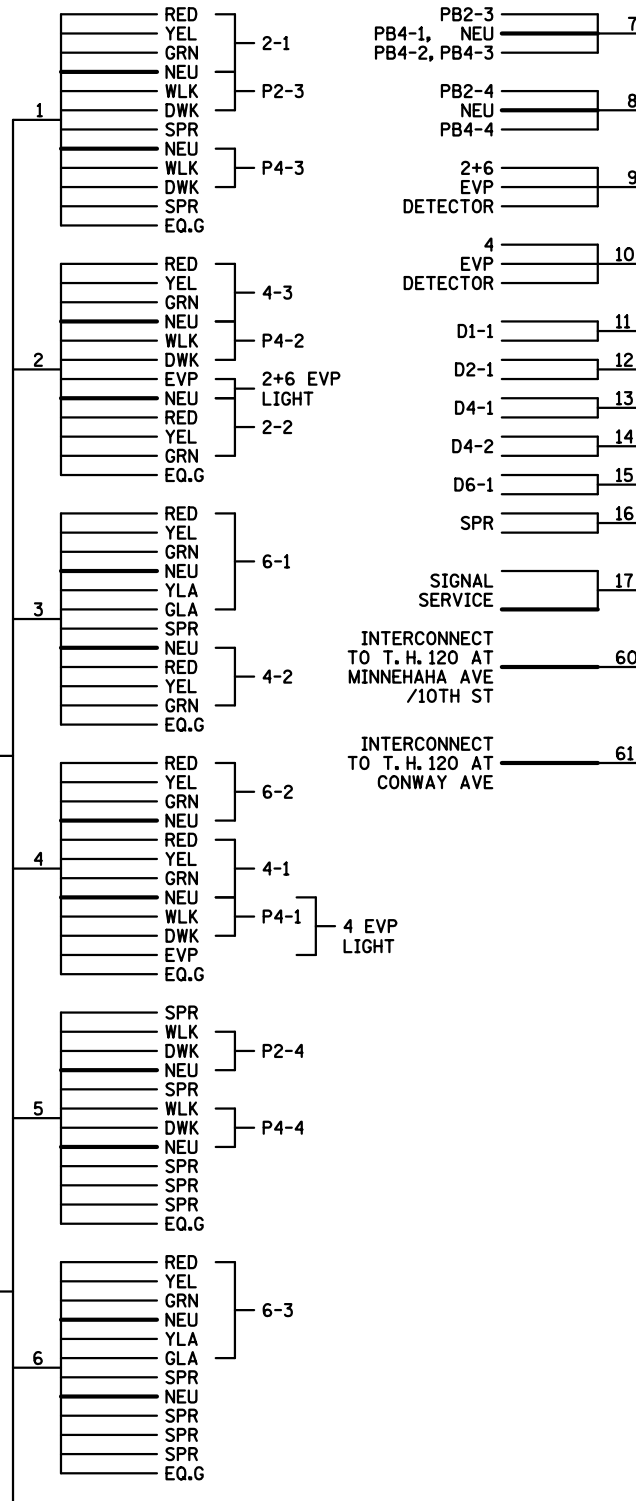
DISTRICT #: METRO
IPLOT NAME: layout
PATH & FILENAME: IP_PWP-d0784587\21434LW_sqj.dgn

| | | | | | | | | | |
|---------|----------------|--|-------------------------------|------|--|----------------------------|-------------------------|-------------|-------|
| BY: GDS | DATE: 10-24-14 | REVISIONS: UPDATE PLAN | SYSTEM ID: 21434 | T.E. | INTERSECTION LAYOUT TRAFFIC CONTROL SIGNAL SYSTEM T.H. 120 AT 7TH ST. IN OAKDALE AND MAPLEWOOD, WASHINGTON AND RAMSEY COUNTIES | S.A.P. NO. | DRAWN BY: | CKD BY: | DATE: |
| SJK | 08-27-07 | ADDED INTERCONNECT TO TH 120 AT CONWAY & MINNEHAHA | METER ADDRESS: 6015 7TH ST. N | T.E. | | CERTIFIED BY: _____ | LIC. NO. _____ | DATE: _____ | |
| | | | MASTER ID: | | | STATE PROJ. NO. (T.H. 120) | SHEET NO. 1 OF 2 SHEETS | | |

PLOTTED/REVISED: 3/11/2016

DISTRICT #: METRO
 IPLOT NAME: wiring
 PATH & FILENAME: IP_PWP-d078458\T21434LW_sgl.dgn

CONTROLLER CABINET



| CONDUCTOR COLOR CODING | |
|------------------------|------------------|
| R | R OR O |
| O | 3/C#20 WH OR YEL |
| BL | BLK OR BL |
| WH | |
| R/BLK | R |
| O/BLK | 3/C#12 WH |
| BL/BLK | BLK |
| WH/BLK | |
| BLK | BLK |
| BLK/WH | 2-1/C#6 |
| G/BLK | 2-1/C#10 WH |
| G | |
| 6PR#19 | 2/C#14 BLK CLR |

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

| BY | DATE | REVISIONS |
|-----|----------|--|
| GDS | 10-24-14 | UPDATE PLAN |
| SJK | 08-27-07 | ADDED INTERCONNECT TO TH 120 AT CONWAY & MINNEHAHA |

SYSTEM ID: 21434 T.E.
 METER ADDRESS: 6015 7TH ST. N
 MASTER ID: T.E.

FIELD WIRING DIAGRAM
TRAFFIC CONTROL SIGNAL SYSTEM
T.H. 120 AT 7TH ST.
IN OAKDALE AND MAPLEWOOD,
WASHINGTON AND RAMSEY COUNTIES

S.A.P. NO. _____ DRAWN BY: _____ CKD BY: _____ DATE: _____
 CERTIFIED BY _____ LIC. NO. _____ DATE: _____
 STATE PROJ. NO. (T.H.120) SHEET NO. 2 OF 2 SHEETS