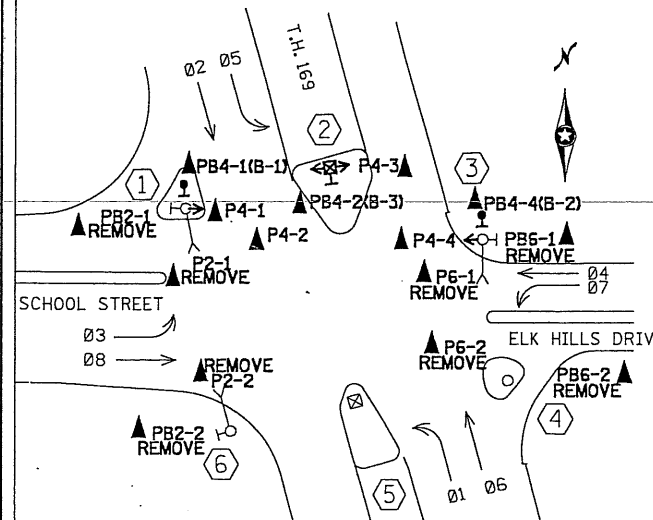


CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



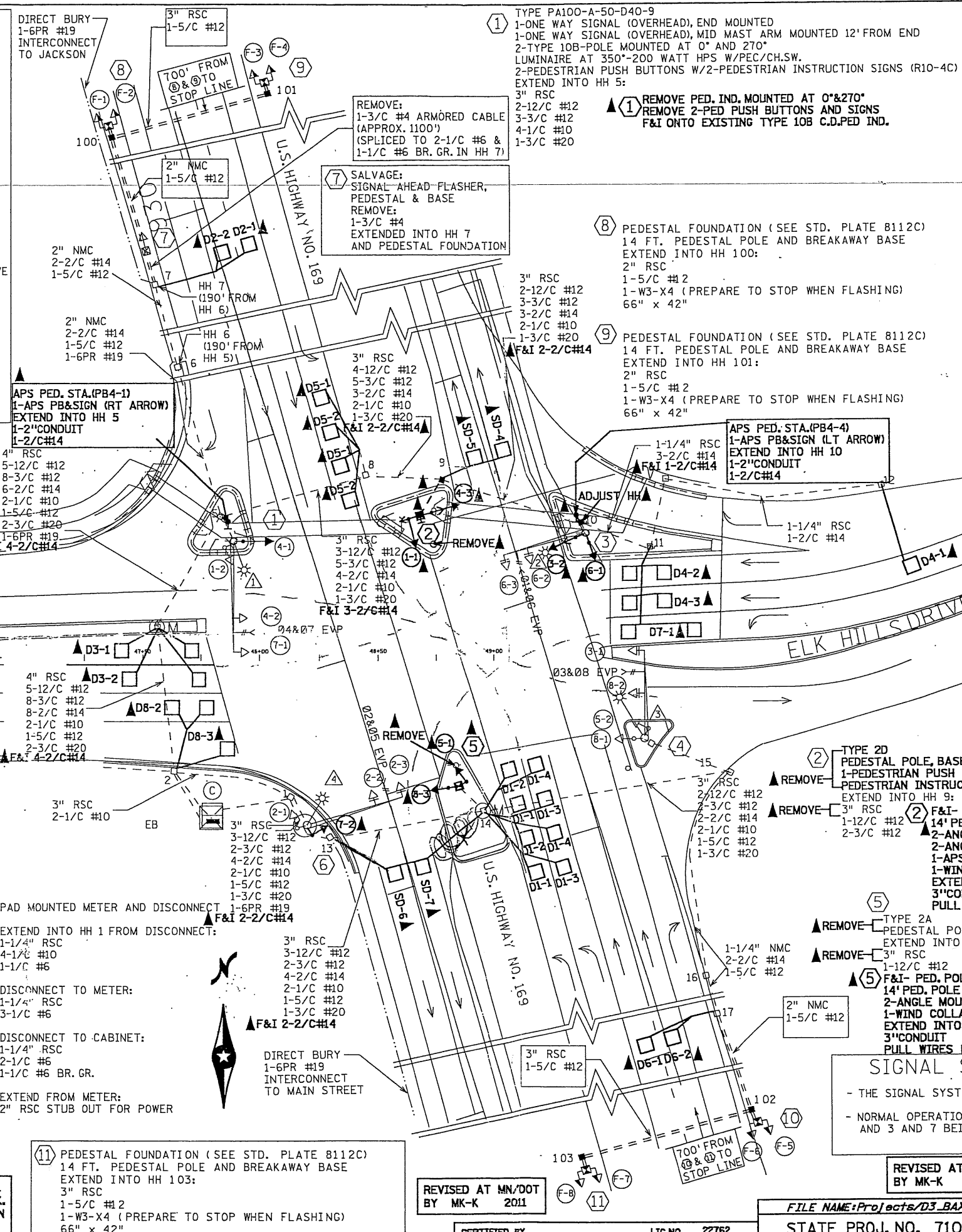
PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

10 PEDESTAL FOUNDATION (SEE STD. PLATE 8112C)
14 FT. PEDESTAL POLE AND BREAKAWAY BASE
EXTEND INTO HH 102:
2" RSC
1-5/C #12
1-W3-X4 (PREPARE TO STOP WHEN FLASHING)
66" x 42"

LOCATION = DISTANCE FROM CROSS WALK TO FRONT EDGE OF LOOP DETECTOR
ALL LOOP DETECTORS SHALL BE INSTALLED IN NMC UNLESS OTHERWISE INDICATED

| NUMBER | SIZE (FEET) | LOCATION |
|--------------|-------------|------------|
| ▲ D1-1, D1-3 | 4 - 6X6 | 15' & 45' |
| ▲ D1-2, D1-4 | 4 - 6X6 | 0' & 30' |
| ▲ D2-1 | 1 - 6X6 | 400' |
| ▲ D2-2 | 1 - 6X6 | 400' |
| ▲ D3-1 | 2 - 6X6 | 5' AND 35' |
| ▲ D3-2 | 2 - 6X6 | 5' AND 35' |
| ▲ D4-1 | 1 - 6X6 | 120' |
| ▲ D4-2, D4-3 | 2 - 6X6 | 5' AND 20' |
| ▲ D5-1, D5-2 | 4 - 6X6 | 0' |
| ▲ D6-1 | 1 - 6X6 | 400' |
| ▲ D6-2 | 1 - 6X6 | 400' |
| ▲ D7-1 | 2 - 6X6 | 5' AND 35' |
| ▲ D8-1 | 1 - 6X6 | 120' |
| ▲ D8-2 | 2 - 6X6 | 5' AND 20' |
| ▲ D8-3 | 3 - 6X6 | 0' |
| ▲ SD-4 | 1 - 6X6 | 30' |
| ▲ SD-5 | 1 - 6X6 | 30' |
| ▲ SD-6 | 1 - 6X6 | 30' |
| ▲ SD-7 | 1 - 6X6 | 30' |

EQUIPMENT PAD (SEE DETAIL)
CONTROLLER AND CABINET (SEE DETAIL)
EXTEND INTO HH 1:
4" RSC
5-12/C #12
4-3/C #12
4-2/C #14
1-5/C #12
2-3/C #20
1-6PR #19
F&I 2-2/C#14
EXTEND INTO HH 2:
4" RSC
5-12/C #12
8-3/C #12
11-2/C #14
1-5/C #12
2" RSC
2-6PR #19
2-3/C #20
F&I 4-2/C#14
▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.



- 1 TYPE PA100-A-50-D40-9
1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED
1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 12' FROM END
2-TYPE 10B-POLE MOUNTED AT 0° AND 270°
LUMINAIRE AT 350°-200 WATT HPS W/PEC/CH.SW.
2-PEDESTRIAN PUSH BUTTONS W/2-PEDESTRIAN INSTRUCTION SIGNS (R10-4C)
EXTEND INTO HH 5:
3" RSC
2-12/C #12
3-3/C #12
4-1/C #10
1-3/C #20
1 REMOVE PED. IND. MOUNTED AT 0° & 270°
REMOVE 2-PED PUSH BUTTONS AND SIGNS
F&I ONTO EXISTING TYPE 10B C.D.PED IND.
- 2 TYPE PA100-A-50-D40-9
1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED
1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 12' FROM END
2-TYPE 10B-POLE MOUNTED AT 0° AND 270°
LUMINAIRE AT 350°-200 WATT HPS W/PEC/CH.SW.
2-PEDESTRIAN PUSH BUTTONS W/2-PEDESTRIAN INSTRUCTION SIGNS (R10-4C)
EXTEND INTO HH 5:
3" RSC
2-12/C #12
3-3/C #12
4-1/C #10
1-3/C #20
- 3 TYPE P90-A-35-D40-9
1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED
1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 11' FROM END
1-TYPE 20C-POLE MOUNTED 270°
LUMINAIRE AT 350°-200 WATT HPS W/PEC/CH.SW.
2-PEDESTRIAN PUSH BUTTONS W/2-PEDESTRIAN INSTRUCTION SIGNS (R10-4C)
EXTEND INTO HH 10:
3" RSC
2-12/C #12
3-3/C #12
2-1/C #10
1-3/C #20
3 REMOVE 1-TYPE 20C
REMOVE 2-PED PUSH BUTTONS AND SIGNS
F&I 1-TYPE 10B MOUNTED AT 0° WITH C.D.PED IND.
F&I 1-TYPE 10A MOUNTED AT 270°
- 4 TYPE P90-A-35-D40-9
1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED
1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 18' FROM END
1-TYPE 10A-POLE MOUNTED AT 0°
1-TYPE 10A-POLE MOUNTED 270°
LUMINAIRE AT 350 33/64 -200 WATT HPS W/PEC/CH.SW.
1-PEDESTRIAN PUSH BUTTON W/1-PEDESTRIAN INSTRUCTION SIGN (R10-4C)
1-ONE WAY EVP&CONFIRMATORY LHT
EXTEND INTO HH 15:
3" RSC
2-12/C #12
2-3/C #12
2-1/C #10
1-3/C #20
4 REMOVE PED INDICATION MOUNTED AT 0°
REMOVE 1-PED. PUSH BUTTON AND SIGN
- 5 TYPE PA100-A-40-D40-9
1-ONE WAY SIGNAL (OVERHEAD), END MOUNTED
1-ONE WAY SIGNAL (OVERHEAD), MID MAST ARM MOUNTED 12' FROM END
1-TYPE 10A-POLE MOUNTED AT 0°
1-TYPE 10B-POLE MOUNTED AT 180°
LUMINAIRE AT 350°-200 WATT HPS W/PEC/CH.SW.
1-PEDESTRIAN PUSH BUTTON W/1-PEDESTRIAN INSTRUCTION SIGN (R10-4C)
EXTEND INTO HH 5:
3" RSC
2-12/C #12
2-3/C #12
4-1/C #10
1-3/C #20
6 REMOVE 1-TYPE 10A MOUNTED AT 0°
REMOVE PED. IND. MOUNTED AT 180°
REMOVE 1-PED PUSH BUTTON AND SIGN
F&I 1-TYPE 10A MOUNTED AT 90°

- NOTE:
1. ADJUST HAND HOLES AS REQUIRED. METAL EXTENSION RING AND METAL COVER TO BE PLACED ON HANDHOLES, STANDARD PLATE (8114A)
2. REMOVE PUSH BUTTON AND PED INDICATION:
PB6-1, PB6-2, P6-2, P2-2, PB2-2, P2-2, PB2-1, P2-1
3. ITEMS MARKED AS REMOVE WILL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE.
4. F&I ITEMS ARE NEW ITEMS AS INDICATED.
5. ALL NEW SIGNAL HEADS (F&I) WILL BE 12" POLY WITH LED INDICATIONS.
6. ALL PED. INDICATIONS ARE COUNT DOWN.
7. PED. POLE (2) PULL WIRES BACK INTO HH 8. PULL WIRES INTO NEW PED. POLE
8. PED. POLE (5) PULL WIRES BACK INTO HH 14. PULL WIRES INTO NEW PED. POLE
9. TERMINATE ALL WIRES IN SIGNAL POLE BASES AND SIGNAL CABINET.
10. INSTAL APS PED PUSH BUTTON WHERE INDICATED.
11. SEAL PUSHBUTTON HOLES AND CAP SIGNAL INDICATION OPENINGS ON POLE
12. ALL F&I PARTS SHALL BE PAINTED BLACK.
13. WIRE CABINET FOR NEW LOOP WIRES.

2 TYPE 2D PEDESTAL POLE, BASE & FOUNDATION
1-PEDESTRIAN PUSH BUTTON WITH PEDESTRIAN INSTRUCTION SIGN (R10-4C)
EXTEND INTO HH 9:
3" RSC
1-12/C #12
2-3/C #12
2-2/C #14
2-1/C #10
1-5/C #12
1-3/C #20
2 F&I- PED. POLE FOUNDATION
14' PED. POLE AND BASE
2-ANGLE MOUNT SIGNAL HEADS MOUNTED AT 90° & 270°
2-ANGLE MOUNT C.D. PED INDICATION MOUNTED AT 90° & 270°
1-APS PB4-2 (DBL ARROW) MOUNTED AT 0°
1-WIND COLLAR
EXTEND INTO H.H.8
3" CONDUIT
PULL WIRES FROM FROM H.H.8

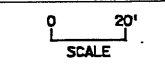
SIGNAL INDICATIONS
ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12" LED

| FACE | R | Y | G |
|---------------|------------|---|---|
| 1-2 | ▲ 1-1 | ← | ← |
| 2-1, 2-2, 2-3 | ● | ● | ● |
| 3-1 | ▲ 3-2 | ← | ← |
| 4-2 | ▲ 4-1, 4-3 | ● | ● |
| 5-2 | ▲ 5-1 | ← | ← |
| 6-2, 6-3 | ▲ 6-1 | ● | ● |
| 7-1 | ▲ 7-2 | ← | ← |
| 8-1, 8-2 | ▲ 8-3 | ● | ● |

SIGNAL SYSTEM OPERATION
- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 8 PHASE, WITH PHASES 1 AND 5, AND 3 AND 7 BEING PROTECTED LEFT TURN PHASES.

SIGNAL SYSTEM-B
SIG ID 21529 TE 5488
INTERSECTION LAYOUT
ADVANCED WARNING FLASHERS
T.H. 169 AND SCHOOL STREET
ELK RIVER

REVISED AT MN/DOT BY MK-K 2011



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CERTIFIED BY [Signature] LIC. NO. 22762