NMC LOOP DETECTORS

INSTALLATION	STATUS	NUMBER	SIZE (ft)	LOCATION
NMC – NEW BIT.	F & I	D1–1, D1–2	6' x 6'	40'
NMC – NEW BIT.	F & I	D1–3, D1–4	6' x 6'	10'
NMC – NEW BIT.	F & I	D2–1	6' x 6'	250'
NMC – MILL	F & I	D2–2	6' x 6'	250'
NMC – MILL	F & I	D3–1	6' x 6'	40'
NMC – NEW BIT.	F & I	D3–2	6' x 6'	10'
	**INPLACE	D4–1	6' x 6'	180'
NMC – NEW BIT.	F & I	D4–2	6' x 15'	–5'
NMC – NEW BIT.	F & I	D4–3	2–6' x 6'	5' & 20'
NMC – NEW BIT.	F & I	D5–1	6' x 6'	40'
NMC – NEW BIT.	F & I	D5–2	6' x 6'	10'
NMC – NEW BIT.	F & I	D6–1, D6–2, D6–3	6' x 6'	250'
NMC – NEW BIT.	F & I	D7–1, D7–2	6' x 6'	40'
NMC – NEW BIT.	F & I	D7–3, D7–4	6' x 6'	10'
	**INPLACE	D8–1	6' x 6'	180'
NMC – NEW BIT.	F & I	D8–2	6' x 15'	–5'
NMC – NEW BIT.	F & I	D8–3	2–6' x 6'	5' & 20'

NOTE: LOCATION = DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR. ALL NEW LOOP DETECTORS SHALL BE INSTALLED IN NMC. SEE DETAIL SHEET 488.
** – NMC

SIGNAL FACES

STATUS	FACE	R	Y	G
SALVAGE & REINSTALL	1–1	←	←	←
INPLACE	1–2	←	←	←
SALVAGE & REINSTALL	2–1, 2–2	●	●	●
SALVAGE & REINSTALL	3–1, 3–2	←	←	←
INPLACE	4–1, 4–2	○	○	○
SALVAGE & REINSTALL	5–1, 5–2	←	←	←
SALVAGE & REINSTALL	6–1, 6–2	●	●	●
INPLACE	7–1	←	←	←
SALVAGE & REINSTALL	7–2	←	←	←
SALVAGE & REINSTALL	8–1, 8–2	●	●	●

– ALL SIGNAL INDICATIONS SHALL BE 12".
– ALL SIGNAL INDICATIONS SHALL BE LED.
– ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD.

SYSTEM "A" – MATCH LINE A

INPLACE: 2" RSC
F & I: EXTEND 2" RSC INTO HH 15
1–2/C #14

F & I: 4" RSC
4–12/C #12
9–3/C #12
4–3/C #20
10–2/C #14

F & I: 3" RSC
2–12/C #12
4–3/C #12
3–3/C #20
7–2/C #14

F & I: 4" RSC
2–12/C #12
4–3/C #12
2–3/C #20
7–2/C #14

F & I: 2" RSC
1–3/C #20

INPLACE: 2" NMC
F & I: EXTEND 2" NMC
1–3/C #20

TO SOP

F & I: 4" RSC
4–12/C #12
9–3/C #12
4–3/C #20
14–2/C #14

F & I: 4" RSC
4–12/C #12
9–3/C #12
4–3/C #20
14–2/C #14
F & I: 3" RSC
2–12/C #12
4–3/C #12
1–3/C #20

INPLACE: DIRECT BURIED POWER CABLE (CONNEXUS ENERGY)
F & I: EXTEND 2" RSC INTO HH 19

F & I: 2" RSC
1–3/C #12

F & I: 4" RSC
2–12/C #12
5–3/C #12
1–3/C #20
6–2/C #14

F & I: 2" NMC
3–2/C #14
*1–6PR #19

NORTHDALE BLVD.
POSTED – 35 MPH

HANSON BLVD.
POSTED – 40 MPH

ROBINSON DR.
POSTED – 40 MPH

ø2 & ø5 EVP
ø1 & ø6 EVP (SEE NOTE 6)
ø3 & ø8 EVP (SEE NOTE 6)
ø4 & ø7 EVP (SEE NOTE 6)

F & I: 2" NMC (EXTEND INTO HH 10)
2–2/C #14

F & I: 4" RSC
2–12/C #12
4–3/C #12
2–3/C #20
5–2/C #14

F & I: 2" RSC
3–2/C #14

F & I: 3" RSC
3–2/C #14

F & I: 4" RSC
2–12/C #12
5–3/C #12
1–3/C #20
2–2/C #14

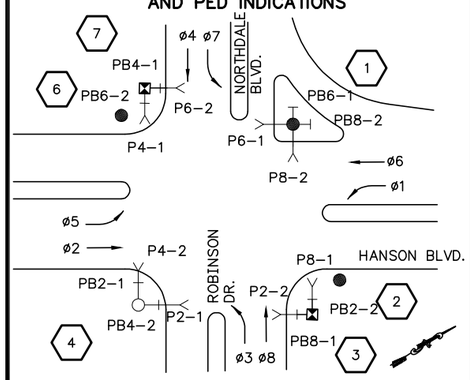
INPLACE: 2" RSC
F & I: EXTEND 2" RSC INTO HH 7
1–2/C #14

SYSTEM "A" – MATCH LINE B

SYSTEM "A" – MATCH LINE C

40'
SCALE

CONTROLLER PHASING, PUSHBUTTON LAYOUT AND PED INDICATIONS



PUSHBUTTONS SHALL BE LOCATED AS SHOWN

SIGNAL SYSTEM OPERATION

– SIGNAL SYSTEM FLASH MODE IS ALL RED.
– NORMAL OPERATION IS 8 PHASE WITH PHASES 1, 3, 5 & 7 BEING PROTECTED LEFT TURNS.
– PHASES 2 & 6 SHALL BE ON VEHICLE RECALL.

SYSTEM ID #: 20215
TE #: 3535
MASTER ID #: 20216
METER ADDRESS:

14 OF 32

REV. NO.	BY	DATE	REVISIONS DESCRIPTION

DESIGN FILE: 33889–042
DRAWN BY: JAS | DESIGN BY: MRA
CHKED. BY: AJW | DWG. NAME: 042–TS06
DATE: 01/08/07

URS
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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.

JOHN F. CRAWFORD
DATE: 01/08/07 MN LIC. NO. 25067

TH 10/HANSON BOULEVARD INTERCHANGE

HANSON BLVD. / ROBINSON DR.

SIGNAL SYSTEM "A"
INTERSECTION LAYOUT
(1 OF 2)

CITY PROJECT	01–31	S.P.	0215–59
S.P.	02–678–17	S.P.	02–611–29
		S.P.	114–020–28
		S.P.	114–010–14

SHEET NO. 500 / 681

PLOT DATE: Jan 08, 2007 9:60am DISK FILE NAME: (16.1) R:\33889\33889042\PLAN–SHT\TRAFFIC–SIGNALS\042–TS06.dwg

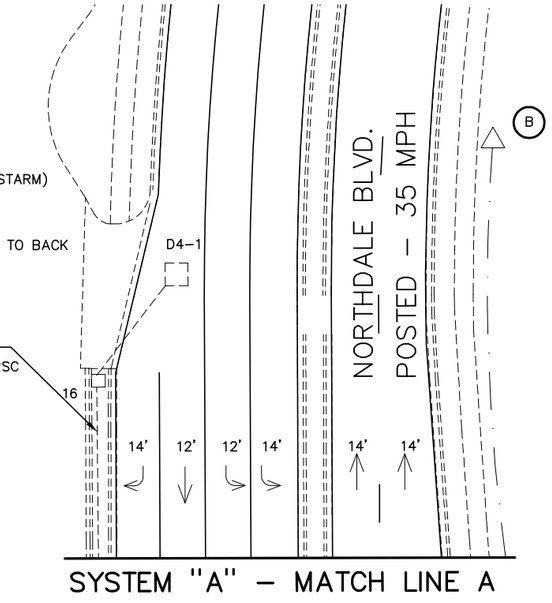
(1) REMOVE: TYPE PA90 POLE FOUNDATION
REMOVE & SALVAGE: TYPE PA90-A-35
2-ONE WAY SIGNALS OVERHEAD
2-TYPE 10B POLE MOUNTED AT 90° & 180°
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE D SIGN (D-3) OVERHEAD. SEE SHEET 494
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
REINSTALL SALVAGED: TYPE PA90-A-35
2-ONE WAY SIGNALS OVERHEAD (0' & 11' FROM END OF MASTARM)
2-TYPE 10B POLE MOUNTED AT 90° & 180°
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE D SIGN (D-3) OVERHEAD. SEE SHEET 494
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (ø3 & ø8) (6' FROM END OF MAST ARM). SEE NOTE 6.
F & I: TYPE PA90 POLE FOUNDATION
(℄ HANSON BLVD STATION 7+97, 57'LT)
F & I: 3" RSC TO HH 18:
2-12/C #12
4-3/C #12
1-3/C #20

INPLACE: 2" RSC
F & I: EXTEND 2" RSC INTO HH 15
1-2/C #14

(2) REMOVE: TYPE PA100 POLE FOUNDATION
TYPE A-55 MAST ARM
REMOVE & SALVAGE: TYPE PA100-A (POLE STANDARD & TRANSFORMER BASE)
D40-9 (LUMINAIRE EXTENSION - DAVIT AT 350°)
1-250 WATT HPS LUMINAIRE
2-ONE WAY SIGNALS OVERHEAD
2-TYPE 10A POLE MOUNTED AT 90° & 180°
1-TYPE D SIGN (D-2) OVERHEAD. SEE SHEET 494.
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
REINSTALL SALVAGED: TYPE PA100-A (POLE STANDARD & TRANSFORMER BASE)
D40-9 (LUMINAIRE EXTENSION - DAVIT AT 350°)
1-250 WATT HPS LUMINAIRE
2-ONE WAY SIGNALS OVERHEAD (0' & 17' FROM END OF MAST ARM)
2-TYPE 10A POLE MOUNTED AT 90° & 180°
1-TYPE D SIGN (D-2) OVERHEAD. SEE SHEET 494.
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (ø2 & ø5) (6' FROM END OF MAST ARM). SEE NOTE 6.
F & I: TYPE PA100 POLE FOUNDATION
(℄ HANSON BLVD STATION 8+39, 61'RT)
TYPE A-50 (MAST ARM - OVERHEADS AT 0' & 17' FROM END OF MAST ARM)
F & I: 3" RSC TO HH 5:
2-12/C #12
2-3/C #12
1-3/C #20

NOTES:

1. THE EXACT LOCATION OF HANDHOLES, POLES, DETECTORS AND EQUIPMENT PAD SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. MN/DOT TRAFFIC OFFICE PERSONNEL SHALL REVIEW LOCATIONS PRIOR TO INSTALLATION.
2. HANDHOLES SHALL BE PVC WITH METAL FRAMES AND COVERS, PER MN/DOT STANDARD PLATE NO. 8114.
3. A 3/4" HALF-COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6' FROM THE END OF THE MAST ARM.
4. SIGNAL EQUIPMENT SHALL BE PAINTED BLUE. SEE SPECIAL PROVISIONS. THE CONTROLLER CABINET AND SERVICE CABINET SHALL NOT BE PAINTED.
5. INSTALLING SALVAGED POLE AND MAST ARM MOUNTED TYPE C AND TYPE D SIGNS SHALL BE INCIDENTAL.
6. ALL EVP EQUIPMENT (DETECTOR, INDICATOR LIGHTS AND PHASE SELECTORS SALVAGED FROM THE TEMPORARY SIGNAL SYSTEM SHALL BE REINSTALLED AT LOCATIONS SHOWN IN THE PLANS. SEE SPECIAL PROVISIONS.
7. ALL ITEMS OF THE TEMPORARY TRAFFIC SIGNAL SHALL BE REMOVED WHEN DIRECTED BY THE ENGINEER. REFER TO THE SPECIAL PROVISIONS FOR ITEMS TO BE SALVAGED. REMOVAL AND SALVAGE OF THE TEMPORARY SIGNAL SYSTEM SHALL BE INCIDENTAL.
8. ITEMS DENOTED WITH (SYS "B") ARE PART OF SIGNAL SYSTEM "B" AND ARE INDICATED ON THIS SHEET FOR INFORMATION ONLY.
9. INSTALLING SALVAGED SIGNAL EQUIPMENT (I.E., POLES, CONTROLLER CABINET, SERVICE CABINET, VEHICLE AND PEDESTRIAN INDICATIONS) SHALL BE INCIDENTAL.
10. THE CONTRACTOR SHALL REMOVE ALL INPLACE SIGNAL CONTROL CABLE AND FURNISH AND INSTALL ALL NEW CABLE AS INDICATED IN THE PLANS.
11. THE SIGNAL CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE TRAFFIC SIGNAL WITH CONSTRUCTION STAGING OF THE AREA ROADWAYS.
12. ITEMS DENOTED WITH AN * ARE INCIDENTAL.
13. HANDHOLES 1,5,7-9,15,17-20 MAY BE SALVAGED AND REINSTALLED OR ADJUSTED IF DEEMED REUSABLE BY THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL FURNISH AND INSTALL NEW PVC HANDHOLES (NOTE 2).
14. THE CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO COMMENCING WORK.
15. LUMINAIRES ARE UNMETERED.



SYSTEM "A" - MATCH LINE A

(3) REMOVE: PEDESTAL POLE FOUNDATION
REMOVE & SALVAGE: 8' PEDESTAL POLE AND BASE
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE 4B
REINSTALL SALVAGED: 8' PEDESTAL POLE AND BASE
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE 4B
F & I: PEDESTAL POLE FOUNDATION
(℄ HANSON BLVD STATION 8+15, 74'RT)

F & I: 2" RSC TO HH 5:
3-3/C #12

(4) INPLACE: TYPE PA100 POLE FOUNDATION
(℄ HANSON BLVD. STATION 6+97, 69'RT)
TYPE PA100-A-50
2 - ONE WAY SIGNALS OVERHEAD (0' & 17' FROM END OF MAST ARM
2 - TYPE 10B POLE MOUNTED AT 90° & 180°
2 - PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1 - TYPE D SIGN (D-3) OVERHEAD SEE SHEET 494
2 - TYPE R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
REMOVE & SALVAGE: 2-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
REINSTALL SALVAGED: 1 - ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (ø4 & ø7) (6' FROM END OF MAST ARM) SEE NOTE 6
1 - ONE WAY EVP DETECTOR (ø3 & ø8) MAST ARM POLE MOUNTED. SEE NOTE 6

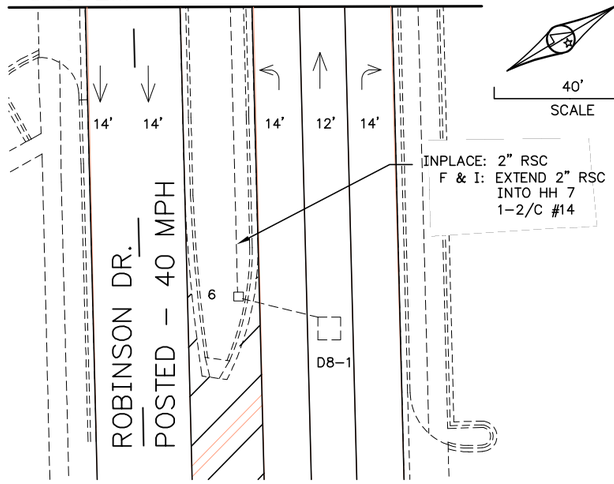
INPLACE: 3" RSC:
F & I: EXTEND 3" RSC INTO HH 9:
2-12/C#12
4-3/C#12
2-3/C#20

(5) INPLACE: PEDESTAL FOUNDATION
10' PEDESTAL AND BASE
1 - ONE WAY EVP DETECTOR - MOUNTED ON TOP OF PEDESTAL POLE (ø2 & ø5)

INPLACE: 2" RSC TO HH 12:
F & I: 1-3/C #20

SYSTEM ID #: 20215
TE #: 3535
MASTER ID #: 20216
METER ADDRESS:

SYSTEM "A" - MATCH LINE C



INPLACE: 2" RSC
F & I: EXTEND 2" RSC INTO HH 7
1-2/C #14

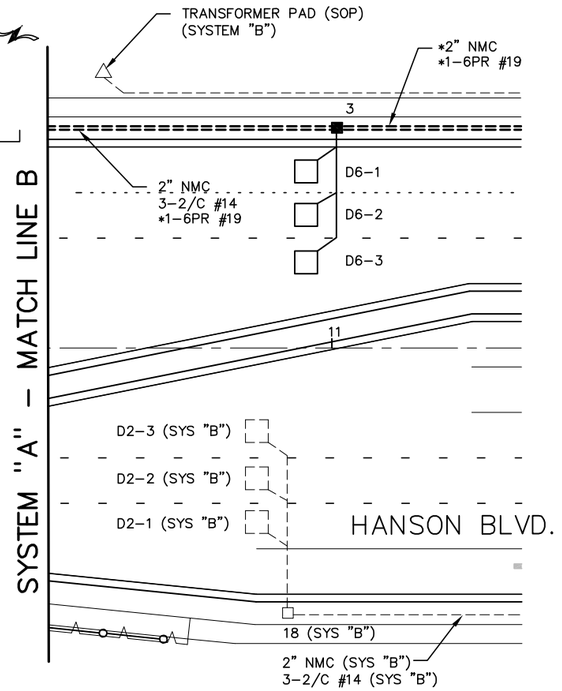
(6) REMOVE: TYPE PA100 POLE FOUNDATION
REMOVE & SALVAGE: TYPE PA100-A-50-D40-9 (DAVIT AT 350°)
LUMINAIRE - 250W HPS
2-ONE WAY SIGNALS OVERHEAD
2-TYPE 10A POLE MOUNTED AT 90° & 180°
1-TYPE D SIGN (D-1) OVERHEAD. SEE SHEET 494
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
REINSTALL SALVAGED: TYPE PA100-A-50-D40-9 (DAVIT AT 350°)
LUMINAIRE - 250W HPS
2-ONE WAY SIGNALS OVERHEAD (0' & 23' FROM END OF MAST ARM)
2-TYPE 10A POLE MOUNTED AT 90° & 180°
1-TYPE D SIGN (D-1) OVERHEAD. SEE SHEET 494
2-R6-1L OR R6-1R (ONE WAY) SIGNS POLE MOUNTED BACK TO BACK
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (ø1 & ø6) (6' FROM END OF MAST ARM) SEE NOTE 6
F & I: TYPE PA100 POLE FOUNDATION
(℄ HANSON BLVD STATION 6+74, 55' LT)
F & I: 3" RSC TO HH 15:
2-12/C #12
2-3/C #12
1-3/C #20

(7) REMOVE: PEDESTAL POLE FOUNDATION
REMOVE & SALVAGE: 8' PEDESTAL POLE AND BASE
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE 4B
REINSTALL SALVAGED: 8' PEDESTAL POLE AND BASE
2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)
1-TYPE 4B
F & I: PEDESTAL POLE FOUNDATION
(℄ HANSON BLVD STATION 6+94, 60'LT)
F & I: 2" RSC TO HH 15:
3-3/C #12

(B) INPLACE: GROUND MOUNT TRANSFORMER (SOP-CONNEXUS ENERGY)

INPLACE: METERED SIGNAL SERVICE (CONNEXUS) DIRECT BURIED POWER CABLE
3-1/C #2

SALVAGE & REINSTALL: 3-1/C #2



(A) F&I: EQUIPMENT PAD (SEE SHEET 490)
(℄ HANSON BLVD STATION 8+61, 79'LT)
REMOVE & SALVAGE: CONTROLLER CABINET AND CONTROL EQUIPMENT (RELOCATE TO TEMPORARY SIGNAL SYSTEM)
SERVICE CABINET
INSTALL: CONTROLLER CABINET AND CONTROL EQUIPMENT (FURNISHED BY MN/DOT)
REINSTALL SALVAGED: SERVICE CABINET
F & I: CONTROLLER CABINET TO HH 1:
4" RSC
2-12/C #12
4-3/C #12
1-3/C #20
9-2/C #14
*1-6PR #19
F & I: CONTROLLER CABINET TO HH 20:
4" RSC
4-12/C #12
8-3/C #12
4-3/C #20
14-2/C #14
3" RSC
2-12/C #12
4-3/C #12
1-3/C #20
F & I: SERVICE CABINET TO HH 1:
2" RSC
2-3/C #12 (LUM)
F & I: SERVICE CABINET TO HH 19:
METERED SIGNAL SERVICE (POWER BY CONNEXUS)
2" RSC
3-1/C #2
F & I: BETWEEN SERVICE CABINET AND CONTROLLER CABINET:
2" RSC
2-1/C #6
1-1/C #6 BR GR
F & I: EXTEND 3" RSC STUBBED OUT OF CONTROLLER CABINET (THREAD AND CAP BOTH ENDS)
F & I: 3/4" NMC STUBBED OUT OF CONTROLLER CABINET (THREAD AND CAP BOTH ENDS) (FUTURE PHONE LINE)
F & I: EXTEND 2" RSC STUBBED OUT OF CONTROLLER CABINET (THREAD AND CAP BOTH ENDS)

REV. NO.	BY	DATE	REVISIONS DESCRIPTION

DESIGN FILE: 33889-042
DRAWN BY: JAS | DESIGN BY: MRA
CHKED. BY: AJW | DWG. NAME: 042-TS13
DATE: 01/08/07

URS
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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.

JOHN F. CRAWFORD
DATE: 01/08/07 MN LIC. NO. 25067

TH 10/HANSON BOULEVARD INTERCHANGE

HANSON BLVD. / ROBINSON DR.

SIGNAL SYSTEM "A"
INTERSECTION LAYOUT
(2 OF 2)

CITY PROJECT	01-31	S.P.	0215-59
S.P.	02-678-17	S.P.	02-611-29
		S.P.	114-020-28
		S.P.	114-010-14

SHEET NO. 501 / 681

NMC LOOP DETECTORS (INPLACE)

INSTALLATION	NUMBER	SIZE (ft)	LOCATION
NMC – NEW BIT.	D1–1, D1–2	6' x 6'	40'
NMC – NEW BIT.	D1–3, D1–4	6' x 6'	10'
NMC – NEW BIT.	D2–1	6' x 6'	250'
NMC – MILL	D2–2	6' x 6'	250'
NMC – MILL	D3–1	6' x 6'	40'
NMC – NEW BIT.	D3–2	6' x 6'	10'
	D4–1	6' x 6'	180'
NMC – NEW BIT.	D4–2	6' x 15'	–5'
NMC – NEW BIT.	D4–3	2–6' x 6'	5' & 20'
NMC – NEW BIT.	D5–1	6' x 6'	40'
NMC – NEW BIT.	D5–2	6' x 6'	10'
NMC – NEW BIT.	D6–1, D6–2, D6–3	6' x 6'	250'
NMC – NEW BIT.	D7–1, D7–2	6' x 6'	40'
NMC – NEW BIT.	D7–3, D7–4	6' x 6'	10'
	D8–1	6' x 6'	180'
NMC – NEW BIT.	D8–2	6' x 15'	–5'
NMC – NEW BIT.	D8–3	2–6' x 6'	5' & 20'

LOCATION = DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

LED SIGNAL FACES

SIGNAL FACE	ALL 12".		
	R	Y	G
1–1, 1–2	⇦	⇦	⇦
2–1, 2–2	○	○	○
3–1, 3–2	⇦	⇦	⇦
4–1, 4–2	○	○	○
5–1, 5–2	⇦	⇦	⇦
6–1, 6–2	○	○	○
7–1, 7–2	⇦	⇦	⇦
8–1, 8–2	○	○	○

scale 20 0 20 40 feet

N

MATCH LINE TO WEST

H.H.14 TO H.H.101:
(*) 1 1/2" CONDUIT–F & I (BORE UNDER EXISTING ROADWAYS AND DRIVEWAYS)
(*) 1–12 SM FIBER–OPTIC CABLE–F & I (TO CSAH 78/113TH AVENUE SIGNAL SYSTEM)

2" RSC 1–2/C #14

4" RSC 4–12/C #12 9–3/C #12 4–3/C #20 10–2/C #14

3" RSC 2–12/C #12 4–3/C #12 3–3/C #20 7–2/C #14

4" RSC 2–12/C #12 4–3/C #12 2–3/C #20 7–2/C #14

2" NMC 1–3/C #20

2" RSC 1–3/C #20

(CSAH 78) HANSON BLVD. POSTED – 40 MPH

NORTHDALE BLVD. POSTED – 35 MPH (CSAH 11)

TO SOP

4" RSC 4–12/C #12 9–3/C #12 4–3/C #20 14–2/C #14

3" RSC 2–12/C #12 4–3/C #12 1–3/C #20

INPLACE DIRECT BURIED POWER CABLE (CONNEXUS ENERGY) EXTEND 2" RSC INTO HH 19

2" RSC 1–3/C #12

H.H.1 TO H.H.110 (TH 10 RAMPS):
(*) 1 1/2" CONDUIT–F & I (INSTALL IN BLVD BEHIND SIDEWALK)
(*) 1–12 SM FIBER–OPTIC CABLE–F & I

4" RSC 2–12/C #12 5–3/C #12 1–3/C #20 5–2/C #14

2" NMC 3–2/C #14 1–6PR #19

H.H.1 TO H.H.14:
(*) 1 1/2" CONDUIT–F & I (BORE UNDER EXISTING ROADWAY)
(*) 1–12 SM FIBER–OPTIC CABLE–F & I

ø3 & ø8 EVP

ø1 & ø6 EVP

ø2 & ø5 EVP

ø4 & ø7 EVP

(CSAH 78) HANSON BLVD. POSTED – 40 MPH

(TO CSAH 78/113TH AVE SIGNAL SYSTEM MATCH LINE "H" (INTERCONNECT)

(TO CSAH 78/TH 10 SIGNAL SYSTEM MATCH LINE "J" (INTERCONNECT)

2" NMC 2–2/C #14

4" RSC 2–12/C #12 4–3/C #12 2–3/C #20 5–2/C #14

2" RSC 3–2/C #14

3" RSC 3–2/C #14

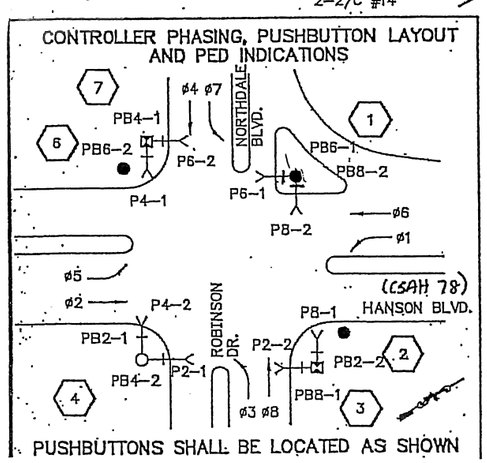
ROBINSON DR. POSTED – 40 MPH

2" R.S.C. 1–2/C #14

4" RSC 2–12/C #12 5–3/C #12 1–3/C #20 2–2/C #14

MATCH LINE TO EAST

CONTROLLER PHASING, PUSHBUTTON LAYOUT AND PED INDICATIONS



PUSHBUTTONS SHALL BE LOCATED AS SHOWN

SIGNAL SYSTEM OPERATION

– SIGNAL SYSTEM FLASH MODE IS ALL RED.

– NORMAL OPERATION IS 8 PHASE WITH PHASES 1, 3, 5 & 7 BEING PROTECTED LEFT TURNS.

– PHASES 2 & 6 SHALL BE ON VEHICLE RECALL.

SYSTEM ID #: 20215
TE #: [redacted]
MASTER ID #: 20216
METER ADDRESS:

INTERCONNECT NOTES:

1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651–454–0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
2) (*) DENOTES ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
3) ALL ITEMS OF THIS SIGNAL SYSTEM ARE INPLACE AND SHALL BE REUSED, PROTECTED AND MAINTAINED INPLACE, EXCEPT WHERE BOXED IN AND DENOTED BY BOTH (*) AND BY F & I (ITEMS TO BE FURNISHED & INSTALLED BY CONTRACTOR).
4) EXISTING HANDHOLES WITH CONCRETE OR METAL COVERS IN THE BOULEVARD AREAS (USED WITH INTERCONNECT SYSTEM CABLES) SHALL BE ADJUSTED TO FINISHED SURROUNDING GRADE (INCIDENTAL).
5) FOR EXISTING CONDUITS BEING REUSED AS PART OF THE COMPLETE INTERCONNECT SYSTEM, THE CONTRACTOR SHALL PULL A FISH TAPE THROUGH THESE CONDUITS TO CONFIRM THAT CONDUITS ARE ABLE TO BE REUSED WITH NEW CABLE INSTALLATIONS, PRIOR TO NEW INTERCONNECT CABLES BEING INSTALLED IN THESE CONDUITS.
6) SEE SPECIAL PROVISIONS FOR INFORMATION REGARDING LABOR AND MATERIALS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET AS PART OF THE "TRAFFIC CONTROL INTERCONNECT" PAY ITEM.

DRAWN BY: JMG
DESIGNER: JMG
CHECKED BY: JMG
DESIGN TEAM

NO.	BY	DATE	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN 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.
Date: May 29, 2018
Name: John M. Gray, PE
Lic. No. 22457

SEH
PHONE: (651) 490–2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

ANOKA COUNTY, MN
CITY OF COON RAPIDS
STATE PROJECT 002–678–021

TRAFFIC SIGNAL INTERCONNECT INTERSECTION LAYOUT CSAH 78 (HANSON BLVD) AT NORTHDALE BLVD/ROBINSON DRIVE

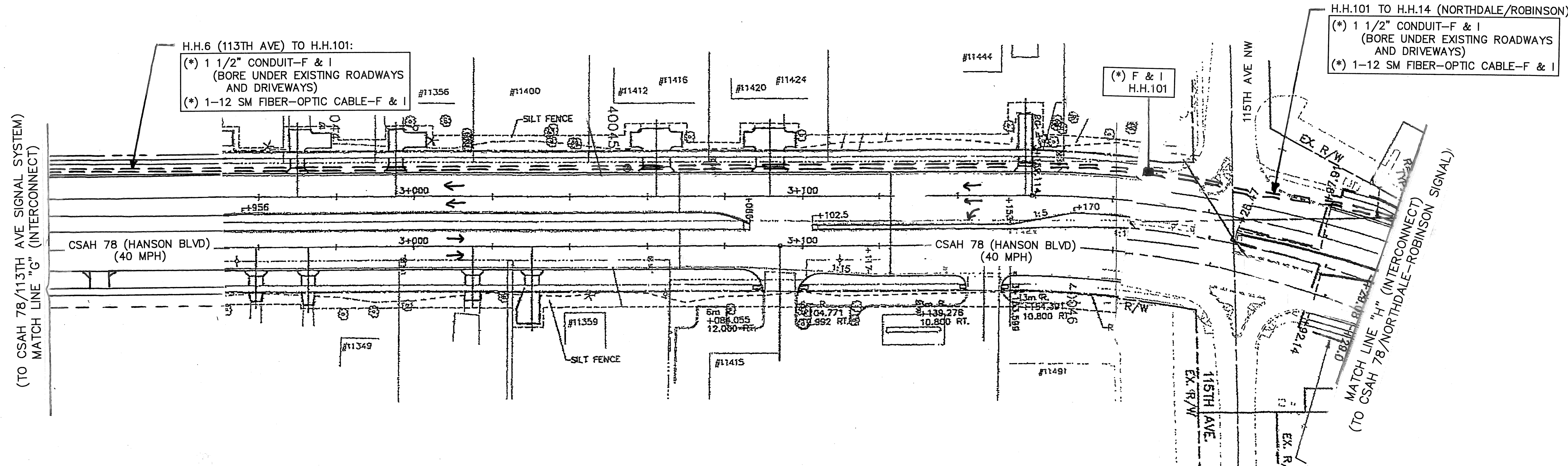
FILE NO. ANOKC 122928

16/32

S:\ME\A\ANOKC\COMMON\SIGNALS\2017_INTERCONNECT\HANSON–BASE.DWG

50 0 50 100
scale feet

NOTE SCALE CHANGE ON THIS PLAN SHEET.



INTERCONNECT NOTES:

1) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (TELEPHONE NUMBER 651–454–0002) AS REQUIRED BY MINNESOTA STATUTE 2160.
2) (*) DENOTES ITEMS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER ITEM NO. 2565 (TRAFFIC CONTROL INTERCONNECT). SEE STATEMENT OF ESTIMATED QUANTITIES AND SPECIAL PROVISIONS.
3) NEW HANDHOLE 101 REQUIRED TO BE FURNISHED & INSTALLED BY CONTRACTOR AS PART OF PROJECT SHALL BE A PRE–CAST POLYMER CONCRETE STRUCTURE. SEE DETAILS/SPECIAL PROVISIONS.

S:\AE\A\ANOKC\COMMON\SIGNALS\2017_INTERCONNECT\HANSON–BASE.DWG

DRAWN BY: JMG
DESIGNER: JMG
CHECKED BY: JMG
DESIGN TEAM

NO.	BY	DATE	REVISIONS

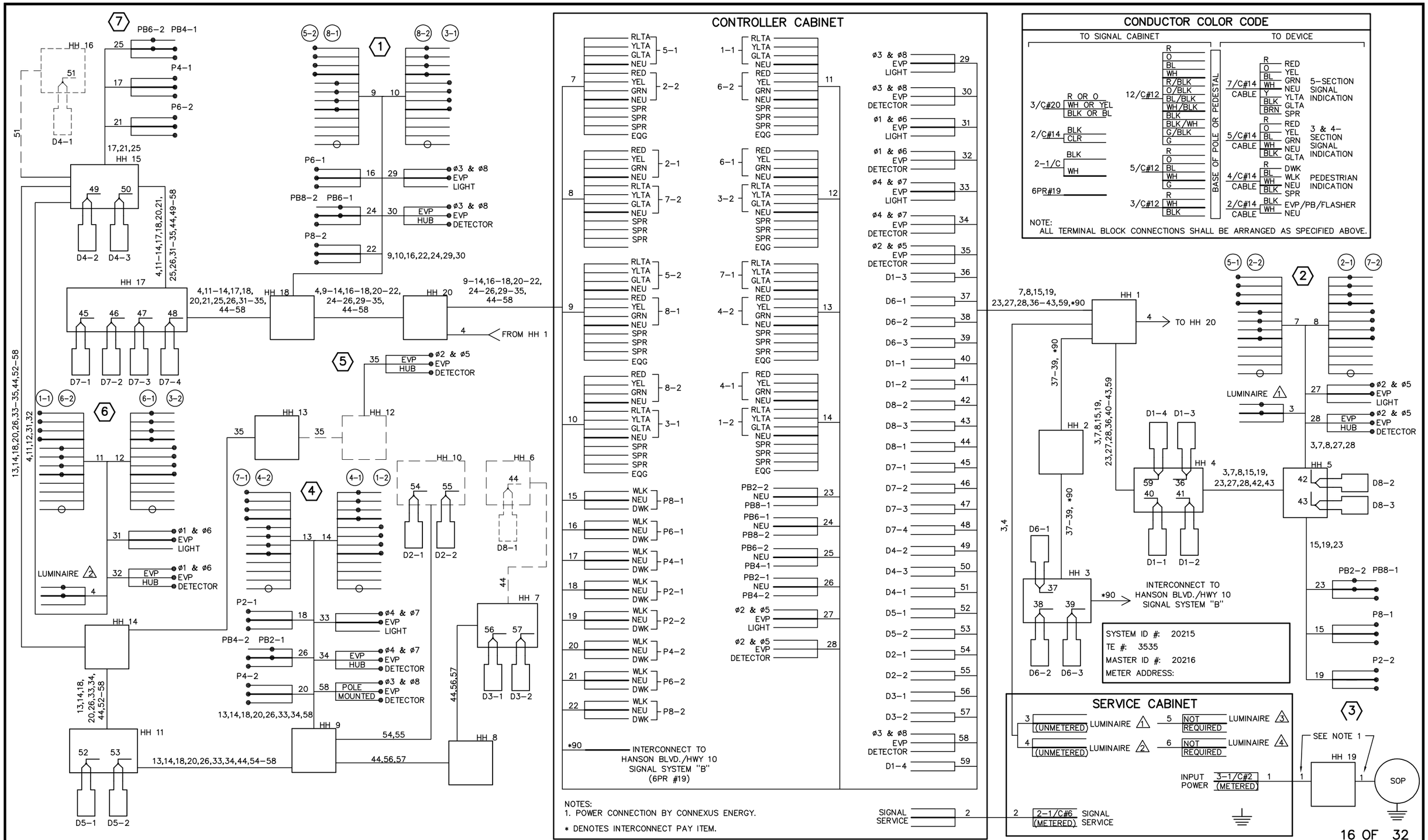
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Date: May 29, 2018 Name: John M. Gray, PE Lic. No. 22457

SEH
PHONE: (651) 490–2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

ANOKA COUNTY, MN
CITY OF COON RAPIDS
STATE PROJECT 002-678-021

TRAFFIC SIGNAL INTERCONNECT
INTERSECTION LAYOUT
CSAH 78 (HANSON BLVD)
(113TH AVE TO NORTHDALE/ROBINSON)

FILE NO.
ANOKC 122928



REV. NO.	BY	DATE	REVISIONS DESCRIPTION

DESIGN FILE: 33889-042
DRAWN BY: JAS
DESIGN BY: MRA
CHKED. BY: AJW
DWG. NAME: 042-TS23
DATE: 01/08/07

URS
Thresher Square
700 Third Street South
Minneapolis, MN 55415
612.370.0700 Tel
612.370.1378 Fax

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.

JOHN F. CRAWFORD
DATE: 01/08/07 MN LIC. NO. 25067

TH 10/HANSON BOULEVARD INTERCHANGE

HANSON BLVD. / ROBINSON DR.

SIGNAL SYSTEM "A"
FIELD WIRING DIAGRAM

CITY PROJECT	01-31	S.P.	0215-59
S.P.	02-678-17	S.P.	02-611-29
		S.P.	114-020-28
		S.P.	114-010-14

SHEET NO. 502 / 681

PLOT DATE: Jan 08, 2007 10:02am DISK FILE NAME: (16.1) R:\33889\33889042\PLAN-SHT\TRAFFIC-SIGNALS\042-TS23.dwg