

MINNESOTA TRANSPORTATION DEPARTMENT

HENNEPIN COUNTY

CONSTRUCTION PLAN FOR AN ADVANCED TRAFFIC MANAGEMENT SYSTEM LOCATED ON

COUNTY STATE AID HIGHWAY NO. 17, 130 AND 152

MINN. PROJ. NO. HSIP 2717 (156)

GOVERNING SPECIFICATIONS
THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

DESIGN DESIGNATION C.S.A.H. 17
SEGMENT 1
C.S.A.H. 1 TO T.H. 62 N. JCT.

ADT (CURRENT YEAR) 2017 =	20,000
ADT (DESIGN YEAR) 2037 =	24,400
HCADT (DESIGN YEAR) 2037 =	366
FUNCTIONAL CLASS	A-MINOR EXPANDER (S. OF T.H. 494) A-MINOR RELIEVER (N. OF T.H. 494)
NO. OF TRAFFIC LANES	4 (S. OF AMERICAN BLVD.) 6 (N. OF AMERICAN BLVD.)
NO. OF PARKING LANES	N/A
SHOULDER WIDTH	N/A FEET
GROSS LENGTH	28,195.20 FEET 5.34 MILES
BRIDGE LENGTH	N/A FEET N/A MILES
EXCEPTION LENGTH	N/A FEET N/A MILES
NET LENGTH	28,195.20 FEET 5.34 MILES

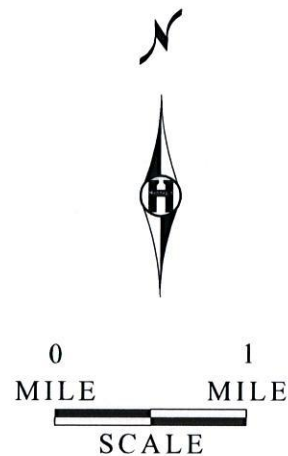
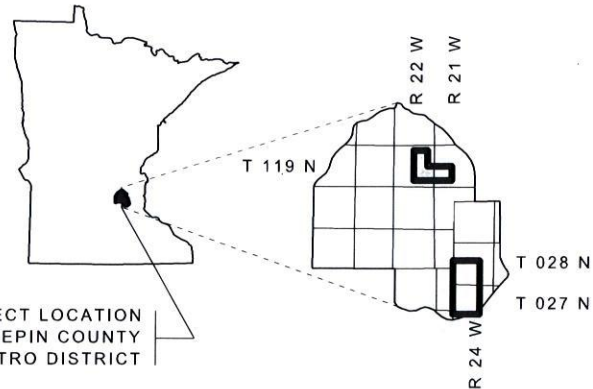
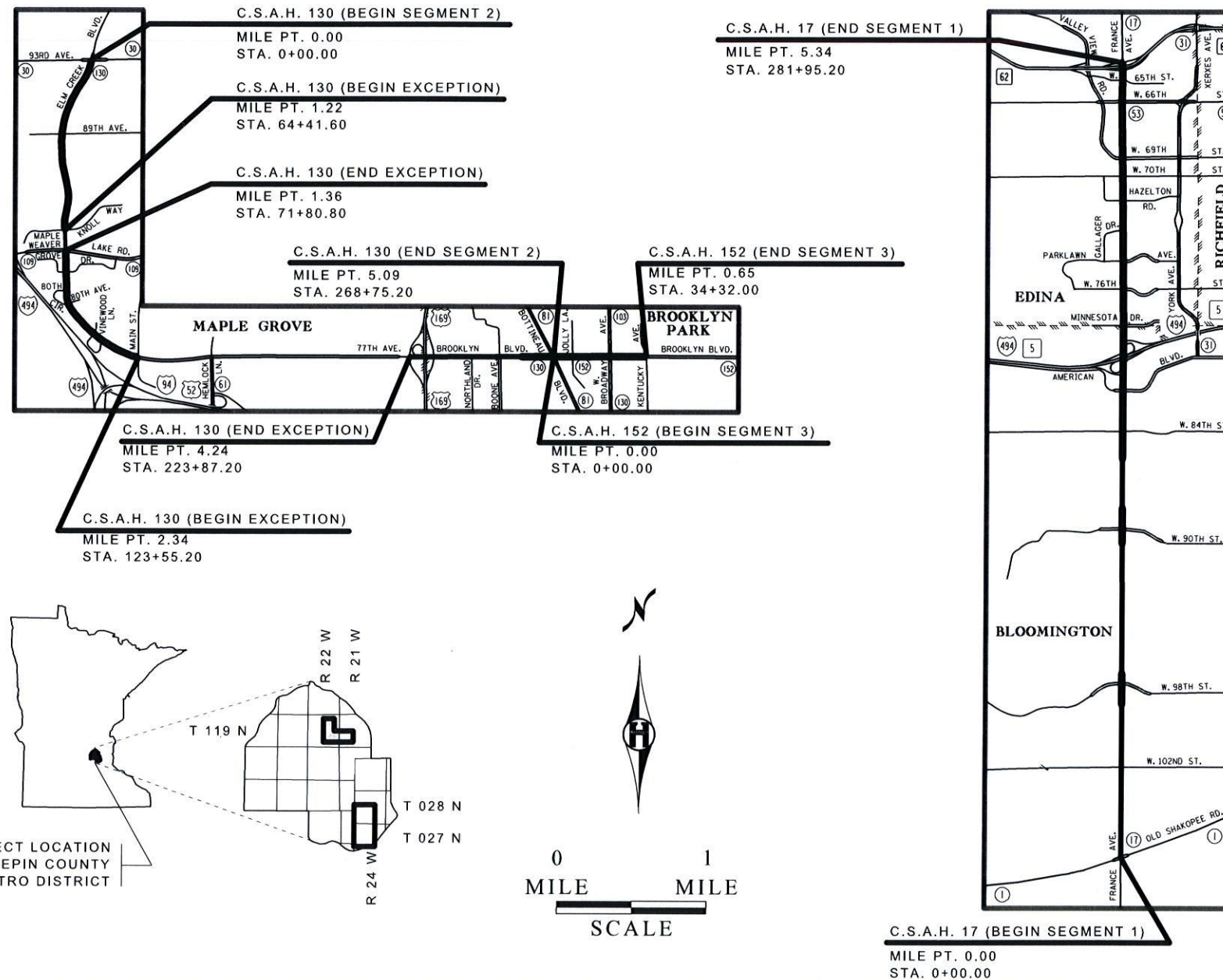
DESIGN DESIGNATION C.S.A.H. 130
SEGMENT 2
C.S.A.H. 30 TO C.S.A.H. 81

ADT (CURRENT YEAR) 2017 =	18,900
ADT (DESIGN YEAR) 2037 =	23,000
HCADT (DESIGN YEAR) 2037 =	414
FUNCTIONAL CLASS	A-MINOR EXPANDER
NO. OF TRAFFIC LANES	4
NO. OF PARKING LANES	N/A
SHOULDER WIDTH	12 FEET
GROSS LENGTH	26,875.20 FEET 5.09 MILES
BRIDGE LENGTH	N/A FEET N/A MILES
EXCEPTION LENGTH	10,771.20 FEET 2.04 MILES
NET LENGTH	16,104.00 FEET 3.05 MILES

DESIGN DESIGNATION C.S.A.H. 152
SEGMENT 3
C.S.A.H. 81 TO KENTUCKY AVE.

ADT (CURRENT YEAR) 2017 =	19,300
ADT (DESIGN YEAR) 2037 =	23,500
HCADT (DESIGN YEAR) 2037 =	235
FUNCTIONAL CLASS	A-MINOR RELIEVER
NO. OF TRAFFIC LANES	4
NO. OF PARKING LANES	N/A
SHOULDER WIDTH	N/A FEET
GROSS LENGTH	3,432.00 FEET 0.65 MILES
BRIDGE LENGTH	N/A FEET N/A MILES
EXCEPTION LENGTH	N/A FEET N/A MILES
NET LENGTH	3,432.00 FEET 0.65 MILES

PLAN SYMBOLS	
COUNTY LINE	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
NEW RIGHT OF WAY LINE	---
PRESENT RIGHT OF WAY LINE	---
PROPERTY LINE (EXCEPT LAND LINES)	---
VACATED PLATTED PROPERTY	---
CORPORATE OR CITY LIMITS	---
TRUNK HIGHWAY CENTER LINE	---
RETAINING WALL	---
RAILROAD	---
WATER LINE	---
MEANDER CORNER	•
DRAINAGE DITCH	---
DRAIN TILE	---
CULVERT	---
GUARD RAIL	---
BARBED WIRE FENCE	---
CHAIN LINK FENCE	---
STONE WALL OR FENCE	---
HEDGE	---
RAILROAD CROSSING SIGN	---
MARSH	---
WOODS	---
ORCHARD	---
BURSH	---
NURSERY	---
CATCH BASIN	□
FIRE HYDRANT	□
OVERPASS (HIGHWAY OVER)	---
UNDERPASS (HIGHWAY UNDER)	---
BRIDGE	---
BUILDING	□
IRON PIPE OR ROD	○
MONUMENT (STONE, CONCRETE OR METAL)	○
SMALL SIGN	□
SLOPE EASEMENT	---
UTILITY SYMBOLS	
POWER POLE	○
TELEPHONE POLE	○
ANCHOR	○
STEEL TOWER	○
STREET LIGHT	○
TELEVISION CABLE RISER	○
WATER MAIN	---
CONDUIT	---
TELEPHONE CABLE IN CONDUIT	---
ELECTRIC CABLE IN CONDUIT	---
TELEPHONE MANHOLE	□
ELECTRIC MANHOLE	□
BURIED TELEPHONE CABLE	---
BURIED ELECTRIC CABLE	---
STORM SEWER	---
SEWER MANHOLE	□
SANITARY SEWER	---
GAS MAIN	---
TELEVISION CABLE	---



INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 - 4	TRAFFIC CONTROL INTERCONNECT DETAIL SHEETS
5 - 13	TRAFFIC CONTROL INTERCONNECT PLAN C.S.A.H. 17
14 - 20	TRAFFIC CONTROL INTERCONNECT PLAN C.S.A.H. 130
21 - 23	TRAFFIC CONTROL INTERCONNECT PLAN C.S.A.H. 152
THIS PLAN CONTAINS 23 SHEETS	

APPROVED		6/1/17
HENNEPIN COUNTY: COUNTY HIGHWAY ENGINEER		DATE
RECOMMENDED FOR APPROVAL	N/A	
HENNEPIN COUNTY: DESIGN DIVISION ENGINEER		DATE
APPROVED		4/2/17
CITY OF BLOOMINGTON: CITY ENGINEER		DATE
APPROVED		6/6/17
CITY OF BROOKLYN PARK: CITY ENGINEER		DATE
APPROVED		6/2/17
CITY OF EDINA: CITY ENGINEER		DATE
APPROVED		6/6/17
CITY OF MAPLE GROVE: CITY ENGINEER		DATE
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID AND/OR FEDERAL AID RULES/POLICY		DATE
STATE AID ENGINEER: APPROVED FOR STATE AID AND FEDERAL AID FUNDING		DATE

	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.	DESIGN BY: <u>J. WING</u>	TITLE SHEET	SHEET
	 RYAN T. ALLERS, PROFESSIONAL ENGINEER	CAD BY: <u>J. WING</u>		
45896	CHECKED BY: _____	DATE	23	
6/1/2017	LAST REVISION: _____			

STATEMENT OF ESTIMATED QUANTITIES - SP 027-030-040

NOTES	ITEM NUMBER	ITEM DESCRIPTION	UNIT	C.S.A.H. 17 SEGMENT 1 TOTAL	C.S.A.H. 130 SEGMENT 2 TOTAL	C.S.A.H. 152 SEGMENT 3 TOTAL	PROJECT TOTAL
	2021.501	MOBILIZATION	LUMP SUM	0.63	0.29	0.08	1
	2563.601	TRAFFIC CONTROL	LUMP SUM	0.63	0.29	0.08	1
	2565.602	SPLICE VAULT SMALL WITH LOCATE POST INTERCONNECT	EACH	32	13	7	52
	2565.602	FIBER OPTIC CABLE SPLICING INTERCONNECT	EACH	23	15	5	43
(1), (2)	2565.603	2" RIGID STEEL CONDUIT INTERCONNECT	LIN. FT.	1,135	235	240	1,610
	2565.603	2" RIGID STEEL CONDUIT BORED INTERCONNECT	LIN. FT.	700	690	160	1,550
	2565.603	1.25" NON-METALLIC CONDUIT (HDPE) BORED INTERCONNECT	LIN. FT.	55,990	22,820	6,280	85,090
	2565.603	1/C #14 INTERCONNECT	LIN. FT.	29,815	17,520	3,460	50,795
	2565.603	FIBER OPTIC CABLE 36SM	LIN. FT.	2,160	1,185	700	4,045
	2565.603	FIBER OPTIC CABLE 144SM	LIN. FT.	29,815	17,520	3,460	50,795

- (1) INCLUDES CUTTING AND/OR EXTENDING OF INPLACE 2" RIGID STEEL CONDUIT, EACH:
C.S.A.H. 17 - 3, C.S.A.H. 130 - 4 AND C.S.A.H. NO. 152 - 0.
- (2) INCLUDES CORE DRILLING OF INPLACE TRAFFIC SIGNAL CONTROLLER CABINET CONCRETE FOUNDATION, EACH:
C.S.A.H. 17 - 18, C.S.A.H. 130 - 9 AND C.S.A.H. NO. 152 - 4.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL
HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

STANDARD PLATES	
PLATE NO.	PLATE DESCRIPTION
8000J	CHANNELIZERS, (3 SHEETS)



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
LICENSE NO. DATE

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY: _____
LAST REVISION: _____

QUANTITIES AND STANDARD PLATES



HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET

2
23

NOTES:

- 1.) THE CONTRACTOR SHALL DEVELOP A TRAFFIC CONTROL PLAN AND FURNISH, INSTALL, MAINTAIN AND REMOVE ALL TRAFFIC CONTROL DEVICES REQUIRED TO FACILITATE THE PROJECT, TRAFFIC OPERATIONS AND FIELD CONDITIONS.
- 2.) THE CONTRACTOR SHALL COVER, REMOVE OR REVISE ALL INPLACE PAVEMENT MARKINGS AND ALL INPLACE TRAFFIC CONTROL DEVICES, INCLUDING OVERHEAD SIGNS ON ROADWAYS OPEN TO TRAFFIC THAT ARE NOT CONSISTENT WITH TRAFFIC CONTROL OPERATIONS.
- 3.) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MNDOT "TRAFFIC ENGINEERING MANUAL" AND THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
- 4.) IF TEMPORARY CONCRETE BARRIER IS REQUIRED IT SHALL HAVE DELINEATORS WITH A MINIMUM OF 24 SQ. IN. OF REFLECTIVE SURFACE AREA AND BE PLACED ON TOP OF THE TEMPORARY CONCRETE BARRIER, FACING TRAFFIC AND AT 30' SPACING OR AS APPROVED BY THE ENGINEER WHEN THE TEMPORARY CONCRETE BARRIER IS WITHIN 10' OF TRAFFIC.
- 5.) TEMPORARY SIGNING SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND OR ON PORTABLE SUPPORTS. WHEN THE TEMPORARY SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED.
- 6.) ALL STREETS, ENTRANCES AND DRIVEWAYS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES UNLESS A TEMPORARY CLOSURE IS APPROVED BY THE ENGINEER.
- 7.) ALL COSTS TO PROVIDE AND INSTALL ALL WORK AS DETAILED IN NOTES 1 - 6 SHALL BE INCLUDED IN THE UNIT PRICE BID FOR TRAFFIC CONTROL (LS).
- 8.) ALL INPLACE SIGNAL SYSTEMS AND ALL INPLACE TRAFFIC CONTROL INTERCONNECT SYSTEMS SHALL BE PROTECTED AND PRESERVED INPLACE, UNLESS NOTED.
- 9.) DAMAGE TO ANY PROTECTED AND PRESERVED INPLACE TRAFFIC SIGNAL SYSTEM OR ANY INPLACE TRAFFIC CONTROL INTERCONNECT SYSTEM IN ANY WAY BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AND NO COMPENSATION SHALL BE PAID.
- 10.) THE INPLACE COPPER CABLE TRAFFIC CONTROL INTERCONNECT SYSTEM SHALL BE ABANDONED INPLACE, UNLESS NOTED.
- 11.) THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL STRUCTURES, CONDUIT, SURFACE MOUNTING SUPPORTS, HARDWARE, CABLES, CONDUCTORS AND SPLICES TO MAKE THE TRAFFIC INTERCONNECT SYSTEM FULLY OPERATIONAL.
- 12.) 36" X 24" X 36" IN GROUND FIBER OPTIC SPLICE VAULTS WITH LOCATE POST SHALL BE USED. MAXIMUM SPACING BETWEEN FIBER OPTIC SPLICE VAULTS SHALL BE 2,500'.
- 13.) ALL FIBER OPTIC SPLICE VAULTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD.
- 14.) ALL COORDINATES ARE TO THE CENTER OF THE FIBER OPTIC SPLICE VAULTS AND ARE HENNEPIN COUNTY GROUND FEET, BASED ON THE MINNESOTA COORDINATE SYSTEM, SOUTHERN ZONE, NAD83 1986 (NON-HARN VALUES).
- 15.) ALL 1 1/4" NMC HIGH DENSITY POLYETHYLENE (HDPE) SHALL MEET THE REQUIREMENTS OF SDR-11, AND SHALL BE INSTALLED AS ONE CONTINUOUS RUN WITHOUT SPLICES FROM ONE FIBER OPTIC SPLICE VAULT TO THE NEXT FIBER OPTIC SPLICE VAULT.
- 16.) IF AN EMPTY INPLACE 2" RIGID STEEL CONDUIT (RSC) INTO AN INPLACE TRAFFIC SIGNAL CONTROLLER CABINET IS NOT AVAILABLE THE INPLACE TRAFFIC SIGNAL CONTROLLER CABINET CONCRETE FOUNDATION SHALL BE CORE DRILLED AND 1 - 2" RSC CONDUIT SHALL BE INSTALLED FROM THE INPLACE TRAFFIC SIGNAL CONTROLLER CABINET INTO THE FIBER OPTIC SPLICE VAULT.
- 17.) ALL CONDUITS SHALL BE FILLED TO NO MORE THAN FORTY PERCENT (40%) BY AREA.
- 18.) ALL FIBER OPTIC CABLES AND ALL COPPER CONDUCTORS SHALL BE INSTALLED AS ONE CONTINUOUS RUN WITH THE LONGEST LENGTH AS POSSIBLE WITHOUT SPLICES.
- 19.) ALL FIBER OPTIC CABLE AND ALL COPPER CONDUCTOR SPLICES SHALL BE KEPT TO A MINIMUM AND SHALL ONLY BE ALLOWED WITHIN A FIBER OPTIC SPLICE VAULT, BE WEATHER TIGHT AND APPROVED BY THE ENGINEER. ALL EXPOSED ENDS OF ANY FIBER OPTIC STRANDS SHALL BE PROTECTED AND MADE WEATHER TIGHT.
- 20.) THE CONTRACTOR SHALL SPLICE THE 36 STRAND SM FIBER OPTIC CABLE TO THE 144 STRAND SM FIBER OPTIC CABLE AND BE INSTALLED IN A CONTINUOUS RUN AND TERMINATED IN THE FIBER OPTIC CABLE SPLICE BOX WITHIN THE TRAFFIC SIGNAL CONTROLLER CABINET.
- 21.) THE 1/C #14 COPPER CONDUCTOR SHALL BE USED FOR A LOCATE AND TRACER WIRE.
- 22.) 50' EXTRA OF THE FIBER OPTIC CABLES SHALL BE COILED IN EACH FIBER OPTIC SPLICE VAULT AND EACH INPLACE TRAFFIC SIGNAL CONTROLLER CABINET FOR FUTURE USE.
- 23.) 50' EXTRA OF THE COPPER CONDUCTOR SHALL BE COILED IN EACH FIBER OPTIC SPLICE VAULT FOR FUTURE USE AND TO FACILITATE LOCATOR OPERATIONS.
- 24.) THE CONTRACTOR SHALL PLACE COMMON BACK FILL AND RESTORE ALL DISTURBED TURF, LANDSCAPING, CONCRETE OR BITUMINOUS WALK, ETC. TO IT'S ORIGINAL CONDITION OR BETTER.
- 25.) ALL INPLACE UTILITIES SHOWN IN THIS PLAN ARE FOR INFORMATION ONLY. THE INFORMATION SHOWN IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL INPLACE UTILITY LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT AND COMPLETE A GOPHER STATE ONE CALL PRIOR TO STARTING WORK.
- 26.) ALL CONDUIT SHALL BE INSTALLED BY DIRECTIONAL BORE UNLESS OTHERWISE ALLOWED BY THE ENGINEER. ALL CONDUIT IS SHOWN IN APPROXIMATE LOCATIONS ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD.
- 27.) THE CONTRACTOR MAY REQUEST RECORD DRAWINGS FROM HENNEPIN COUNTY. THEY ARE PROVIDED FOR INFORMATION ONLY. THE INFORMATION SHOWN IS DEEMED RELIABLE BUT IT IS NOT GUARANTEED.
- 28.) INPLACE UTILITY AND DRAINAGE EASEMENTS ARE NOT SHOWN ON THE PLAN.
- 29.) ANY AND ALL WORK AS DETAILED IN NOTES 1 - 26 SHALL BE AS DIRECTED BY AND TO THE SATISFACTION OF THE ENGINEER.

	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.	DESIGN BY: <u>J. WING</u> CAD BY: <u>J. WING</u> CHECKED BY: _____ LAST REVISION: _____	GENERAL PLAN NOTES	SHEET
	 RYAN T. ALLERS, PROFESSIONAL ENGINEER	45896 LICENSE NO.	06/02/2017 DATE	HENNEPIN COUNTY PROJECT 1546 S.P. 027-030-040

INPLACE UTILITIES LEGEND

- >—s— SANITARY SEWER LINES
- >— STORM SEWER LINES
- p—p— UNDERGROUND POWER LINES
- g—g— UNDERGROUND NATURAL GAS LINES
- FIBER OPTIC— UNDERGROUND FIBER OPTIC LINES
- i—i— WATER LINES
- ==== CONDUIT
- DIRECT BURIED CABLE
- ☼ STREET LIGHT
- CONTROLLER AND CABINET
- ▣ SERVICE CABINET
- ⊖ POLE MOUNTED SOURCE OF POWER
- △ PAD MOUNTED SOURCE OF POWER
- HANDHOLE
- ⊕ MAST ARM, SIGNAL ASSEMBLY,
OR PUSH BUTTON STATION

TRAFFIC CONTROL INTERCONNECT PLAN LAYOUT LEGEND

- SV XXX-XX □ PROPOSED FIBER OPTIC SPLICE VAULT
 - CAC XXX-XX □ INPLACE CONTROLLER AND CABINET
 - HH XXX-XX □ INPLACE HANDHOLE
 - SV XXX-XX □ INPLACE SPLICE VAULT
 - PROPOSED RIGID STEEL CONDUIT (RSC)
 - - - - - PROPOSED NON-METALLIC CONDUIT (NMC)
HIGH DENSITY POLYETHYLENE (HDPE)
 - ==== INPLACE CONDUIT
- $\frac{XXX-XX}{J \quad L}$
 DENOTES ROAD NUMBER $\frac{XXX-XX}{J \quad L}$ DENOTES STRUCTURE DESIGNATION



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.

Ryan T. Allers

RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
 LICENSE NO. DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY:
 LAST REVISION:

GENERAL PLAN LEGENDS

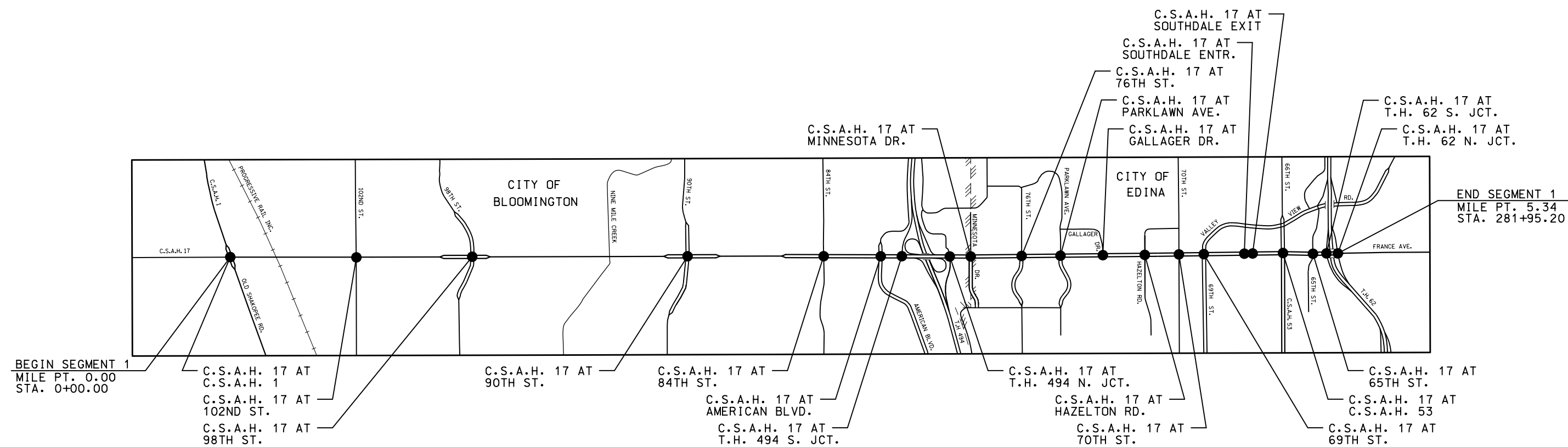
HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET

4
 23



NO SCALE



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
LICENSE NO. DATE

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY: _____
LAST REVISION: _____

C.S.A.H. 17 LOCATION MAP
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
5
23

**UTILITY CONTACTS
COUNTY ROAD 17 - FRANCE AVE**

COMPANY	UTILITIES	CONTACT	EMAIL	PHONE	COMPANY	UTILITIES	CONTACT	EMAIL	PHONE
ARVIG	FIBER OPTICS	CURT OLSON	curtis.olson@arvig.com	218-298-1025	CYPRESS COMMUNICATIONS	FIBER OPTICS	LOCATOR		952-893-6980
AT&T LOCAL SVCS/TRANSMISSION TCG AND AT&T TRANSMISSION	FIBER OPTICS	DAVID ROBERT	dr2945@att.com	612 804-1797	MN DEPT. OF TRANSPORTATION 6000 MINNEHAHA AVE S ST. PAUL, MN 55111	LIGHTING/SIGNALS FIBER	HAROLD LYNCH	harold.lynch@state.mn.us	612-349-7381
BEST BUY COMPANY	PHONE	BOB VOIGHT AMANDA GOELZ	<a href="mailto:Amanda.Goelz<agoelz@mptech.biz>">Amanda Goelz <agoelz@mptech.biz>	612-919-4214 651-493-5407	INTEGRA TELECOM HOLDINGS	FIBER OPTICS	LOCATOR		320-963-2400
CENTER POINT ENERGY 700 W LINDEN AVE, PO BOX 1165 MINNEAPOLIS, MN 55440	GAS	DEAN NICHOLAS	dean.nicholas@centerpointenergy.com	612-321-5561	LEVEL 3 COMMUNICATIONS	FIBER OPTICS	LOCATOR		877-366-8344
CENTURY LINK (METRO) 250 MARQUETTE AVE S. MINNEAPOLIS, MN 55401	COMMUNICATION (INTERNET,PHONE, TELEVISION)	BRANDON AMAN (TERRA TECHNOLOGIES)	baman@terratechllc.net	855-742-6062	LIGHTCORE- A CENTURYLINK CO	FIBER OPTICS	KYLE TOSTENSON	Kyle.Tostenson@Centurylink.com	318-417-2768
CITY OF BLOOMINGTON ELECTRIC 1700 WEST 98TH ST BLOOMINGTON, MN 55431	ELECTRIC	SHELLY PEDERSON	spederson@BloomingtonMN.gov	952-563-4866	METRO TRANSIT 560 6TH AVE N MINNEAPOLIS, MN 55411	ELECTRICAL	LOCATOR		612-349-7547
CITY OF BLOOMINGTON TRAFFIC 1700 WEST 98TH ST BLOOMINGTON, MN 55431	TRAFFIC AND LIGHTING	SHELLY PEDERSON	spederson@BloomingtonMN.gov	952-563-4866	METRO WASTE COMMISSION 3565 KENNEBEC DRIVE EAGAN, MN 55122	SEWER	MANKING LEE	Manking.Lee@metc.state.mn.us	651-602-4533
CITY OF BLOOMINGTON UTILITIES 1700 WEST 98TH ST BLOOMINGTON, MN 55431	STORM, SANITARY, AND WATER	SHELLY PEDERSON	spederson@BloomingtonMN.gov	952-563-4866	SPRINT/LONG DISTANCE	FIBER OPTICS	DAN HILLIARD	Kevin.K.Person@sprint.com	612-217-3526
CITY OF EDINA ELECTRIC 4801 W. 50TH ST W EDINA, MN 55424	ELECTRIC	CHAD MILLNER	cmillner@edinamn.gov	952-826-0318	STATE OF MN OFFICE OF ET	PHONE	LOCATOR		320-963-2400
CITY OF EDINA FIBER OPTIC 4801 W. 50TH ST W EDINA, MN 55424	FIBER OPTICS	CHAD MILLNER	cmillner@edinamn.gov	952-826-0318	WINDSTREAM COMMUNICATIONS	FIBER OPTICS	JEAN LANDER LOCATOR	Jean.Lander@windstream.com	800-289-1901 763-682-3514
CITY OF EDINA UTILITIES 4801 W. 50TH ST W EDINA, MN 55424	STORM, SANITARY, AND WATER	CHAD MILLNER	cmillner@edinamn.gov	952-826-0318	XCEL ENERGY 1518 CHESTNUT AVE MINNEAPOLIS, MN 55403	POWER	LOCATOR		800-848-7558
COMCAST	PHONE/CABLE/INT	CHARLES SCHACHT	charles_schacht@comcast.com	612-522-8141	XO COMMUNICATIONS INC	FIBER OPTICS	GREGORY GRAMS	gregg.sctrl@gmail.com	763-898-9568
CONSOLIDATED COMMUNICATIONS I	FIBER OPTICS	DAVID CORMIER	David.cormier@consolidated.com	612-314-2231	ZAYO BANDWIDTH	FIBER OPTICS	LOCATOR		763-230-3870



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.

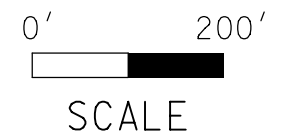
Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER
 LICENSE NO. **45896** DATE **06/02/2017**

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY: _____
LAST REVISION: _____

C.S.A.H. 17 UTILITY CONTACT INFORMATION

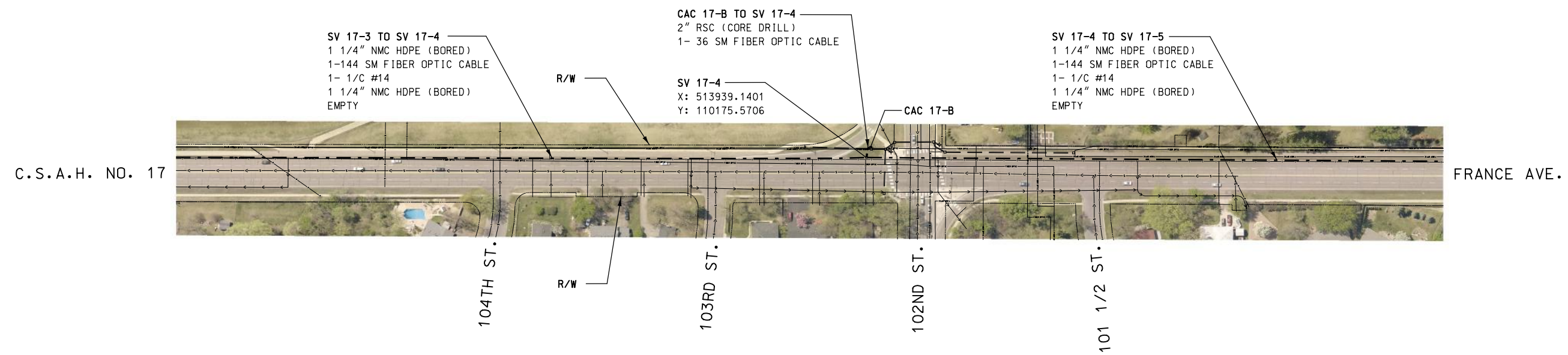
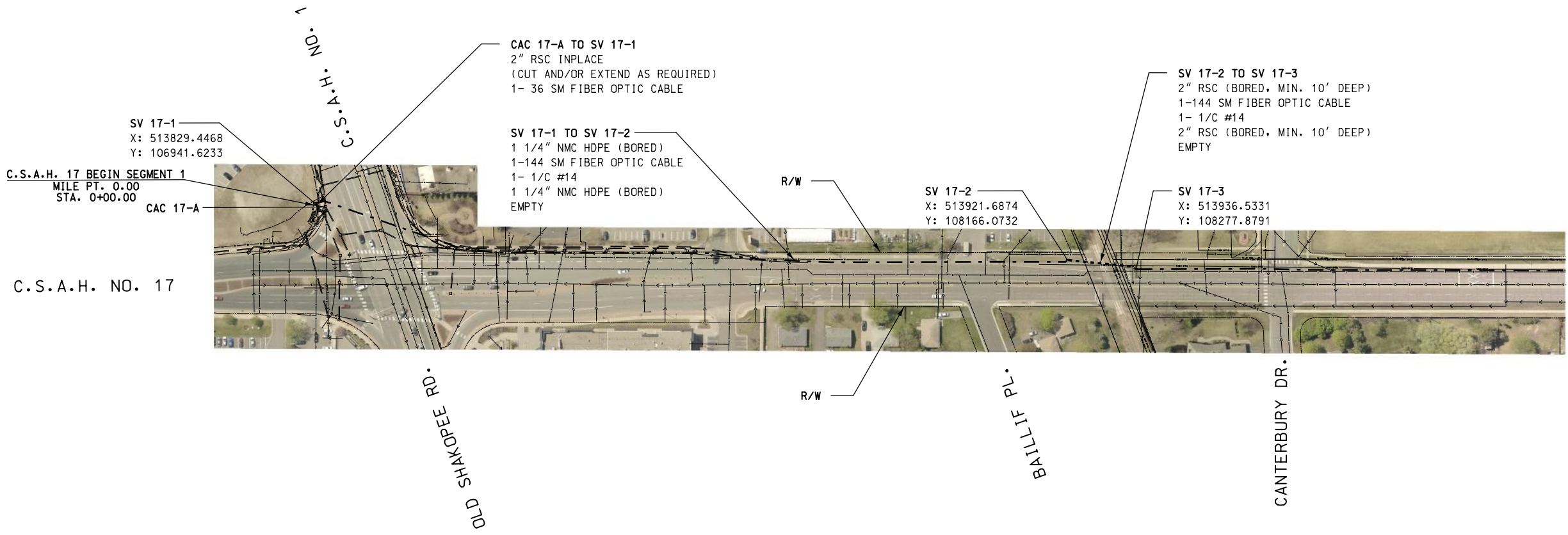
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
 6
 23



CITY OF BLOOMINGTON

FRANCE AVE.



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
 LICENSE NO. DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

C.S.A.H. 17 PLAN

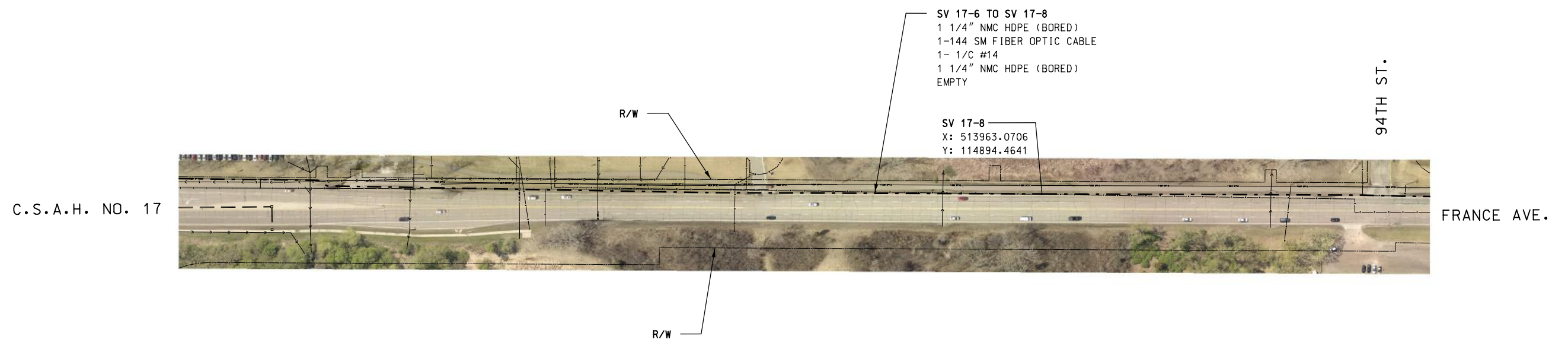
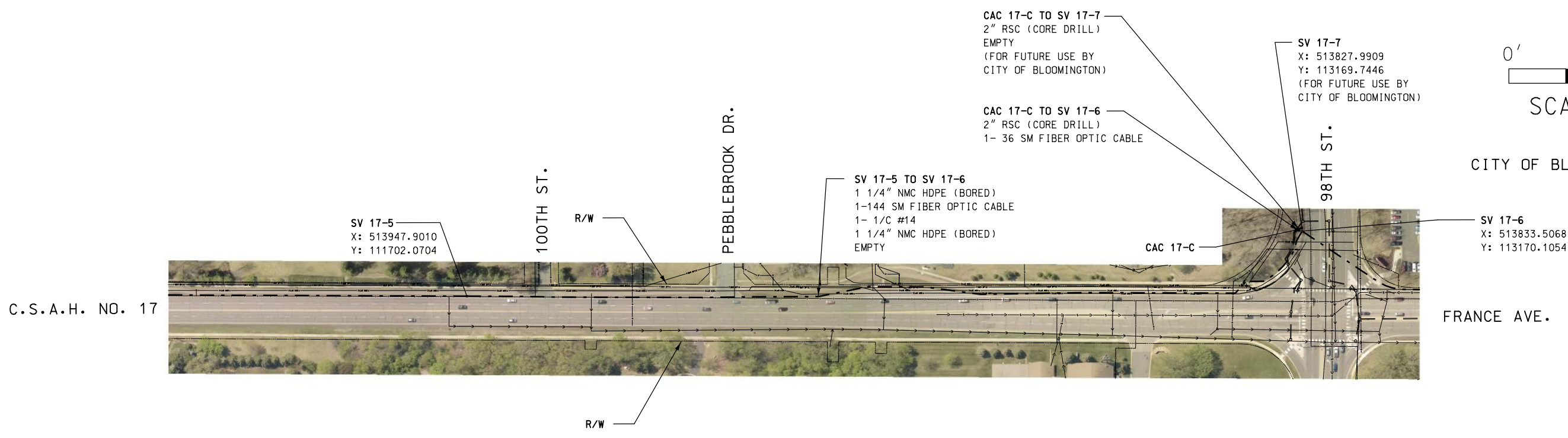
HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET
 7
 23



SCALE

CITY OF BLOOMINGTON



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER
 LICENSE NO. 45896 DATE 06/02/2017

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY:
 LAST REVISION:

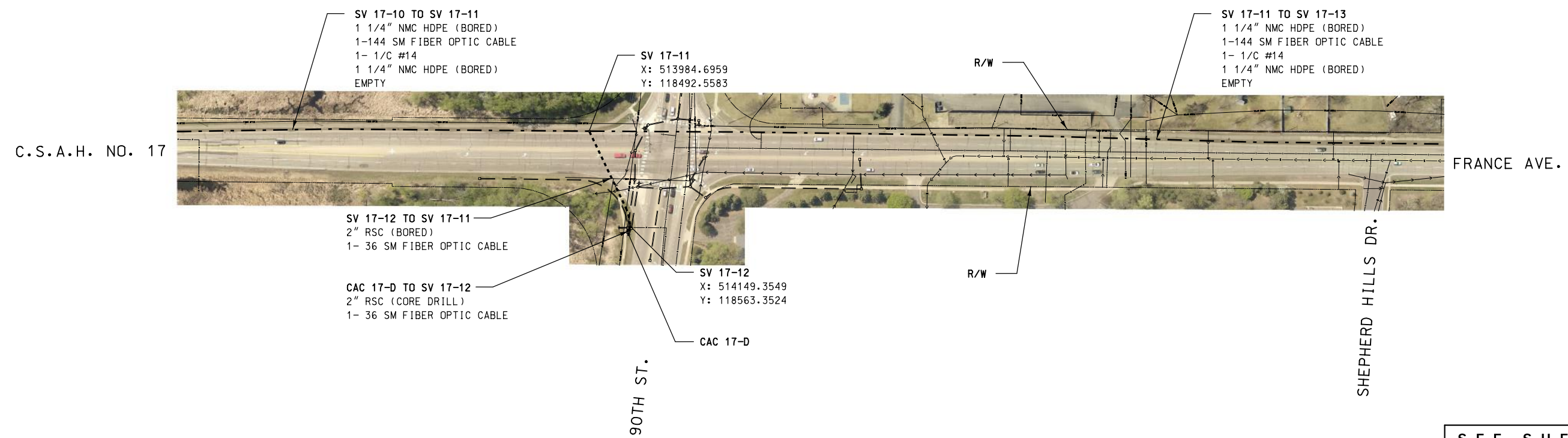
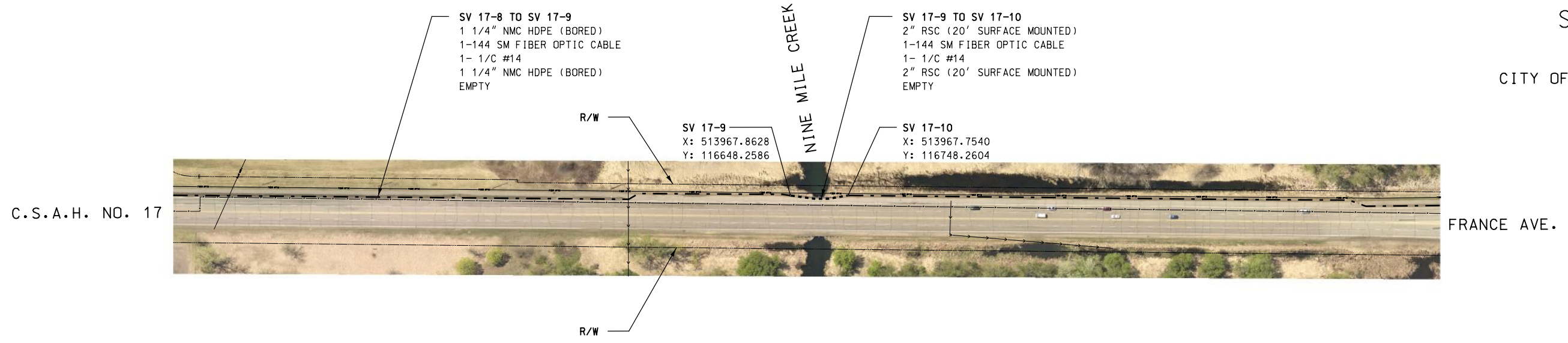
C.S.A.H. 17 PLAN
 HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET
 8
 23



SCALE

CITY OF BLOOMINGTON



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
LICENSE NO. DATE

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY:
LAST REVISION:

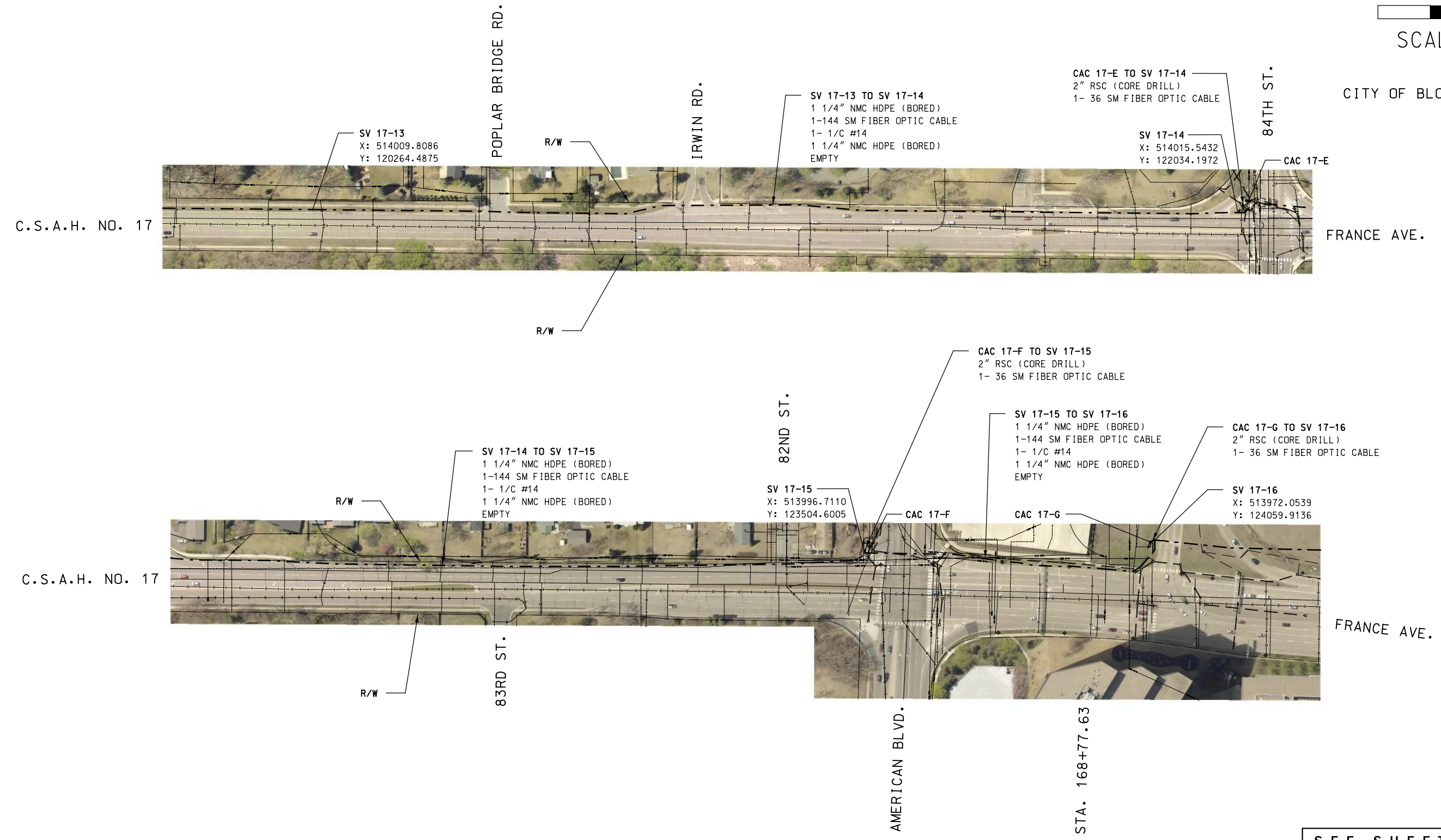
C.S.A.H. 17 PLAN
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
9
23



SCALE

CITY OF BLOOMINGTON



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
 LICENSE NO. DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

C.S.A.H. 17 PLAN

HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

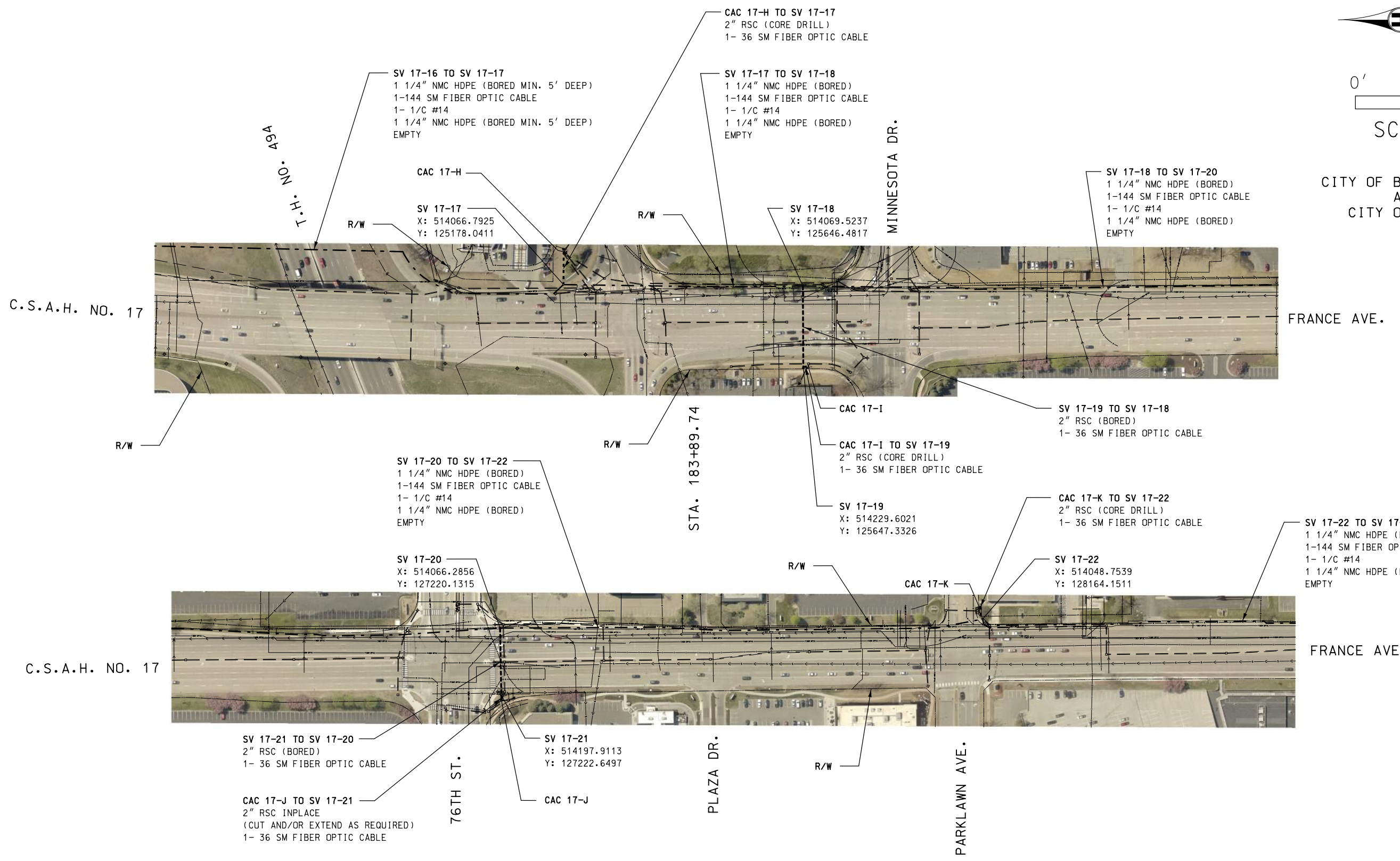
SHEET

10 / 23



SCALE

CITY OF BLOOMINGTON
AND
CITY OF EDINA



SEE SHEET 3 FOR
GENERAL NOTES



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

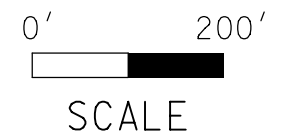
45896 LICENSE NO. 06/02/2017 DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

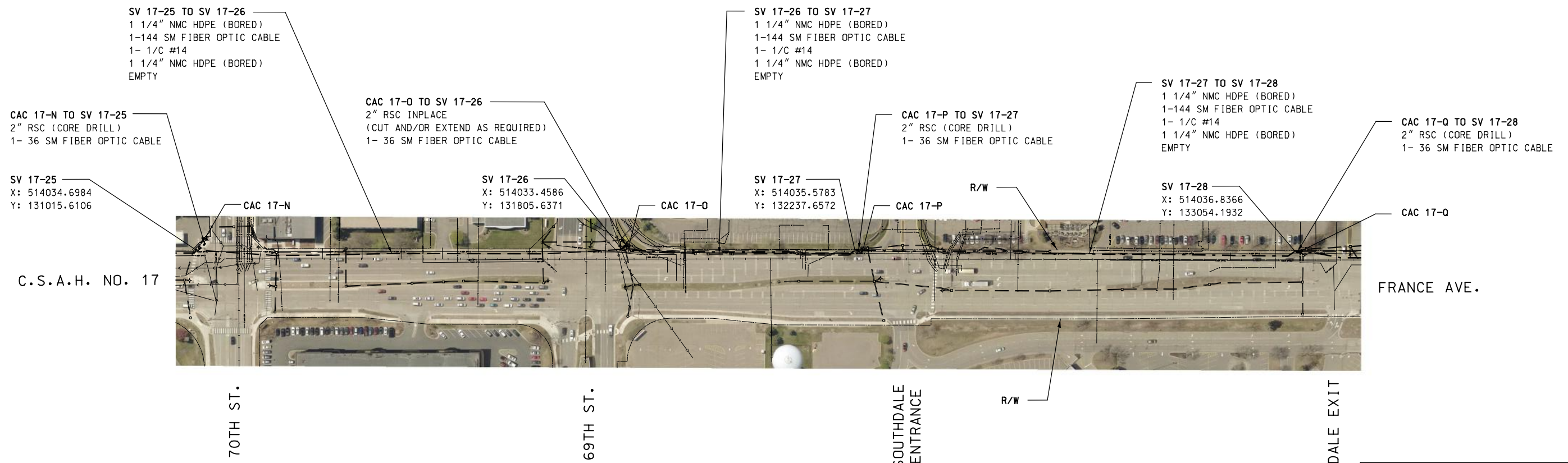
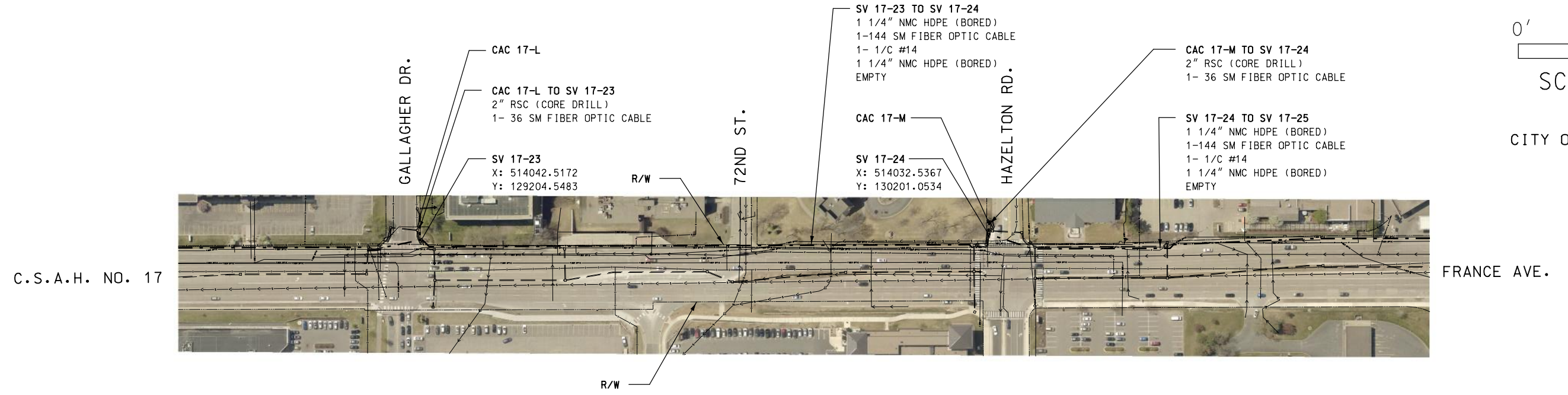
C.S.A.H. 17 PLAN

HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
11
23



CITY OF EDINA



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 **06/02/2017**
 LICENSE NO. DATE

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY: _____
LAST REVISION: _____

C.S.A.H. 17 PLAN

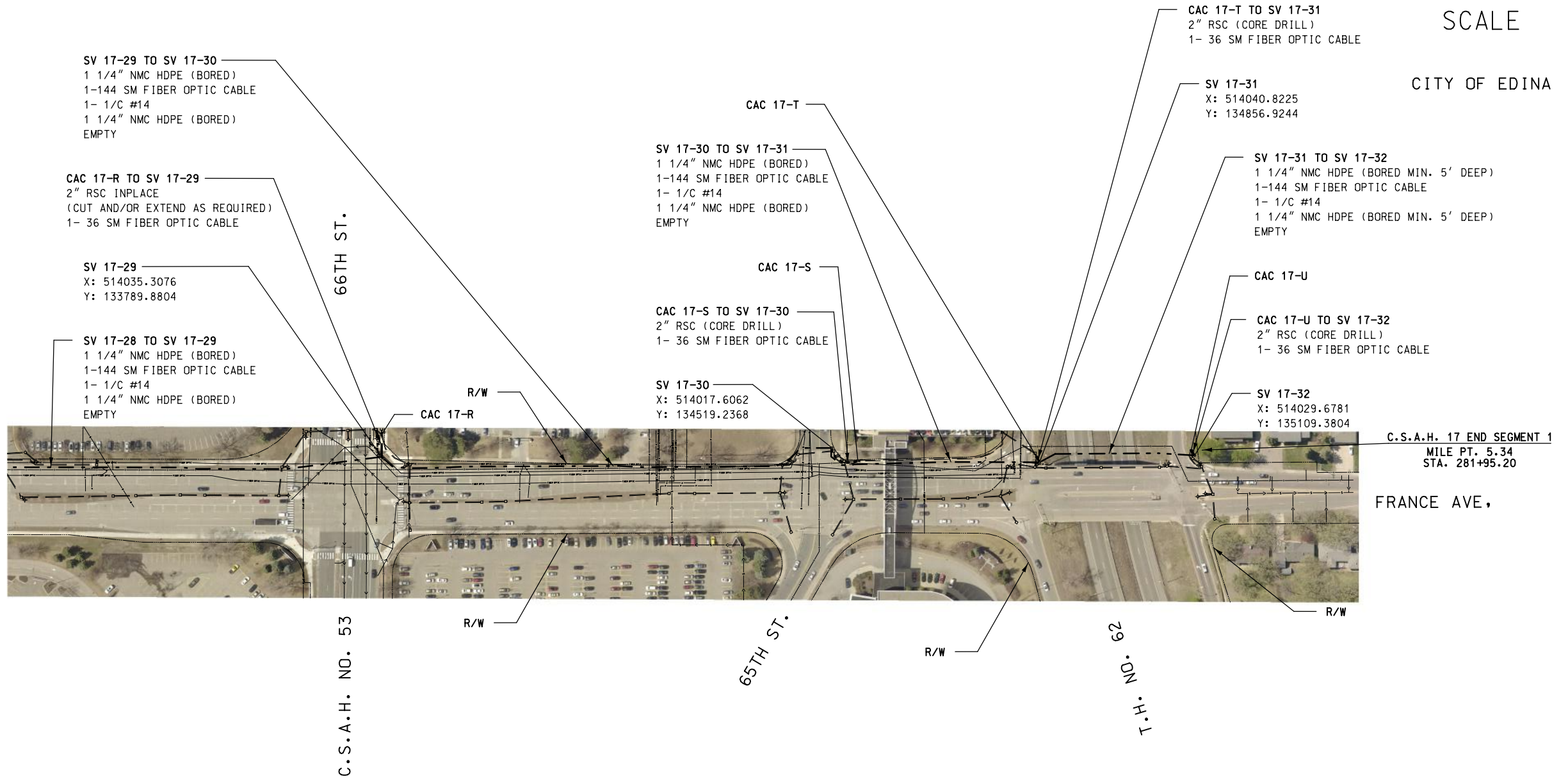
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
12
23



SCALE

CITY OF EDINA



C.S.A.H. NO. 17

C.S.A.H. 17 END SEGMENT 1
MILE PT. 5.34
STA. 281+95.20
FRANCE AVE.

SEE SHEET 3 FOR
GENERAL NOTES



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER
 LICENSE NO. 45896 DATE 06/02/2017

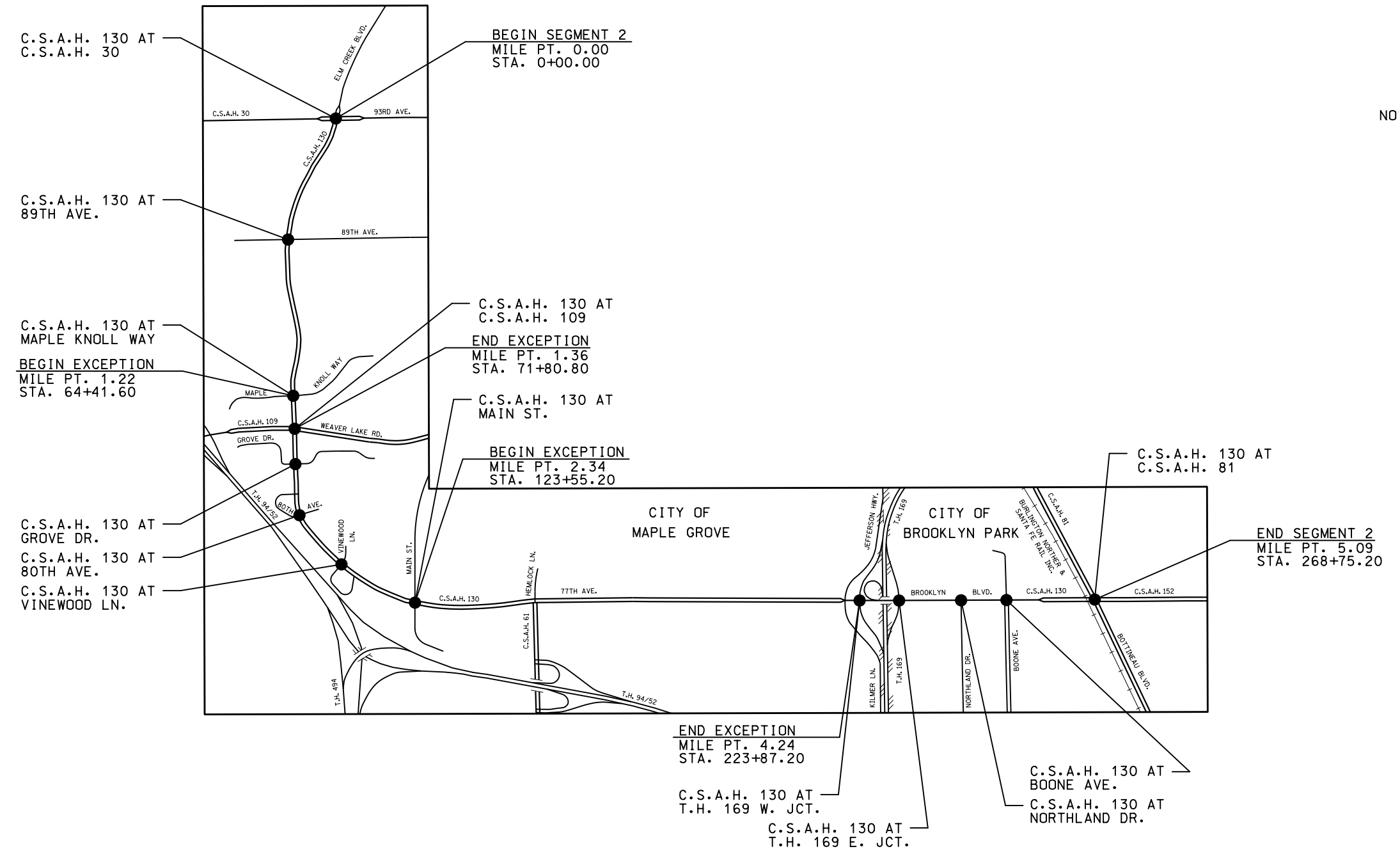
DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY:
 LAST REVISION:

C.S.A.H. 17 PLAN
 HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET
 13
 23



NO SCALE



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 LICENSE NO. 06/02/2017 DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY:
 LAST REVISION:

C.S.A.H. 130 LOCATION MAP

HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET 14 / 23

UTILITY CONTACTS
COUNTY ROAD 130 - ELM CREEK BLVD

COMPANY	UTILITIES	CONTACT	EMAIL	PHONE	COMPANY	UTILITIES	CONTACT	EMAIL	PHONE
AT&T TRANSMISSION	FIBER OPTICS	ROY JANSEN	rj3171@att.com	763-559-5957	NORTH MEMORIAL HOSPITAL	FIBER OPTICS			651-438-0152
CENTER POINT ENERGY 700 W LINDEN AVE, PO BOX 1165 MINNEAPOLIS, MN 55440	GAS	TJ HAIDER	thomas.haider@centerpointenergy.com	612-321-5132 Cell: 612-964-8463	OSSEO AREA SCHOOLS	FIBER OPTICS	CURT OLSON	curtis.olson@arvig.com	218-298-1025
CENTURY LINK (METRO) 250 MARQUETTE AVE S. MINNEAPOLIS, MN 55401	COMMUNICATION (INTERNET,PHONE, TELEVISION)	BRANDON AMAN (TERRA TECHNOLOGIES)	baman@terratechllc.net	855-742-6062	WRIGHT HENNEPIN COOP	ELECTRICAL	LOCATOR		800-778-9140
CITY OF MAPLE GROVE 12800 ARBOR LAKES PARKWAY MAPLE GROVE, MN 55311	UTILITIES	KEN ASHFIELD	kashfeld@maplegrovern.gov	763-494-6351	XCEL ENERGY 1518 CHESTNUT AVE MINNEAPOLIS, MN 55403	POWER	LOCATOR		800-848-7558
COLOGIX INC	PHONE	BOB VOIGHT AMANDA GOELZ	<a href="mailto:Amanda.Goelz<agoelz@mptech.biz>">Amanda Goelz <agoelz@mptech.biz>	612-919-4214 651-493-5407	ZAYO BANDWIDTH	FIBER OPTICS	LOCATOR		763-230-3870
COMCAST	PHONE/CABLE/INT	CHARLES SCHACHT	charles_schacht@comcast.com	612-522-8141					



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.

Ryan T. Allers

 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
 LICENSE NO. DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

C.S.A.H. 130 UTILITY CONTACT INFORMATION

HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET

15
 23

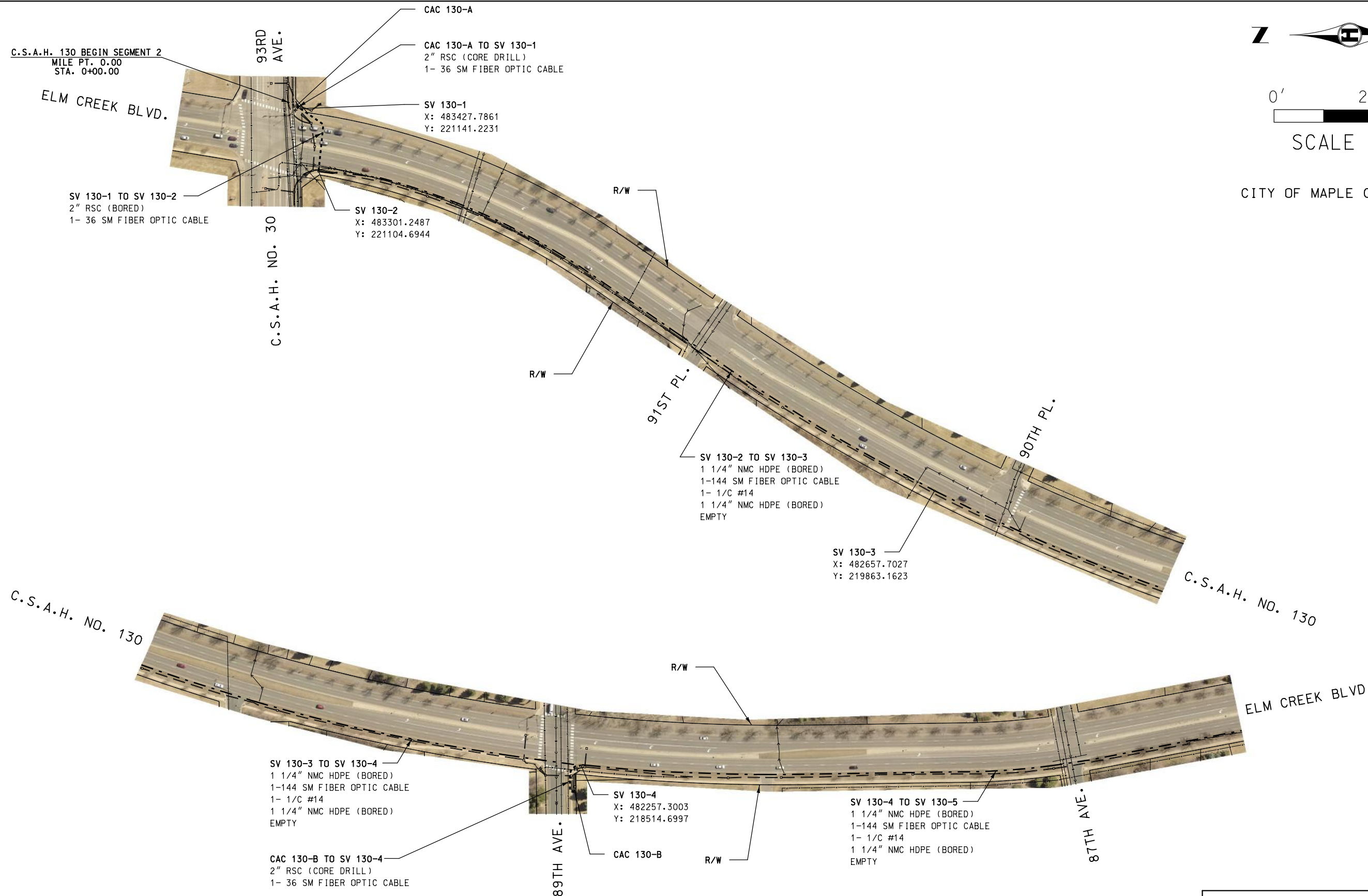


0' 200'



SCALE

CITY OF MAPLE GROVE



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers

RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896

LICENSE NO.

06/02/2017

DATE

DESIGN BY: J. WING

CAD BY: J. WING

CHECKED BY:

LAST REVISION:

C.S.A.H. 130 PLAN

HENNEPIN COUNTY PROJECT 1546

S.P. 027-030-040

SHEET

16

23

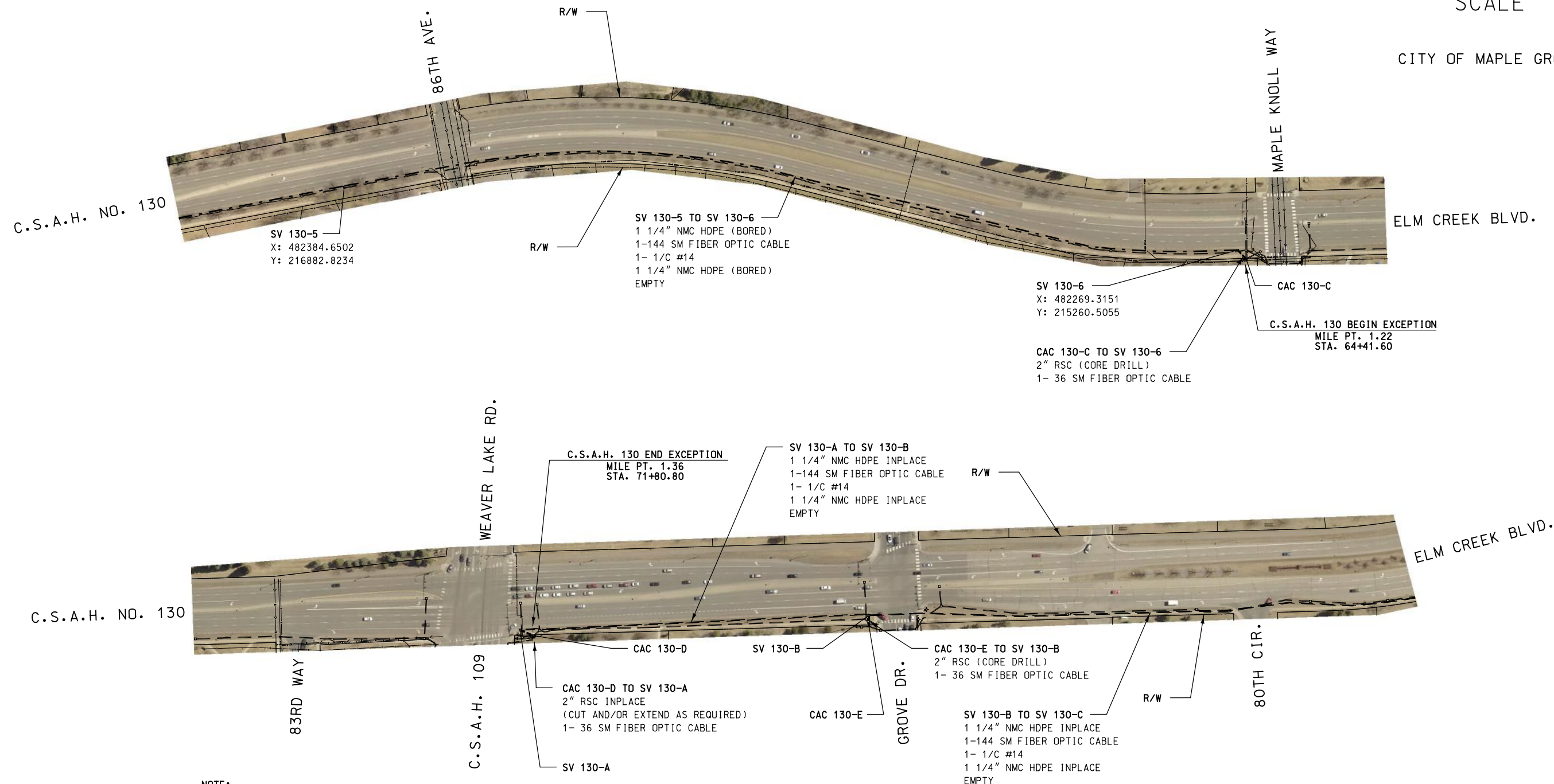


0' 200'



SCALE

CITY OF MAPLE GROVE



NOTE:
 A FIBER OPTIC TRAFFIC CONTROL INTERCONNECT SYSTEM IS INPLACE FROM MAPLE KNOLL WAY TO C.S.A.H. 109 (WEAVER LAKE RD.)

SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers

RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896

LICENSE NO.

06/02/2017

DATE

DESIGN BY: J. WING

CAD BY: J. WING

CHECKED BY:

LAST REVISION:

C.S.A.H. 130 PLAN

HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET

17

23



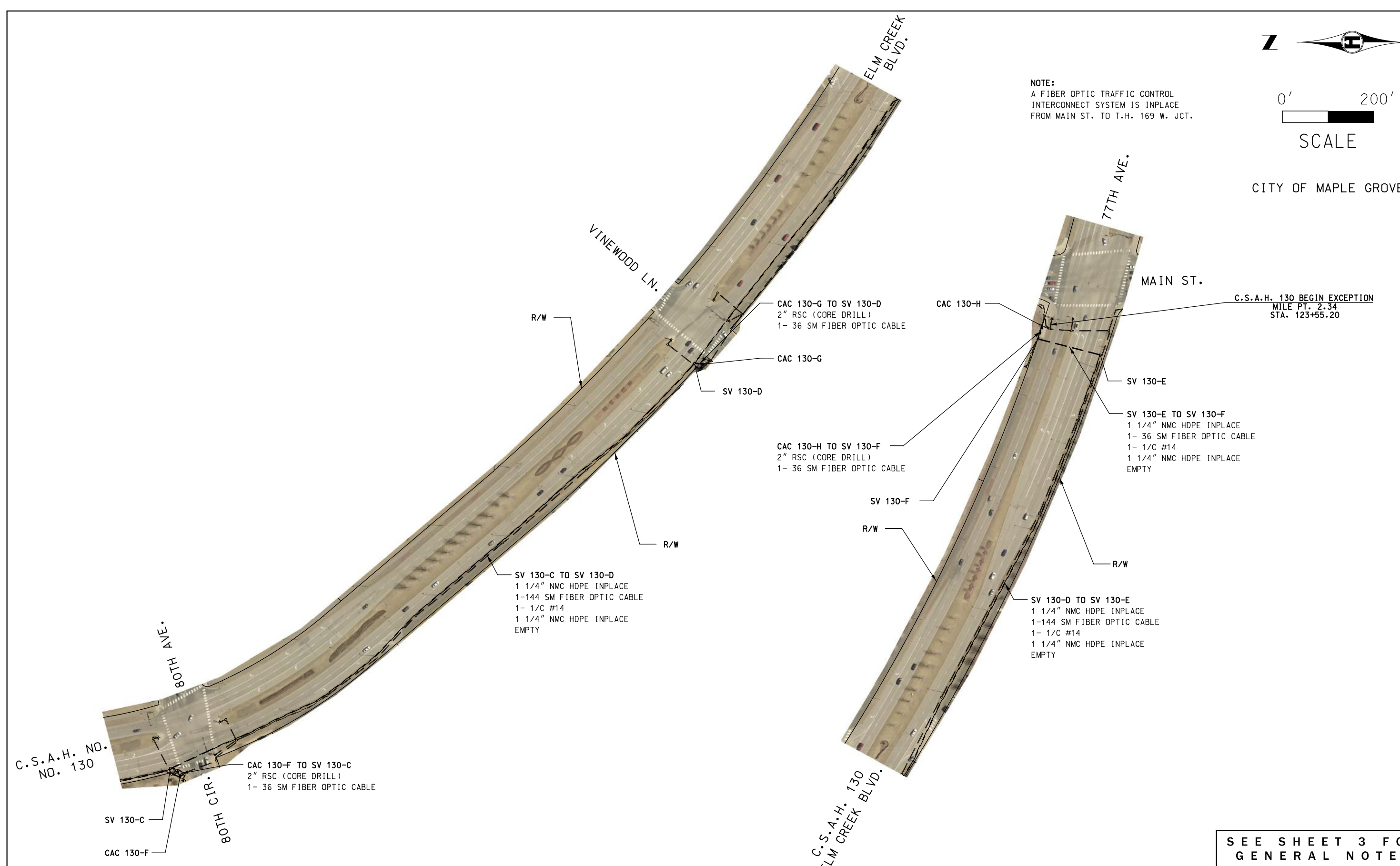
0' 200'



SCALE

CITY OF MAPLE GROVE

NOTE:
A FIBER OPTIC TRAFFIC CONTROL
INTERCONNECT SYSTEM IS INPLACE
FROM MAIN ST. TO T.H. 169 W. JCT.



SEE SHEET 3 FOR
GENERAL NOTES



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.
Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER
45896 06/02/2017
LICENSE NO. DATE

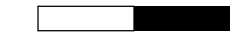
DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY:
LAST REVISION:

C.S.A.H. 130 PLAN
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
18
23

NOTE:
 A FIBER OPTIC TRAFFIC CONTROL
 INTERCONNECT SYSTEM IS INPLACE
 FROM MAIN ST. TO T.H. 169 W. JCT.

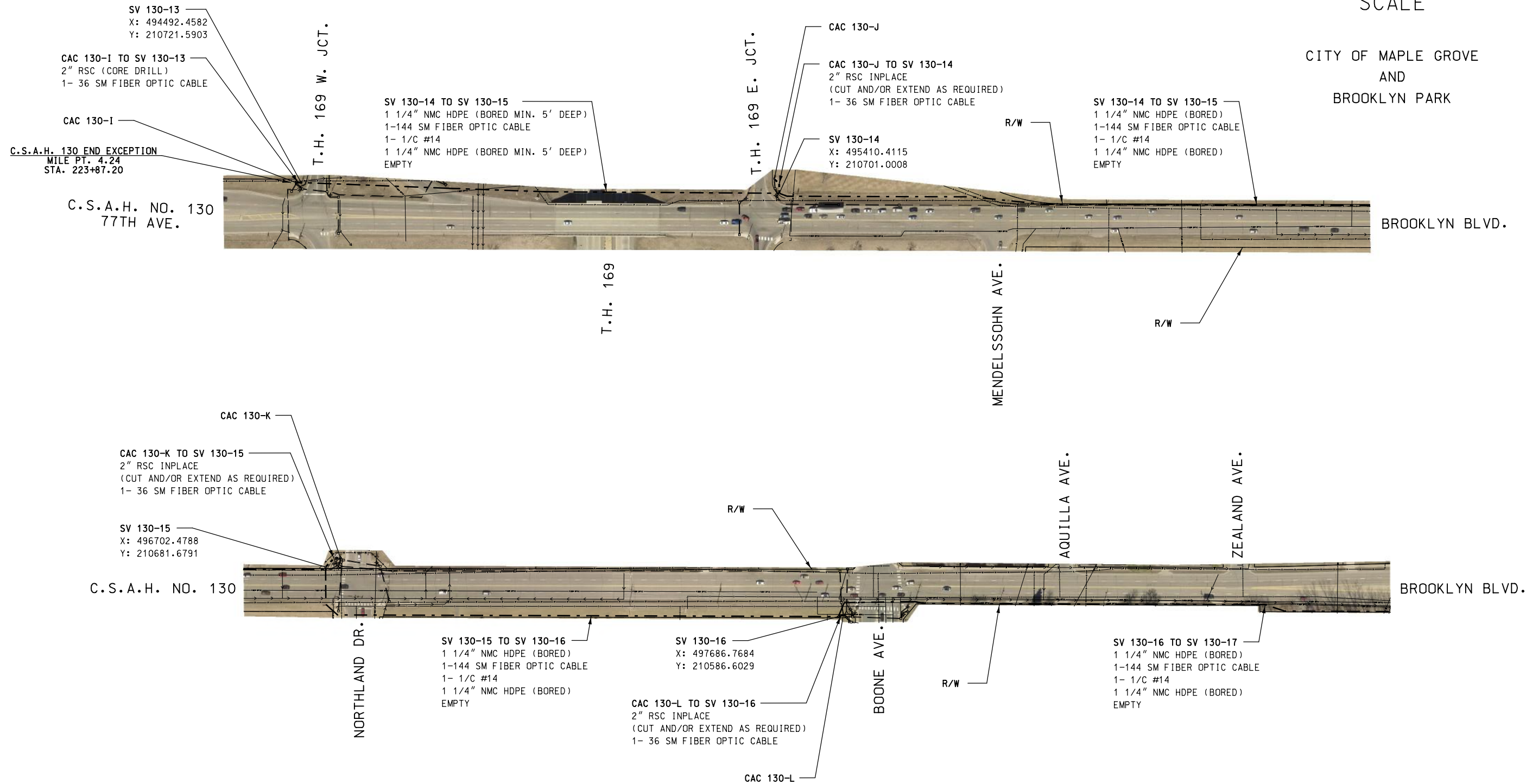
0' 200'



SCALE



CITY OF MAPLE GROVE
 AND
 BROOKLYN PARK



SEE SHEET 3 FOR
 GENERAL NOTES



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.

Ryan T. Allers

RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896

LICENSE NO.

06/02/2017

DATE

DESIGN BY: J. WING

CAD BY: J. WING

CHECKED BY:

LAST REVISION:

C.S.A.H. 130 PLAN

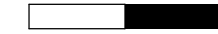
HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET

19

23

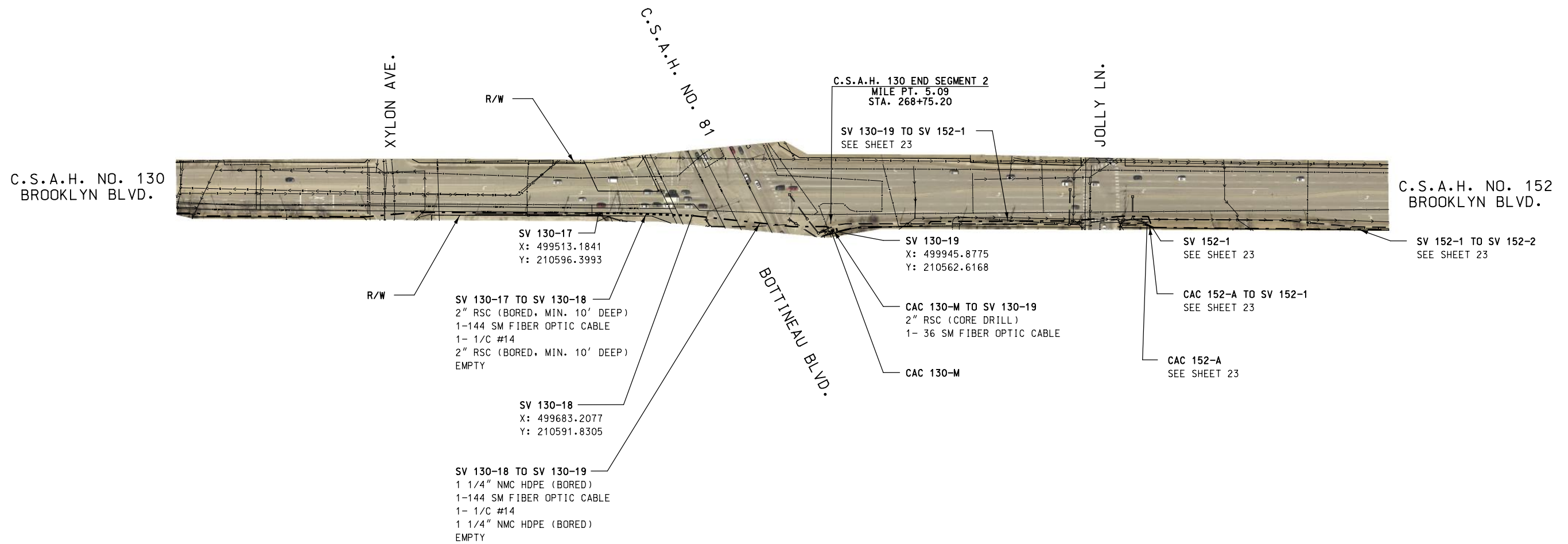
0' 200'



SCALE

BROOKLYN PARK

N



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers

RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896

LICENSE NO.

06/02/2017

DATE

DESIGN BY: J. WING

CAD BY: J. WING

CHECKED BY: _____

LAST REVISION: _____

C.S.A.H. 130 PLAN

HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

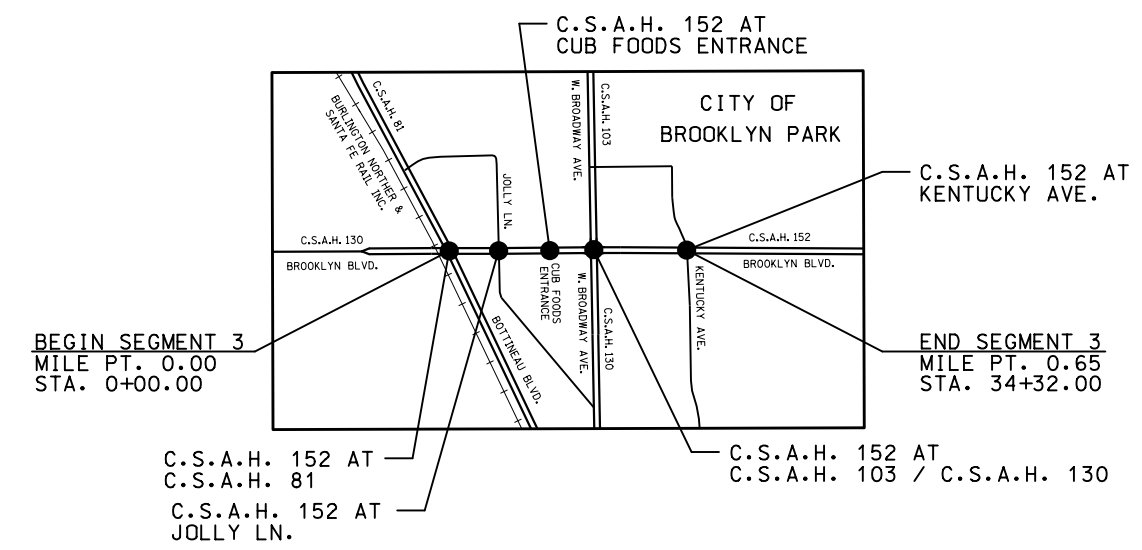
SHEET

20

23



NO SCALE



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.

Ryan T. Allers
 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896
 LICENSE NO.

06/02/2017
 DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

C.S.A.H. 152 LOCATION MAP

HENNEPIN COUNTY PROJECT 1546
 S.P. 027-030-040

SHEET

21
 23

UTILITY CONTACTS

COUNTY ROAD 130/152 - ELM CREEK BLVD

COMPANY	UTILITIES	CONTACT	EMAIL	PHONE	COMPANY	UTILITIES	CONTACT	EMAIL	PHONE
AT&T LOCAL SVCS/TRANSMISSIONS TCG	FIBER OPTICS	ROY JANSEN	rj3171@att.com	763-559-5957	METRO TRANSIT 560 6TH AVE N MINNEAPOLIS, MN 55411	ELECTRICAL	LOCATOR		612-349-7547
CENTER POINT ENERGY 700 W LINDEN AVE, PO BOX 1165 MINNEAPOLIS, MN 55440	GAS	TJ HAIDER	thomas.haider@centerpointenergy.com	612-321-5132 Cell: 612-964-8463	METRO WASTE COMMISSION 3565 KENNEBEC DRIVE EAGAN, MN 55122	SEWER	MANKING LEE	Manking.Lee@metc.state.mn.us	651-602-4533
CENTURY LINK (METRO) 250 MARQUETTE AVE S. MINNEAPOLIS, MN 55401	COMMUNICATION (INTERNET, PHONE, TELEVISION)	BRANDON AMAN (TERRA TECHNOLOGIES)	baman@terratechllc.net	855-742-6062	NORTH MEMORIAL HOSPITAL	FIBER OPTICS	LOCATOR		651-438-0152
CITY OF BROOKLYN PARK 5200 85TH AVENUE NORTH BROOKLYN PARK, MN 55443	UTILITIES	JESSE STRUVE	jesse.struve@brooklynpark.org	763-493-8114	OSSEO AREA SCHOOLS	FIBER OPTICS	CURT OLSON	curtis.olson@arvig.com	218-298-1025
CITY OF MAPLE GROVE 12800 ARBOR LAKES PARKWAY MAPPLE GROVE, MN 55311	UTILITIES	KEN ASHFIELD	kashfeld@maplegrovern.gov	763-494-6351	TDS METROCOM	FIBER OPTICS	LOCATOR		218-821-7672
COMCAST	PHONE/CABLE/INT	CHARLES SCHACHT	charles_schacht@comcast.com	612-522-8141	WRIGHT HENNEPIN COOP	ELECTRICAL	LOCATOR		800-778-9140
MN DEPT. OF TRANSPORTATION 6000 MINNEHAHA AVE S ST. PAUL, MN 55111	LIGHTING/SIGNALS FIBER	HAROLD LYNCH	harold.lynych@state.mn.us	612-349-7381	XCEL ENERGY 1518 CHESTNUT AVE MINNEAPOLIS, MN 55403	POWER	LOCATOR		800-848-7558
LEVEL 3 COMMUNICATIONS	FIBER OPTICS	LOCATOR		877-366-8344	ZAYO BANDWIDTH	FIBER OPTICS	LOCATOR		763-230-3870



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.

Ryan T. Allers

 RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
 LICENSE NO. DATE

DESIGN BY: J. WING
 CAD BY: J. WING
 CHECKED BY: _____
 LAST REVISION: _____

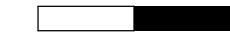
C.S.A.H. 152 UTILITY CONTACT INFORMATION

HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET

22
 23

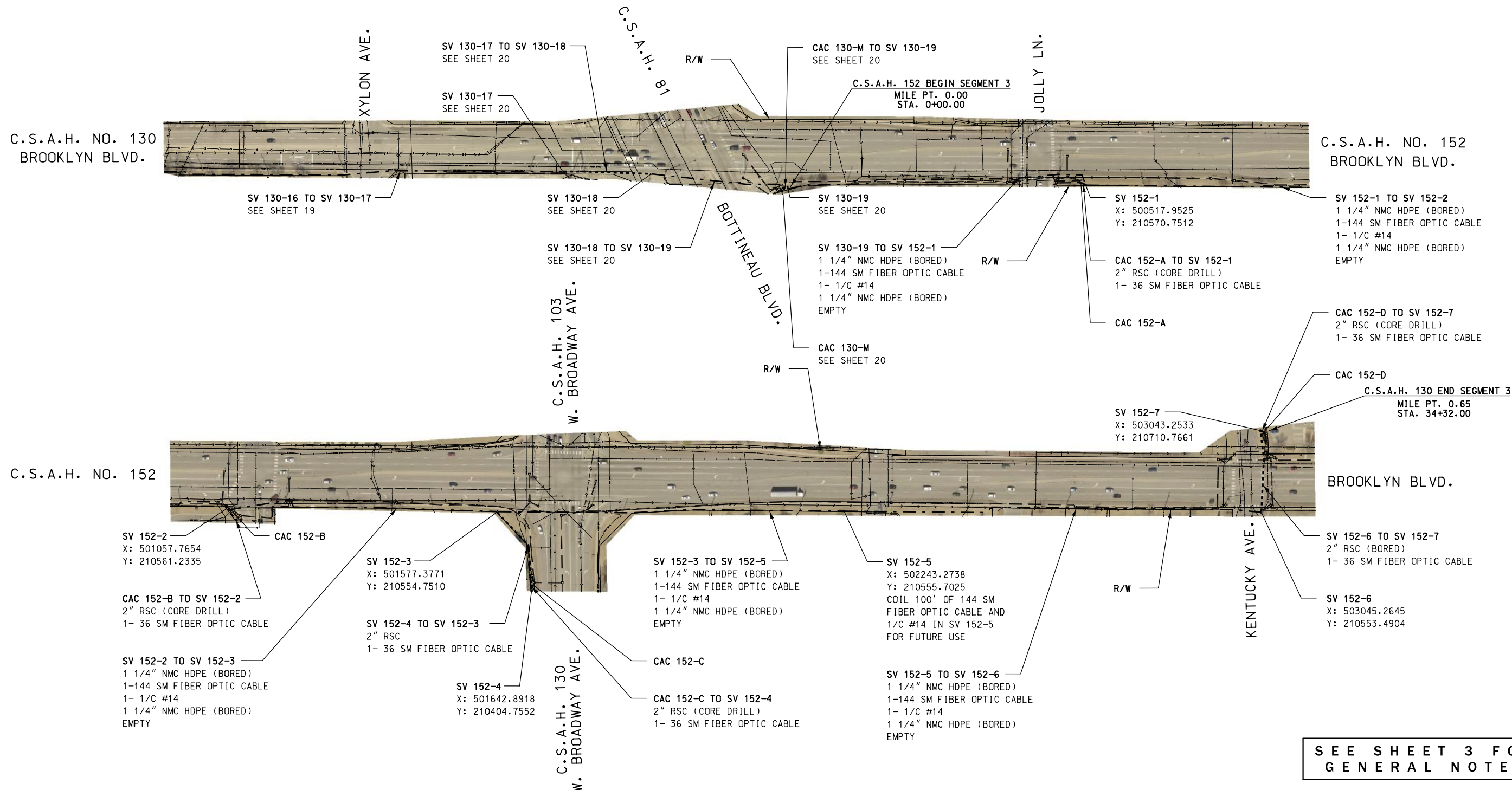
0' 200'



SCALE

BROOKLYN PARK

N



SEE SHEET 3 FOR GENERAL NOTES



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.

Ryan T. Allers
RYAN T. ALLERS, PROFESSIONAL ENGINEER

45896 06/02/2017
LICENSE NO. DATE

DESIGN BY: J. WING
CAD BY: J. WING
CHECKED BY:
LAST REVISION:

C.S.A.H. 152 PLAN
HENNEPIN COUNTY PROJECT 1546
S.P. 027-030-040

SHEET
23
23