FENTON FIRE

FENTON FIRE PROTECTION DISTRICT

1001 Assembly Parkway, FENTON, MISSOURI 63026 Phone (636-343-4188) Fax (636-343-4451)

REQUEST FOR PROPOSAL FOR:

Traffic Preemption Installation (RFP 2025-04)

In accordance with the statutory requirements for political subdivisions in Missouri the Fenton Fire Protection District is seeking bid proposals from qualified bidders for traffic preemption equipment and installation. The Fenton Fire Protection District will accept **sealed** proposals until **September 24, 2025 at 4:00pm CDT**.

Sealed bids will be accepted between the regular business hours of 8:00am and 4:00pm Monday through Friday, at Fenton Fire Protection District Headquarters, 1001 Assembly Parkway, Fenton, Missouri 63026.

ONE (1) copy of the proposal shall be sealed and delivered to:

Fenton Fire Protection District
ATTN: CUSTODIAN OF RECORD – Fire District RFP 2025-04
1001 Assembly Parkway
Fenton, MO 63026

*No Bids will be considered if received after the above stated deadline.

*No Bids will be considered that are not sealed.

*No electronic, facsimile, or phone proposals will be considered.

Envelopes should clearly indicate the corresponding Fire District RFP number. The sealed proposals will be opened and read aloud at the **September 24, 2025** Board Meeting, beginning at 4:00pm CST. Bids will be reviewed and awarded at a later date. No bidder may withdraw their bid for a period of sixty (60) days after the date and time set for bid opening. The District reserves the right to accept the bid which it deems to be in the District's best interest, and will not necessarily be bound to accept the lowest bid. The District also reserves the right to extend the time to open bids.

The Fenton Fire Protection District hereby notifies all bidders that it will affirmatively insure that any contract entered into pursuant to this advertisement, minority business entities will

be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for award.

Complete proposals may be obtained at the District's Administrative Offices located at 1001 Assembly Parkway, Fenton, Missouri, between 8:00am and 4:00pm CST Monday through Friday. Complete specifications may also be obtained from the District's website: www.fentonfire.org (Under RFPs/Bids), or by contacting Assistant Chief Chris McCarthy at 636-343-4188 Ext 137, or by email at cmccarthy@fentonfire.org.

DISCLAIMERS AND RESERVATIONS:

The Fenton Fire Protection District of St. Louis County is a political subdivision of the state of Missouri, and, as such, has exemption from Missouri State Sales Tax and from United States Excise Taxes. Exemption certificates can be supplied accordingly. This should be considered in making bids.

The district reserves the right to award bids on the basis of best price alone, or on the basis of best utility for the district's special needs for service, or on a combination of both, as the Board of Directors may determine in their final judgment. The district also reserves the right to consider any bidder's additions or variations, made as above mentioned, in awarding the bid, even though such addition or variation may not be stated in the specifications.

The district reserves the right to reject any and all bids and to compare all bids received to bids already bid and received by the State of Missouri and its subdivisions, departments and any political subdivision in determining the lowest and best bid.

The district further reserves the right to reject all bids and the other rights mentioned in the notice to bidders.

Nothing in these specifications is intended to prevent a bidder from suggesting additional or different items which the bidder feels will be more suitable to the uses intended by the district for the unit, or more economical to the district for equal use. However, where such a suggestion represents a variation from these specifications (which is permitted) the suggestion must be itemized, separately, as an alternate bid, with a sufficient explanation of the recommendation that the district may understand the bidder's point in making the recommendation, and that the district will have adequate information to compare the suggestion to the original specifications.

As a part of the bid, every bid should include the delivery time for the unit. In the discretion of the district, time of delivery may be a factor in determination of award.

It is a condition of every bid that the equipment bid on be warranted, and the applicable warranties should be specifically stated in the bid.

The place of delivery, for the price stated in the bid, must be specifically stated. If that place is anywhere else than the fire district's administrative office, then the bid must also state what additional cost, if any there will be for transportation of the equipment from the place of delivery to the district's administrative office and upon what terms and methods and arrangements.

All factory stock items for the item bid upon are considered as included in these specifications and to be included in the item, even if not specifically mentioned herein, except only to the extent that some particular specification or specifications herein require replacement of the stock item with an item herein specified.

If a bidder desires to list any exception to any specification herein, the bidder must state that exception clearly and specifically in the bid, to the extent that no exceptions are taken by the bidder, the bidder thereby agrees that the bid is in complete compliance with these specifications, the bidder must also state that exception in the same manner as above stated for any additional recommendation or suggestion, including price effect thereon.

Each bidder shall provide proof that they are enrolled and participate in E-verify as required or recommended by either State or Federal Statute.

Every bid must include the following Bid Proposal Form, Affidavit of Work Authorization, Sub-Contractor Requirements Form and Certificate of Insurance.

FENTON FIRE PROTECTION DISTRICT 1001 Assembly Parkway FENTON, MISSOURI 63026 (636) 343-4188

BID PROPOSAL FORM

	(bidder), having read the specifications for
"Traffic Preemption" hereby proposes to	furnish to the FENTON FIRE PROTECTION
DISTRICT a	for the full and firm price
indicated below, within the delivery time de	esignated below, in full compliance with the
specifications taking:	
() Only the exceptions noted in	detail on attached page
() No exceptions	
Price: \$	
Delivery Date:	
Place:	
Signed:	
Title	
Company:	
Date:	

FENTON FIRE PROTECTION DISTRICT

1001 Assembly Parkway Fenton, Missouri 63026 (636) 343-4188 Fax (636) 343-4451

AFFIDAVIT OF WORK AUTHORIZATION

The bidder/contractor who meet the section 285.525 RSMo definition of a business entity must complete and return the following Affidavit of Work Authorization.

Comes now	(Name of Business Entity Authorized
Representative) as	(Position/Title) first being duly sworn
on my oath, affirm,	(Business Entity Name) is enrolled
and will continue to participate in the E-V	Verify federal work authorization program in respect to
employees hired after enrollment in the pr	rogram who are proposed to work in connection with
the services related to contract(s) with the	State for the duration of the contract(s), if awarded in
accordance with subsection 2 section 285.	.530, RSMo. I also affirm that
	ess Entity Name) does not and will not knowingly
- · ·	dien in connection with the contracted services
provided to the contract(s) for the duration	n of the contract(s), if awarded.
In affirmation thereof the facts stated al	bove are true and correct (The undersigned
	n this filing are subject to penalties provided under
Section 575.040 RSMo)	n this fung are subject to penduces province under
Authorized Representative Signature	Printed Name
Title	Date
E-Mail Address	
E-Mail Address	
Subscribed and sworn to before me this	of Lam
Subscribed and sworn to before me this _	(Day) (Month/Year)
commissioned as a notary public within the	
	0.5
of, and my commission	expires on
of, and my commission (Name of State)	(Date)
Signature of Nature	Data
Signature of Notary	Date

SPECIFICATIONS

1. SCOPE OF WORK

The work to be performed shall consist of furnishing all tools, equipment, labor and miscellaneous materials to install the Tomar Priority Control System purchased by the Fenton Fire Protection District on the existing traffic signals at four (4) locations on Bowles Avenue as shown in the plans prepared by CBB.

The work at each location shall include:

- I Location of all underground utilities prior to commencement of any trenching.
- II Provision of all required traffic control signage and maintenance of traffic during construction in accordance with the Plans and the requirements of the Missouri Department of Transportation (MoDOT) and St. Louis County Department of Transportation (SLCDOT).
- Ill Provision of all equipment, materials, and labor to install the Tomar Optical & Priority Control systems, pedestal mounted control cabinets, posts, conduits, pull boxes & pull box modifications, and other incidental work according to the plans.
- VI Site restoration, backfilling and seeding, as required.

2. SPECIAL PROJECT PROVISION

- 2.1. Any general or specific item of work not covered in the bid, but necessary for completion of the project shall be considered as incidental to the other items as set forth herein, except work performed as changes in accordance with the provisions of this contract.
- 2.2. All installation will conform to the plans, the specifications of the manufacturer of the Tomar Optical and Priority Control System, the requirements of the MoDOT Standard Specifications for Highway Construction, SLCDOT Standards Details and Specifications, and other agencies having jurisdiction.
- 2.3. Verifications of the locations of underground utilities will be the responsibility of the Contractor.
- 2.4. The Contractor shall keep premises free from accumulations of waste material or trash caused by their employees or work. Upon completion of the work, the Contractor shall remove their trash from and about the premises.
- 3. BACKFILL AND SITE RESTORATION
- 3.1. The Contractor shall backfill all open excavations in non-traffic areas with clean dirt. Excavations under pavement shall be replaced with granular fill. All disturbed areas shall be properly repaired.
- 3.2. Backfill material shall be adequately compacted to minimize settlement.

3.3. No direct payment will be made for backfill and/ or site restoration. This work shall be included in the lump sum price for installation.

4. TIME OF COMPLETION

All work shall be completed within Sixty (60) calendar days of the notice to proceed. Extensions may be granted by the Fenton Fire Protection District only for extreme weather conditions and other unforeseeable circumstances.

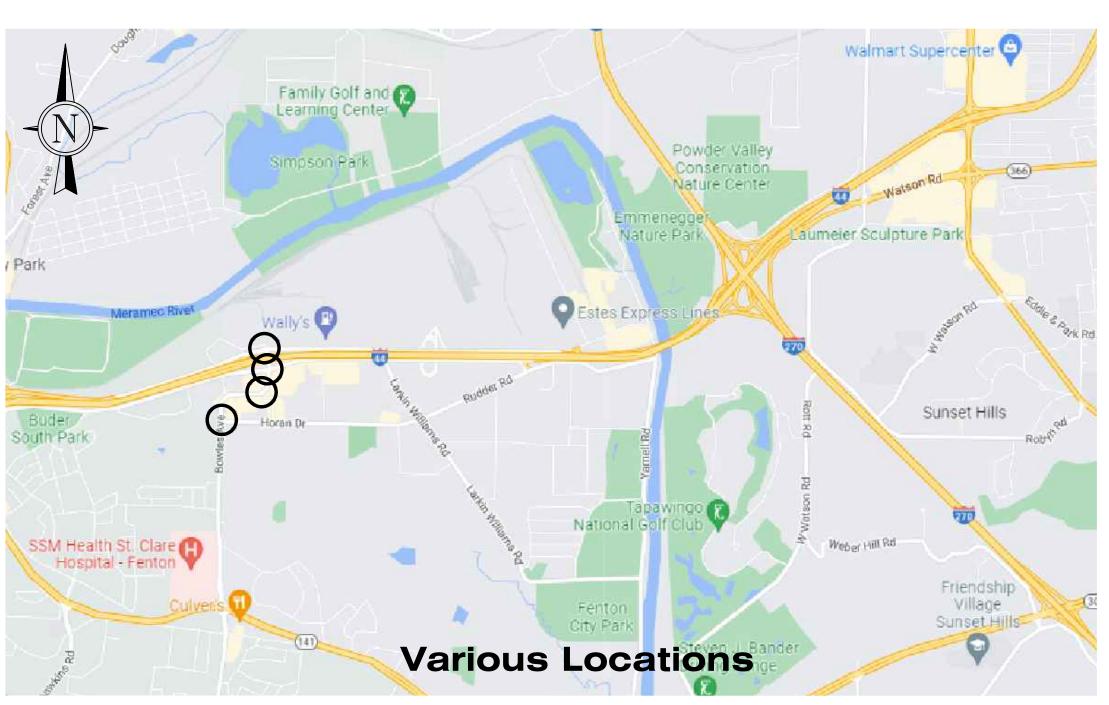
5. ADDITIONAL WORK

No additional work shall be paid for unless approved by the Fenton Fire Protection District or its representative, in writing, prior to the commencement of said work.

EQUIPMENT

SUMMARY OF QUANTITIES						
S	UMMAF	Y UF Q				T
ITEM	UNIT	TOTAL	N HIGHWAY & BOWLES (MODOT)	S HIGHWAY & BOWLES (MODOT)	WEST PARK & BOWLES (SLCDOT)	HORAN & BOWLES (SLCDOT)
TOMAR OPTICAL AND PRIORITY CONTROL SYSTEM - COMPLETE	L. SUM	4	1	1	1	1
PEDESTAL MOUNT CONTROL CABINET WITH CONCRETE BASE	EACH	2	1	1	0	0
CLASS 2 PULLBOX W/CONCRETE APRON	EACH	1	1	0	0	0
15' TYPE C POST & BASE	EACH	1	1	0	0	0
CONDUIT 2"	LIN. FT.	145	131	14	0	0
CONDUIT4"	LIN. FT.	100	100	0	0	0
CABLE 1-3c#12	LIN. FT.	217	89	128	0	0
CABLE 1-3c#20	LIN. FT.	2499	930	457	435	677
CABLE 1-8c#22	LIN. FT.	217	89	128	0	0
DRILL EXISTING PULLBOX	EACH	3	2	1	0	0
TRAFFIC SIGNAL MAINTENANCE AND PROGRAMMING (PER LOCATION)	EACH	2	1	1	0	0
TRAFFIC CONTROL AND MOBILIZATION (PER LOCATION)	EACH	4	1	1	1	1
CABINET DOOR ELECTRONIC LOCKING ASSEMBLY - WITH POWER SUPPLY, AUXILARY POWER INPUT, ELECTRONIC SOLENOID & CARD READER WITH KEY PAD	EACH	2	0	0	1	1

FENTON FIRE PREEMPTION VARIOUS LOCATIONS ST. LOUIS COUNTY, MISSOURI



INDEX

SHEET NUMBER	<u>DESCRIPTION</u>	Culvers (i)	Fenton
1	COVER SHEET		Various Location
2	TRAFFIC SIGNAL QUANTITIES		TOCATION MAD
3	NOTES & DETAILS (ST. LOUIS COU	JNTY LOCATIONS)	LOCATION MAP (not to scale)
4	NOTES & DETAILS (MODOT LOCATI	ONS)	
5-8	SIGNAL MODIFICATION PLAN		
9	TRAFFIC CONTROL SHEET		

Call Before you DIG

TOLL FREE

MISSOURI
ONE CALL SYSTEM
1-800-344-7483

EXISTING UNDERGROUND AND OVERHEAD FACILITIES, STRUCTURES AND UTILITIES IF SHOWN ON THESE PLANS, SHALL BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF THE LOCATIONS OF ALL EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE VERIFIED PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS.

CLIENT CONTACT INFORMATION

FENTON FIRE PROTECTION DISTRICT CHRIS THIEMANN
DIVISION CHIEF/FIRE MARSHAL
1001 Assembly Parkway
Fenton, MO 63026
PHONE: 636-343-4188 EXT. 138
MOBILE: 314-581-1301

EMAIL: cthiemann@fentonfire.org

MCI -

TELEPHONE (314) 367-7055

CHARTER COMMUNICATIONS -

TELEPHONE (855) 522-4965

UTILITIES:

AMEREN UE – TELEPHONE (800) 778–9140

AT&T - SPIRE MO (EAST) - TELEPHONE (855) 920-0146 TELEPHONE (800) 887-4173

CENTURYLINK — TELEPHONE (877) 366-8344

PUBLIC WORKS DIRECTOR DAN HOWARD TELEPHONE (636) 349-8155

EVERSTREAM SOLUTIONS -TELEPHONE (866) 624-8624

MISSOURI AMERICAN WATER CO – AMBRIA POWELL TELEPHONE (314) 996–2315

CIVIL ENGINEER 01/14/2025 ST. LOUIS JOB NO. 066-22 CONTRACT ID. PROJECT NO. BRIDGE NO. TRANSPOR ENGINEERS+P

> VARIOUS LOCATIONS ST. LOUIS COUNTY, MO

HT #7870

SUMMARY OF QUANTITIES							
ITEM	UNIT	TOTAL	N HIGHWAY & BOWLES (MODOT)	S HIGHWAY & BOWLES (MODOT)	WEST PARK & BOWLES (SLCDOT)	HORAN & BOWLES (SLCDOT)	
TOMAR OPTICAL AND PRIORITY CONTROL SYSTEM - COMPLETE	L. SUM	4	1	1	1	1	
PEDESTAL MOUNT CONTROL CABINET WITH CONCRETE BASE	EACH	2	1	1	0	0	
CLASS 2 PULLBOX W/CONCRETE APRON	EACH	1	1	0	0	0	
15' TYPE C POST & BASE	EACH	1	1	0	0	0	
CONDUIT 2"	LIN. FT.	145	131	14	0	0	
CONDUIT4"	LIN. FT.	100	100	0	0	0	
CABLE 1-3c#12	LIN. FT.	217	89	128	0	0	
CABLE 1-3c#20	LIN. FT.	2499	930	457	435	677	
CABLE 1-8c#22	LIN. FT.	217	89	128	0	0	
DRILL EXISTING PULLBOX	EACH	3	2	1	0	0	
TRAFFIC SIGNAL MAINTENANCE AND PROGRAMMING (PER LOCATION)	EACH	2	1	1	0	0	
TRAFFIC CONTROL AND MOBILIZATION (PER LOCATION)	EACH	4	1	1	1	1	
CABINET DOOR ELECTRONIC LOCKING ASSEMBLY - WITH POWER SUPPLY, AUXILARY POWER INPUT, ELECTRONIC SOLENOID & CARD READER WITH KEY PAD	EACH	2	0	0	1	1	

LEGEND

EXISTING

---TRAFFIC SIGNAL HEAD ----> PEDESTRIAN SIGNAL HEAD

MAST ARM SIGN ()===== MAST ARM PULL BOX

SIGNAL CONTROLLER

CONDUIT SYSTEM

<u>PROPOSED</u>

OPTICAL DETECTOR UNIT

PREEMPTION CABINET

CIVIL ENGINEER DATE PREPARED 01/14/2025 DISTRICT ST. LOUIS JOB NO. 066-22 CONTRACT ID. PROJECT NO. BRIDGE NO. TRANSPORTATION
ENGINEERS+PLANNERS
12400 OLIVE BLVD, SUITE 430
ST. LOUIS, MO 63141
(314) 878-6644 TRAFFIC SIGNAL QUANTITIES & DETAILS
VARIOUS LOCATIONS

```OUNTY, MISSOURI

Corporate Engineering Certificate # 000381

# GENERAL NOTES

- 1. All proposed improvements shall be constructed to St. Louis County standards.
- 2. All final striping within County right-of-way shall be installed by County forces.
- 3. The developer or municipality is advised that utility companies may require compensation for relocation of their facilities within the public road right—of—way. St. Louis County shall bear no responsibility for utility relocation or adjustment costs or associated delays.
- 4. Provide adequate off—street parking for construction employees. Parking on non—surfaced areas shall be prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driveway conditions.
- 5. All sediment shall be washed from all vehicles at Wash-Down Station prior to leaving the site so that no sediment is tracked onto County roads.
- 6. Prior to "Special Use Permit" issuance by the St. Louis County, a special cash escrow or a special escrow supported by an Irrevocable Letter of Credit, may be required to be established with the St. Louis County Department of Transportation to guarantee completion of the required roadway improvements.
- 7. Interim storm water drainage control in the form of siltation control measures shall be provided.
- 8. No slopes within St. Louis County right-of-way shall exceed 3 (horizontal) to 1 (vertical).
- 9. All disturbed earth areas within St. Louis County right—of—way, as well as any areas disturbed within the proposed Temporary Construction Easement
- 10. Additional siltation control shall be installed as required by St. Louis County Department of Transportation.
- 11. Applicant shall use extreme caution in areas where traffic signal facilities are existing. It is the responsibility of the contractor/developer to contact the St. Louis County Department of Transportation at (314) 615—0215 a minimum of 48 hours in advance of construction work for locating and spotting existing traffic signal conduit. In the event the contractor damages any traffic signal facilities, repairs shall be made at the contractor's expense by an electrical contractor as directed by St. Louis County.
- 12. All affected offsite property owners shall be given notice 48 hours in advance of any work.
- 13. Any disturbed off site property (i.e. bushes, fences, mailboxes, etc.) shall be replaced in kind at the contractor's expense.
- 14. The contractor shall notify the St. Louis County Division of Operations striping personnel at (314) 615—0233, 24 hours in advance of any striping related work. All grinding of existing striping and installation of temporary striping as required by St. Louis County shall be performed by the contractor. All permanent striping will be installed by the St. Louis County Department of Transportation.
- 15. All construction shall be per most current details located in the St. Louis County Design Criteria Manual and/or the Sediment and Erosion Control Manual.
- 16. All grading and drainage shall be in conformance with St. Louis County and MSD Standards.
- 17. Storm water shall be discharged at an adequate natural discharge point. Sinkholes are not adequate discharge points.
- 18. All proposed access to St. Louis County roads shall meet minimum St. Louis County sight distance requirements.
- 19. Any entity that performs work on St. Louis County maintained property shall provide the County with a Certificate of Insurance evidencing general liability coverage (bodily injury and property damage) in the amounts specified as the limits of liability set by the State for public entities. Such certificate shall include "St. Louis County" as an additional insured and shall be provided prior to the issuance of any permit. Certificate shall provide for a 30 day policy cancellation notice to St. Louis County. Upon request, the County will provide the specific amounts for both per person and per occurrence limits.
- 20. Continuous pedestrian access shall be provided during the construction process. Prior to the start of construction, adequate pedestrian access around the site shall be provided and verified. No existing sidewalk shall be removed without providing adequate pedestrian facilities and routes during construction activities.
- 21. The contractor shall maintain existing traffic control signs (Street Name, Stop, No Parking, One—Way, Turn, etc) until such time as they need to be removed/relocated for construction operations. Temporary signing shall be in accordance with the current version of MUTCD Chapter 6F (Temporary Traffic Control Zone Devices). Existing signs shall not lie on the ground for any period of time. Portable supports shall not be located on sidewalks or areas designated for pedestrian traffic. Signs shall be crashworthy and properly maintained for cleanliness, visibility, and proper positioning, and shall be coordinated with the St. Louis County Sign Shop at (314) 615—0242.
- 22. Maximum legal lengths in the County are forty (40) feet for any single unit truck and fifty—five (55) feet for any combination of vehicles, including the load. Maximum legal width is eight (8) feet and maximum height is thirteen and one—half (13½) feet. Legal weight limits in the County are the same as those required by Missouri State laws, except in cases when the County Council has established roadway load limits by ordinance or when bridges are posted under state regulations. Any vehicles exceeding these limits shall require a Special Use Permit for overweight and/or over—dimension vehicles prior to driving on St. Louis County roadways. Contact James Hayes at (314) 615—8515 for permits.
- 23. Trucks shall not exceed posted weight limits for St. Louis County bridges during haul operations.
- 24. Removal and replacement of sidewalk, curb, pavement, etc. shall be to the next joint.
- 25. Utility and sanitary sewer work in St. Louis County right—of—way requires separate special use permits. Contact St. Louis County at 314—615—8517 for permits.
- 26. St. Louis County will be performing the construction inspection and traffic signal timing/turn on.
- 27. All hydrants, power poles or other potential obstructions within the St. Louis County road right—of—way shall have a minimum two (2) foot setback from face of curb or edge of pavement, as directed by the St. Louis County Department of Highways and Traffic.
- 28. All sidewalks and associated accessibility improvements within right—of—way shall be constructed to St. Louis County ADA Standards.
- 29. A signed/sealed note shall be added to the Construction Plans indicating that the unimproved existing sidewalk/pedestrian path along the project frontage meets current St. Louis County ADA standards.
- 30. Access to all properties shall be maintained at all times during the construction process.

# TRAFFIC SIGNAL PRE-CONSTRUCTION NOTES:

ALL SIGNAL WORK ON THIS PROJECT SHALL BE IN ACCORDANCE WITH ST. LOUIS COUNTY STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, "DIVISION 900, SECTION 904 — ST. LOUIS COUNTY TRAFFIC SIGNALS"; AND WITH "ST. LOUIS COUNTY STANDARD DRAWINGS — TRAFFIC SIGNAL DETAILS". THE CONTRACTOR SHALL HAVE SAID REFERENCES ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION/INSTALLATION OF THE SIGNALIZED EQUIPMENT.

THE SECTION 904 SPECIFICATIONS ARE AVAILABLE AT: www.stlouisco.com/PropertyandRoads/HighwayPublicationsManuals/StandardspecificationsforHighwayConstruction
THE TRAFFIC SIGNAL DETAIL DRAWINGS ARE AVAILABLE AT: www.stlouisco.com/PropertyandRoads/HighwayPublicationsManual/StandardDrawings

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE STANDARD DRAWINGS ERRATA SHEET TO ENSURE THEIR SET OF DRAWINGS IS CURRENT. THE STANDARD DRAWINGS IN EFFECT FOR THIS PROJECT WILL BE THOSE DRAWINGS AVAILABLE FOR VIEWING ON THE DATE THE SIGNAL PLANS WERE APPROVED.

# Maintenance of St. Louis County Traffic Signal Interconnect Facilities During Construction

1)It is the responsibility of the contractor/developer to contact St. Louis County Department of Transportation, Operations Division (Signal Section) at (314) 615—0215 a minimum of 48 hours in advance of construction work for locating and marking existing underground traffic signal conduit.

2)The County's traffic signal communication links are all vital to the operation of County's signal systems and shall be maintained for the duration of this project. It shall be the Contractor's responsibility to maintain these links within their work zones.

A) Any approved scheduled disruption of a traffic signal communication link shall be kept to an absolute minimum and shall only be allowed during the following times:

Monday thru Friday ....... 9:00AM to 3:00PM Monday thru Friday ...... 7:00PM to 5:00AM Saturday and Sunday...... All Day

The Contractor performing the permitted work shall contact the St. Louis County Department of Transportation's Operations Division, Signal Shop at (314) 615—0213 a minimum of two business days prior to any approved scheduled disruption of a traffic signal communication link. The County reserves the right to revise the time periods listed above.

If the scheduled disruption cannot occur during the approved times, then the Contractor shall submit a plan, for the County's approval, to provide a TEMPORARY traffic signal communication link. If approved, the Contractor shall install the TEMPORARY communication link and verify the link is functional before proceeding with the scheduled disruption.

Failure to comply with these requirements shall result in the Contractor's construction work within the public right—of—way being halted until all requirements are met.

B) If an unanticipated disruption of a traffic signal communication link occurs as a result of permitted work conducted by a Contractor, the Contractor's construction work within the right—of—way shall be halted. The Contractor's work within the right—of—way shall not be allowed to proceed until a temporary repair to the link is completed, unless approved otherwise by a representative from the St. Louis County Department of Transportation, Construction Division. Temporary repairs shall not be considered final repairs. The Contractor shall be responsible for restoring all traffic signal communication links to the same condition prior to the unanticipated disruption or to the condition specified in the approved construction plans.

Failure to comply with these requirements will result in liquidated damages being assessed or escrow funds will be withheld.

# Maintenance of Vehicle Detection Systems During Construction.

1) Vehicle detection systems are essential to the efficient operation of all traffic signals. Prior to any disruption of service to an existing vehicle detection system, the Contractor shall furnish and install a temporary vehicle detection system for the approach(es) where the existing vehicle detection system is to be disrupted. The Contractor shall make any and all necessary adjustment(s) for the proper operation of the temporary detection equipment. The Contractor will also be responsible for the maintenance of the temporary detection system equipment until the permanent vehicle detection system is installed and operational.

The Contractor shall provide to the County the type of temporary vehicle detection system to be used a minimum of two business days in advance of installing the temporary equipment for approval, by contacting the St. Louis County Signal Shop at (314) 615—0213. The County has the sole right to approve, modify, or reject the temporary vehicle detection system proposed by the Contractor. The Contractor shall not disrupt any existing vehicle detection system is operational and approved by the County.

Failure to comply with these requirements shall result in the Contractor's work within the public right—of—way being halted until all requirements are met.

2) In the event the Contractor causes a disruption to a vehicle detection system and there is no temporary vehicle detection system in place, the Contractor's construction work within the public right—of—way shall not be allowed to proceed until a temporary vehicle detection system is installed, unless approved otherwise by a representative from the St. Louis County Department of Transportation's Construction Division.

If the Construction Division approves the Contractor's construction work to proceed without providing a temporary vehicle detection system, the Contractor has a maximum of 14 calendar days to either install an approved temporary or permanent vehicle detection system. The Contractor shall provide to the County within two business days of the disruption of the vehicle detection system:

a.The vehicle detection system to be used.

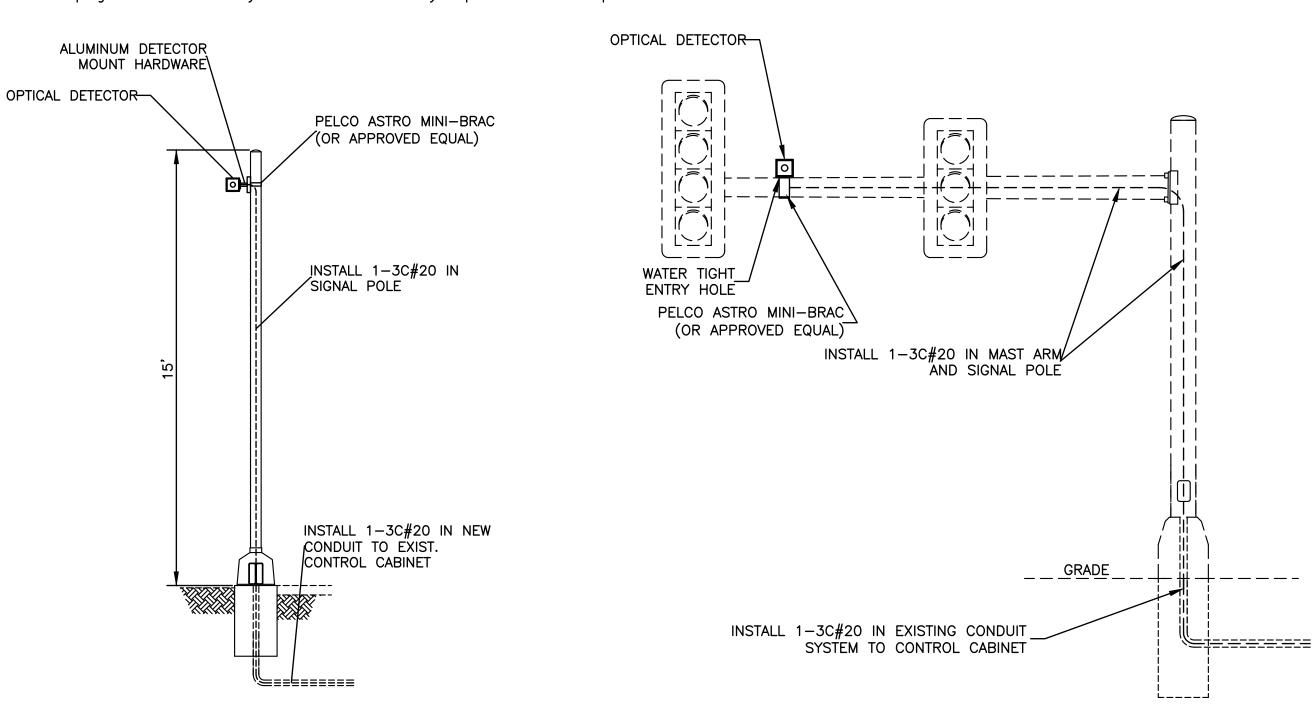
b.A schedule detailing the timeline for installation of the temporary vehicle detection system.

The County has the sole right to approve, modify, or reject the temporary vehicle detection system and schedule proposed by the Contractor.

Temporary vehicle detection systems shall not be considered final improvements. The Contractor shall be responsible for restoring all vehicle detection systems to the same condition prior to the disruption or to the condition specified in the approved construction plan.

Failure to comply with these requirements will result in liquidated damages being assessed at a rate of \$100 per lane per day or escrow funds being withheld.

The Contractor shall notify the Saint Louis County Department of Transportation's Operations Division (Striping Section) at (314) 615—0233, 24 hours in advance of any striping related work. The Contractor shall perform all grinding of existing striping and installation of temporary striping as required by the Engineer. Permanent striping will be installed by the Saint Louis County Department of Transportation.



<u>DETAIL</u>
PEDESTAL POST (MoDOT) WITH OPTICAL DETECTOR

SIGNAL POST WITH OPTICAL DETECTOR

NOTES & DETAILS
ST. LOUIS COUNTY LC

OUNT

5

0

NO O

Certificate # 000381

CIVIL ENGINEER

DATE PREPARED

COUNT

ST. LOUIS

JOB NO.

066 - 22

CONTRACT ID.

PROJECT NO.

BRIDGE NO

VAR

DISTRICT

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01/14/2025

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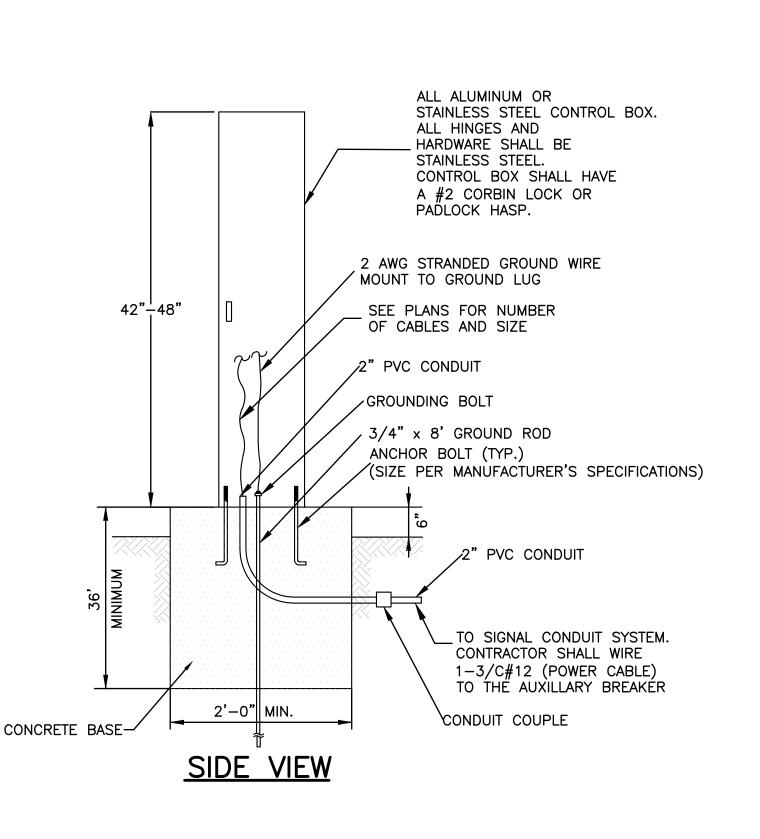
HT #7870

# GENERAL NOTES:

- 1. THE INSTALLATION OF THE TRAFFIC SIGNALS SHALL BE IN ACCORDANCE WITH THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION'S STANDARD SPECIFICATIONS, LATEST EDITION.
- 2. EXISTING UNDERGROUND AND OVERHEAD FACILITIES, STRUCTURES AND UTILITIES IF SHOWN ON THESE PLANS, SHALL BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF THE LOCATIONS OF ALL EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE VERIFIED PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. CALL MISSOURI ONE-CALL SYSTEM AT 1-800-DIG-RITE (344-7483).
- 3. TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND MISSOURI DEPARTMENT OF TRANSPORTATION STANDARDS.
- 4. THE CONTRACTOR WILL BE RESPONSIBLE FOR SPOTTING THE LOCATION OF ALL SIGNAL EQUIPMENT. THE CONTRACTOR SHALL NOTIFY THE MODOT OUTSOURCE INSPECTOR A MINIMUM OF ONE WEEK IN ADVANCE OF THE DESIRED DATE OF INSTALLATION.

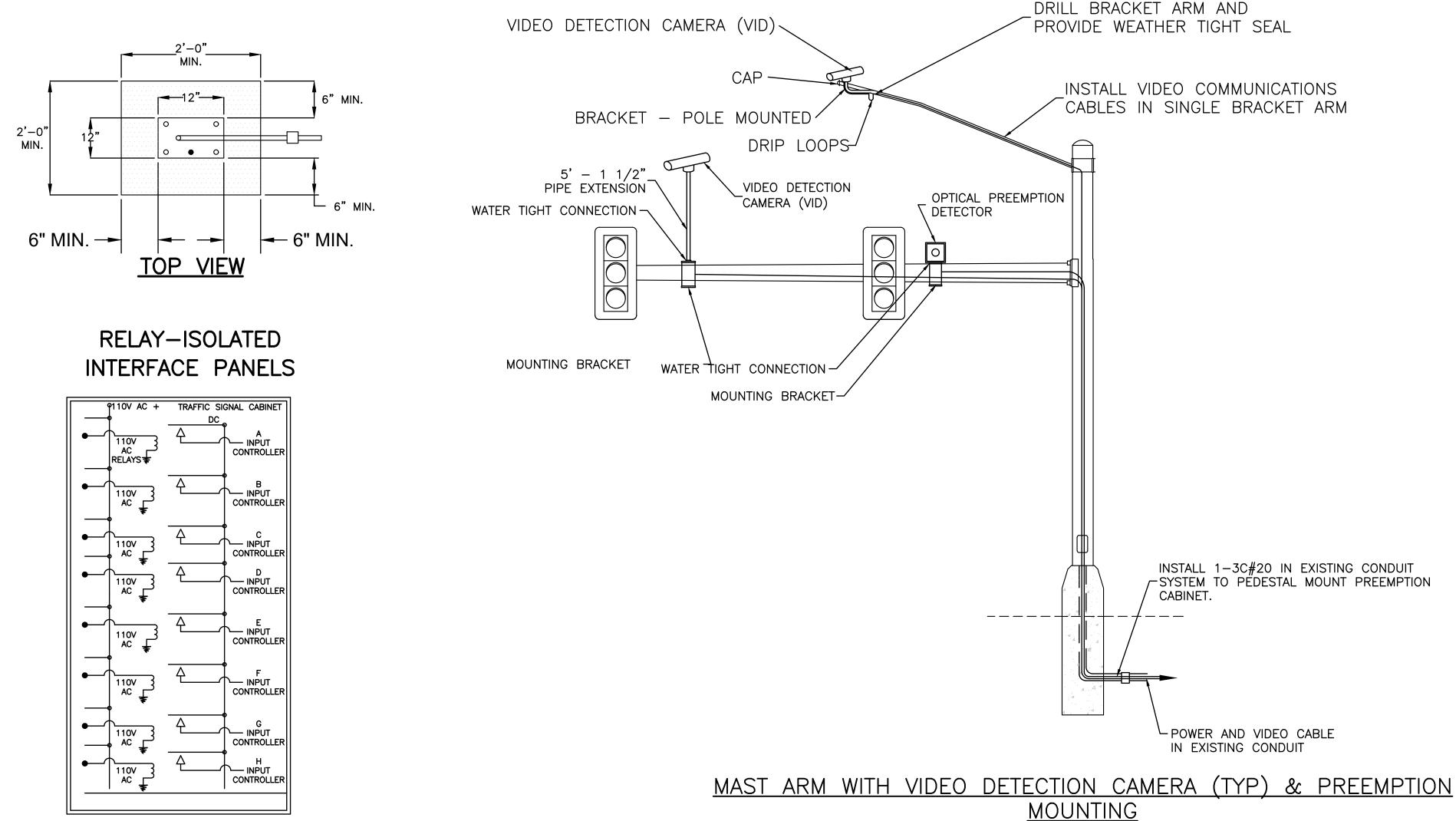
# PREEMPTION NOTES:

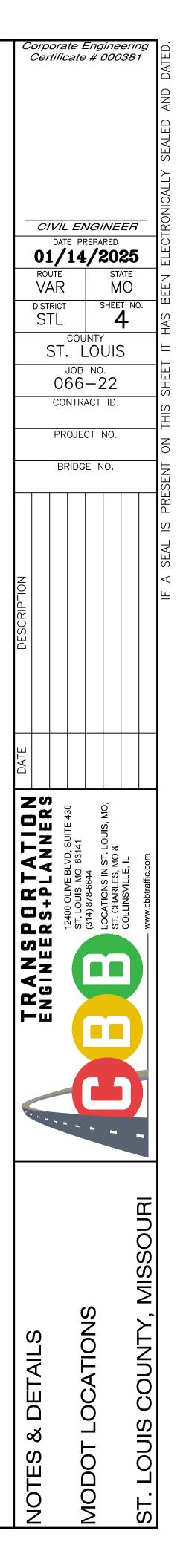
- 1. THE CONTRACTOR SHALL INSTALL AN OPTICAL PREEMPTION SYSTEM WITH OPTICAL DETECTORS AS SHOWN ON THE PLAN SHEETS.
- 2. THE CONTRACTOR SHALL INSTALL THE OPTICAL DETECTORS ON THE MAST ARMS AS SHOWN ON THE PLANS. THE OPTICAL DETECTORS SHALL HAVE A 60 DEGREE CONICAL CENTER ABOUT THE VIEWPORT NORMAL AXIS.
- 3. THE CONTRACTOR SHALL WIRE THE PREEMPTION SYSTEM THROUGH THE D-PLUG IN THE SIGNAL CABINET.
- 4. A RELAY ISOLATED INTERFACE PANEL SHALL BE INSTALLED AND CONNECTED IN THE CONTROLLER CABINET. NO ADDITIONAL PREEMPTION FEATURES CAN BE ADDED TO THE SIGNAL CIRCUITRY.
- 5. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABLES FOR THE OPTICAL PREEMPTION SYSTEM, THIS INCLUDES THE WIRING FROM THE OPTICAL DETECTOR HEADS TO THE PROCESSOR AND FROM THE PROCESSOR TO THE TRAFFIC SIGNAL CONTROLLER.
- 6. THE PAY ITEM FOR "OPTICAL PREEMPTION" INCLUDES ALL MATERIALS AND LABOR FOR A COMPLETE OPERATION SYSTEM, WHICH INCLUDES THE OPTICAL SIGNAL PROCESSOR, PREEMPTION CONTROL CABINET (INCLUDING BASE), AND DETECTOR CARDS, OPTICAL DETECTORS, CONDUIT AND CABLES BETWEEN TRAFFIC SIGNAL CONTROLLER AND PREEMPTION CABINET, BRACKETS, CABLE FROM DETECTORS TO PROCESSOR UNIT, GROMMETS AND MISCELLANEOUS HARDWARE.
- 7. ALL NEW PREEMPTION EQUIPMENT SHALL BE COMPATIBLE WITH FENTON FIRE PROTECTION DISTRICT'S EXISTING PREEMPTION EQUIPMENT. EXISTING AGREEMENT TO BE SUPPLEMENTED FOR ALL NEW LOCATIONS.



# PREEMPTION CONTROL CABINET

(TESCO, MILLBANK, OR APPROVED EQUAL) MINIMUM SIZE 12"W X 7-1/4"D X 42"H MAXIMUM SIZE 14"W X 10"D X 48"H





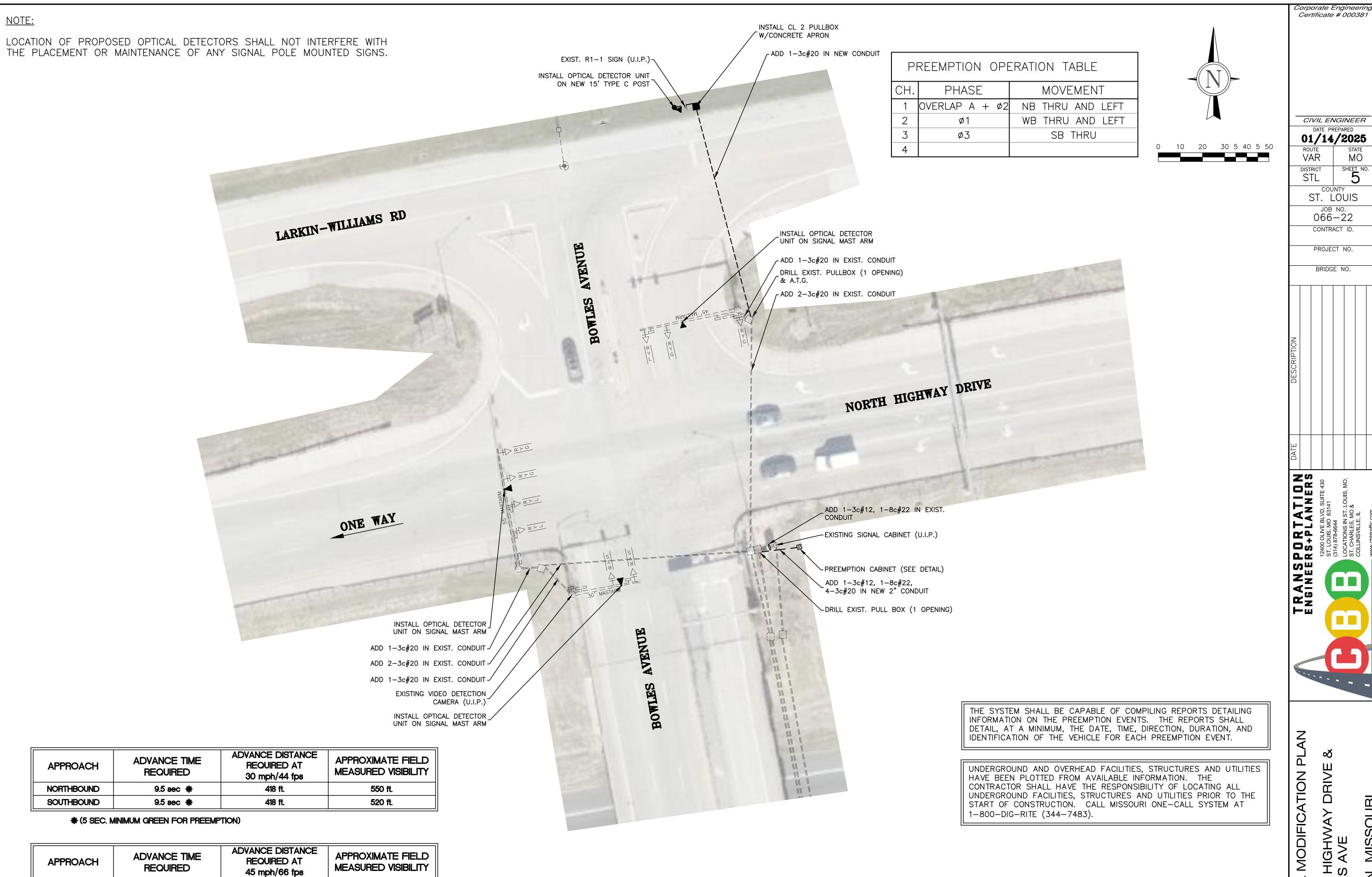
INSTALL 1-3C#20 IN EXISTING CONDUIT

POWER AND VIDEO CABLE

IN EXISTING CONDUIT

CABINET

-SYSTEM TO PËDESTAL MOUNT PREEMPTION



WESTBOUND

9.5 sec \*

**\***(5 SEC. MINIMUM GREEN FOR PREEMPTION)

627 ft.

2112 ft.

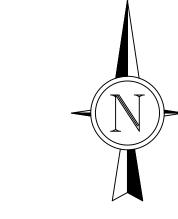
CIVIL ENGINEER 01/14/2025 VAR DISTRICT STL COUNTY ST. LOUIS JOB NO. 066-22 CONTRACT ID. PROJECT NO. BRIDGE NO. TRANSPORTATION ENGINEERS+PLANNERS

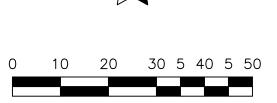
> **MODIFICATION PL** DRIVE NORTH BOWLE

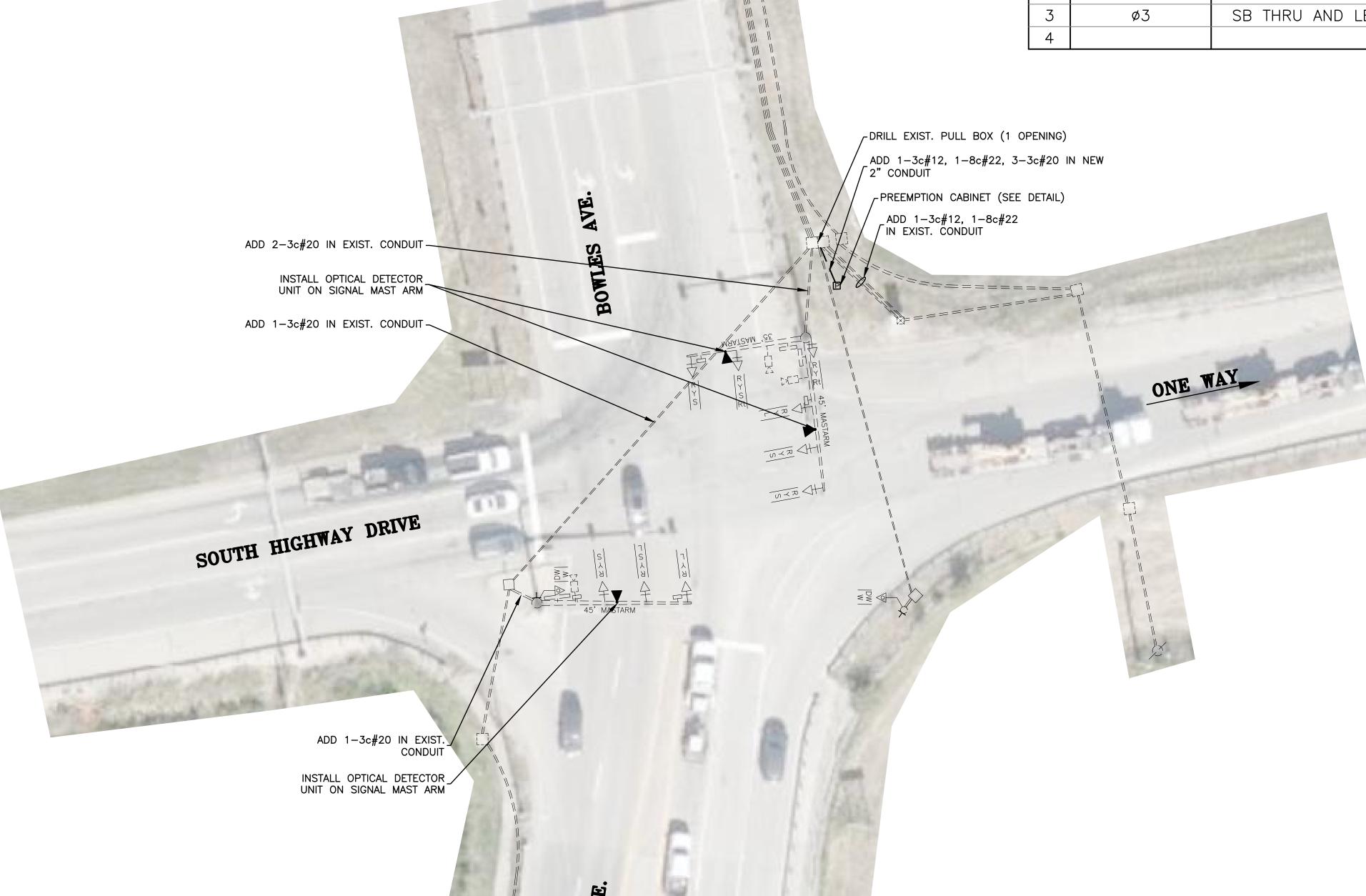
SIGNAL MODOT SIGNAL

LOCATION OF PROPOSED OPTICAL DETECTORS SHALL NOT INTERFERE WITH THE PLACEMENT OR MAINTENANCE OF ANY SIGNAL POLE MOUNTED SIGNS.

| PREEMPTION OPERATION TABLE |       |                  |  |  |  |
|----------------------------|-------|------------------|--|--|--|
| CH.                        | PHASE | MOVEMENT         |  |  |  |
| 1                          | ø2    | EB THRU AND LEFT |  |  |  |
| 2                          | ø1    | NB               |  |  |  |
| 3                          | ø3    | SB THRU AND LEFT |  |  |  |
| 4                          |       |                  |  |  |  |







| APPROACH   | ADVANCE TIME<br>REQUIRED | ADVANCE DISTANCE<br>REQUIRED AT<br>30 mph/44 fps | APPROXIMATE FIELD MEASURED VISIBILITY |
|------------|--------------------------|--------------------------------------------------|---------------------------------------|
| NORTHBOUND | 9.5 sec *                | 418 ft.                                          | 850 ft.                               |
| SOUTHBOUND | 9.5 sec *                | 418 ft.                                          | 550 ft.                               |

# # (5 SEC. MINIMUM GREEN FOR PREEMPTION)

| APPROACH  | ADVANCE TIME<br>REQUIRED | ADVANCE DISTANCE<br>REQUIRED AT<br>45 mph/66 fps | APPROXIMATE FIELD<br>MEASURED VISIBILITY |
|-----------|--------------------------|--------------------------------------------------|------------------------------------------|
| EASTBOUND | 9.5 sec *                | 627 ft.                                          | 1056 ft.                                 |

**\***(5 SEC. MINIMUM GREEN FOR PREEMPTION)

THE SYSTEM SHALL BE CAPABLE OF COMPILING REPORTS DETAILING INFORMATION ON THE PREEMPTION EVENTS. THE REPORTS SHALL DETAIL, AT A MINIMUM, THE DATE, TIME, DIRECTION, DURATION, AND IDENTIFICATION OF THE VEHICLE FOR EACH PREEMPTION EVENT.

UNDERGROUND AND OVERHEAD FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY OF LOCATING ALL UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CALL MISSOURI ONE—CALL SYSTEM AT 1-800-DIG-RITE (344-7483).

SOUTH HIGHWAY BOWLES AVE

MODOT SIGNAL

CIVIL ENGINEER 01/14/2025 VAR DISTRICT STL COUNTY ST. LOUIS JOB NO. 066 - 22CONTRACT ID.

Corporate Engineering Certificate # 000381

PROJECT NO. BRIDGE NO.

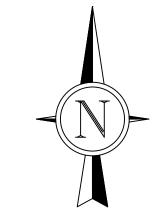
TRANSPORTATION ENGINEERS+PLANNERS

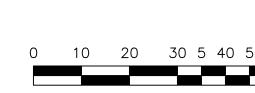


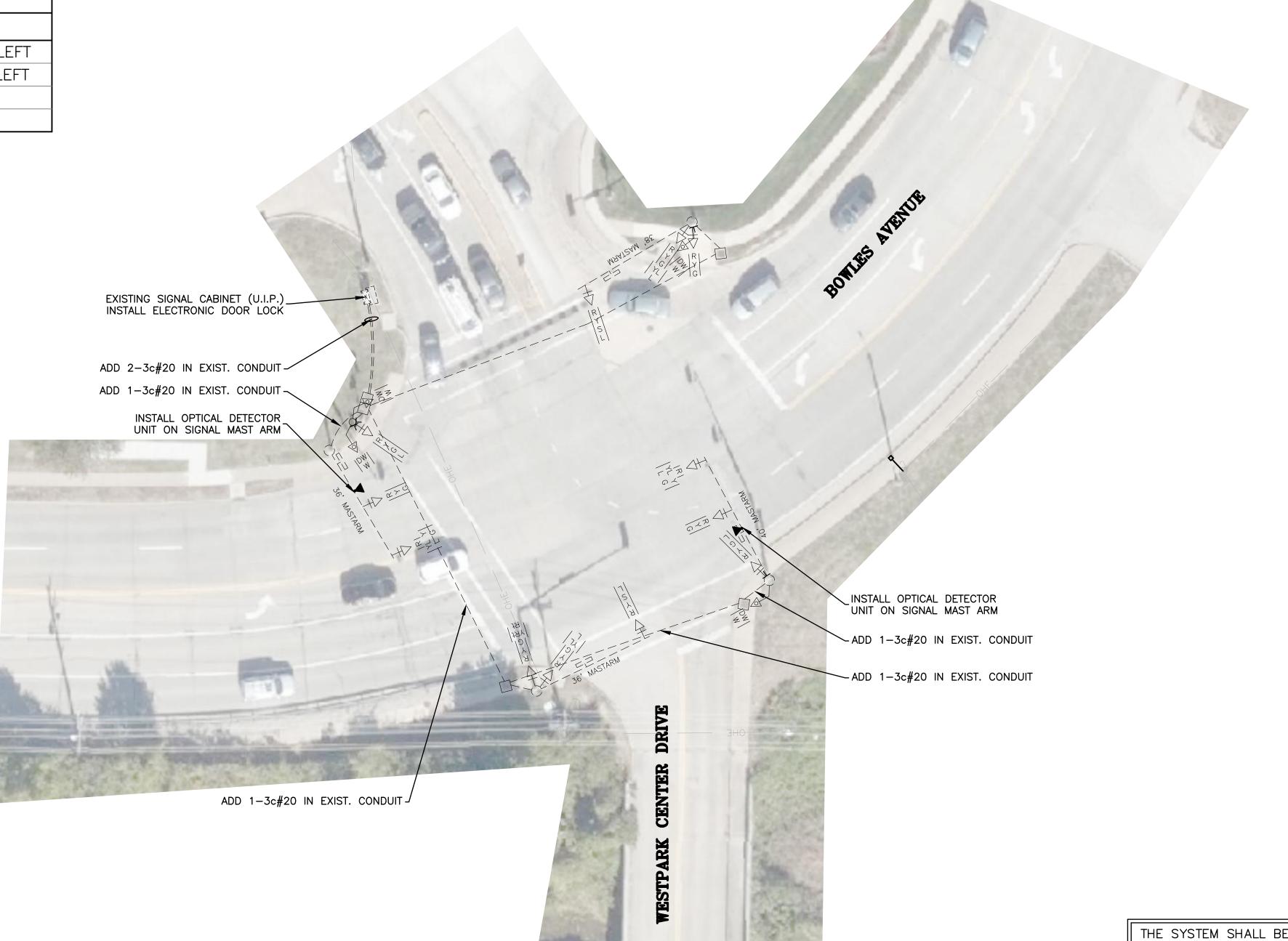
**MODIFICATION PL** SIGNAL

LOCATION OF PROPOSED OPTICAL DETECTORS SHALL NOT INTERFERE WITH THE PLACEMENT OR MAINTENANCE OF ANY SIGNAL POLE MOUNTED SIGNS.

| PREEMPTION OPERATION TABLE |                    |                  |  |  |  |  |
|----------------------------|--------------------|------------------|--|--|--|--|
| CH.                        | CH. PHASE MOVEMENT |                  |  |  |  |  |
| 1                          | ø2 + ø5            | WB THRU AND LEFT |  |  |  |  |
| 2                          | ø1 + ø6            | EB THRU AND LEFT |  |  |  |  |
| 3                          |                    |                  |  |  |  |  |
| 4                          |                    |                  |  |  |  |  |







THE SYSTEM SHALL BE CAPABLE OF COMPILING REPORTS DETAILING INFORMATION ON THE PREEMPTION EVENTS. THE REPORTS SHALL DETAIL, AT A MINIMUM, THE DATE, TIME, DIRECTION, DURATION, AND IDENTIFICATION OF THE VEHICLE FOR EACH PREEMPTION EVENT.

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| APPROACH  | ADVANCE TIME<br>REQUIRED * | ADVANCE DISTANCE<br>REQUIRED AT<br>30 mph/44 fps | APPROXIMATE FIELD MEASURED VISIBILITY |
|-----------|----------------------------|--------------------------------------------------|---------------------------------------|
| WESTBOUND | 11.9/26.9 <b>sec</b>       | 524 ft./1184 ft.                                 | 850 ft.                               |
| EASTBOUND | 11.9/26.9 sec              | 524 ft./1184 ft.                                 | 787 ft.                               |

\* (WITHOUT PEDESTRIAN ACTUATION/WITH PEDESTRIAN ACTUATION)

ST. LOUIS COUNTY SIGNAL

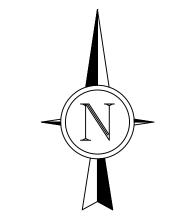
HT #7870

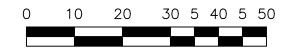
|        | CIVIL ENGINEER  DATE PREPARED |                    |                                         |                     |                    |                                               |                  |                    |
|--------|-------------------------------|--------------------|-----------------------------------------|---------------------|--------------------|-----------------------------------------------|------------------|--------------------|
| 50     |                               | 01                 | /                                       |                     |                    | 202                                           |                  | ı                  |
|        |                               | ROU<br>VA<br>DISTR | RICT                                    |                     | Ş                  |                                               | O<br>T NO        | ).                 |
|        |                               |                    |                                         |                     | <u>Г</u> ТИ<br>-ОІ | ,<br>UIS                                      | <br>}            |                    |
|        |                               |                    | 06                                      | јов<br>66           | NO<br>-2           | 22                                            |                  |                    |
|        |                               |                    | _                                       |                     | ACT                |                                               |                  |                    |
|        |                               |                    | PR                                      | OJE                 | CT I               | NO.                                           |                  |                    |
|        |                               |                    | BF                                      | RIDG                | ΕN                 | Ю.                                            |                  |                    |
|        |                               |                    |                                         |                     |                    |                                               |                  |                    |
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|        | NOIL                          |                    |                                         |                     |                    |                                               |                  |                    |
|        | DESCRIPTION                   |                    |                                         |                     |                    |                                               |                  |                    |
|        | DE                            |                    |                                         |                     |                    |                                               |                  |                    |
|        |                               |                    |                                         |                     |                    |                                               |                  |                    |
|        |                               |                    |                                         |                     |                    |                                               |                  |                    |
|        | DATE                          |                    |                                         |                     |                    |                                               |                  |                    |
|        |                               | SABUNEERS+PLANNERS | 1 A A A A A A A A A A A A A A A A A A A | ST. LOUIS, MO 63141 | (314) 878-6644     | LOCATIONS IN ST. LOUIS, MO, ST. CHARLES, MO & | COLLINSVILLE, IL | www.cbbtraffic.com |
| $\neg$ |                               |                    |                                         |                     |                    |                                               |                  | <u> </u>           |
|        | - 4                           | <u> </u>           |                                         | න<br>Ш              |                    |                                               |                  |                    |

Corporate Engineering Certificate # 000381

SIGNAL MODIFICATION PLAN

VESTPARK CENTER D OWLES AVE LOCATION OF PROPOSED OPTICAL DETECTOR SHALL NOT INTERFERE WITH THE PLACEMENT OR MAINTENANCE OF ANY SIGNAL POLE MOUNTED SIGNS.





| APPROACH   | ADVANCE TIME<br>REQUIRED * | ADVANCE DISTANCE<br>REQUIRED AT<br>30 mph/44 fps | APPROXIMATE FIELD MEASURED VISIBILITY |
|------------|----------------------------|--------------------------------------------------|---------------------------------------|
| SOUTHBOUND | 10.6/26.6 sec              | 466 ft./1170 ft.                                 | 750 ft.                               |
| WESTBOUND  | 10.5/25.5 sec              | 462 ft./1122 ft.                                 | 505 ft.                               |

# **\*** (WITHOUT PEDESTRIAN ACTUATION/WITH PEDESTRIAN ACTUATION)

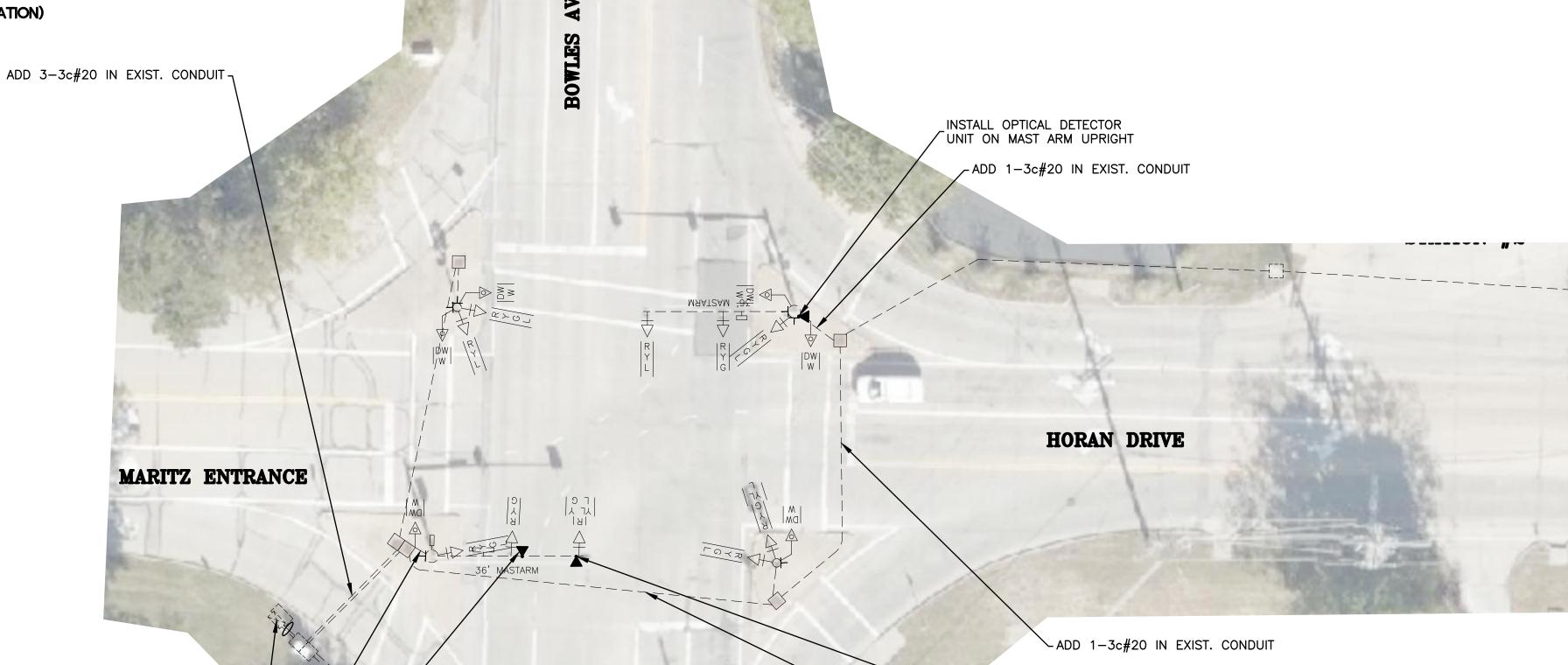
| APPROACH   | ADVANCE TIME<br>REQUIRED * | ADVANCE DISTANCE<br>REQUIRED AT<br>45 mph/66 fps | APPROXIMATE FIELD MEASURED VISIBILITY |  |
|------------|----------------------------|--------------------------------------------------|---------------------------------------|--|
| NORTHBOUND | 10.6/26.6 sec              | 700 ft./1756 ft.                                 | 1320 ft.                              |  |

EXISTING SIGNAL CABINET (U.I.P.) INSTALL ELECTRONIC DOOR LOCK

ADD 2-3c#20 IN EXIST. CONDUIT

INSTALL OPTICAL DETECTOR / UNIT ON SIGNAL MAST ARM

**\*** (WITHOUT PEDESTRIAN ACTUATION/WITH PEDESTRIAN ACTUATION)



\_INSTALL OPTICAL DETECTOR UNIT ON SIGNAL MAST ARM

∼ADD 1-3c#20 IN EXIST. CONDUIT

| PREEMPTION OPERATION TABLE |            |                  |  |  |  |
|----------------------------|------------|------------------|--|--|--|
| CH.                        | PHASE      | MOVEMENT         |  |  |  |
| 1                          | <b>ø</b> 2 | NB               |  |  |  |
| 2                          | ø1 + ø6    | SB THRU AND LEFT |  |  |  |
| 3                          | <b>ø</b> 7 | WB               |  |  |  |
| 4                          |            |                  |  |  |  |

THE SYSTEM SHALL BE CAPABLE OF COMPILING REPORTS DETAILING INFORMATION ON THE PREEMPTION EVENTS. THE REPORTS SHALL DETAIL, AT A MINIMUM, THE DATE, TIME, DIRECTION, DURATION, AND IDENTIFICATION OF THE VEHICLE FOR EACH PREEMPTION EVENT.

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ST. LOUIS COUNTY SIGNAL

HT #7870

CIVIL ENGINEER DATE PREPARED **01/14/2025** VAR DISTRICT STL COUNTY ST. LOUIS JOB NO. 066-22 CONTRACT ID. PROJECT NO. BRIDGE NO. TRANSPORT ENGINEERS+PL

Corporate Engineering Certificate # 000381

SIGNAL MODIFICATION PLAN

HORAN DRIVE & BOWLES AVE

# NOTES:

THIS TYPICAL APPLICATION IS APPLICABLE TO INTERSECTIONS WITH RIGHT-OF-WAY CONTROL ON ALL APPROACHES.

A PROTECTIVE VEHICLE SHALL BE USED WHILE WORK IS IN PROGRESS.

THE PROTECTIVE VEHICLE SHOULD BE EQUIPPED WITH A TMA AND SHALL HAVE A FLASHING ARROW PANEL AND POSITIONED AT LEAST 150 FEET IN ADVANCE OF THE WORK SPACE, IF POSSIBLE.

THE WORK VEHICLE MAY BE USED AS THE PROTECTIVE VEHICLE IF ALL OF THE FOLLOWING CONDITIONS ARE MET:

- THE ROADWAY IS POSTED AT 45 MPH OR BELOW.
- THE WORK VEHICLE IS POSITIONED AT LEAST 150 FEET IN ADVANCE OF THE WORK SPACE.
- THE WORK VEHICLE HAS A FLASHING ARROW PANEL.
   THE WORK VEHICLE USES ACTIVATED ROTATING LIGHTS OR STROBE LIGHTS.

AT LOCATIONS WHERE RIGHT TURN MOVEMENTS ARE MINIMAL OR WHERE THE INCLUSION OF THE TURNING TRAFFIC WITH THE TRAFFIC USING THE ADJACENT OPEN LANE WILL NOT AFFECT CAPACITY OF THE APPROACH, IT IS ACCEPTABLE TO CLOSE ANY LANE NOT CARRIED THROUGH THE INTERSECTION PRIOR TO THE INTERSECTION. THEREBY, ELIMINATING THE TURN BAY SHOWN. IF RIGHT-TURN MOVEMENTS ARE SIGNIFICANT, HOWEVER, THE RIGHT LANE MAY BE LEFT OPEN PRIOR TO THE INTERSECTION RESTRICTED TO RIGHT-TURN MOVEMENTS ONLY. IN THIS CASE, ALL CHANNELIZATION DEVICES PRIOR TO THE INTERSECTION ARE ELIMINATED EXCEPT THOSE THAT MIGHT BE USED TO FORM A TEMPORARY ISLAND EMPHASIZING THE MANDATORY TURNING MOVEMENT.

FOR INTERSECTION APPROACHES REDUCED TO A SINGLE LANE, LEFT-TURNING MOVEMENTS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH MOTOR VEHICLE TRAFFIC.

IF THE WORK SPACE EXTENDS ACROSS THE CROSSWALK, THE CROSSWALK SHOULD BE CLOSED USING THE INFORMATION AND DEVICES SHOWN IN EPG 616.8.29 (TA-29) CROSSWALK CLOSURES AND PEDESTRIAN DETOURS.

BUFFER AND TAPER LENGTHS NOTED IN TABLE MAY BE MODIFIED TO FIT CONDITIONS.

FOR SHORT DURATION OPERATIONS, SIGNS AND CHANNELIZERS MAY BE REDUCED OR ELIMINATED.

FOR MOBILE OPERATIONS WHERE WORKERS ARE ON FOOT AND MOVE WITH THE OPERATION, CHANNELIZERS MAY BE REDUCED OR

WHERE POSSIBLE, SIGNS SHOULD BE PROVIDED ON BOTH SIDES OF THE AFFECTED APPROACH WHEN THE APPROACH IS TWO OR MORE LANES WIDE.

FOR HIGH SPEED FACILITIES, CHANNELIZER SPACING MAY BE REDUCED TO  $\frac{1}{2}$  SPACING NOTED IN TABLE.

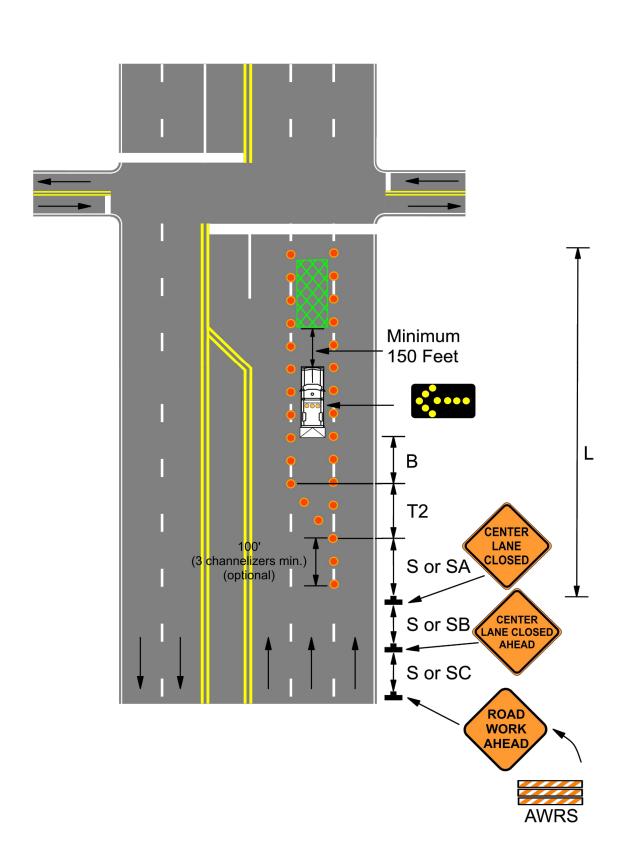
OTHER APPROPRIATE SIGNS MAY BE USED IN LIEU OF THE "ROAD WORK AHEAD" SIGN.

SUPPLEMENTAL WARNING METHODS MAY BE USED TO CALL ATTENTION TO THE WORK ZONE.

IF RUMBLE STRIPS ARE USED, REVIEW EPG 616.8.87 RUMBLE STRIPS.

FOR LONG-TERM OPERATIONS, REFER TO EPG 616.6.2.2 FLAGS AND ADVANCE WARNING RAIL SYSTEM.

SEE EPG 616.12 WORK ZONE SPEED LIMITS FOR SPEED LIMIT GUIDELINES.



616.8.21 (TA-21)
LANE CLOSURE ON NEAR SIDE OF
INTERSECTION

616.8.22 (TA-22)
LANE CLOSURE OF RIGHT LANE ON
FAR SIDE OF INTERSECTION

616.8.21 (TA-21) Lane Closure on Near Side of Intersection - MT

| SPEED                        | SIGN SP          | ACING (ft.)                         | TAPER LEI            | NGTH (ft.)       | OPTIONAL                      | CHANNELIZER | SPACING (ft.)         |
|------------------------------|------------------|-------------------------------------|----------------------|------------------|-------------------------------|-------------|-----------------------|
| Permanent<br>Posted<br>(mph) | Undivided<br>(S) | Divided<br>(S)                      | Shoulder (1)<br>(T1) | Lane (2)<br>(T2) | BUFFER<br>LENGTH (ft.)<br>(B) | Tapers      | Buffer/<br>Work Areas |
| 0-35                         | 200              | 200                                 | 70                   | 245              | 280                           | 35          | 40                    |
| 40-45                        | 350              | 500                                 | 150                  | 540              | 400                           | 40          | 80                    |
| 50-55                        | 500              | 1000                                | 185                  | 660              | 560                           | 50          | 80                    |
| 60-70                        | 1000             | SA - 1000<br>SB - 1500<br>SC - 2640 | 235                  | 840              | 840                           | 60          | 120                   |

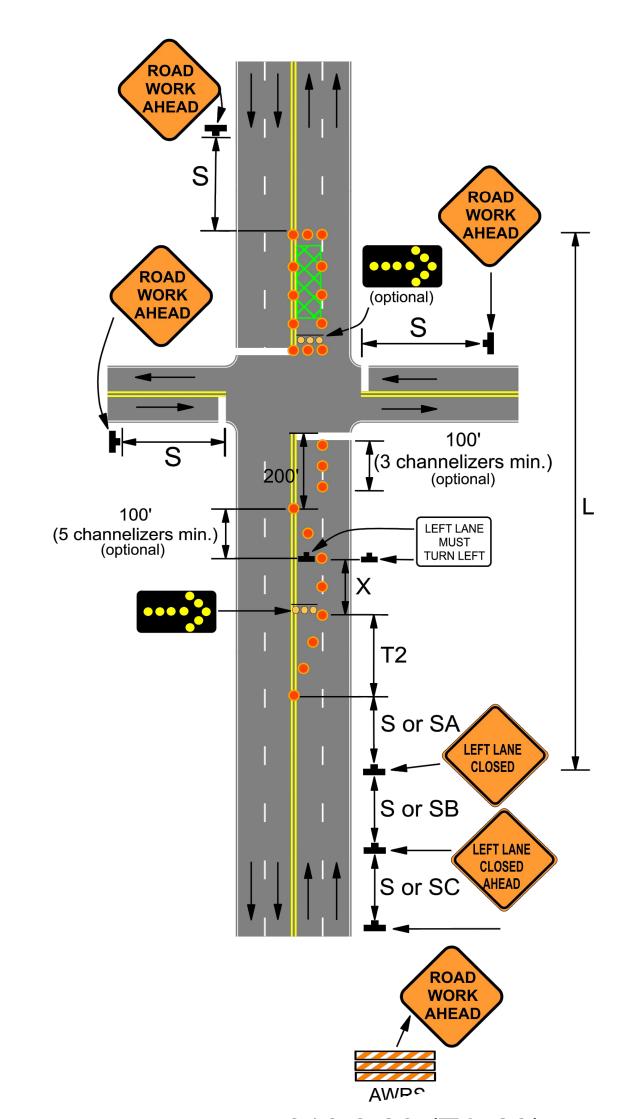
This typical application is applicable to intersections with right of way control on all approaches.

100' (3 channelizers min.) (optional)

> RIGHT LANE MUST TURN RIGHT

(5 channelizers min.)

| (Advanced Warning Rail System) | TYPE OF ROADWAY | SIGN<br>HEIGHT         | MAXIMUM<br>WORK ZONE<br>LENGTH (L) |
|--------------------------------|-----------------|------------------------|------------------------------------|
| For Long Term Operations       | URBAN           | 1' Portable<br>7' Post | 1 Mi.                              |
|                                | RURAL DIVIDED   | 1' Portable<br>7' Post | 2 Mi.                              |
|                                | RURAL UNDIVIDED | 1' Portable<br>5' Post | 3 Mi.                              |



616.8.23 (TA-23)
LANE CLOSURE OF LEFT LANE ON
FAR SIDE OF INTERSECTION

CIVIL ENGINEER 01/14/2025 DISTRICT ST. LOUIS JOB NO. 066 - 22CONTRACT ID. PROJECT NO. BRIDGE NO.

Certificate # 000381

TRANSPORTATIO
ENGINEERS+PLANNEI
12400 OLIVE BLVD, SUITE 4
ST. LOUIS, MO 63141
(314) 878-6644
LOCATIONS IN ST. LOUIS, M
ST. CHARLES, MO &
COLLINSVILLE, IL

ARIOUS LOCATIONS