

Village of Saranac Lake 39 Main Street, 2nd Floor Suite 9 • Saranac Lake, NY 12983-2294 • Phone: (518) 891-4150 • www.saranaclakeny.gov

PUBLIC NOTICE INVITATION TO BID

NOTICE is hereby given, that sealed bids for the Village of Saranac Lake Entry Signs Project, complete, will be received until 29 September 2022 at 1:00 pm at the Village of Saranac Lake Offices, 39 Main Street, Suite 9, Saranac Lake, NY 12983, (518) 891-4150, at which time they will be opened and publicly read. Bids shall be submitted in sealed envelopes, addressed to the Village Clerk, and shall bear on the face thereof, the name and address of the bidder and the appropriate contract title "Village of Saranac Lake Entry Signs Project".

Bid details can be found at The Village Office 39 Main Street Saranac Lake NY 12983, or online at www.saranaclakeny.gov > Documents and Forms > Public Notices > Bids & RFQ's & RFQ's

00 11 13 Advertisement for Bids Village of Saranac Lake Entry Signs

NOTICE is hereby given, that sealed bids for the Village of Saranac Lake Entry Signs Project, complete, will be received until 29 September 2022 at 1:00 pm at the Village of Saranac Lake Offices, 39 Main Street, Suite 9, Saranac Lake, NY 12983, (518) 891-4150, at which time they will be opened and publicly read. Bids shall be submitted in sealed envelopes, addressed to the Village Clerk, and shall bear on the face thereof, the name and address of the bidder and the appropriate contract title "Village of Saranac Lake Entry Signs Project". An award date on or about 10 October 2022 is planned. All work, including all testing and final clean-up, shall be substantially complete by 9 November 2022, with final completion by 16 November 2022.

Refer to the Plans and the Specifications, and all labor, tools, materials and equipment necessary to complete required work for Village of Saranac Lake Entry Signs, Saranac Lake, New York.

Prevailing Wage Rates shall be paid to workers on the project. The Village of Saranac Lake is exempt from paying sales and compensating use taxes of the State of New York, and its cities and counties, on all materials to be incorporated into the work.

Schedule of Important Dates and Times

Pre-Bid Meeting: 15 September 2022 - 1:00 PM, on site End of Questions: (Close of Business) 22 September 2022

Addendum: (If Required) 26 September 2022 Bids Due: 29 September 2022 – 1:00 PM Substantial Completion: 9 November 2022 Final Completion: 16 November 2022

Electronic copies of Bid Documents may be obtained from North Woods Engineering by sending written request to info@north-woods-engineering.com

Only Registered Plan Holders shall be allowed to submit a bid. (Phone requests will not be honored.) Addenda, if any, will be issued only to those persons whose name and address are on record as having obtained the contract documents from North Woods Engineering.

Bid selection will be made to the lowest qualified, responsible Bidder. The Village of Saranac Lake reserves the right to reject any or all Bids, to waive any informality therein, and to select the Bid, the acceptance of which, in its judgement, will best assure the efficient performance of the Work.

By Order of the Village of Saranac Lake James Williams, Mayor

End of Section

00 21 13 Instructions to Bidders Village of Saranac Lake Entry Signs

Bids received by mail or by hand after the designated time as outlined in the "Advertisement for Bids" shall be rejected.

Bids should not include sales and compensating use taxes on materials incorporated into the work.

Complete sets of Bid Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

It is the responsibility of each Bidder before submitting a Bid, to examine the Contract Documents thoroughly and visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work. Bidders must notify the Engineer of all conflicts, errors, or discrepancies in the Contract Documents as of the "End of Questions Date" noted in the Advertisement to Bid.

All questions about the meaning or intent of the Contract Documents are to be directed to the Engineer. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be issued by Addenda distributed to all parties recorded by the Engineer as having received the Bid Documents. Questions received after the "End of Questions Date" may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

In order to demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days of Owner's request written evidence, such as financial data, previous experience, present commitments and other such data.

For a Bid to be considered complete, the following items must be provided:

- A. Bid Schedule including acknowledgment of Addenda (as needed)
- B. Certificate of Non-Collusion
- C. Affidavit of Worker's Compensation

The Owner reserves the right to waive any informalities or irregularities in the Bids received, and to reject any or all Bids without explanation.

End of Section

Instructions to Bidders 00 21 13 - 1

00 41 00 Bid Schedule Village of Saranac Lake Entry Signs

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following sum:

Base Bid

Bid Schedule

ITEM NO.	BID ITEM	ESTIMATED QUANTITY	BID AMOUNT
1	Mobilization, Demobilization and General Conditions	lump sum	
2	ALL Construction Work for sign located on NYS Route 3 Eastbound	lump sum	
3	ALL Construction Work for sign located on NYS Route 3 Westbound	lump sum	
4	ALL Construction Work for sign located on NYS Route 86 Southbound	lump sum	
5	ALL Construction Work for sign located on NYS Route 86 Northbound	lump sum	

Note: Sales tax is not required for this project	t.
BASE BID TOTAL	s
Respectfully Submitted:	
Signature	Address
Title	Address
Date	License Number (if applicable)
(SEAL - if BID is by a corporation)	Attest:
Addendum 1 Acknowledgment (as needed)	
Addendum 2 Acknowledgment (as needed)	
Enc	d of Section

00 41 00 - 1

VILLAGE OF SARANAC LAKE

SARANAC LAKE, NEW YORK

ENTRY SIGNS

MAYOR JAMES WILLIAMS

VILLAGE BOARD MEMBERS

MATT SCOLLIN KELLY BRUNETTE RICH SHAPIRO TOM CATILLAZ

VILLAGE MANAGER **ERIK STENDER**



IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY.

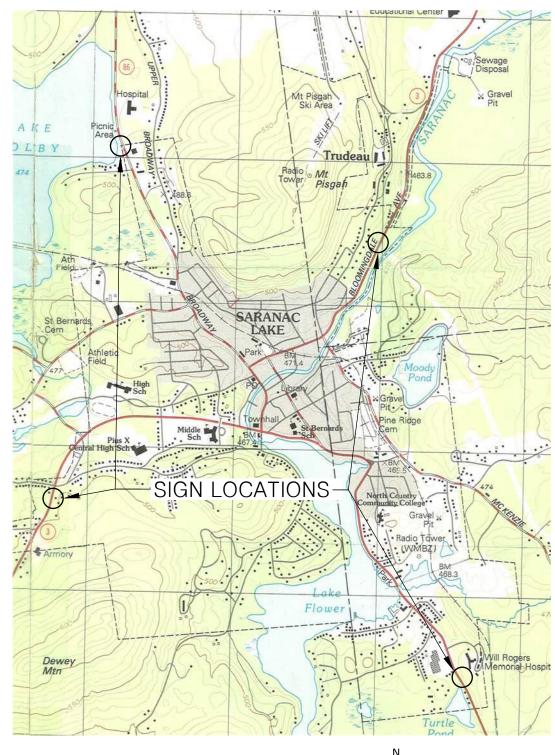
PROJECT TITLE:

VILLAGE OF SARANAC LAKE **ENTRY SIGNS**

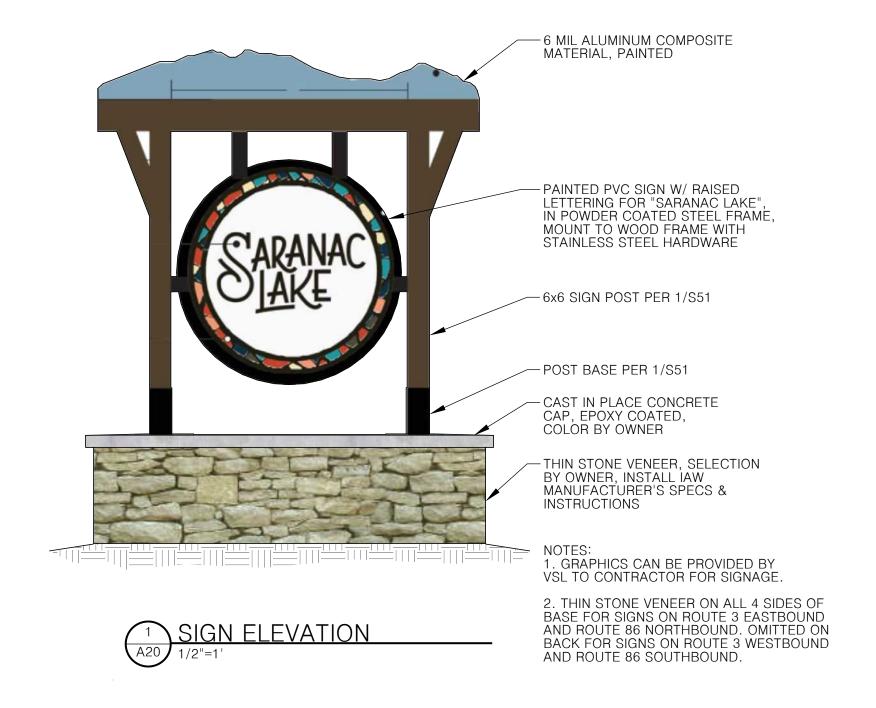


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, NY 12983	LOCATIO
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NG TITLE: CAD FILE: VSL Entry Signs.layout PROJ NO: 22-049 **COVER REVISION:** DRAWING NUMBER: COV VILLAGE OF SARANAC LAKE, NY BY: BM DOUGLASS DATE: 08.5.22 ORIGINAL 11"x17" CHECKED BY: JA GARSO DATE: 08.5.22







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PROJECT TITLE:

VILLAGE OF SARANAC LAKE **ENTRY SIGNS**



348 Lake Street · Saranac Lake, NY 12983 (518) 891-4975

www.north-woods-engineering.com New York State Certified

DRAWING TITLE:

CHECKED BY: JA GARSO

ELEVATION

DATE:

08.5.22

CAD FILE: VSL Entry Signs.layout PROJ NO: 22-049 **REVISION:** DRAWING NUMBER:

VILLAGE OF SARANAC LAKE, NY LOCATION: DRAWN BY: BM DOUGLASS | DATE: 08.5.22

ORIGINAL

11"x17"

A20

GENERAL NOTES

- 1. FOUNDATION DESIGN IS BASED ON SKETCHES OF SIGN PROVIDED BY VILLAGE OF SARANAC LAKE. NOTIFY ENGINEER IF DESIGN OF SIGN CHANGES SUBSTANTIALLY.
- 2. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS BY GOVERNING AGENCIES HAVING JURISDICTION OVER THE PROJECT.

FOUNDATION NOTES

- FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL.
- 2. ALLOWABLE SOIL BEARING PRESSURE (PER STRUCTURAL DESIGN NOTES) SHALL BE VERIFIED BY OWNER'S REPRESENTATIVE BEFORE PLACING FOUNDATION CONCRETE.
- 3. SOIL BEARING SURFACES PREVIOUSLY ACCEPTED BY OWNER'S REPRESENTATIVE, WHICH ARE ALLOWED TO BE SATURATED, FROZEN, OR DISTURBED SHALL BE REWORKED TO THE SATISFACTION OF OWNER'S REPRESENTATIVE.
- 4. DO NOT PLACE FOOTINGS IN WATER OR ON FROZEN GROUND.
- 5. DO NOT ALLOW GROUND BENEATH FOOTINGS TO FREEZE.

STRUCTURAL DESIGN INFORMATION

- 1. LOADING INFORMATION
 - A. WIND LOAD

 - ii. EXPOSURE C
 - iii. qz = 17.5 PSF
 - iv. WIND PRESSURE PER ASCE7-16 29.3 (SOLID FREESTANDING SIGNS)
 - v. Cf = 1.4
 - vi. p = 20.3 PSF (APPLIED TO GROSS AREA)
- 2. SOIL ALLOWABLE BEARING PRESSURE...... 2000 PSF
- 3. ALL STRUCTURAL ELEMENTS DESIGNED BY OTHERS SHALL MEET THE REQUIREMENTS OF THE 2020 BUILDING CODE OF NEW YORK STATE.



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PROJECT TITLE:

VILLAGE OF SARANAC LAKE FNTRY SIGNS

GENERAL CONCRETE NOTES

- ALL CONCRETE WORK SHALL COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE LOCAL BUILDING CODES.
- 2. ALL CONCRETE WORK SHALL BE NORMAL WEIGHT HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI, UNO. WATER CEMENT RATIO TO BE KEPT TO A MINIMUM TO ENHANCE STRENGTH.
- 3. ALL REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- 4. THE CONCRETE CONTRACTOR SHALL INSTALL (OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL) ALL ANCHORS, BOLTS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, ETC AS REQUIRED BY OTHER TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS. FORM RELEASE OIL TO BE APPROVED NON-TOXIC AND APPLIED TO FORMS PRIOR TO SET-UP.
- 5. FOOTINGS SHALL REST ON SUITABLE UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING A MINIMUM BEARING CAPACITY OF 2000 PSF. ELEVATION OF FOOTINGS ARE SHOWN ON PLANS, BUT ARE SUBJECTED TO REVISIONS WHEN TRUE SOIL CONDITIONS ARE EXPOSED BY EXCAVATION. THE ENGINEER SHALL BE NOTIFIED PROMPTLY OF ANY WEAK STRATA, WATER CONDITIONS OR OTHER POOR BEARING CONDITIONS.
- 6. CONCRETE TEMPERATURES DURING THE FIRST SEVEN DAYS SHALL BE MAINTAINED BETWEEN 50 DEG F AND 90 DEG F. RAPID DRYING MUST BE PREVENTED.
- 7. FOUNDATIONS MUST BE AT LEAST SEVEN DAYS OLD BEFORE BACKFILL.
- 8. BACKFILLING SHALL BE DONE BY PLACING SIMULTANEOUS LEVEL LAYERS AROUND THE FOUNDATION SUCH THAT THE DIFFERENCE BETWEEN ONE SIDE AND THE OTHER DOES NOT EXCEED 24 INCHES.
- 9. BACKFILL SHALL BE APPROVED MATERIAL, FREE OF BOULDERS LARGER THAN 6" DIAMETER, ORGANIC MATERIAL, TOPSOIL OR DEBRIS. BACKFILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT AS DEFINED BY ASTM D1557 (MODIFIED PROCTOR).
- 10. CONTRACTOR TO DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND BRACING NECESSARY TO SAFELY COMPLETE THE CONSTRUCTION. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH OSHA STANDARDS.
- 11. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT AND CONTINUOUSLY DEWATER THE SITE TO FACILITATE THE CONSTRUCTION AND SAFE WORKING CONDITIONS.
- 12. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION.

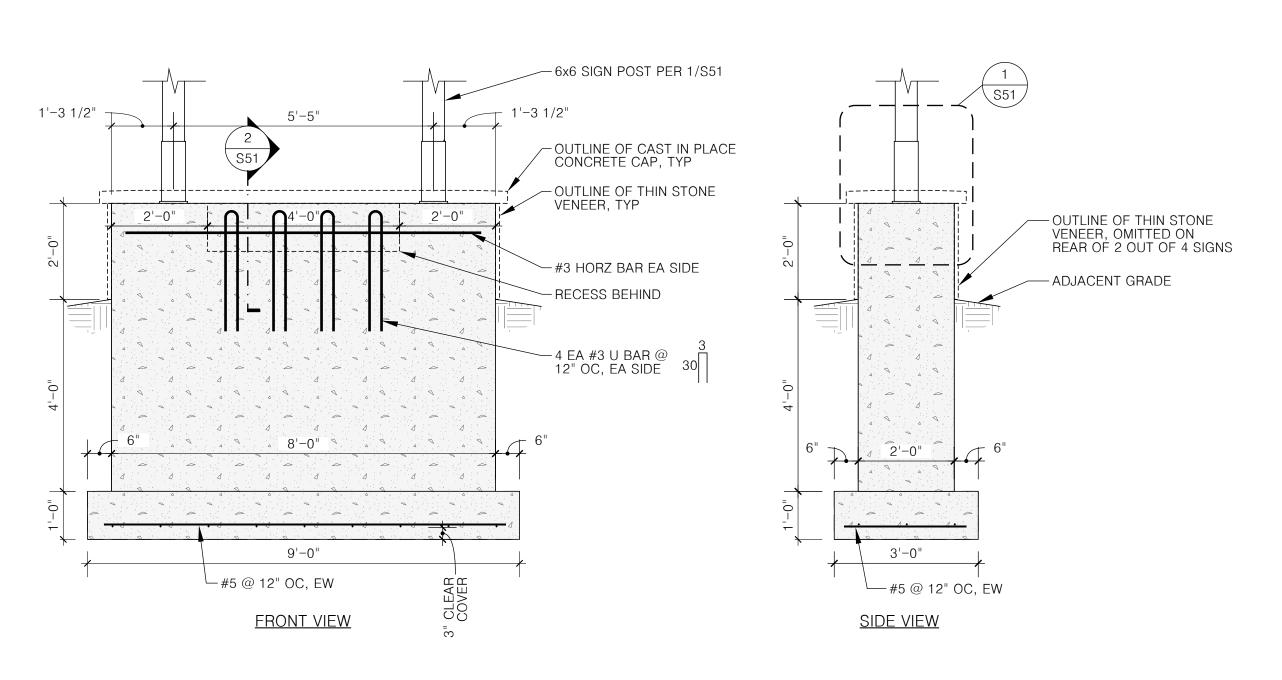
CONCRETE MIX DESIGN

LOCATION	UNIT	MEASUREMENT
EXTERIOR CONCRETE	COMPRESSIVE STRENGTH (28 DAY)	4000 PSI
WALLS AND FOUNDATIONS	WATER/CEMENT RATIO (MAX)	0.44 BY WEIGHT (MASS)
	AIR ENTRAINED	6.0% +/- 1.5%

NOTES:

- MIX CONCRETE IN ACCORDANCE WITH ACI 301. DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94.
- SELECT PROPORTIONS FOR NORMAL WEIGHT CONCRETE IN ACCORDANCE WITH ACI 301. PROVIDE MIX DESIGN FOR REVIEW AND ACCEPTANCE BY ENGINEER PRIOR TO USE.
- B. LIMIT FLY ASH TO 15%.
- USE ACCELERATING ADMIXTURES IN COLD WEATHER ONLY WHEN APPROVED BY ENGINEER. USE OF ADMIXTURES WILL NOT RELAX COLD WEATHER PLACEMENT REQUIREMENTS.
- USE OF CALCIUM CHLORIDE IS PROHIBITED UNLESS APPROVED BY ENGINEER IN WRITING.
- 6. USE SET RETARDING ADMIXTURES DURING HOT WEATHER ONLY WHEN APPROVED BY ENGINEER.

	DRAWING TITLE:				CAD FILE:	VSL Entry Signs.layout		
5	North Waterday	NOTES				PROJ NO:	22-049	
ų.	North Woods					REVISION:		
	Engineering PLLC					DRAWING		
1)	348 Lake Street · Saranac Lake, NY 12983						NUMBER:	0.00
	(518) 891-4975 www.north-woods-engineering.com	LOCATION:	VILLAGE OF SAR	ANAC LAK	E, NY			S00
		DRAWN BY:	BM DOUGLASS	DATE:	08.5.22	ORIGINAL		
1	Service-Disabled Veteran-Owned Business	CHECKED BY:	JA GARSO	DATE:	08.5.22	11"x17"		



FOUNDATION DETAIL



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PROJECT TITLE:

VILLAGE OF SARANAC LAKE ENTRY SIGNS



New York State Certified

FOUNDATION DETAIL

DATE:

08.5.22

CAD FILE: VSL Entry Signs.layout PROJ NO: 22-049 REVISION: DRAWING

NUMBER:

ORIGINAL

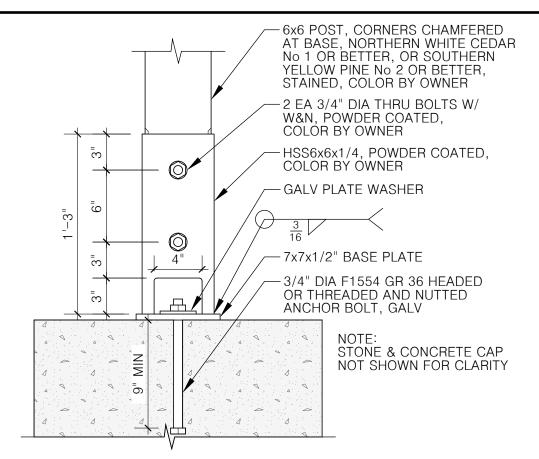
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LOCATION: VILLAGE OF SARANAC LAKE, NY DRAWN BY: BM DOUGLASS DATE: 08.5.22

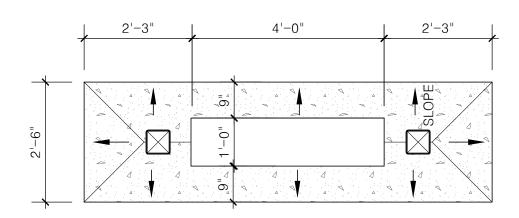
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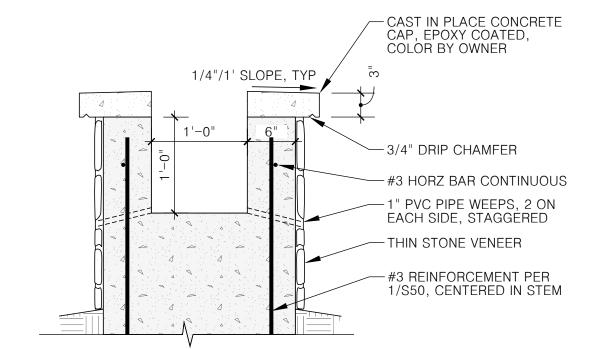
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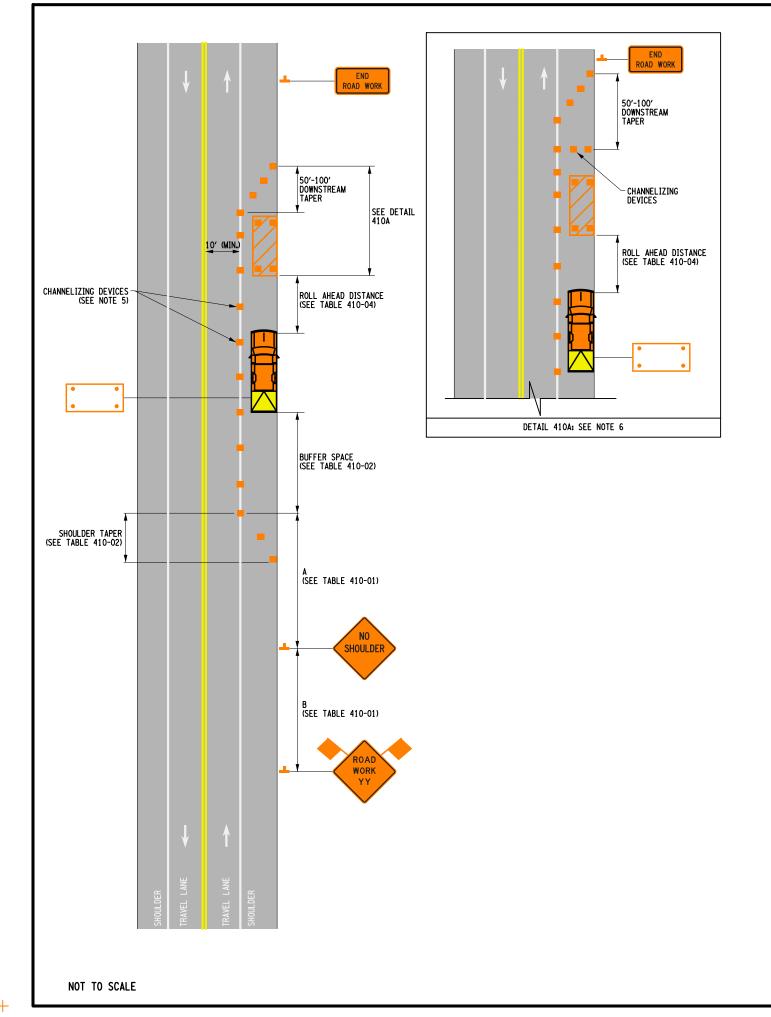
PROJECT TITLE:

VILLAGE OF SARANAC LAKE **ENTRY SIGNS**



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DRAWING TITLE	E:				CAD FILE:	VSL Entry Signs.layout
					PROJ NO:	22-049
DETAILS					REVISION:	
LOCATION: VILLAGE OF SARANAC LAKE, NY						S51
DRAWN BY: BM DOUGLASS DATE: 08.5.22 ORIGINAL						
CHECKED BY: J	A GARSO	DATE:	08.5.22	11"x17"		



NOTES:

1. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.

2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A

3. XX IS THE EXPECTED OVERALL LENGTH OF THE OPERATION TO BE COMPLETED WITHIN THE WORK DAY. A SUPPLEMENTAL DISTANCE PLAQUE W7-3g SHALL BE USED WITH SIGN W2O-1 WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF

THE FOLLOWING SITUATIONS:

• MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN XX MILES FROM THE W20-1 SIGN

• WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN XX MILES FROM

THE SUPPLEMENT SIGN W7-3a SHALL INDICATE THE MAXIMUM ANTICIPATED DISTANCE BETWEEN THE W20-1 SIGN AND THE FARTHEST WORK LOCATION.

4. WHEN MULTIPLE WORK LOCATIONS EXIST WITHIN XX MILES FROM THE W20-1 SIGN, A G20-1 SIGN SHALL BE PLACED EVERY TWO MILES INDICATING THE DISTANCE FROM THE SIGN TO THE FARTHEST WORK

5. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.

6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN

7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.

NOTES ON NIGHTTIME WORK:

N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.

N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE

N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.

N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.

N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.

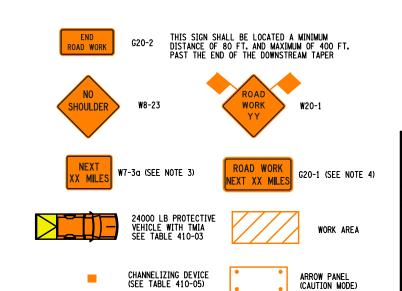
NG. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.

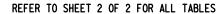
N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS

N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE

NO. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.

N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITONAL REQUIREMENTS AND CONSIDERATIONS.







U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE INTERMEDIATE TERM OPERATION (SHEET 1 OF 2)

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028

RobertLimoges ROBERT LIMOGES, P.E.

619-410

DIRECTOR, OTSM

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	DATE/TIME	USER

TABLE 410-01: ADVANCE WARNING SIGN SPACING						
	DISTANCE BE	TWEEN SIGNS				
ROAD TYPE	A (FT.)	B (FT.)				
URBAN (≤ 30 MPH*)	100	100				
URBAN (35-40 MPH*)	200	200				
URBAN (≥45 MPH*)	350	350				
RURAL	500	500				

• PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 410-02: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS								
PRECONSTRUCTION POSTED SPEED	LONGITUDINAL BUFFER SPACE	TAPER LENGTH: L (FT.)/ * OF SKIP LINES/ * OF CHANNELIZING DEVICES			SHOULDER TAPER LENGTH: L/3 (FT.)/ * OF SKIP LINES/ * OF CHANNELIZING DEVICES			
LIMIT (MPH)	DISTANCE (FT.)/ * OF SKIP LINES		LANE WIDTH IN HIFT OF TRAFFIO		FOR SHOULDER WIDTH			
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥8 FT.	
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2	
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2	
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3	
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3	
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4	
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5	
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5	

TABLE 410-03: PROTECTIVE VEHICLE REQUIREMENTS							
CLOSURE TYPE	ROAD TYPE & SPEED		NON-FREEWAY				
	RUAD TIPE & SPEED	≥ 45 MPH	35 - 40 MPH	≤ 30 MPH			
	EXPOSURE CONDITIONS ¹						
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2			
	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2			
SHOULDER CLOSURE	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2			
OR ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2			

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT

2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 410-04:	ROLL AHEAD	DISTANCE					
ROLL AHEAD DISTANCE (FT.)/* OF SKIP LINES FOR VEHICLES							
PRECONSTRUCTION	STATIONARY OPERATION						
POSTED SPEED LIMIT (MPH)	MIN	MAX					
≥ 55	120/3	200/5					
45 - 50	80/2	160/4					
≤ 40	40/1	120/3					

TABLE 410-05: CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	SING	CHANNELIZING DEVICE									
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT. •	Х							Х	х	
	40 FT.	Х							Х	х	
MARKING FOR TRANSVERSE BUMPS'	N/A	x ²	х		χ2				χ2		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	х		Х	х			х	Х	х	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	х		l x	х	Х		Х	X	Х	0
	40 FT.			_ ^	^	^		^	^	^	"

NOTES: X= ALLOWED BLANK = NOT ALLOWED O = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

* SEE NOTE 5 ON SHEET 1 OF 2.

TABLE 410-06: REQUIRED SIGN SIZES.							
SIGN	NON-FREEWAY	FREEWAY					
G20-2	36x18	48x24					
W20-1	36x36	48×48					
W21-5	36x36	48×48					
W7-3a	24×18	36x30					
G20-1	36×18	48×24					
WARNING FLAG	18×18	18×18					
•FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT EXIST.							



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE INTERMEDIATE TERM OPERATION (SHEET 2 OF 2)

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