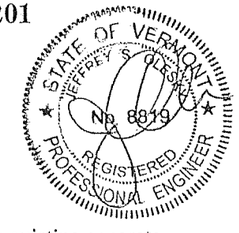
J. A. McDONALD, INC.

P.O. Box 132, Lyndon Center, VT 05850 (802) 626-5201
E-Mail jamcdonaldinc@charter.net



LUNENBURG NH CULV(27)

TRAFFIC CONTROL PLAN Rev 2.0 (3/23/16)

J. A. McDonald, Inc. has been awarded a contract by the State of Vermont to replace the existing concrete structure/culvert on US Route 2 in Lunenburg, VT. This work will require that traffic be restricted to alternating one-way traffic. Traffic will be controlled by temp./portable traffic signals for the duration of the Stage II work. During Stage I & III work, alternating one-way traffic will be controlled with flaggers during day construction and returned to normal two-way traffic during non-work hours.

Traffic control notes and details shown on plan sheets 21 through 31 of 74, VT AOT "T" Standards and the Manual on Uniform Traffic Control Devices (MUTCD) are referenced and incorporated into this site specific plan. Please notice we propose to remove the temporary traffic signal located at the field drive, station 432+00. J.A. McDonald will install a Temporary field drive adjacent to the drive at station 433+50, which will be coordinated with the owner.

STAGE I:

Construction activities include: EPSC measures (demarcation/barrier/silt fence), temporary access road, establishing staging areas, clearing and grubbing, and construction of the Phase 1 detour. Prior to Stage I work, signs will be erected as shown on Vermont AOT Standard Sheet T10. Alternating one-way traffic controlled with flaggers will require additional temporary signage per MUTCD Typical Application 10. Channelizing device and/or barrier placements shall be as shown on VT AOT Standard T35.

J.A. McDonalds will install perimeter controls (EPSC) and complete clearing operations in the fall of 2015 so as not to disturb the Northern Long-Eared Bat habitat. Remaining Stage I construction will continue in the spring of 2016 per the Construction Schedule. Construction of the Phase I Detour will require the extension of the existing culvert to maintain flows in Hudson Brook until the 48" by-pass culvert is functional. A portion of the by-pass culvert (under the Phase I Detour) will also be installed under this Stage of construction (reference Temporary Stream Relocation plan/narrative).

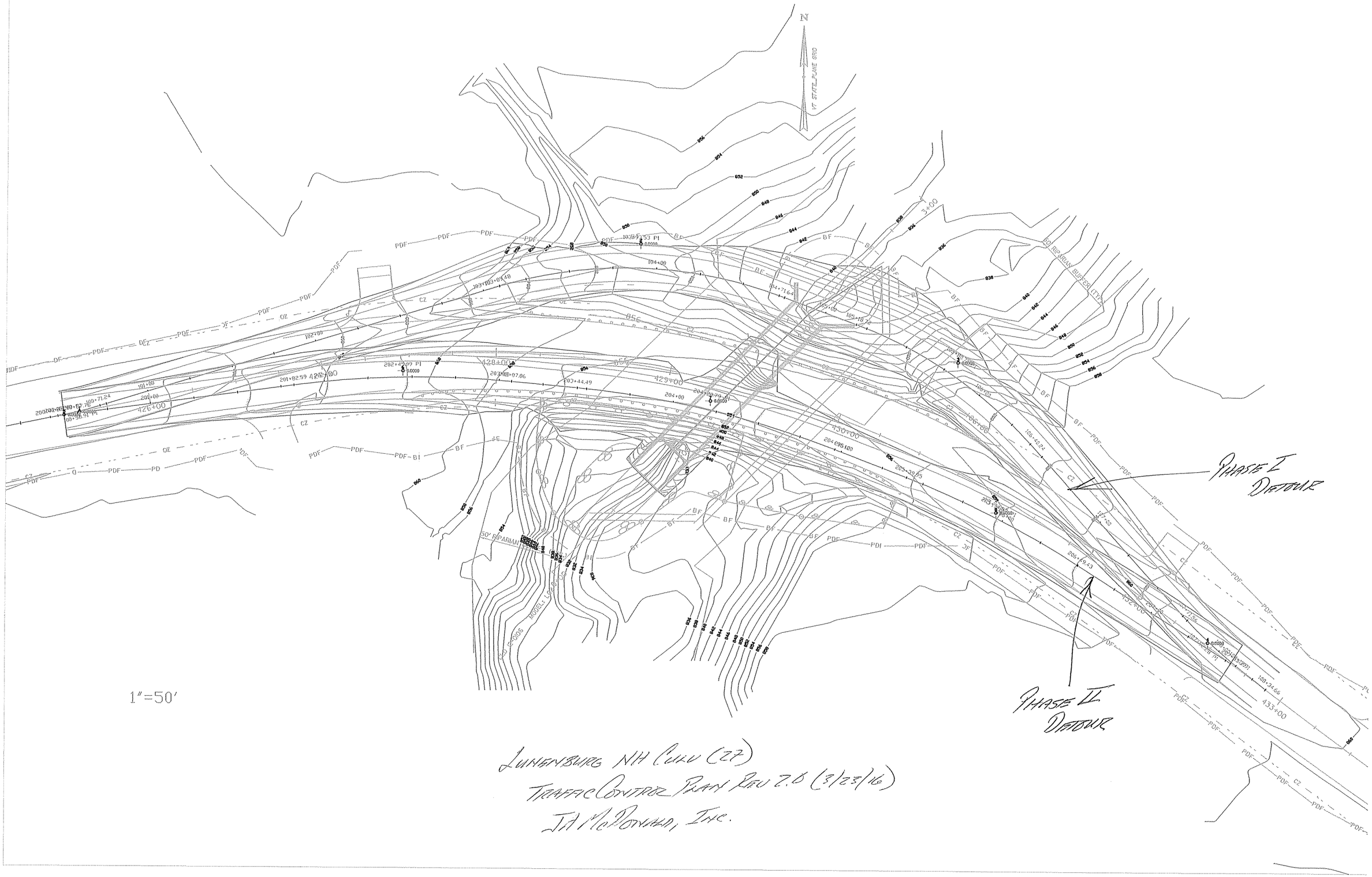
STAGE II:

Construction activities include: maintenance of EPSC, slope stabilization piles, excavation/removal of structure, installation and backfilling of proposed precast concrete arch culvert. Alternating one-way traffic with temporary/portable signals will control traffic on the temporary Phase I Detour on the north side of US Route 2, constructed in Stage I. Phase I construction will include the installation of a temporary sheeted cofferdam, remaining by-pass culvert with inlet impoundment, structure excavation, CIP mat foundation and pedestal walls/baffles, culvert lining material, precast arch culvert, waterproof membrane, granular backfill & borrow, stone fills.....and construction of the Phase II Detour.

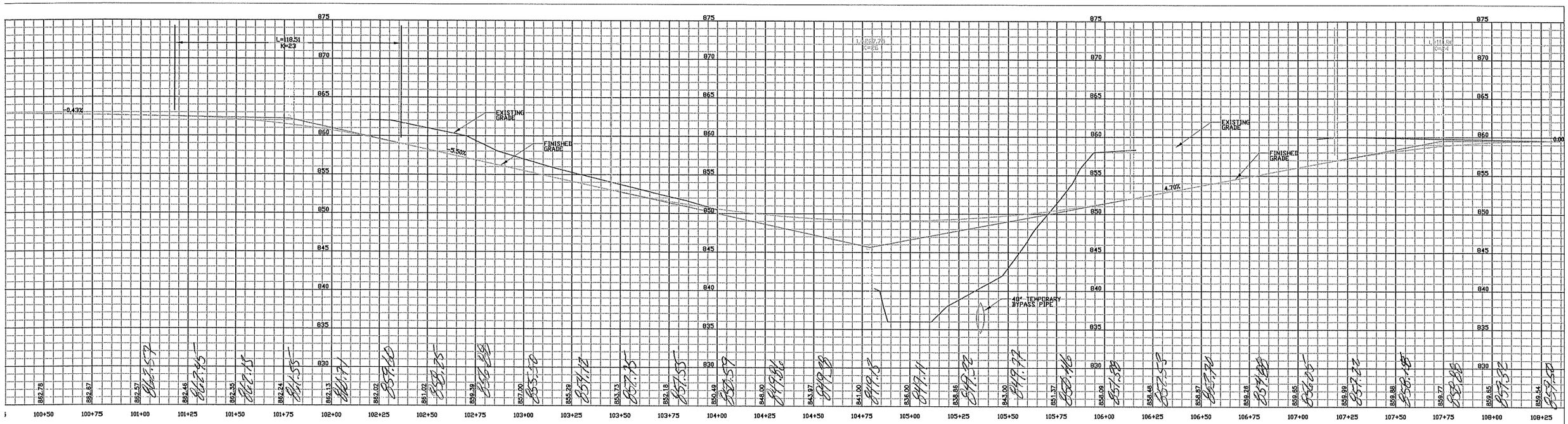
Phase II detour will be constructed as shown on the attached plan over the installed Phase I precast arch. Alternating one-way traffic with temporary/portable signals will control traffic in this phase. Phase II construction will include remaining structure excavation, CIP mat foundation and pedestal walls/baffles, culvert lining material, precast arch culvert, waterproof membrane, granular backfill & borrow, stone fills...and removal of the Phase I Detour. Granular/sand borrow and dense graded crushed stone will be installed as shown in the "Typical Longitudinal Bridge Section" (Sheet 3 of 74) station left of centerline.

STAGE III:

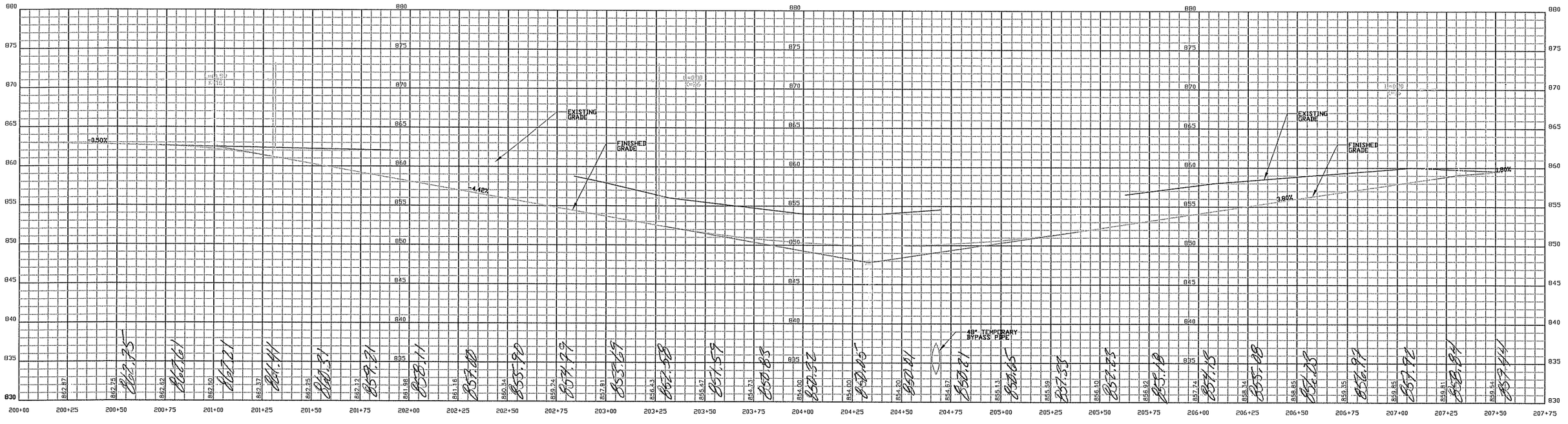
Construction activities include remaining stone fill at inlet/outlet, sand borrow, dense graded crushed stone, fine grade, base course of pavement, guardrail installation, cold plan/pavement, line stripping, removal and abandonment (flowable fill) of the by-pass culvert.... and site restoration. Alternating one-way traffic will be controlled with flaggers and temporary signage per MUTCD Typical Application 10. Channelizing device and/or barrier placements shall be as shown on VT AOT Standard T35.



LUNENBURG NH (LULU (27)
TRAFFIC CONTROL PLAN REV 2.0 (3/23/16)
J.H. McDONALD, INC.



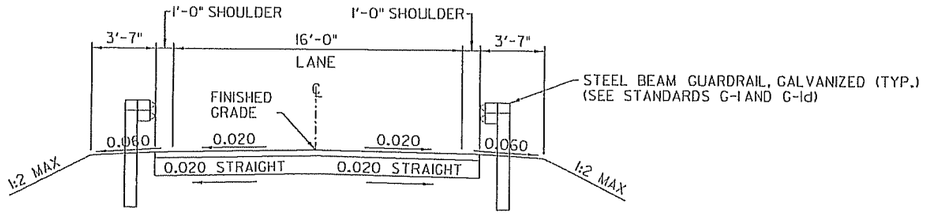
PHASE I DETOUR ROAD PROFILE



PHASE II DETOUR ROAD PROFILE

LUNENBURG NH Route (2) TRAFFIC DETOUR PROFILE
REV 2.0
3/25/16
JAMcDONALD, INC.

4" BITUMINOUS CONCRETE PAVEMENT (2-2" LIFTS) (TYPE III)
12" SUBBASE OF DENSE GRADED CRUSHED STONE



TYPICAL DETOUR ROADWAY SECTION WITH ALTERNATING ONE-WAY TRAFFIC

SCALE: 1/4" = 1'-0"

TRAFFIC CONTROL NOTES

1. ANY USE OF UNIFORMED TRAFFIC OFFICERS SHALL BE PAID UNDER ITEM 630.10, "UNIFORMED TRAFFIC OFFICERS". ANY USE OF FLAGGERS SHALL BE PAID UNDER ITEM 630.15, "FLAGGERS".

2. TRAFFIC CONTROL SHALL CONSIST OF ONE-WAY ALTERNATING TRAFFIC UNDER SIGNALIZED CONTROL. ANY EXCAVATION, GRANULAR BACKFILL FOR STRUCTURES, SUBBASE MATERIALS, DRAINAGE CULVERTS, TEMPORARY BRIDGE, TEMPORARY TRAFFIC BARRIER, TRAFFIC CONTROL DEVICES, TEMPORARY SIGNALS, TEMPORARY PAVEMENT MARKINGS, REMOVAL OF EXISTING AND TEMPORARY PAVEMENT MARKINGS, BITUMINOUS CONCRETE PAVEMENT, AND OTHER ITEMS REQUIRED TO CONSTRUCT, INSPECT, MAINTAIN AND REMOVE THE TEMPORARY DETOUR WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)". ALL OTHER ITEMS RELATED TO TRAFFIC CONTROL, INCLUDING THE PROJECT TRAFFIC CONTROL PLAN AND ALL OTHER ON AND OFF-PROJECT TEMPORARY CONSTRUCTION SIGNING, WILL BE INCLUDED UNDER PAY ITEM 641.10, "TRAFFIC CONTROL".

3. ANY VEGETATION WITHIN OR OUTSIDE THE CONSTRUCTION LIMITS SHOWN ON THE PLANS WHICH IS DISTURBED IN ORDER TO MAINTAIN TRAFFIC IN CONJUNCTION WITH THIS PLAN OR ANY OTHER PLAN, SHALL BE RE-ESTABLISHED TO THE SATISFACTION OF THE ENGINEER. PAYMENT WILL BE MADE UNDER THE APPROPRIATE PAY ITEM.

4. NO ACCOMMODATIONS NEED TO BE MADE FOR PEDESTRIAN AND BICYCLE TRAFFIC.

5. ACCESS TO ALL EXISTING DRIVES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

6. INSTALLATION OF NECESSARY SIGNS SHALL NOT BLOCK ANY EXISTING TRAFFIC CONTROL SIGN ASSEMBLIES. THE CONTRACTOR SHALL ATTEMPT TO MAINTAIN AT LEAST 100 FEET BETWEEN SIGN ASSEMBLIES.

7. THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-344-7233 PRIOR TO COMMENCING ANY WORK.

8. ALL TRAFFIC SIGNS, TYPE A THAT ARE 36" X 36" OR LARGER SHALL BE MOUNTED ON TWO POSTS.

9. ALL SIGN PACKAGES SHALL CONFORM TO THE 2009 MUTCD OR ITS LATEST REVISION.

10. NON CRASHWORTHY FEATURES RESULTING FROM CONSTRUCTION ACTIVITIES THAT ARE LOCATED WITHIN THE CLEAR ZONE SHALL BE PROPERLY PROTECTED. ALL TEMPORARY DEVICES SHALL BE NCHRP REPORT 350 OR MASH COMPLIANT AND SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 621.

11. WHERE TEMPORARY BARRIER IS USED, BARRIER ENDS FACING ONCOMING TRAFFIC SHALL BE TAPERED BEYOND THE CLEAR ZONE OR PROTECTED WITH AN ENERGY ABSORPTION ATTENUATOR. ENERGY ABSORPTION ATTENUATORS WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)".

12. REFER TO MUTCD FIGURE 6H-12, LANE CLOSURE ON A TWO-LANE ROAD USING TRAFFIC CONTROL SIGNALS (TA-12) AND THE TRAFFIC CONTROL PLAN ON SHEET 30 FOR ADDITIONAL INFORMATION REGARDING REQUIRED SIGNAGE AND SIGN LOCATIONS.

13. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THE PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, "TRAFFIC CONTROL".

14. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WARNING MOTORISTS OF THE CONSTRUCTION PROJECT AND CHANGING TRAFFIC PATTERNS WILL BE INCLUDED UNDER PAY ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN". THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO DETERMINE APPROPRIATE LOCATIONS FOR PCMS.

SCALE 1/4" = 1'-0"
0 4 8

CLD CONSULTING ENGINEERS

PROJECT NAME: LUNENBURG	
PROJECT NUMBER: NH CULV(27)	
FILE NAME: llb294/cos/zllb294frm.dgn	PLOT DATE: 8/24/2015
PROJECT LEADER: J. BYATT	DRAWN BY: W. GORDON
DESIGNED BY: M. HALEY	CHECKED BY: P. SHEDD
TYPICAL DETOUR SECTION SHEET	SHEET 21 OF 74

CLD 12-0106 MODEL: TYP03

NOTE

REMOVAL OF EXISTING PAVEMENT MARKINGS AND APPLICATION OF TEMPORARY PAVEMENT MARKINGS, GUARDRAIL, ANCHORS, DELINEATORS AND DRIVE CONSTRUCTION AS NOTED ON THIS SHEET WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)". NOTES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

TEMPORARY 4 INCH WHITE LINE, PAINT
100+50 TO 104+96 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
100+50 TO 101+95 SOLID LT & RT

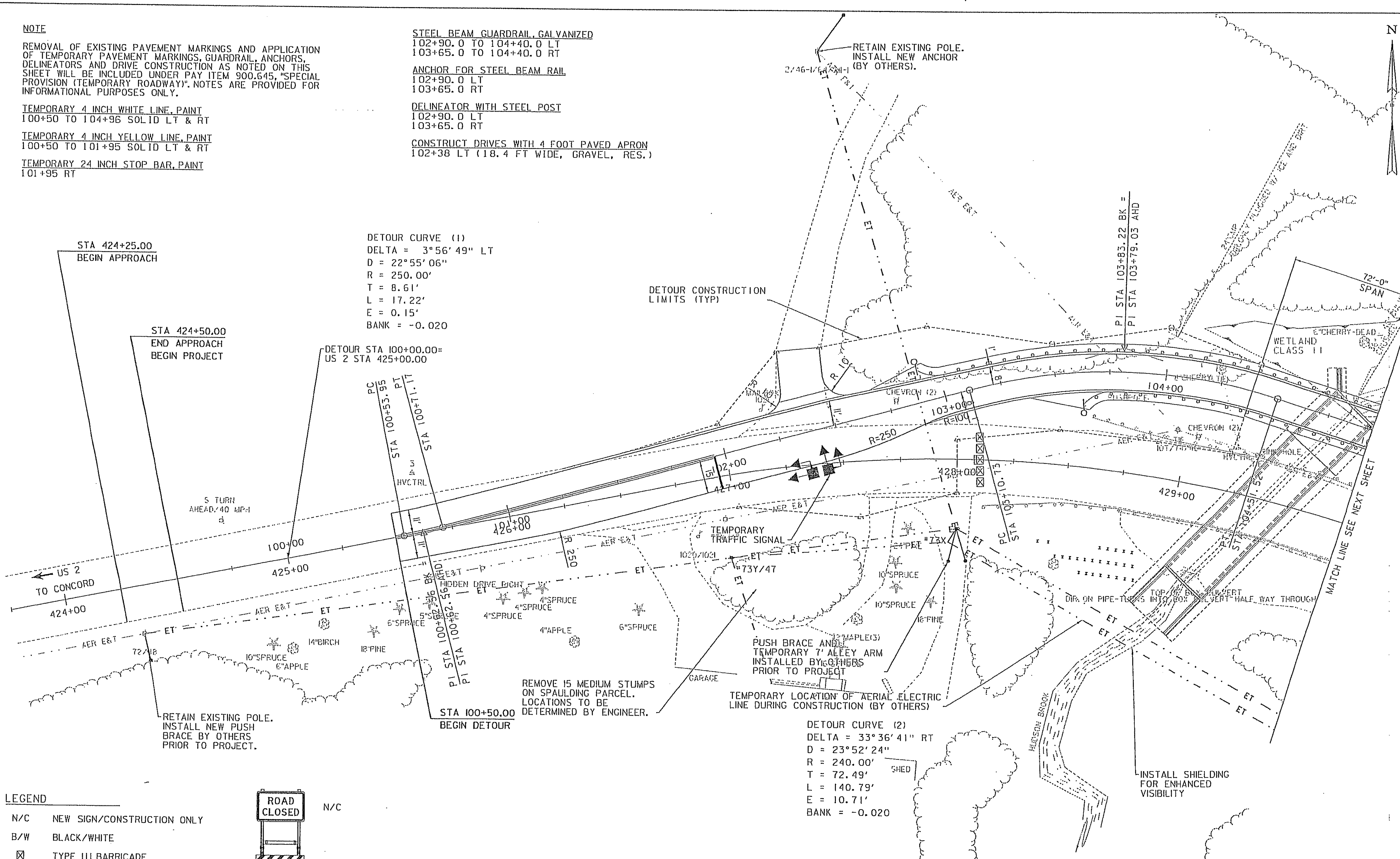
TEMPORARY 24 INCH STOP BAR, PAINT
101+95 RT

STEEL BEAM GUARDRAIL, GALVANIZED
102+90.0 TO 104+40.0 LT
103+65.0 TO 104+40.0 RT

ANCHOR FOR STEEL BEAM RAIL
102+90.0 LT
103+65.0 RT

DELINEATOR WITH STEEL POST
102+90.0 LT
103+65.0 RT

CONSTRUCT DRIVES WITH 4 FOOT PAVED APRON
102+38 LT (18.4 FT WIDE, GRAVEL, RES.)



DETOUR CURVE (1)
DELTA = 3°56′49" LT
D = 22°55′06"
R = 250.00′
T = 8.61′
L = 17.22′
E = 0.15′
BANK = -0.020
STA 424+25.00
BEGIN APPROACH
STA 424+50.00
END APPROACH
BEGIN PROJECT
DETOUR STA 100+00.00=
US 2 STA 425+00.00
RETAIN EXISTING POLE.
INSTALL NEW ANCHOR
(BY OTHERS).
DETOUR CONSTRUCTION
LIMITS (TYP)
PI STA 103+83.22 BK =
PI STA 103+79.03 AHD
72′-0"
SPAN
WETLAND
CLASS II
PC STA 100+53.95
PT STA 100+71.17
US 2
TO CONCORD
424+00
425+00
100+00
101+00
426+00
102+00
427+00
103+00
428+00
104+00
429+00
R=250
R 250
CHEVRON (2)
TEMPORARY
TRAFFIC SIGNAL
PI STA 100+62.56 AHD
PI STA 100+62.96 BK
PC STA 103+10.73
PT STA 104+51.52
MATCH LINE SEE NEXT SHEET
TOP OF BOX CULVERT
RETAIN EXISTING POLE.
INSTALL NEW PUSH
BRACE BY OTHERS
PRIOR TO PROJECT.
STA 100+50.00
BEGIN DETOUR
REMOVE 15 MEDIUM STUMPS
ON SPAULDING PARCEL.
LOCATIONS TO BE
DETERMINED BY ENGINEER.
PUSH BRACE AND
TEMPORARY 7′ ALLEY ARM
INSTALLED BY OTHERS
PRIOR TO PROJECT
TEMPORARY LOCATION OF AERIAL ELECTRIC
LINE DURING CONSTRUCTION (BY OTHERS)
DETOUR CURVE (2)
DELTA = 33°36′41" RT
D = 23°52′24"
R = 240.00′
T = 72.49′
L = 140.79′
E = 10.71′
BANK = -0.020
INSTALL SHIELDING
FOR ENHANCED
VISIBILITY
HUDSON BROOK
GARAGE
SHED
N
VT STATE PLANE GRID

(SCALE 1" = 20′)

LEGEND

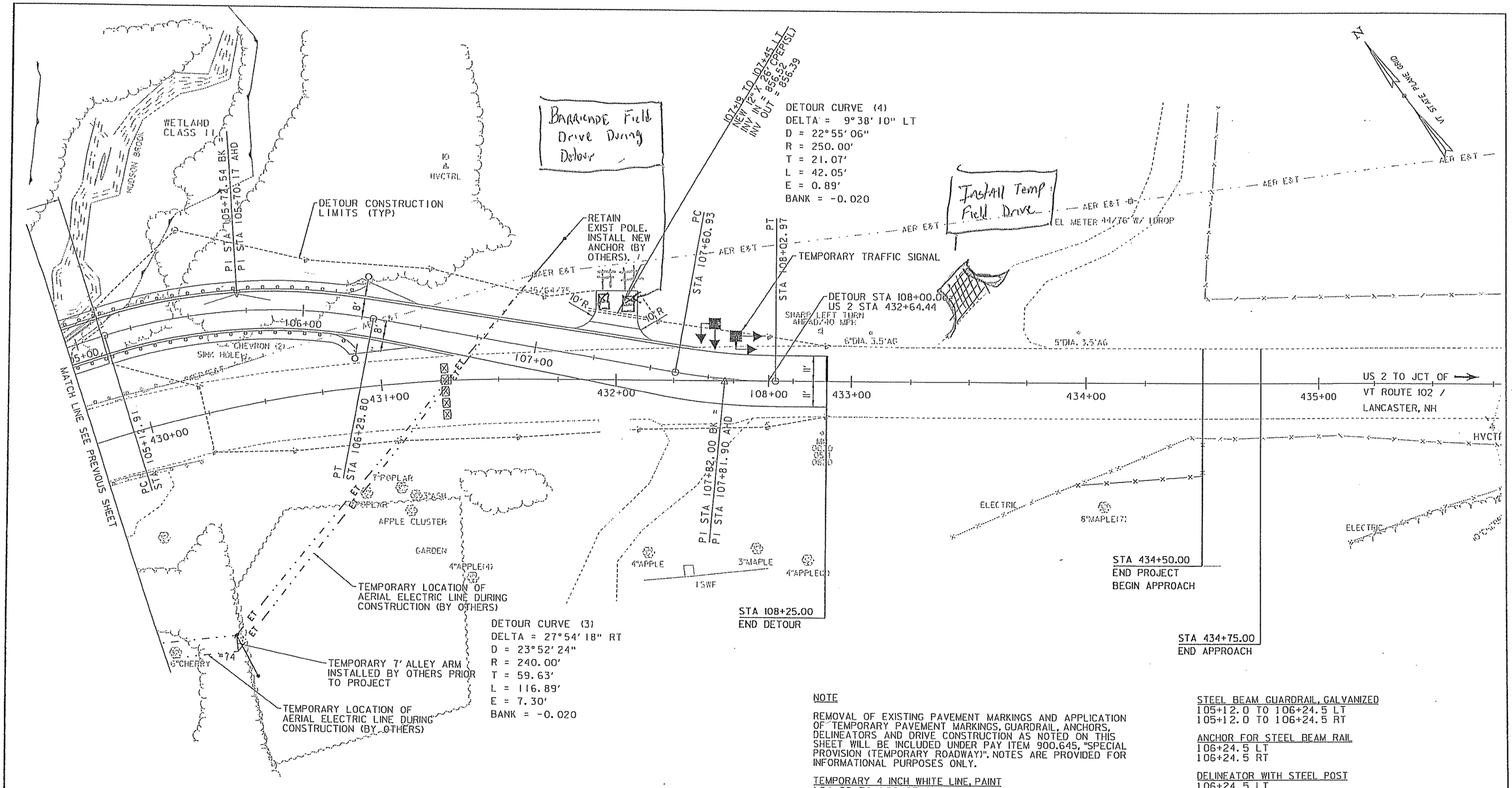
N/C	NEW SIGN/CONSTRUCTION ONLY
B/W	BLACK/WHITE
⊠	TYPE III BARRICADE
⊠	TYPE III BARRICADE (MOD.)
▭	TEMPORARY TRAFFIC BARRIER
○○○	ENERGY ABSORPTION ATTENUATOR

ROAD CLOSED — N/C

R11-2 B/W SIGN MOUNTED ON TYPE III BARRICADE (MODIFIED)

PROJECT NAME: LUNENBURG	
PROJECT NUMBER: NH CULV(27)	
FILE NAME: 11b294/cos/z11b294bdrtcppl.dgn	PLOT DATE: 8/24/2015
PROJECT LEADER: J. BYATT	DRAWN BY: M. HALEY
DESIGNED BY: M. HALEY	CHECKED BY: P. SHEDD
PHASE I TRAFFIC CONTROL SHEET I	SHEET 22 OF 74

CLD 12-0106 MODEL: L01



NOTE

REMOVAL OF EXISTING PAVEMENT MARKINGS AND APPLICATION OF TEMPORARY PAVEMENT MARKINGS, GUARDRAIL, ANCHORS, DELINEATORS AND DRIVE CONSTRUCTION AS NOTED ON THIS SHEET WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)". NOTES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

TEMPORARY 4 INCH WHITE LINE, PAINT
104+96 TO 108+25 SOLID LT & RT

TEMPORARY 24 INCH STOP BAR, PAINT
108+25 LT

STEEL BEAM GUARDRAIL, GALVANIZED
105+12.0 TO 106+24.5 LT
105+12.0 TO 106+24.5 RT

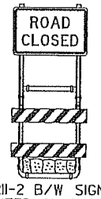
ANCHOR FOR STEEL BEAM RAIL
106+24.5 LT
106+24.5 RT

DELINEATOR WITH STEEL POST
106+24.5 LT
106+24.5 RT

CONSTRUCT DRIVES WITH 4 FOOT PAVED APRON
107+33.1 LT (18.0 FT WIDE, GRAVEL, FIELD)

LEGEND

N/C	NEW SIGN/CONSTRUCTION ONLY
B/W	BLACK/WHITE
⊠	TYPE III BARRICADE
⊠	TYPE III BARRICADE (MOD.)
═	TEMPORARY TRAFFIC BARRIER
⊂⊃	ENERGY ABSORPTION ATTENUATOR



N/C

R11-2 B/W SIGN MOUNTED ON TYPE III BARRICADE (MODIFIED)

0 20 40
(SCALE 1" = 20')

CONSULTING ENGINEERS

PROJECT NAME:	LUNENBURG
PROJECT NUMBER:	NH CULV(27)
FILE NAME:	llb294/cos/zllb294bdrtcppl.dgn
PROJECT LEADER:	J. BYATT
DESIGNED BY:	M. HALEY
PHASE I TRAFFIC CONTROL SHEET 2	
PLOT DATE:	8/24/2015
DRAWN BY:	M. HALEY
CHECKED BY:	P. SHEDD
SHEET	23 OF 74

CLD 12-0006 MODEL: L02

NOTE

REMOVAL OF EXISTING PAVEMENT MARKINGS AND APPLICATION OF TEMPORARY PAVEMENT MARKINGS, GUARDRAIL, ANCHORS, DELINEATORS AND DRIVE CONSTRUCTION AS NOTED ON THIS SHEET WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)". NOTES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

TEMPORARY 4 INCH WHITE LINE, PAINT
425+50 TO 429+75 LT & RT

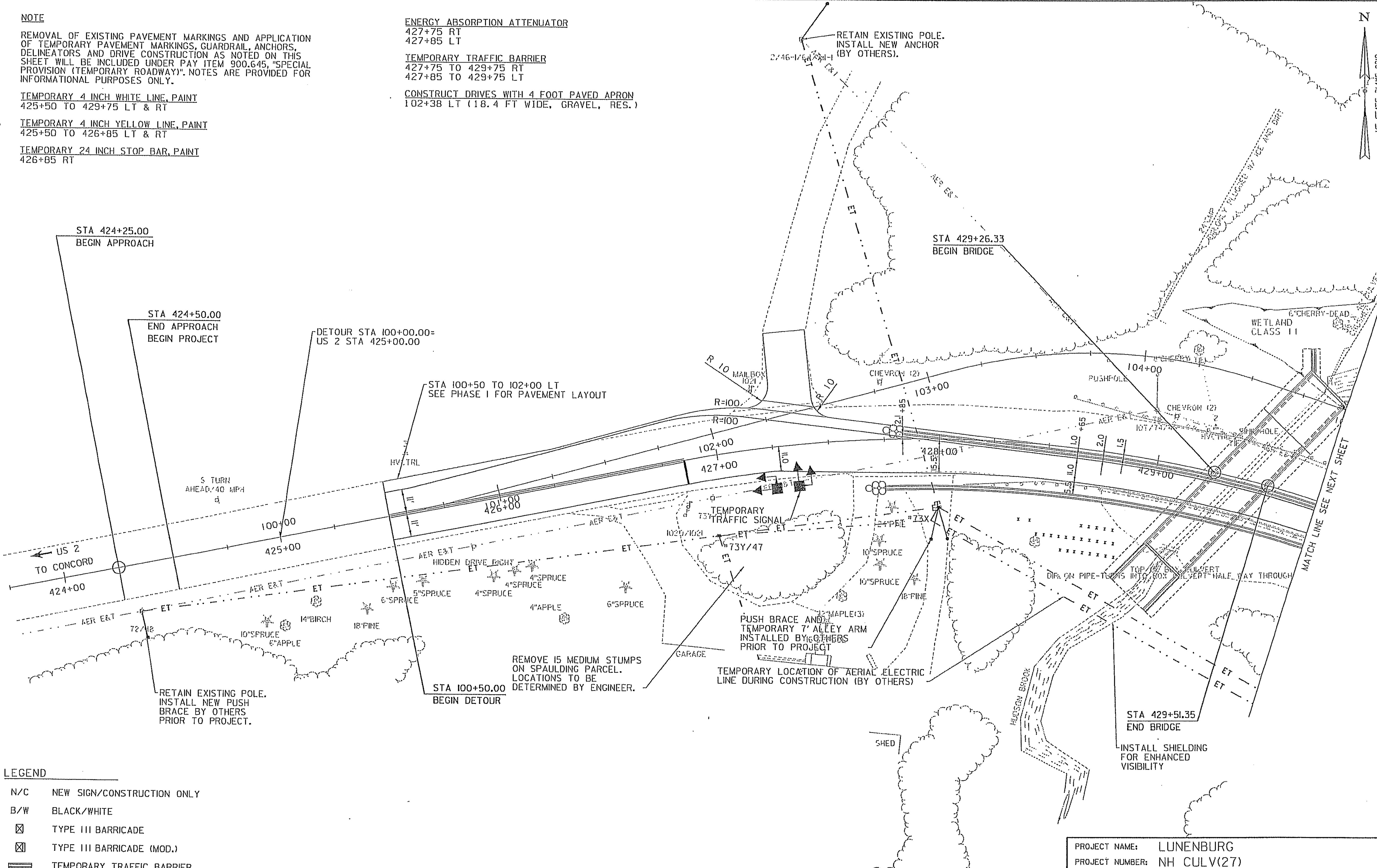
TEMPORARY 4 INCH YELLOW LINE, PAINT
425+50 TO 426+85 LT & RT

TEMPORARY 24 INCH STOP BAR, PAINT
426+85 RT

ENERGY ABSORPTION ATTENUATOR
427+75 RT
427+85 LT

TEMPORARY TRAFFIC BARRIER
427+75 TO 429+75 RT
427+85 TO 429+75 LT

CONSTRUCT DRIVES WITH 4 FOOT PAVED APRON
102+38 LT (18.4 FT WIDE, GRAVEL, RES.)



LEGEND

N/C	NEW SIGN/CONSTRUCTION ONLY
B/W	BLACK/WHITE
⊠	TYPE III BARRICADE
⊠	TYPE III BARRICADE (MOD.)
▭	TEMPORARY TRAFFIC BARRIER
∞	ENERGY ABSORPTION ATTENUATOR

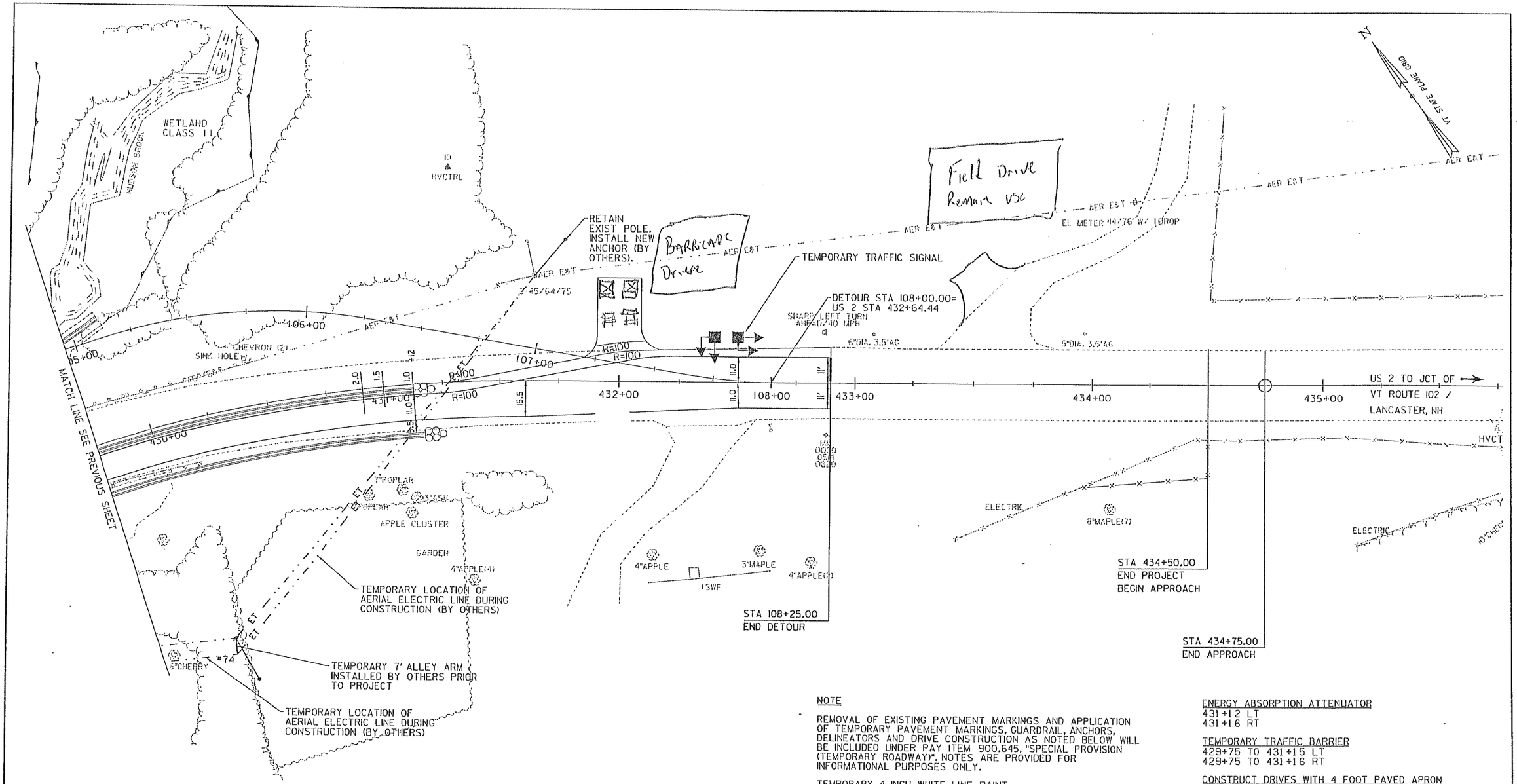
0 20 40
(SCALE 1" = 20')

CLD CONSULTING ENGINEERS

CLD 12-0106 MODEL: L01

PROJECT NAME: LUNENBURG
PROJECT NUMBER: NH CULV(27)

FILE NAME: llb294/cos/zllb294bdrtcpp2.dgn PLOT DATE: 8/24/2015
PROJECT LEADER: J. BYATT DRAWN BY: M. HALEY
DESIGNED BY: M. HALEY CHECKED BY: P. SHEDD
PHASE 2 TRAFFIC CONTROL SHEET 1 SHEET 24 OF 74



LEGEND

N/C	NEW SIGN/CONSTRUCTION ONLY
B/W	BLACK/WHITE
⊠	TYPE III BARRICADE
⊠	TYPE III BARRICADE (MOD.)
═	TEMPORARY TRAFFIC BARRIER
⊂⊃	ENERGY ABSORPTION ATTENUATOR

NOTE

REMOVAL OF EXISTING PAVEMENT MARKINGS AND APPLICATION OF TEMPORARY PAVEMENT MARKINGS, GUARDRAIL, ANCHORS, DELINEATORS AND DRIVE CONSTRUCTION AS NOTED BELOW WILL BE INCLUDED UNDER PAY ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)". NOTES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

TEMPORARY 4 INCH WHITE LINE, PAINT
429+75 TO 432+90 LT & RT

TEMPORARY 24 INCH STOP BAR, PAINT
432+90 LT

ENERGY ABSORPTION ATTENUATOR
431+12 LT
431+16 RT

TEMPORARY TRAFFIC BARRIER
429+75 TO 431+15 LT
429+75 TO 431+16 RT

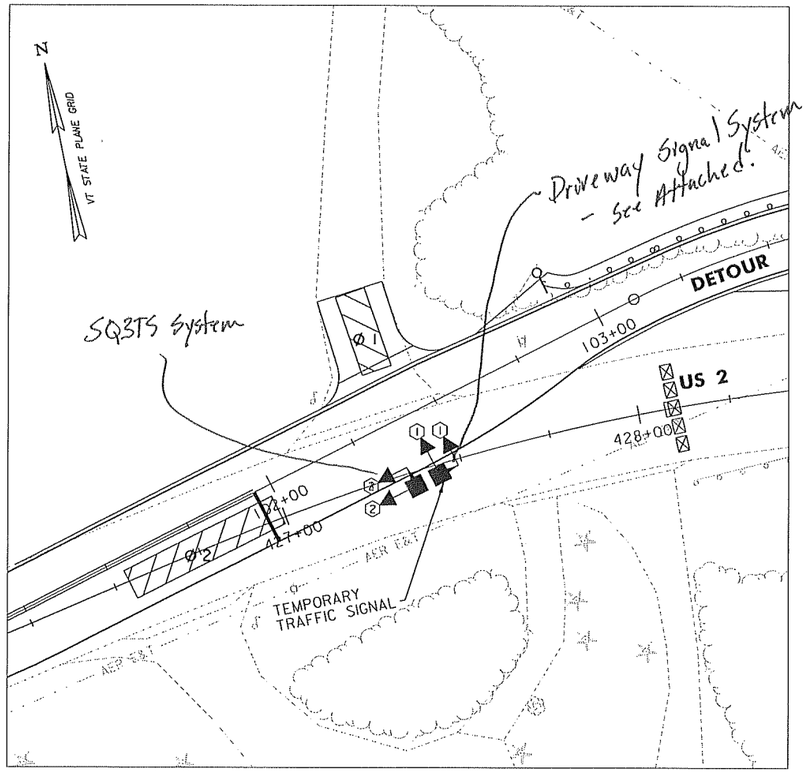
CONSTRUCT DRIVES WITH 4 FOOT PAVED APRON
107+33.1 LT (18.0 FT WIDE, GRAVEL, FIELD)

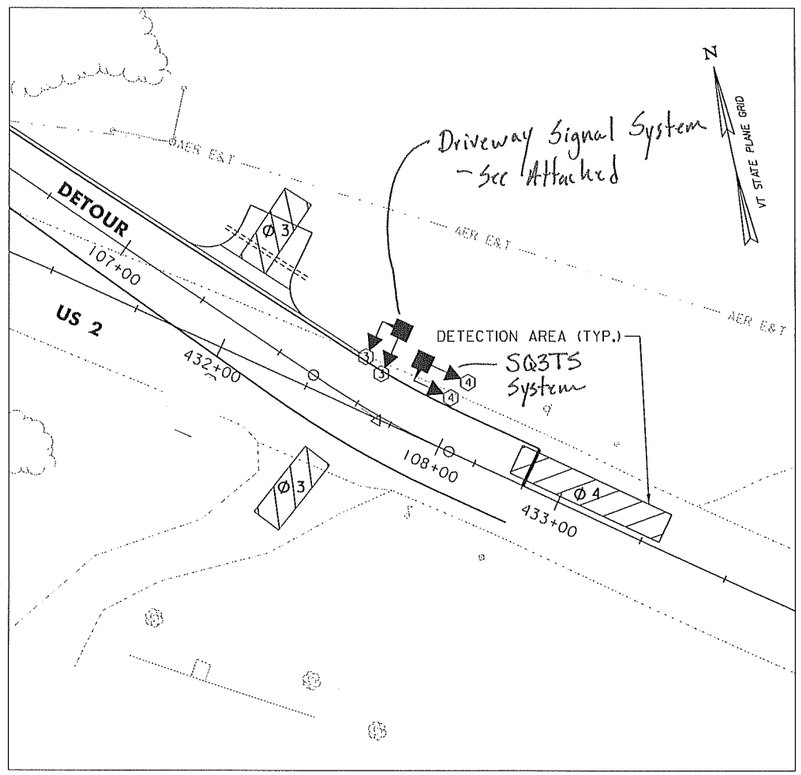
0 20 40
(SCALE 1" = 20')

CLD 12-0106 MODEL: L02

PROJECT NAME:	LUNENBURG
PROJECT NUMBER:	NH CULV(27)
FILE NAME:	llb294/cos/zllb294bdrtcpp2.dgn
PROJECT LEADER:	J. BYATT
DESIGNED BY:	M. HALEY
PHASE 2 TRAFFIC CONTROL SHEET 2	
PLOT DATE:	8/24/2015
DRAWN BY:	M. HALEY
CHECKED BY:	P. SHEDD
SHEET	25 OF 74

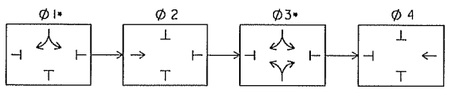
CLD CONSULTING ENGINEERS





NEW	LEGEND
→▶◯	SIGNAL HEAD (12 INCH, LED)
■	PORTABLE TRAFFIC SIGNAL TRAILER WITH TRAFFIC ACTUATORS, EMERGENCY VEHICLE PRE-EMPTION, AND RADIO COMMUNICATION.

PHASE SEQUENCE



* IF CALLED

US 2

SIGNAL PHASING DATA				
SIGNAL PHASING (ALL ENTRIES BELOW ARE IN SECONDS)				
PHASE	Ø1	Ø2	Ø3	Ø4
INTIAL	5	10	5	10
VEHICLE EXT.	3	3	3	3
MAX. 1	10	30	10	30
MAX. 2	--	--	--	--
YELLOW	4	4	4	4
RED	2	30	2	30
RECALL	NONE	SOFT	NONE	NONE
DELAY	10	0	10	0

SIGNAL OPERATION NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION'S (VTRANS) "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, WITH CURRENT MODIFICATIONS.
2. TEMPORARY TRAFFIC SIGNAL SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 678, "TRAFFIC CONTROL SIGNALS" AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645, "SPECIAL PROVISION (TEMPORARY ROADWAY)".
3. THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS, AND POSTS, WARNING SIGNS, LUMINAIRES, FLASHING BEACONS, ASSOCIATED PAVEMENT MARKINGS AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN. IT ALSO INCLUDES PERMITS AND COSTS ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
4. THE CONTRACTOR SHALL INSTALL PORTABLE TRAFFIC SIGNAL TRAILERS IN PLACE OF A STATIC SIGNAL SYSTEM AS SHOWN ON THE PLANS. THE TRAILERS SHALL COMMUNICATE VIA RADIO INTERFACE TO FUNCTION AS A SINGLE CONTROL SYSTEM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED ON THE TRAILER, LOCATED AT A DISTANCE OF 14.5 FEET FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 40 FEET FROM THE SIGNAL HEAD. CONSULT THE LATEST EDITION OF THE MUTCD FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
5. THE BOTTOM OF A SIGNAL FACE NOT MOUNTED OVER A ROADWAY SHALL NOT BE LESS THAN 8.0 FEET NOR MORE THAN 15.0 FEET ABOVE THE GROUND. CAUTION SHOULD BE USED TO ENSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROADWAY GRADE.
6. SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER FACES.
7. SIGNAL FACES SHALL BE L.E.D. AND CONSIST OF 12 INCH LENSES (RED, YELLOW AND GREEN)
8. SIGNAL HEAD PLACEMENT IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES UNDER EACH PHASE OF CONSTRUCTION.
9. THE TRAFFIC SIGNALS SHALL NOT OPERATE WITHOUT THE PAVEMENT MARKINGS AND SIGNAL RELATED SIGNING IN PLACE.
10. INSTALL WIRING BETWEEN POWER SOURCES AND SIGNAL TRAILERS TO PROVIDE FOR A SAFE INSTALLATION. ANY NECESSARY CONNECTIONS TO UTILITY POLES SHALL BE COORDINATED BY THE CONTRACTOR WITH THE UTILITY COMPANY.
11. ANY TEMPORARY POLES SHALL BE PLACED BEHIND GUARDRAIL OR OUTSIDE OF THE CLEAR ZONE.
12. LUMINAIRES SHALL BE INSTALLED AT EACH OF THE APPROACHES TO ADEQUATELY ILLUMINATE THE STOP BAR AREAS. 250 WATT HIGH PRESSURE SODIUM, 150 WATT MERCURY OR AN EQUIVALENT WATTAGE L.E.D. LAMP ARE ALL ACCEPTABLE FORMS OF LUMINAIRE. THE MOUNTING HEIGHT SHALL BE 30 FEET ABOVE THE CENTERLINE OR AS DIRECTED BY THE ENGINEER. WHILE THE INTENT IS TO ILLUMINATE THE TEMPORARY SIGNAL SYSTEM, MEASURED NIGHTTIME ILLUMINANCE AT EACH STOP BAR SHALL NOT BE LESS THAN 1.0 FOOT-CANDLE. THE ENGINEER SHALL ORDER CHANGES TO THE LIGHTING COMPONENTS IF DETERMINED TO BE INSUFFICIENT.
13. ALL TRAFFIC SIGNS, INCLUDING STOP SIGNS, MADE IRRELEVANT DUE TO THE TEMPORARY SIGNAL SHALL BE COMPLETELY COVERED DURING OPERATION OF THE TEMPORARY SIGNAL OR AT THE DISCRETION OF THE ENGINEER.
14. CONSTRUCTION APPROACH SIGNS SHALL BE PROVIDED ON EACH APPROACH PER THE TRAFFIC CONTROL PLANS IN THIS PLAN SET. ADDITIONAL SIGNS SHALL BE INSTALLED AS REQUIRED BY THE ENGINEER PER STANDARD T-1.
15. SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING BY THE ENGINEER IN THE FIELD BASED ON TRAFFIC OBSERVATION (COST OF ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS).
16. WHEN THE TEMPORARY TRAFFIC CONTROL SIGNALS ARE CHANGED TO FLASHING MODE, EITHER MANUALLY OR AUTOMATICALLY, RED SIGNAL INDICATIONS SHALL BE FLASHED TO ALL APPROACHES.
17. ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL INCLUDING ANY TEMPORARY PAVEMENT MARKINGS, UTILITY POLES, WIRES, ETC.

0 20 40
SCALE IN FEET

CLD 12-0106 MODEL: TSOI

PROJECT NAME: LUNENBURG
PROJECT NUMBER: NH CULV(27)

FILE NAME: llb294/cos/zllb294trf.dgn PLOT DATE: 8/24/2015
PROJECT LEADER: J. BYATT DRAWN BY: S. GOODWIN
DESIGNED BY: R. LYFORD CHECKED BY: P. KONIECZKA
PHASE I TEMPORARY TRAFFIC SIGNAL SHEET SHEET 28 OF 74

US 2 STA 429+38.92 =
CHANNEL STA. 1+50.00
ASKEW ANGLE = 60° 00'00"

G20-2
END ROAD WORK

R10-6
STOP HERE ON RED

W3-3

W20-4
ONE LANE ROAD AHEAD

W20-1
ROAD WORK AHEAD

VT STATE PLANE GRID

PCMS

US 2

500'

PCMS

W20-1
ROAD WORK AHEAD

W20-4
ONE LANE ROAD AHEAD

W3-3

R10-6
STOP HERE ON RED

G20-2
END ROAD WORK

0 100 200
SCALE IN FEET

CLD 12-0106 MODEL: TCP01

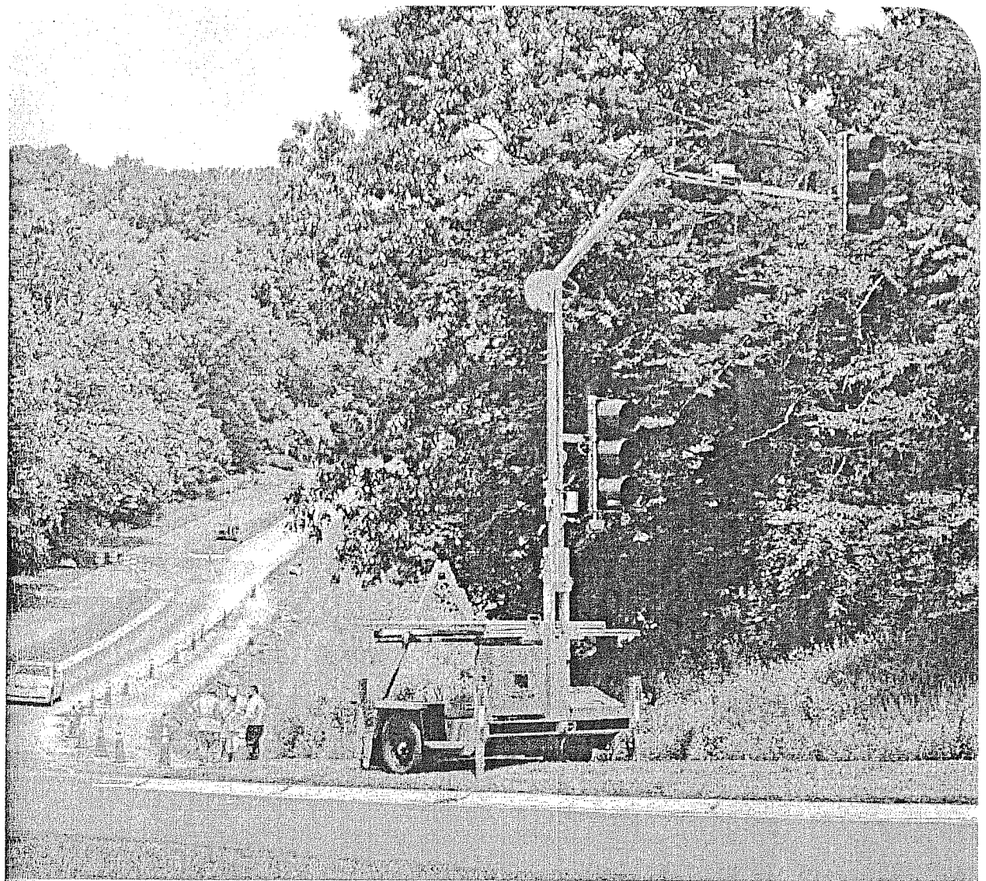
PROJECT NAME: LUNENBURG	
PROJECT NUMBER: NH CULV(27)	
FILE NAME: llb294/cos/zllb294tcp.dgn	PLOT DATE: 8/6/2015
PROJECT LEADER: J. BYATT	DRAWN BY: M. HALEY
DESIGNED BY: M. HALEY	CHECKED BY: P. SHEDD
TRAFFIC CONTROL PLAN	SHEET 30 OF 74

horizon SIGNAL TECHNOLOGIES

SQ3TS® System

SIGNAL SYSTEMS

PORTABLE TRAFFIC SIGNAL



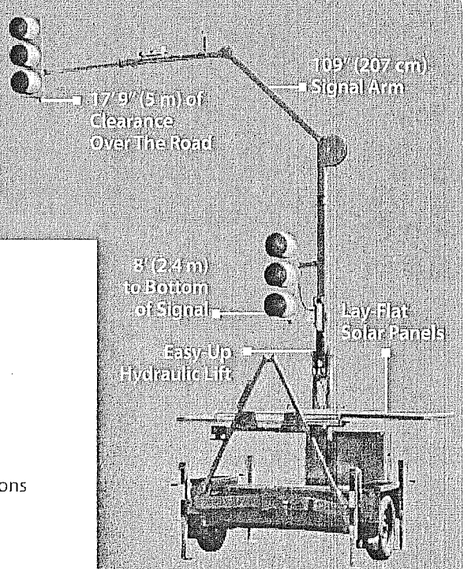
TRAILER TOWABLE PORTABLE TRAFFIC SIGNAL WITH SOLAR ASSIST

The SQ3TS Portable Traffic Signal System combines fast efficient setup with highly reliable performance. The multitude of modular add-on components makes the SQ3TS the most versatile portable traffic signal system available today. The SQ3TS is the smart choice for a wide variety of short and long term traffic control applications. From a simple one lane bridge repair project to complete intersection control, the SQ3TS has the attributes to provide safe efficient traffic control.

SQ3TS® System

SPECIFICATIONS

Signal Lamp	12" (300 mm) diameter LED
Signal Arm Extension	68 to 109" (173 to 277 cm)
Solar Charge	440W min
Power Source	12V / (16) 6V batteries
Tow Height	89" (226 cm)
Trailer Width	85" (216 cm)
Trailer Weight	3000 lb. (1361 kg)



SQ3TS SYSTEM FEATURES

- Bulletproof 900 MHZ radio communication
- True green time extensions
- Conflict monitoring
- Fast efficient setup
- Tandem tow signal trailers
- Highly visible 12" (30.5 cm) LED lights
- Adjustable overhead mast arm
- 180° rotating signal heads
- Fixed time, traffic actuated and manual operation options
- Controls up to seven traffic phases with eight signals
- Battery powered with solar & 110 volt charging

AVAILABLE OPTIONS

GPS Monitoring Provides information on location, operating status, battery voltage, etc.

Interface Module Allows signal to operate in conjunction with a standard street corner control cabinet.

Pre-emption System Recognizes emergency vehicles and changes signal status as programmed.

Back Plates Provide an additional background around the signal head to enhance visibility.

Traffic Actuators Facilitates traffic actuation via motion sensor or true presence video detection.

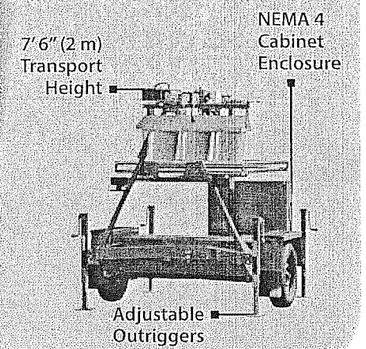
Flagger/Pilot Car Module Allows flagger or pilot car driver to control signal status with built in safeguards.

Work Zone Light Provides visual signal status inside a work zone.

DISTRIBUTED BY

EASY TO DEPLOY

The SQ3TS Portable Traffic Signal is equipped with a one-touch, easy-up hydraulic lifting system to make deployments simple.



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General specifications for the SQ3TS® System are subject to change without notice to reflect improvements and upgrades. Additional information is available. Contact Horizon Signal Technologies for details.

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Horizon Signal Technologies
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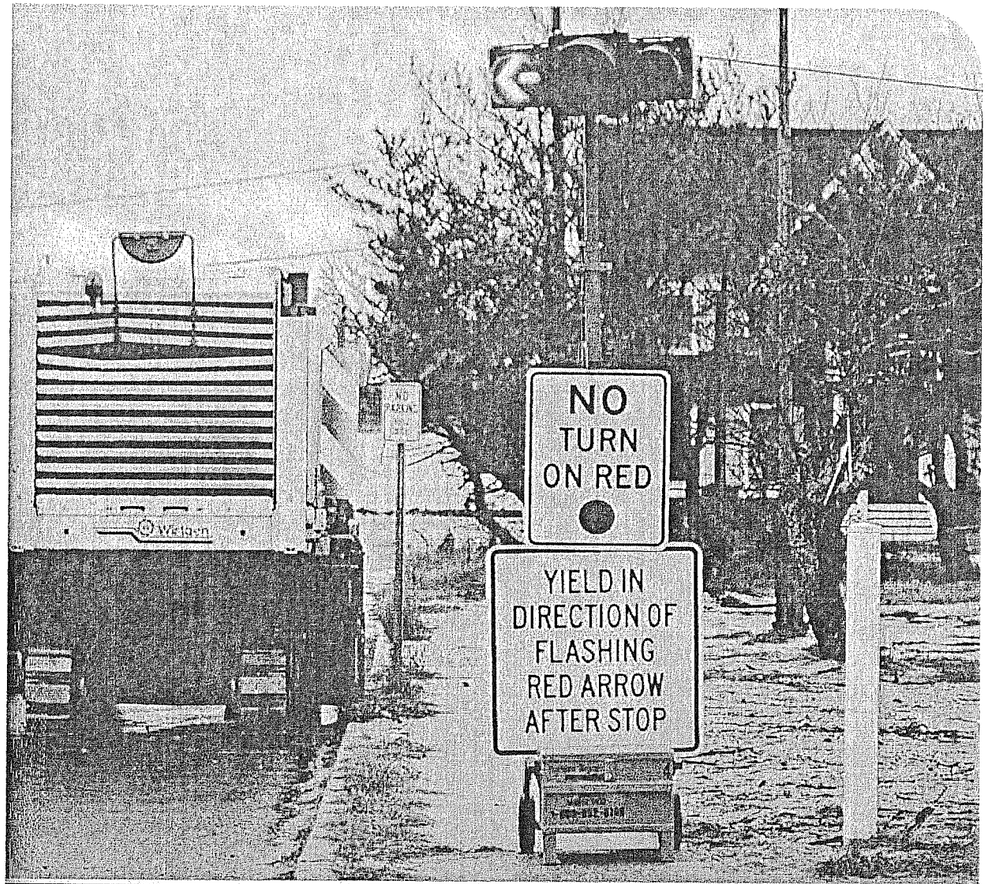
horizon SIGNAL TECHNOLOGIES

Driveway Signal System

PORTABLE TRAFFIC SIGNAL SYSTEMS



SAFELY ALERTS MOTORISTS OF DIRECTION OF TRAFFIC

The Horizon Driveway Signal System has been designed to address the need to control driveways that fall within one lane temporary work zones. The system increases safety for both the motorist and the worker while maximizing traffic flow through the work zone. The Driveway Signal is a self-contained cart with a small footprint, which allows for easy maneuverability during deployment. The cart features a battery bank with on board 110- volt charger and optional outriggers and solar charging system. Each signal is equipped with one 12' Red indication and two flashing red arrows which alert the motorist that one way access is permitted in the direction of the flashing arrow.

How it Works

The Horizon Driveway Signal will display a flashing red arrow in the direction of the traffic traveling within the work zone. The motorist may proceed in the direction of the flashing arrow, yielding to the traffic traveling within the work zone. A solid red indication is displayed when it is not safe for the motorist to enter the work zone.

Each Horizon Driveway Signal is linked to the Horizon Portable Traffic Signal System controlling the work zone traffic.

Communication between the Horizon Portable Traffic Signal System and the Driveway Signals is accomplished via wireless communication.

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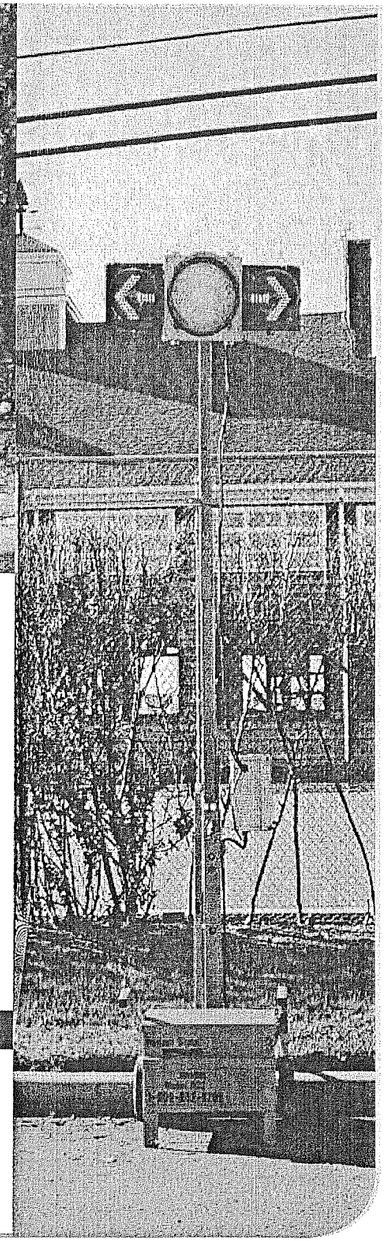

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