

# TRANSPORTATION IMPROVEMENT PROJECT

## PLAN AND PROFILE OF CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

IN THE TOWN OF  
**ASHLAND**  
MIDDLESEX COUNTY  
THE COMMONWEALTH OF MASSACHUSETTS

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

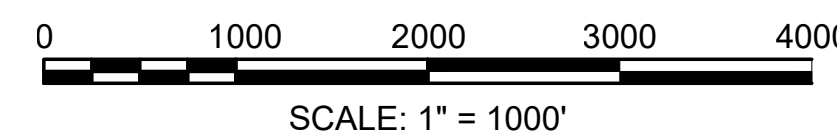
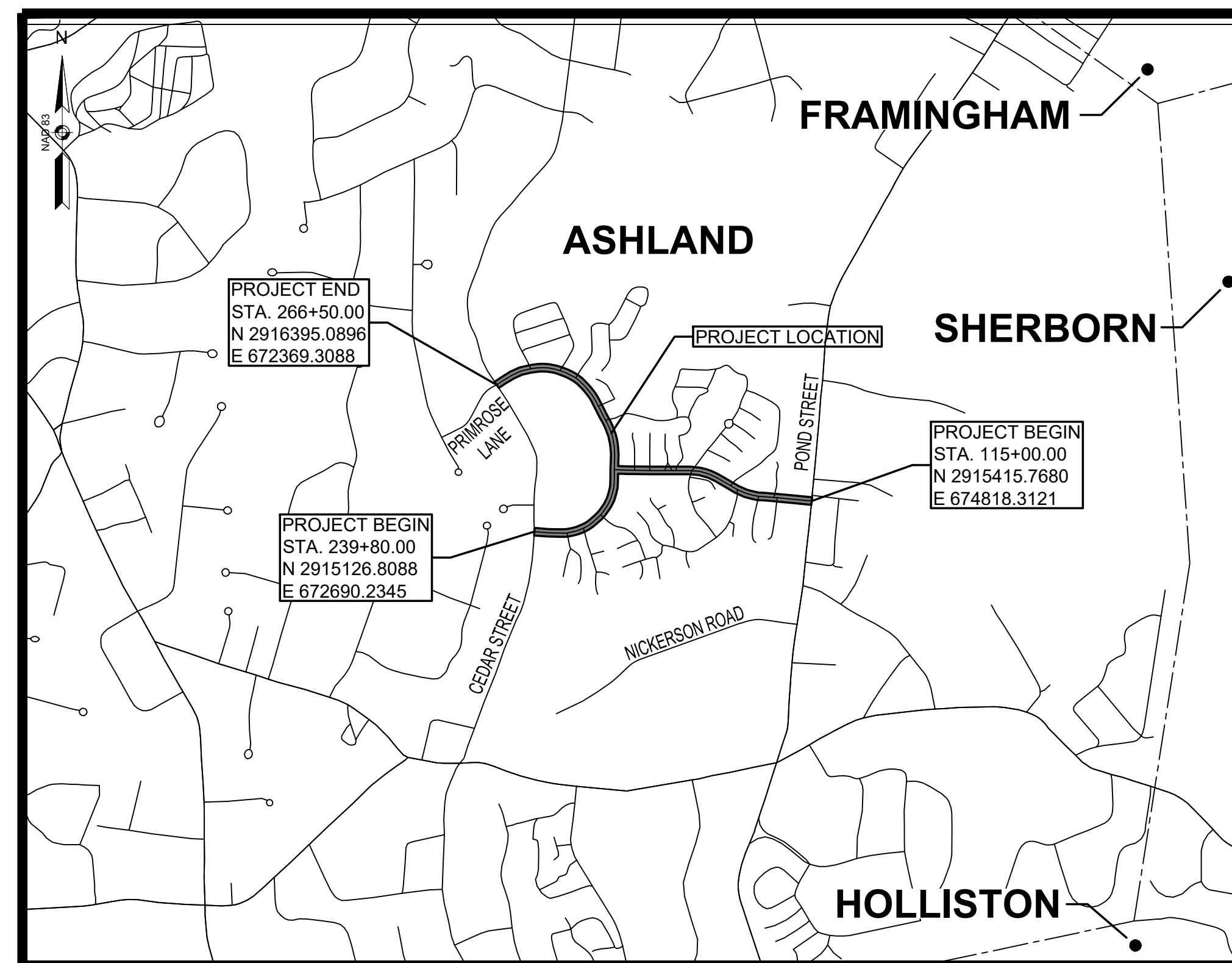
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	1	71
PERMIT PROJECT NO.		-	

TITLE SHEET & INDEX

ALL WORK DONE UNDER THIS CONTRACT SHALL BE IN CONFORMANCE WITH THE LATEST MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES; THE LATEST CONSTRUCTION STANDARD DETAILS; THE LATEST OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS; THE MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS; THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS; THE LATEST STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; THE LATEST STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING; THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK; AND ALL RULES AND REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD (521 CMR 1.00 ET. SEQ.); OR LATEST EDITIONS, ALL AS AMENDED, THE SPECIAL PROVISIONS, AND THESE PLANS.

# 100% SUBMITTAL

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES
4-5	TYPICAL SECTIONS
6-13	CONSTRUCTION PLANS
14-15	PROFILES
16-23	CURB TIE & GRADING PLANS
24-31	PAVEMENT MARKING & SIGNING PLANS
32	SIGN SUMMARY
33	TEMPORARY TRAFFIC CONTROL PLAN
34-35	PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
36	CONSTRUCTION DETAILS
37-71	CROSS SECTIONS



LENGTH OF PROJECT = 2,670.00 FEET = 0.5057 MILES (CAPTAIN EAMES CIRCLE)  
= 1,500.00 FEET = 0.2841 MILES (ALGONQUIN TRAIL)

DATE	DESCRIPTION	REV #

STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	AS NOTED
CHECKED BY:	JPC		

**GENERAL SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT BARRIER
		COIR LOG SEDIMENT BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

**TRAFFIC SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

**PAVEMENT MARKINGS SYMBOLS**

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

**TRAFFIC SIGNAL ABBREVIATIONS**

CAB	CABINET	GSR	STEADY GREEN SLASH RIGHT ARROW
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT	GV	STEADY GREEN VERTICAL ARROW
DW	STEADY UPRAISED HAND	OL	OVERLAP
FDW	FLASHING UPRAISED HAND	PED	PEDESTRIAN
FR	FLASHING CIRCULAR RED	PTZ	PAN, TILT, ZOOM
FRL	FLASHING RED LEFT ARROW	R	STEADY CIRCULAR RED
FRR	FLASHING RED RIGHT ARROW	RL	STEADY RED LEFT ARROW
FY	FLASHING CIRCULAR YELLOW	RR	STEADY RED RIGHT ARROW
FYL	FLASHING YELLOW LEFT ARROW	TR SIG	TRAFFIC SIGNAL
FYR	FLASHING YELLOW RIGHT ARROW	TSC	TRAFFIC SIGNAL CONDUIT
G	STEADY CIRCULAR GREEN	W	STEADY WALKING PERSON
GL	STEADY GREEN LEFT ARROW	Y	STEADY CIRCULAR YELLOW
GR	STEADY GREEN RIGHT ARROW	YL	STEADY YELLOW LEFT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW		

**ABBREVIATIONS**

GENERAL	DESCRIPTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
M&O	MILL & OVERLAY
NIC	NOT IN CONTRACT
NO.	NUMBER

**ASHLAND CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL**

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	2	71

**LEGEND & ABBREVIATIONS**

**ABBREVIATIONS (cont.)**

GENERAL	DESCRIPTION
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

STAMP:

Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvai.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		

## GENERAL NOTES

1. TOPOGRAPHICAL INFORMATION OBTAINED FROM SURVEY CONDUCTED BY CROCKER DESIGN GROUP. COORDINATES ARE IN MASSACHUSETTS STATE PLANE (NAD '83). VERTICAL DATUM IS REFERENCED TO NAVD '88. AERIAL IMAGERY WAS USED TO SUPPLEMENT THE SURVEY.
2. THE CONTRACTOR SHALL NOTIFY DIGSAFE (888-344-7233) AND PROCURE A DIGSAFE NUMBER PRIOR TO DISTURBING GROUND IN ANY WAY.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
4. WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
5. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH PRIVATE UTILITY COMPANIES FOR THE ALTERATION/ADJUSTMENT OF MANHOLES, GATE BOXES AND SERVICE BOXES OWNED/MAINTAINED BY GAS, ELECTRIC, COMMUNICATION, AND ANY OTHER PRIVATE UTILITY COMPANIES.
6. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. GRASS AREAS SHALL BE RESTORED WITH 4-INCHES OF LOAM AND SEEDED.
7. THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
8. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
9. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
10. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
11. A MINIMUM 4 FOOT WIDE CLEAR PATH OF TRAVEL (EXCLUDING CURB WIDTH) SHALL BE MAINTAINED ON ALL SIDEWALKS PAST ALL SIGNAL EQUIPMENT, UTILITIES, OR OTHER OBSTRUCTIONS.
12. DIMENSIONS RELATIVE TO EXISTING CURB LINES SHALL CONTROL. THE EXACT LOCATION OF TRAFFIC SIGNAL POLES, POSTS, CONTROLLERS, PULL BOXES, SIGNS, AND PAVEMENT MARKINGS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
13. JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY PAVEMENT AND EXISTING PAVEMENT SHALL BE SEALED WITH HOT POURED JOINT SEALER.
14. ALL EXISTING GRANITE CURB AND EDGING THAT MEETS SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING AT NO ADDITIONAL COST.
16. ALL VERTICAL GRANITE CURB (VGC) SHALL TRANSITION AT THE LIMITS OF WORK WITH A 6' TRANSITION PIECE.
17. ALL NEW CATCH BASIN GRATES WITHIN THE LIMITS OF WORK AND WITHIN THE PAVED SURFACE SHALL BE HOOK LOCK CASCADE GRATES.
18. ALL EXISTING SEWER, DRAINAGE, ELECTRIC MANHOLE COVERS, GAS AND WATER GATES, ETC. SHALL BE ADJUSTED TO FINISHED GRADE.
19. THE CONTRACTOR SHALL REVIEW WITH THE ENGINEER THE CONDITION OF ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF PAVING THAT ARE TO BE RETAINED. FRAMES, GRATES AND COVERS FOUND TO BE BROKEN, CRACKED OR COMPROMISED SHALL BE REPLACED. STRUCTURES FOUND TO BE COLLAPSED, WEAKENED OR COMPROMISED IN ANY WAY SHALL BE REBUILT IN ACCORDANCE WITH ALL RELEVANT STANDARDS. THIS INCLUDES STRUCTURES THAT CONTAIN COVERS OR GRATES THAT DO NOT SIT FIRMLY IN THEIR FRAMES. COVERS AND GRATES THAT NOTICEABLY (BY SIGHT OR SOUND) ROCK OR SHIFT WHEN IMPACTED BY A MOTOR VEHICLE SHALL BE REMOVED, CLEANED (INCLUDING THE FRAME) AND RESET. COVERS AND GRATES THAT CONTINUE TO ROCK OR SHIFT AFTER THIS PROCEDURE SHALL BE REPLACED.
20. ALL PROPOSED PEDESTRIAN ACCOMMODATIONS (I.E. SIDEWALKS, PEDESTRIAN CURB RAMPS, ETC.) SHALL COMPLY WITH CURRENT ADA & AAB RULES AND REGULATIONS AND MUNICIPAL STANDARDS.
21. ALL DRAINAGE STRUCTURES WITHIN THE LIMITS OF WORK SHALL BE CLEANED PRIOR TO CONCLUSION OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
22. THE MINIMUM MOUNTING HEIGHT OF POST MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF CURB OR SIDEWALK OR NEAREST EDGE OF TRAVELED WAY, SHALL BE 7 FT EXCEPT FOR OM1-1 OBJECT MARKERS WHICH SHALL BE 4 FT.
23. ALL EXISTING MATERIALS THAT CONFLICT WITH THE PROPOSED WORK SHALL BE REMOVED AND PROPERLY DISPOSED, OR PROPERLY HANDLED FOR RE-USE ELSEWHERE IN THE PROJECT.


## ASHLAND CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	3	71
PERMIT PROJECT NO.		-	

### GENERAL NOTES

DATE	DESCRIPTION	REV #

STAMP:	 <b>Vanasse &amp; Associates inc</b> Transportation Engineers & Planners <small>35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com</small>		
	DESIGNED BY:	MPP	DATE: AUGUST 2025
	DRAWN BY:	MPP	SCALE: NOT TO SCALE
	CHECKED BY:	JPC	

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	4	71
PERMIT PROJECT NO. -			

TYPICAL SECTIONS

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 1-1/2" HMA SURFACE COURSE  
1-3/4" HMA INTERMEDIATE COURSE

3-1/2" HMA BASE COURSE

SUBBASE: 12" GRAVEL BORROW (MASSDOT M1.03.0 TYPE b)

NOTE: IN FULL DEPTH AREAS < 4' WIDE USE 7-1/2" HIGH EARLY STRENGTH CEMENT CONCRETE IN LIEU OF 3-1/2" BASE COURSE AND 4" GRAVEL BORROW.

PROPOSED FULL DEPTH PAVEMENT RECLAMATION

SURFACE: 1-1/2" HMA SURFACE COURSE  
1-3/4" HMA INTERMEDIATE COURSE

3-1/2" HMA BASE COURSE

SUBBASE: 12" RECLAIMED SUBBASE MATERIAL

PROPOSED RECLAMATION DEPTH 14" ± 2"

PROPOSED PAVEMENT MILLING & HMA OVERLAY

EXCAVATION: 1-1/2" PAVEMENT MILLING

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)

LEVELING COURSE: VARIABLE DEPTH SUPERPAVE LEVELING COURSE - 9.5 (SLC - 9.5)  
(REQ TO ACHIEVE PROP CROSS SLOPE, SEE CROSS SECTIONS FOR LOCATIONS)

ASPHALT EMULSION FOR TACK COAT (RS-1) AT:  
0.08 GAL/SY OVER EXISTING SMOOTH OR NEW PAVEMENT  
0.09 GAL/SY OVER MILLED PAVEMENT

PROPOSED CEMENT CONCRETE CURB RAMPS

SURFACE: 4" CEMENT CONCRETE  
(AIR-ENTRAINED 4000 PSI-3/4"-610 LB)

SUBBASE: 8" GRAVEL BORROW  
(MASSDOT M1.03.0 TYPE c)

PROPOSED HMA SIDEWALK

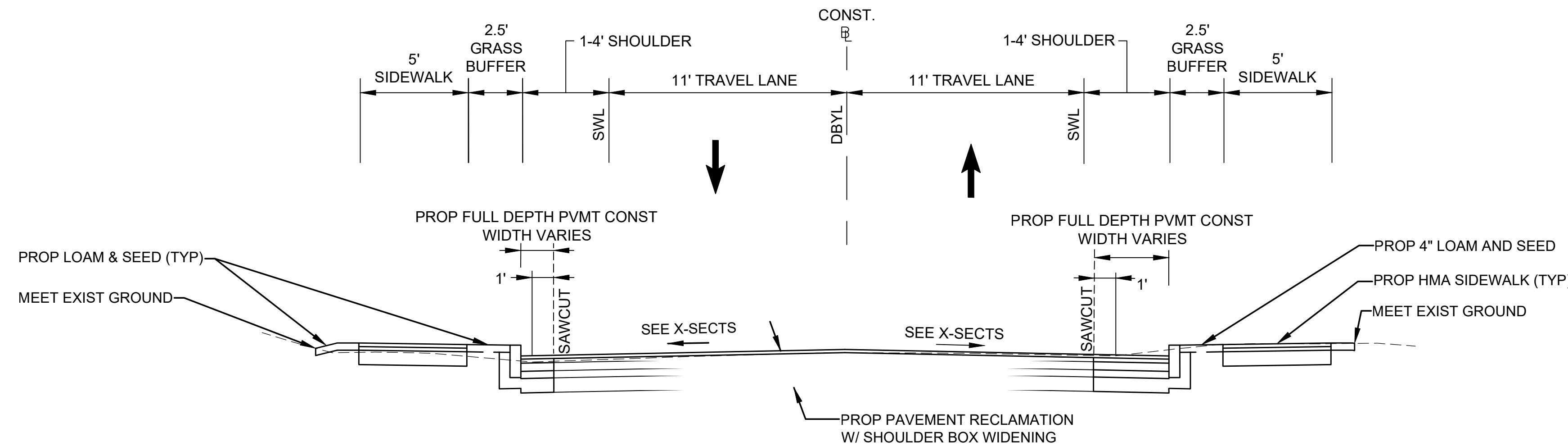
SURFACE: 3" HOT MIX ASPHALT (NOMINAL)  
1-1/4" STANDARD TOP COURSE OVER  
1-3/4" BINDER COURSE

SUBBASE: 8" GRAVEL BORROW (MASSDOT M1.03.0 TYPE b)

PROPOSED HMA DRIVEWAY

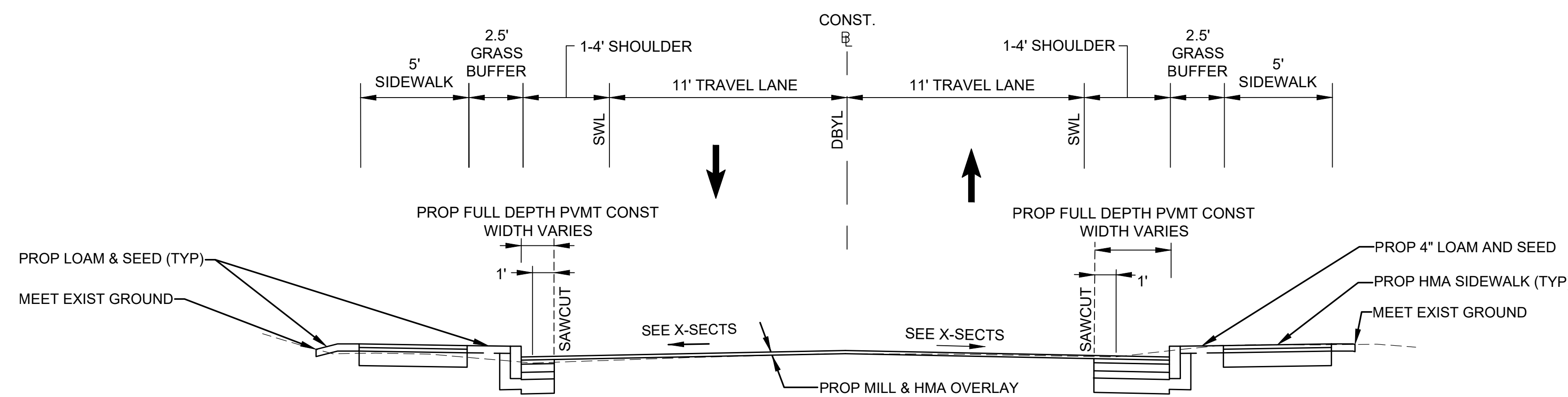
SURFACE: 4" HOT MIX ASPHALT (NOMINAL)  
1-1/2" STANDARD TOP COURSE OVER  
2-1/2" BINDER COURSE

SUBBASE: 8" GRAVEL BORROW (MASSDOT M1.03.0 TYPE b)



CAPTAIN EAMES CIRCLE

STA. 239+80 TO STA. 247+80  
NOT TO SCALE



CAPTAIN EAMES CIRCLE

STA. 247+80 TO STA. 266+00  
NOT TO SCALE

DATE	DESCRIPTION	REV #

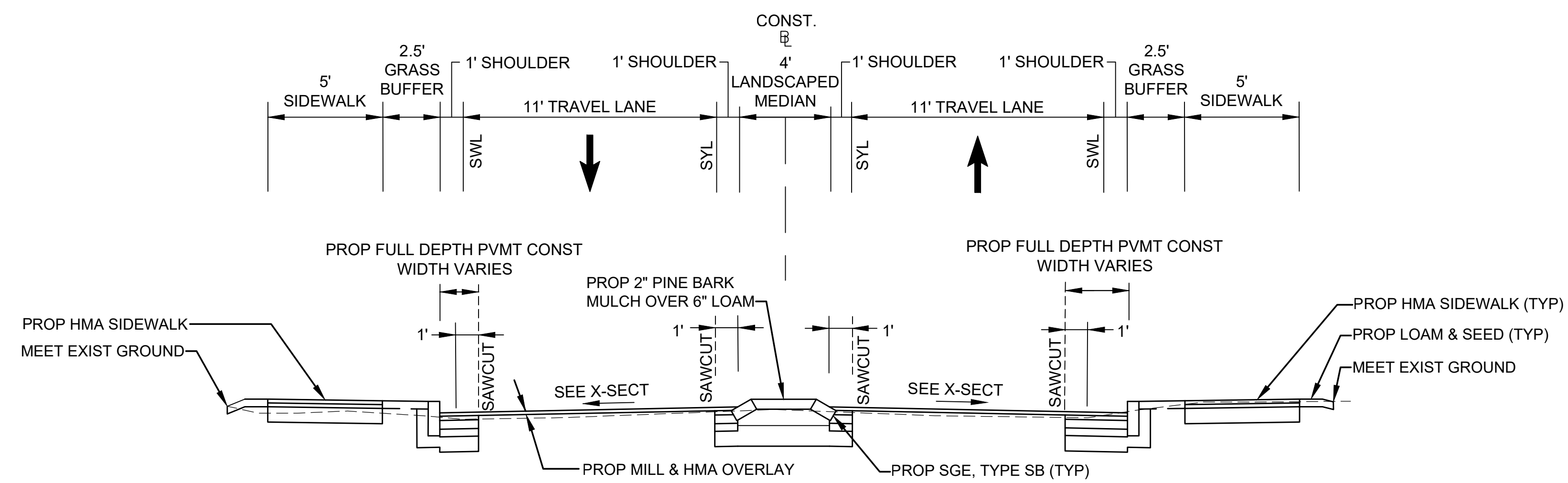
STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

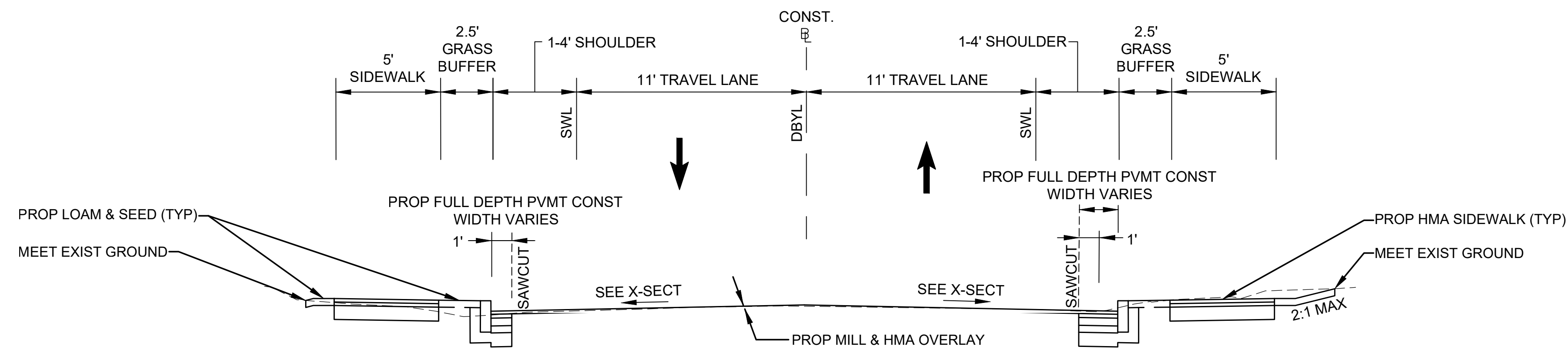
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	5	71
PERMIT PROJECT NO. -			

TYPICAL SECTIONS



**LANDSCAPED MEDIANS**

- STA. 246+30 TO STA. 247+05
- STA. 248+60 TO STA. 249+04
- STA. 250+38 TO STA. 250+90
- STA. 255+15 TO STA. 255+45
- STA. 259+23 TO STA. 259+77
- STA. 100+50 TO STA. 101+30
- STA. 105+75 TO STA. 106+20
- STA. 107+45 TO STA. 107+75
- STA. 111+55 TO STA. 111+95



**ALGONQUIN TRAIL**

STA. 100+00 TO STA. 115+00  
NOT TO SCALE

DATE	DESCRIPTION	REV #

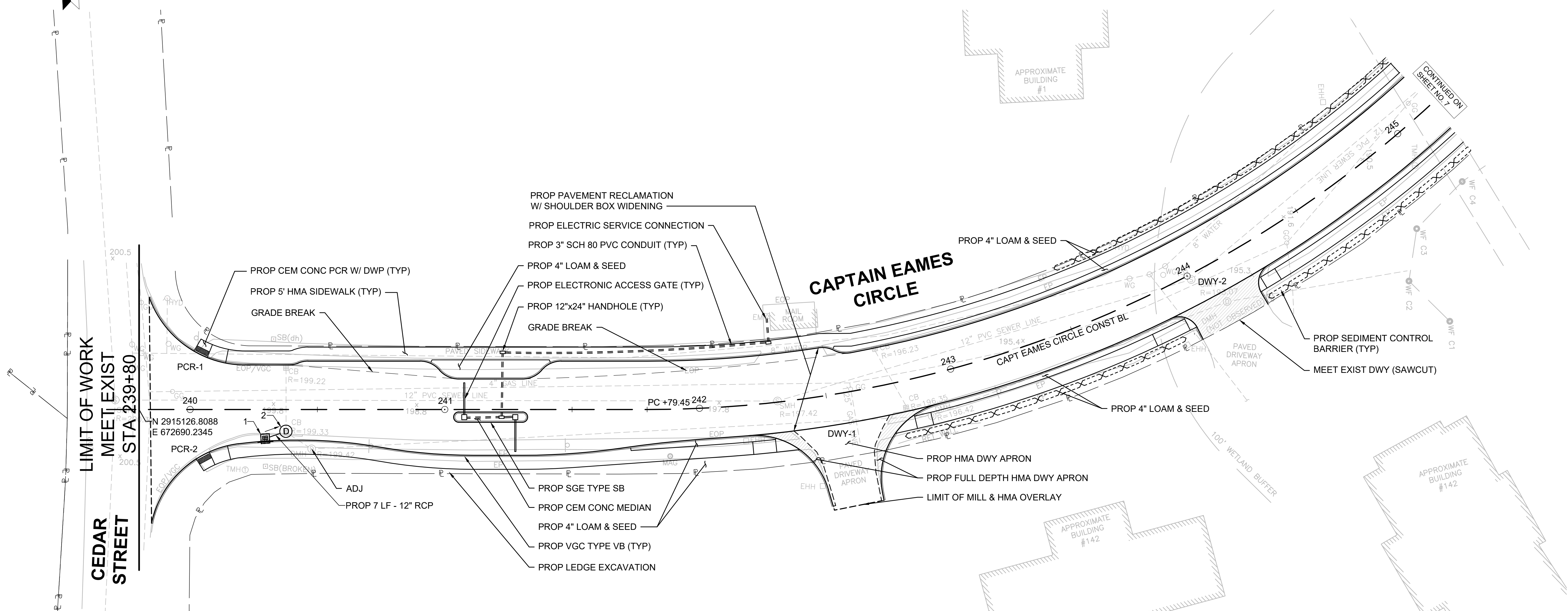
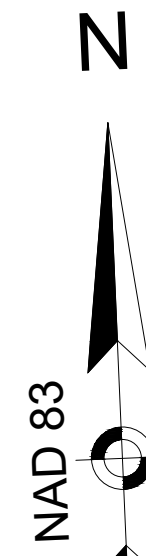
STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	6	71
PERMIT PROJECT NO. -			

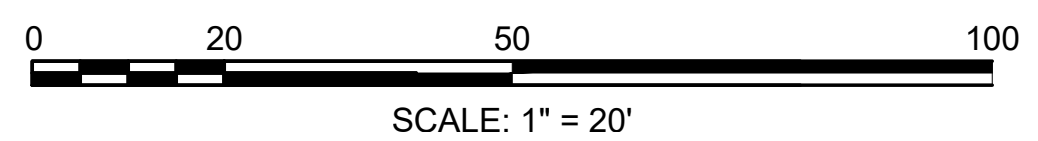
CONSTRUCTION PLANS



LIMIT OF WORK MEET EXIST CEDAR STREET STA 239+80

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
1	PROP GICI	240+29.5 11.4' RT	199.32	VERIFY INVERTS IN FIELD. PIPES SHALL HAVE MIN 1.5% SLOPE TO MAINTAIN POSITIVE DRAINAGE		
2	EX CB	240+37.7 8.5' RT	199.27			CIT TO DMH

- NOTE:
- ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  - ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



STAMP:

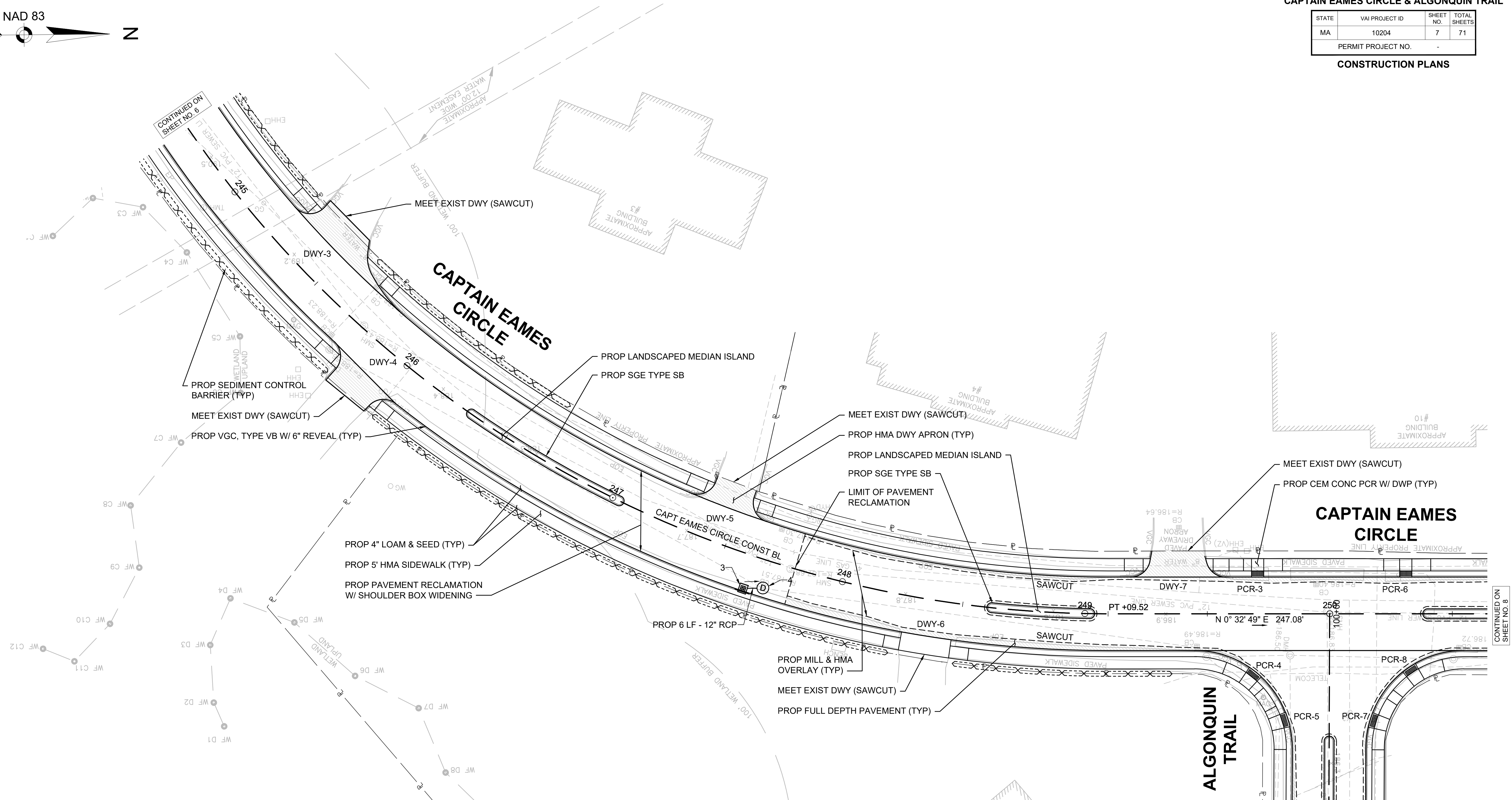
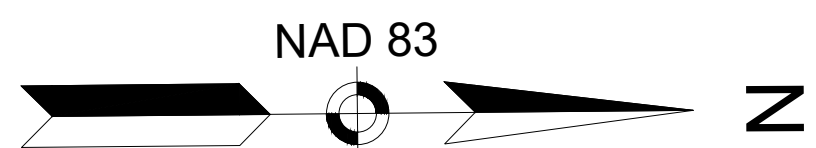
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

DATE	DESCRIPTION	REV #

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

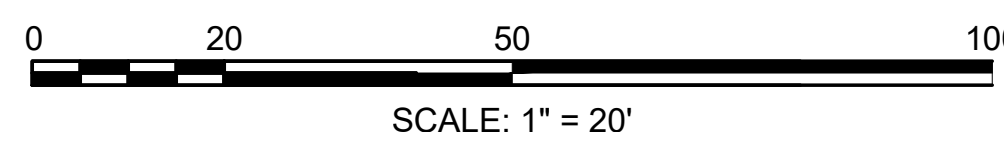
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	7	71
PERMIT PROJECT NO. -			

CONSTRUCTION PLANS



DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
3	PROP GICI	247+62.4 14.0' RT	187.38	VERIFY INVERTS IN FIELD. PIPES SHALL HAVE MIN 1.5% SLOPE TO MAINTAIN POSITIVE DRAINAGE		
4	EX CB	247+69.8 11.3' RT	187.40			CIT TO DMH

- NOTE:
- ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  - ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.

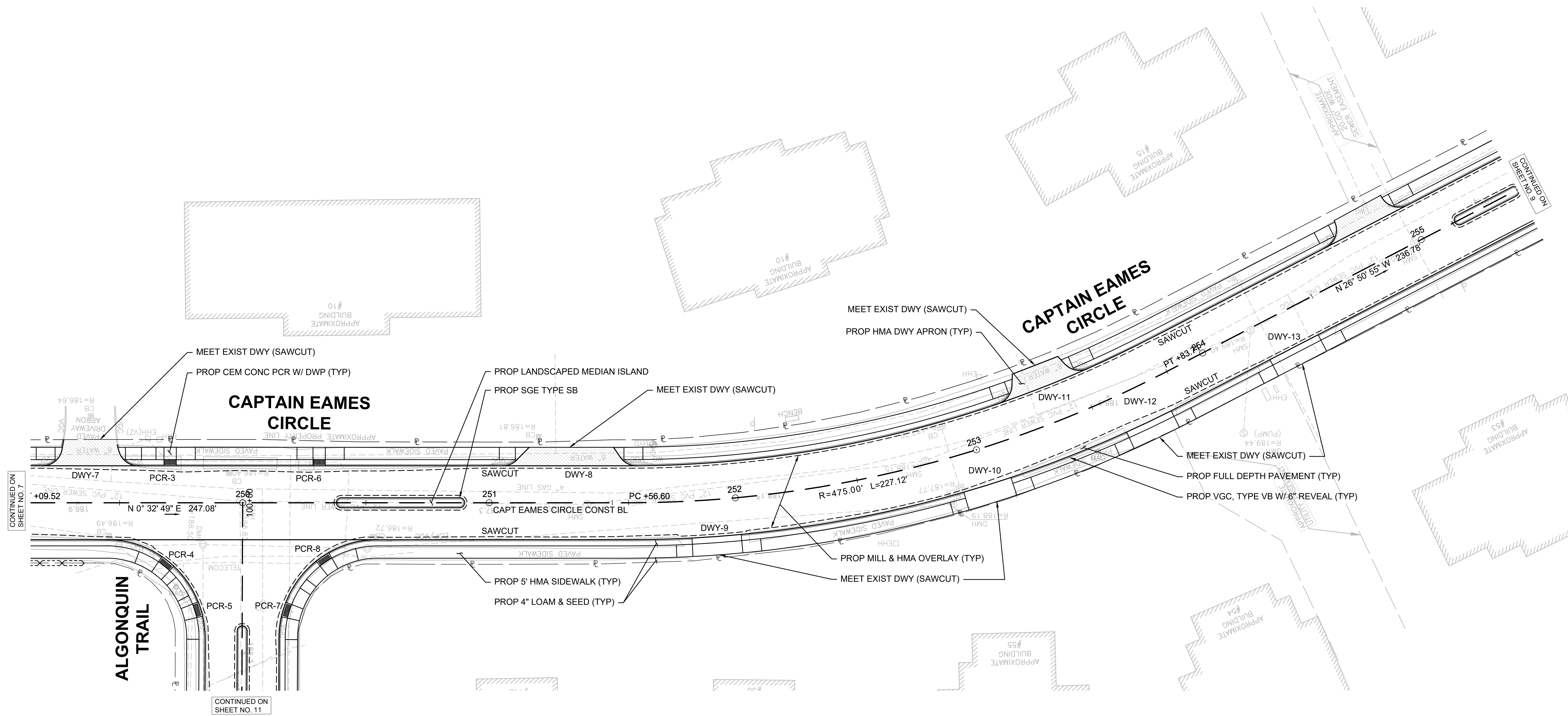
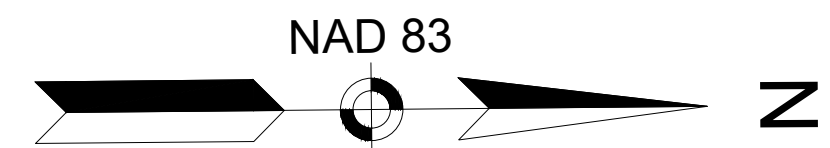


DATE		DESCRIPTION		REV #
DESIGNED BY:	MPP	DATE:	AUGUST 2025	
DRAWN BY:	MPP	SCALE:	1" = 20'	
CHECKED BY:	JPC			

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	8	71
PERMIT PROJECT NO. -			

CONSTRUCTION PLANS

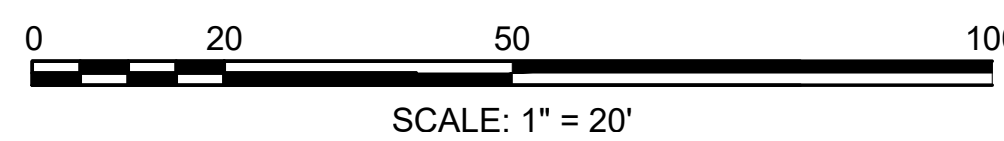


CONTINUED ON SHEET NO. 7

CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 9

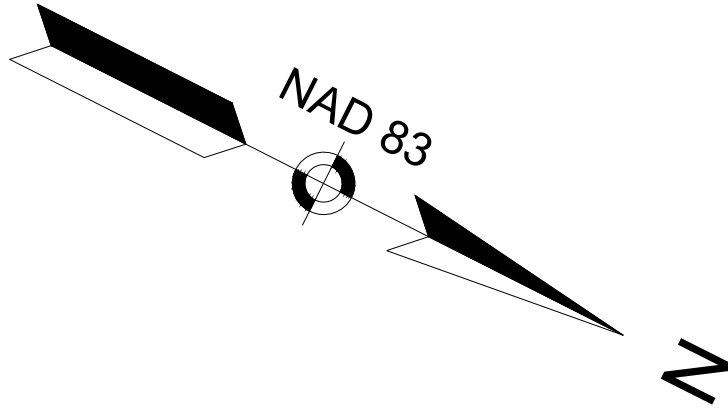
- NOTE:
1. ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  2. ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



DATE	DESCRIPTION	REV #

STAMP:

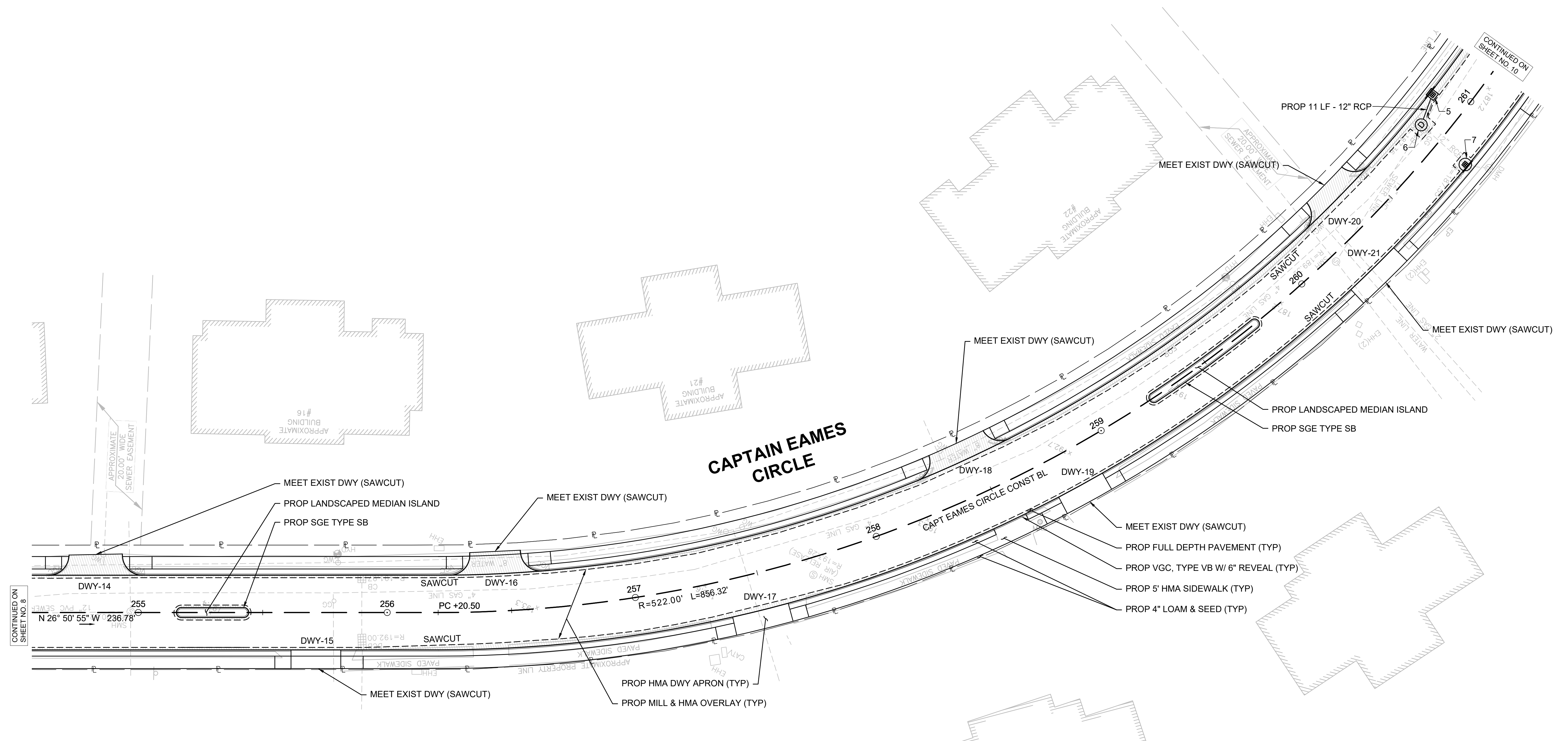
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		



**ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL**

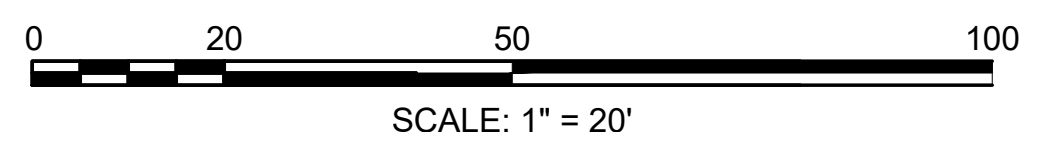
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	9	71

PERMIT PROJECT NO. -  
**CONSTRUCTION PLANS**



DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
5	PROP GICI	260+92.7 14.0' LT	187.05	VERIFY INVERTS IN FIELD. PIPES SHALL HAVE MIN 1.5% SLOPE TO MAINTAIN POSITIVE DRAINAGE		
6	PROP DMH	260+80.1 9.8' LT	187.48			CIT TO DMH
7	PROP CBCI	260+79.1 14.0' RT	187.42			REM EXIST CB, RECONNECT EXIST PIPE

- NOTE:
- ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  - ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



STAMP:

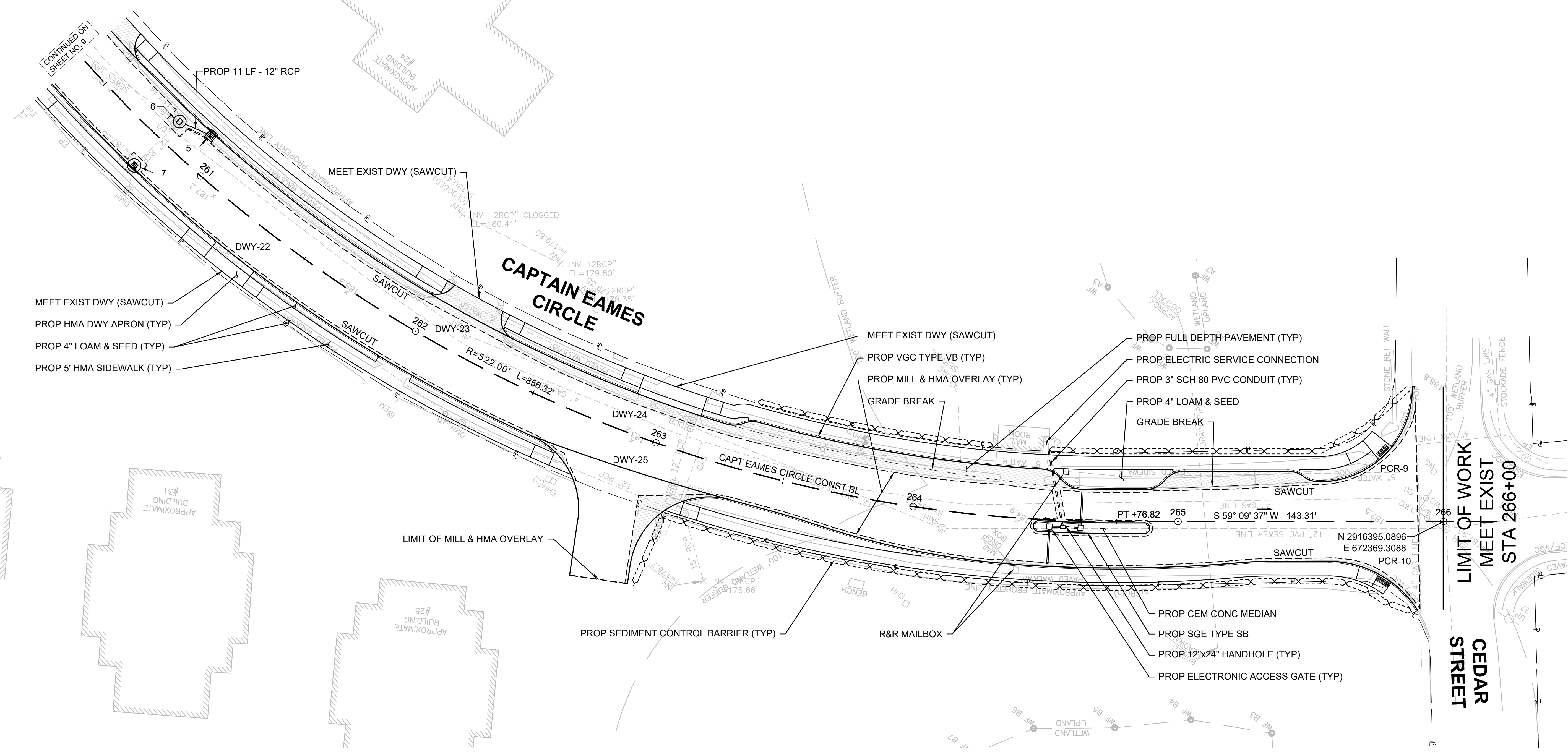
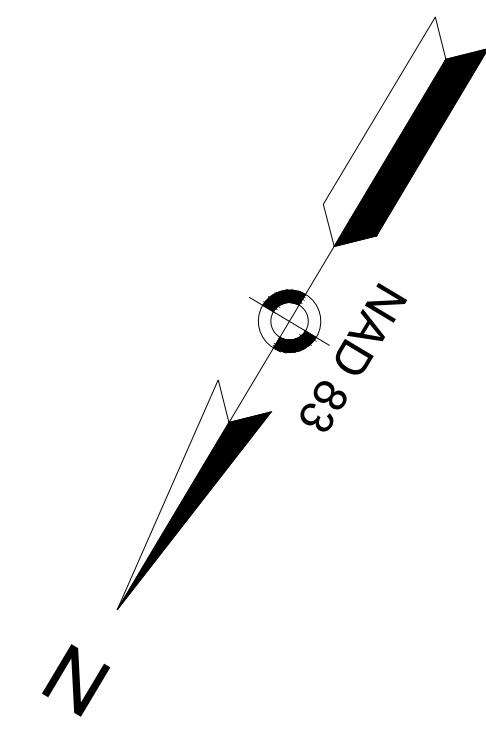
DATE	DESCRIPTION	REV #

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

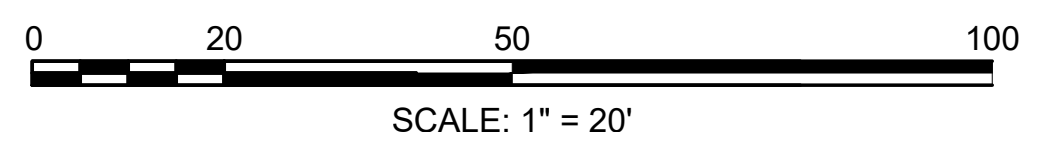
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	10	71
PERMIT PROJECT NO. -			

CONSTRUCTION PLANS



- MEET EXIST DWY (SAWCUT)
- PROP HMA DWY APRON (TYP)
- PROP 4" LOAM & SEED (TYP)
- PROP 5" HMA SIDEWALK (TYP)

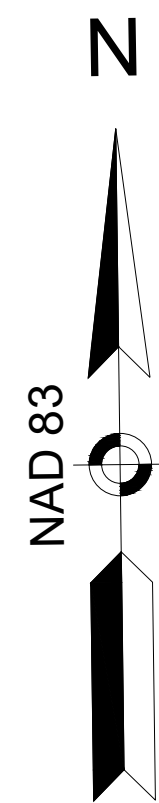
- NOTE:
1. ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  2. ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



DATE	DESCRIPTION	REV #

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

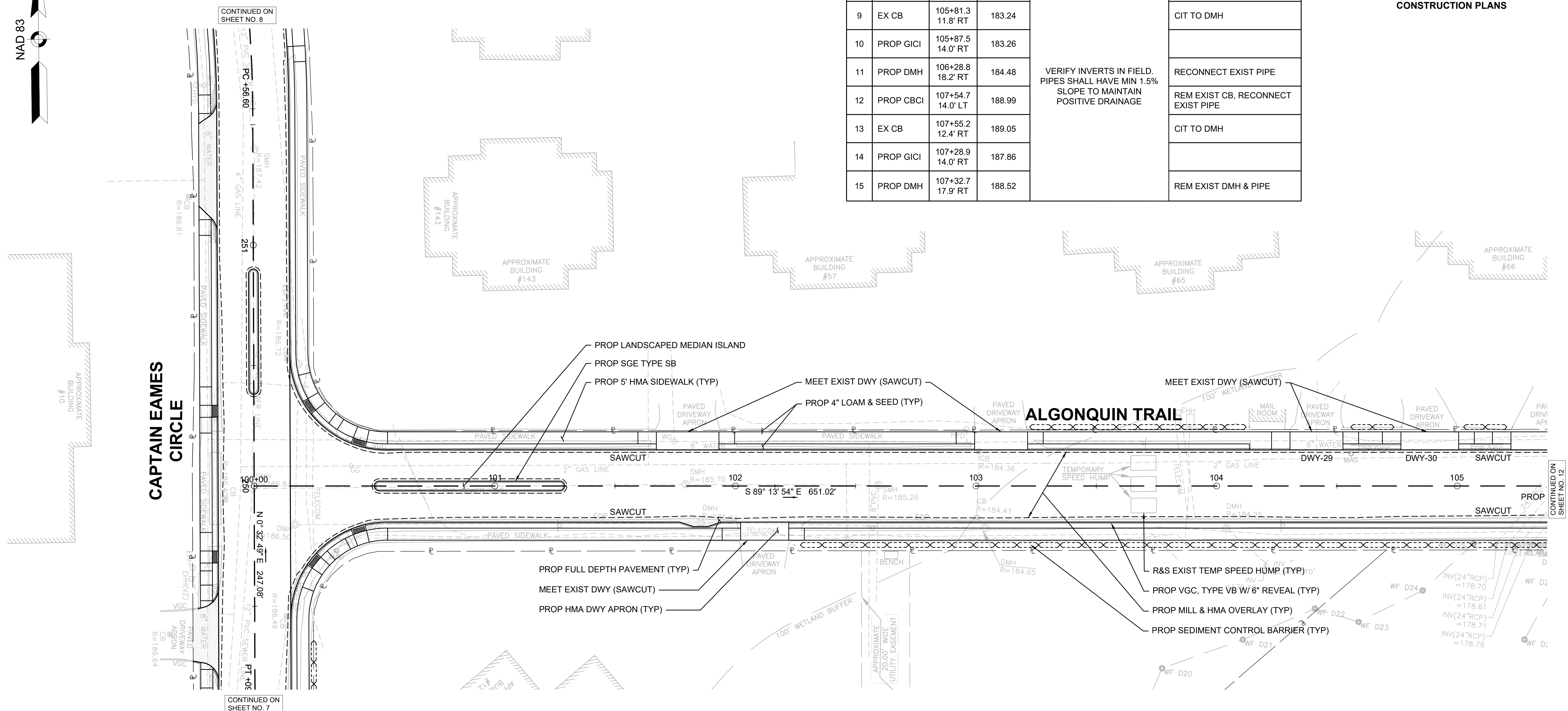


**ASHLAND**  
**CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL**

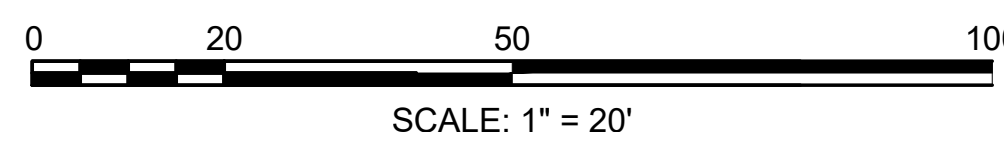
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	11	71
PERMIT PROJECT NO. -			

**CONSTRUCTION PLANS**

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
8	PROP DMH	105+64 18.5' RT	183.57			REM EXIST DMH & PIPE, RECONNECT EXIST PIPE
9	EX CB	105+81.3 11.8' RT	183.24			CIT TO DMH
10	PROP GICI	105+87.5 14.0' RT	183.26			
11	PROP DMH	106+28.8 18.2' RT	184.48			RECONNECT EXIST PIPE
12	PROP CBCI	107+54.7 14.0' LT	188.99			REM EXIST CB, RECONNECT EXIST PIPE
13	EX CB	107+55.2 12.4' RT	189.05			CIT TO DMH
14	PROP GICI	107+28.9 14.0' RT	187.86			
15	PROP DMH	107+32.7 17.9' RT	188.52			REM EXIST DMH & PIPE



- NOTE:
- ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  - ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



DATE	DESCRIPTION	REV #

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

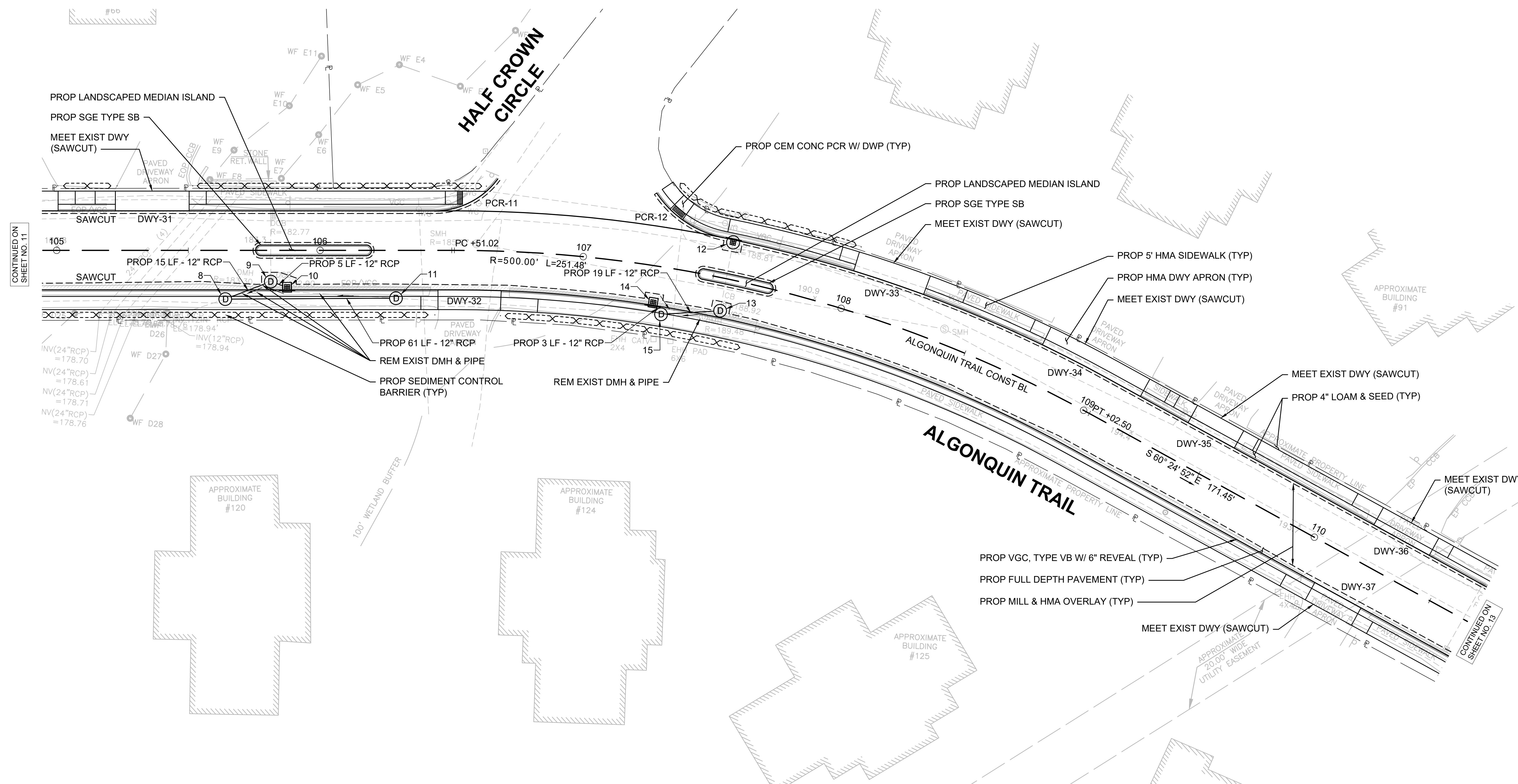
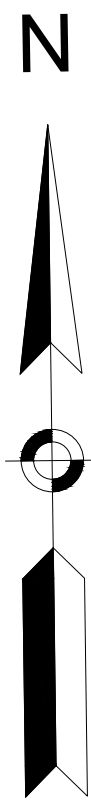
T:\10204 ASHLAND, MA\DESIGN\DWG\10204GN.DWG Plotted on: 25-Aug-2025 4:16 PM

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	12	71
PERMIT PROJECT NO. -			

CONSTRUCTION PLANS

NAD 83

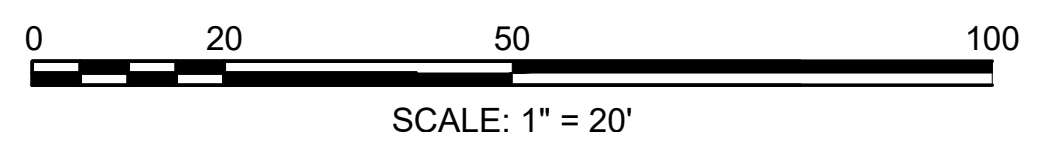


CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 13

DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
16	PROP CBCI	113+04.5 14.0' LT	185.58	VERIFY INVERTS IN FIELD. PIPES SHALL HAVE MIN 1.5% SLOPE TO MAINTAIN POSITIVE DRAINAGE		REM EXIST CB, RECONNECT EXIST PIPE
17	PROP GICI	113+11.4 14.0' RT	185.35			
18	EX CB	113+04.7 12.1' RT	185.56			CIT TO DMH

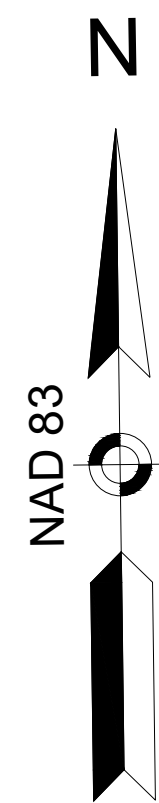
- NOTE:
- ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  - ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



DATE	DESCRIPTION	REV #

STAMP:

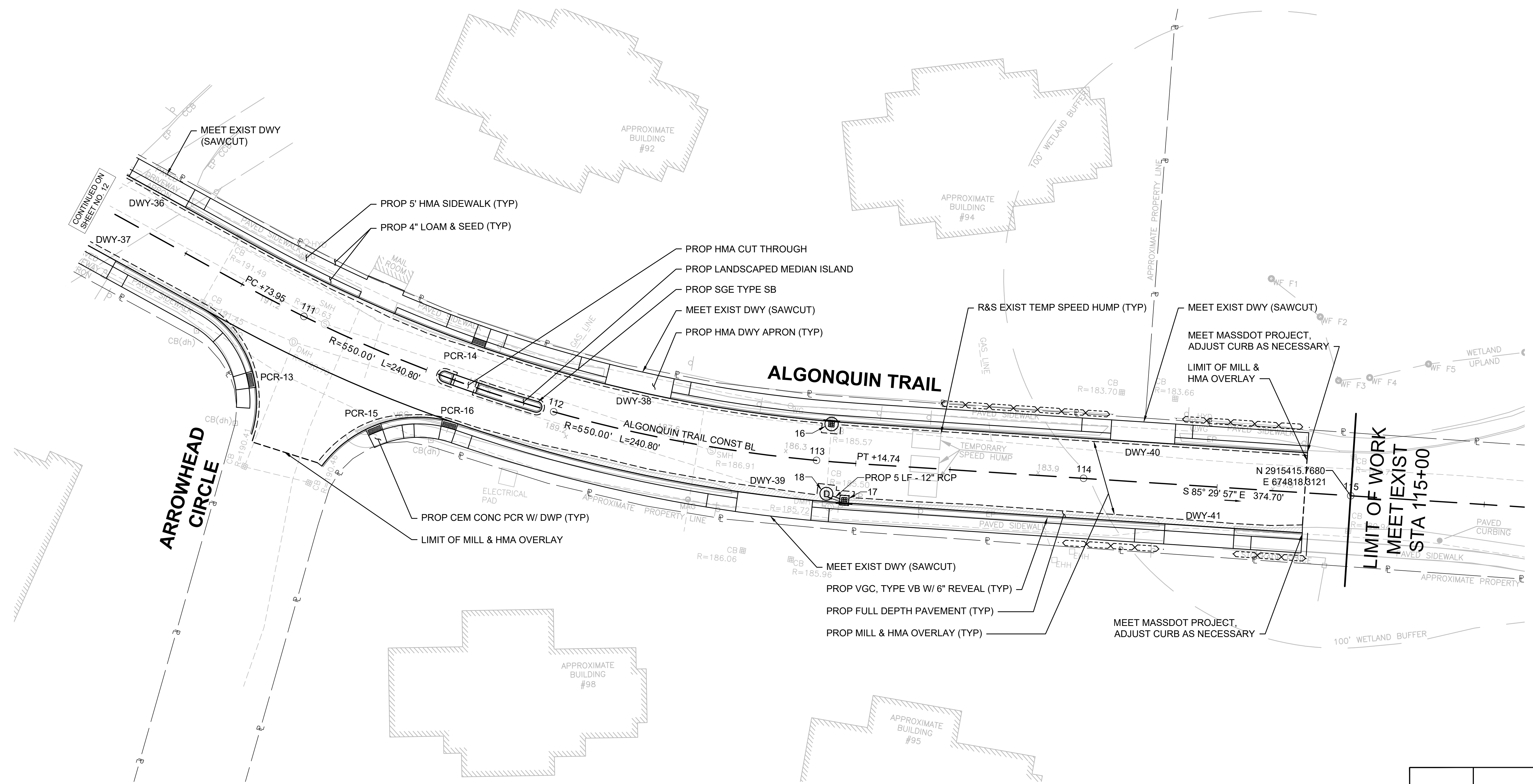
DESIGNED BY: MPP    DATE: AUGUST 2025  
DRAWN BY: MPP    SCALE: 1" = 20'  
CHECKED BY: JPC



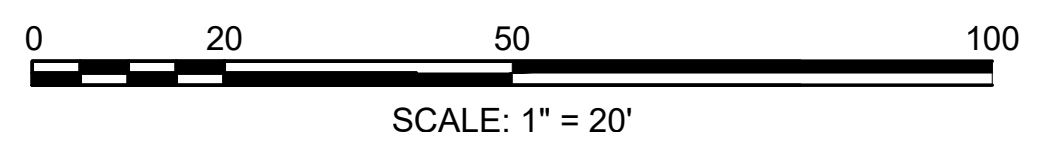
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	13	71
PERMIT PROJECT NO. -			

CONSTRUCTION PLANS



- NOTE:
1. ALL DECORATIVE ROCKS SHALL BE REMOVED AND RELOCATED AT THE ENGINEER'S DIRECTION.
  2. ALL DISTURBED LANDSCAPING SHALL BE REPLACED IN KIND.



DATE	DESCRIPTION	REV #

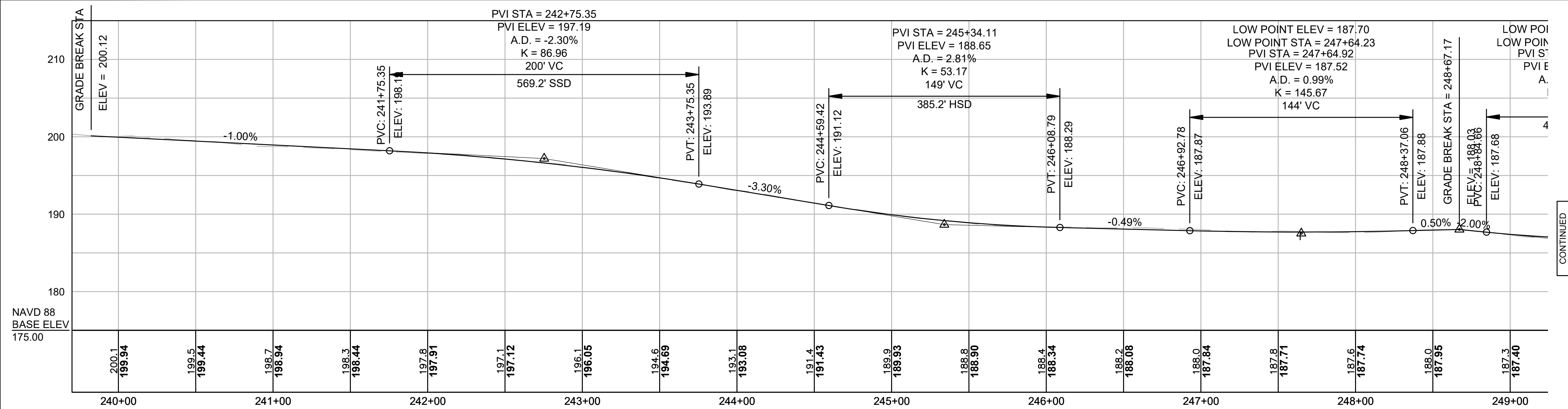
STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

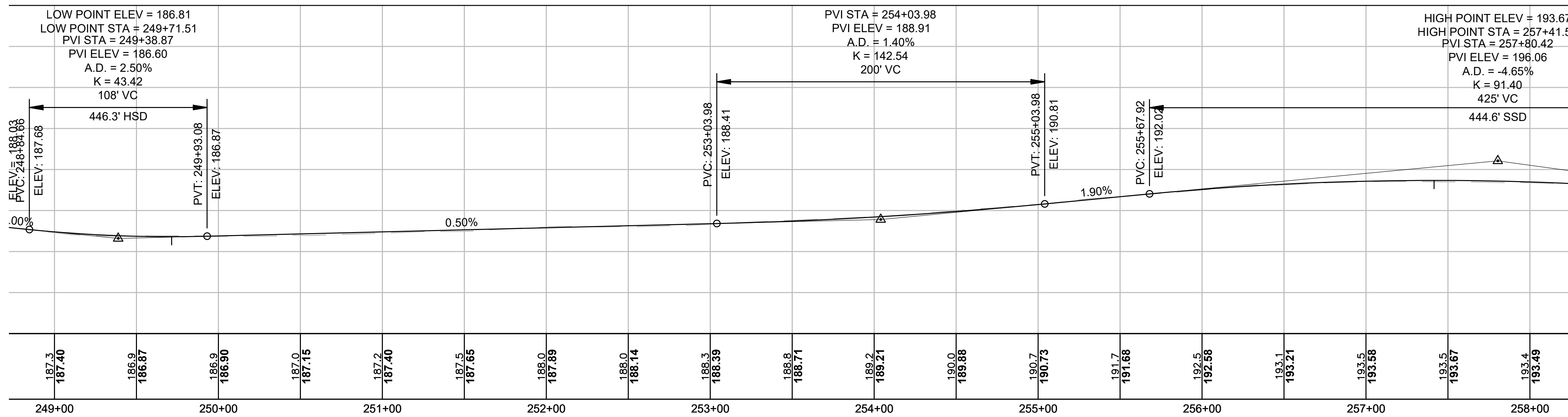
**ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL**

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	14	71
PERMIT PROJECT NO. -			

**PROFILE  
CAPTAIN EAMES CIRCLE**

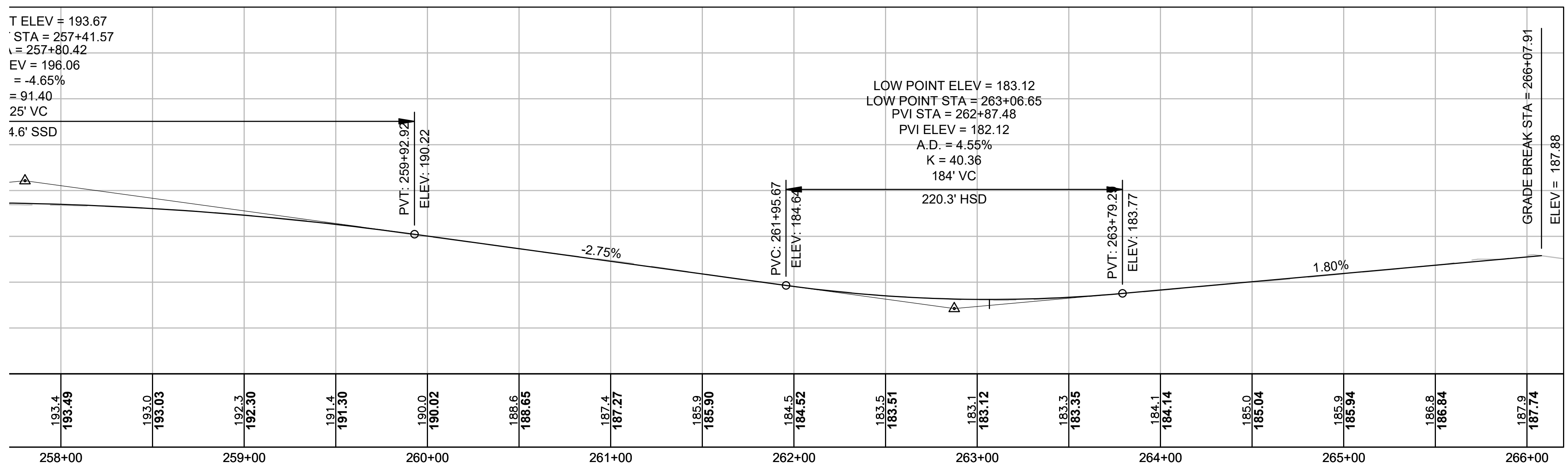


CONTINUED  
BELOW

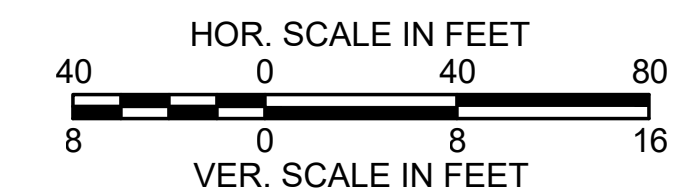


CONTINUED  
ABOVE

CONTINUED  
BELOW



CONTINUED  
ABOVE



STAMP:

DATE	DESCRIPTION	REV #

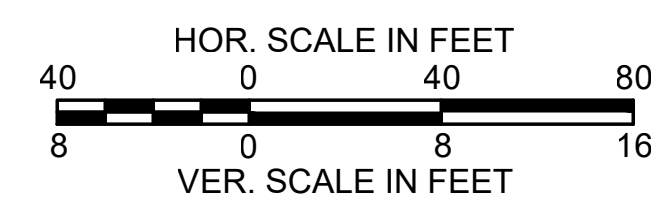
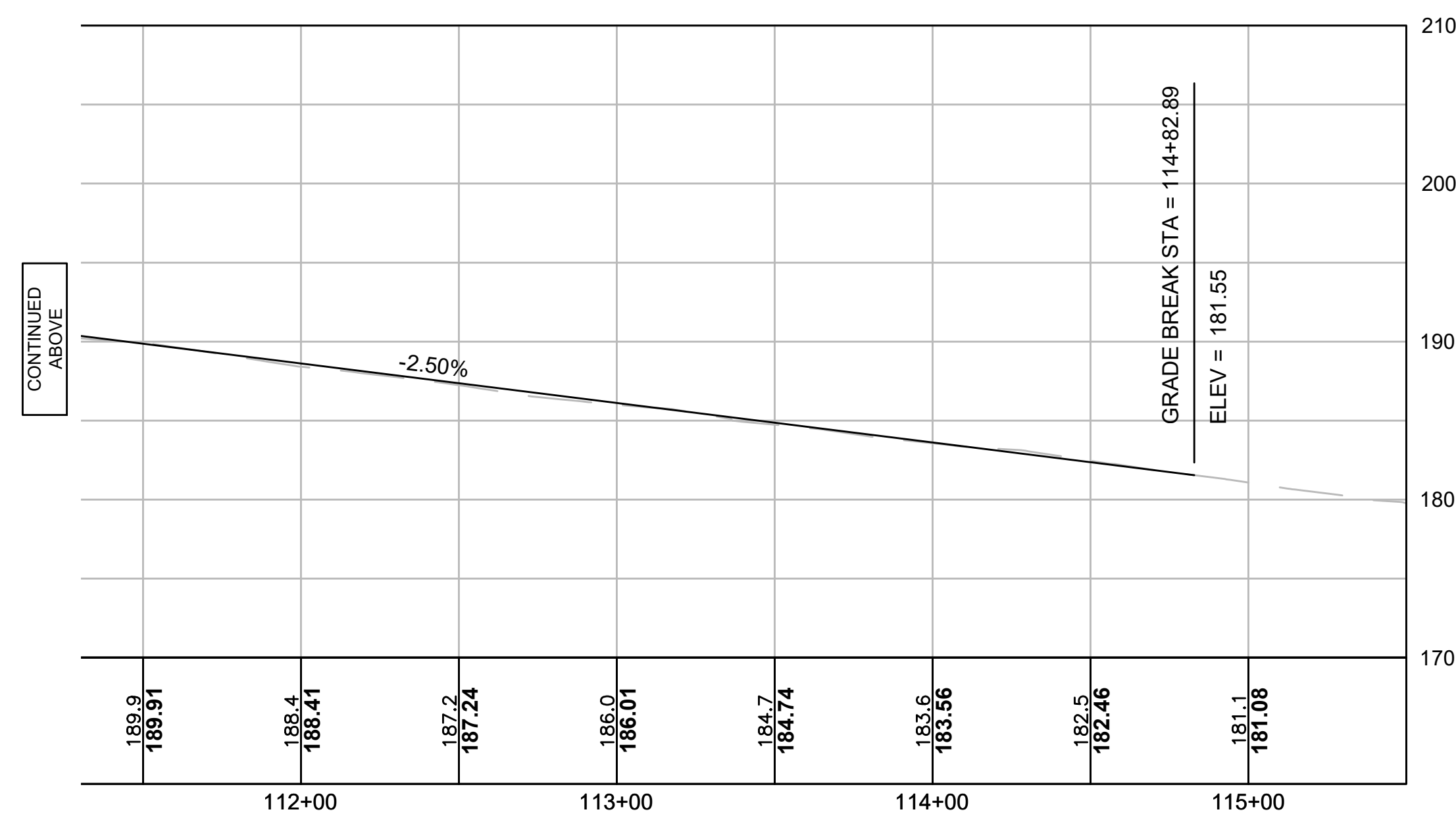
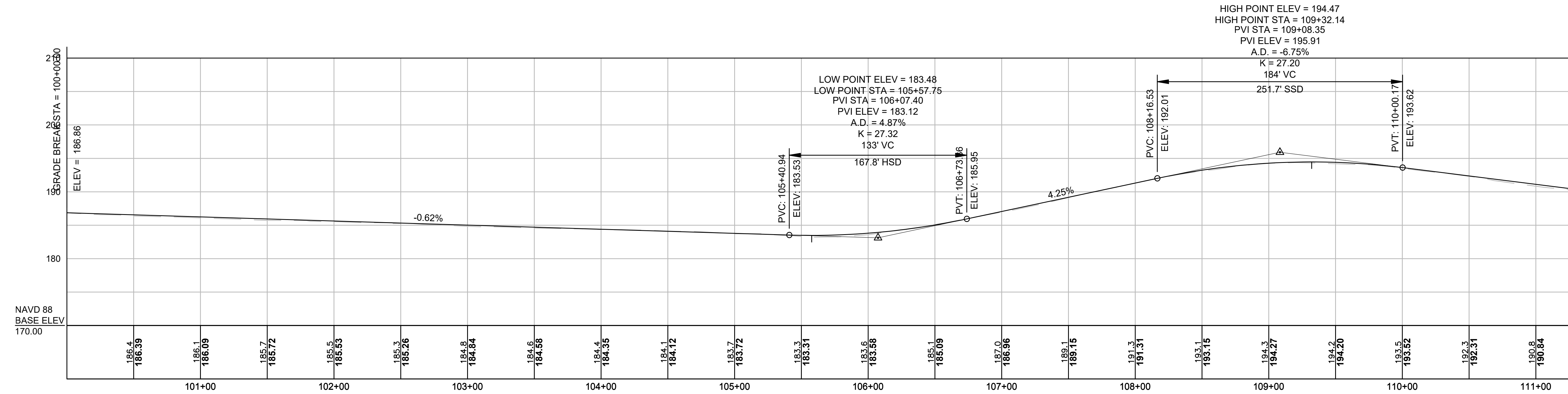
**Vanasse & Associates inc**  
Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.riva.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	V: 1" = 8' H: 1" = 40'
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	15	71
PERMIT PROJECT NO. -			

PROFILE  
ALGONQUIN TRAIL



DATE	DESCRIPTION	REV #

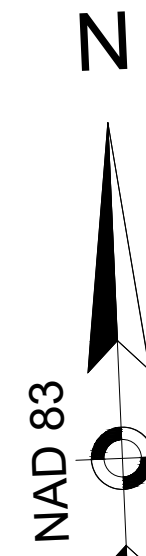
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	V: 1" = 8' H: 1" = 40'
CHECKED BY:	JPC		

STAMP:

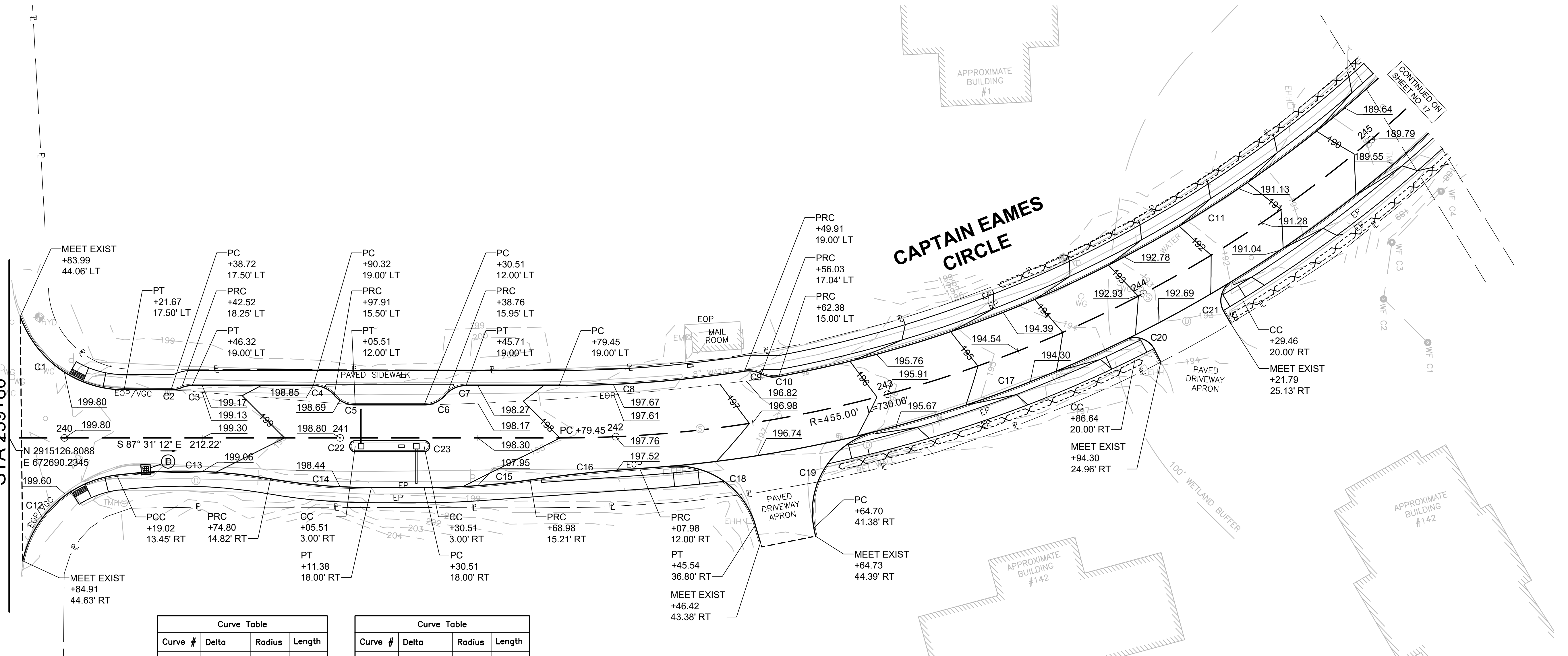
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	16	71
PERMIT PROJECT NO.			

CURB TIE & GRADING PLAN

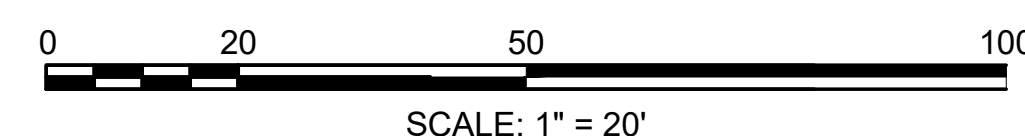


LIMIT OF WORK  
MEET EXIST  
CEDAR STREET  
STA 239+80



Curve #	Delta	Radius	Length
C1	70°21'50"	40.00	49.12
C2	22°19'54"	10.00	3.90
C3	22°19'54"	10.00	3.90
C4	49°27'30"	10.00	8.63
C5	49°27'30"	10.00	8.63
C6	49°27'30"	10.00	8.63
C7	49°27'30"	10.00	8.63
C8	8°52'21"	436.00	67.52
C9	36°05'31"	10.00	6.30
C10	37°39'44"	10.00	6.57
C11	81°29'27"	440.00	625.80
C12	70°34'25"	40.00	49.27

Curve #	Delta	Radius	Length
C13	17°04'01"	188.00	56.00
C14	9°56'11"	212.00	36.77
C15	8°17'00"	267.00	38.60
C16	4°41'28"	488.00	39.96
C17	45°46'08"	467.00	373.05
C18	78°18'13"	30.00	41.00
C19	87°05'24"	30.00	45.60
C20	89°02'06"	8.00	12.43
C21	89°02'06"	8.00	12.43
C22	180°00'00"	2.00	6.28
C23	180°00'00"	2.00	6.28



DATE	DESCRIPTION	REV #

STAMP:

DESIGNED BY: MPP    DATE: AUGUST 2025

DRAWN BY: MPP    SCALE: 1" = 20'

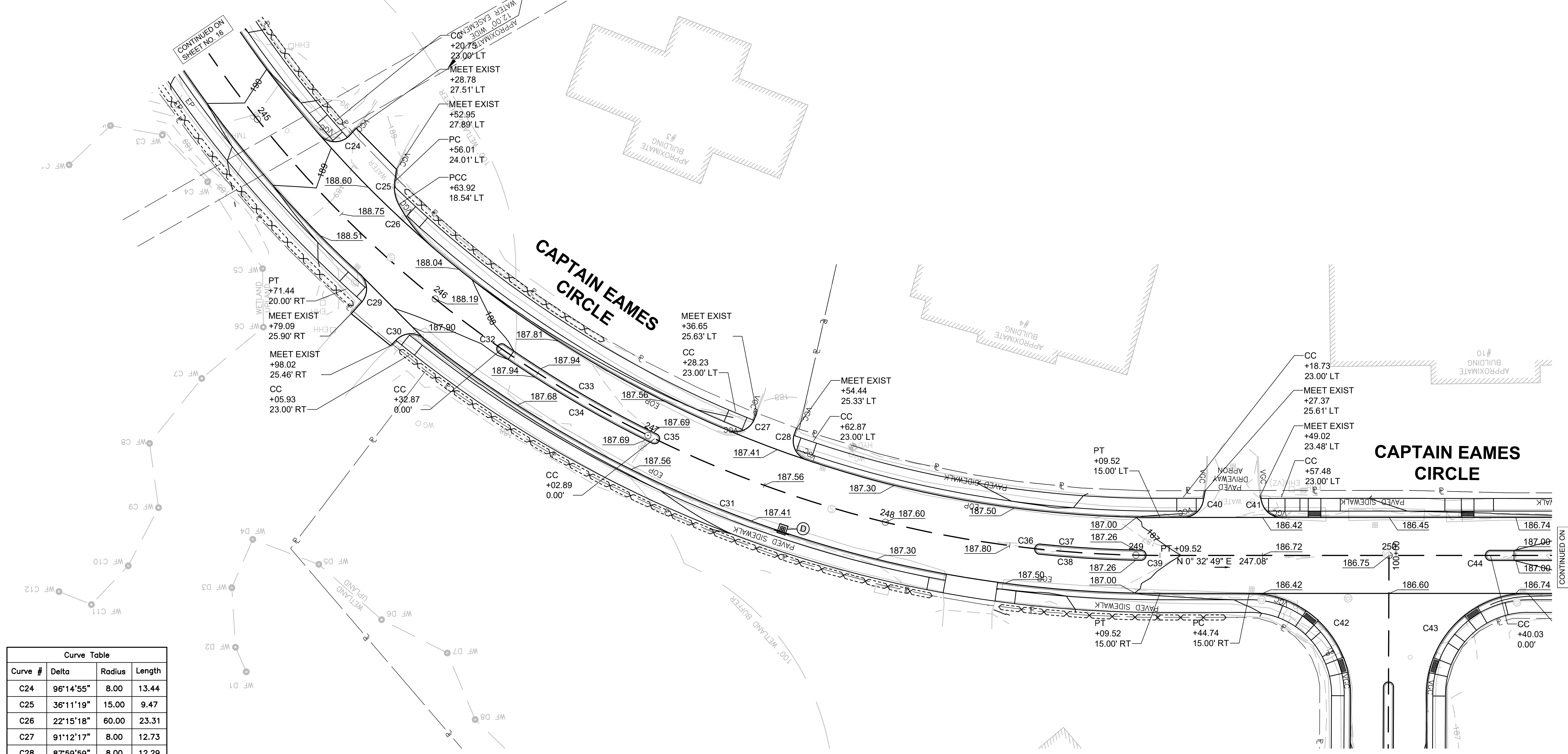
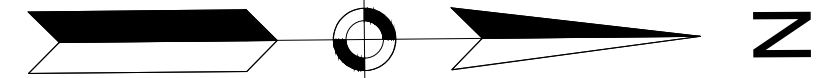
CHECKED BY: JPC

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

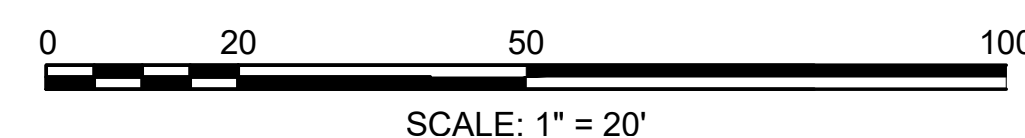
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	17	71
PERMIT PROJECT NO.			

CURB TIE & GRADING PLAN

NAD 83



Curve #	Delta	Radius	Length
C24	96°14'55"	8.00	13.44
C25	36°11'19"	15.00	9.47
C26	22°15'18"	60.00	23.31
C27	91°12'17"	8.00	12.73
C28	87°59'59"	8.00	12.29
C29	89°10'12"	8.00	12.45
C30	83°22'43"	8.00	11.64
C31	38°13'44"	470.00	313.59
C32	180°00'00"	2.00	6.28
C33	8°49'01"	453.00	69.71
C34	8°49'01"	457.00	70.33
C35	180°00'00"	2.00	6.28
C36	180°00'00"	2.00	6.28
C37	5°02'15"	453.00	39.83
C38	5°02'15"	457.00	40.18
C39	180°00'00"	2.00	6.28



DATE	DESCRIPTION	REV #

STAMP:

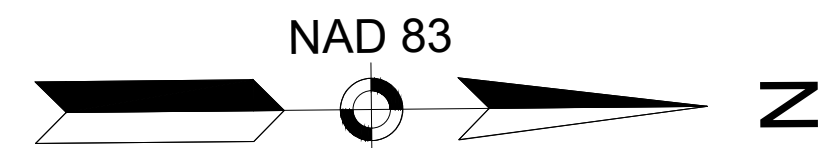
DESIGNED BY: MPP      DATE: AUGUST 2025  
 DRAWN BY: MPP      SCALE: 1" = 20'  
 CHECKED BY: JPC

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

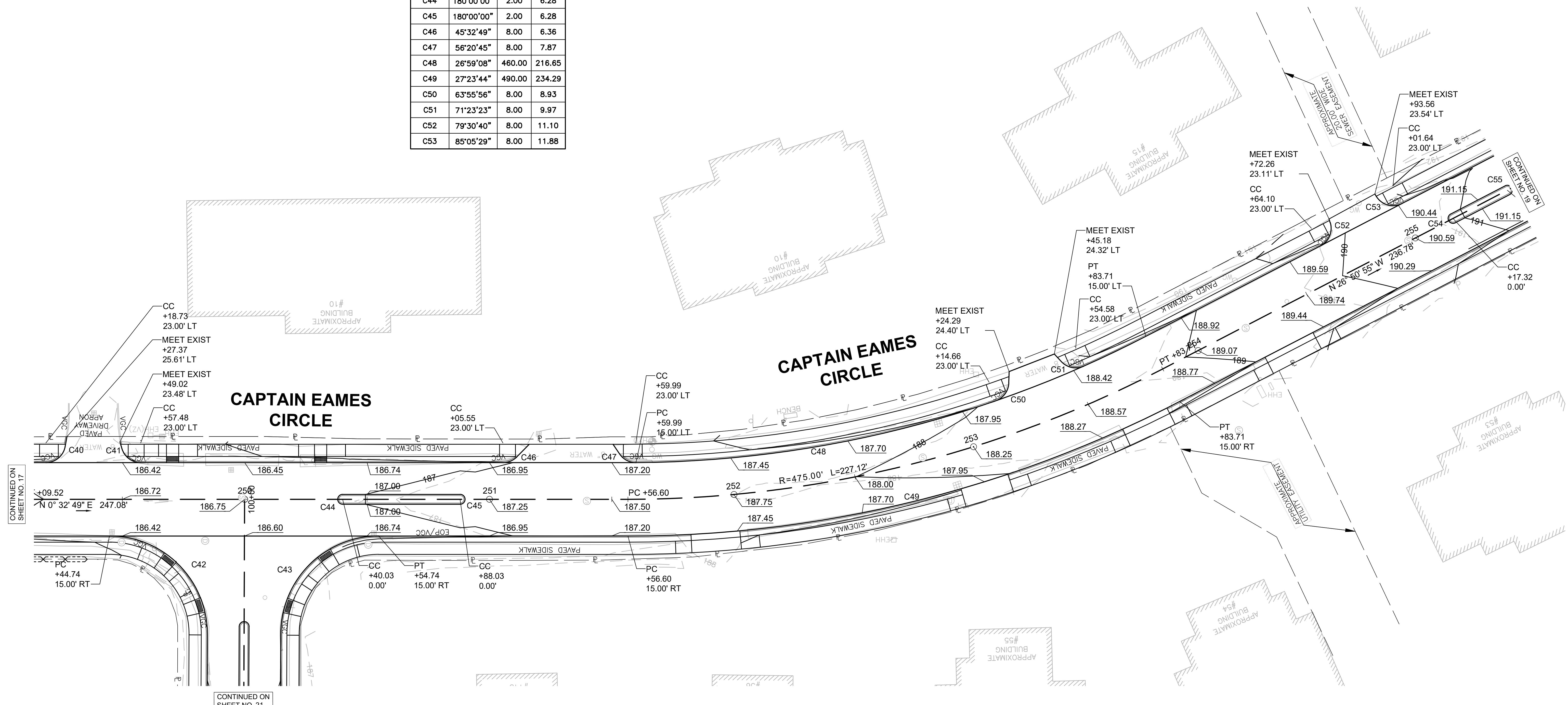
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	18	71

PERMIT PROJECT NO. \_\_\_\_\_

CURB TIE & GRADING PLAN

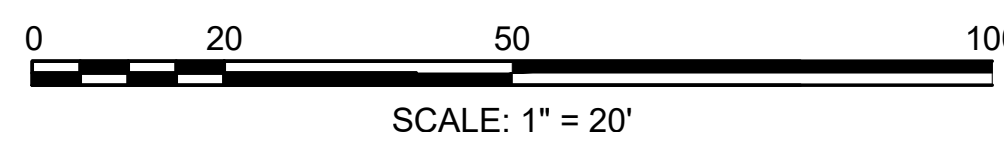


Curve #	Delta	Radius	Length
C40	79°12'37"	8.00	11.06
C41	74°01'00"	8.00	10.33
C42	89°27'11"	40.00	62.45
C43	89°46'43"	40.00	62.68
C44	180°00'00"	2.00	6.28
C45	180°00'00"	2.00	6.28
C46	45°32'49"	8.00	6.36
C47	56°20'45"	8.00	7.87
C48	26°59'08"	460.00	216.65
C49	27°23'44"	490.00	234.29
C50	63°55'56"	8.00	8.93
C51	71°23'23"	8.00	9.97
C52	79°30'40"	8.00	11.10
C53	85°05'29"	8.00	11.88



CONTINUED ON SHEET NO. 17

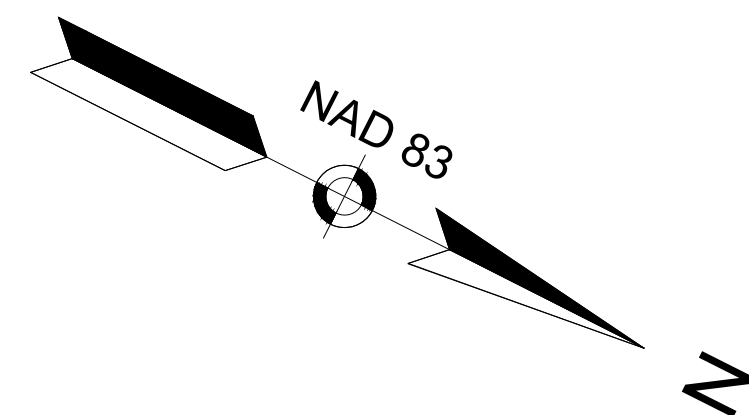
CONTINUED ON SHEET NO. 21



DATE	DESCRIPTION	REV #

STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		



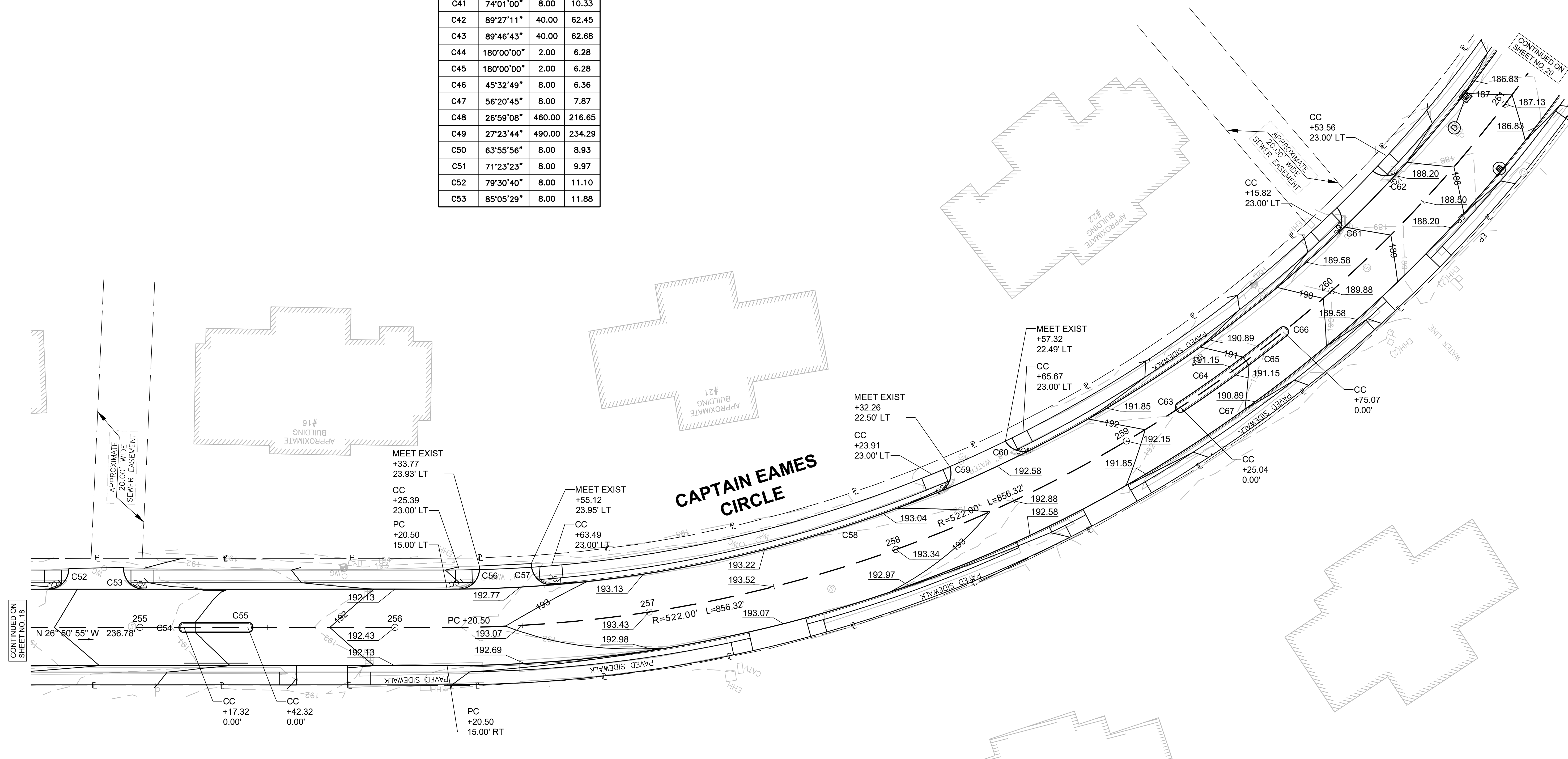
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	19	71

PERMIT PROJECT NO. -

CURB TIE & GRADING PLAN

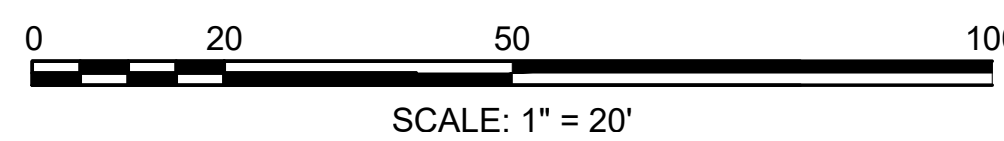
Curve Table			
Curve #	Delta	Radius	Length
C40	79°12'37"	8.00	11.06
C41	74°01'00"	8.00	10.33
C42	89°27'11"	40.00	62.45
C43	89°46'43"	40.00	62.68
C44	180°00'00"	2.00	6.28
C45	180°00'00"	2.00	6.28
C46	45°32'49"	8.00	6.36
C47	56°20'45"	8.00	7.87
C48	26°59'08"	460.00	216.65
C49	27°23'44"	490.00	234.29
C50	63°55'56"	8.00	8.93
C51	71°23'23"	8.00	9.97
C52	79°30'40"	8.00	11.10
C53	85°05'29"	8.00	11.88



CONTINUED ON SHEET NO. 18

CONTINUED ON SHEET NO. 20

CAPTAIN EAMES CIRCLE



DATE	DESCRIPTION	REV #

STAMP:

**W** Vanasse & Associates inc  
Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

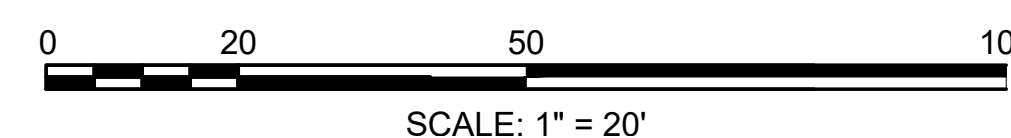
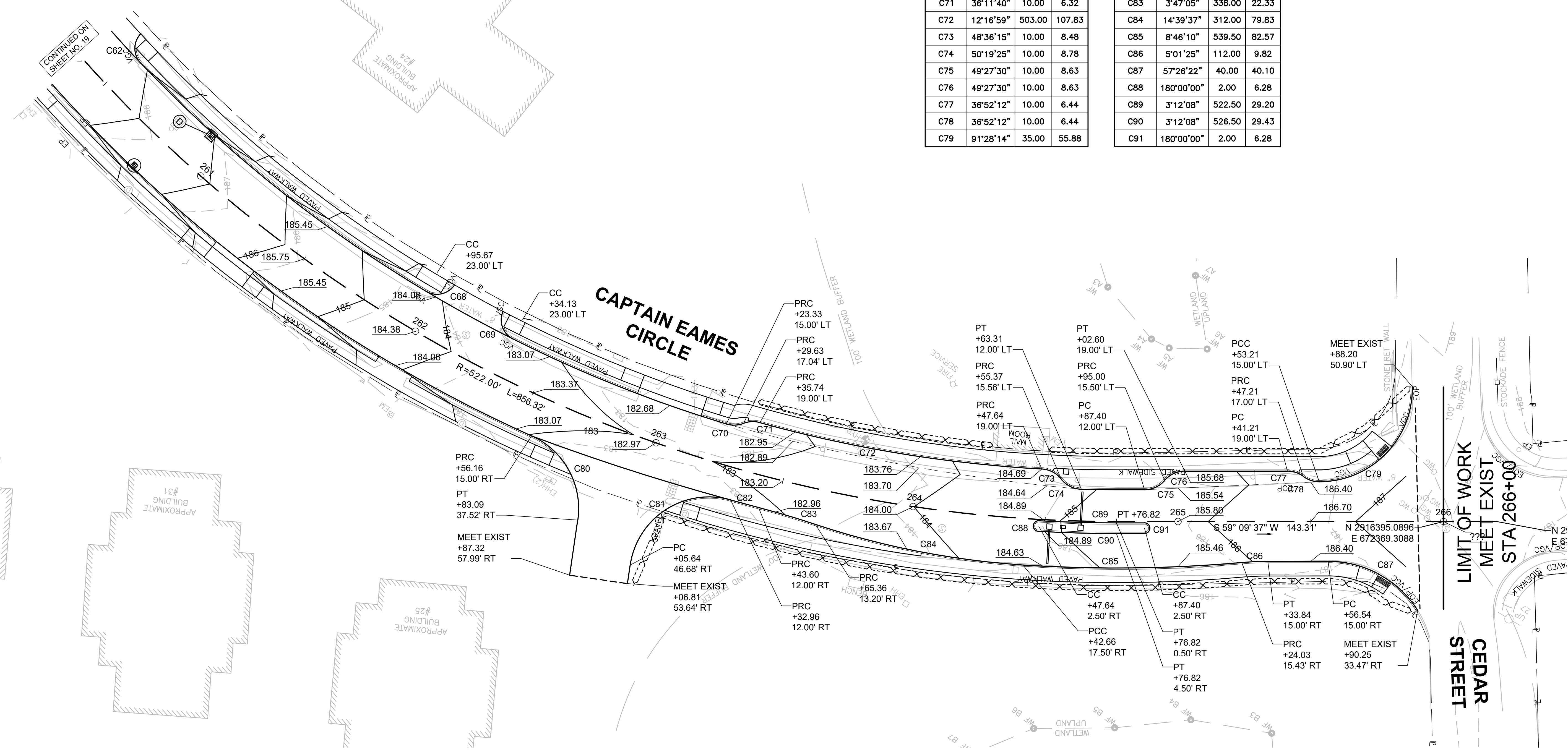
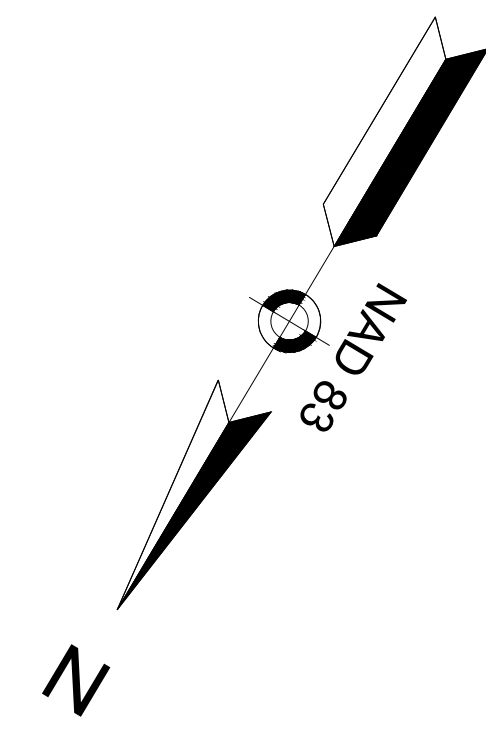
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	20	71

PERMIT PROJECT NO. \_\_\_\_\_

CURB TIE & GRADING PLAN

Curve #	Delta	Radius	Length
C68	87°02'12"	8.00	12.15
C69	86°40'39"	8.00	12.10
C70	37°33'22"	10.00	6.55
C71	36°11'40"	10.00	6.32
C72	12°16'59"	503.00	107.83
C73	48°36'15"	10.00	8.48
C74	50°19'25"	10.00	8.78
C75	49°27'30"	10.00	8.63
C76	49°27'30"	10.00	8.63
C77	36°52'12"	10.00	6.44
C78	36°52'12"	10.00	6.44
C79	91°28'14"	35.00	55.88

Curve #	Delta	Radius	Length
C80	74°05'45"	30.00	38.80
C81	97°28'31"	30.00	51.04
C82	1°10'04"	534.00	10.88
C83	3°47'05"	338.00	22.33
C84	14°39'37"	312.00	79.83
C85	8°46'10"	539.50	82.57
C86	5°01'25"	112.00	9.82
C87	57°26'22"	40.00	40.10
C88	180°00'00"	2.00	6.28
C89	3°12'08"	522.50	29.20
C90	3°12'08"	526.50	29.43
C91	180°00'00"	2.00	6.28



DATE	DESCRIPTION	REV #

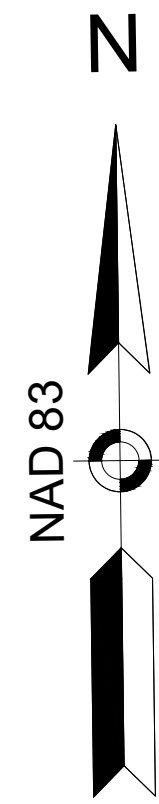
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

T:\10204 ASHLAND\_MA\DESIGN\DWG\10204CT.DWG Plotted on: 20-Aug-2025 4:17 PM

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

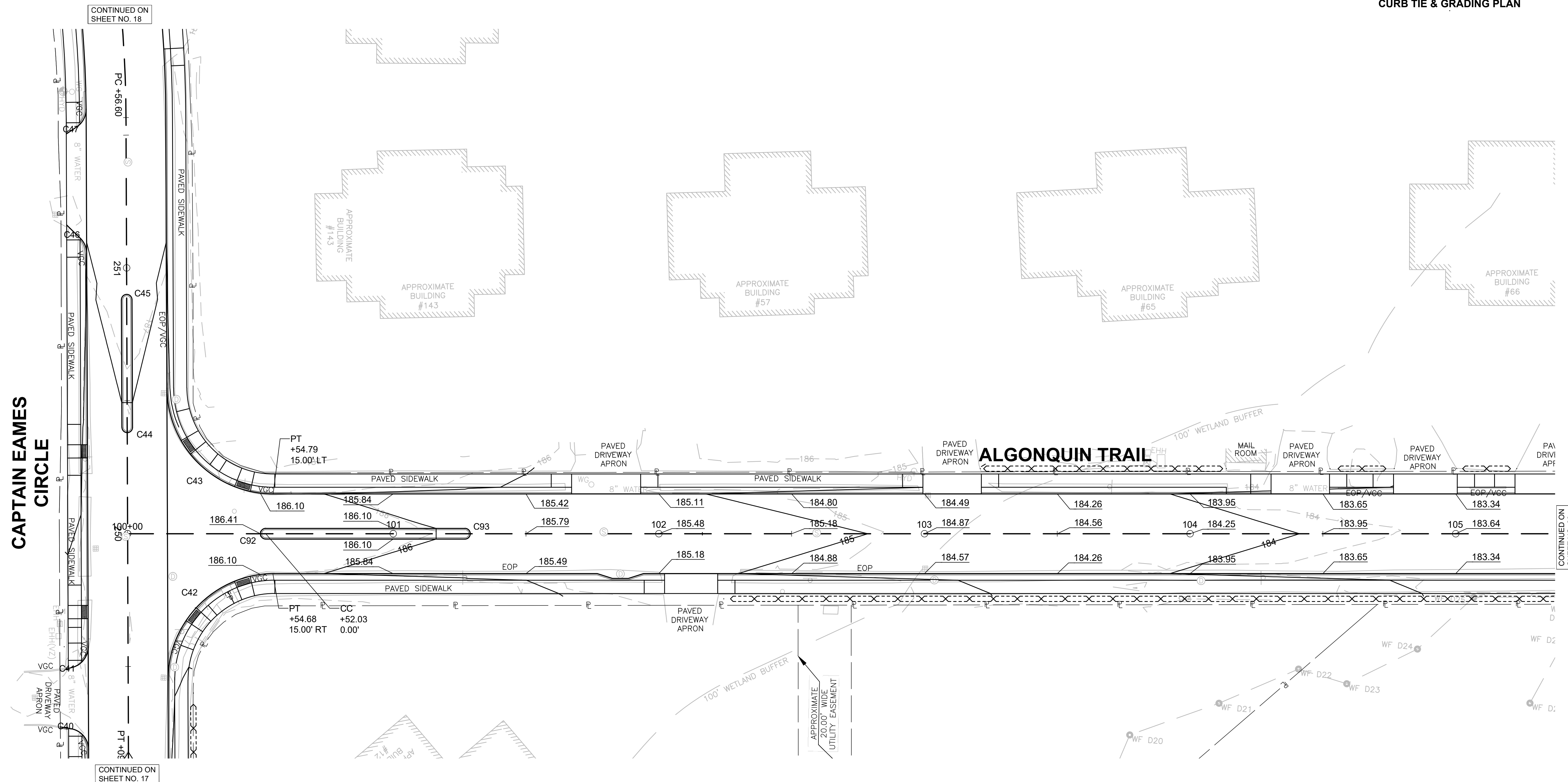
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	21	71

PERMIT PROJECT NO. -  
CURB TIE & GRADING PLAN

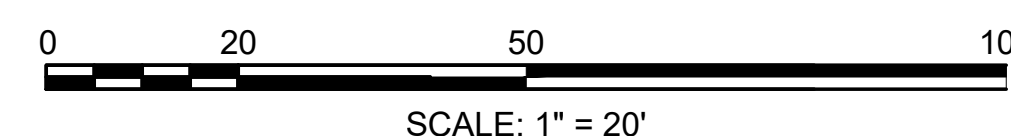


CAPTAIN EAMES CIRCLE

ALGONQUIN TRAIL



Curve #	Delta	Radius	Length
C92	180°00'00"	2.00	6.28
C93	180°00'00"	2.00	6.28



DATE	DESCRIPTION	REV #

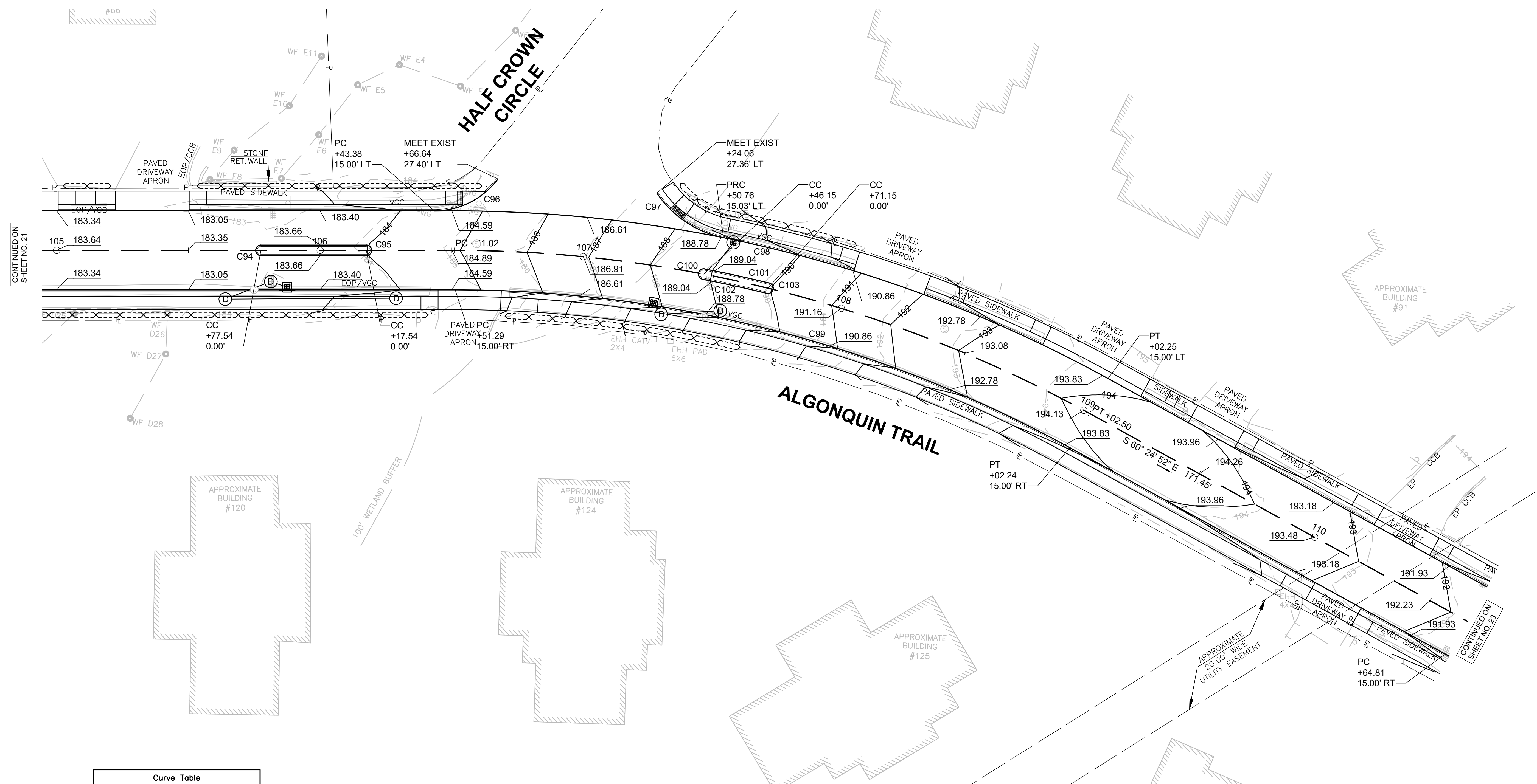
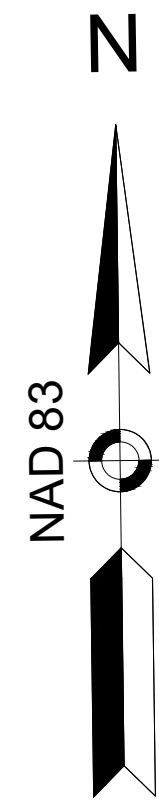
STAMP:

DESIGNED BY: MPP      DATE: AUGUST 2025  
 DRAWN BY: MPP      SCALE: 1" = 20'  
 CHECKED BY: JPC

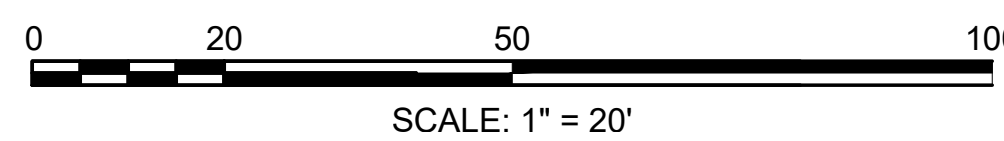
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	22	71

PERMIT PROJECT NO. \_\_\_\_\_  
CURB TIE & GRADING PLAN



Curve #	Delta	Radius	Length
C94	180°00'00"	2.00	6.28
C95	180°00'00"	2.00	6.28
C96	53°27'41"	30.00	27.99
C97	44°43'42"	40.00	31.23
C98	29°41'51"	514.00	266.42
C99	28°49'02"	484.00	243.43
C100	180°00'00"	2.00	6.28
C101	2°51'54"	502.00	25.10
C102	2°51'54"	498.00	24.90
C103	180°00'00"	2.00	6.28



DATE	DESCRIPTION	REV #

STAMP:

35 N.E. BUSINESS CENTER DRIVE  
ANDOVER, MA 01910-1071  
TEL: (978) 474-8800  
www.rdvai.com

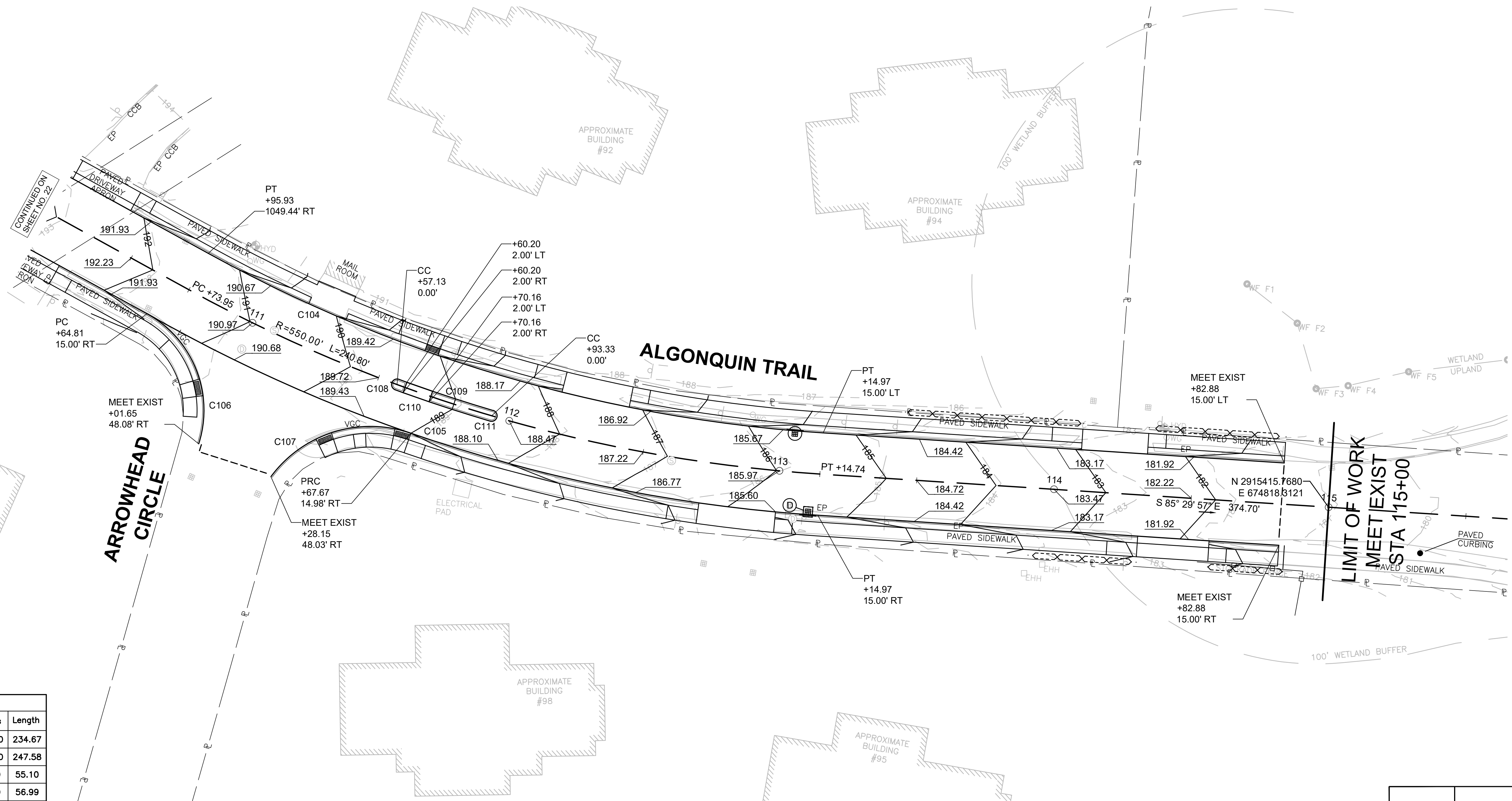
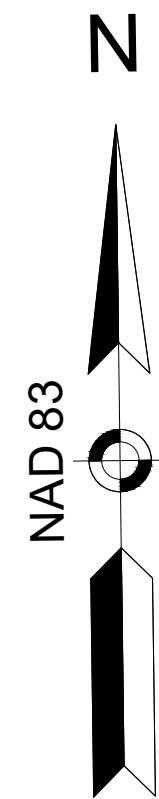
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

T:\10204 ASHLAND\_MA\DESIGN\DWG\10204CT.DWG Plotted on: 25-Aug-2025 4:17 PM

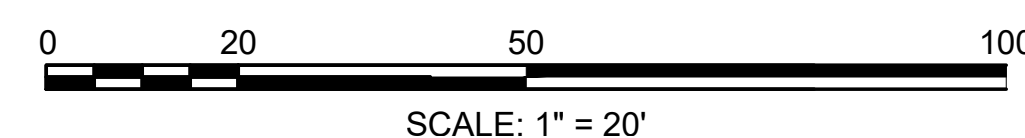
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	23	71
PERMIT PROJECT NO.			

CURB TIE & GRADING PLAN



Curve #	Delta	Radius	Length
C104	25°05'05"	536.00	234.67
C105	25°03'44"	566.00	247.58
C106	78°55'44"	40.00	55.10
C107	72°33'26"	45.00	56.99
C108	180°00'00"	2.00	6.28
C109	3°46'16"	548.00	36.07
C110	3°46'16"	552.00	36.33
C111	180°00'00"	2.00	6.28



LIMIT OF WORK  
MEET EXIST  
STA 115+00

DATE	DESCRIPTION	REV #

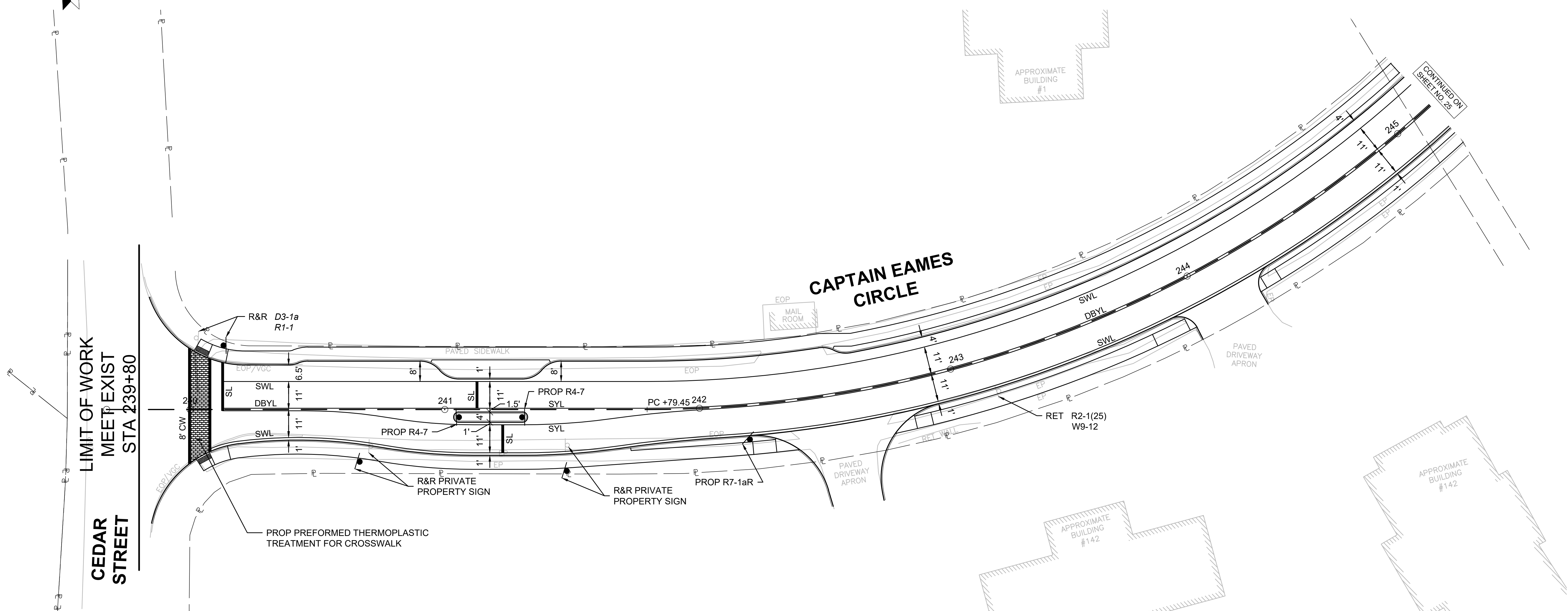
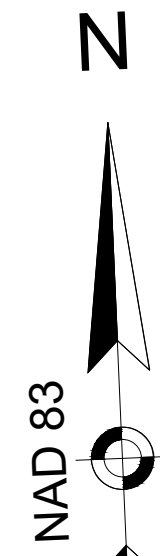
STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

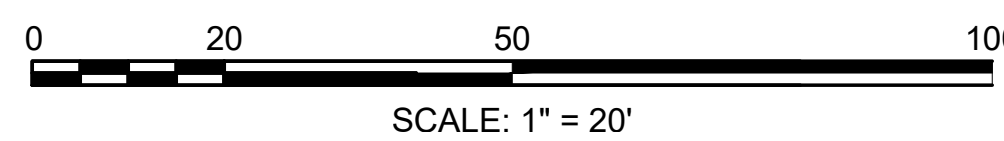
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	24	71
PERMIT PROJECT NO. -			

PAVEMENT MARKING & SIGNING PLAN



LIMIT OF WORK  
MEET EXIST  
STA 239+80  
CEDAR STREET



DATE	DESCRIPTION	REV #

STAMP:

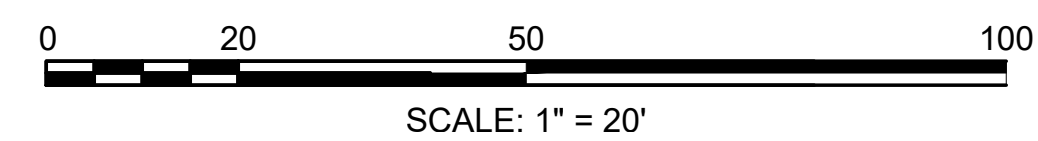
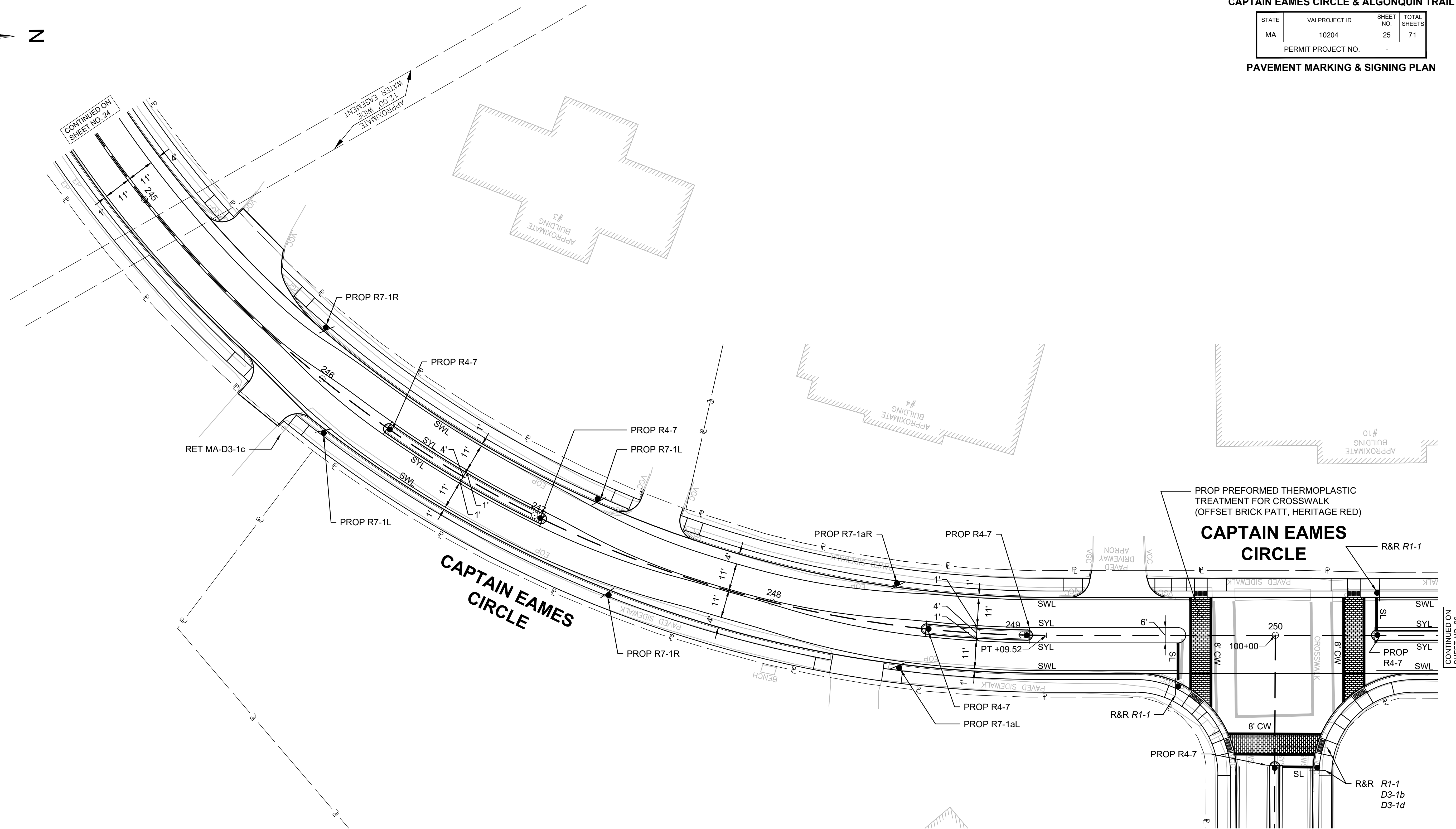
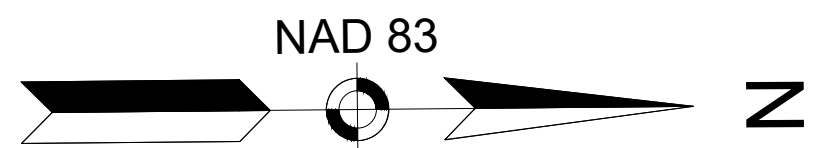
**W** Vanasse & Associates inc  
Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	25	71
PERMIT PROJECT NO. -			

PAVEMENT MARKING & SIGNING PLAN



**CAPTAIN EAMES CIRCLE**

DATE	DESCRIPTION	REV #

STAMP:

**W Vanasse & Associates inc**  
 Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvai.com

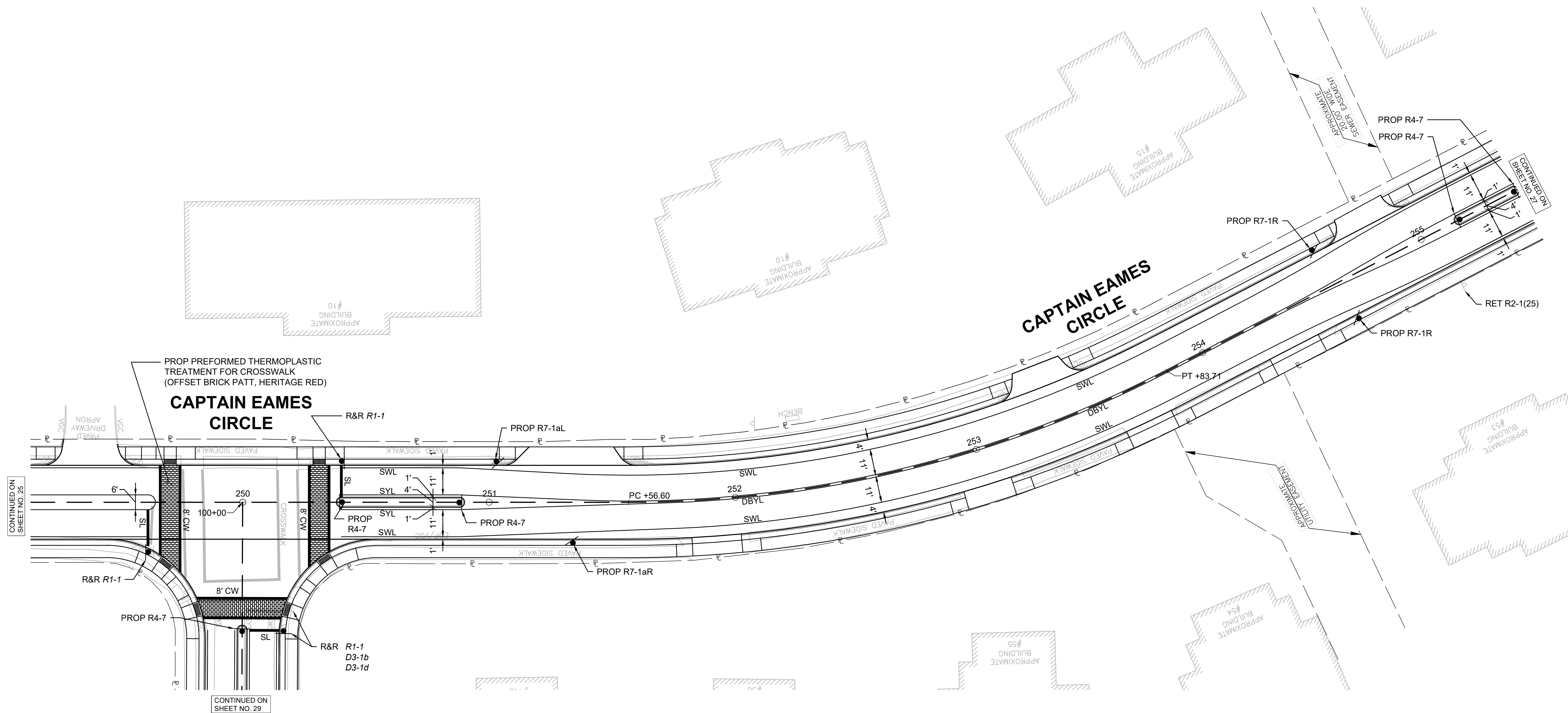
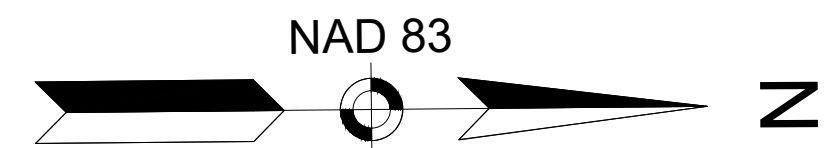
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

CONTINUED ON SHEET NO. 26

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	26	71
PERMIT PROJECT NO. -			

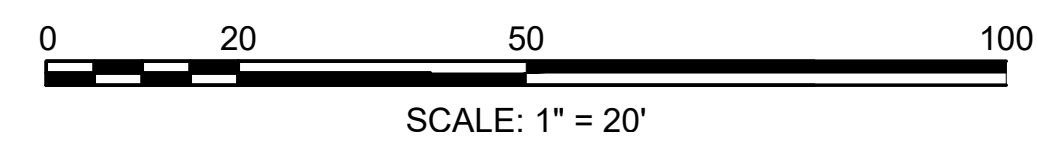
PAVEMENT MARKING & SIGNING PLAN



CONTINUED ON SHEET NO. 25

CONTINUED ON SHEET NO. 29

CONTINUED ON SHEET NO. 27

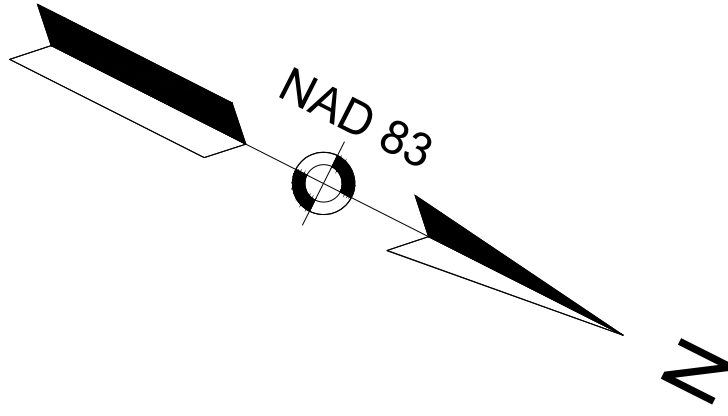


DATE	DESCRIPTION	REV #

STAMP:

**W Vanasse & Associates inc**  
 Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com

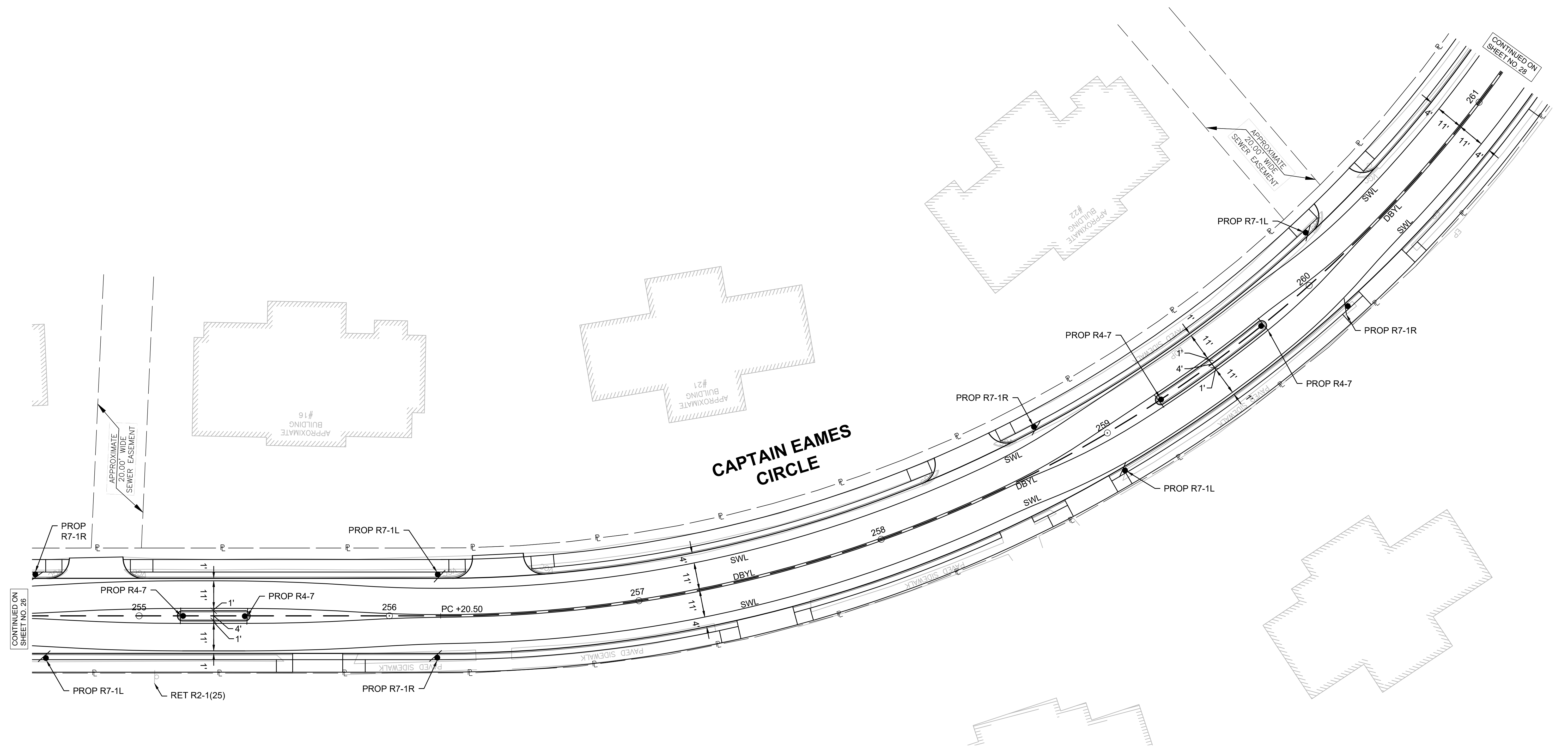
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		



ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

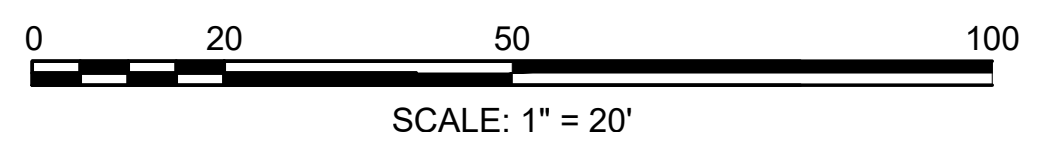
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	27	71
PERMIT PROJECT NO. -			

PAVEMENT MARKING & SIGNING PLAN



CONTINUED ON SHEET NO. 26

CONTINUED ON SHEET NO. 28



DATE	DESCRIPTION	REV #

STAMP:

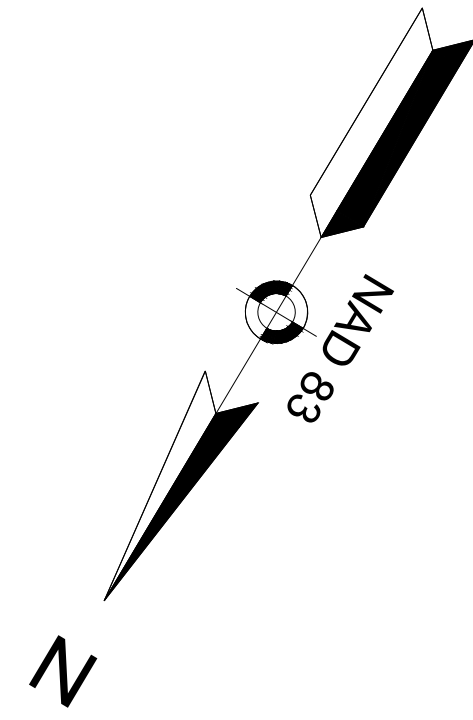
**W Vanasse & Associates inc**  
 Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

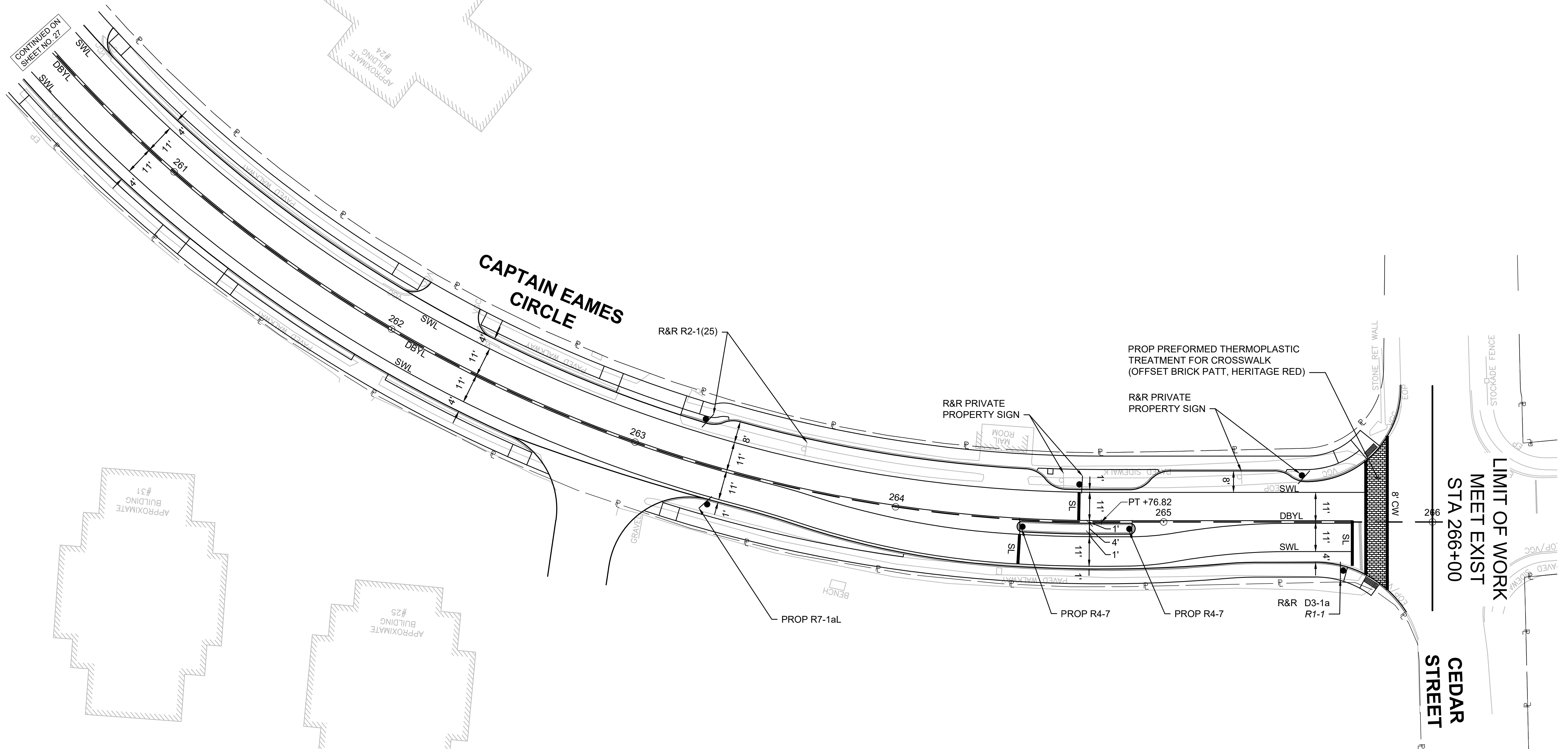
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	28	71
PERMIT PROJECT NO. -			

PAVEMENT MARKING & SIGNING PLAN

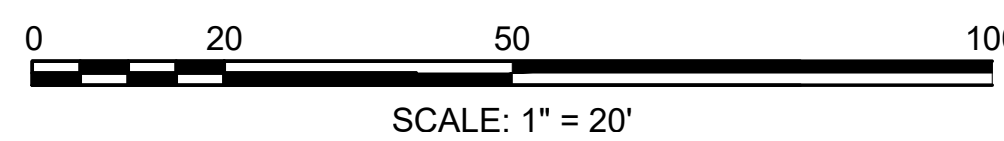


CONTINUED ON  
SHEET NO. 27



LIMIT OF WORK  
MEET EXIST  
STA 266+00

CEDAR  
STREET



DATE	DESCRIPTION	REV #

STAMP:

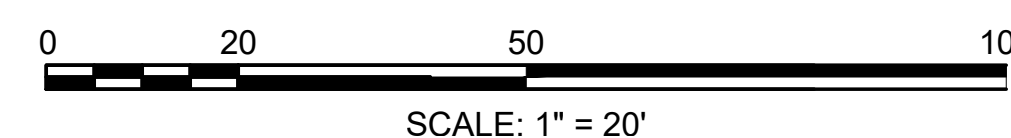
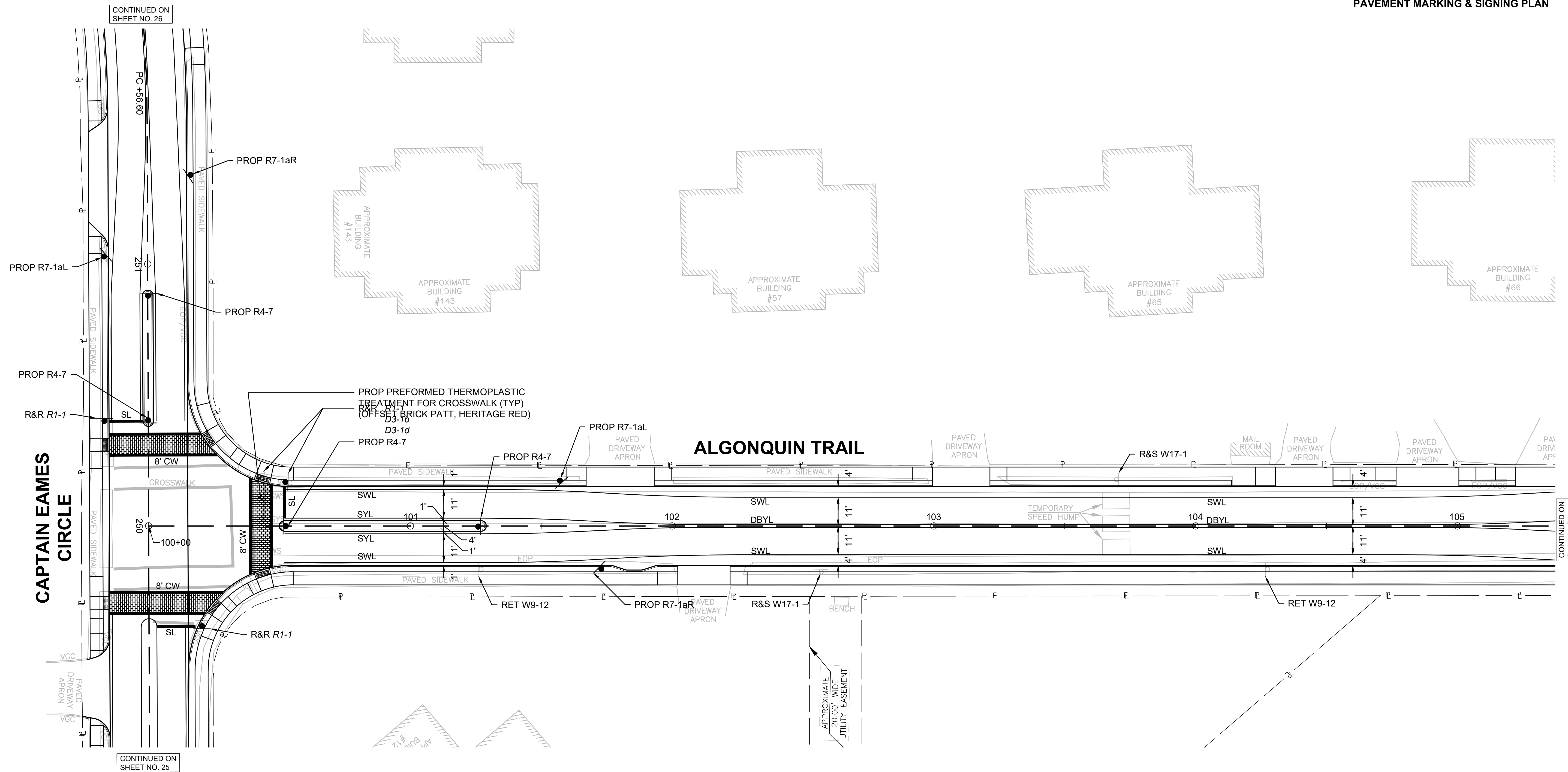
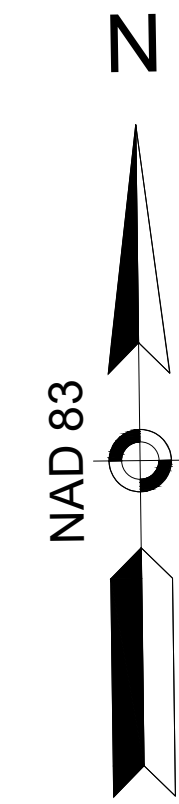
**Vanasse & Associates inc**  
Transportation Engineers & Planners  
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdv.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		

ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	29	71
PERMIT PROJECT NO. -			

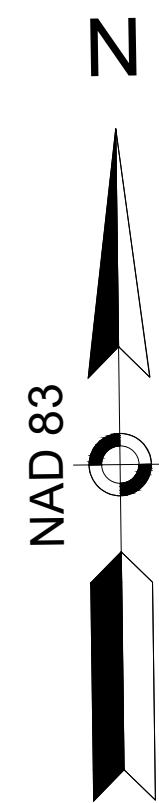
PAVEMENT MARKING & SIGNING PLAN



DATE	DESCRIPTION	REV #

STAMP:

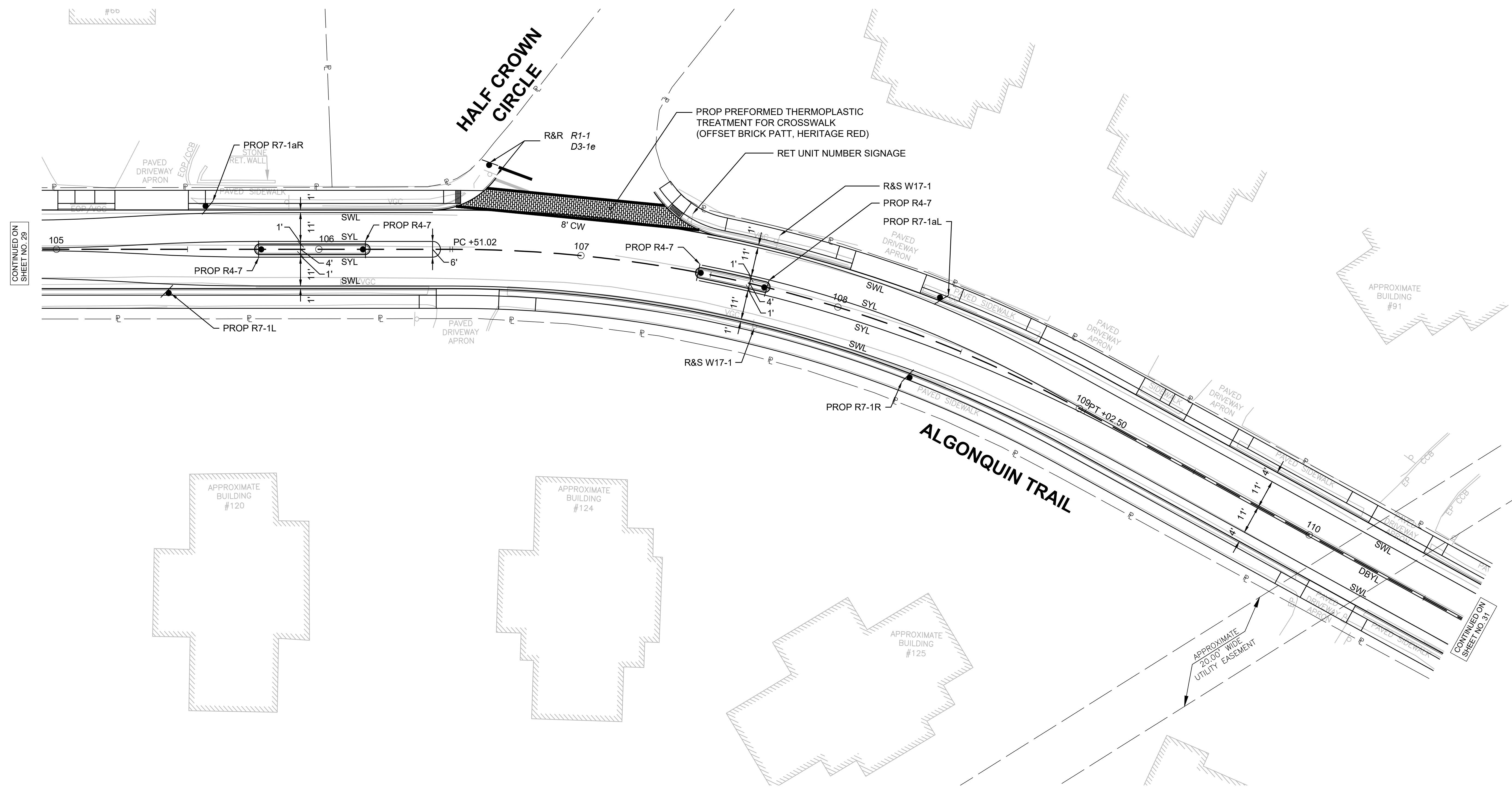
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		



**ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL**

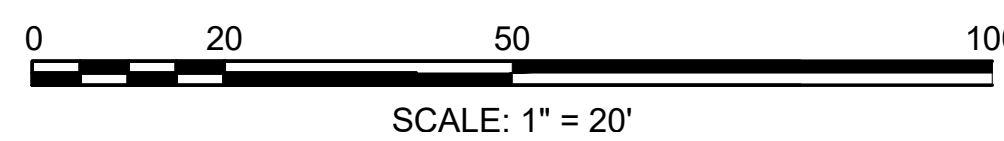
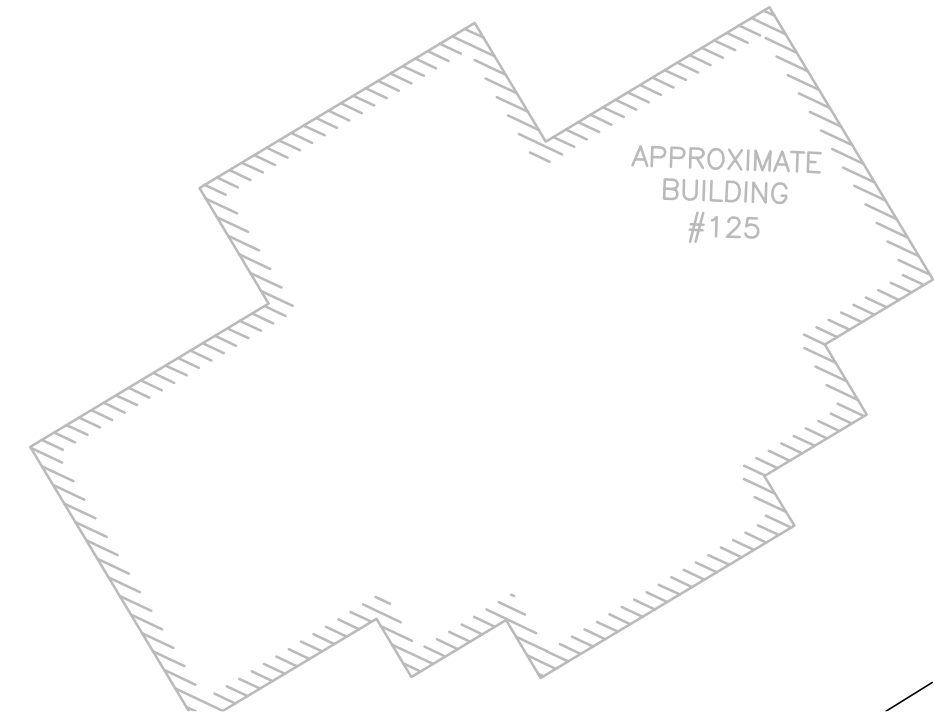
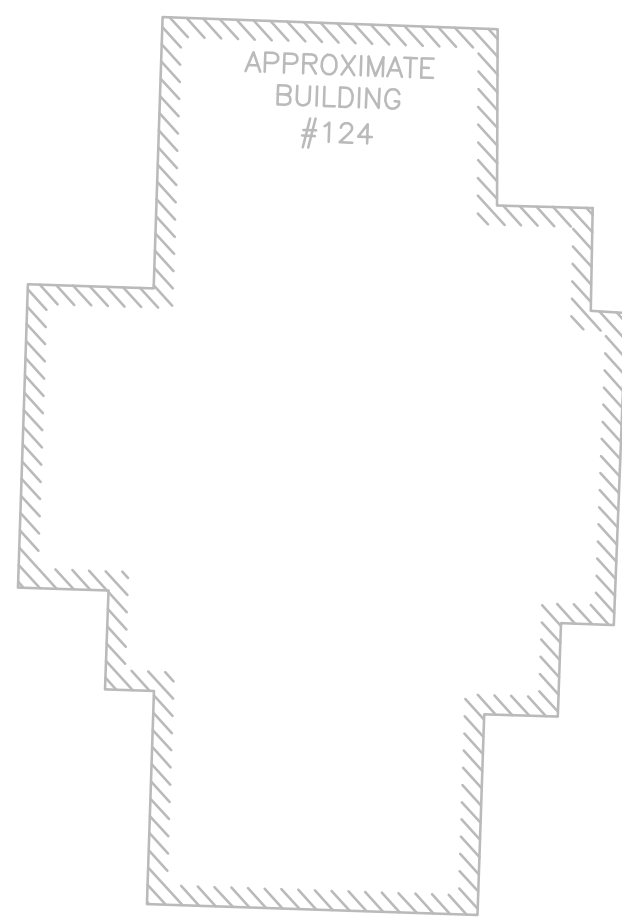
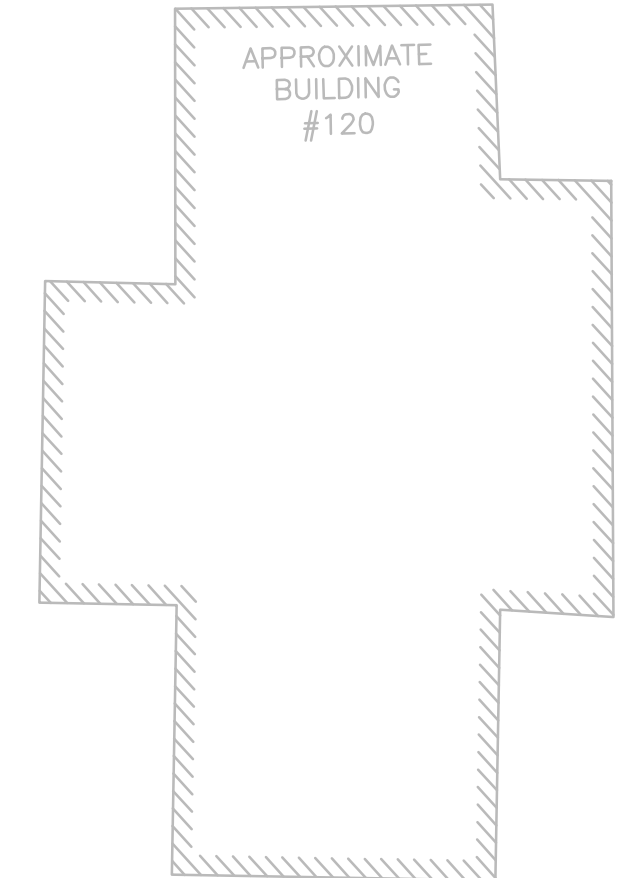
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	30	71
PERMIT PROJECT NO. -			

**PAVEMENT MARKING & SIGNING PLAN**



CONTINUED ON SHEET NO. 29

CONTINUED ON SHEET NO. 31

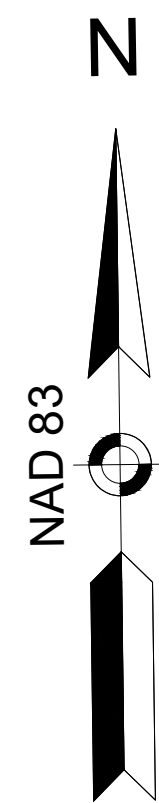


DATE	DESCRIPTION	REV #

STAMP:

**W Vanasse & Associates inc**  
 Transportation Engineers & Planners  
 35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvva.com

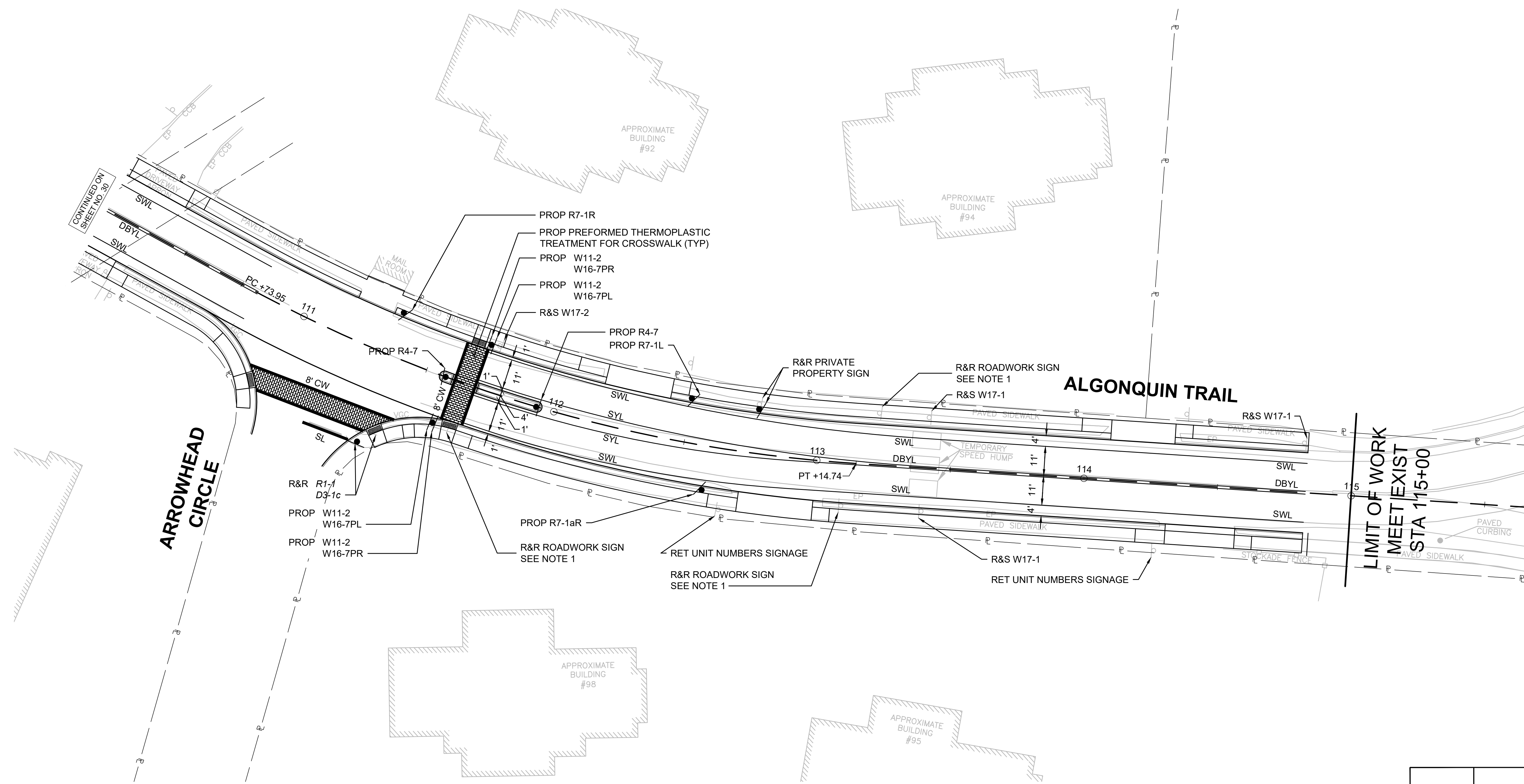
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		



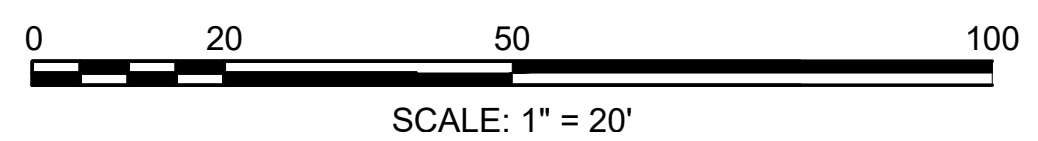
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	31	71
PERMIT PROJECT NO. -			

PAVEMENT MARKING & SIGNING PLAN



NOTE:  
1. TREATMENT OF ROADWORK SIGNAGE SHALL BE COORDINATED WITH MASSDOT AND POSTS RELOCATED OR REMOVED AS REQUIRED.



DATE	DESCRIPTION	REV #









STAMP:




DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	1" = 20'
CHECKED BY:	JPC		







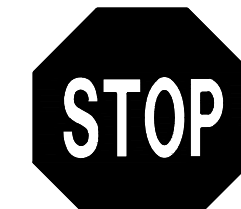
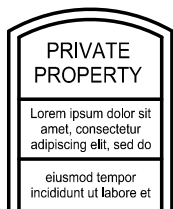
ASHLAND  
CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	32	71
PERMIT PROJECT NO. -			

SIGN SUMMARY


PROPOSED SIGNS LEGEND													
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUM OF SIGNS REQ'D	COLOR			POST TYPE & NUMBER REQ'D	AREA PER SIGN (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERT. SPACING	RTE.MKR. ARROW		BACK-GROUND	LEGEND	BORDER			
R4-7	24"	30"					22	WHITE	BLACK	BLACK	P-5 (22)	5.00	110.00
R7-1L	12"	18"					8	WHITE	RED	RED	P-5 (8)	1.50	12.00
R7-1aL	12"	18"					5	WHITE	RED	RED	P-5 (5)	1.50	7.50
R7-1R	12"	18"					8	WHITE	RED	RED	P-5 (8)	1.50	12.00
R7-1aR	12"	18"					6	WHITE	RED	RED	P-5 (6)	1.50	9.00
W11-2	36"	36"					4	FLUOR-ESCENT YELLOW-GREEN	BLACK	BLACK	P-5 (2)	9.00	36.00
W16-7PL	24"	12"					2	FLUOR-ESCENT YELLOW-GREEN	BLACK	BLACK	MOUNT BELOW W11-2	2.00	4.00
W16-7PR	24"	12"					2	FLUOR-ESCENT YELLOW-GREEN	BLACK	BLACK	MOUNT BELOW W11-2	2.00	4.00

SIGNS TO BE REMOVED & RESET LEGEND													
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUM OF SIGNS REQ'D	COLOR			POST TYPE & NUMBER REQ'D	AREA PER SIGN (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERT. SPACING	RTE.MKR. ARROW		BACK-GROUND	LEGEND	BORDER			
R1-1	-	-					7	-	-	-	P-5 (7)	-	-
R2-1(25)	-	-					1	-	-	-	P-5 (1)	-	-
PRIVATE PROPERTY	-	-					3	-	-	-	P-5 (3)	-	-

EXISTING SIGNS LEGEND					
MA-D3-1a		MA-D3-1d		R2-1 (25)	
MA-D3-1b		MA-D3-1e		W9-12	
MA-D3-1c		R1-1		PRIVATE PROPERTY	

DATE	DESCRIPTION	REV #

STAMP:



35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01910-1071 TEL: (978) 474-8800 www.rdvai.com

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	N.T.S.
CHECKED BY:	JPC		

## TEMPORARY TRAFFIC CONTROL NOTES

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND ALL REVISIONS, UNLESS SUPERCEDED BY THE PLANS.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- ALL CONSTRUCTION WARNING SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR, UNLESS OTHERWISE NOTED
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, AND CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES," AND/OR THE AASHTO 2009 "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED, IF REQUIRED, SHALL BE DETERMINED BY THE RESIDENT ENGINEER AND APPROVED BY THE GOVERNING JURISDICTION PRIOR TO POSTING.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET ON ROUTE 1 AND 10 FEET ON OTHER ROADWAYS. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- ADA/AAB COMPLIANT PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES, INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES.

### TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

Type of Taper	Taper Length (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN, 100 FT MAX
DOWNSTREAM TAPER	50 FT MIN, 100 FT MAX PER LANE

### FORMULAS FOR DETERMINING TAPER LENGTHS

Speed Limit (S)	Taper Length (L) Feet
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE: L = TAPER LENGTH IN FEET  
 W = WIDTH OF OFFSET IN FEET  
 S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

### SUGGESTED WORK ZONE WARNING SIGN SPACING

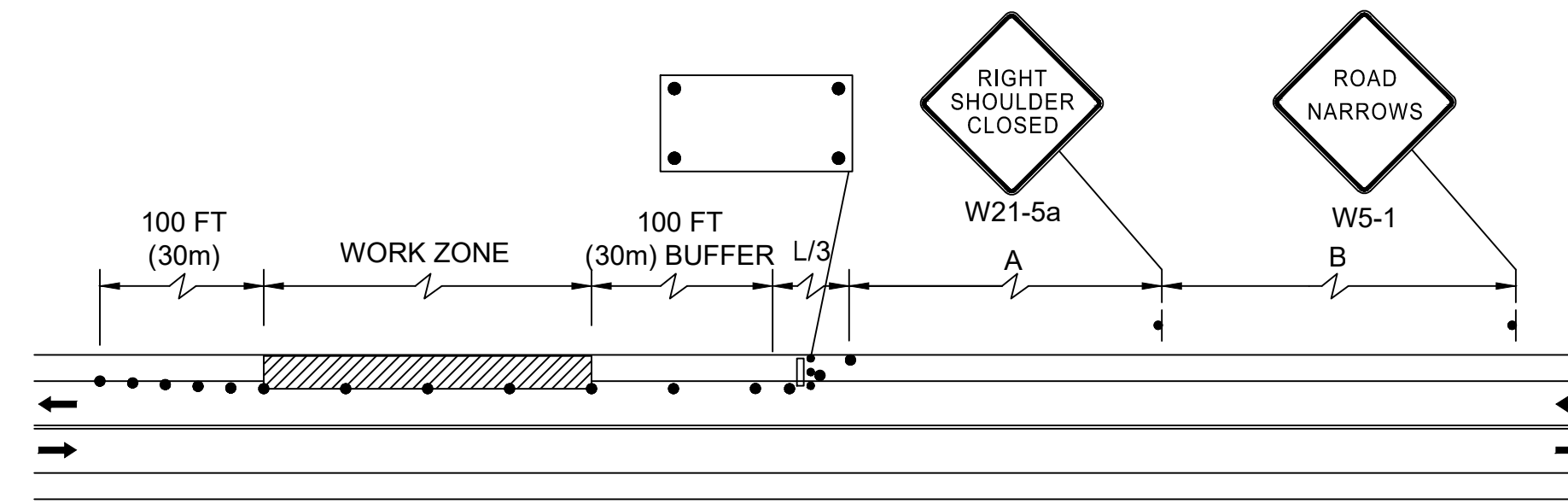
Road Type	Distance Between Signs**		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
EXPRESSWAY/FREEWAY*	1,000	1,500	2,640

\* SPEED CATEGORY TO BE DETERMINED BY HIGHWAY AGENCY. DISTANCES ARE SHOWN IN FEET.

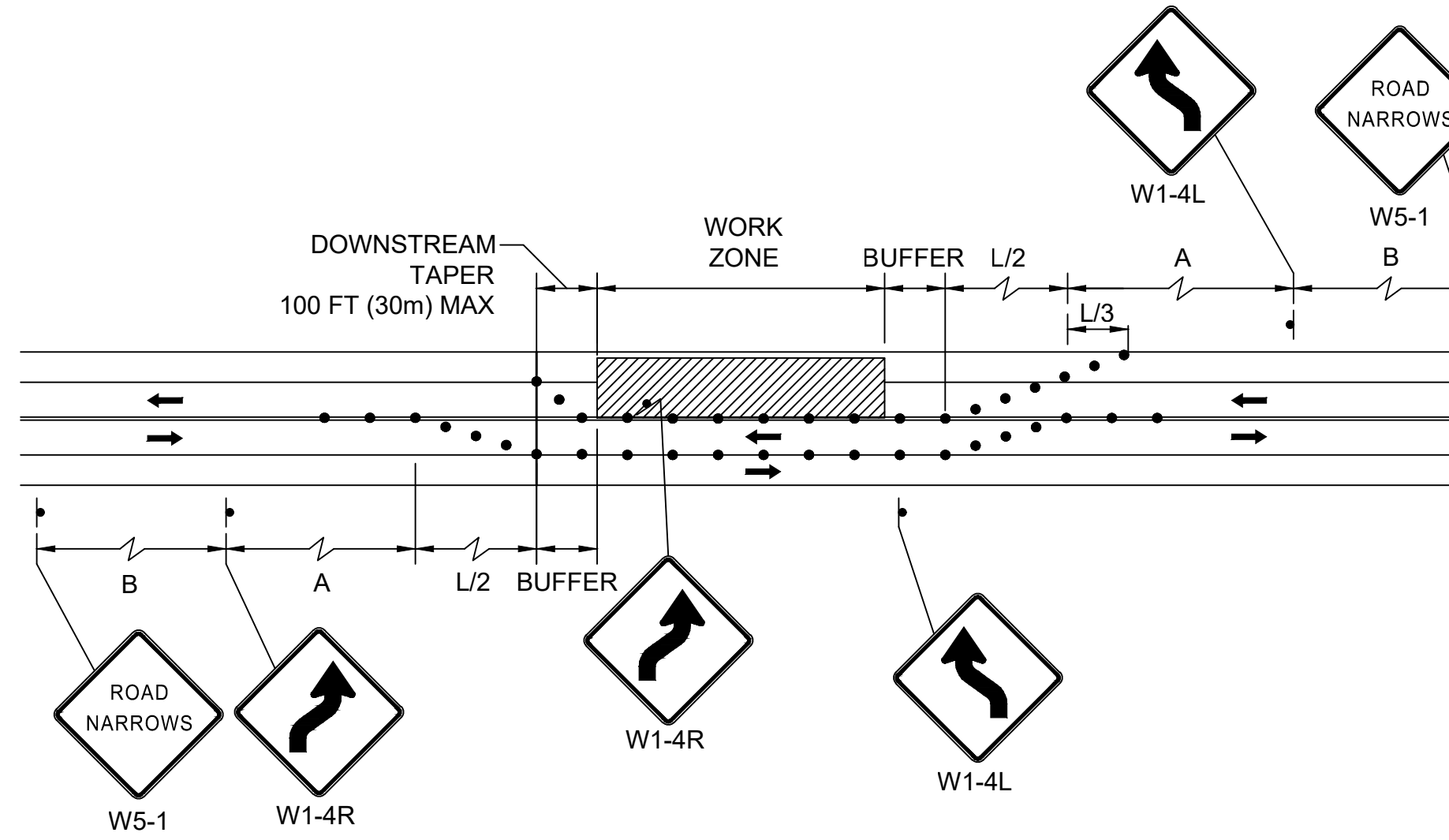
\*\* THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

### LEGEND:

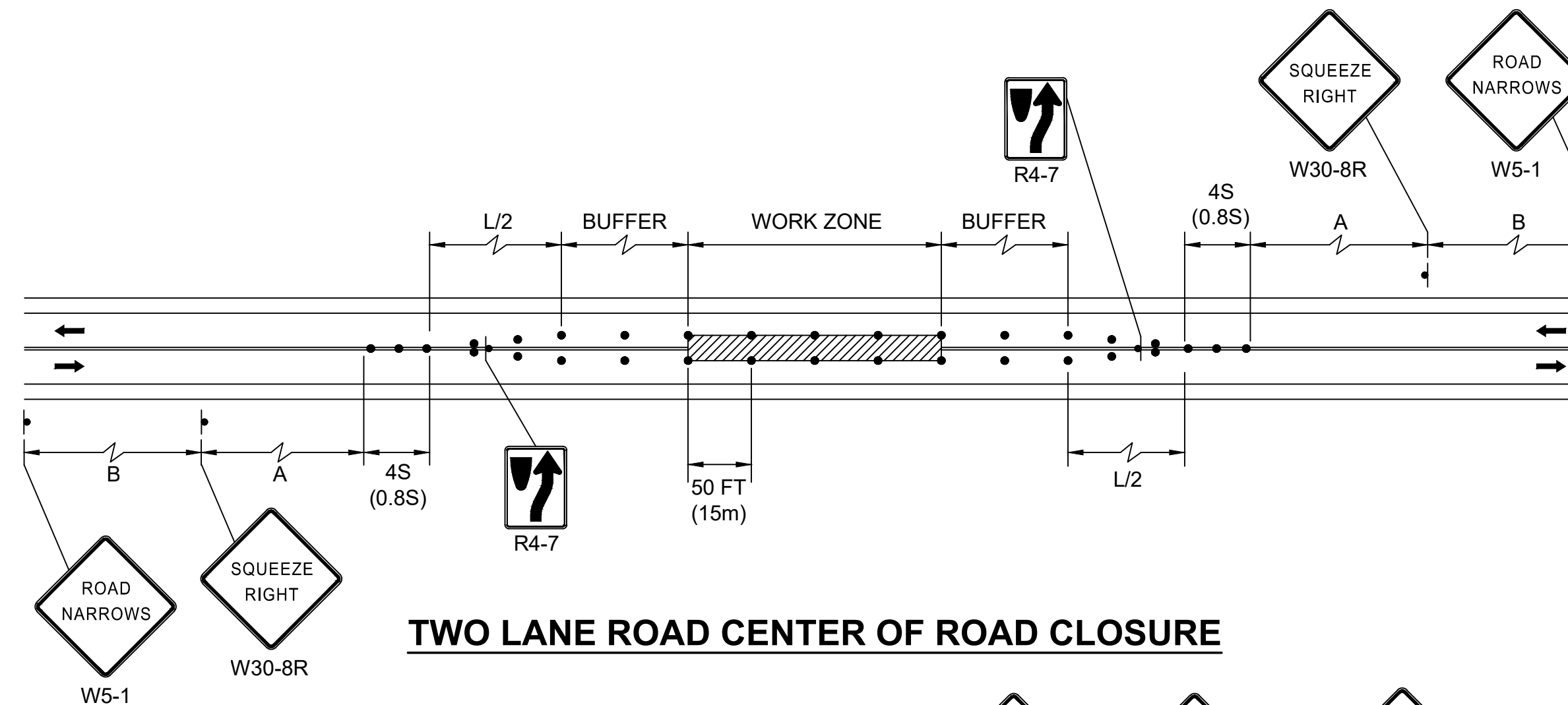
● REFLECTORIZED PLASTIC DRUM	▨ WORK ZONE	🚚 WORK VEHICLE
P POLICE DETAIL	➔ DIRECTION OF TRAFFIC	🚚 TRUCK MOUNTED ATTENUATOR
▨ TYPE III BARRICADE	🚧 IMPACT ATTENUATOR	➔ TRAFFIC OR PEDESTRIAN SIGNAL
🚧 FLASHING ARROW PANEL	▭ MEDIAN BARRIER	🚦 SIGN
🚧 FLASHING ARROW PANEL	▭ MEDIAN BARRIER WITH WARNING LIGHTS	



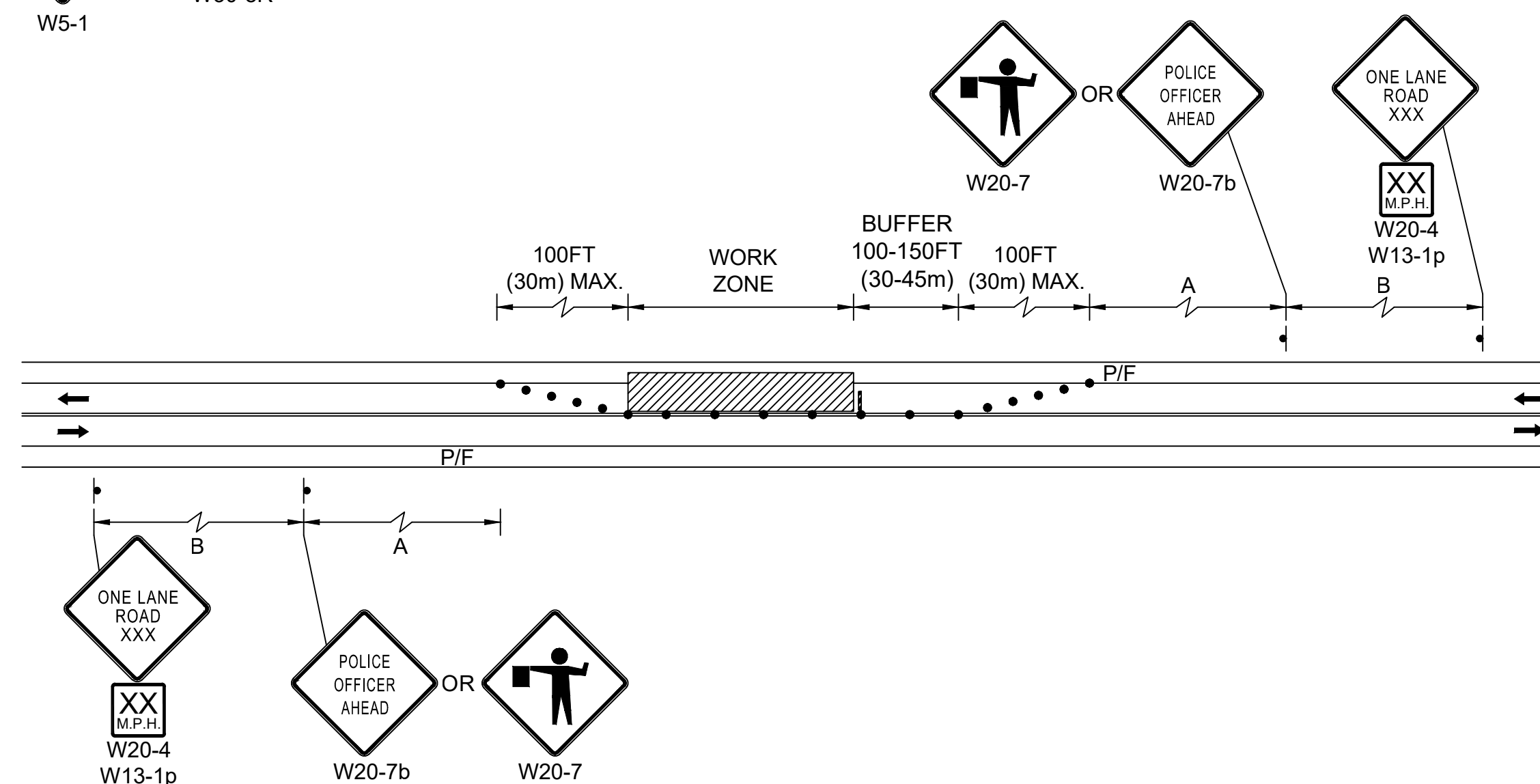
### TWO LANE ROAD SHOULDER CLOSURE



### TWO LANE ROAD SHOULDER AND TRAVEL LANE CLOSURE



### TWO LANE ROAD CENTER OF ROAD CLOSURE

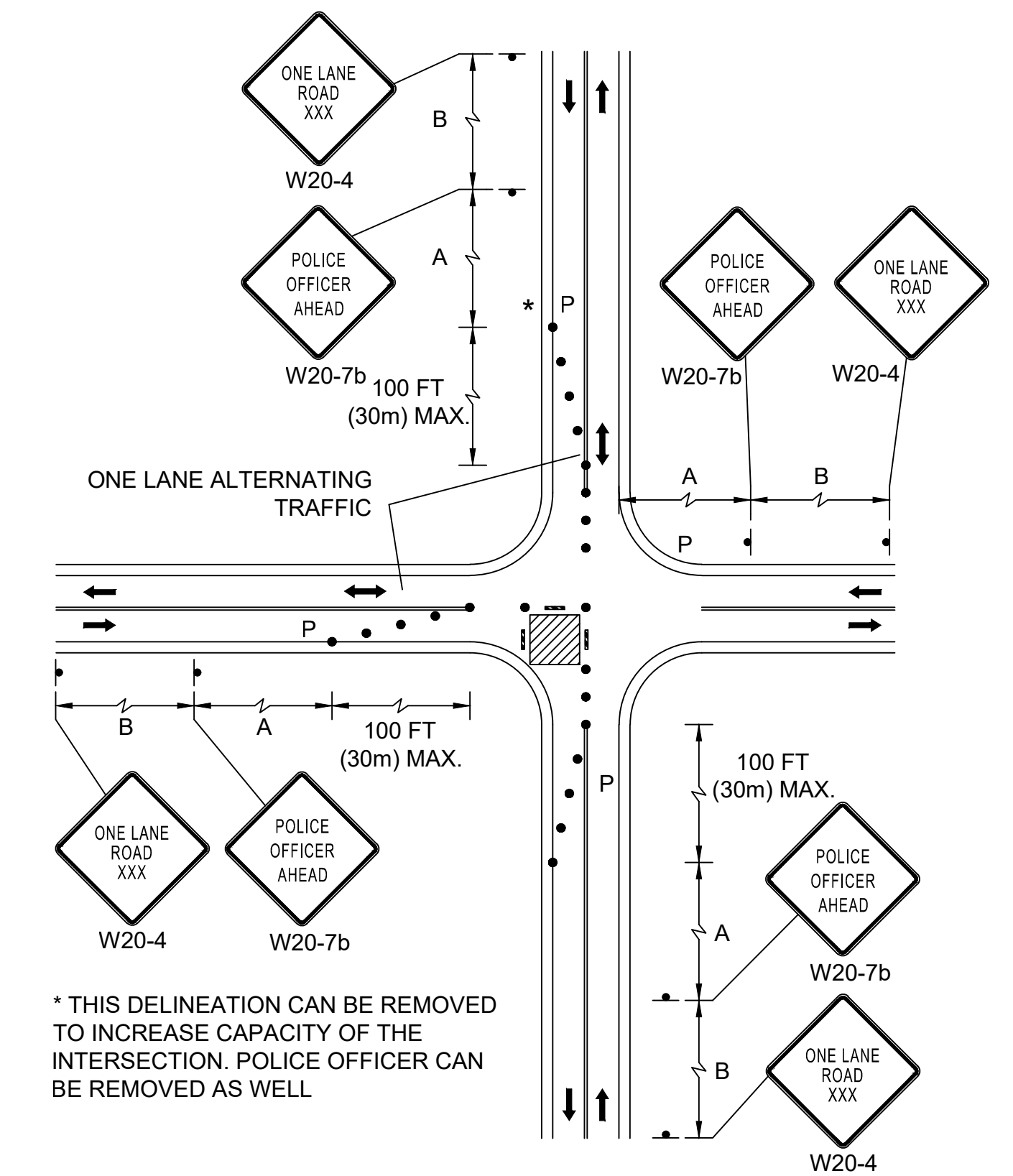


### TWO LANE ROAD ONE LANE ALTERNATING TRAFFIC

## ASHLAND CAPTAIN EAMES CIRCLE & ALGONQUIN TRAIL

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	33	71

### TEMPORARY TRAFFIC CONTROL PLAN



### SINGLE LANE APPROACH ONE QUADRANT CLOSURE

\* THIS DELINEATION CAN BE REMOVED TO INCREASE CAPACITY OF THE INTERSECTION. POLICE OFFICER CAN BE REMOVED AS WELL

DATE	DESCRIPTION	REV #

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		

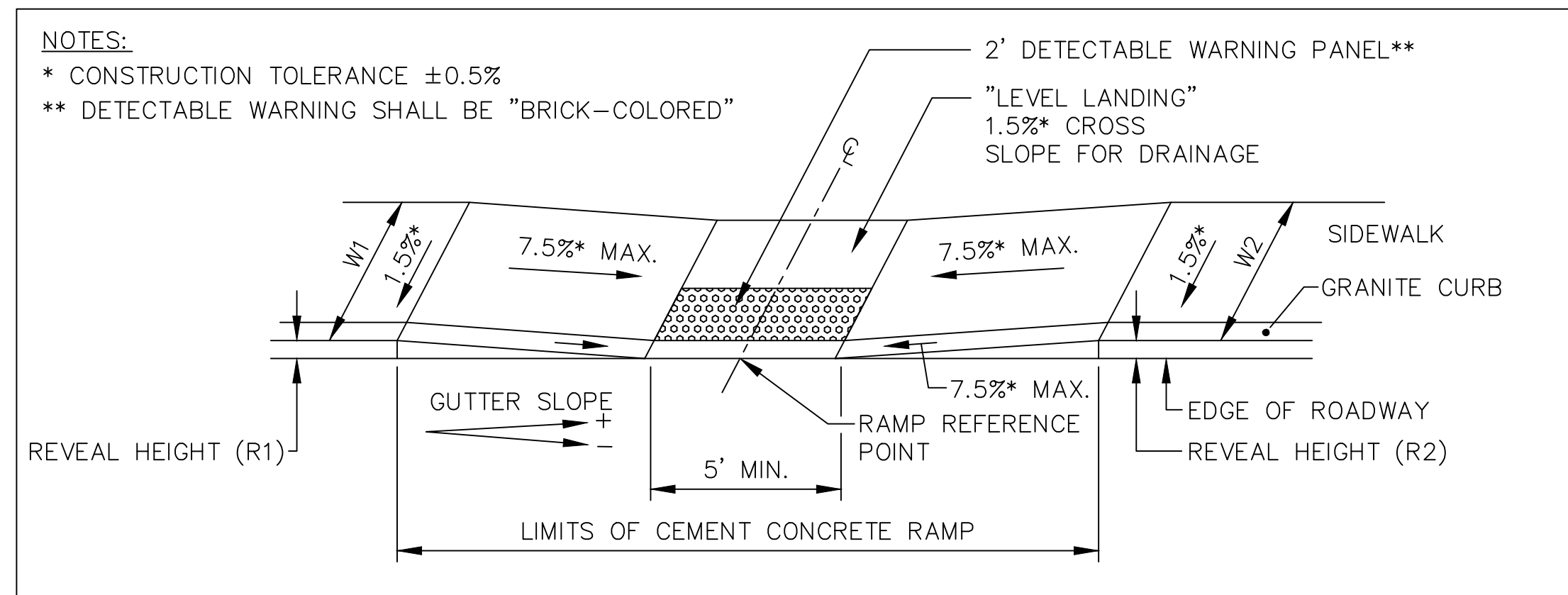
STAMP:

**W** Vanasse & Associates inc  
 Transportation Engineers & Planners  
 35 N.E. BUSINESS CENTER DRIVE  
 ANDOVER, MA 01910-1071  
 TEL: (978) 474-8800  
 www.rdv.com

STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	34	71
PERMIT PROJECT NO. -			

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS

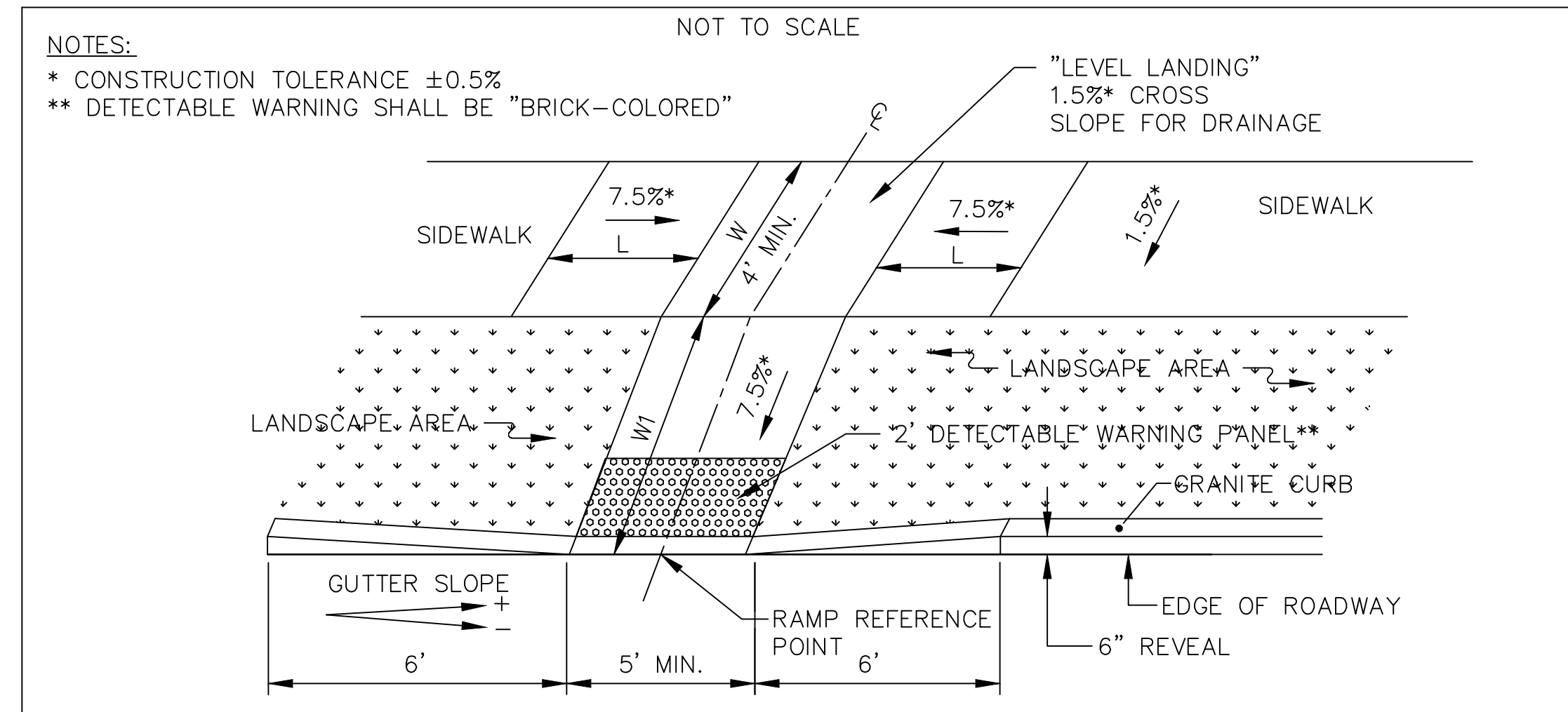
T:\10204 ASHLAND.MA\DESIGN\DWG\10204JDS.DWG Plotted on: 20-Aug-2025 4:18 PM



PCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W1/W2)	WIDTH OF RAMP (MIN. 5.00')	TRANSITION LENGTH		GUTTER SLOPE %
	STA.	OFFSET			LEFT SIDE	RIGHT SIDE	
1	240+04.10	21.56' LT	5.50'	5.00'	N/A	6.50'	-1.3
2	240+04.95	17.97' RT	5.50'	5.00'	6.50'	N/A	+0.6
10	265+78.07	21.29' RT	5.50'	5.00'	N/A	6.50'	-0.4

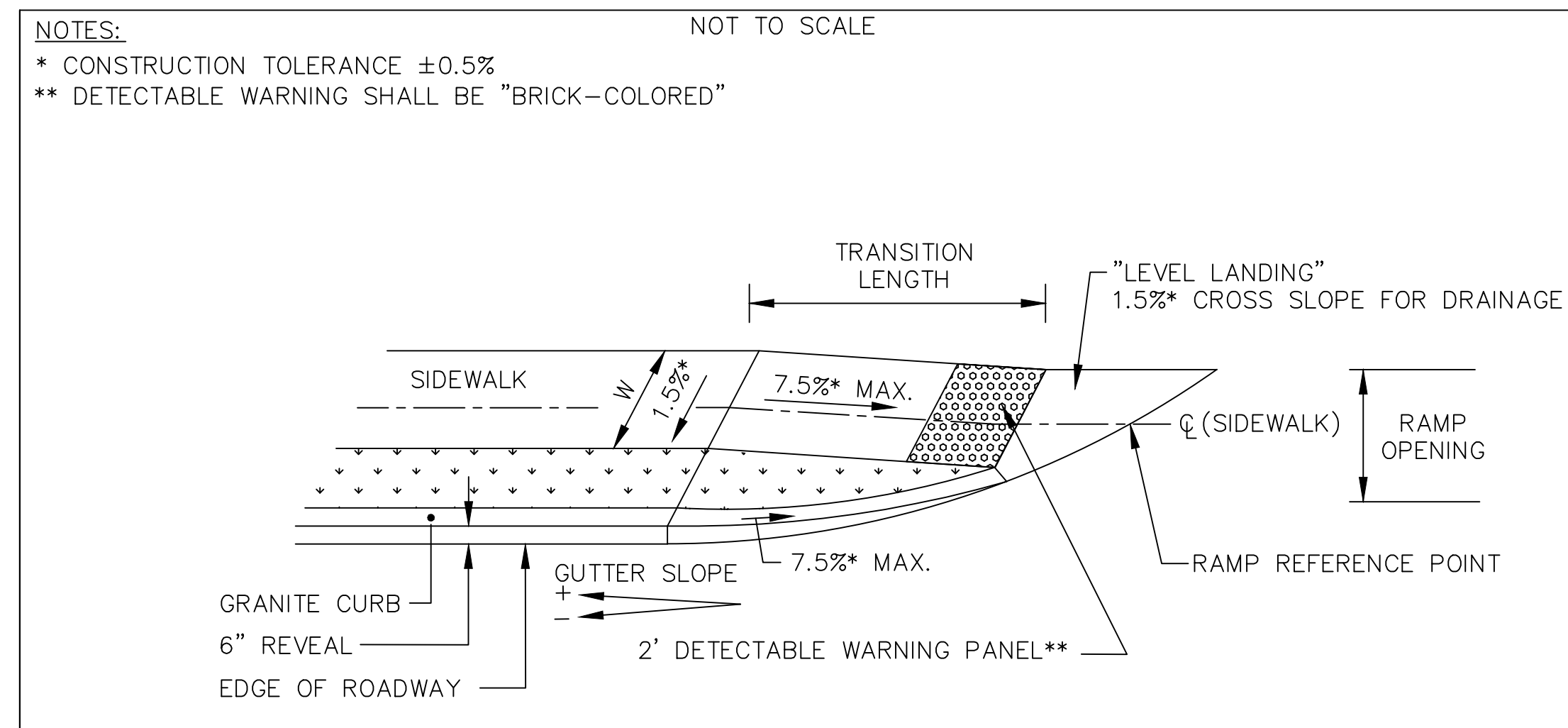
**PEDESTRIAN CURB RAMP ON NARROW SIDEWALK**

NOT TO SCALE



PCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W1/W2)	WIDTH OF RAMP (MIN. 5.00')	TRANSITION LENGTH		GUTTER SLOPE %
	STA.	OFFSET			LEFT SIDE	RIGHT SIDE	
3	249+70.54	15.00' LT	5.00'/5.00'	5.00'	3.25'	7.67'	+0.1
4	249+69.66	23.72' RT	5.00'/5.00'	5.00'	3.25'	7.67'	+0.3
5	100+43.16	16.86' RT	5.00'/5.00'	5.00'	7.67'	3.25'	-0.1
6	250+31.03	15.00' LT	5.00'/5.00'	5.00'	6.50'	7.67'	+0.5
7	100+43.21	16.71' LT	5.00'/5.00'	5.00'	6.50'	7.67'	+0.1
8	250+32.31	21.88' RT	5.00'/5.00'	5.00'	9.00'	6.50'	-1.8
9	265+78.28	25.58' LT	5.00'	5.00'	7.67'	N/A	-0.1
12	107+32.22	20.35' LT	5.00'/5.00'	5.00'	6.50'	15.00'	+6.6
13	110+93.98	29.20' RT	5.00'/5.00'	5.00'	6.50'	15.00'	+5.5
14	111+65.17	15.00' LT	5.00'/5.00'	5.00'	11.00'	6.50'	-2.6
15	111+39.35	26.92' RT	5.00'	5.00'	6.50'	N/A	+0.1
16	111+64.75	15.09' LT	5.00'/5.00'	5.00'	6.50'	9.00'	+2.4

**PEDESTRIAN CURB RAMP WITH LANDSCAPE STRIP**



PCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W1/W2)	WIDTH OF RAMP (MIN. 5.00')	TRANSITION LENGTH		GUTTER SLOPE %
	STA.	OFFSET			LEFT SIDE	RIGHT SIDE	
11	106+59.74	20.16' LT	5.00'	5.00'	6.50'	N/A	+4.0

**PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF TRAVEL WITH LANDSCAPE STRIP**

DATE	DESCRIPTION	REV #

STAMP:

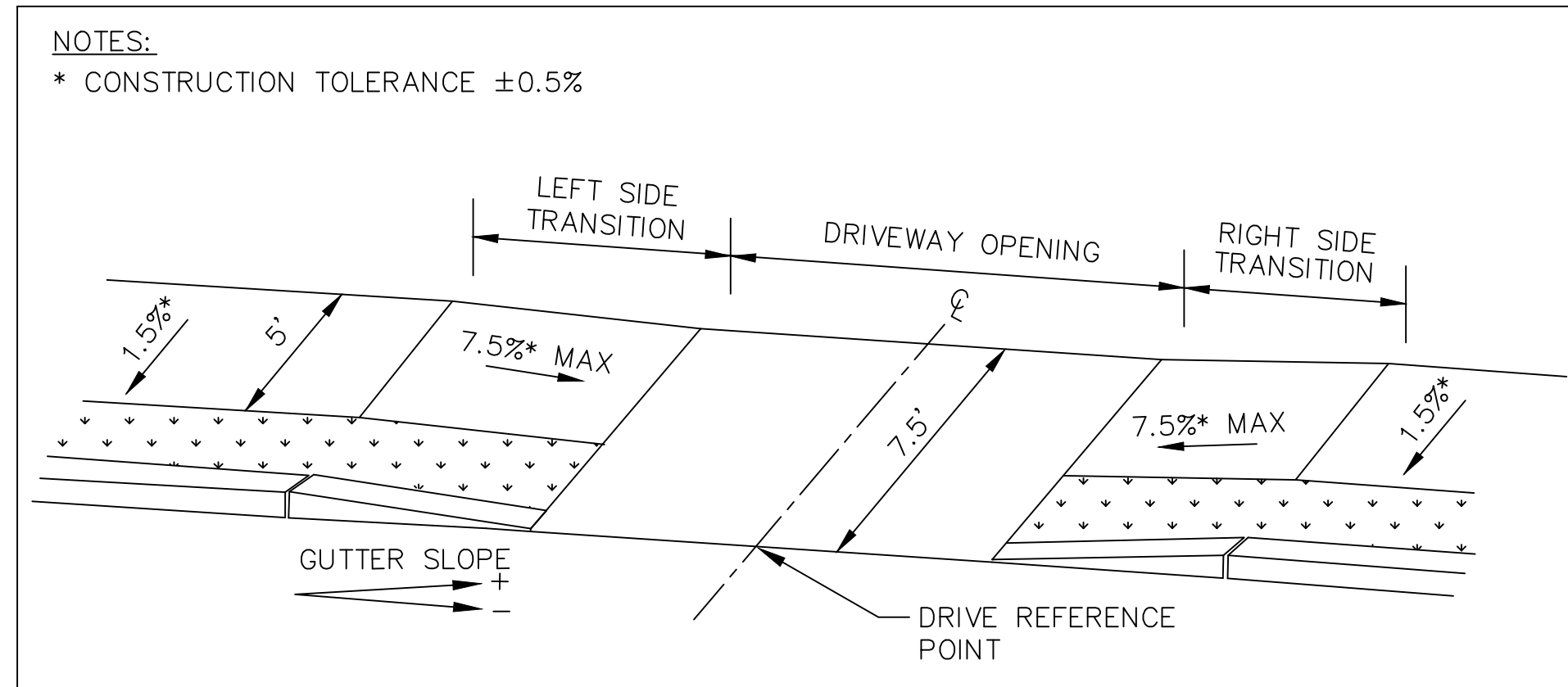
DESIGNED BY: MPP      DATE: AUGUST 2025

DRAWN BY: MPP      SCALE: NOT TO SCALE

CHECKED BY: JPC

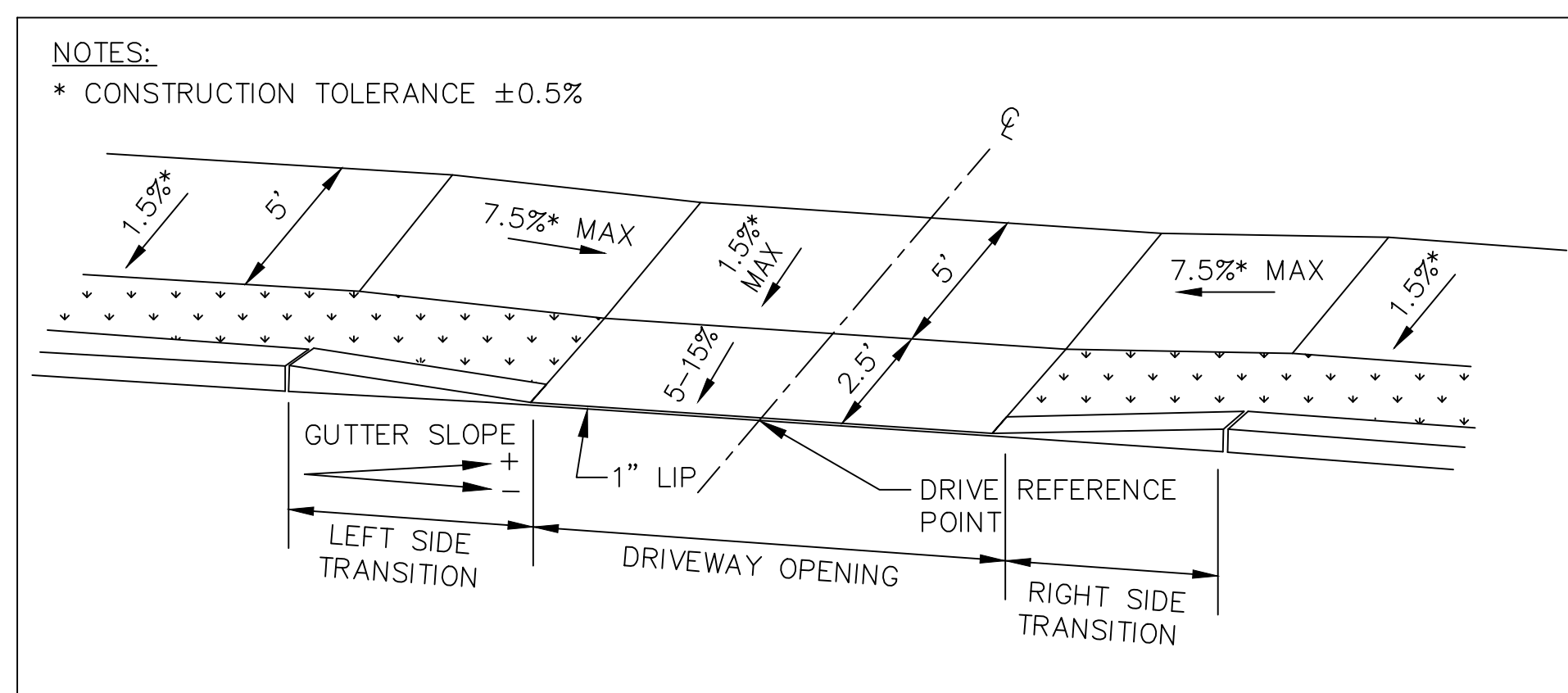
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	35	71
PERMIT PROJECT NO. -			

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS



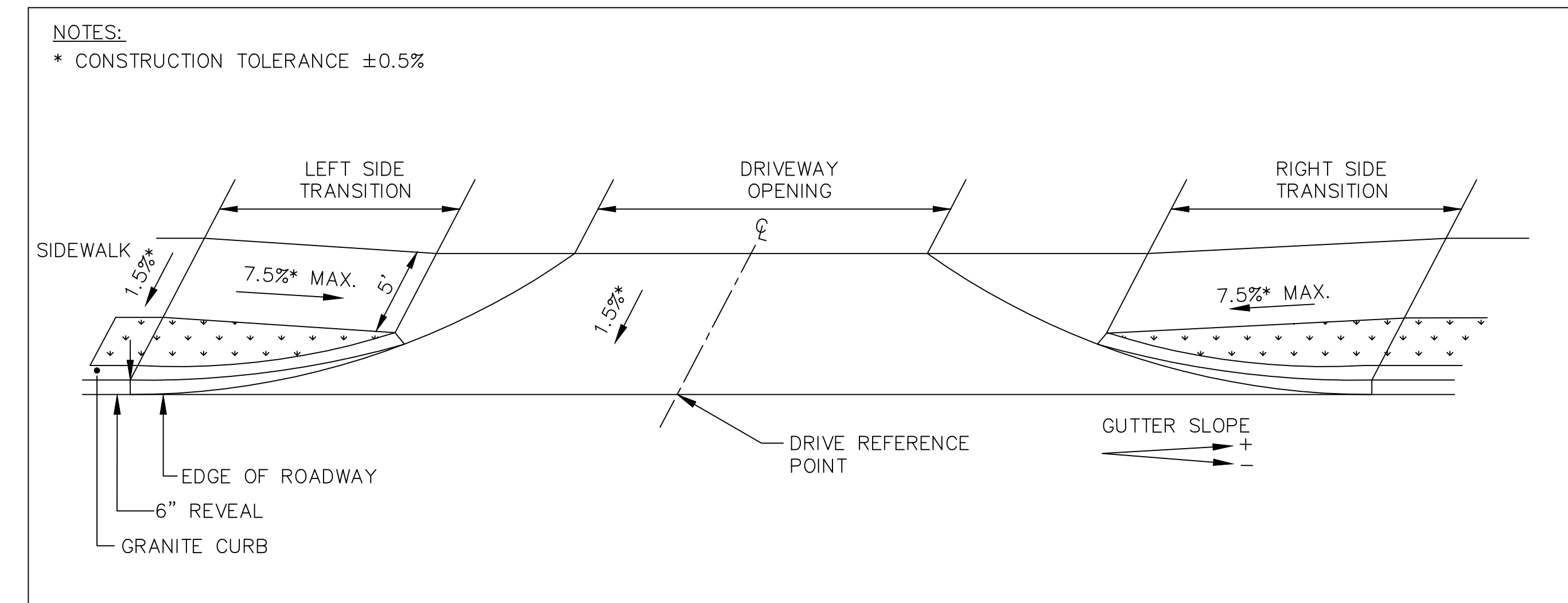
DRIVE #	DRIVE REFERENCE POINT		DRIVE OPENING	TRANSITION LENGTH		GUTTER SLOPE %
	STATION	OFFSET		LEFT	RIGHT	
6	248+37.37	15.00' RT	20.76'	7.67'	6.50'	-0.5
10	253+00.00	15.00' RT	20.30'	7.67'	6.50'	-0.5
17	257+47.63	15.00' RT	23.35'	6.50'	7.67'	+0.1
19	258+82.25	15.00' RT	20.27'	6.50'	9.00'	+1.5
21	260+24.57	15.00' RT	24.33'	6.50'	11.00'	+2.7
26	101+80.15	15.00' LT	26.00'	7.67'	6.50'	-0.6
27	102+12.15	15.00' RT	20.00'	6.50'	7.67'	+0.6
28	103+10.44	15.00' LT	22.00'	7.67'	6.50'	-0.5
29	104+41.50	15.00' LT	22.00'	7.67'	6.50'	-0.6
30	104+88.58	15.00' LT	24.00'	7.67'	6.50'	-0.6
31	105+36.31	15.00' LT	28.00'	7.67'	6.50'	-0.6
33	108+13.96	15.00' LT	28.40'	6.50'	15.00'	+4.1
38	112+28.96	15.00' LT	24.64'	11.00'	6.50'	-2.6
39	112+86.30	15.00' RT	28.36'	6.50'	11.00'	+2.3
40	114+21.08	15.00' LT	28.00'	11.00'	6.50'	-2.5

**SIDEWALK THROUGH HMA DRIVEWAY - TYPE A**  
NOT TO SCALE



DRIVE #	DRIVE REFERENCE POINT		DRIVE OPENING	TRANSITION LENGTH		GUTTER SLOPE %
	STATION	OFFSET		LEFT	RIGHT	
9	252+91.29	15.00' RT	20.30'	7.67'	6.50'	-0.5
12	253+68.38	15.00' RT	20.34'	7.67'	6.50'	-0.9
13	254+34.06	15.00' RT	22.00'	9.00'	6.50'	-1.4
15	255+71.37	15.00' RT	20.00'	9.00'	6.50'	-1.9
22	261+29.01	15.00' RT	18.25'	6.50'	11.00'	+2.7
24	263+00.00	15.00' LT	25.00'	7.67'	6.50'	-0.2
32	106+56.94	15.00' RT	23.73'	14.00'	6.50'	-3.7
34	108+95.57	15.00' LT	42.40'	6.50'	9.00'	+1.3
35	109+47.03	15.00' LT	20.00'	7.67'	6.50'	-0.6
36	110+29.55	15.00' LT	24.00'	11.00'	6.50'	-2.5
37	110+18.46	15.00' RT	20.00'	6.50'	11.00'	+2.5
41	114+44.47	15.00' RT	26.00'	6.50'	11.00'	+2.5

**SIDEWALK THROUGH HMA DRIVEWAY - TYPE B**  
NOT TO SCALE



DRIVE #	DRIVE REFERENCE POINT		DRIVE OPENING	TRANSITION LENGTH		GUTTER SLOPE %
	STATION	OFFSET		LEFT	RIGHT	
1	242+55.27	12.00' RT	19.87'	6.50'	9.00'	+1.9
2	244+08.05	12.00' RT	29.00'	6.50'	14.00'	+3.2
3	245+40.86	15.00' LT	22.70'	9.00'	6.50'	-1.6
4	245+88.77	13.16' RT	20.00'	6.50'	9.00'	+1.0
5	247+45.55	15.00' LT	16.80'	7.67'	6.50'	-0.2
7	249+38.10	15.00' RT	21.37'	7.67'	6.50'	-0.8
8	251+32.69	15.00' LT	34.37'	6.50'	7.67'	+0.5
11	253+35.00	15.00' LT	19.82'	6.50'	9.00'	+1.0
14	254+82.87	15.00' LT	21.31'	6.50'	9.00'	+1.7
16	256+44.44	15.00' LT	20.36'	6.50'	9.00'	+1.1
18	258+44.79	15.00' LT	24.00'	9.00'	6.50'	-1.2
20	260+34.69	15.00' LT	20.13'	11.00'	6.50'	-2.8
23	262+14.90	15.00' LT	20.72'	11.00'	6.50'	-2.4
25	262+94.49	12.97' RT	22.00'	6.50'	7.67'	+0.3

**SIDEWALK THROUGH HMA DRIVEWAY - TYPE C**  
NOT TO SCALE

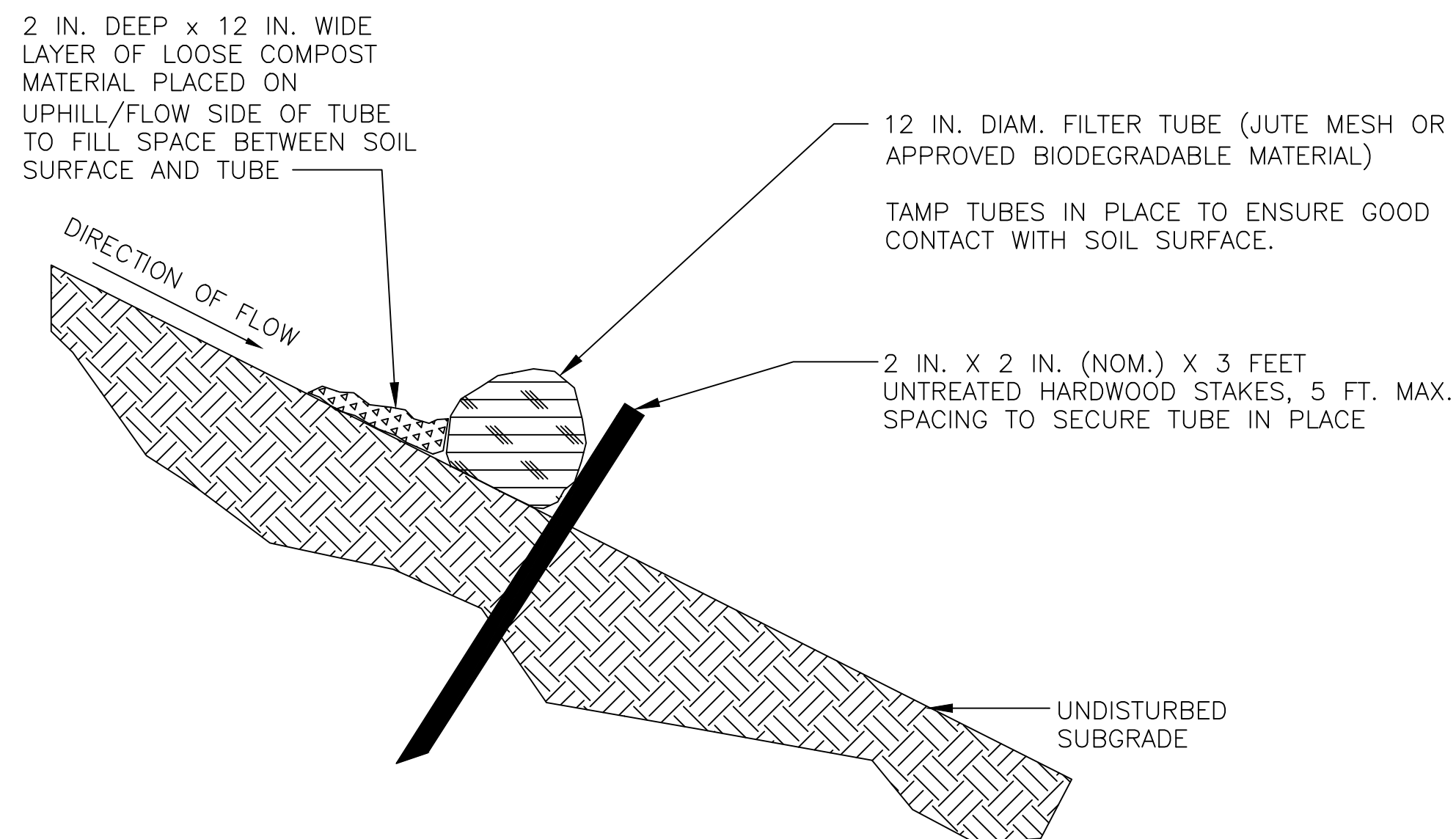
DATE	DESCRIPTION	REV #

STAMP:

DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		

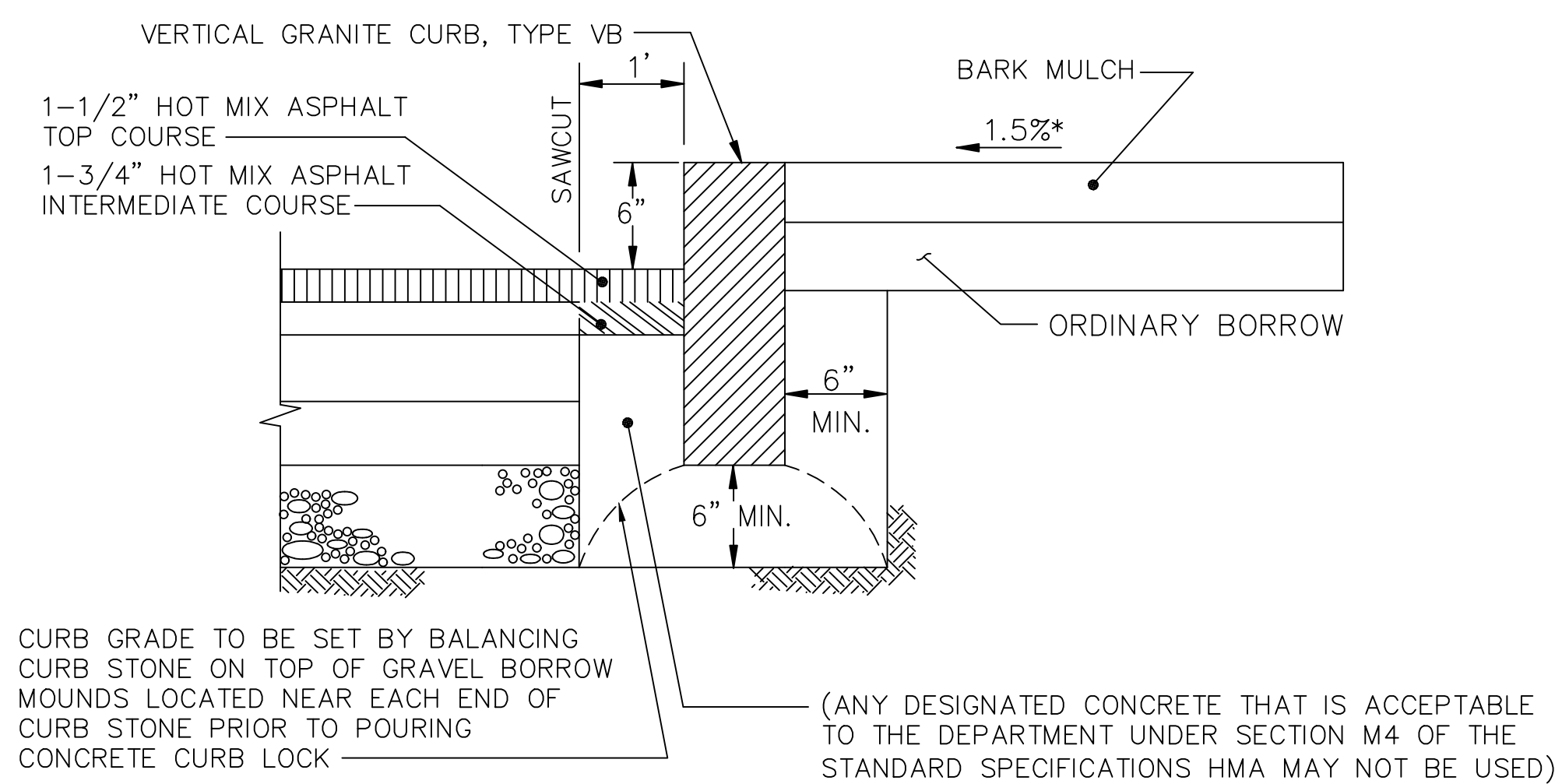
STATE	VAI PROJECT ID	SHEET NO.	TOTAL SHEETS
MA	10204	36	71

PERMIT PROJECT NO. -  
**CONSTRUCTION DETAILS**



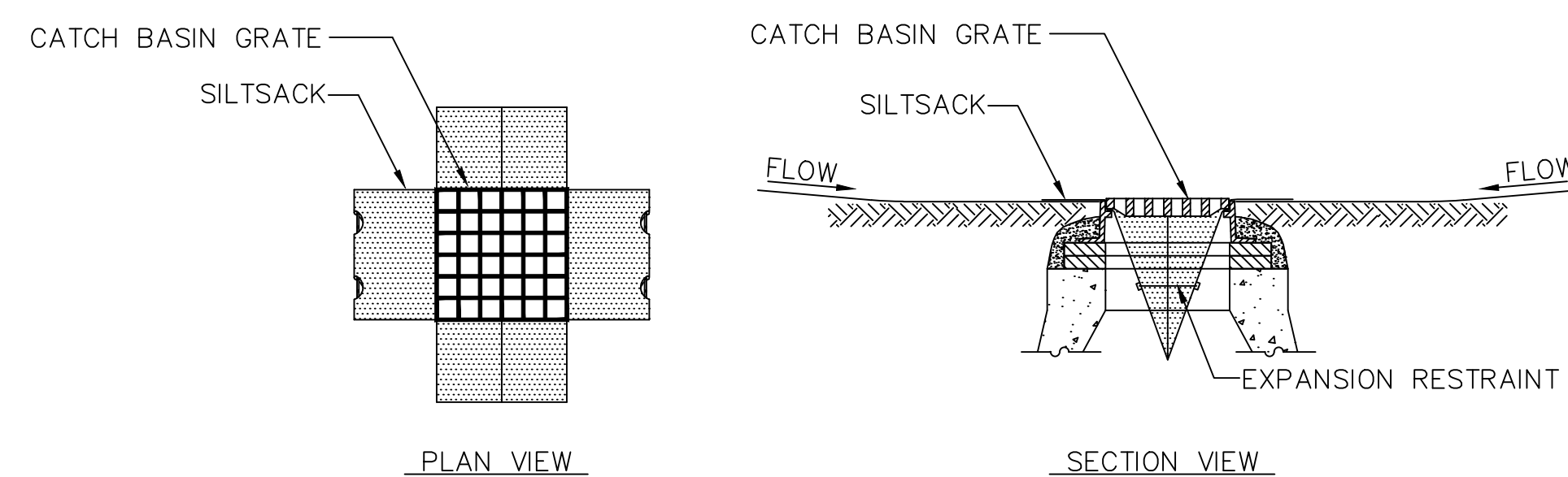
**COMPOST FILTER TUBE**

NOT TO SCALE



**CURB SETTING WITH LANDSCAPING DETAIL**

NOT TO SCALE

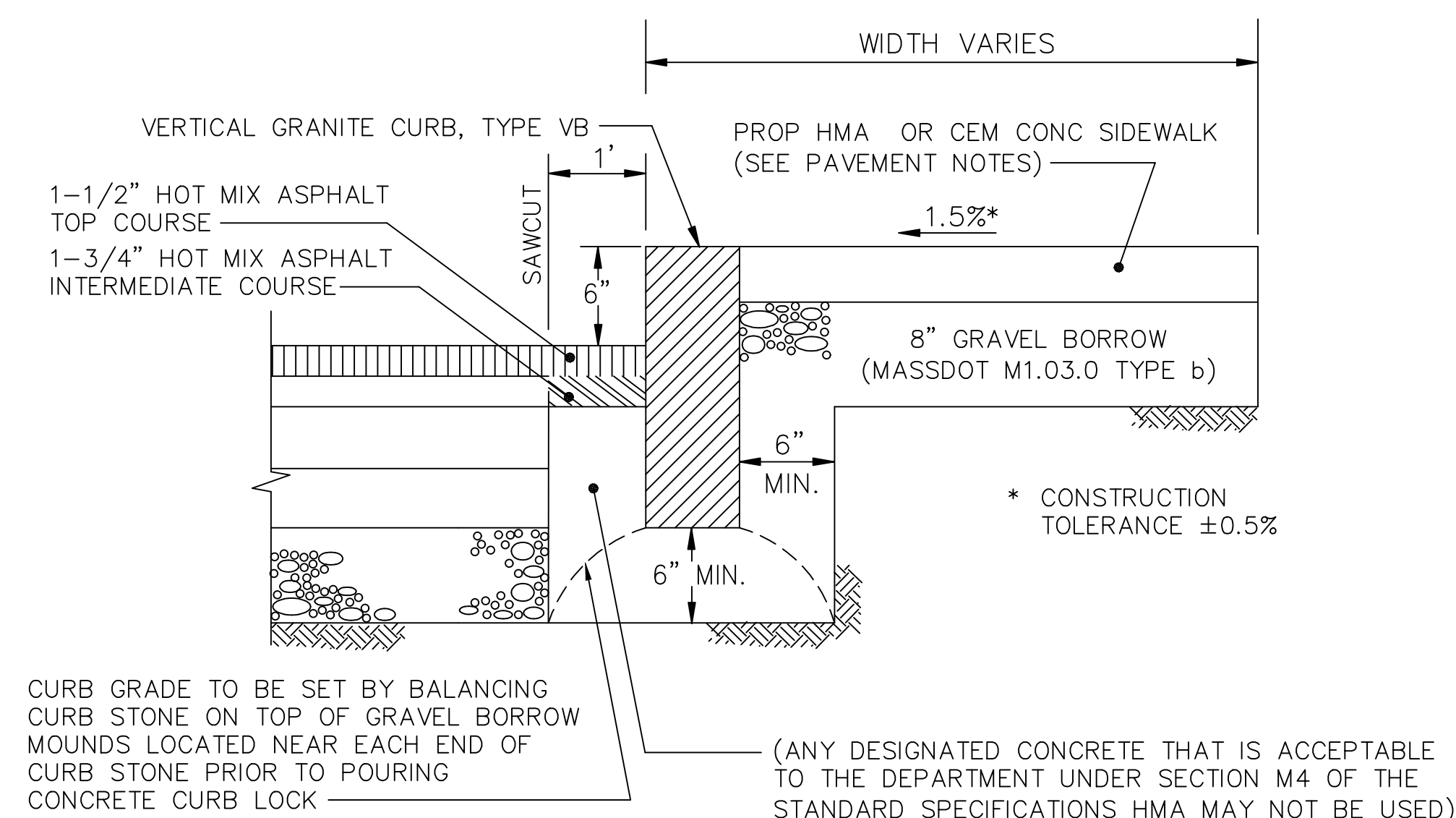


NOTES:

1. INSTALL SILTSACK IN ALL CATCH BASINS WITHIN THE LIMITS OF WORK AND AS DIRECTED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

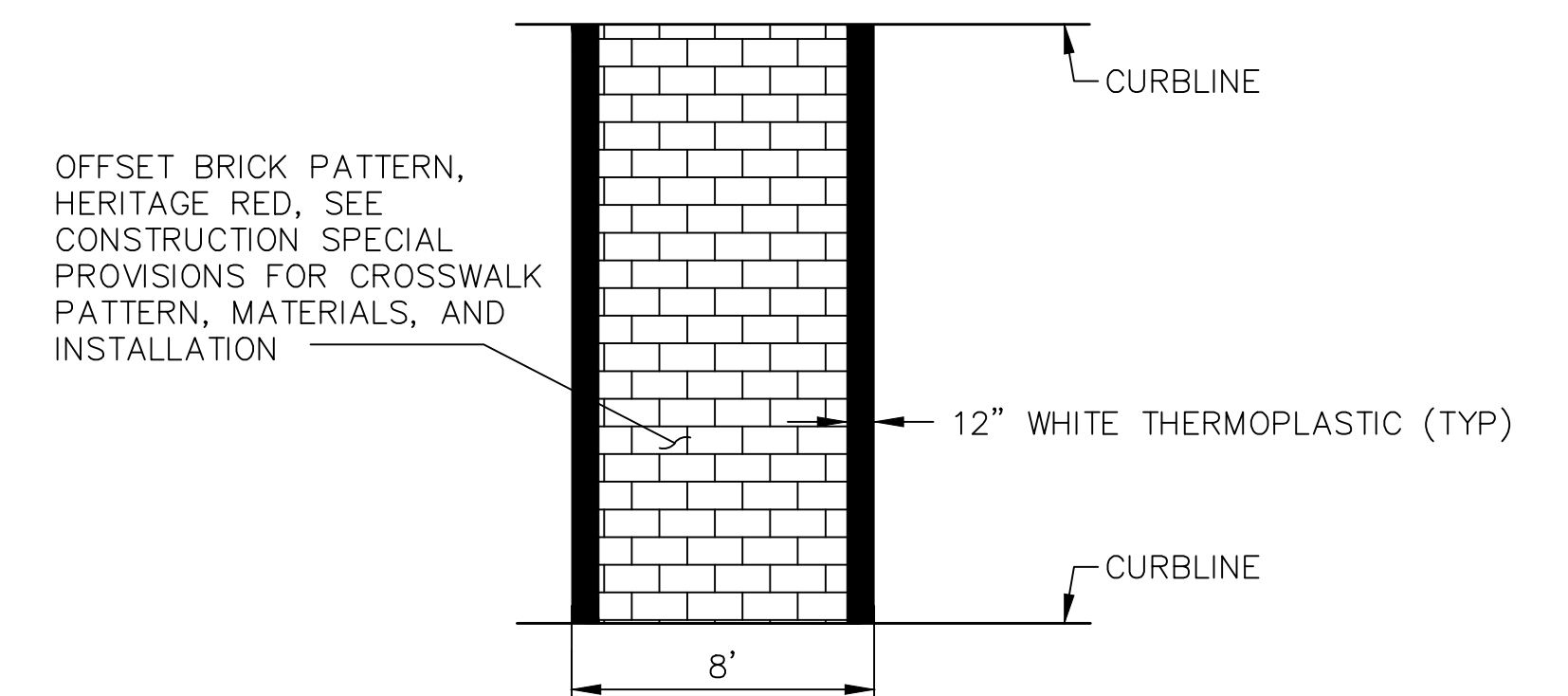
**SILT SACK**

NOT TO SCALE



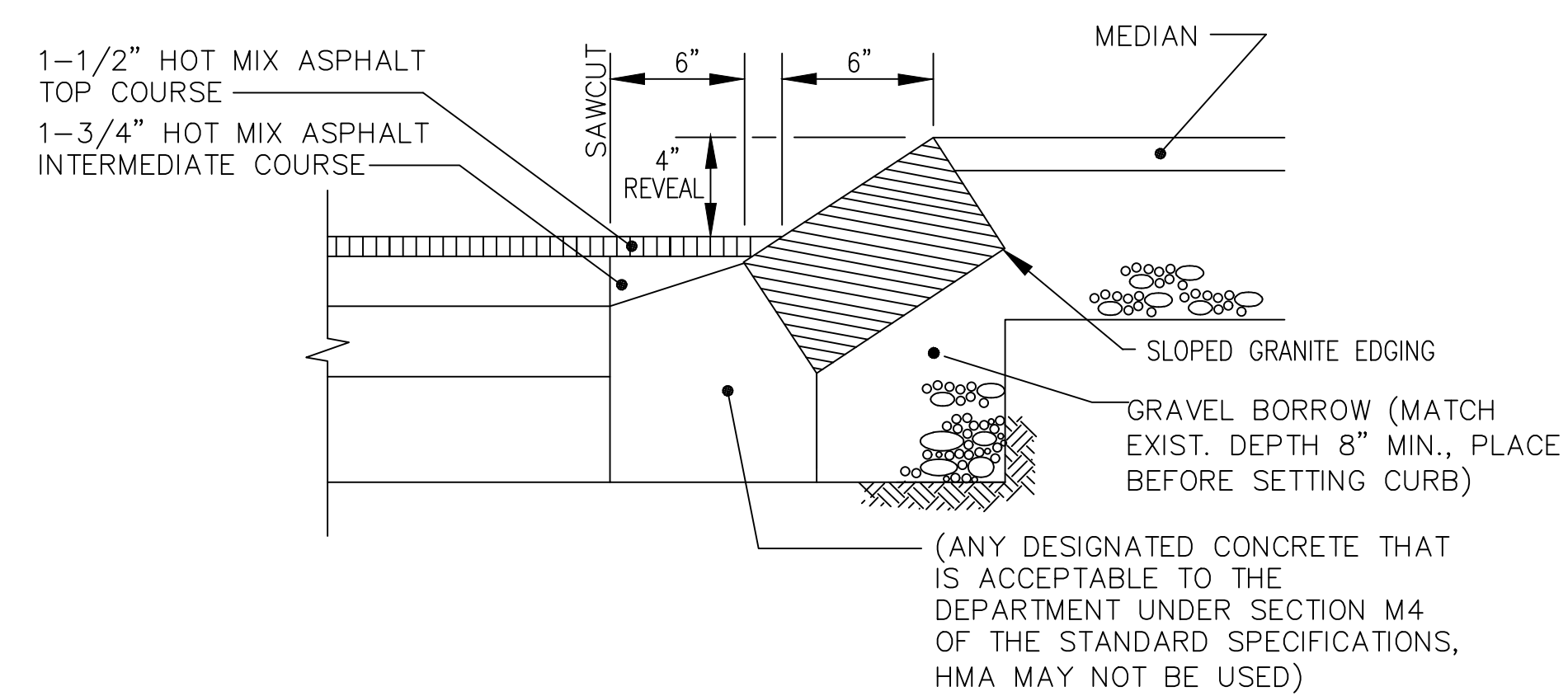
**CURB SETTING & SIDEWALK DETAIL**

NOT TO SCALE



**THERMOPLASTIC CROSSWALK**

NOT TO SCALE



**SLOPED GRANITE EDGING TYPE SB**

NOT TO SCALE

DATE	DESCRIPTION	REV #

STAMP:			
DESIGNED BY:	MPP	DATE:	AUGUST 2025
DRAWN BY:	MPP	SCALE:	NOT TO SCALE
CHECKED BY:	JPC		