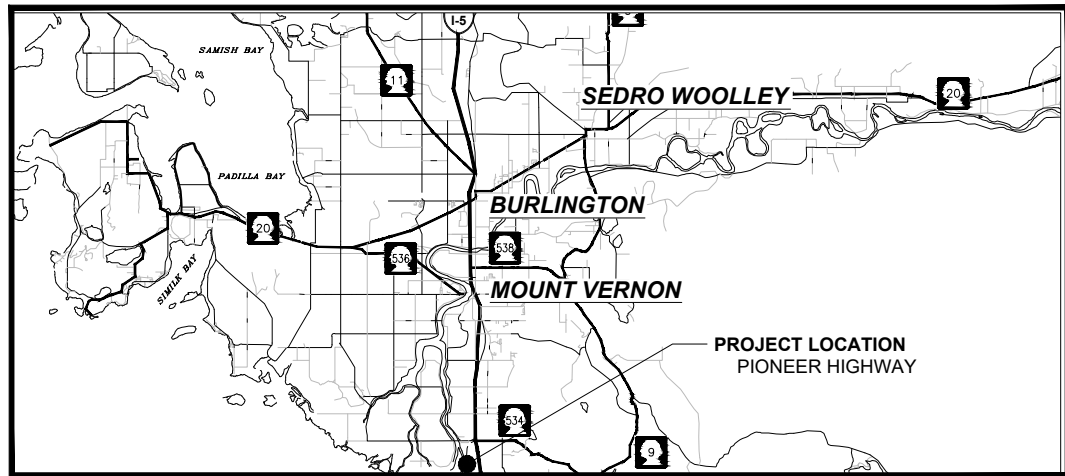
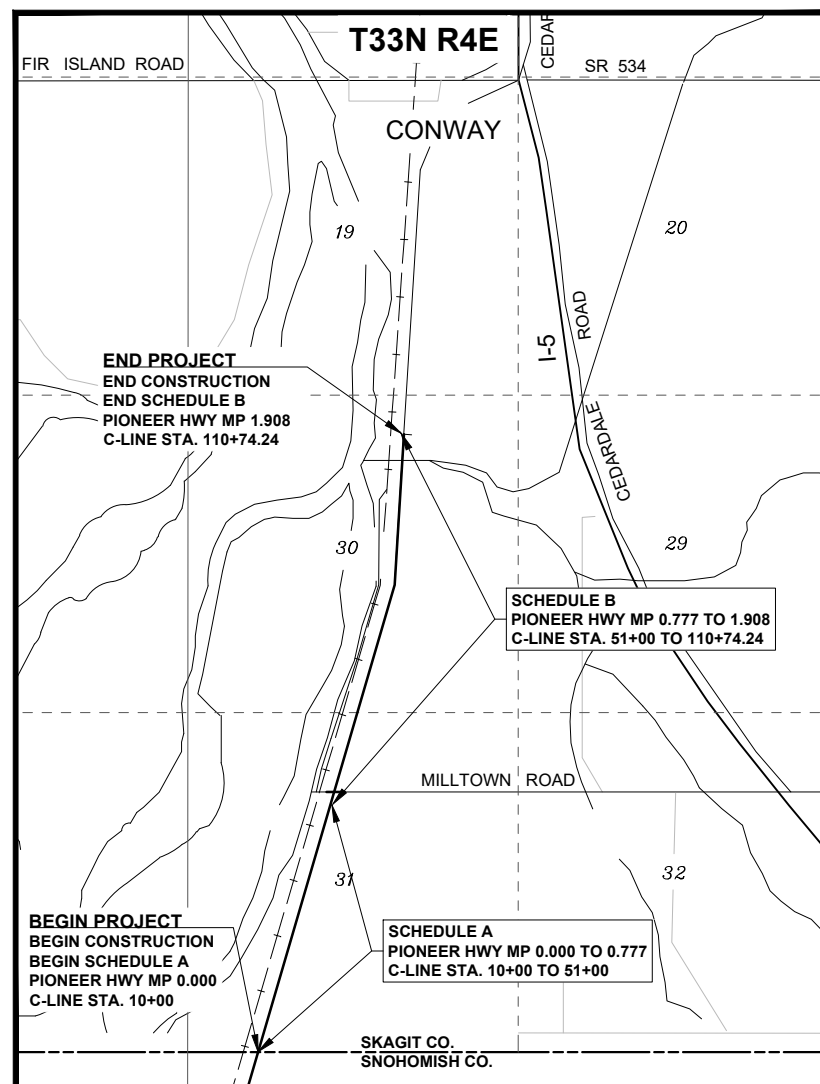


# 2022 HMA OVERLAY - PIONEER HIGHWAY

ESHMA22-1



VICINITY MAP NTS



SITE MAP NTS



## SKAGIT COUNTY OFFICIALS

- BOARD OF COMMISSIONERS
- PETER BROWNING, CHAIR
  - RON WESEN, COMMISSIONER
  - LISA JANICKI, COMMISSIONER
- PUBLIC WORKS
- GRACE K. KANE, P.E., DIRECTOR

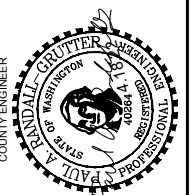
*Paul A. Randall-Grutter* 4.18.22  
 PAUL A. RANDALL-GRUTTER, P.E., COUNTY ENGINEER DATE

### SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	LEGEND, ABBREVIATIONS AND NOTES
3-6	SITE PLAN
7	ROADWAY SECTIONS & DETAILS
8	CLASS 'A' SIGNING PLA
9-12	WORKZONE TRAFFIC CONTROL PLANS

**SKAGIT COUNTY PUBLIC WORKS**  
 1800 CONTINENTAL PLACE  
 MOUNT VERNON, WA 98273-5625  
 (360) 416-1400 FAX (360) 416-1405

NO.	REVISIONS	DATE



PROJECT NO.: ESHMA22-1  
 FED. AID NO.: ---  
 DESIGNED BY: RS  
 CHECKED BY: SA  
 DRAWN BY: RS  
 APPROVED BY: PAR  
 PROJECT LOCATED NEAR:  
 MOUNT VERNON, WA  
 SEC 19, 30 & 31; T33N, R4E

2022 HMA OVERLAY

COVER SHEET



1 INCH SCALE BAR  
 ADJUST SCALE ACCORDINGLY

SHEET  
**01 OF 12**

NAVD 88 1-800-424-5555

SUMMARY OF QUANTITIES				
SCHEDULE A				
Item No.	Spec.	Qty.	Unit	Item Description
<b>PREPARATION</b>				
1	1-09.7	1	LS	MOBILIZATION
2	1-10.5	105	SF	CLASS A SIGNING
<b>HOT MIX ASPHALT</b>				
3	5-04.5	9,880	SY	PLANING BITUMINOUS PAVEMENT
4	5-04.5	1,270	TON	HMA CL. 1/2" PG 58H-22
<b>EROSION CONTROL AND PLANTING</b>				
5	8-01.5	1	LS	EROSION CONTROL AND WATER POLLUTION PREVENTION
<b>TRAFFIC</b>				
6	8-23.5	24,600	LF	TEMPORARY PAVEMENT MARKING - SHORT DURATION
7	1-10.5	1	LS	PROJECT TEMPORARY TRAFFIC CONTROL
<b>OTHER ITEMS</b>				
8	1-05.4 SP	1	LS	ROADWAY SURVEYING
9	2-11.5	1	LS	TRIMMING AND CLEANUP
10	1-07.15	1	LS	SPCC

THE CONTRACTOR SHALL INCLUDE FOR COMPENSATION THE AMOUNT OF ANY TAXES PAID IN THE VARIOUS UNIT BID PRICES IN ACCORDANCE WITH SECTION 1-07.2(1)

SUMMARY OF QUANTITIES				
SCHEDULE B				
Item No.	Spec.	Qty.	Unit	Item Description
<b>PREPARATION</b>				
1	1-09.7	1	LS	MOBILIZATION
2	1-10.5	158	SF	CLASS A SIGNING
<b>HOT MIX ASPHALT</b>				
3	5-04.5	14,590	SY	PLANING BITUMINOUS PAVEMENT
4	5-04.5	1,870	TON	HMA CL. 1/2" PG 58H-22
<b>EROSION CONTROL AND PLANTING</b>				
5	8-01.5	1	LS	EROSION CONTROL AND WATER POLLUTION PREVENTION
<b>TRAFFIC</b>				
6	8-22.5	227	LF	PLASTIC LINE
7	8-22.5	47	LF	PLASTIC STOP LINE
8	8-23.5	35,850	LF	TEMPORARY PAVEMENT MARKING - SHORT DURATION
9	1-10.5	1	LS	PROJECT TEMPORARY TRAFFIC CONTROL
<b>OTHER ITEMS</b>				
10	1-05.4 SP	1	LS	ROADWAY SURVEYING
11	2-11.5	1	LS	TRIMMING AND CLEANUP
12	1-07.15	1	LS	SPCC
13	1-04.4(1)	EST	DOL	MINOR CHANGE

THE CONTRACTOR SHALL INCLUDE FOR COMPENSATION THE AMOUNT OF ANY TAXES PAID IN THE VARIOUS UNIT BID PRICES IN ACCORDANCE WITH SECTION 1-07.2(1)

**GENERAL NOTES**

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT PLANS AND PROVISIONS, STANDARD SPECIFICATIONS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THE 2022 WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE DIGGING. CALL 1-800-424-5555 AT LEAST TWO (2) BUSINESS DAYS BEFORE YOU DIG.
- THE DEBRIS MATERIAL RESULTING FROM THE PLANING OPERATIONS WILL BECOME THE PROPERTY OF SKAGIT COUNTY PUBLIC WORKS AND DISPOSED OF IN A COUNTY-PROVIDED SITE. DETAILS OF THIS WORK CAN BE FOUND IN THE PLAN'S SPECIAL PROVISIONS SECTION AS SKAGIT COUNTY SPECIFICATION 5-04.3(14) "PLANING BITUMINOUS PAVEMENT".
- THE CONTRACTOR IS EXPECTED TO PREVENT EROSION AND THE RELEASE OF SEDIMENT AND OTHER POLLUTANTS THROUGH BEST MANAGEMENT PRACTICES (BMPs). THE GOAL IS TO KEEP POLLUTANTS OUT OF STORM DRAINS, WATERWAYS AND ADJACENT PROPERTIES.

**EXISTING**

_____	EDGE OF ASPHALT
-----	SHOULDER
— BF —	BURIED OPTIC FIBER LINE
— BP —	BURIED POWER LINE
— BM —	BURIED MULTIPLE UTILITIES LINE
— BT —	BURIED TELEPHONE LINE
— w — w —	BURIED WATER LINE
— + — + —	RAILROAD CENTER LINE
-----	CITY/COUNTY BOUNDARY LINE
— □ — □ —	EXIST. GUARDRAIL
-----	DOUBLE YELLOW CENTERLINE
-----	DOTTED LINE
-----	BRIDGE
□	EXIST. TRAFFIC LOOP
□	CATCH BASIN
⊕	SURVEY MONUMENT
⊗	WATER METER
⊕	WATER VALVE
⊗	RAILROAD SIGNAL
⊕	EXIST. SIGN
○	MANHOLE
○	POWER POLE
↑	DOWN GUY WIRE

**ABBREVIATIONS:**

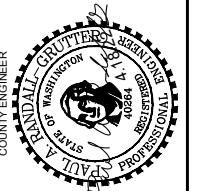
AP	ANGLE POINT	IN & "	INCHES	SPEC	SPECIFICATIONS
ASPH	ASPHALT	K	CURVE COEFFICIENT	ST	STREET
AVE	AVENUE	L	LENGTH OF CURVE	STA	STATION
BLDG	BUILDING	LF	LINEAR FOOT	SY	SQUARE YARD
BVC	BEGIN VERTICAL CURVE	LS	LUMP SUM	SYM	SYMMETRICAL
CALC	CALCULATED	LT	LEFT	TWN	TOWNSHIP
CB	CATCH BASIN	MAX	MAXIMUM	TYP	TYPICAL
CL & C	CENTERLINE	MIN	MINIMUM	UG	UNDERGROUND
CP	CONTROL POINT	MIC	MONUMENT IN CASE	VCL	VERTICAL CURVE LENGTH
CPCP	CORRUGATED POLYETHYLENE CULVERT PIPE	MON	MONUMENT	VPI	VERTICAL POINT INTERSECTION
		MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES	W	WEST
CONT'D	CONTINUED			W.M.	WILLAMETTE MERIDIAN
CSBC	CRUSHED SURFACING BASE COURSE	N	NORTH/NORTHING	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
CULV	CULVERT	NTS	NOT TO SCALE		
CY	CUBIC YARD	PC	POINT OF CURVATURE		
DEG	DEGREE	PI	POINT OF INTERSECTION		
DIA	DIAMETER	PT	POINT OF TANGENCY		
E	EAST/EASTING	R	RADIUS		
EL & ELEV	ELEVATION	RD	ROAD		
EST	ESTIMATED	RGE	RANGE		
EVC	END VERTICAL CURVE	R/W & ROW	RIGHT OF WAY		
FT & '	FEET	RT	RIGHT		
GALV	GALVANIZED	S	SOUTH		
GND	GROUND	SEC	SECTION		
HMA	HOT MIX ASPHALT	SF	SQUARE FOOT		
HR	HOUR	SHLD	SHOULDER		

**PROPOSED**

-----	CONSTRUCTION CENTERLINE
-----	SKIP STRIPE CENTERLINE
-----	EDGE LINE
=====	DOUBLE YELLOW CENTERLINE
=====	WIDE LANE LINE
-----	STOP LINE
⊕	PROPOSED SIGN

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NO.	REVISIONS	DATE



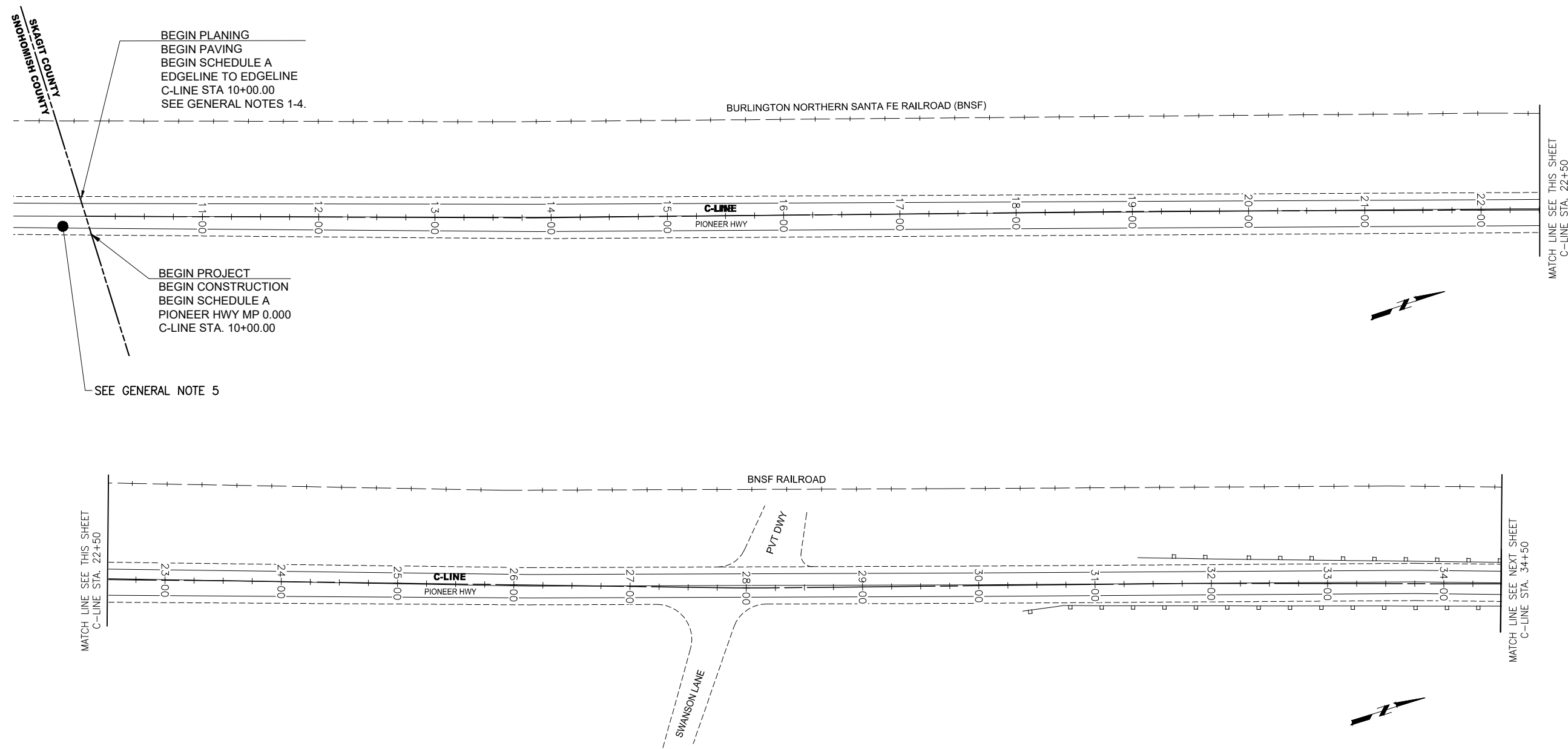
PROJECT NO.: ESHMA22-1	DRAWN BY: RS	APPROVED BY: PAR
FED. AID NO.: ---	DESIGNED BY: RS	CHECKED BY: SA
PROJECT LOCATED NEAR: MOUNT VERNON, WA		
SEC 19, 30 & 31, T33N, R4E		

**2022 HMA OVERLAY**

ABBREVIATIONS, LEGEND, AND NOTES

1 INCH SCALE BAR  
 ADJUST SCALE ACCORDINGLY

# PIONEER HIGHWAY REPAIR, PLANING, AND PAVING PLAN (SCHEDULE A)



BEGIN PLANING  
 BEGIN PAVING  
 BEGIN SCHEDULE A  
 EDGELINE TO EDGELINE  
 C-LINE STA 10+00.00  
 SEE GENERAL NOTES 1-4.

BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 BEGIN SCHEDULE A  
 PIONEER HWY MP 0.000  
 C-LINE STA. 10+00.00

SEE GENERAL NOTE 5

- GENERAL NOTES:**
1. FOR PLANING AND PAVING LIMITS, DETAILS, AND LOCATIONS, SEE THE ROADWAY SECTIONS, AND PLANING DETAILS ON SHEET 7.
  2. PROTECT SURVEY MONUMENT CASE AND COVER TO AVOID PENALTY PER RCW 55.04.015 AND WAC 332-120-040
  3. ALL MEASUREMENTS ARE IN FEET UNLESS OTHERWISE NOTED.
  4. ANY AND ALL WORK, TO INCLUDE WORKZONE TRAFFIC CONTROL, AND INSTALLATION OF CLASS A SIGNS WITHIN SNOHOMISH COUNTY LIMITS ARE SUBJECT TO THE REQUIREMENTS AND RESTRICTIONS AS DEFINED IN THE SNOHOMISH COUNTY "RIGHT OF WAY USE PERMIT" ISSUED TO SKAGIT COUNTY. THE CONTRACTOR SHALL ABIDE BY ALL REQUIREMENTS SET FORTH IN THE PERMIT INCLUDED IN THE CONTRACT SPECIAL PROVISIONS, APPENDIX E.



1 INCH SCALE BAR  
 ADJUST SCALE ACCORDINGLY

SHEET  
**03 OF 12**

**2022 HMA OVERLAY**

SITE PLAN

PROJECT NO.: ESHMA22-1

FED. AID NO.: ---

DESIGNED BY: RS

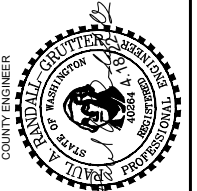
CHECKED BY: SA

DRAWN BY: RS

APPROVED BY: PAR

PROJECT LOCATED NEAR:  
 MOUNT VERNON, WA

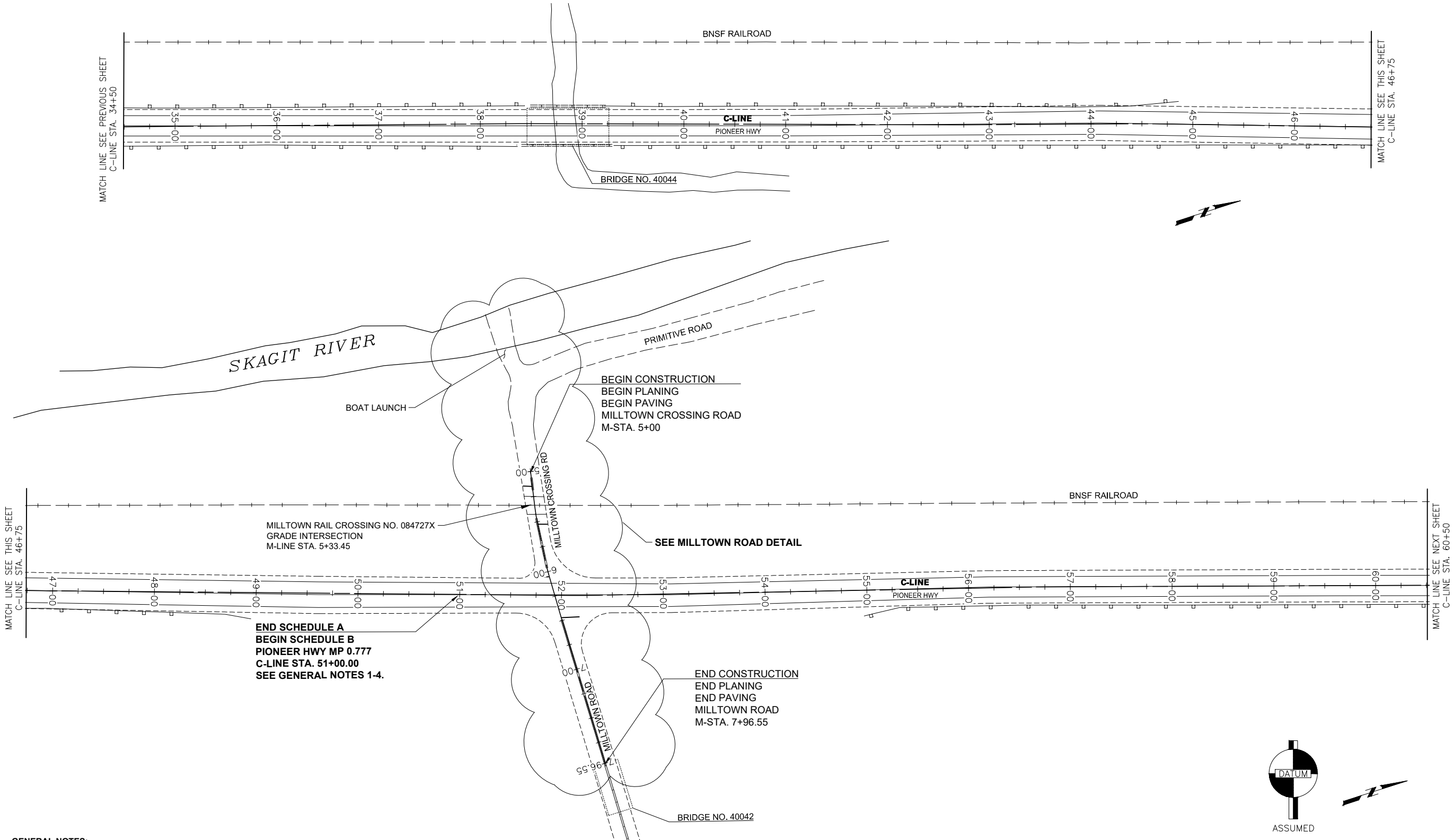
SEC 19, 30 & 31; T3SN; R4E



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 MOUNT VERNON, WA 98273-5625  
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NO.	REVISIONS	DATE

# PIONEER HIGHWAY REPAIR, PLANING, AND PAVING PLAN (SCHEDULE A & B)

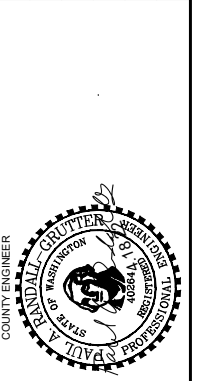


**GENERAL NOTES:**

1. FOR PLANING AND PAVING LIMITS, DETAILS, AND LOCATIONS, SEE THE ROADWAY SECTIONS, AND PLANING DETAILS ON SHEET 7.
2. PROTECT SURVEY MONUMENT CASE AND COVER TO AVOID PENALTY PER RCW 55.04.015 AND WAC 332-120-040
3. ALL MEASUREMENTS ARE IN FEET UNLESS OTHERWISE NOTED.

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PUBLIC WORKS**  
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(360) 416-1400 FAX (360) 416-1405

NO.	REVISIONS	DATE



PROJECT NO.: ESHMA22-1	FED. AID NO.: ###
DESIGNED BY: RS	DRAWN BY: RS
CHECKED BY: SA	APPROVED BY: PAR
PROJECT LOCATED NEAR: MOUNT VERNON, WA	
SEC 19, 30 & 31, T33N, R4E	

**2022 HMA OVERLAY**

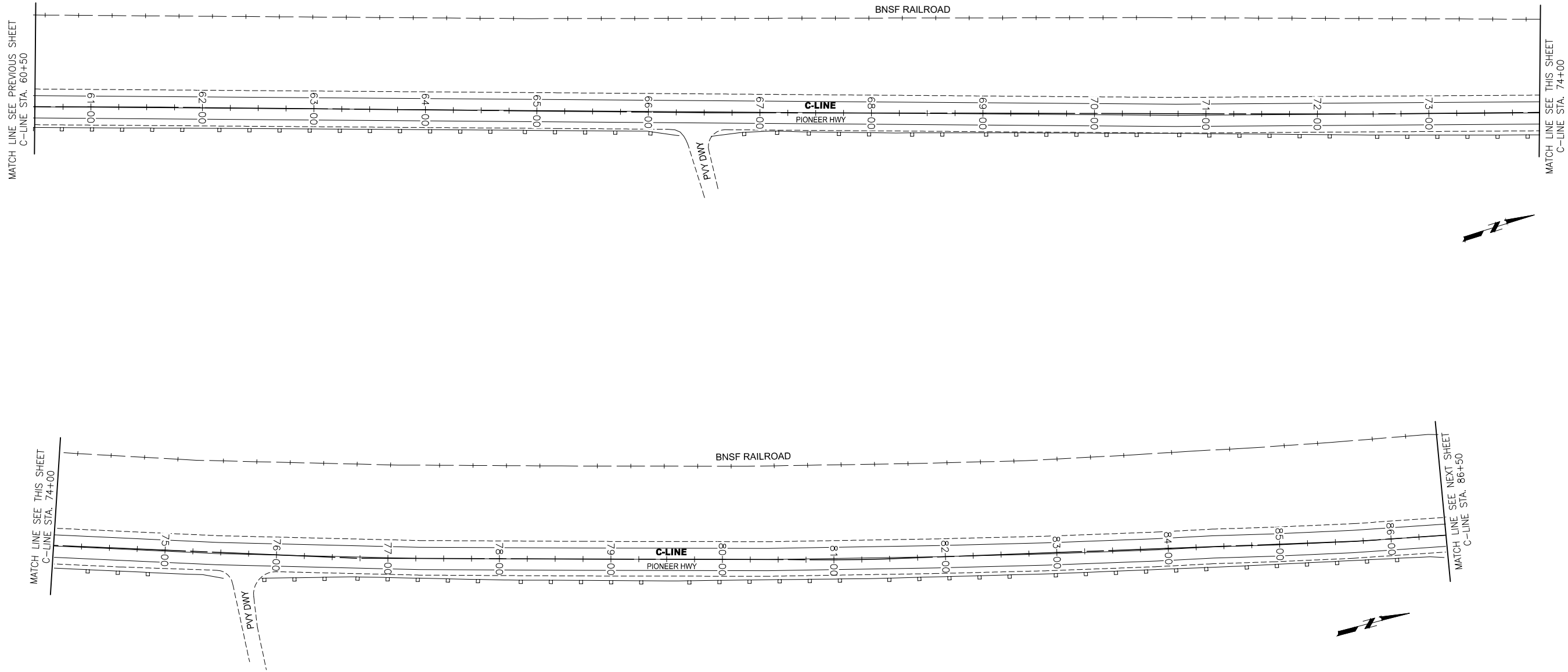
SITE PLAN

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

SHEET  
**04 OF 12**

CALL TWO (2)  
BUSINESS DAYS  
BEFORE YOU  
DIG

# PIONEER HIGHWAY REPAIR, PLANING, AND PAVING PLAN (SCHEDULE B)

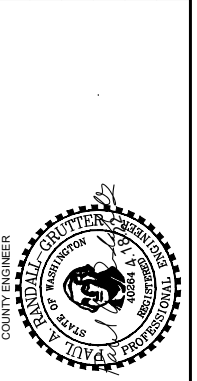


- GENERAL NOTES:**
- FOR PLANING AND PAVING LIMITS, DETAILS, AND LOCATIONS, SEE THE ROADWAY SECTIONS, AND PLANING DETAILS ON SHEET 7.
  - PROTECT SURVEY MONUMENT CASE AND COVER TO AVOID PENALTY PER RCW 55.04.015 AND WAC 332-120-040
  - ALL MEASUREMENTS ARE IN FEET UNLESS OTHERWISE NOTED.



**SKAGIT COUNTY  
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PROJECT LOCATED NEAR: MOUNT VERNON, WA	
SEC. 19, 30 & 31; T33N; R4E	

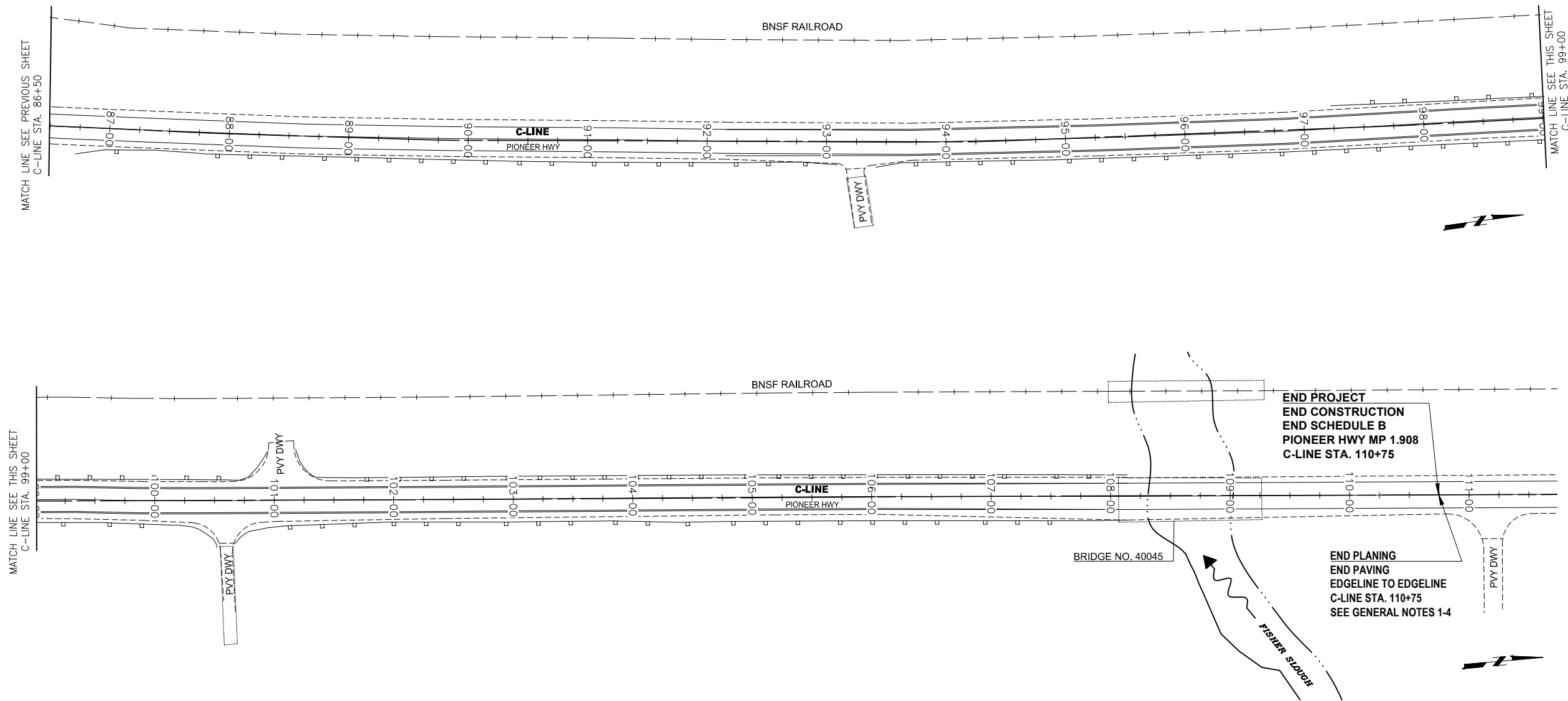
**2022 HMA OVERLAY**

SITE PLAN

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

SHEET  
**05 OF 12**

## PIONEER HIGHWAY REPAIR, PLANING, AND PAVING PLAN (SCHEDULE B)



**PLANING/PAVING APPROACH SCHEDULE**

ROAD	STATION	LT/RT	W1	W2	LENGTH	DEPTH	S.Y.	TONS
MILLTOWN RD*	C 52+00	RT	94	25	160	0.17	523	60.7
MILLTOWN CROSSING RD*	C 51+86	LT	93	23	94	0.17	278	32.2
<b>Total =</b>							<b>801 S.Y.</b>	<b>93 Tons</b>

DIMENSIONS ARE APPROXIMATE. CONTRACTOR TO FIELD FIT AT THE DIRECTION OF THE ENGINEER.

\*SEE MILLTOWN DETAIL SHEET 07

**TEMPORARY PAVEMENT MARKING**

SCHEDULE	FROM STA.	TO STA.	NUMBER OF LINES	L.F.
SCHEDULE A	C 10+00	C 51+00	3	12300
SCHEDULE B	C 51+00	C 110+75	3	17925
<b>TOTAL</b>				<b>30225</b>

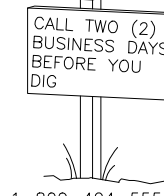
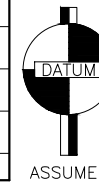
\* CONTRACTOR SHALL USE TEMPORARY FLEXIBLE RAISED PAVEMENT MARKERS IN ACCORDANCE WITH STANDARD SPECIFICATION 8-23.3(4)A4.

**PLASTIC STOP LINE**

ROAD APPROACH	STATION	OFFSET	L.F.
MILLTOWN RD	M 6+47.13	0.44' LT	17
MILLTOWN CROSSING RD	M 6+05.21	0.50' RT	13
MILLTOWN CROSSING RD	M 5+52.47	0.74' LT	9
MILLTOWN CROSSING RD	M 5+14.71	0.49' RT	8
<b>SCHEDULE B - TOTAL</b>			<b>47</b>

**GENERAL NOTES:**

1. FOR PLANING AND PAVING LIMITS, DETAILS, AND LOCATIONS, SEE THE ROADWAY SECTIONS, AND PLANING DETAILS ON SHEET 7.
2. PROTECT SURVEY MONUMENT CASE AND COVER TO AVOID PENALTY PER RCW 55.04.015 AND WAC 332-120-040
3. ALL MEASUREMENTS ARE IN FEET UNLESS OTHERWISE NOTED.

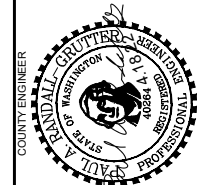


1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

SHEET  
**06 OF 12**

2022 HMA OVERLAY

SITE PLAN



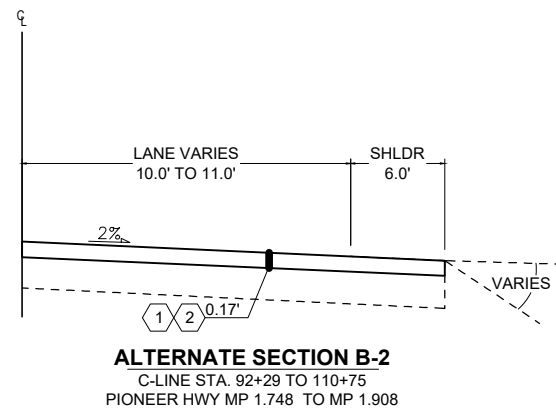
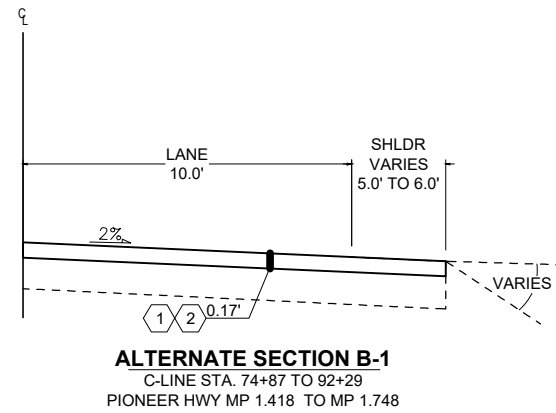
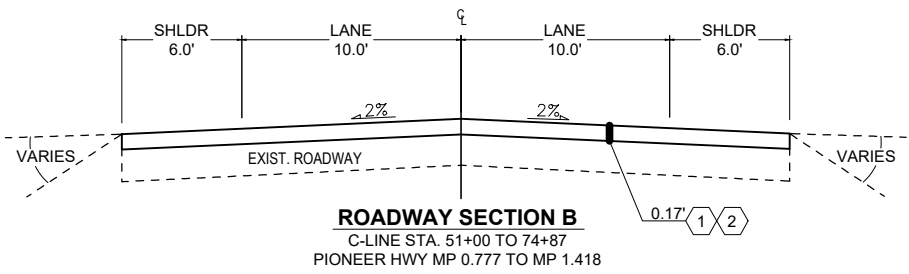
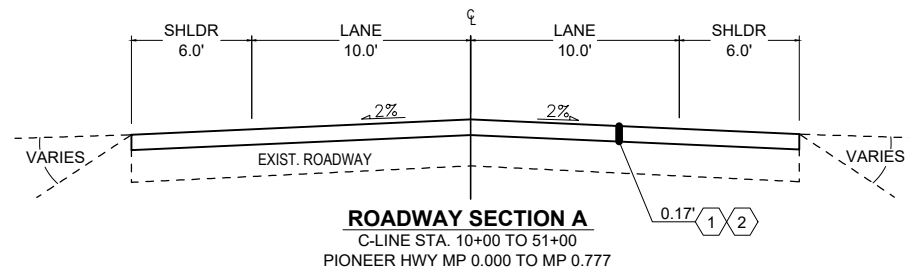
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SKAGIT COUNTY  
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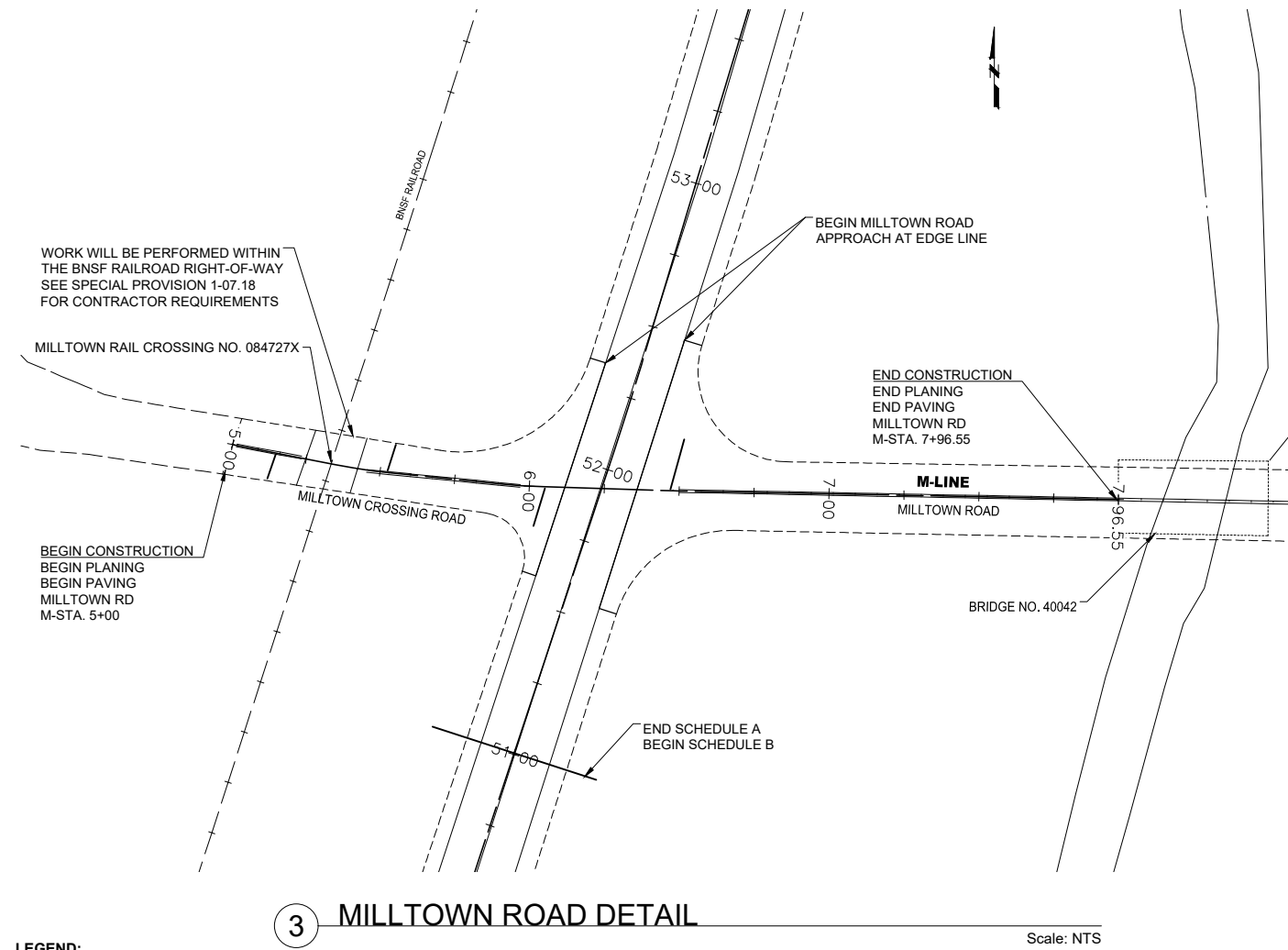
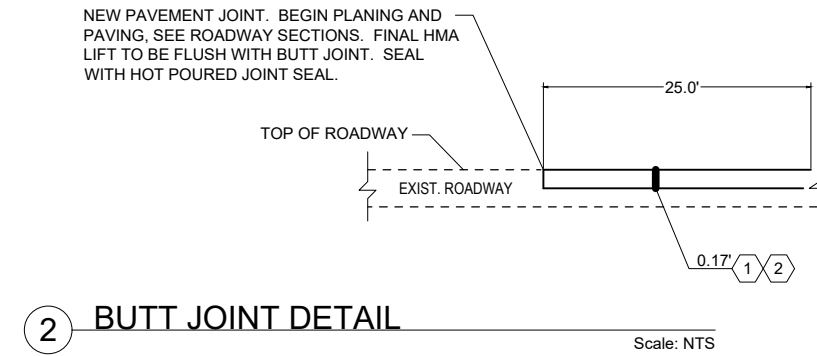
NO.	REVISIONS	DATE

# PIONEER HIGHWAY ROADWAY SECTION AND DETAILS



## 1 ROADWAY SECTIONS

Scale: NTS



### LEGEND:

- ① PLANING BITUMINUS PAVEMENT
- ② HMA CL 1/2 IN. PG 58H-22

### GENERAL NOTES:

1. ALL DIMENSIONS SHOWN IN PLANS ARE IN FEET UNLESS OTHERWISE NOTED.
2. ALL DEPTHS SHOWN ARE COMPACTED DEPTHS.

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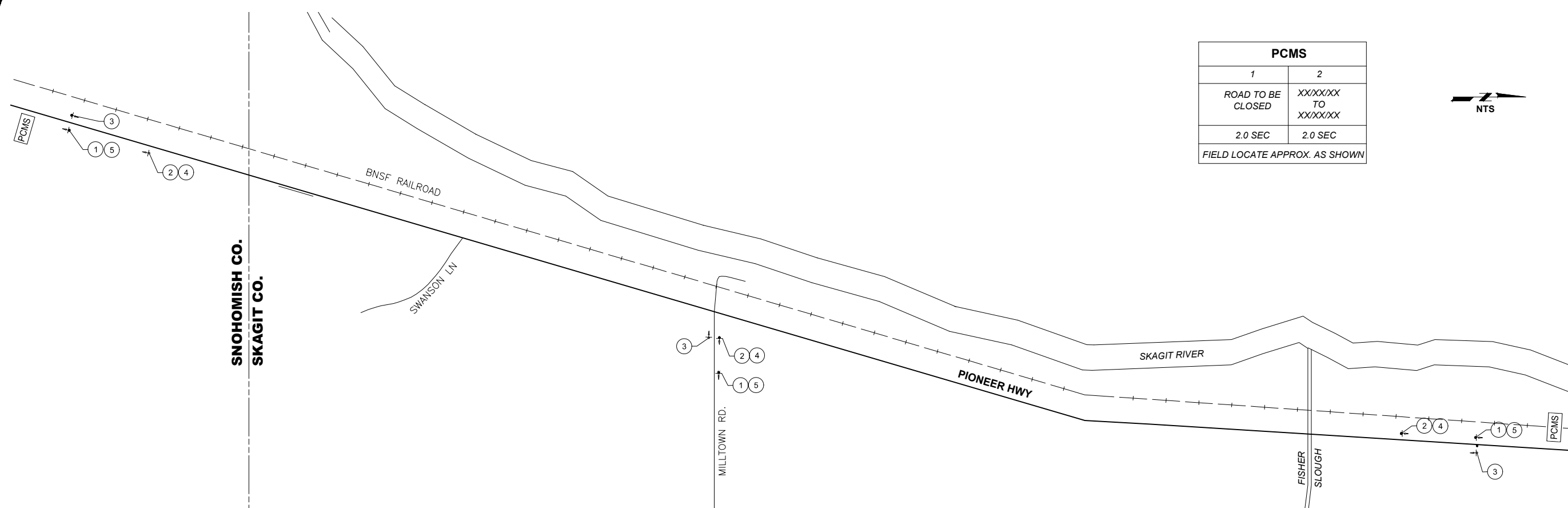
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SEC 19.30 §31.133N, R4E	

**2022 HMA OVERLAY**  
ROADWAY SECTIONS & DETAILS

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY



SNOHOMISH CO.  
SKAGIT CO.

**SCHEDULE A**

LEADER NO.	CONSTRUCTION SIGN	QUANTITY	SIZE	(S.F.)
①	ROAD WORK AHEAD W20-1	3	48"x48"	48
②*	MOTORCYCLES USE EXTREME CAUTION W21-1701P	3	36"x18"	13.5
③	END OF ROAD WORK G20-2	3	48"x24"	24
④*	GROOVED PAVEMENT W20-1	3	48"x48"	48
⑤	PIONEER HWY G20-2 (MOD1)	3	48"x24"	24
*COVER SIGNS UNLESS CONDITION EXISTS		TOTAL S.F. = 157.5		

CONSTRUCTION SIGN CLASS A NOTES:

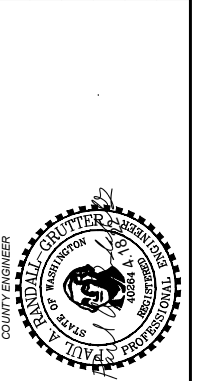
- SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MOST CURRENT M.U.T.C.D. ADOPTED BY WAC 468-95 AND IT'S MODIFICATIONS.
- SIGNS SHALL CONFORM TO THE 2021 WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- SIGNS SHALL NOT BE LOCATED WHERE THEY MAY CAUSE SIGHT DISTANCE PROBLEMS.
- IF WORK INCLUDES GROOVED PAVEMENT, ABRUPT LANE EDGES, STEEL PLATES, OR GRAVEL OR EARTH SURFACES, SIGNS SHALL BE PLACED STATING THE CONDITION, AS REQUIRED BY THE CURRENT M.U.T.C.D. & WAC 468-95.
- CONTRACTOR SHALL FURNISH ALL SIGNS.
- SIGNS SHALL BE MOUNTED ON 4X4 POSTS.
- CLASS B SIGNS ARE NOT SHOWN ON DRAWING.
- ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND DRIVEWAYS.

**SCHEDULE B**

LEADER NO.	CONSTRUCTION SIGN	QUANTITY	SIZE	(S.F.)
①	ROAD WORK AHEAD W20-1	2	48"x48"	32
②*	MOTORCYCLES USE EXTREME CAUTION W21-1701P	2	36"x18"	9
③	END OF ROAD WORK G20-2	2	48"x24"	16
④*	GROOVED PAVEMENT W20-1	2	48"x48"	32
⑤	PIONEER HWY G20-2 (MOD1)	2	48"x24"	16
*COVER SIGNS UNLESS CONDITION EXISTS		TOTAL S.F. = 105		

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SEC 19, 30 & 31, T33N, R4E

**2022 HMA OVERLAY**  
CLASS 'A' SIGNING PLAN

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

**BUFFER DATA**

**LONGITUDINAL BUFFER SPACE = B**

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	730

**TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R**

HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

**CHANNELIZATION DEVICE SPACING (FEET)**

MPH	TAPER	TANGENT
50-60	40	80
35-45	30	60
25-30	20	40

**MINIMUM TAPER LENGTH = L (FEET)**

LANE WIDTH (FEET)	POSTED SPEED LIMIT (MPH)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

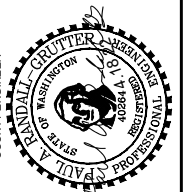
**SIGN SPACING = X (FEET)**

FREEWAYS/EXPRESSWAYS	55-70 MPH	1500±
RURAL HIGHWAY	60-65 MPH	800±
RURAL ROADS	45-55	500±
RURAL ROADS & URBAN ARTERIALS	35-40 MPH	350±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25-30 MPH	200±
URBAN STREETS	25 MPH-LESS	100±

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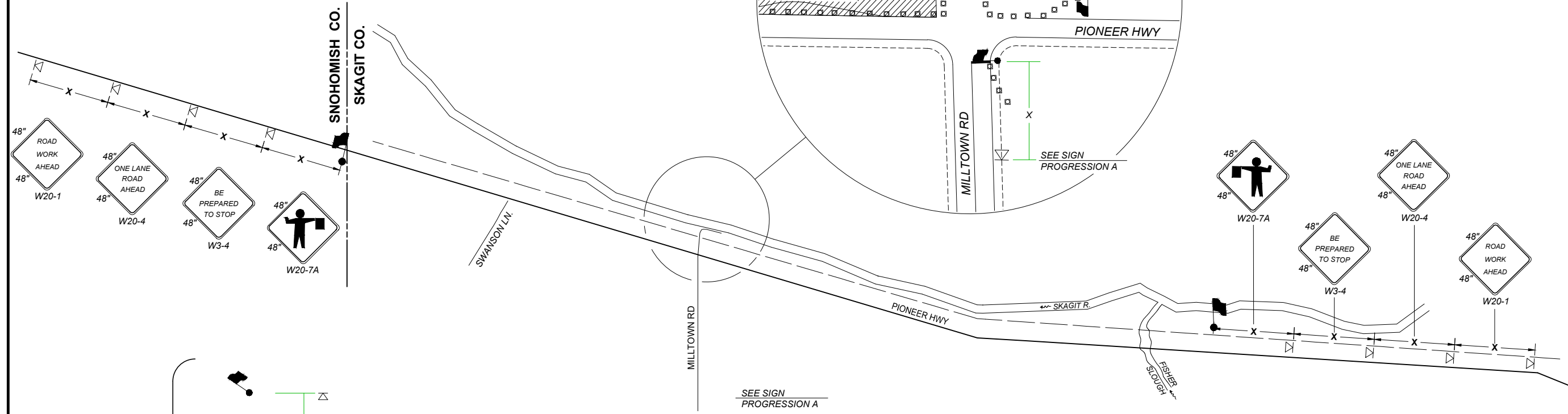
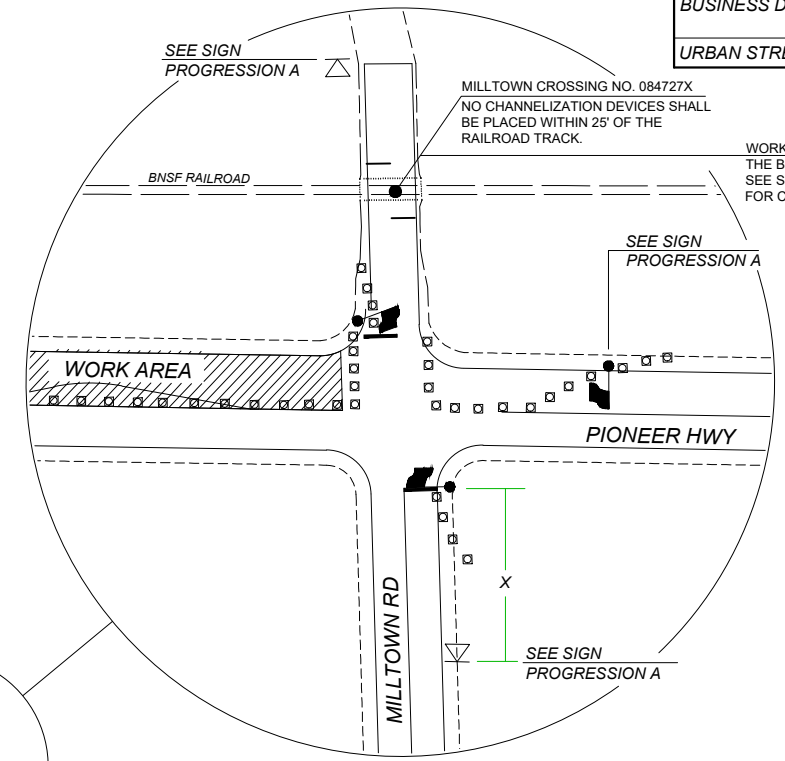
NO.	REVISIONS	DATE



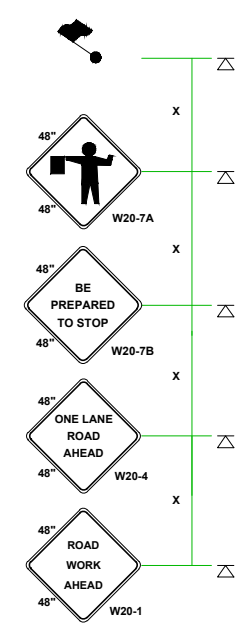
COUNTY ENGINEER  
PROJECT NO.: ESHMA22-1  
FED. AID NO.: ###  
DESIGNED BY: RS  
CHECKED BY: SA  
DRAWN BY: RS  
APPROVED BY: PAR  
PROJECT LOCATED NEAR:  
MOUNT VERNON, WA  
SEC 19, 30, & 31; T33N; R4E

**2022 HMA OVERLAY**  
WORKZONE TRAFFIC CONTROL PLANS

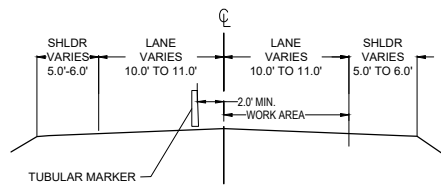
1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY  
SHEET  
**09 OF 12**



**SIGN PROGRESSION A**



**TYPICAL SINGLE LANE CLOSURE TC-1**



**TYPICAL LANE CLOSURE SECTION**

**LEGEND**

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PILOT VEHICLE
- MOTORIST VEHICLE

**GENERAL NOTES:**

- ALL SIGNS SHOWN ON TRAFFIC CONTROL PLANS ARE CONSTRUCTION SIGNS CLASS "B" UNLESS OTHERWISE SPECIFIED.
- ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
- TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
- ALL TAPERS SHALL HAVE A SIX DEVICE MINIMUM

**NOTES:**

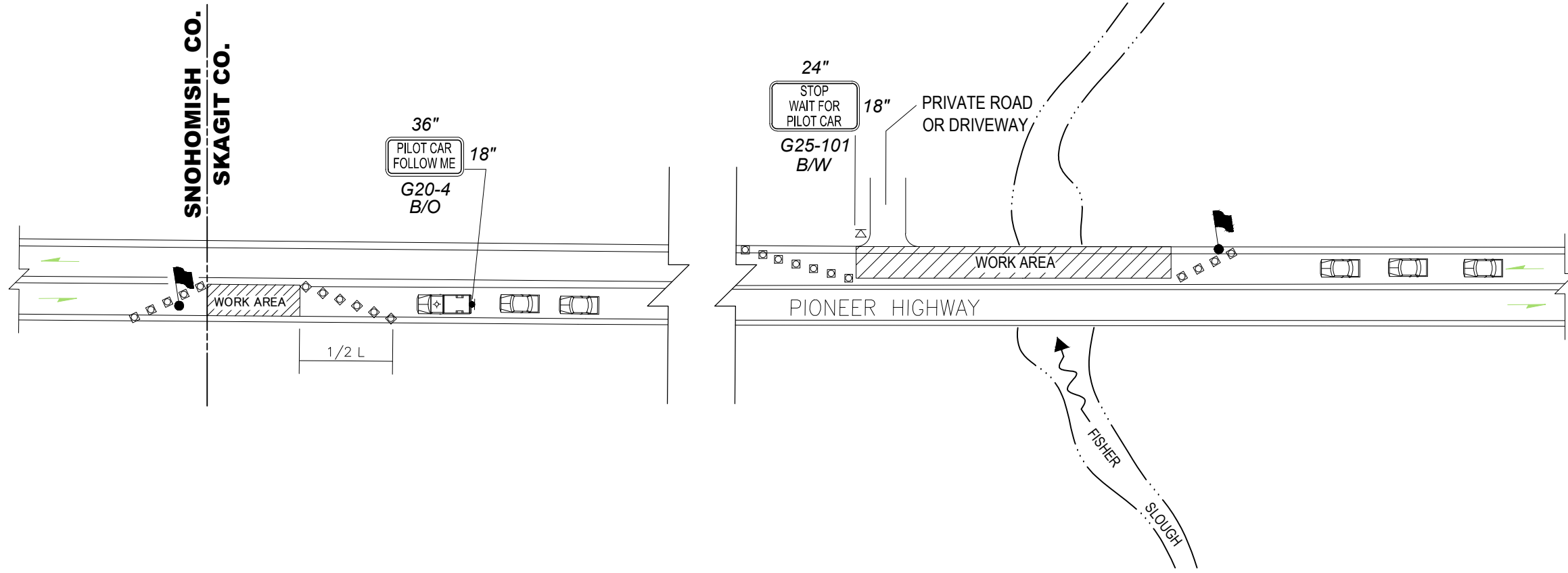
- THIS TRAFFIC CONTROL PLAN IS FOR DAYLIGHT HOURS ONLY
- FOR LEFT LANE CLOSURES, USE SIGNS W20-5(L), W4-2(R) AND CHANGE PCMS MESSAGE 1 TO "LEFT LANE CLOSED".
- THE CONTRACTOR SHALL PLACE A SET OF THREE TRAFFIC DRUMS IN THE WORK ZONE. AS WORK PROCEEDS AWAY FROM THE MERGING TAPER AN ADDITIONAL SET OF DRUMS WILL BE REQUIRED FOR EVERY 1000' OF CLOSED LANE.
- SEE SPECIAL PROVISION "CONSTRUCTION UNDER TRAFFIC".

SIGN SPACING = X (FEET)		
FREEWAYS/EXPRESSWAYS	55-70 MPH	1500±
RURAL HIGHWAY	60-65 MPH	800±
RURAL ROADS	45-55	500±
RURAL ROADS & URBAN ARTERIALS	35-40 MPH	350±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25-30 MPH	200±
URBAN STREETS	25 MPH-LESS	100±

MINIMUM TAPER LENGTH = L (FEET)											
LANE WIDTH (FEET)	POSTED SPEED LIMIT (MPH)										
	25	30	35	40	45	50	55	60	65	70	
10	105	150	205	270	450	500	550	-	-	-	
11	115	165	225	295	495	550	605	660	-	-	
12	125	180	245	320	540	600	660	720	780	840	

BUFFER DATA											
LONGITUDINAL BUFFER SPACE = B											
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70	
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	730	
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R											
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.						HOST VEHICLE WEIGHT > 22,000 lbs.					
< 45 MPH	45-55 MPH	> 55 MPH				< 45 MPH	45-55 MPH	> 55 MPH			
100'	123'	172'				74'	100'	150'			

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50-60	40	80
35-45	30	60
25-30	20	40



- LEGEND**
- FLAGGING STATION
  - TEMPORARY SIGN LOCATION
  - CHANNELIZING DEVICES
  - PILOT VEHICLE
  - MOTORIST VEHICLE

**TYPICAL  
PILOT CAR OPERATION  
TC-2**

NOT TO SCALE

**NOTES**

- REFER TO SHEET TC1 FOR ADDITIONAL SIGNING AND FLAGGING DETAILS NOT SHOWN.
- CHANNELIZING DEVICES ARE RECOMMENDED ALONG CENTERLINE TO SEPARATE TRAFFIC FROM WORK OPERATION. DEVICES ARE REQUIRED AT TAPERS TO SHIFT TRAFFIC MOVEMENT BETWEEN LANES AND TO PROTECT FLAGGING STATIONS.
- SIGN G25-101 IS RECOMMENDED FOR NON-STOP SIGN CONTROLLED APPROACHES SUCH AS PRIVATE ROADS AND DRIVEWAYS. THE SIGN IS NOT REQUIRED TO BE ALUMINUM SUBSTRATE AND CAN BE MADE OF ALTERNATIVE MATERIALS.
- A CONSTRUCTION PERMIT IS IN EFFECT FOR WZTC PROPOSED WITHIN SNOHOMISH COUNTY ROW. CONTRACTOR SHALL ABIDE BY ALL PERMIT REQUIREMENTS. SEE SPECIAL PROVISIONS.

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1800 CONTINENTAL PLACE  
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NO.	REVISIONS	DATE

**COUNTY ENGINEER**  
PAUL A. RANDALL - CRUTTER  
STATE OF WASHINGTON  
40884 V. 0808  
PROFESSIONAL

PROJECT NO.: ESHMA22-1	DRAWN BY: RS	APPROVED BY: PAR
FED. AID NO.: ###	DESIGNED BY: RS	CHECKED BY: SA
PROJECT LOCATED NEAR: MOUNT VERNON, WA SEC 19, 30, & 31; T33N; R4E		

**2022 HMA OVERLAY**

WORKZONE TRAFFIC CONTROL PLANS

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

SHEET  
**10 OF 12**

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' (2)
URBAN STREETS	25 MPH OR LESS	100' (2)

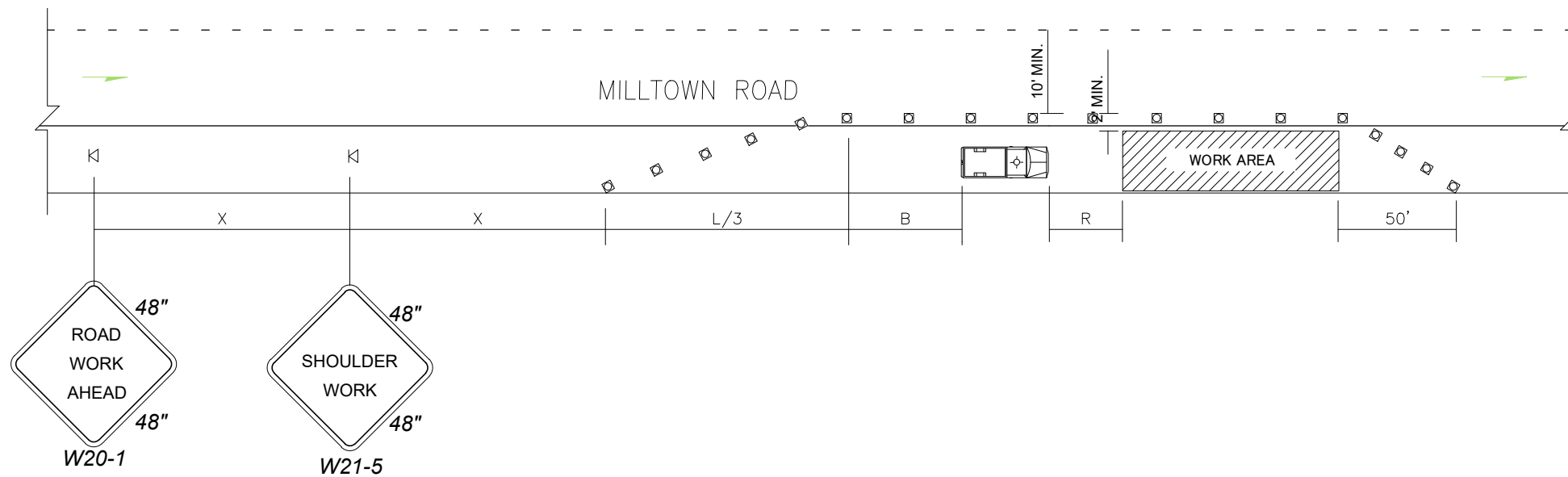
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R										
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.					HOST VEHICLE WEIGHT > 22,000 lbs.					
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH					
100'	123'	172'	74'	100'	150'					
PROTECTIVE VEHICLE (WORK VEHICLE) = R										
NO SPECIFIED DISTANCE REQUIRED										

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-

USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'



**SHOULDER CLOSURE - LOW SPEED  
(40 MPH OR LESS)  
TCP-5**

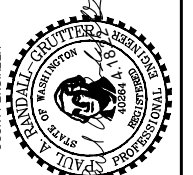
NOT TO SCALE

LEGEND	
⊓	TEMPORARY SIGN LOCATION
⊠	CHANNELIZING DEVICES
⊡	PROTECTIVE VEHICLE

**NOTES**

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
2. ALL SIGNS ARE BLACK ON ORANGE.

**SKAGIT COUNTY  
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COUNTY ENGINEER  
PROJECT NO.: ESHMA22-1  
FED. AID NO.: ###  
DRAWN BY: RS  
CHECKED BY: SA  
APPROVED BY: PAR  
PROJECT LOCATED NEAR:  
MOUNT VERNON, WA  
SEC 19, 30 % 31, T33N, R4E

**2022 HMA OVERLAY**  
WORKZONE TRAFFIC CONTROL PLANS

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

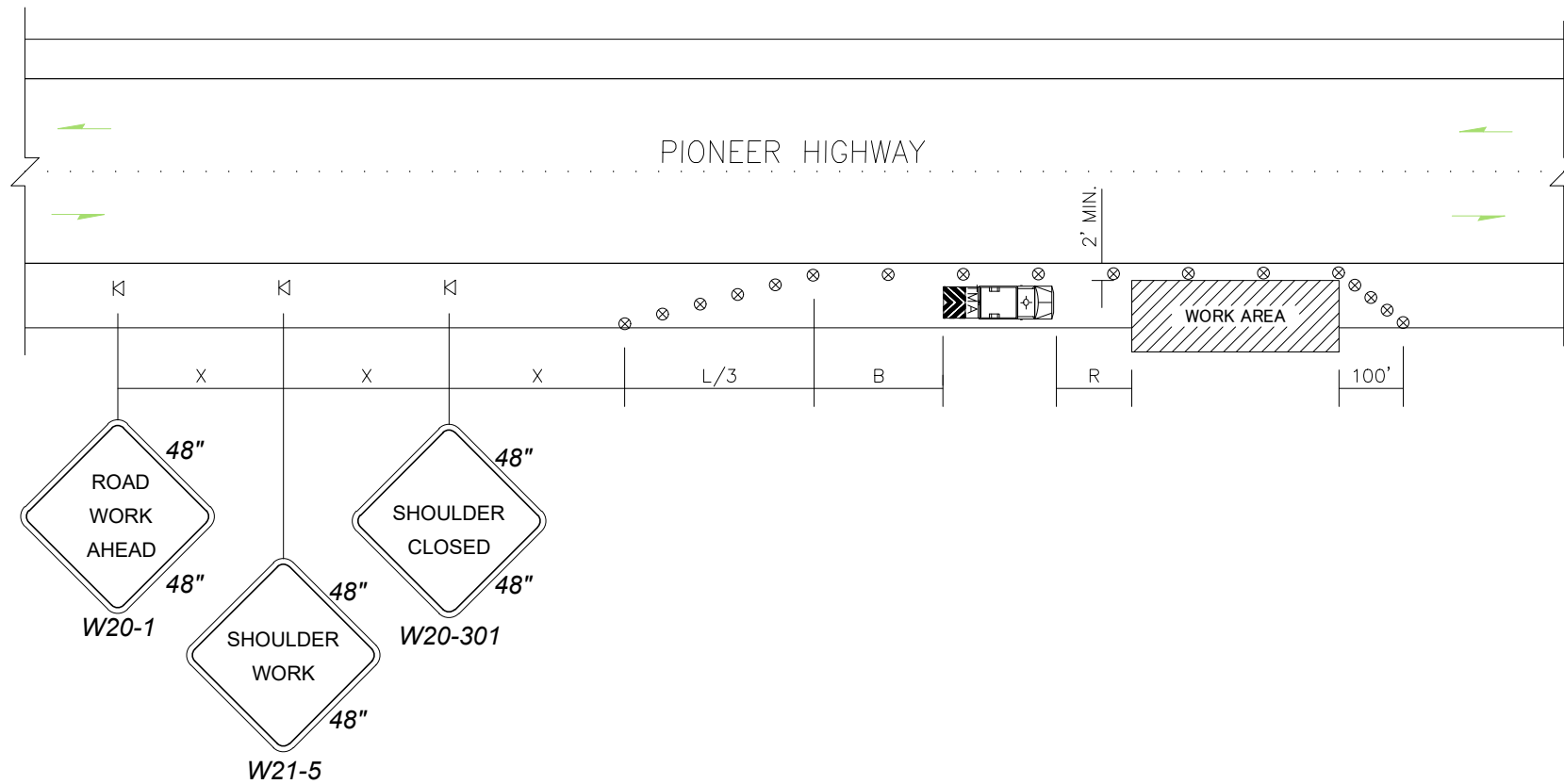
SHEET  
**11 OF 12**

SIGN SPACING = X (FEET)		
FREEWAYS/EXPRESSWAYS	55-70 MPH	1500±
RURAL HIGHWAY	60-65 MPH	800±
RURAL ROADS	45-55	500±
RURAL ROADS & URBAN ARTERIALS	35-40 MPH	350±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25-30 MPH	200±
URBAN STREETS	25 MPH-LESS	100±

MINIMUM TAPER LENGTH = L (FEET)										
LANE WIDTH (FEET)	POSTED SPEED LIMIT (MPH)									
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BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	730
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R										
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.						HOST VEHICLE WEIGHT > 22,000 lbs.				
< 45 MPH	45-55 MPH	> 55 MPH				< 45 MPH	45-55 MPH	> 55 MPH		
100'	123'	172'				74'	100'	150'		

CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50-60	40	80
35-45	30	60
25-30	20	40



**SHOULDER CLOSURE - HIGH SPEED  
TCP-6**

NOT TO SCALE

**LEGEND**

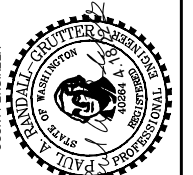
- ⊓ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- ▨ TRANSPORTABLE ATTENUATOR

**NOTES**

1. NO ENCROACHMENT IN TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED.
2. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT) O.C.
3. ALL SIGNS ARE BLACK ON ORANGE.

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NO.	REVISIONS	DATE



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**2022 HMA OVERLAY**

WORKZONR TRAFFIC CONTROL PLANS

1 INCH SCALE BAR  
ADJUST SCALE ACCORDINGLY

SHEET  
**12 OF 12**