

- 1. THIS PLAN IS USED IN CONJUNCTION WITH A LONG-TERM 3-LANE FREEWAY SINGLE RIGHT LANE CLOSURE STAGED TRAFFIC PLAN.
- 2. SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- 3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.
 "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- 4. ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED. WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- 5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES MINIATURE PCMS (~6' WIDE, 12+ INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- 6. PCMS1 AND TRAFFIC SENSOR A ARE OPTIONAL DURING SINGLE RIGHT LANE CLOSURES, BUT MAY REMAIN IN PLACE FOR THE DOUBLE RIGHT LANE CLOSURE.
- 7. ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- 8. WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- 9. IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- 10. IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ADE LESS THAN EE MILES.

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

LEGEND:	
Ø	TRAFFIC SAFETY DRUM
#	TRAFFIC SENSOR (SEE NOTE 6)
TTS#	PORTABLE TRAVEL TIME SENSOR (SEE NOTE 7)
SFTS→	SIDE FIRE TRAFFIC SENSOR (SEE NOTE 8)
((•	SMART SEQUENTIAL ARROW SIGN (CONNECTED)
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTES 5 & 6)
H	PAN-TILT-ZOOM (PTZ) CAMERA
	TEMPORARY BARRIER
K	TEMPORARY IMPACT ATTENUATOR (TL-3)

		MBOI	(n	GGER PEED nph)	C	TRAF ONDI	TION																		
		FF SL	_	35+ 35	-	ree F Slow																		(OPTIC	ONAL)
QUEUE		TRA	FFI	c s	E١	ISOI	RS	PCM	IS 9	PCM	S 8	PCM	S 7	PCM	IS 6	PCM	IS 5	PCN	IS 4	PCN	IS 3	PCM	S 2	PCN	1S 1
LOCATION	Н	G	F	E [D	CE	BA	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
(miles)		TR	\FF!	c cc	DNC	OITIC	1	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
None	FF	FF	FF	FF F	F	FF FI	FF		(Blank)		(Blank)		(Blank)		(B l ank)		(Blank)		(B l ank)	RIGHT LANE CLOSED	1 MILE AHEAD		(Blank)		(Blank)
< 0.5	FF	FF	FF	FF F	F	FF FI	F SL		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	SINGLE LANE CLOSURE	2 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 0.5 MILE		(Blank)
0.5 TO 1.4	FF	FF	FF	FF F	F	FFS	L SL		(Blank)		(Blank)		(Blank)		(Blank)	SINGLE LANE CLOSURE	3 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 1 MILES	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
1.41 TO 2.4	1 FF	FF	FF	FF F	F	SL SI	L SL		(Blank)	• •	(Blank)		(Blank)	SINGLE LANE CLOSURE	4.5 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 2 MILES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
2.41 TO 3.4	1 FF	FF	FF	FF S	iL S	SL S	L SL		(Blank)		(Blank)	SINGLE LANE CLOSURE	6 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 3 MILES	2 MILES TO MERGE POINTS	USE ALL 3 LANES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
3.41 TO 4.9	FF	FF	FF :	SL S	iL S	SL S	L SL		(Blank)	SINGLE LANE CLOSURE	7.5 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 4.5 MILES	3 MILES TO MERGE POINTS	USE ALL 3 LANES	2 MILES TO MERGE POINTS	USE ALL 3 LANES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
4.91 TO 6.4	1 FF	FF	SL	SL S	SL S	SL S	L SL	CLOSURE	9 MILES AHEAD	TRAFFIC BACKUPS PRESENT	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 6 MILES	4.5 MILES TO MERGE POINTS	USE ALL 3 LANES	3 MILES TO MERGE POINTS	3 LANES	2 MILES TO MERGE POINTS	USE ALL 3 LANES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
6.41 TO 7.9	FF	SL	SL	SL S	SL S	SL S	LSL	LANE CLOSURE 9 MILES	## MINUTE DELAY	SLOW OR STOPPED TRAFFIC	NEXT 7.5 MILES	6 MILES TO MERGE POINTS	USE ALL 3 LANES	4.5 MILES TO MERGE POINTS	USE ALL 3 LANES	3 MILES TO MERGE POINTS	USE ALL 3 LANES	2 MILES TO MERGE POINTS	USE ALL 3 LANES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL
7.91+	SL	SL	SL	SL S	iL S	SL S	LSL	SLOW OR STOPPED TRAFFIC	NEXT 9 MILES	LANE CLOSURE 7.5 MILES	## MINUTE DELAY	6 MILES TO MERGE POINTS	USE ALL 3 LANES	4.5 MILES TO MERGE POINTS	USE ALL 3 LANES	3 MILES TO MERGE POINTS	USE ALL 3 LANES	2 MILES TO MERGE POINTS	USE ALL 3 LANES	ZIPPER MERGES AHEAD	USE LEFT LANE TOO	ZIPPER MERGE HERE	TAKE TURNS	ZIPPER MERGING HELPS	MINIMIZE DELAYS FOR ALL

9-MILE SMART WORK ZONE SYSTEM FREEWAY (3 LANES): SINGLE RIGHT LANE CLOSURE

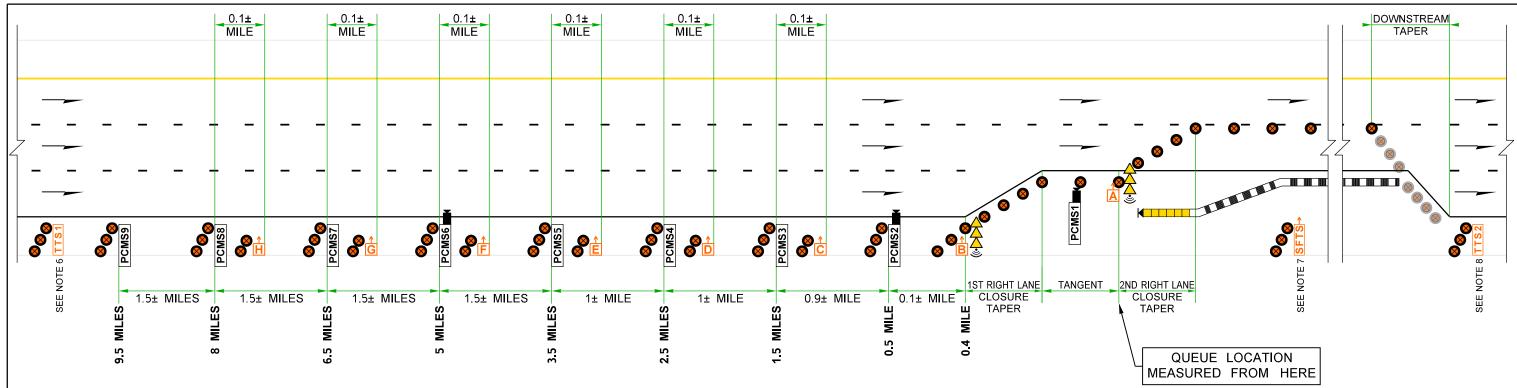
NOT TO SCALE

DATE

FILE NAME C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\176Fwy9MileSWZS2Rt.dgn TIME 1:54:31 PM STATE FED.AID PROJ.NO. DATE 1/5/2024 10 WASH PLOTTED BY LintzF JOB NUMBER DESIGNED BY ENTERED BY CHECKED BY CONTRACT NO. LOCATION NO. PROJ. ENGR. BY REGIONAL ADM. REVISION DATE



Plot 1 PLAN REF NO TC176 2 TYPICAL TRAFFIC CONTROL PLANS



NOTES:

- 1. THIS PLAN IS USED IN CONJUNCTION WITH A INTERMEDIATE-TERM 3-LANE FREEWAY DOUBLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN.
- 2. SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- 3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.
 "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- 4. ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED. WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- 5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. MINIATURE PCMS (~6'WIDE, 12+INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- 6. ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- 7. WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- 8. IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- 9. IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ADEL LESS THAN SEMMINES. ARE LESS THAN 5.5 MILES.
 ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

LEGEND:	
8	TRAFFIC SAFETY DRUM
#	TRAFFIC SENSOR
TTS#	PORTABLE TRAVEL TIME SENSOR (SEE NOTE 6)
SFTS→	SIDE FIRE TRAFFIC SENSOR (SEE NOTE 7)
((•	SMART SEQUENTIAL ARROW SIGN (CONNECTED)
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 5)
H	PAN-TILT-ZOOM (PTZ) CAMERA
	TEMPORARY BARRIER
K	TEMPORARY IMPACT ATTENUATOR (TL-3)

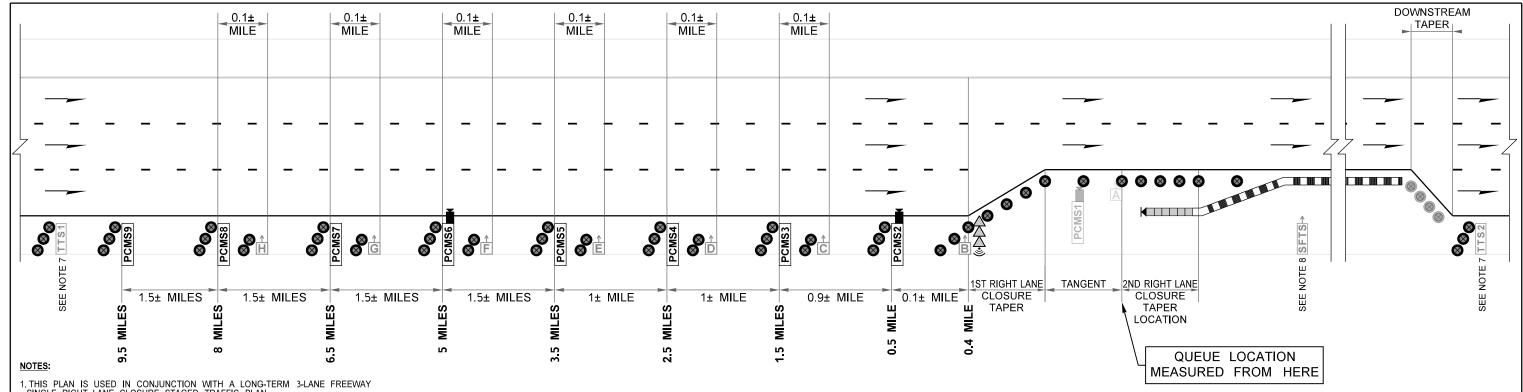
SYMBOL	TRIGGER SPEED (mph)	TRAFFIC CONDITION
FF	35+	Free Flow
SL	<35	Slowed

QUEUE LOCATION		TRAFFIC SENSORS							PCM	IS 9	PCM	S 8	PCM	IS 7	PCM	IS 6	PCM	IS 5	PCM	IS 4	PCN	IS 3	PCN	IS 2	PCN	1S 1
	Н	l G	ì F	ΙE	D	C	B	A	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
(miles)		TI	RAF	FIC	CO	NDI	TION	ı	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
																					2 RIGHT	1				
None	FF	FF	FF	FF	FF	F	FF	FF		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	LANES CLOSED	MILE AHEAD		(Blank)		(Blank)
	T					\top													DOUBLE	2	TRAFFIC	##	SLOW OR	NEXT		
< 0.5	FF	F FI	FF	FF	FF	F	F FF	= SL		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	0.5		(Blank)
																			CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILE		
																	DOUBLE	3	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	TAKE	ZIPPER	TAKE
0.5 TO 1.4	FF	F FI	FF	FF	FF	F	F SI	_ SL		(Blank)		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	1.5	MERGE	TURNS	MERGE	TURNS
																	CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	HERE		HERE	
															DOUBLE	4.5	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
1.41 TO 2.4	l FF	F FI	FF	FF	FF	₽S	L SI	_ SL		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	2.5	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	_														CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	AHEAD	LANE TOO	HERE		HERE	
				_		_							DOUBLE	6	TRAFFIC	##	SLOW OR	NEXT	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
2.41 TO 3.4	l FF	FFI	FF	FIFE	SL	.∣S	L SI	₋∣SL		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	3.5	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	_		_			+							CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HERE	
			_					۱			DOUBLE	7.5	TRAFFIC	##	SLOW OR	NEXT	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
3.41 TO 4.9) F	FFI	- FF	- รเ	. SL	. S	LSI	_ SL		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	5	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	╇	_	4	_		+				_	CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HERE	
404 70 64	۱.,			١.,	۵.			۵.	DOUBLE	9	TRAFFIC	##	SLOW OR	NEXT	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
4.91 TO 6.4	-	F	- 51	- 51	. SL	- 5	LSI	- SL		MILES	BACKUPS	MINUTE	STOPPED	6.5	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	-	-	+	+-	_	+	_		CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	T. 1.1	HERE	T.1./F
C 44 TO 70	۱.,		61	61	61	_		61	2 LANE	##	SLOW OR	NEXT	6 MILES	USE	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE LEFT	ZIPPER	TAKE	ZIPPER	TAKE
6.41 TO 7.9	וי	r 51	- 51	- SI	. SL	- 3	r SI	- SL	CLOSURE 9 MILES	MINUTE DELAY	STOPPED TRAFFIC	8 MILES	TO MERGE POINTS	ALL 3 LANES	TO MERGE POINTS	ALL 3 LANES	TO MERGE POINTS	ALL 3 LANES	TO MERGE POINTS	ALL 3 LANES	MERGES AHEAD	LANE TOO	MERGE HERE	TURNS	MERGE HERE	TURNS
	╀	-	+	+	+	+											3 MILES				ZIPPER			TAKE		TAKE
7.91+	eı	ı	e.	e.	e i	6	ı eı	e i	SLOW OR STOPPED	NEXT	2 LANE CLOSURE	## MINUTE	6 MILES TO MERGE	USE ALL	4.5 MILES TO MERGE	USE ALL	TO MERGE	USE ALL	2 MILES TO MERGE	USE ALL	MERGES	USE LEFT	ZIPPER MERGE	TURNS	ZIPPER MERGE	TURNS
1.51+	ادا	L OI	- 31	اد -	. SL	- S	LOI	_ SL	TRAFFIC	9.5 MILES	7.5 MILES	DELAY	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	IURNS	HERE	IURNS
									INAFFIC	IVIILES	1.5 WILES	DELAT	FUINTS	3 LANES	FOINTS	3 LAINES	FOINTS) LANES	FUINTS) LAINES	ANEAD	LAINE 100	HERE		HEKE	

9-MILE SMART WORK ZONE SYSTEM FREEWAY (3 LANES): DOUBLE RIGHT LANE CLOSURE

NOT TO SCALE

								NOT TO SCALL			
FILE NAME	C:\Users\LintzF\OneDrive - W	/ashIngton State Department of Transportation\Desktop	Work Zone TO	CPs\176	6Fwy9MlleSWZS	52Rt.dgn					Plot 2
TIME	1:54:31 PM				REGION STATE	FED.AID PROJ.NO.	1				PLAN REF NO
DATE	1/5/2024				10 WASH						TC176
PLOTTED BY	LintzF										10170
DESIGNED BY					JOB NUMBER				Washington State		SHEET
ENTERED BY]		_		2
CHECKED BY					CONTRACT NO.	LOCATION NO.			Department of Transportation		OF OF
PROJ. ENGR.							— DATE	DATE	-	TYPICAL TRAFFIC CONTROL PLANS	2 SHEETS
REGIONAL ADM.	•	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX			S.ILLIS



- 1. THIS PLAN IS USED IN CONJUNCTION WITH A LONG-TERM 3-LANE FREEWAY SINGLE RIGHT LANE CLOSURE STAGED TRAFFIC PLAN.
- 2. SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- 3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.
 "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- 4. ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED. WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- 5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES MINIATURE PCMS (~6' WIDE, 12+ INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- 6. PCMS1 AND TRAFFIC SENSOR A ARE OPTIONAL DURING SINGLE RIGHT LANE CLOSURES, BUT MAY REMAIN IN PLACE FOR THE DOUBLE RIGHT LANE CLOSURE.
- 7. ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- 8. WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- 9. IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- 10. IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ADE LESS THAN EE MILES.

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

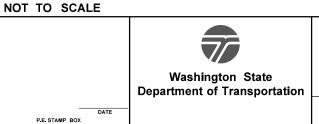
LEGEND:	
Ø	TRAFFIC SAFETY DRUM
#	TRAFFIC SENSOR (SEE NOTE 6)
TTS#	PORTABLE TRAVEL TIME SENSOR (SEE NOTE 7)
SFTS→	SIDE FIRE TRAFFIC SENSOR (SEE NOTE 8)
((•D)>	SMART SEQUENTIAL ARROW SIGN (CONNECTED)
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTES 5 & 6)
H	PAN-TILT-ZOOM (PTZ) CAMERA
	TEMPORARY BARRIER
K	TEMPORARY IMPACT ATTENUATOR (TL-3)

		S	YMBO	(NGGE PEED mph)	_ C	TRAFFIC	N																		
			FF SL	-	35+ <35		ree Flo Slowed																		(OPTIC	ONAL)
	JEUE ATIOI		TR	۱FF	IC :		ISORS	\neg	PCM	S 9	PCM	IS 8	PCM	IS 7	PCM	S 6	PCM	IS 5	PCN	IS 4	PCN	IS 3	PCM	S 2	PCN	IS 1
1 -	iles)	۲,					CB	Α	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
 ("	illes)	+	11	CAFF		ONL	ITION	_	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC RIGHT	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
N	lone	F	FF	FF	FF	FF	FFF	FF		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	LANE CLOSED	MILE AHEAD		(Blank)		(Blank)
		+	+	+		_		\dashv			_						_		SINGLE	2	TRAFFIC	##	SLOW OR	NEXT	_	
<	0.5	FI	F FF	FF	FF	FF I	FFF	SL		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	0.5		(Blank)
		_						_											CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILE		
	TO 4	.	_ _	.		.		۱. ا		(51 1)		(51 1)		(51		(D)	SINGLE	3	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	TAKE	ZIPPER	MINIMIZE
0.5	10 1.	³∣⊦ı	-		FF	++ 1	FSL			(Blank)		(B l ank)	la al	(Blank)		(B l ank)	LANE CLOSURE	MILES AHEAD	BACKUPS PRESENT	MINUTE DELAY	STOPPED TRAFFIC	1 MILES	MERGE HERE	TURNS	MERGING HELPS	DELAYS FOR ALL
		+	+	+		+		\dashv							SINGLE	4.5	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	MINIMIZE
1.41	TO 2	4 FI	FİFF	FF	FF	FF	SLISL	sL		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	2	MERGES	LEFT	MERGE	TURNS	MERGING	DELAYS
										, ,		, ,		, ,	CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	AHEAD	LANE TOO	HERE		HELPS	FOR ALL
			_ _	.		.		_					SINGLE	6	TRAFFIC	##	SLOW OR	NEXT	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	MINIMIZE
2.41	TO 3.	4 F	F FF	FF	FF	SL∣	SLSL	SL		(Blank)		(B l ank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	3	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGING	DELAYS
		+	+	+		+		\dashv			SINGLE	7.5	CLOSURE TRAFFIC	AHEAD ##	PRESENT SLOW OR	DELAY NEXT	TRAFFIC 3 MILES	MILES USE	POINTS 2 MILES	3 LANES USE	AHEAD ZIPPER	LANE TOO	HERE ZIPPER	TAKE	HELPS ZIPPER	FOR ALL MINIMIZE
3 41	TO 4	٩F	F	FE	SI	sı İş	SI SI	sı İ		(Blank)	LANE	MILES	BACKUPS	## MINUTE	STOPPED	4.5	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGING	DELAYS
7.71	10 4	٠١' '	.	1		۱,		ا۔		(Diamit)	CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	1011110	HELPS	FOR ALL
		┰							SINGLE	9	TRAFFIC	##	SLOW OR	NEXT	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	MINIMIZE
4.91	TO 6.	4 FI	F FF	∶∣SL	SL	SL∣S	SLSL	SL	LANE	MILES	BACKUPS	MINUTE	STOPPED	6	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGING	DELAYS
		-	+	₩		_		_	CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	TA1/5	HELPS	FOR ALL
6 44	TO 7.	ᇷ	E 61	le1	e	ا اه	sı eı	ارو	LANE CLOSURE	## MINUTE	SLOW OR STOPPED	NEXT 7.5	6 MILES TO MERGE	USE ALL	4.5 MILES TO MERGE	USE ALL	3 MILES TO MERGE	USE ALL	2 MILES TO MERGE	USE ALL	ZIPPER MERGES	USE LEFT	ZIPPER MERGE	TAKE TURNS	ZIPPER MERGING	MINIMIZE DELAYS
0.41	10 /	7 [. SL	SL.	OL	SL SL	3L	9 MILES	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	IORNO	HELPS	FOR ALL
		\top	\top	+	\vdash	\dashv			SLOW OR	NEXT	LANE	##	6 MILES	USE	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	MINIMIZE
7	.91+	S	LSL	. SL	SL	SLS	SLSL		STOPPED	9	CLOSURE	MINUTE	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGING	DELAYS
		┸							TRAFFIC	MILES	7.5 MILES	DELAY	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HELPS	FOR ALL

9-MILE SMART WORK ZONE SYSTEM FREEWAY (3 LANES): SINGLE RIGHT LANE CLOSURE

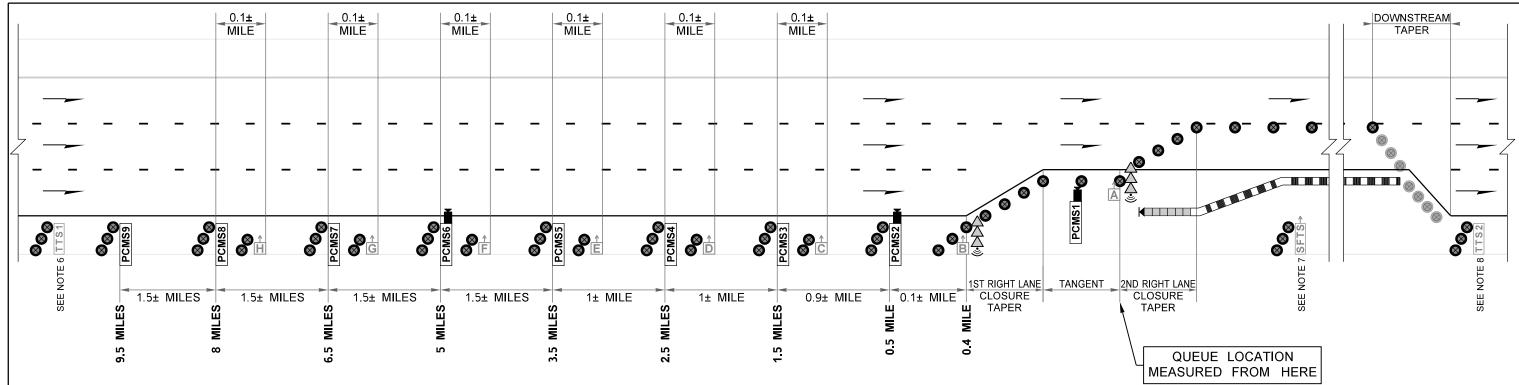
DATE

C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\176Fwy9MileSWZS2Rt.dgn FILE NAME TIME 1:54:32 PM STATE FED.AID PROJ.NO. DATE 1/5/2024 10 WASH PLOTTED BY LintzF JOB NUMBER DESIGNED BY ENTERED BY CHECKED BY CONTRACT NO. LOCATION NO. PROJ. ENGR. BY REGIONAL ADM. REVISION DATE



PLAN REF NO TC176 2 TYPICAL TRAFFIC CONTROL PLANS

Plot 1



NOTES:

- 1. THIS PLAN IS USED IN CONJUNCTION WITH A INTERMEDIATE-TERM 3-LANE FREEWAY DOUBLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN.
- 2. SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- 3. MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER.
 "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- 4. ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED. WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- 5. LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. MINIATURE PCMS (~6'WIDE, 12+INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- 6. ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- 7. WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- 8. IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- 9. IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5.5 MILES.

ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

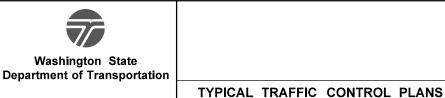
LEGEND:	
Ø	TRAFFIC SAFETY DRUM
#	TRAFFIC SENSOR
TTS#	PORTABLE TRAVEL TIME SENSOR (SEE NOTE 6)
SFTS→	SIDE FIRE TRAFFIC SENSOR (SEE NOTE 7)
((• > >	SMART SEQUENTIAL ARROW SIGN (CONNECTED)
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 5)
H	PAN-TILT-ZOOM (PTZ) CAMERA
	TEMPORARY BARRIER
K	TEMPORARY IMPACT ATTENUATOR (TL-3)

SYMBOL	SPEED (mph)	TRAFFIC CONDITION
FF	35+	Free Flow
SL	<35	Slowed

QUEUE LOCATION	_	TRAFFIC SENSORS							PCM	S 9	PCM	S 8	PCM	S 7	PCM	S 6	PCM	IS 5	PCM	IS 4	PCN	IS 3	PCM	IS 2	PCN	1S 1
	H	G	F	Е	D	С	ВА		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
(miles)		TR/	۱FF	C C	ONI	DITI	ON	2.0	0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
	П							•													2 RIGHT	1				
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	\perp							1													CLOSED	AHEAD				
								•	•										DOUBLE	2	TRAFFIC	##	SLOW OR	NEXT		
< 0.5	FF	= FF	FF	FF	FF∣	FF	FF SI	-		(Blank)		(Blank)		(Blank)		(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	0.5		(Blank)
	\perp							1	-				-				-		CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILE		
	L.	_						•	•								DOUBLE	3	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	TAKE	ZIPPER	TAKE
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<u></u>	L	_							•						DOUBLE	4.5	TRAFFIC	##	SLOW OR	NEXT	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
1.41 TO 2.4	· FF	F FF	FF	FF	FF∣	SL	SLSI	-	_	(Blank)		(Blank)	l	(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	2.5	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	\vdash	\perp			_			₽.	-						CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	AHEAD	LANE TOO	HERE		HERE	
	.	_						•	•				DOUBLE	6	TRAFFIC	##	SLOW OR	NEXT	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
2.41 TO 3.4	ŀĮFF	- FF	FF	FF	SL	SL	SLSI	- _	_	(Blank)		(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	3.5	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	╄	\perp	\rightarrow	-	_			╀.	-				CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HERE	
	۱.,	-		ا	a.	٠.		•	-		DOUBLE	7.5	TRAFFIC	##	SLOW OR	NEXT	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
3.41 TO 4.9	ידןי	- ++	FF	SL	SL	SL	SLSI	-	_	(Blank)	LANE	MILES	BACKUPS	MINUTE	STOPPED	5	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	-	\perp	_	_	-			1.			CLOSURE	AHEAD	PRESENT	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HERE	
404 70 64	۱.,	-	<u>.</u> ا	<u>ا</u> ا	a.	٠.			OUBLE	9	TRAFFIC	##	SLOW OR	NEXT	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
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C 44 TO 70	۱.,	ا رم ۔	ا ہے	الم	ا ہ	ا ۵	C1 C1		LANE	##	SLOW OR	NEXT	6 MILES	USE	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
6.41 TO 7.9	ידןי	- SL	SL	2L	2r	5L	SL SI		OSURE	MINUTE	STOPPED	8 MLEC	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	╀	+	-	-	\rightarrow			—	MILES	DELAY	TRAFFIC	MILES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE	TA1/5	HERE	TALCE
7.04.	L.		۱.	<u>ا</u> ا	۱.	٠.	C1 C1		OW OR	NEXT	2 LANE	##	6 MILES	USE	4.5 MILES	USE	3 MILES	USE	2 MILES	USE	ZIPPER	USE	ZIPPER	TAKE	ZIPPER	TAKE
7.91+	SI	- SL	SL	2L	or	3L	SLSI		OPPED	9.5	CLOSURE	MINUTE	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	TO MERGE	ALL	MERGES	LEFT	MERGE	TURNS	MERGE	TURNS
	_							115	RAFFIC	MILES	7.5 MILES	DELAY	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	POINTS	3 LANES	AHEAD	LANE TOO	HERE		HERE	

9-MILE SMART WORK ZONE SYSTEM FREEWAY (3 LANES): DOUBLE RIGHT LANE CLOSURE NOT TO SCALE

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Plot 2 PLAN REF NO TC176

2

SHEETS

WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (January 2024).	DESIGNER NOTES:		
WSDOT CAE automatically updates cell libraries on WSDOT and on-site consultant staff computers (no action needed); however, external users or off-site consultants must manually install them. For additional information email HQCAEHelpDesk@wsdot.wa.gov.	A. Region Transportation Operations will determine if and what queue mitigation system is needed using work zone traffic analysis (Traffic Manual 5-9). For additional information, see Traffic Manual 5-17 or Work Zone Traffic Control Fundamentals presentation.		
Division 4 in WSDOT Plans Preparation Manual, Section 400.06(29), provides updated work zone cell library policy and information for PS&Es. See https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/plans-preparation-manual	B. These typical traffic control plans may be modified for site-specific situations and/or WS Typical Traffic Control Plans are not "Standard Plans" .	DOT Region Transportation Operations standard practices.	
TYPICAL TCP USAGE EXPLANATION:	C. If the long-term staged traffic control plan does not use temporary barriers, this Typica	TCP can be modified to reflect channelization devices instead	j.
Plot 1: Supplements long-term single right lane closure on 3-lane freeways.	D. When used, include 3 of the following Smart Work Zone System General Special P	Provisions listed below:	
Plot 2: Supplements long-term single right lane closure on 3-lane freeways with a intermediate-term double right lane closure in place.	1-10.3(3).OPT3.FR1 Specifications 1-10.4(2).OPT5.GR1 Measurement (Traffic Control as Bid Items) 1-10.5(2).OPT3.GR1 Payment		
	E. Except for projects requiring them in the Provisions, Pan-Tilt-Cameras (PTZ Cameras) ar or deleted. PTZ Cameras are used remotely by Agency to monitor incidents and queues	re optional and may be mounted on different PCMSs as desired	t
	F. The side-fire traffic sensor is used to obtain traffic volume and speed data per General S	Special Provision requirements.	
	G. These Smart Work Zone Systems are very adaptable for a variety of situations, including queued work zone. Contact State Work Zone Engineers for guidance at HQWorkZone@	g being used on multiple roadways concurrently leading into a wsdot.wa.gov.	
O MULE OUTLIE V	NADNING SYSTEM		
9-MILE QUEUE WARNING SYSTEM FREEWAY (3 LANES): SINGLE & DOUBLE RIGHT LANE CLOSURE			
		INFORMATIONAL LISE ONLY	Plot 3
		INFORMATIONAL USE ONLY	C17
		DO NOT INCLUDE THIS SHEET IN CONTRACT PS&Es or TCP SUBMITTALs.	

DESIGNER GUIDANCE