



PORTSMOUTH



MAINE TURNPIKE AUTHORITY

CONTRACT 2018.12 PAVEMENT REHABILITATION, GUARDRAIL, DRAINAGE, AND CLEAR ZONE IMPROVEMENTS MM 74.9 TO MM 80.7

DANIEL E. WATHEN, CHAIR ROBERT D. STONE, VICE CHAIR MICHAEL J. CIANCHETTE, MEMBER JOHN E. DORITY, MEMBER ANN R. ROBINSON, MEMBER THOMAS J. ZUKE, MEMBER KAREN S. DOYLE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2018.12 PAVEMENT REHABILITATION, GUARDRAIL, DRAINAGE, AND **CLEAR ZONE IMPROVEMENTS** MM 74.9 TO MM 80.7

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TY:LININTERNATIONAL

JOSEPH R. HOWE, P.E. ENGINEER OF RECORD 3/28/2018

PROJECT MANAGER

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MAINE TURNPIKE AUTHORITY

CHIEF OPERATIONS OFFICER

STEPHEN R. TARTRE, P.E.

DIRECTOR OF ENGINEERING AND BUILDING MAINTENANCE

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	ESTIMATED QUANTITIES					
ITEM NO.	ITEM	UNIT	PAVING		GUARDRAIL	TOTAL
202.202	REMOVING PAVEMENT SURFACE - MAINLINE	SY	153,000	QUANTITY	QUANTITY	153,000
202.202	REMOVING PAVEMENT SURFACE - DRAINAGE PATHS	SF	6350			6350
202.205	RUMBLE STRIPS	EA	59,000			59,000
203.24	COMMON BORROW	CY	00,000	120	50	170
205.511	WIDENING OF EXISTING SHOULDER	LF			75	75
211.30	DITCH EXCAVATION	LF		3050		3050
403.208	HOT MIX ASPHALT,12.5 mm NOMINAL MAXIMUM SIZE	T	860			860
403.2081	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE (POLYMER MODIFIED)	T	12,400			12,400
403.211	HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE (SHIMMING)	T	4100			4100
409.15	BITUMINOUS TACK COAT, APPLIED	G	12,500			12,500
424.323	ASPHALT RUBBER MASTIC CRACK SEALER - APPLIED	LB	20,000			20,000
427.09 429.341	PAVEMENT CRACK REPAIR GRID/PAVING FABRIC COMPOSITE INTERLAYER	LF SF	7/50 33 , 600			7/50 33 , 600
470.08	BERM DROP OFF CORRECTION - GRINDINGS	T	2000			2000
77 0.00	BENW BIOL SIT CONTECTION ON INDINOS	'	2000			2000
527,304	ENERGY ABSORBING SYSTEM (C-A-T) - REMOVE & STACK	EA			4	4
603./55	12" RCP CLASS III	LF		32		32
603./59	12" CULVERT PIPE OPTION III	LF		91		91
603.179	18" CULVERT PIPE OPTION III	LF		40		40
603.199	24" CULVERT PIPE OPTION III	LF		32		32
603.209	30" CULVERT PIPE OPTION III	LF		16		16
603.28	CONCRETE COLLAR	EA		//		//
604.184	REBUILD CATCH BASIN TO GRADE - TYPE II	EA		1		1
						.=
606.178	GUARDRAIL BEAM	LF 1.5			1500	1500
606 . 24	GUARDRAIL TYPE 3D - SINGLE RAIL GUARDRAIL TYPE 3D - DOUBLE RAIL	LF LF			75 300	75 300
606,2652	TERMINAL END - REMOVE AND STACK	EA			19	19
606,278	TERMINAL END - ANCHORED END	EA			19	19
000.270	TERMINIC END FINGUIGHED END				,,,	,,,
606.356	UNDERDRAIN DELINEATOR POST	EA			35	35
606.3562	UNDERDRAIN DELINEATOR POST - REMOVE AND STACK	EΑ			28	28
606.3606	GUARDRAIL - REMOVE, MODIFY, AND RESET DOUBLE RAIL	LF			890	890
606.3621	GUARDRAIL ADJUST, SINGLE RAIL	LF			20900	20,900
606.3622	GUARDRAIL ADJUST, DOUBLE RAIL	LF			22100	22,100
606.471	SINGLE OFFSET BLOCK - W-BEAM	EA			20	20
606,48	SINGLE GALVANIZED STEEL POST	EA			30	30
606.754 606.755	WIDEN SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL MODIFY WIDENED SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL	EA EA			<i>4</i> <i>19</i>	<i>4</i> <i>19</i>
606.79	GUARDRAIL 350 FLARED TERMINAL	EA			5	5
000.73	OUANDINALE 330 FEARED FERMINAL					J
610.08	PLAIN RIPRAP	CY		57		57
6/3.3/9	EROSION CONTROL BLANKET	SY		2400		2400
6/5.07	LOAM	CY		290		290
618.14	SEEDING METHOD #2	UNIT		24		24
619.1201	MULCH - PLAN QUANTITY	UNIT		24		24
619.1202	TEMPORARY MULCH	LS		1		1
620.58	EROSION CONTROL GEOTEXTILE	SY		150		150
C07 /C	IOI COLID WUITE DAVENEUT HADKING THE	, -	0550			0550
627.7 <i>1</i> 2	I2" SOLID WHITE PAVEMENT MARKING LINE WHITE OR YELLOW PAVEMENT MARKING LINE	LF LF	2550 103 . 000			2550 103 . 000
627.78	TEMPORARY PAVEMENT MARKING LINE OR YELLOW	LF LF	142,000			142,000
627.812	TEMPORARY RAISED PAVEMENT MARKERS	EA	26,000			26.000
627.94	PAVEMENT MARKING TAPE	LF	1800			1800
	· · · -					
627.941	PAVEMENT MARKING TAPE - DOTTED WHITE LANE LINE, 6-INCH WIDTH	LF	550			550
629.05	HAND LABOR, STRAIGHT TIME	HR		40		40
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	HR		10		10
631.11	AIR TOOL (INCLUDING OPERATOR)	HR		10		10
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR		40		40
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	HR		40		40
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	HR		10		10
631.36	FOREMAN	HR		40		40

·	ESTIMATED QUANTI	TIES				
ITEM NO.	ITEM	UNIT	PAVING QUANTITY	CULVERTS QUANTITY	GUARDRAIL QUANTITY	TOTAL QUANTIT
652.30	FLASHING ARROW BOARD	EA	2			2
652.33/	DRUM	LS	1			1
652.34	CONE	EA	10			10
652.35	CONSTRUCTION SIGNS	SF	3400			3400
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	0.83	0.06	0.//	1
652.410	PORTABLE - CHANGEABLE MESSAGE SIGN	EA	3			3
<i>652.4</i> 5	TRUCK MOUNTED ATTENUATOR	CD	60	10	30	100
652.452	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	EA	2			2
652.46	TEMPORARY PORTABLE RUMBLE STRIP	UNIT	180	30	90	300
656.632	30 INCH TEMPORARY SILT FENCE	LF		830		830
659.10	MOBILIZATION	LS	0.83	0.06	0.11	/

GENERAL NOTES:

- I. ALL WORK SHALL CONFORM TO THE 2014 MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, EXCEPT AS MODIFIED BY THE MAINE TURNPIKE AUTHORITY'S SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
- 2. THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO START OF WORK.
- 3. THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION, ALL PROPOSED SIGN LOCATIONS AND EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATING WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED ITS' UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS.

THE AUTHORITY HAS PROGRAMMED TWO FIELD VISITS FOR MAINE TURNPIKE UTILITY COORDINATION ON THIS PROJECT. SHOULD THE CONTRACTOR NEED ADDITIONAL SIGN LOCATIONS AND/OR ADDITIONAL EXCAVATION LOCATIONS MARKED, OR SHOULD THE CONTRACTOR FAIL TO MAINTAIN THE AUTHORITY'S PREVIOUSLY ESTABLISHED DIG SMART MARKS, THE AUTHORITY SHALL DEDUCT THE ADDED MARKING COSTS FROM THE CONTRACTOR'S PAYMENTS.

- 4. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PART 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATIONS).
- 5. ALL STANDARD DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MAINE DOT) STANDARD DETAILS HIGHWAY AND BRIDGES 2014 LATEST REVISIONS AND MAINE DOT BEST MANAGMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS.
- 6. COMMON BORROW SHALL BE COMPACTED TO 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, GRANULAR
 BORROW AND AGGREGATE SHALL BE COMPACTED TO 95% OF THEIR
 MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR.

DRAINAGE NOTES:

I. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT APPROVAL OF THE RESIDENT.

EROSION CONTROL:

- I. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS.THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR
- 2. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST

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: ນ					CONSULTANT F	PROJEC	T MANAGER:	Jim Ferguson		
r ilename:						Ву	Date		Ву	Date
듵					Designed	PJB	3/2018	Checked	JRH	3/2018
-					Drawn	PJB	3/2018	In Charge of	JOF	3/2018

T.Y. Lin International 12 Northbrook Drive Building A, Suite One Falmouth, Maine 04105 TEL: (207) 781-4721 FAX: (207) 781-4753



MTA PROJECT MANAGER: Ralph C. Norwood, IV

PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

> ESTIMATED QUANTITIES AND GENERAL NOTES

SHEET NUMBER: C-1

CONTRACT:2018.12

STATION NE		ITEM 21130													
	'B / SB	DITCH EXCAVATION	IIEM 603.155 I2" RCP CLASS III		ITEM 603.179 I8" CULVERT PIPE OPTION III	24" CULVERT PIPE		ITEM 603.28 CONCRETE COLLAR	ITEM 604.184 REBUILD CATCH BASIN TO GRADE - TYPE II	ITEM 610.08 PLAIN RIPRAP	ITEM 613.319 EROSION CONTROL BLANKET		ITEM 656.632 30" TEMPORARY SILT FENCE		REMARKS
3785+00 TO 3786+00	NB	100.0									66.7				DITCH FROM PIPE END DOWNSTATION TO DITCH CULVERT
3786+00	NB	700.0		12.0				1.0		2.20	00.7	10.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
3793+00	SB			12.0				1.0		2.20		10.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
3799+40 TO 3800+00	NB	60.0		72.0				7.0		2.20	40.0	70.0	30.0		REMOVE EXISTING PIPE FROM ELBOW TO OUTLET. DITCH BACK TO SB ON/ OFF RAMP
3800+00	SB	00.0			16.0			1.0		3.30	70.0	15.0	30.0		REPLACE OUTLET PIPE END. PLACE NEW RIPRAP APRON
3000 00	36				70.0			7.0		3.30		75.0	30.0		THE EAST SOURCE THE EAST, EAST WENT TO A TON
3806+50	SB	660.0	32.0					1.0		2.20	440.0	10.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON, DITCH BACK TO OFF RAMP
3808+45	SB	000.0	32.0				16.0	1.0		5.50	,,,,,,	25.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
3820-09	NB			16.0			70.0	1.0		2.20		10.0	30.0		REPLACE OUTLET PIPE END. PLACE NEW RIPRAP APRON
3822+00	SB			,515						2,25	30.0	70.0	50.0	SB	REPAIR WASHOUT BEHIND GUARDRAIL
3828+00	NB									7.00		25.0	60.0	- 05	FXTEND STONE DOWNSPOUT TO TOE OF BACKSLOPE AT DANVILLE CORNER ROAD
3323 33	.,,_									.,,,,,		25,0			
3850+7/	SB					16.0		1.0		4.40		20.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
3866+53	SB			16.0				1.0		2.20		10.0	30.0		REPLACE OUTLET PIPE END. PLACE NEW RIPRAP APRON
3867+75	SB										170.0		110.0	SB	REPAIR MATERIAL SETTLEMENT ON INSLOPE ABOVE CROSS PIPE
3897+80	SB										30.0		50.0	SB	REPAIR WASHOUT ON INSLOPE
3908+00	SB			15.0				1.0		2.20		10.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
39//+/8	NB										30.0		50.0	NB	REPAIR WASHOUT BEHIND GUARDRAIL
3921+00 TO 3932+00 N	NB/SB	2200.0													DITCH NORTHBOUND AND SOUTHBOUND
3934•75	NB										30.0		50.0	NB	REPAIR WASHOUT BEHIND GUARDRAIL
3935•00	SB				22.0			1.0		3.30	1466.7	15.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
3946+50	SB									3. 50	30.0	12.5	50.0	SB	REPAIR WASHOUT ON INSLOPE, ADD RIPRAP AS DIRECTED
3959•00	NB										30.0		50.0	NB	REPAIR WASHOUT BEHIND GUARDRAIL
3977•75	SB					16.0		1.0		4.40		20.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
4012+25 M	WEDIAN								1.0						
4017+35	NB			20.0						2.20		10.0	30.0		REPLACE OUTLET PIPE END, PLACE NEW RIPRAP APRON
TOTALS		3020.0	32.0	91.0	38.0	32.0	16.0	11.0	1.0	46.8	2363.3	202.5	830.0		
UNIT		LF	LF	LF	LF	LF	LF	EA	EA	CY	SY	SY	LF		

<u>NOTES:</u>

- I. MATCH EXISTING INVERTS/RIM OR AS DIRECTED BY THE RESIDENT.
- 2. SLOPE REPAIR WILL INCLUDE PLACEMENT OF COMMON BORROW, LOAM, AND SEED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER THE CORRESPONDING PAY ITEMS.

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i.					CONSULTANT F	ROJEC	T MANAGER:	Jim Ferguson			1
5						Ву	Date		Ву	Date	1
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-[Drawn	PJB	1/2018	In Charge of	JOF	3/2018	L

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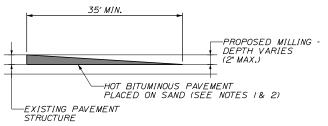
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

DRAINAGE SUMMARY SHEET

CONTRACT:2018.12

3 OF 27

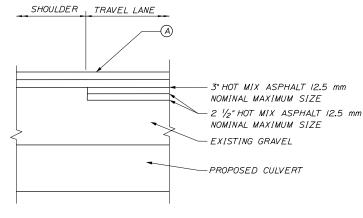
MTA PROJECT MANAGER: Ralph C. Norwood, IV



TEMPORARY BITUMINOUS RAMP NOT TO SCALE

NOTES:

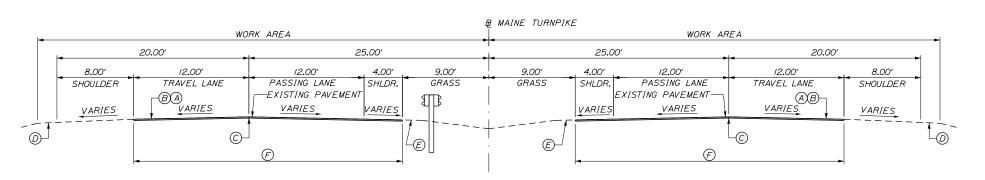
- I. HOT MIX ASPHALT FOR TEMPORARY RAMPS WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 403.2081.
- 2. REMOVAL OF TEMP. BITUMINOUS RAMPS WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 403.2081.



CULVERT REPLACEMENT DETAIL NOT TO SCALE

PAVEMENT LEGEND:

- 1/2" HOT MIX ASPHALT 12.5 mm NOMINAL MAXIMUM SIZE (POLYMER MODIFIED) OVER 1/2" HOT MIX ASPHALT (SHIMMING).
- (B) = MILLING DEPTH VARIES TO ACHIEVE A 2" DEPTH AT THE EDGES OF LANE BEING MILLED.
- C = DOUBLE LAYER OF TACK ON NOTCHED
- BERM DROPOFF CORRECTION GRINDINGS (SEE DETAIL A, SHEET P-7).
- BERM DROPOFF CORRECTION GRINDINGS (SEE DETAIL B. SHEET P-7).
- (F) = LIMITS OF MILL AND FILL (28'-2").

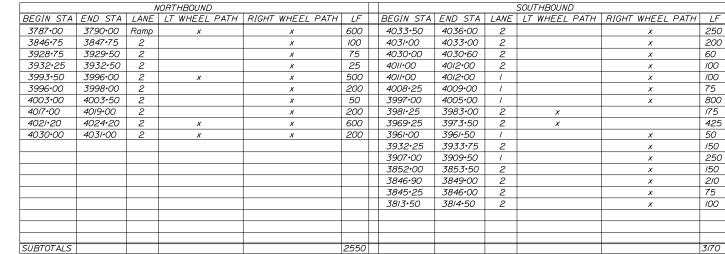


PAVEMENT MILL & FILL NOT TO SCALE

NOTES:

- I. A COATING OF HOT RUBBERIZED ASPHALT
 (ASTM D6690 TYPE IV) SHALL BE APPLIED AT THE TOP SURFACE LIFT TO ALL TRANSVERSE BUTT JOINTS AND LONGITUDINAL JOINTS EXCEPT WHERE THE NOTCHED WEDGE IS USED.
- 2. BITUMINOUS TACK COAT IS REQUIRED BETWEEN EXISTING PAVEMENT AND PROPOSED HMA.
- 3. PAYMENT FOR HOT MIX ASPHALT 12.5 mm NOMINAL MAXIMUM SIZE WILL BE MADE UNDER ITEM 403.2081.

PAVEMENT CRACK REPAIR



TOTAL CRACK REPAIR IDENTIFIED TOTAL CRACK REPAIR

= 5720 LF (1.08 MILES) ADDITIONAL AREA TO BE USED AS DIRECTED BY THE RESIDENT = 1430 LF (0.27 MILES) = 7150 LF (1.35 MILES)

	€ OF (CRACK REPAIR	- ►		
l ¹ /2" ΗΜΑ 12.5mm	1	9"	9"	1	PAVEMENT E TO BE MILLED
(POLYMER MODIFIED)	Ň				EXISTING PAVEMENT
		2" HMA 12.5mm	TACK COA	MILLED FACE (TYP.) T	†

PAVEMENT CRACK REPAIR NOT TO SCALE

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No.	Revision	Ву	Date	1					
				CONSULTANT	PROJEC	T MANAGER:	Jim Ferguson		
					Ву	Date		Ву	Date
				Designed	PJB	1/2018	Checked	JRH	2/2018
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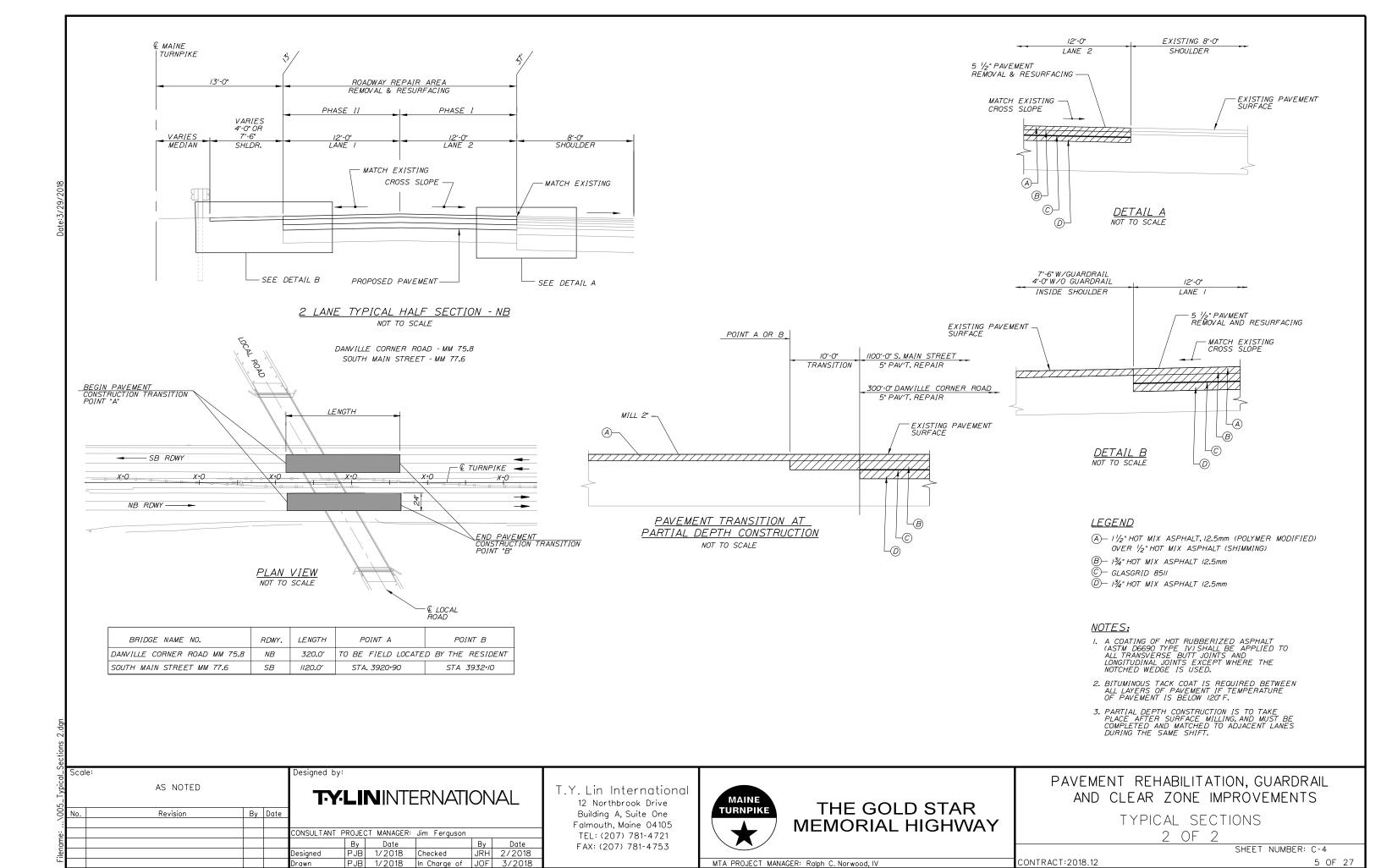
THE GOLD STAR MEMORIAL HIGHWAY AND CLEAR ZONE IMPROVEMENTS

TYPICAL SECTIONS 1 OF 2

PAVEMENT REHABILITATION, GUARDRAIL

SHEET NUMBER: C-3

CONTRACT:2018.12 4 OF 27



<u>MAINLINE</u> ADVANCED PROJECT SIGNING

NOTES:

- I. FOR SIGN DETAILS, SEE SIGN SUMMARY SHEETS.
- 2. ALL SIGNS ARE TO BE MOUNTED ON NCHRP 350 APPROVED POSTS.
- 3. UNCOVER W8-15 & W8-15P SIGNS WHEN PAVEMENT IS MILLED OR AS DIRECTED BY THE RESIDENT.
- 4. PROVIDE W8-15 AND W8-15P AT ALL MILLED LOCATIONS.
- 5. DUE TO SEQUENCING OF WORK AREAS, APPROACH SIGNING MAY NEED TO BE ADJUSTED AS WORK PROGRESSES.
- 6. WORK ZONE SPEED LIMIT SIGN ASSEMBLY SHALL BE REPEATED EVERY I MILE.
- 7. TRAFFIC CONTROL SIGNS NOT IN USE SHALL BE COVERED AS DIRECTED BY THE RESIDENT.
- 8. PORTABLE CHANGEABLE MESSAGE SIGNS ARE TO BE INSTALLED AS PART OF THIS CONTRACT AS PAY ITEM 652.41. LOCATION SHALL BE I MILE OUTSIDE WORK AREA AND APPROVED BY THE RESIDENT.

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No.	Revision	Ву	Date	1					
				CONSULTANT	PROJEC	T MANAGER:	Jim Ferguson		
					Ву	Date		Ву	Date
				Designed	PJB	1/2018	Checked	JRH	2/2018
				Drawn	PJB	1/2018	In Charge of	JOF	3/2018

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THE GOLD STAR **MEMORIAL HIGHWAY**

TRAFFIC CONTROL

ADVANCED SIGNING DETAILS

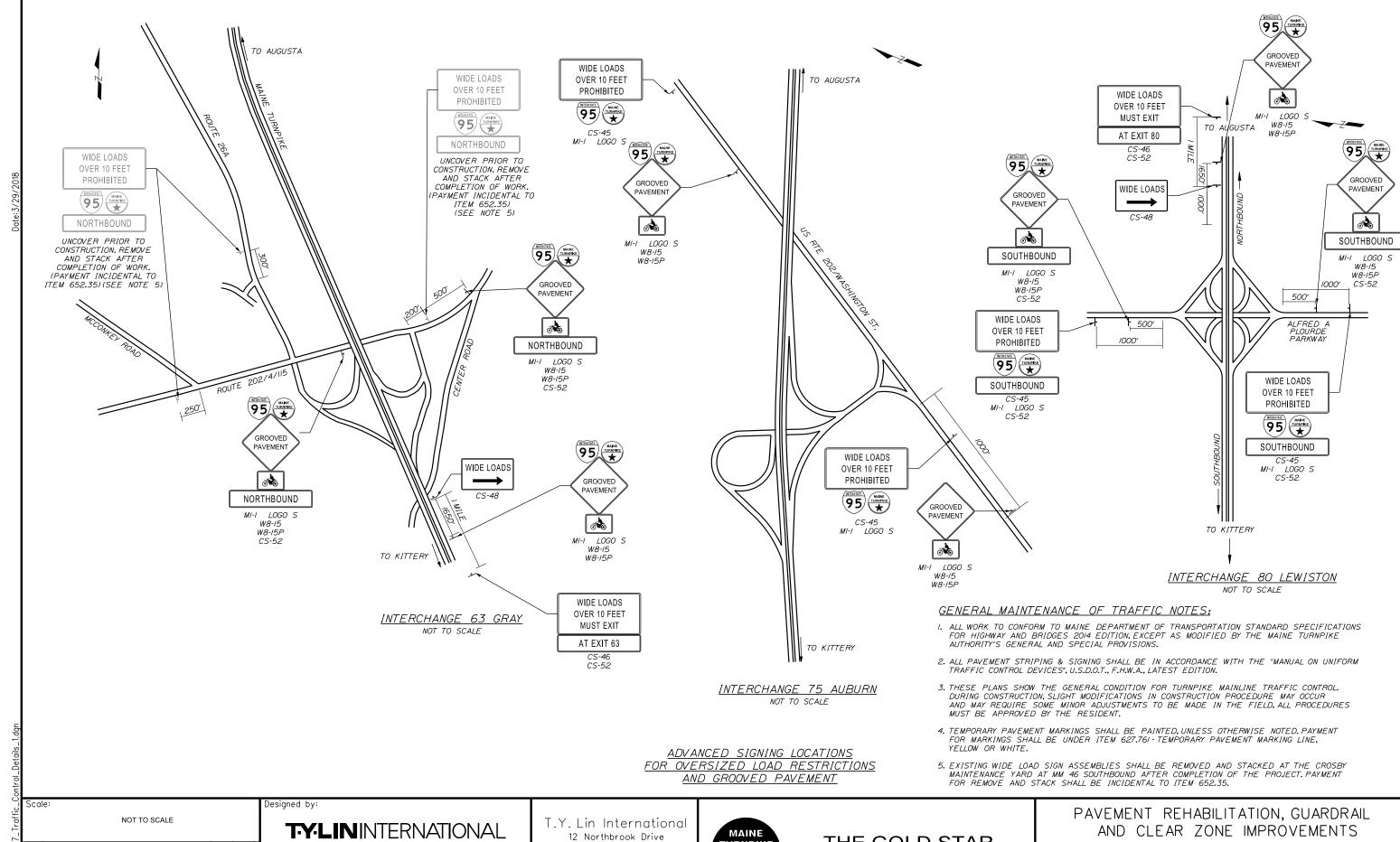
AND CLEAR ZONE IMPROVEMENTS

PAVEMENT REHABILITATION, GUARDRAIL

SHEET NUMBER: M-1

CONTRACT:2018.12

MTA PROJECT MANAGER: Ralph C. Norwood, IV



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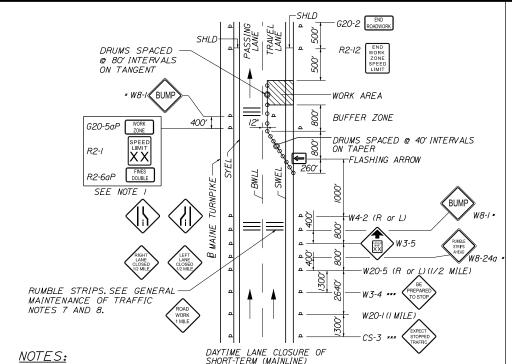


THE GOLD STAR MEMORIAL HIGHWAY

TRAFFIC CONTROL DETAILS
1 OF 3

SHEET NUMBER: M-2

MTA PROJECT MANAGER: Ralph C. Norwood, IV CONTRACT: 2018.12



I. FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER

2. SIGNS DESIGNATED WITH *** SHALL BE USED DURING STOPPAGES OF TRAFFIC.

400'

SIGNS DESIGNATED WITH *** SHALL BE USED DURING STOPPAGES OF TRAFFIC.

* SIGN ONLY USED WHEN RUMBLE STRIPS ARE USED

DRUMS SPACED

G20-5aP WORK ZONE

R2-I

R2-6aP

RUMBLE STRIPS.SEE GENERAL MAINTENANCE OF TRAFFIC

NOTES 7 AND 8.

@ 80' INTERVALS ON TANGENT

SINGLE LANE CLOSURE-SIGNS ON EASELS

100'

-G20-2

WORK AREA

BUFFER ZONE

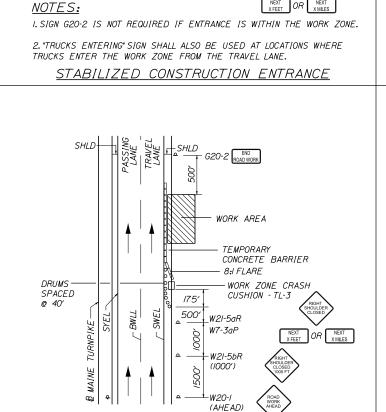
DRUMS SPACED @ 40' INTERVALS ON TAPER

W20-5 (R or L)(I/2 MILE)

W8-24a

FLASHING ARROW

W20-1 (I MILE)



50' RAD. Q

ACCELERATION AREA

50' MIN. LENGTH -200' MIN. DECELERATION AREA

- STABILIZED CONSTRUCTION - ENTRANCE- SEE BEST MANAGEMENT PRACTICES

NOTE:

CONSTRUCTION -

ENTRANCE

NO DRUMS

DRUMS —— SPACED @ 80' (TYP)

THE W20-I AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.

SHOULDER CLOSURE

SHOULDER CLOSURE (MAINLINE)

DRUMS SPACED — @ 80'INTERVALS ON TANGENT WORK AREA

SHOULDER WORK OF SHORT-TERM (MAINLINE)

THE W20-I AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.

SHOULDER WORK

GENERAL MAINTENANCE OF TRAFFIC NOTES:

- I. ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION. NOTE THERE IS A 2009 EDITION OF MUTCD.
- 2. ALL SPEED LIMIT, STOP, YIELD, AND E5-2 SIGNS SHALL BE MOUNTED 5 FEET ABOVE THE PAVEMENT SURFACE
- 3. THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL DURING CONSTRUCTION. SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD. ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
- 4. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 REMOVING PAVEMENT MARKINGS.
- 5. EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.341-WORK ZONE CRASH CUSHION TL-3.
- 6. NO SIGNS SHALL BE PLACED ON 4' SHOULDERS WITH GUARDRAIL. SIGNS REQUIREDAT THESE LOCATIONS SHALL BE PLACED ON TALLER EASELS ON THE MEDIAN SIDE OF THE GUARDRAIL.
- 7. IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIRGURATIONS;
 - ADJACENT TO THE WORK ZONE (IUNIT)
- UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 BOTH ADJACENT TO THE WORKZONE AND PRIOR TO THE TAPER (3 UNITS)

 W8-I SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
- 8. RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-240 SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.

CONTRACT: 2018.12

ABBREVIATIONS FOR ALL M.O.T. PLANS:

BWLL = BROKEN WHITE LANE LINE SWEL = SOLID WHITE EDGE LINE

SYEL = SOLID YELLOW EDGE LINE

TBWLL = TEMPORARY BROKEN WHITE LANE LINE TSWEL = TEMORARY SOLID WHITE EDGE LINE

TSYEL = TEMPORARY SOLID YELLOW EDGE LINE

SINGLE LANE CLOSURE- POST MOUNTED SIGN SETUP

DAYTIME LANE CLOSURE OF

FOR POST MOUNTED SIGN SETUP, UNCOVER SIGNS ADJACENT TO OPEN LANE FOR SHORT TERM LANE CLOSURE (LESS THAN 24 HRS); UNCOVER BOTH SIGNS FOR PERMANENT LANE CLOSURE (GREATER THAN 24 HRS)

Scale NOT TO SCALE **TY:LIN**INTERNATIONAL Revision By Date ONSULTANT PROJECT MANAGER: Jim Ferguson Date 1/2018 Checked JRH 2/2018 1/2018 In Charge of JOF 3/2018

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THE GOLD STAR **MEMORIAL HIGHWAY**

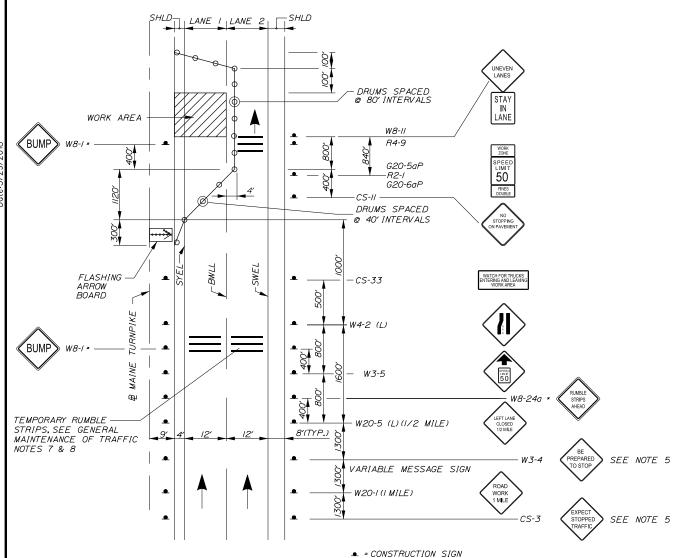
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

TRAFFIC CONTROL DETAILS

2 OF 3

SHEET NUMBER: M-3

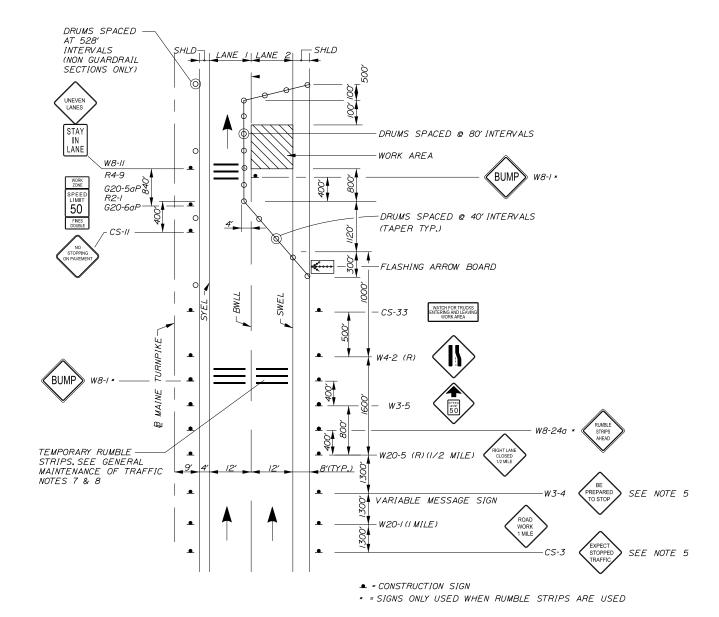
MTA PROJECT MANAGER: Ralph C. Norwood, IV



- - * = SIGNS ONLY USED WHEN RUMBLE STRIPS ARE USED

LANE CLOSURE FOR MILLING AND PAVING OPERATIONS LANE 1

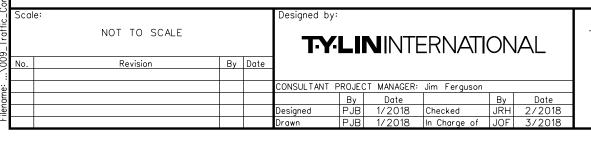
LANE CLOSURE FOR PAVEMENT MARKINGS LANE 1



LANE CLOSURE FOR MILLING AND PAVING OPERATIONS LANE 2

NOTES:

- I. FOR SIGN DETAILS, SEE SIGN SUMMARY SHEETS.
- 2. ALL TEMPORARY LANE CLOSURE SIGNS ARE TO BE MOUNTED ON EASELS.
- 3. STANDARD SINGLE LANE CLOSURES FOR LANES I AND 2 SHALL BE USED FOR DRAINAGE WORK, GUARDRAIL WORK, MEDIAN WORK, EQUIPMENT MOVES, BERM DROP OFF CORRECTION WORK, PAINTING OF SOLID WHITE LANE LINES, AND ALL OTHER WORK NOT REQUIRING ENCROACHMENT INTO THE ADJACENT LANE.
- 4. SEE SHEET M-3 FOR STANDARD SINGLE LANE CLOSURE DETAILS.
- 5. ERECT CS-3 AND W3-4 SIGNS IMMEDIATELY PRIOR TO SCHEDULED STOPPAGES FOR EQUIPMENT MOVES AND REMOVE THE CS-I AND W3-4 SIGNS IMMEDIATELY AFTER THE SCHEDULED STOPPAGES ARE COMPLETE.



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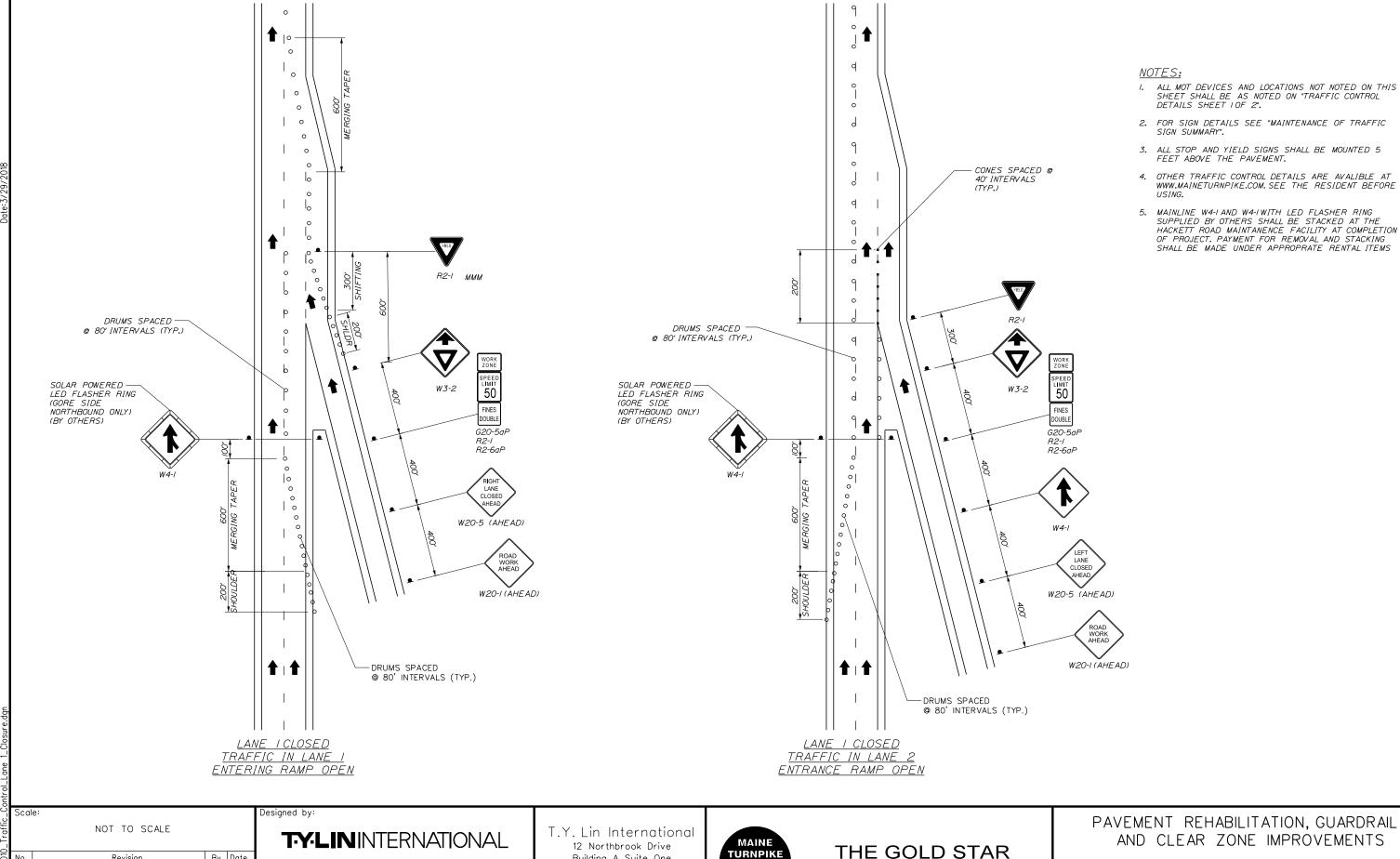
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

TRAFFIC CONTROL DETAILS

SHEET NUMBER: M-4

9 OF 27

3 OF 3 CONTRACT:2018.12 MTA PROJECT MANAGER: Ralph C. Norwood, IV



Building A, Suite One

Falmouth, Maine 04105

TEL: (207) 781-4721

FAX: (207) 781-4753

By Date

CONSULTANT PROJECT MANAGER: Jim Ferguson

Date

9/2017

Checked

SAM 9/2017 In Charge of JOF 3/2018

9/2017

Revision

AND CLEAR ZONE IMPROVEMENTS

TRAFFIC CONTROL LANE CLOSURE AT ENTRANCE RAMPS

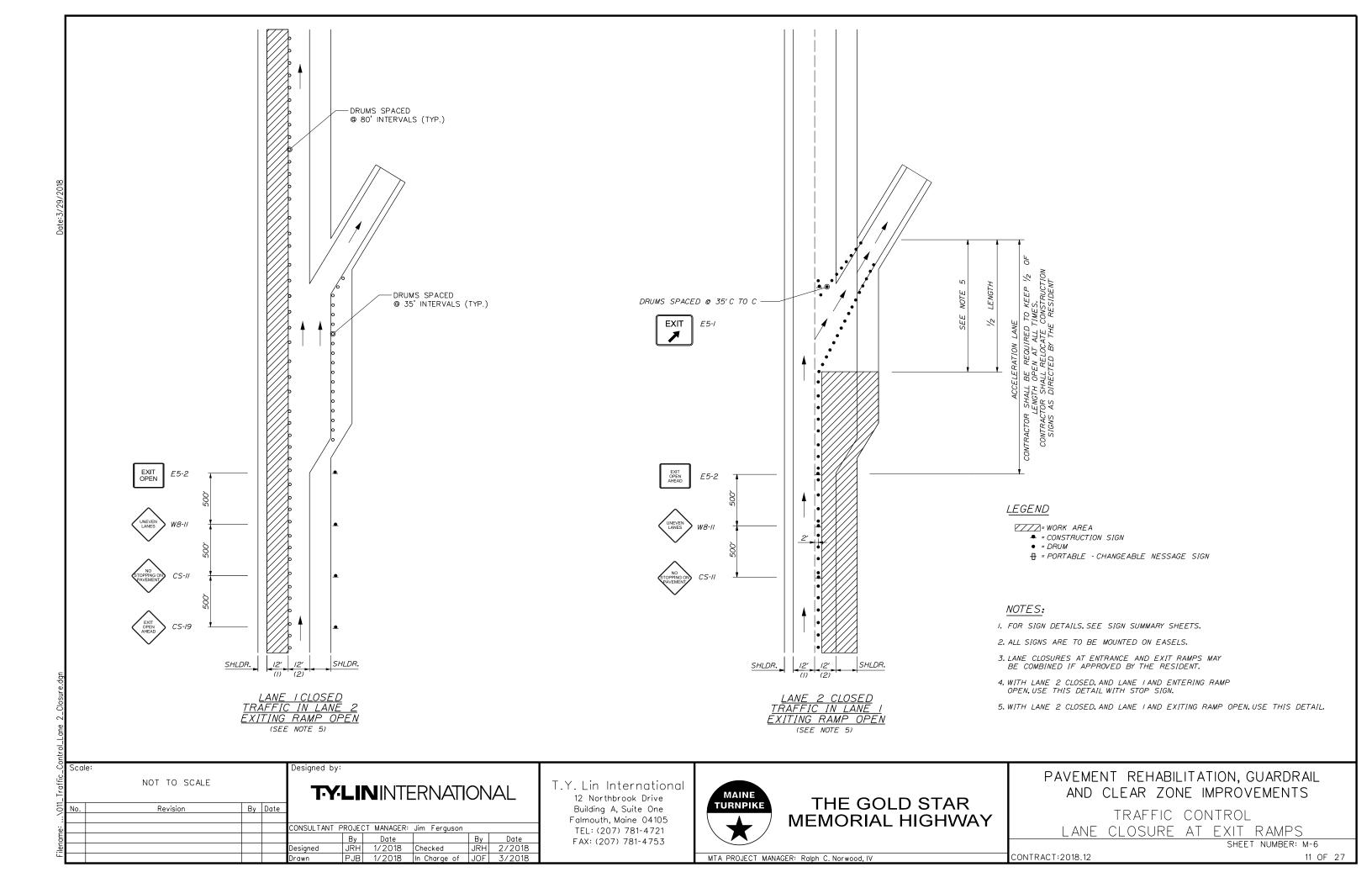
SHEET NUMBER: M-5

MTA PROJECT MANAGER: Ralph C. Norwood, IV

TURNPIKE

MEMORIAL HIGHWAY

CONTRACT:2018.12 10 OF 27



IDENTIFI-		E OF	TEVT		MENSIONS	(INCHES)	NUMBER OF	COL		BORDER	AREA IN	NOTES
CATION NUMBER		GN HE IGHT	TEXT	LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	BACK- GROUND	LEGEND BORDER	RADIUS	SQUARE FEET	NUI ES
CS-3	48"	48"	EXPECT STOPPED TRAFFIC	6" 6" 6"	4° 4°		4	ORANGE	BLACK		16.00 (64)	
CS-10	48"	48"	TRUCKS ENTERING	7" 7"	6"		2	ORANGE	BLACK		16.00 (32)	
CS-II	48"	48"	NO STOPPING ON PAVEMENT	6° 6* 6"	4" 4"		4	ORANGE	BLACK		16.00 (64)	
CS-19	48"	48"	EXIT OPEN AHEAD	6" 6" 6"	4" 4"		2	ORANGE	BLACK		16.00 (32)	
CS-33	96"	36"	WATCH FOR TRUCKS ENTERING AND LEAVING WORK AREA	6" 6" 6"	4" 4"		4	ORANGE	BLACK		24.00 (96)	
CS-45	96"	48"	WIDE LOADS OVER 10 FEET PROHIBITED	8C 8C 8C	6" 6" 6" 6"		3	ORANGE	BLACK		32.00 (96)	
CS-46	96"	48"	WIDE LOADS OVER 10 FEET MUST EXIT	8C 8C 8C	6" 6" 6"		2	ORANGE	BLACK		32.00 (64)	
CS-48	60*	36"	WIDE LOADS	8D		9" X 36" @ 0"	2	ORANGE	BLACK		/5.00 (30)	
	-				1	1						

IDENTIFI-	SIZE	OF		TEXT L	DIMENSI	ONS	(INCH	ES)	NUMBER	COL	OR	000050	AREA IN	
CATION NUMBER	SI: WIDTH	GN	TEXT	LETTER HE IGHT	SPAC	ICAL CING	ARR RTE.	OW MKR.	OF SIGNS REQUIRED	BACK- GROUND	LEGEND BORDER	BORDER RADIUS	SQUARE FEET	NOTES
CS-52	96"	<i>18</i> "	NORTHBOUND SOUTHBOUND AT EXIT 80 AT EXIT 63	8C	5				2 4 1	ORANGE	BLACK		12 (24) 12 (48) 12 (12) 12 (12)	
CS-53 (LEFT) (RIGHT)	48"	48"		CONF HIGH	DIMEN FORM TO WAY SIG DI2 SUP	"STA GNS" -	ANDAR 2009	D.	10 10	ORANGE	BLACK		16.00 (160) (160)	
E5-I	72"	60"	EXIT						2	GREEN	WHITE		30.00 (60)	
E5-2 (OPEN) (OPEN AHEAD)	60"	48"	EXIT OPEN						2	ORANGE	BLACK		20.00 (40) 20.00 (40)	
G20-I	48"	24"	ROAD WORK NEXT 6 MILES						4	ORANGE	BLACK		8.00 (32)	
G20-2	48"	24"	END ROAD WORK						4	ORANGE	BLACK		8.00 (32)	
G20-5aP	48"	24"	WORK ZONE						18	ORANGE	BLACK		8.00 (144)	
MI-I	24"	24"	95						//	RED/ BLUE	WHITE		4.00 (44)	
RI-2	60°	60"	YIELD						4	WHITE	RED		12.50 (50)	
R2-I	48"	60°	SPEED LIMIT 50	V	V		V		14	WHITE	BLACK		20.00 (280)	

Scale:

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By Date

CONSULTANT PROJECT MANAGER: Jim Ferguson

By Date

Designed JRH 1/2018 Checked JRH 1/2018

Drawn

BRM 1/2018 In Charge of JOF 3/2018

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THE GOLD STAR MEMORIAL HIGHWAY PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

MAINTENANCE OF TRAFFIC SIGN SUMMARY 1 OF 3

SHEET NUMBER: M-7

CONTRACT: 2018.12 12 OF 27

IDENTIFI- CATION		: OF GN	TEXT	IFTT	FR N	/FRTI	ODI CDI	INCHES)	NUMBER OF SIGNS REQUIRED	BACK-	LEGEND	BORDER	AREA IN SQUARE	NOTES
NUMBER	WIDTH			HEIG	HT	SPACI	ING	RTE. MKF	REQUIRED	GROUND	BORDER	RADIUS	FEET	
R2-6aP	48"	24"	FINES DOUBLE	COI	NFORI GHW AY		"STA! VS" - 2	SHALL NDARD 2009 ENT	14	WHITE	BLACK		8.00 (112)	
R2-I2	36"	54"	END WORK ZONE SPEED LIMIT						4	WHITE	BLACK		13.5 (54)	
R4-2	48"	30"	ROAD CLOSED						2	WHITE	BLACK		10.00 (20)	
R4-9	36"	<i>48</i> "	STAY IN LANE						2	WHITE	BLACK		12.00 (24)	
w3-2	48"	48"							2	ORANGE	BLACK		16.00 (32)	
W3-4	48"	48"	BE PREPARED TO STOP						4	ORANGE	BLACK		16.00 (64)	
W3-5	48"	48"	SPEED LIMIT 50						4	ORANGE	BLACK		16.00 (64)	
W4-I	48"	48"		∀		V		V	2	ORANGE	BLACK		16.00 (32)	

IDENTIFI CATION NUMBER		SIZE SIO	OF GN HEIGHT	TEXT	TEX LET	(T DI) TER GHT	WENS. VERT SPA	IONS TICAL CING	(INCH ARF RTE.	ES) ROW MKR.	NUMBER OF SIGNS REQUIRED	COL BACK- GROUND	OR LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES
W4-2 (LEFT) (RIGHT	þ	48"	48"		C	ONFO. IIGHW	RM T AY SI	0 "ST	IS SH ANDAI - 2009 MENT	7N	4	ORANGE	BLACK		16.00 (64) (64)	
W7-3aF	· .	36"	30"	NEXT X FEET							4	ORANGE	BLACK		7.50 (30)	
W8-1		48"	48"	BUMP							8	ORANGE	BLACK		16.00 (128)	
w8-9		48"	48"	LOW SHOULDER							6	ORANGE	BLACK		16.00 (96)	
W8-II		48"	48"	UNEVEN							6	ORANGE	BLACK		16.00 (96)	
W8-15		48"	48"	GROOVED PAVEMENT							12	ORANGE	BLACK		16.00 (192)	
W8-I5P	3	30"	24"	6	7	7	,	V	7	7	12	ORANGE	BLACK		5.00 (60)	

CONTRACT:2018.12

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 By
 Date
 By
 Date

 JRH
 1/2018
 Checked
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 1/2018

 BRM
 1/2018
 In Charge of
 JOF
 3/2018
 Designed Drawn

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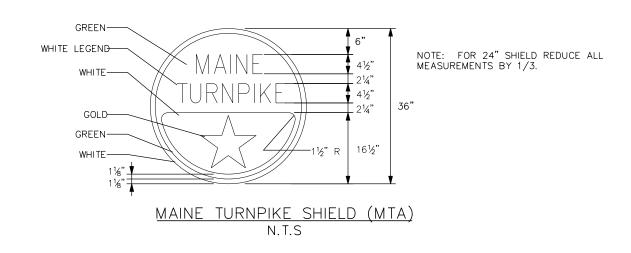


THE GOLD STAR MEMORIAL HIGHWAY PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

> MAINTENANCE OF TRAFFIC SIGN SUMMARY 2 OF 3
> SHEET NUMBER: M-8

MTA PROJECT MANAGER: Ralph C. Norwood, IV

IDENTIE!	CIZI	- 05		TEXT DIMENSIONS (INCHE	S) NUMBER	COL	0R			
IDENTIFI- CATION NUMBER	SI	OF GN HEIGHT	TEXT	LETTER VERTICAL ARR HEIGHT SPACING RTE.	OW SIGNS	BACK-	LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES
W8-24a	48"	48"	RUMBLE STRIPS AHEAD	TEXT DIMENSIONS SHA CONFORM TO "STANDAN HIGHWAY SIGNS" - 2009 & 2012 SUPPLEMENT	RD	ORANGE	BLACK		16.00 (64)	
W2O-I (I MILE) (AHEAD)	48"	48"	ROAD WORK 1 MILE		4 5	ORANGE	BLACK		16.00 (64) (80)	
W20-5 (LEFT) (RIGHT) (LEFT AHEAD) (RIGHT AHEAD)	48"	48"	LEFT LANE CLOSED 1/2 MILE		4 4 2 2	ORANGE	BLACK		16.00 (64) (64) (32) (32)	
W2I-5	48"	48"	SHOULDER		2	ORANGE	BLACK		16.00 (32)	
W2I-5aR (LEFT) (RIGHT)	48"	48"	RIGHT SHOULDER CLOSED		2 2	ORANGE	BLACK		16.00 (32) (32)	
W2I-5bR (LEFT) (RIGHT)	48"	48"	RIGHT SHOULDER CLOSED 1000 FT	δ	2 2	ORANGE	BLACK		16.00 (32) (32)	
LOGO S	24"	24"	MAINE TURNPIKE	SEE DETAILS	"	SEE D	ETAILS		4.00 (44)	



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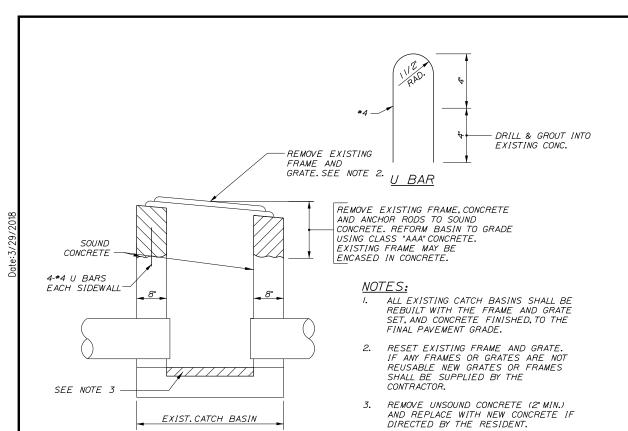
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

MAINTENANCE OF TRAFFIC SIGN SUMMARY 3 OF 3

SHEET NUMBER: M-9

CONTRACT: 2018.12 14 OF 27

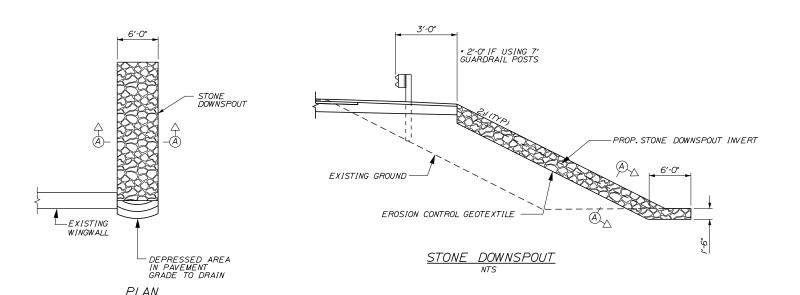
MTA PROJECT MANAGER: Ralph C. Norwood, IV



REBUILD CATCH BASIN TO GRADE - TYPE II NOT TO SCALE

<u>PLAN</u>

EXIST. CATCH BASIN



DIMENSIONS FOR SLOPE OF 2:1

D	A (FT)	B (FT)	C (FT)	E (FT)	F (FT)	G (FT)	STONE DEPTH (FT)	STONE (CY)
12"	1.00	4.00	3.00	2.00	6.00	1.00	1.50	1.30
/5"	1.00	4.50	3.37	2,25	6.75	1.63	1.50	1.70
18"	1.00	5.00	<i>3.</i> 75	2.50	7.50	2.25	1.50	2.09
24"	1.00	6.00	4.50	3.00	9.00	3.50	1.50	3.12
30"	1.00	7.00	5.25	3.50	10.50	4.75	1.50	4.33

DIMENSIONS FOR SLOPE OF 4:1

D A (FT) B (FT) C (FT) E (FT) F (FT) G (FT) STONE DEPTH (FT) STONE DEPTH (FT) 12" 1.00 8.00 6.00 2.00 6.00 0.00 1.50 2.20 15" 1.00 9.00 6.75 2.25 6.75 0.00 1.50 2.80 18" 1.00 10.00 7.50 2.50 7.50 0.00 1.50 3.40 24" 1.00 12.00 9.00 3.00 9.00 0.00 1.50 4.86 30" 1.00 14.00 10.50 3.50 10.50 0.00 1.50 6.58									
15" 1.00 9.00 6.75 2.25 6.75 0.00 1.50 2.80 18" 1.00 10.00 7.50 2.50 7.50 0.00 1.50 3.40 24" 1.00 12.00 9.00 3.00 9.00 0.00 1.50 4.86	D							DEPTH	
18" 1.00 10.00 7.50 2.50 7.50 0.00 1.50 3.40 24" 1.00 12.00 9.00 3.00 9.00 0.00 1.50 4.86	12"	1.00	8.00	6.00	2.00	6.00	0.00	1.50	2.20
24" 1.00 12.00 9.00 3.00 9.00 0.00 1.50 4.86	15"	1.00	9.00	6.75	2.25	6.75	0.00	1.50	2.80
2	18"	1.00	10.00	7.50	2.50	7.50	0.00	1.50	3.4 0
30" 1.00 14.00 10.50 3.50 10.50 0.00 1.50 6.58	24"	1.00	12.00	9.00	3.00	9.00	0.00	1.50	4.86
	<i>30</i> "	1.00	14.00	10.50	3.50	10.50	0.00	1.50	6.58

DIMENSIONS FOR SLOPE OF 6:1

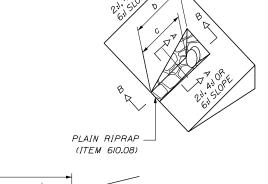
	D	A (FT)	B (FT)	C (FT)	E (FT)	F (FT)	G (FT)	STONE DEPTH (FT)	STONE (CY)
	12"	0.50	9.00	7.50	1.50	4. 50	0.00	1.50	2.30
	/5"	0.50	10.50	8.75	1.75	5.50	0.00	1.50	2.93
ſ	<i>18</i> "	0.50	12.00	10.00	2.00	6.50	0.00	1.50	<i>3.57</i>
	24"	0.50	15.00	12.50	2.50	8.00	0.00	1.50	5.44
	30"	0.50	18.00	15.00	3.00	9.50	0.00	1.50	7.71

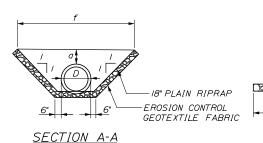
18" PLAIN RIPRAP

I:I FOR 4:I B

1:1 FOR 6:1

1/2:1 FOR 2:1

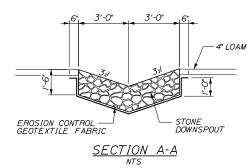




SECTION B-B

- i. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE RESIDENT.
- 2. STONE QUANTITIES ARE FOR ONE END OF THE PIPE.

ROADWAY CULVERT END SLOPE TREATMENT



ILF OF DOWNSPOUT= 0.33 CY OF PLAIN RIPRAP ILF OF DOWNSPOUT= 1.04 SY OF EROSION CONTROL GEOTEXTILE FABRIC

- I. STONE FOR STONE DOWNSPOUTS SHALL MEET THE REQUIREMENTS OF MAINEDOT SPECIFICATION 703.29 AND WILL BE PAID FOR UNDER ITEM 610.08. PLAIN RIPRAP.
- 2. CURBING MUST BE IN PLACE PRIOR TO GUARDRAIL INSTALLATION.

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No.	Revision	Ву	Date						
,				CONSULTANT	PROJEC	T MANAGER:	Jim Ferguson		
					Ву	Date		Ву	Date
	·			Designed	JRH	1/2018	Checked	JRH	2/2018
				Drawn	PJB	1/2018	In Charge of	JOF	3/2018

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THE GOLD STAR **MEMORIAL HIGHWAY**

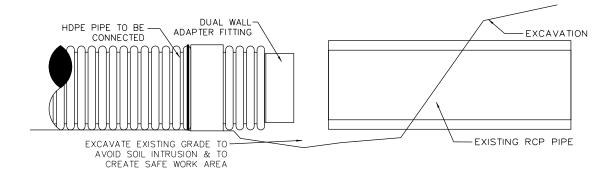
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS DRAINAGE DETAILS 1 OF 2

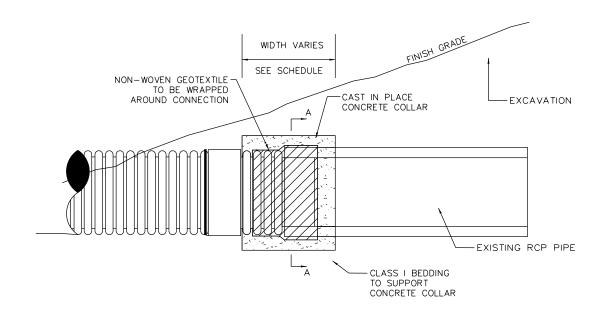
SHEET NUMBER: P-1

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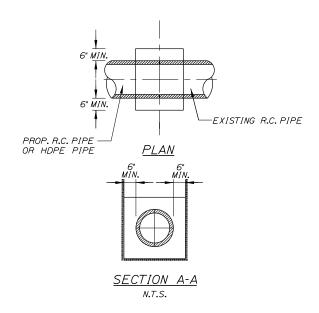
15 OF 27

MTA PROJECT MANAGER: Ralph C. Norwood, IV





CONCRETE COLLAR	WIDTH SCHEDULE
PIPE DIA. (INCHES)	WIDTH OF CONC. (INCHES)
12	24
15	24
18	24
24	24
30	30
36	36
42	48
48	48



NOTES:

- 1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321 (CRUSHED STONE).
- 2. CONCRETE SHALL BE CLASS A FIBER REINFORCED.
- 3. SEE CONCRETE COLLAR WIDTH SCHEDULE FOR DIMENSIONS.

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Drainage		NOT TO SCALE			T:Y:	LII	NINTE	ERNATI	ON	AL
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ğ						Ву	Date		Ву	Date
jeu					Designed	JRH	3/2018	Checked	JRH	3/2018
ш.					Drawn	JTR	3/2018	In Charge of	JOF	3/2018

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THE GOLD STAR **MEMORIAL HIGHWAY** PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

DRAINAGE DETAILS

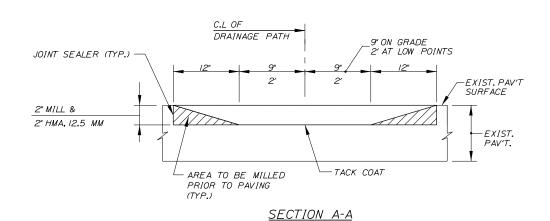
2 OF 2

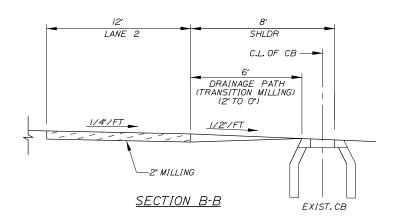
SHEET NUMBER: P-2

MTA PROJECT MANAGER: Ralph C. Norwood, IV

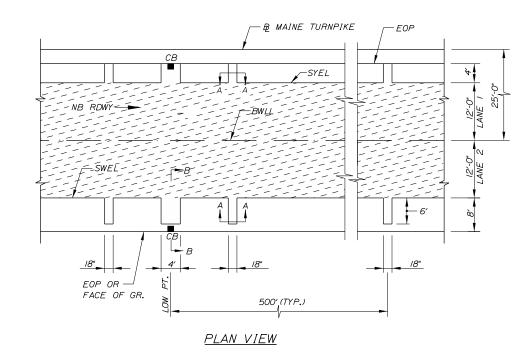
16 OF 27 CONTRACT:2018.12

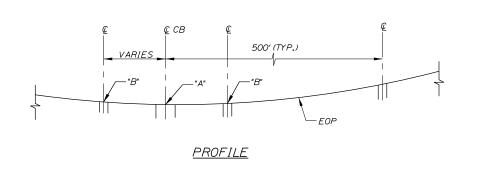
	MM 74.9	TO MM 79.8	
STA.	LOW POINT STA	HIGH POINT STA.	REMARKS
	3844+35	<i>3822</i> +50	
	3866+60	<i>3855+63</i>	
	3930+79	3894+09	
	3997+23.5	3951+59	













= DRAINAGE PATH MILLING

NOTES:

- I. POINT "B" IS I" HIGHER THAN POINT "A".
- 2. LOW/HIGH POINT STATIONING IS SHOWN IN SCHEDULES ABOVE.

= TRAVEL LANE MILLING

3. DRAINAGE PATH REQUIRED AT ALL LOW POINTS.

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5					Designed	JRH	1/2018	Checked	JRH	2/2018
-					Drawn	SPA	1/2018	In Charge of	JOF	3/2018

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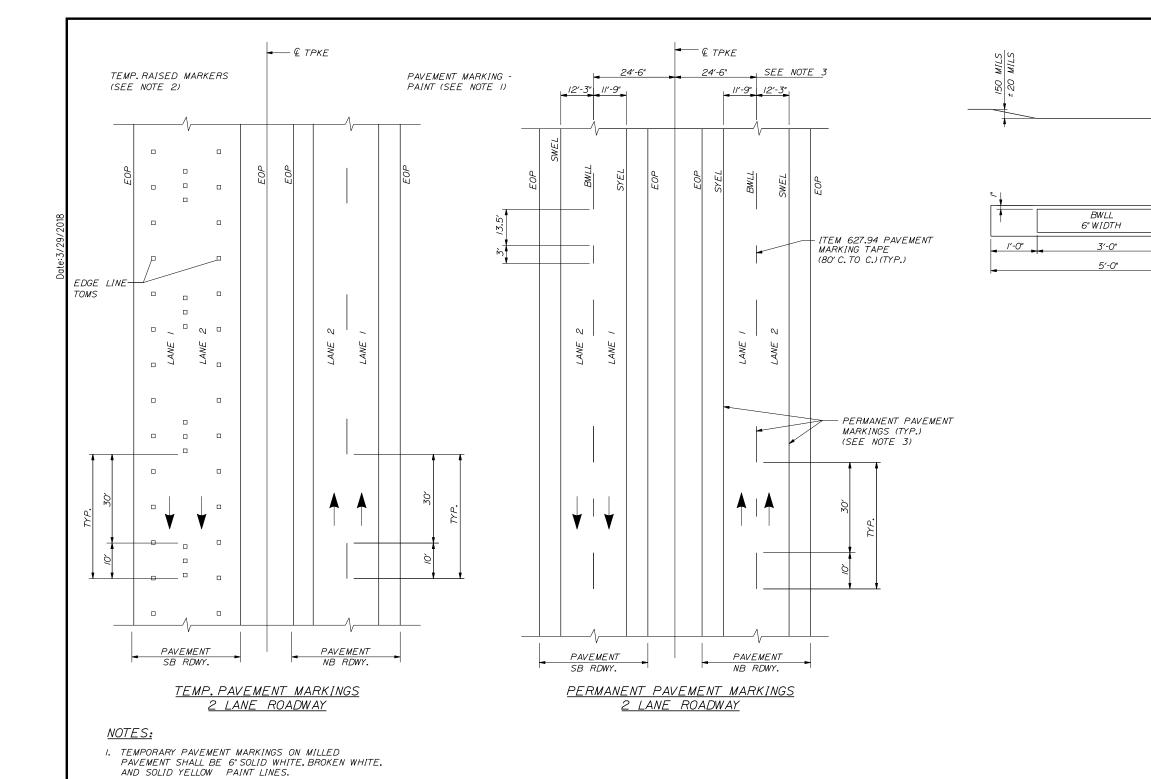


THE GOLD STAR **MEMORIAL HIGHWAY** PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

DRAINAGE PATH DETAILS

SHEET NUMBER: P-3

CONTRACT:2018.12



ITEM 627.94 PERMANENT PAVEMENT MARKINGS WITH TAPE GROOVING DETAIL N.T.S.

80'-0"

6" WIDTH

LEGEND

SYEL = SOLID YELLOW EDGE LINE (6" PAINT)

SWEL = SOLID WHITE EDGE LINE (6" PAINT)

BWLL = BROKEN WHITE LANE LINE (6" PAINT)

EOP = EDGE OF PAVEMENT

NOTES:

- I. PERMANENT PAVEMENT MARKINGS SHALL BE 6" WIDE LINES.
- 2. PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ON BOTH ROADWAYS.
- 3. THE OFFSET DISTANCE SHOWN ARE MEASURED FROM THE CENTER OF THE 6" PAINT LINES.
- 4. ALL EXISTING PAINT MARKINGS SHALL BE REMOVED PRIOR TO INSTALLATION OF ITEM 627.94 PAVEMENT MARKING TAPE AND SHALL BE INCIDENTAL TO INSTALLATION OF THE TAPE.
- 5. ON DECELERATION RAMPS, THE DWLL SHALL BEGIN AT THE BEGINNING OF THE FULL WIDTH DECELERATION LANE AND EXTEND TO THE THEORETICAL GORE MARKINGS.
- 6. ITEM 627.94 PAVEMENT MARKING TAPE FOR DWLL SHALL BE INSTALLED IN AN "IN-AND-OUT" GROOVING PATTERN. SEE DETAIL

Scale: Designed by: NOT TO SCALE **TY-LIN**INTERNATIONAL Revision By Date ONSULTANT PROJECT MANAGER: Jim Ferguson Date 1/2018 Checked JRH 2/2018 1/2018 In Charge of JOF 3/2018

2. TEMPORARY PAVEMENT MARKINGS ON NEW HMA 12.5MM. OR SHIM MATERIAL, SHALL BE TEMPORARY RAISED PAVEMENT MARKERS. "SOLID" WHITE AND "SOLID"
YELLOW LANE LINES SHALL BE TEMPORARY RAISED
PAVEMENT MARKERS SPACED AT 10'-0" C. TO C.
"BROKEN" WHITE LANE LINES SHALL BE TEMPORARY

RAISED PAVEMENT MARKERS SPACED 5'-0" C. TO C.

EVERY 40'-0". TEMPORARY 6" PAVING MARKING TAPE

3' PIECE EVERY 40'.

SHALL BE USED ON RADII ON SURFACE PAVEMENT. A

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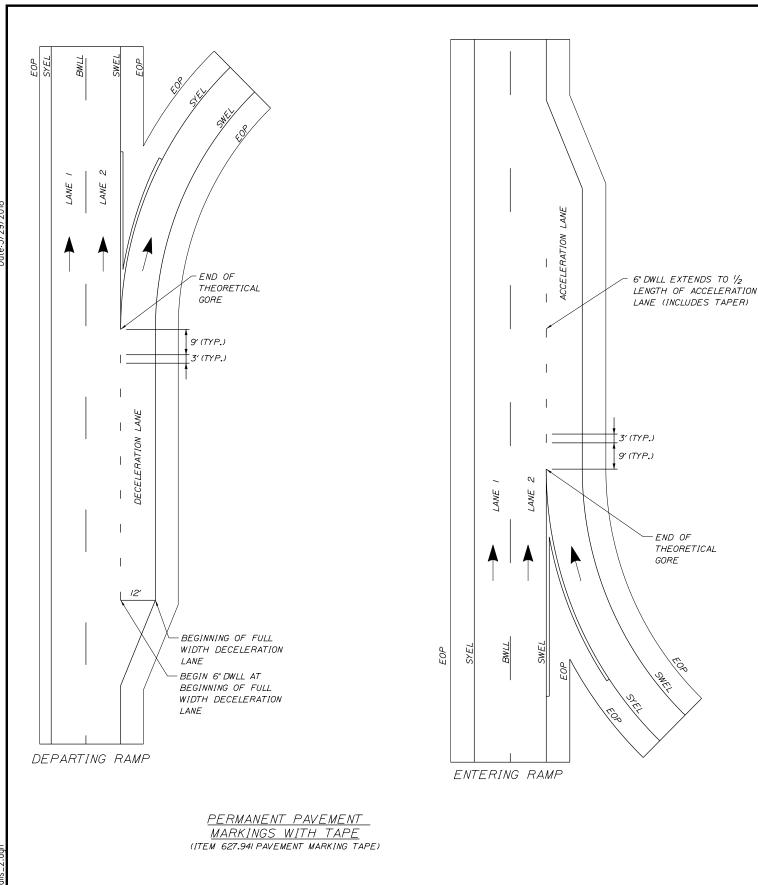
PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

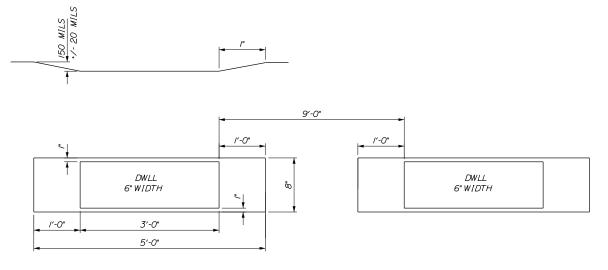
> STRIPING DETAILS 1 OF 2

> > SHEET NUMBER: P-4

CONTRACT:2018.12

MTA PROJECT MANAGER: Ralph C. Norwood, IV





ITEM 627.941

DWLL PERMANENT PAVEMENT

MARKINGS WITH TAPE

GROOVING DETAIL

NTS

ITEM 627.941 - PAVEMENT MARKING TAPE - DWLL INSTALLATION LOCATIONS LENGTH LENGTH **BEGIN** END LOCATION OF TAPE (STA) (IF)NB OFF RAMP 3783+56 793 198.3 EXIT 75 3791+49 EXIT 75 386 NB ON RAMP 3810+34 3814+20 96.5 EXIT 75 SB ON RAMP 3780+00 3782+96 296 74.0 EXIT 75 SB OFF RAMP 3798+62 3805+88 726 181.5 TOTAL 550.3

LEGEND

SYEL = SOLID YELLOW EDGE LINE (6" PAINT)

SWEL = SOLID WHITE EDGE LINE (6" PAINT)

BWLL = BROKEN WHITE LANE LINE (6" PAINT)

EOP = EDGE OF PAVEMENT

NOTES:

- I. ALL EXISTING PAINT MARKINGS SHALL BE REMOVED PRIOR TO INSTALLATION OF ITEM 627.941 PAVEMENT MARKING TAPE AND SHALL BE INCIDENTAL TO INSTALLATION OF THE TAPE.
- 2. ON DEPARTING RAMPS, THE DWLL SHALL BEGIN AT THE BEGINNING OF THE FULL WIDTH DECELERATION LANE AND EXTEND TO THE THEORETICAL GORE MARKINGS.
- 3. ON ENTERING RAMPS, THE DWLL SHALL BEGIN AT THE END OF THE THEORETICAL GORE MARKINGS AND SHALL EXTEND HALF THE TOTAL LENGTH OF THE RAMP INCLUDING THE TAPER.
- 4. ITEM 627.941 PAVEMENT MARKING TAPE FOR DWLL SHALL BE INSTALLED IN AN "IN-AND-OUT" GROOVING PATTERN. SEE DETAIL THIS SHEET.
- 5. CONTRACTOR SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF THE TAPE. ANY CHANGES TO INSTALLATION PROCEDURES SHALL BE APPROVED THE RESIDENT ENGINEER.

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THE GOLD STAR MEMORIAL HIGHWAY PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

STRIPING DETAILS

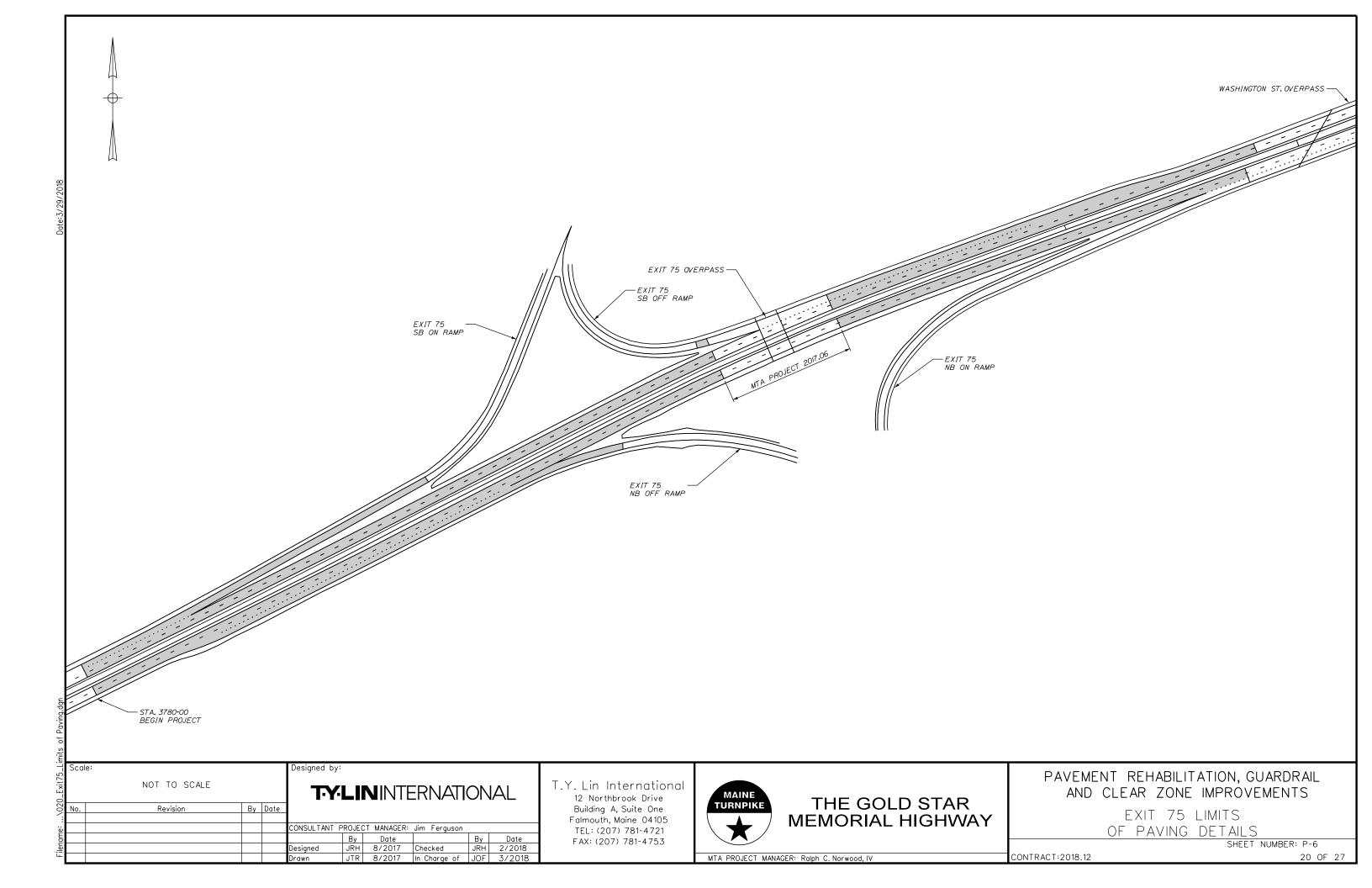
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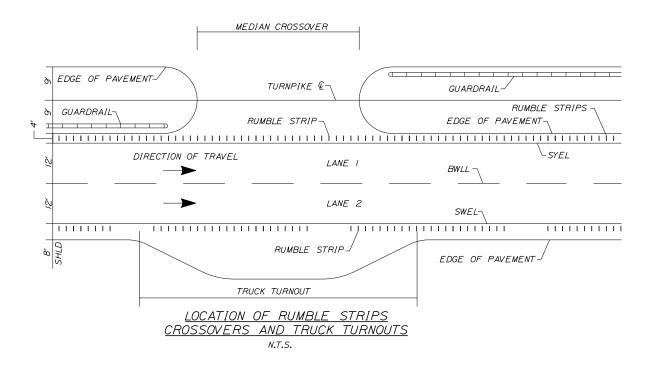
SHEET NUMBER: P-5

CONTRACT:2018.12

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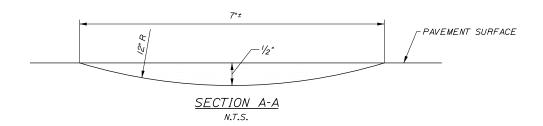


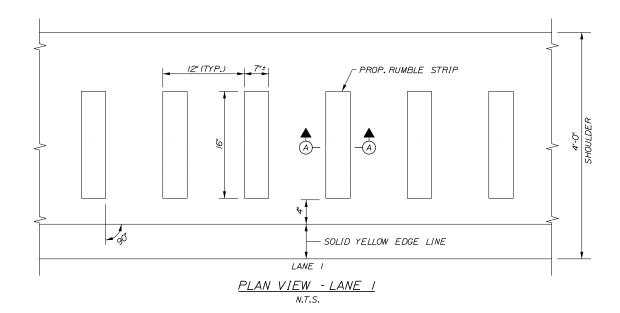


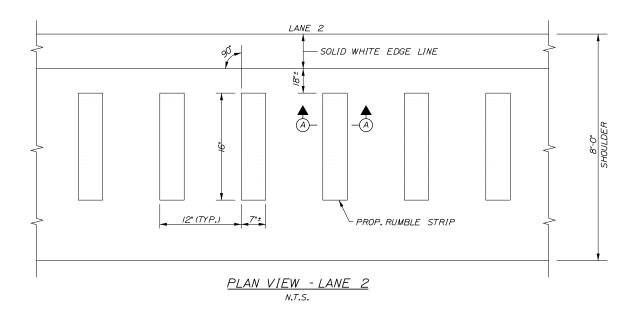
NOTES:

I. INSTALL LANE 2 RUMBLE STRIPS WITH A 20' GAP EVERY 100'. (I.E. 80' OF RUMBLE STRIP AND 20' OF NO RUMBLE STRIP; REPEAT...) 2. LANE I RUMBLE STRIPS NEEDED FROM SB MM 79.8 TO MM 80.7

3. LANE 2 RUMBLE STRIPS NEEDED FROM NB MM 79.8 TO MM 80.7

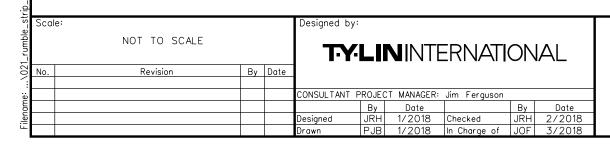






RUMBLE STRIP DETAILS

CONTRACT:2018.12



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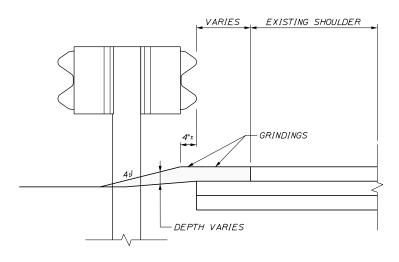


PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

RUMBLE STRIP DETAILS

SHEET NUMBER: P-7

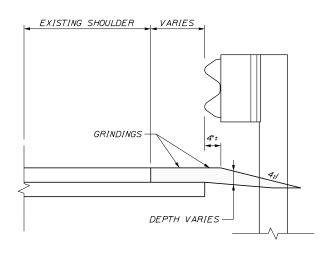
EXISTING SECTION



PROPOSED SECTION

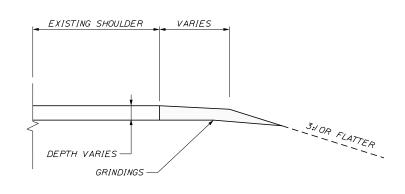
<u>BERM DROPOFF CORRECTION WITH GUARDRAIL</u> <u>MEDIAN GUARDRAIL</u>

NOT TO SCALE



DEPTH VARIES

GRINDINGS



BERM DROPOFF CORRECTION WITHOUT GUARDRAIL
NOT TO SCALE

BERM DROPOFF CORRECTION WITH GUARDRAIL

RIGHT OUTSIDE SHOULDER

NOT TO SCALE

<u>NOTES:</u>

- I. BERM DROPOFF CORRECTION WILL BE PLACED AT ALL LOCATIONS UNLESS OTHERWISE DIRECTED BY THE RESIDENT.
- 2. LEFT AND RIGHT ARE SPECIFIC TO WHETHER TRAVELING NB OR SB.
- 3. BERM DROP OFF CORRECTION OF 3" OR MORE SHALL BE PLACED PRIOR TO SHIFTING TRAFFIC TO THE LANE ADJACENT TO THE SHOULDER REQUIRING CORRECTION.

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THE GOLD STAR MEMORIAL HIGHWAY AND CLEAR ZONE IMPROVEMENTS

PAVEMENT REHABILITATION, GUARDRAIL

BERM DROPOFF CORRECTION DETAILS

SHEET NUMBER: P-8

CONTRACT:2018.12

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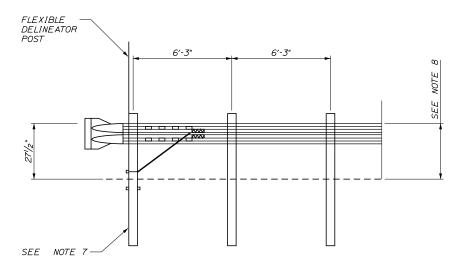
- 3. COMPACTION OF EARTH AND/OR SUBBASE GRAVEL AROUND GUARDRAIL POSTS DISTURBED DURING THE WORK IS REQUIRED. ALL POSTS SHALL BE PLUMB AFTER COMPACTION.
- 4. EXCAVATION NECESSARY TO MAINTAIN DRAINAGE WAYS OUTSIDE OF THE FLEAT 350 WIDENING OR THE SHOULDER WIDENING WORK AREA SHALL BE PAID FOR UNDER ITEM 631.12 ALL PURPOSE EXCAVATOR AS APPROVED BY THE RESIDENT ENGINEER. EXCAVATED MATERIAL SHALL BE USED TO GRADE ANY PROPOSED SLOPE AREA OUTSIDE OF 1:1 SLOPE LIMIT OR USED TO FLATTEN SLOPES OUTSIDE THE WORK AREA AS APPROVED BY THE RESIDENT. PLACEMENT AND COMPACTION OF THE EXCAVATED MATERIAL WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.
- 5. ANY COMMON BORROW NECESSARY TO CONSTRUCT SHOULDER WIDENING SHALL COME FROM EXCAVATION WITHIN PROJECT LIMITS AND NO SEPARATE PAYMENT WILL BE MADE.
- 6. SLOPES CONSTRUCTED FROM THE ABOVE NOTED EXCAVATED MATERIAL SHALL BE LOAMED, SEEDED AND MULCHED. LOAM, SEED AND MULCH WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE INCIDENTAL TO ITEM 606.754.
- 7. SLOPES CONSTRUCTED FOR ITEM 205.511 SHALL BE 3:1 WITHIN 50 FEET OF THE TERMINAL END AND CAN BE 2:1 IN ALL OTHER AREAS.
- 8. IF LEDGE IS ENCOUNTERED DURING EXCAVATION AND IF APPROVED BY THE RESIDENT, AN 18" UNDERDRAIN TYPE C WRAPPED IN GEOTEXTILE, MAY BE INSTALLED IN THE EXISTING DITCH LINE TO MAINTAIN DRAINAGE WITH RIPRAP OUTLETS. THE ENDS SHALL BE CUT AND THE SLOPE GRADED TO CREATE A 4:I SLOPE AT BOTH THE ENTERING AND EXITING ENDS OF THE PIPE. ALL WORK AND ITEMS REQUIRED TO INSTALL THE PIPE SHALL BE INCIDENTAL TO THE ITEM 606.754.

GUARDRAIL INSTALLATION AND MODIFICATION NOTES

- I. THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE INSTALLATION AND/OR MODIFICATION OF ANY AND ALL GUARDRAIL COMPONENTS TO BE INSTALLED UNDER THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER IF THE CONTRACTOR DISCOVERS CONFLICTS OR IRREGULARITIES OF ANY SORT BETWEEN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THESE CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASH END TREATMENT ON ALL GUARDRAIL ENDS IN ALL WORK AREAS AT THE END OF EACH DAY. THE CONTRACTOR SHALL ENSURE THAT ENOUGH TIME EXISTS IN THE WORK DAY TO COMPLETE ALL MODIFICATIONS AND/OR INSTALLATIONS TO END TERMINALS. THE CONTRACTOR SHALL ENSURE THAT ALL PARTS AND MANPOWER ARE ON-SITE PRIOR TO UNDERTAKING ANY GUARDRAIL MODIFICATIONS.
- 3. GUARDRAIL HEIGHT SHALL BE INSTALLED OR ADJUSTED TO 30°+0°,-1/2° HEIGHT.GUARDRAIL HEIGHT SHALL BE MEASURED FROM THE EDGE OF PAVEMENT WHEN WITHIN 2 FEET.IF GUARDRAIL IS OFFSET FROM EDGE OF PAVEMENT GREATER THAN 2 FEET.THEN HEIGHT OF RAIL SHALL BE MEASURED AT GROUND ELEVATION ADJACENT TO EACH POST BELOW THE RAIL TO THE TOP OF GUARDRAIL AND AFTER FINAL GRADING OF SHOULDER.
- 4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CUT BOLTS, DISCARDED PARTS, TRASH, PAVEMENT DEBRIS, ETC., AFTER COMPLETING GUARDRAIL MODIFICATIONS AND/OR INSTALLATIONS.
- 5. CONNECTIONS FOR PROPOSED RAIL TO EXISTING RAIL SHALL BE INCIDENTAL TO THE INSTALLATION OF PROPOSED GUARDRAIL.
- 6. FLEAT 350 TERMINALS INSTALLED UNDER THIS CONTRACT SHALL BE INSTALLED AT A HEIGHT OF 27.5" AT THE TERMINAL HEAD AND TRANSITIONING UP TO THE REQUIRED HEIGHT OF RAIL OF 30° 0°, -1/2" OVER A 25 LINEAR FOOT LENGTH. HEIGHT OF FLEAT 350 RAIL SHALL BE MEASURED FROM THE GROUND ELEVATION UNDER THE FLEAT RAIL PANELS TO THE TOP OF THE RAIL.
- 7. SOIL ANCHOR TUBES INSTALLED AS PART OF CAT, FLEAT OR TRAILING TERMINAL ENDS SHALL NOT PROTRUDE FROM THE GROUND MORE THAN 31/2". ADDITIONAL SITE GRADING MAY BE REQUIRED TO ADJUST SOIL TUBE REVEAL AND IF REQUIRED SHALL NOT DIRECT STORMWATER SURFACE DRAINAGE TOWARDS THE SHOULDER OR TRAVEL WAY. ADDITIONAL SITE GRADING SHALL BE INCIDENTAL TO THE END TERMINAL INSTALLATION.
- 8. TRANSITION RAIL HEIGHT ON TERMINAL END-ANCHORED ENDS FROM 271/2" AT THE END OF THE RAIL TO 30" HEIGHT OVER A 25 LINEAR FOOT LENGTH.
- 9. A CAT SYSTEM AND REQUIRED TRANSITION SECTION IS 43.75 FEET PLUS THE 25 FEET OF TYPE 3d DOUBLE RAIL.THIS 68.75 FEET OF RAIL AND SYSTEM SHALL BE IN A CONTINUOUS TANGENT LINE.
- 10. ALL DAMAGE TO GUARDRAIL COMPONENTS RESULTING FROM ADJUSTMENTS MADE TO THE GUARDRAIL SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE AUTHORITY.
- II. ALL SALVAGEABLE GUARDRAIL BEAM AND POSTS FROM REMOVED GUARDRAIL SHALL BE STACKED AT THE HACKETT ROAD MAINTENANCE YARD AT MM 76.9. THE CONTRACTOR SHALL DISPOSE OF ALL UNSALVAGABLE COMPONENTS INCLUDING ALL OFFSET BLOCKS, BOLTS, AND OTHER HARDWARE.

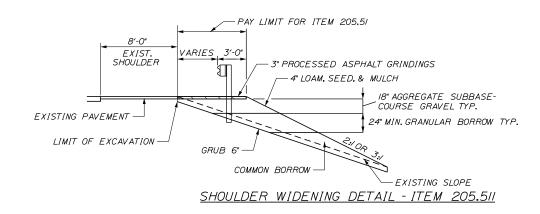
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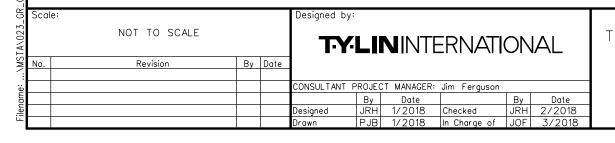
I. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL DISTURBED 2:1 SLOPES, IN THE FLOW LINE OF ALL DISTURBED DITCHES AFTER LOAM AND SEED HAVE BEEN INSTALLED, AND/OR AS DIRECTED BY THE RESIDENT AND SHALL BE INCIDENTAL TO ITEM 606.754.



TERMINAL END - ANCHORED END (ITEM 606.278)

N.T.S.





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THE GOLD STAR MEMORIAL HIGHWAY PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

GUARDRAIL GENERAL NOTES

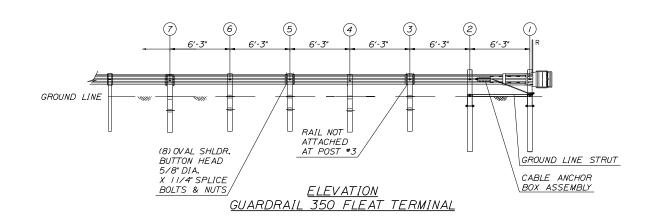
SHEET NUMBER: G-1

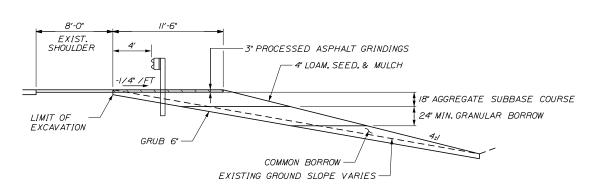
CONTRACT:2018.12

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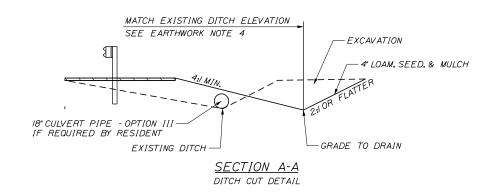
MTA PROJECT MANAGER: Ralph C. Norwood, IV

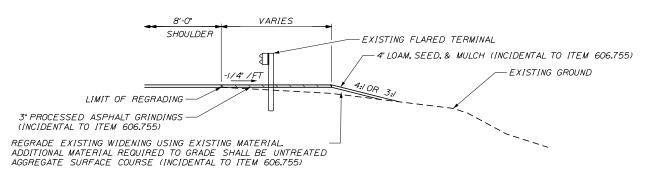
<u>WIDEN SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL - ITEM 606.754</u>
<u>PLAN</u>





<u>SECTION A-A</u> DITCH FILL DETAIL





MODIFY WIDENED SHOULDER FOR GUARDRAIL
350 FLARED TERMINAL - ITEM 606,755

Scale: NOT TO SCALE T-Y-LININTERNATIONAL No. Revision By Date CONSULTANT PROJECT MANAGER: Jim Ferguson By Date Designed JRH 1/2018 Checked JRH 2/2018 Drown PJB 1/2018 In Charge of JOF 3/2018

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THE GOLD STAR MEMORIAL HIGHWAY

HIGHWAY CHARD

GUARDRAIL WIDENING DETAILS

AND CLEAR ZONE IMPROVEMENTS

PAVEMENT REHABILITATION, GUARDRAIL

SHEET NUMBER: G-2

CONTRACT: 2018.12 24 OF 27

NORTHBOUND SCHEDULE OF OUTSIDE SHOULDER GUARDRAIL LIMITS

	LOCATION OF WORK															ITEM 606.755		ITE	M 205.51	WIDENING	OF EXISTI	NG SHOULD)ER	
		EXI	ISTING	PROF	POSED	ITEM 606,178	ITEM 606.24	ITEM 606.2652	ITEM 606.278	ITEM 606.353	ITEM 606.355	ITEM 606.3621	ITEM 606.471	ITEM 606.48	ITEM 606.754	MODIFY	ITEM 606.80	L	EADING E	ND	TF	RAILING EN	ID	
MILE MARKI	LOCATION DESCRIPTION	APPROX. STATION	APPROX. STATION OF TERMINAL END OF ENDPOST	STATION LEADING END	TRAILING BEAM S	TYPE 3D - E SINGLE RAIL REM	TERMINAL END - REMOVE & STACK	TERMINAL END - ANCHORED END	DELINEATOR POST		GUARDRAIL ADJUST - SINGLE RAIL	SINGLE OFFSET BLOCK - W BEAM	SINGLE GALVANIZED STEEL POST	WIDENED SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL	WIDENED SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL	GUARDRAIL FLEAT 350 FLARED TERMINAL	BEGIN STATION	END STATION	QUANTITY	BEGIN STATION		QUANTITY	DESCRIPTION OF WORK	
74.9		3780+00	3783+30	3780•00	3783+30	250.0																		
75.2		3795+58	3798+74	3795+58	3798+74					2	2	312.5			1		1							
75.3		3799+32	3805+60	3799+32	3805+60	200.0		1	1	1	1	625.0												
75.5		3810+67	3812+77	3810•67	3812+77	12.5						212.5			1									
75.6		3819+30	3828+41	3819+30	3828+41							912.5												
76.0		3838•69	3843+58	3838+69	3843+58	87.5		/	1	1	1	487.5				/								
76.2		3849+00	3852+10	3849•00	3852+72.5	12.5	50.0	1	1	1	1	3/2.5				/					3852-22.5	3852+72.5	50.0	
76.5		3863+58	3869•00	3863+58	3869+00	25.0						537.5				/								
76.9		3883•03	3884•95	3883+03	3884+95							187.5												
77.3		3909+02	3911+18	3909+02	3911+18											/								
77.5		3919+86	3922+75	3919+86	3922+75	12.5		1	1	/	/	287.5				/								
77.8		3933+31	3960+84	3933+31	3960+84	100.0		1	/	1	1	2750.0	2	2		/								
78.5		3970+35	3972•60		3972•60	25.0						225.0				/								
78.6		3977+05	3984+56	3977•05	3984+56					2	2	750.0			/		1							
78.9		3993+71	4006+57	3993+71	4006+57	75.0		1	1	/	/	/250.0												
79.2		4008+34	4015+08	4008+34								675.0				/								
79.4		4017+04	4025+59		4025+59	87.5						850.0												
79.6		4027+38	4031+32	4027+38	4031+32			1	/	/	1	375.0												
79.7		4033+49	4036+00	4033+49	4036+00	62.5										/								INEW RAIL IN FLEAT 350
					TOTAL	950.0	50.0	7	7	//	//	10750.0	2	2	3	9	2						50.0	
					UNIT	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA						LF	

<u>GENERAL NOTES:</u>

- 1. APPROXIMATE STATION IS THE LEADING END OR TRAILING END OF THE EXISTING GUARDAIL OR FLEAT.
 2. FOR ITEM 205.5I SHOULDER WIDENING, WIDEN SHOULDER AS INDICATED ON ABOVE SCHEDULE OR AS DIRECTED BY THE RESIDENT ENGINEER.
 3. REPAIR DAMAGED GUARDRAIL BEAMS AS INDICATED OR AS DIRECTED BY THE RESIDENT ENGINEER.
 4. REPLACE ALL RIGID GUARDRAIL DELINEATOR POSTS WITH FLEXIBLE DELINEATORS AS PER SECTION 606 GUARDRAIL DELINEATOR POST.
 5. INDICATED INSTALLATION LOCATION OF FLEAT UNITS REFERS TO LOCATION OF THE FLEAT CRASH HEAD.

INSTALLATION NOTES:

- I. ADJUST ALL GUARDRAIL TO 30-INCH ABOVE EDGE OF PAVEMENT AS REQUIRED OR AS DIRECTED BY THE RESIDENT.
 2. REMOVE EXISTING END SECTION AND STACK: INSTALL ANCHORED TRAILING END.

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:	CONSULTANT PROJECT MANAGER: Jim Ferguson													
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PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

> GUARDRAIL LIMITS NORTHBOUND

CONTRACT:2018.12

SHEET NUMBER: G-3

MTA PROJECT MANAGER: Ralph C. Norwood, IV

<u>SOUTHBOUND SCHEDULE OF OUTSIDE SHOULDER GUARDRAIL LIMITS</u>

LOCATION OF WORK															ITEM 606.755		ITE	M 205.51	WIDENING	OF EXISTI	VG SHOULD	ER			
			EX	ISTING	PROF	POSED	ITEM 606.178	ITEM 606.24	ITEM 606.2652	ITEM 606.278	ITEM 606.353	ITEM 606.355	ITEM 606.3621	ITEM 606.471	ITEM 606.48	ITEM 606.754	MODIFY	ITEM 606.80	L	EADING E	ND	TF	AILING EN	D	
M	MILE ARKER	LOCATION DESCRIPTION	APPROX. STATION		LEADING	STATION TRAILING END	GUARDRAIL BEAM	GUARDRAIL TYPE 3D - SINGLE RAIL	TERMINAL END - REMOVE & STACK	TERMINAL END - ANCHORED END	DELINEATOR POST	DELINEATOR POST - REMOVE AND STACK	GUARDRAIL ADJUST - SINGLE RAIL	SINGLE OFFSET BLOCK - W BEAM	SINGLE GALVANIZED STEEL POST	WIDENED SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL	WIDENED SHOULDER FOR GUARDRAIL 350 FLARED TERMINAL	GUARDRAIL FLEAT 350 FLARED TERMINAL	BEGIN STATION	END STATION	QUANTITY	BEGIN STATION		QUANTITY	DESCRIPTION OF WORK
77010	7 4. 9		3783•69	3780+00	3783•69	3780•00																			
6770	75,2		3798+62	3797+87	3798+62	3797+87			1	1	1	1	75.0												
Date	75.3		3801+22	3799+46	3801-22	3799+46					2	2	/37.5			1		1							
	75.5		38/3+85	3812+49	38/3+85	3812+49					1		/37.5												
	75.7		3829+64	3820+66	3829•64	3820•66	50.0						900.0		4		1								
	76.0		3844+00	3840+59	3844+00	3840+59			1	/	3	3	275.0				1	1							
	76.2		3852+06	3849+81	3852+06	3849+81							225.0				1								
	76.6		3869+86	3867+23	3869+86	3867+23							262.5				1								
	76.9		3885+45	3883+19	3885+45	3883+19			1	1	1	1	200.0				1								
	77.4		3912+25	3910-23	3912+25	3909+98		25.0	1	1	1	1	200.0				1					3909+98	3910-23	25.0	
	77.6		3922+91	3920+69	3922+91	3920•69							225.0				1								
	77.8		3937+47	3933+44	3937+47	3933•44	12.5		1	/	1	1	400.0	1	/		1								
	78.0		3960+72	3942+27	3960+72	3942+27	62.5		1	/	/	1	1825.0	/	1		1								
	78 . 6		3985+00	3976+02	3985+00	3976+02	50.0		1	1	1	1	900.0	2	3										
	79.0		40/5+52	3994+95	4015+52	3994+95	37.5						2062.5												
	79.4		4025+07	4017+73	4025+07	4017+73	87.5						737.5												
	79.6		4031+54	4026+86	4031+54	4026+86	12.5						425.0				1	/							
		'			'	TOTAL	312.5	25.0	7	7	12	//	8912.5	4	9	,	10	3						25.0	
						UNIT	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA						LF	

NOT TO SCALE **TYLIN**INTERNATIONAL Revision By Date CONSULTANT PROJECT MANAGER: Jim Ferguson
 By
 Date
 By
 Date

 JRH
 1/2018
 Checked
 PJB
 2/2018

 SPA
 1/2018
 In Charge of
 JOF
 3/2018

T.Y. Lin International 12 Northbrook Drive Building A, Suite One Falmouth, Maine 04105 TEL: (207) 781-4721 FAX: (207) 781-4753



MTA PROJECT MANAGER: Ralph C. Norwood, IV

PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

> GUARDRAIL LIMITS SOUTHBOUND

SHEET NUMBER: G-4

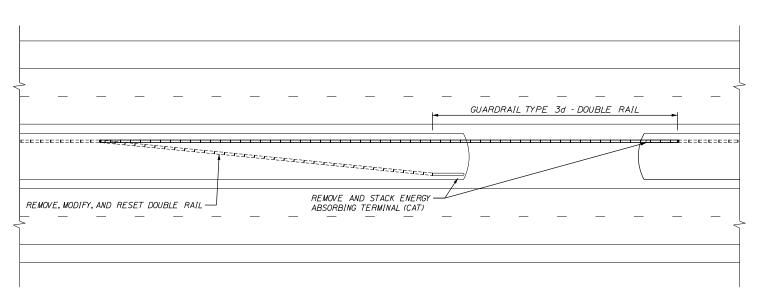
CONTRACT:2018.12

26 OF 27

Scale:

SCHEDULE OF MEDIAN GUARDRAIL LIMITS

		LOCATIO	ON OF WORK																
		EX.	ISTING	PROI	POSED	ITEM 527.305	ITEM 606.178	ITEM 606.2401	ITEM 606.2652	ITEM 606.278	ITEM 606.353	ITEM 606.355	ITEM 606.3606	ITEM 606.3621	ITEM 606.3622	ITEM 606.369	ITEM 606.471	ITEM 606.48	
MILE MARKI	LOCATION R DESCRIPTION	APPROX. STATION			STATION TRAILING END	ENERGY ABSORBING TERMINAL (CAT) - REMOVE AND STACK	GUARDRAIL BE AM	GUARDRAIL TYPE 3d - DOUBLE RAIL	TERMINAL END - REMOVE & STACK	TERMINAL END - ANCHORED END	DELINEATOR POST	DELINEATOR POST - REMOVE & STACK	REMOVE, MODIFY AND RESET DOUBLE RAIL	GUARDRAIL ADJUST - SINGLE RAIL	GUARDRAIL ADJUST - DOUBLE RAIL	GUARDRAIL REMOVED & STACKED	SINGLE OFFSET BLOCK - W BEAM	SINGLE GALVANIZED STEEL POST	DESCRIPTION OF WORK
74.9	NB MEDIAN	3780+00	3786+40	3780+00	3786+40									287.5	350.0				
75.0	SB-NB MEDIAN	3783+03	3798+74	3783+03	3798+74									287.5	1287.5				
75.3	SB-NB MEDIAN	3799+46	3813+26	3799+46	3813+26										1375.0				
75.7	SB-NB MEDIAN	3820+22	3828+52	3820-22	3828+52		37.5							87.5	737.5		3		
75.8	MEDIAN	3827+18	3854•67	3827+18	3884·62	1	25.0		1	1	1	1	387.5	125.0	2375.0			4	CLOSE MEDIAN OPENING MM 76.3 SEE DETAIL BELOW
76.3	MEDIAN	3855+50	3884•62	3021 10	3004 02	1		150.0	1	1	1	1		87.5	2825.0				SEE DETAIL BELOW
76.9	MEDIAN	3883+48	3921+89	3883+48	3921•89				2	2	2	2		225.0	3587.5				
77.6	MEDIAN	3920+35	3974+25	3920+35	<i>3985+05</i>	1	25.0	<i>150.0</i>	1	/	1	1		137.5	4750.0				CLOSE MEDIAN OPENING MM 78.5 SEE DETAIL BELOW
78.6	NB-SB MEDIAN	3975+00	3985•05	3320 33	3303 03	I					1	1	500.0		1000.0				SEE DETAIL BELOW
78.9	MEDIAN	3993+71	4015+27	3993•71	4015+27										2/50.0				
79.4	SB-NB MEDIAN	4017+50	4025+44	4017+50	4025+44										800.0				
79.6	SB-NB MEDIAN	4027+03	4032+90	4027+03	4032+90										587.5		1	/	
79.7	NB MEDIAN	4033+75	4036+00	4033+75	4036+00										225.0				
					TOTAL	4	87.5	300.0	5	5	6	6	887.5	1237.5	22050.0		4	5	
					UNIT	EA	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	EA	EA	



MEDIAN OPENING CLOSURE DETAIL

-GR	Scal	e:		Designed by:										
TA\027	Scal	NOT TO SCALE			TY-LININTERNATIONAL									
.\MS	No.	Revision	Ву	Date	1									
: e:					CONSULTANT	PROJEC	T MANAGER:	Jim Ferguson						
g						Ву	Date		Ву	Date				
ilename:					Designed	JRH	1/2018	Checked	PJB	2/2018				
Œ					Drawn	SPA	1/2018	In Charge of	JOF	3/2018				

T.Y. Lin International 12 Northbrook Drive Building A, Suite One Falmouth, Maine 04105 TEL: (207) 781-4721 FAX: (207) 781-4753



PAVEMENT REHABILITATION, GUARDRAIL AND CLEAR ZONE IMPROVEMENTS

GUARDRAIL LIMITS MEDIAN

SHEET NUMBER: G-5

CONTRACT:2018.12 27 OF 27