Appendix A-2

CHECKLISTS

REVIEWING YOUR WORK

The following pages include a copy of the TEDD Design Checklists which include four Sections: Signing and Pavement Marking, Lighting, Traffic Signals and Document Preparation. These checklists can be used as design aids as well as for quality control reviews. They outline all the major areas of a plan which should be verified by both the designer and the reviewer. TEDD requires that the appropriate checklists are completed for all projects by the designer and are submitted with the PS&E package along with the signed Cover Letter.

CHECKING YOUR PS&E PACKAGE

In addition to checking the design, it is important to verify that the PS&E package is complete and contains all the information and approvals necessary to construct the project. Three checklists have been developed to assist TEDD Project Manager's with this: the "TEDD Areawide Checklist," "TEDD Developer Checklist" and the "TEDD Insert Checklist." As projects progress, TEDD Project Managers should keep these checklists updated to help ensure that the final submission package will be complete.

July 2017 Appendix A-2





Project Identificat	ion				
TIMS Number:		District:			
Designer:		Review Date:			
Project Name:					
Type of Project:	☐ Areawide	☐ Insert/Ac	lvertised		
	able sections of the TEDD Desig			lote required r	evisions, e
Section			Pages	Complete	N/A
Section 1 – Signin	ng and Pavement Marking		1 - 10		
Section 2 – Lightin	ng		11 - 18		
Section 3 – Traffic	: Signals		19 - 25		
Section 4 – Docur	nent Preparation		26 - 30		
Consultant Desig	gn Engineer: e <i>:</i>	Name:			
Date:					
TEDD Project Ma	_	A1			
Signature Date:	9:	Name:			
TEDD Team Lead	der:				
Signature	e:	Name:			
Date:					

SECTION 1 – SIGNING AND PAVEMENT MARKING – Complete Section 1 for projects that include signing and pavement marking design.

	SECTION 1 – SIGI	NING AI	ND PAVI	EMENT	MARKING
		Yes	No	N/A	Comments
	NERAL NOTES AND PROPOSALS SHEET (
Th	e following are correctly noted on the Gener	ral Note	s and P	roposal	Sheet:
•	Appropriate standards				
•	Sign orientation				
•	Overhead sign alignment				
•	Project requirements				
•	Project-specific exceptions to standard criteria				
•	Project approvals			П	
•	Project title				
•	TIMS number				
		Yes	No	N/A	Comments
PL	AN SHEETS (SN-2)		•		
Th	e following items are included and shown c	orrectly	on the	Plan Sh	eets:
•	Existing and proposed conditions (Only				
	pertinent information should be shown on				
	plans. All other levels should be turned off.)				
•	Limits of work				
•	Base mapping				
•	North arrow				
•	Directional arrows with destinations				
•	Match lines with sheet numbers or letters				
•	Baseline / Stationing with labels				
•	Correct scale				
•	Key / Legend				
•	Signing				
•	Pavement Marking				
•	Project notes				
•	Street names shown on cross streets				
•	Route numbers with cardinal direction (e.g. I-70 (WBL)) and road name				
•	Right-of-way lines and labels (existing and proposed)				
•	Current Borders / Signature / Revision block				
•	Consultant logo			H	
•	TIMS Number and Construction Contract				
	Number				
Ev-	isting Sign Information				
	e following existing sign information is incli	udod on	d show	2 00 2 2 0	othy on the Plan Chapter
	Existing sign structure and message at	uueu ali	a silowi	COLLEC	dy on the Fian Sheets.
•	correct location				
•	Type of sign structure		$\perp \perp \perp$		
•	Sign size				
•	Overhead sign structure number				

	SECTION 1 – SIGNING AND PAVEMENT MARKING							
		Yes	No	N/A	Comments			
•	Sign messages on plan sheet oriented to read in direction of travel							
•	Designations for existing signs to remain, to be relocated, or to be removed							
•	Information is provided for sign disposal or salvage							
•	The following signs to be reused are correctly placed and have appropriate messages to fit proposed conditions:							
	o Guide signs							
	o Lane Use signs							
	o Turn restriction signs							
	 Parking restriction signs 							
	o Other signs							
		•		•				
	pposed Sign Information							
Th	e following proposed sign information is inc	cluded a	and sho	wn corre	ectly on the Plan Sheets:			
•	Proposed sign structure and message at correct location							
•	Stations or measurements from a fixed object							
•	Sign numbers							
	o Cantilever signs: C-1, C-2, etc.							
	o Overhead signs: OH-1, OH-2, etc.							
	o Bridge mount signs: BM-1, BM-2, etc.							
	o Ground mount signs: GM-1, GM-2, etc.							
	 Regulatory and warning signs: 1,2,3, etc. 							
	 Multiple signs on a single structure are numbered independently using letters (e.g. OH-1A, OH-1B, etc.) 							
	All signs are numbered							
	 Each sign is assigned only one number 							
•	Sign size and designation							
•	Proper sign orientation (noted as required)							
•	Sign messages on plan sheet oriented to read in direction of travel							
•	Sign sizes match functional classification of roadway							
•	Sign locations comply with minimum lateral offset requirements							
•	Signs are located as far from the traveled roadway as possible to provide adequate recovery area							
•	Cantilever signs are situated above the shoulder or over lane drop							
•	Maintenance activities can take place off the traveled roadway							

	SECTION 1 – SIGNING AND PAVEMENT MARKING								
		Yes	No	N/A	Comments				
•	Sign locations provide adequate sight distance from downstream and upstream signalized intersections								
•	All non-breakaway sign structures are located outside of clear zone or protected with traffic barrier								
•	Adequate clearance from overhead and underground utilities is provided (overhead utility line heights are shown on plan)								
•	Plan sheet items match legend and legend only includes symbols used in project								
Re	gulatory signs are included and comply with	h the fo	llowing	design	requirements:				
•	Size, shape and color of regulatory signs are in accordance with the MdMUTCD								
Wá	arning signs are included and comply with t	he follo	wing de	sign req	quirements:				
•	Size, shape and color of warning signs are in accordance with the MdMUTCD								
	 Fluorescent Yellow-Green for school signs 								
	 Fluorescent Yellow for warning signs 								
•	Warning sign placement provides adequate PIEV time in accordance with the MdMUTCD								
Gu	iide signs for conventional roads are include	ed and o	comply	with the	following design requirements:				
•	Shape and color of guide signs are in accordance with the MdMUTCD								
•	Correct control cities are identified with consistent spelling and abbreviations								
Th	e following guide sign types have been corr	ectly sh	nown on	the Pla	n Sheets:				
•	Route signs / assemblies (advance and confirmatory)								
•	Destination and distance signs								
•	Street name signs (advance and intersection)								
•	General service signs								
•	Reference location signs								
•	General information signs								
•	Parking Area / Park and Ride signs								
•	Rest Area / Scenic Area signs								
•	Weigh Station signs	П		ΙП					

		SECTION 1 – SIGI	NING AI	ND PAVI	EMENT	MARKING
			Yes	No	N/A	Comments
		signs for freeways and expressways are	e includ	ed and	comply	with the following design
rec	•	ements:	1			T
•		ape and color of guide signs are in cordance with the MdMUTCD				
•	Sig	n spreading / spacing is used correctly				
•		O' minimum spacing is provided between de signs				
•		ecial requirements for diagrammatic ns are addressed				
•	Со	rrect control cities are identified with nsistent spelling and abbreviations				
•		row sizes, types and orientations are rect				
•	Le	t exits are properly signed				
•	Ex	t numbers and letters are correct				
•	CH	IART				
	0	Special requirements for changeable message signs are addressed				
	0	Senior Staff Engineer contacted to confirm need				
	0	DMS structures are located outside of clear zone or protected with traffic barrier				
	0	800' minimum spacing is provided between DMS structures and adjacent guide signs				
Th	e fo	llowing guide sign types have been corr	ectly sh	own on	the Pla	n Sheets:
•	Ro	ute signs / assemblies				
•	Dis	stance signs				
•	Int	erchange guide signs				
	0	Advance Guide signs (1 mi., ½ mi.)				
	0	Exit Direction signs				
	0	Next Exit supplemental signs				
	0	Exit Gore signs				
	0	Interchange Sequence signs				
•	Ge	neral Service signs				
•		st and Scenic Area signs				
•	To sig	urist Information and Welcome Center ns				
•		e markers				
•	We	eigh Station signs				
•	Pr	eferential Only lane signs				

	SECTION 1 – SIGI	NING AN	ND PAVI	EMENT	MARKING
		Yes	No	N/A	Comments
Sp	ecific service signs are included and compl	y with th	he follov	ving des	sign requirements:
•	Businesses / services are eligible				
•	Sign placement follows correct order (Gas- Food-Lodging-Camping-Attractions, moving back from gore)				
•	Distances (if needed) are included				
•	Exit numbers (if required) are correct				
	zwi namecie (ii redanea) are cericei				
	creational and cultural interest area signs a	re inclu	ded and	comply	with the following design
•	Byways, community gateways, dedication signing, TAC, MD history, rivers, attractions are included as appropriate				
Bio	cycle lane signing is included and complies	with the	e follow	ing desi	gn requirements:
•	Size, shape and color of bicycle lane signs are in accordance with the MdMUTCD and the Maryland SHA Bicycle and Pedestrian Design Guidelines				
•	BIKE LANE (R3-17) sign is used only in conjunction with marked bicycle lanes				
Sig	gns with signals are included and comply wi	th the f	ollowing	g design	requirements:
•	Hazard Identification Beacons (HIBs) are included as appropriate				
•	Highway Advisory Radios (HARs) are included as appropriate				
	neral Signing Information				
All	signing complies with the following design	require	ments:		
•	Appropriate design criteria are used				
•	Opportunities to reduce sign clutter are identified				
•	Proposed and/or existing grades are suitable for installation of foundations and trenching of conduit				
•	Impacts to existing signing on mainline and cross streets are addressed				
•	Signing design corresponds with pavement markings and traffic signal operations and design				
•	Level of signing is appropriate for roadway type				
•	Route numbers, names, destinations and exit numbers are accurate and consistent				
•	Supplemental destinations are addressed and trailblazed, as necessary				
•	Service signs are applicable and consistent				

	SECTION 1 – SIGNING AND PAVEMENT MARKING							
		Yes	No	N/A	Comments			
•	Unexpected or unusual circumstances that require signing have been identified							
•	Tree trimming noted where required							
•	Signs are located outside of clear zone (if possible)							
•	Sign visibility is not impeded by physical obstructions							
	vement Marking Information							
Th	e following pavement marking information is	s includ	ed and	shown o	correctly on the Plan Sheets:			
•	Existing pavement markings to be removed (shown and labeled)							
•	Existing markings to be replaced							
	 Crosswalk revisions required 							
	 Stop lines revisions required 							
	 Lane marking revisions required 							
	 Turning path revisions required 							
•	Pavement and Curb Markings							
	o Centerlines							
	o Edge Lines							
	o Lane Lines							
	o Channelizing Lines							
	o Auxiliary Lines							
	Obstruction Markings							
	 Stop Lines and Yield Lines 							
	o Crosswalks							
	 Hatched (school zones, ramps, free right turns and midblock) 							
•	Pavement Word and Symbol Markings							
	 Symbols (to be crossed referenced with R3-7 (1) R & L signs) 							
	o Arrows							
	o Legend (ONLY)							
	 Bicycle Markings 							
	 Railroad Crossing Markings 							
	 Dimensions for placement of arrow, symbol and legend markings 							
•	Raised Pavement Markers (RPM's)							
	Recessed (District 6 only)							
•	Object Markers							
•	Concrete Barrier Delineators (wall markers)							
•	Delineators (post mounted)							
	 Delineators on at least one side of interchange ramps 							
•	Contrast markings							
•	Rumble strips							
•	W-beam barrier markers							
•	Pavement Marking Legend							
•	Dimensions for lane widths							
•	Dimensions for taper lengths							

	SECTION 1 – SIGNING AND PAVEMENT MARKING							
		Yes	No	N/A	Comments			
•	Locations for tie-ins to existing markings							
•	Passing zones on two way undivided							
	highways (determined by District office)							
AII	pavement markings comply with the follow	ing des	ign requ	<u>iiremen</u>	ts:			
•	Pavement marking widths, colors, patterns and materials are in accordance with MdMUTCD and MDSHA Pavement Marking Policy							
•	Pavement marking call-outs specify size, type and color							
•	Lane drops and transitions are marked							
•	Pavement markings correspond with sign placement and traffic signal operations and design							
•	Pavement markings correspond with current roadway design / typical sections							
_	Wis Pourism Potell							
	affic Barrier Details and Design	:46 46 0	fallavvin	a docia	- u.aiu			
•	e traffic barrier details and design comply warraffic barrier is warranted	ntn tne	TOIIOWIN	g aesigi	n requirements:			
•	Appropriate type of traffic barrier is indicated							
_	on plans (per MDSHA guidelines)							
•	Lateral location and elevation of traffic barrier are correct							
•	Length of need calculations are submitted and correct							
•	Appropriate end treatment is indicated on plans (per MDSHA guidelines)							
•	Non-breakaway supports within the clear zone are protected by traffic barrier							
•	Existing barrier can be extended to meet project need							
•	Barrier protects traffic in both directions							
•	Existing traffic barrier end treatments meet current standards							
		Yes	No	N/A	Comments			
	BRICATION DETAIL SHEETS (SN-3)			the Fal	aviantian Datail Chapter			
	e following information is included and sho	WII COIT	ectry on	tne Fat	Drication Detail Sneets:			
•	Appropriate text sizes and series FHWA Highway Gothic font							
•	Appropriate text spacing							
•	Correct spelling and abbreviations							
•	Correct exit numbers and letters							
•	Appropriate message combinations (e.g.		\vdash					
	Supplemental signs are not combined with standard guide signs)							
•	Appropriate symbol sizes	\sqcup	닏ᆜ					
•	Standard FHWA / SHA arrows and shields	1 1 1		1 17				

	SECTION 1 – SIGI	NING AN	ND PAVI	EMENT	MARKING
		Yes	No	N/A	Comments
•	Correct MD shield for guide sign use vs. independent use				
•	Correct arrow types, dimensions, directions				
•	Angle of diagonal arrows				
•	Details for any non-standard arrows				
•	Correct border				
•	Double borders used between different background colors (i.e. EXIT ONLY panels)				
•	Extruded or sheet aluminum	П		П	
•	Cardinal directions aligned with top of shield			H	
•	TO aligned with center of shield				
•	Mounting details				
•	Appropriate Dimensions				
	Width	$\vdash \vdash \vdash$		H	
	Height (extruded signs have even foot increments)				
	Square foot area matches height/width dimensions				
	11				
_	Correct sign colors / color codes	\vdash	$\vdash \vdash \vdash$		
•	-	片	\vdash		
•	Correct sign sheeting type	\vdash	\vdash		
•	All sign messages match what is shown on plan sheets				
•	All sheet aluminum signs are 4'x8' or smaller				
•	Overlays are clearly defined				
	•			I.	
		Yes	No	N/A	Comments
	OUND MOUNTED SIGN SUPPORTS SHEET				
Th	e following information is included and sho	wn corr	ectly on	the Gro	ound Mounted Sign Supports Sheet:
•	Steel Beam Chart for guide signs is complete and correct and includes the				
	following information:				
	 Post size, length and distance from edge of sign and between posts 				
	Breakaway/non-breakaway	\sqcup		Ш	
	 Object offset codes specific to conditions 				
	 Steel post sizes in accordance with TRANSPO breakaway design software 				
	 Square tube used in narrow concrete median (for signs 30"x30" or smaller) 				
•	Wood Support Chart for guide signs is complete and correct and includes the following information:				
	 Post size, length and distance from edge of sign and between posts 				
	Breakaway / non-breakaway				
	 Object offset codes specific to conditions 				

	SECTION 1 – SIGN	NING AI	ND PAVI	EMENI	MARKING
		Yes	No	N/A	Comments
•	All ground mounted signs meet vertical clearance requirements				
•	All sheet aluminum signs are placed on wood supports				
•	All wood post sizes are in accordance with Support Selection Charts (Traffic Control Devices Design Manual) and MDSHA Book of Standards				
•	No more than (2) 4x4 or (2) drilled 4x6 wood posts are used within a 7-foot distance				
•	7' minimum spacing between supports provided for all 6x6 or 6x8 breakaway wood posts (inside edge of support to inside edge of support)				
•	7' minimum spacing between supports provided for all breakaway steel supports (inside edge of support to inside edge of support)				
•	All gore signs are installed on breakaway steel supports				
•	All information on SN-4 sheet matches plan sheets and sign detail sheet				
		Yes	No	N/A	Comments
	ERHEAD SIGN SUPPORTS SHEETS (SN-8 a				
T1-					aula a a al Ciava Coma a uta Clasata.
Th	e following information is included and should be should	wn corr	ectly on	the Ov	erhead Sign Supports Sheets:
• Th	Structure and foundation details	wn corr	ectly on	the Ov	erhead Sign Supports Sheets:
• Th	Structure and foundation details Overhead structures Cantilever structures (no more than 2	wn corr	ectly on	the Ove	erhead Sign Supports Sheets:
<i>Th</i>	Structure and foundation details Overhead structures		ectly on	the Ove	erhead Sign Supports Sheets:
• • • • • • • • • • • • • • • • • • •	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge			the Ove	erhead Sign Supports Sheets:
• • • • • • • • • • • • • • • • • • •	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit)			the Ove	erhead Sign Supports Sheets:
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures			the Ove	erhead Sign Supports Sheets:
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical			the Ove	erhead Sign Supports Sheets:
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign				
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions	Wn corr	No	the Over	Comments
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions	The second secon	D D D D D D D D D D D D D D D D D D D		Comments
• • • • • • • • • • • • • • • • • • •	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions	The second secon	D D D D D D D D D D D D D D D D D D D		Comments
•	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions	The second secon	D D D D D D D D D D D D D D D D D D D		Comments
• • • • • • • • • • • • • • • • • • •	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions IMMARY OF QUANTITIES SHEETS (SN-11) Te following information is included and show that the descriptions and units of measure match corresponding category code items	The second secon	D D D D D D D D D D D D D D D D D D D		Comments
• SU Th	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions IMMARY OF QUANTITIES SHEETS (SN-11) The following information is included and should be an estimate in the structures and estimate	The second secon	D D D D D D D D D D D D D D D D D D D		Comments
• SU Th	Structure and foundation details Overhead structures Cantilever structures (no more than 2 signs; 46' maximum offset) Bridge-mount structures (Special permission obtained from SHA Bridge Design Unit) Butterfly structures Post-top structures All overhead sign structures meet vertical clearance requirements Proposed signs are within design sign dimensions IMMARY OF QUANTITIES SHEETS (SN-11) The following information is included and should be followed as and should be stimate All columns are completed	The second secon	D D D D D D D D D D D D D D D D D D D		Comments

MARYLAND STATE HIGHWAY ADMINISTRATION

	SECTION 1 – SIGI	NING AN	ID PAVE	EMENT	MARKING
		Yes	No	N/A	Comments
•	Item totals are listed at bottom of sheet and are correct				

SECTION 1B – SIGN LIGHTING
Refer to "Section 2 – Lighting" for Sign Lighting Checklist.

SECTION 2 – LIGHTING – Complete Section 2 for projects that include lighting and/or sign lighting design.

	SECTION 2 – LIGHTING							
		Yes	No	N/A	Comments			
GE	NERAL							
Th	e following items are included and shown c	orrectly	on the	Plan Sh	eets:			
•	Existing and proposed conditions (Only	_						
	pertinent information should be shown on							
	plans. All other levels should be turned off.)							
•	Limits of work							
•	Base mapping							
•	North arrow							
•	Directional arrows with destinations							
•	Match lines with sheet numbers or letters							
•	Baseline / Stationing with labels							
•	Correct scale							
•	Key / Legend (as defined in MD Book of Standards)							
•	Equipment list							
•	Project notes							
•	Street names shown on cross streets							
•	Route Numbers with cardinal direction (e.g. I-70 (WBL)) and road names							
•	Right-of-way lines and labels (existing and proposed)							
•	TIMS number and Construction Contract number							
•	Consultant logo							
•	Current Borders / Signature / Revision block							
		Yes	No	N/A	Comments			
1	ISTING LIGHTING INFORMATION							
	e following existing lighting and electrical ir eets:	nformati	on is in	cluded a	and shown correctly on the Plan			
•	Existing light poles at correct locations and oriented properly							
•	Existing electric / utilities							
•	Designations for existing light poles and electrical equipment to remain, to be relocated, or to be removed							
•	List of lighting to be removed with power company number (where applicable)							
			1		_			
	ODOGED LIGHTING INTERPRETATION	Yes	No	N/A	Comments			
	OPOSED LIGHTING INFORMATION	* 6	- 41		dended and a language of the second s			
	e following proposed lighting and electrical eets:	intorma	ation is i	ncluded	a and shown correctly on the Plan			
•	Proposed light poles at correct locations and oriented properly							

	SECTION 2 – LIGHTING									
		Yes	No	N/A	Comments					
•	Light pole call-outs—including pole number, mounting height, arm length, circuit number, station, offset, quantity and type of connector kits									
•	Circuit call-outs—including wire type and size and conduit type and size									
•	Overhead sign structures to be lighted at correct locations									
•	Sign lighting call-outs—including structure number, circuit numbers, station, offset, quantity and type of connector kits									
•	Proposed utility information									
•	Proposed electrical equipment (e.g. lighting cabinets, service pedestals, junction boxes, manholes / handholes, transformers, ground rods, etc.)									
•	Manhole call-outs—including manhole number, station, offset, quantity and type of connector kits									
Th	e proposed lighting and electrical design co	mplies	with the	followi	ing design requirements:					
•	Lighting design is in agreement with functional classification of roadway									
•	Appropriate lighting design criteria are used									
•	Photometric calculations have been submitted and approved									
•	Call-outs use letters defined in legend									
•	Proposed and existing grades are suitable for installation and maintenance of lighting equipment									
•	Plan sheet items match legend and legend only includes items used in project									
•	Non-breakaway structures are protected by traffic barrier when in the clear zone									
•	Input has been received from District Traffic Office and TEDD Team Leader									
•	Lighting design meets requirements of the Design Request									
•	Special design considerations are addressed (e.g. underpasses, roundabouts, signing, pedestrians, tunnels, etc.)									
•	Design meets photometric criteria									
•	Photometric design is in accordance with IES and SHA standards									
Int	erchange Lighting				If Yes, explain why justified below. If No, skip this section.					
•	Verify interchange lighting is warranted									
•	Indicate which of the following are used for this project:									
	Partial interchange lighting									

	SEC	TION 2	LIGHT	ING	
		Yes	No	N/A	Comments
	 Full interchange lighting 				
	 High mast lighting 				
	o Low level lighting				
	 Continuous lighting (along the mainline roadway) 				
•	Decision points are illuminated				
•	Conflict points are illuminated				
•	Critical roadway features (e.g. sharp curves, reverse curves, etc.) are illuminated				
•	Underpasses and tunnels are illuminated (as required)				
•	Crosswalks are illuminated				
•	Verify illumination levels meet recommended criteria				
De	scription/Justification:				
		1	1	I	If Vac avalois why instition below
Со	ntinuous Mainline Lighting				If Yes, explain why justified below. If No, skip this section.
•	Verify continuous mainline lighting is warranted				
•	Verify illumination levels meet recommended criteria				
•	Underpasses are illuminated (as required)				
De	scription/Justification:				
Int	ersection Lighting				If Yes, check for each intersection. If No, skip this section.
•	Verify intersection lighting is warranted				
•	All signalized intersections are illuminated				
	 Conflict points are illuminated 				
	 Crosswalks are illuminated 				
•	All roundabouts are illuminated				
	 Conflict points are illuminated 				
	o Crosswalks are illuminated				
•	Unsignalized intersections are illuminated per Design Request				
	 Arms and luminaires are oriented correctly 				
	o Illumination is adequate on crosswalks				
•	Wiring and conduits are boxed at intersections				

	SEC	TION 2	– LIGH1	TING	
		Yes	No	N/A	Comments
•	Verify that illumination levels meet recommended criteria				
•	Leased lighting has been coordinated with utility company				
De	scription/Justification:				
Str	eetscape / Pedestrian Lighting				If No, skip this section.
•	MOU has been signed and approved				
•	Illumination of pedestrian facilities meets IES requirements				
•	Veiling luminance on adjacent roads falls within acceptable values				
•	Pole details are provided				
	·	•	•		
	gn Lighting				If No, skip this section.
Ve	rify the following design requirements for ex	xisting s	sign ligh	nting an	d sign structures:
•	Existing overhead signs retain existing sign lighting and/or new lighting is provided				
•	Maintenance activities for existing sign lighting can take place off the traveled roadway				
•	Item for luminaire supports is provided for new signs on existing structures				
Ve	rify the following design requirements for n	ew sign	lighting	and si	gn structures:
•	New overhead and cantilever signs are illuminated				
•	Standard Luminaires and Supports				
	o Overhead	$\vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	
	o Cantilever	$\vdash \sqcup$	$\vdash \sqcup$		
•	Luminaire spacing is correct in accordance with TEDD Design Manual charts				
•	Number and wattage of luminaires are consistent with standard Sign Lighting Schedule				
•	Sign lighting corresponds with signing design				
•	Sign lighting details are included on lighting plans (for insert projects)				
•	Proper LED type is being specified				
•	Locations are noted where LED luminaires are used on 480V systems				
De	scription/Justification:				
				·	

	SEC	TION 2	– LIGHT	ING	J					
		Yes	No	N/A	Comments					
		•	•							
		Yes	No	N/A	Comments					
FL	ECTRICAL AND CONTROL SYSTEMS	163	110	IN//	Comments					
	The following lighting and electrical information is included and shown correctly on the Plan Sheets:									
•	Cabinet type (pole or base mounted) and									
	location	Ш	ш	ш						
•	Electric meter socket									
•	Disconnect									
•	Photoelectric control specified for individual									
	luminaires (as required)	ΙШ								
•	Junction boxes, manholes, handholes and									
	conduit location, size and type									
•	Conduit and circuitry at proposed locations									
•	Connector Kits									
	Electrical tags filled in									
	 Correct types used 									
•	Circuits									
	 Existing amperage adequate for 									
	additional loads									
	New circuits numbered correctly	Ц		Ш						
	Current does not exceed breaker									
	capacity (80% of breaker size)									
•	Manholes (Electrical tag filled in)	 		\vdash						
•	Structure Conduit	<u> </u>	H							
	Size meets fill requirementsType of conduit is noted (flexible or									
	rigid)									
	 #6 AWG or larger cable used in bridges and walls 									
	 Conduit attachment / support details are included 									
•	Availability of electrical power determined									
	Power location and feed coordination									
	with utility company complete			╽╙						
	Confirm cabinet / service pedestal /									
	electrical service equipment locations									
	are constructable as shown									
	Confirm service load is available (SHA									
	prefers 120/240 voltage service with		Ιп							
	100 amp cabinet; 480V operating voltage is not to be used for new									
	construction)									
•	Verify all luminaires and illuminated signs									
	are connected to a power supply	\Box								
•	Voltage Drop Calculations submitted and		П	П						
	correct									
	 Minimum of two (2) separate circuits 									
	used, alternating circuits between adjacent lights									

	SECTION 2 – LIGHTING									
		Yes	No	N/A	Comments					
	Cable size correct									
	 Cable ampacity sufficient 									
•	Underground conduit: the following type of installation is required:									
	o Trenched									
	o Slotted									
	o Bored									
•	Conduit used beneath roadway; duct cable used elsewhere									
•	Conduit sizes accommodate fill requirements (25% maximum fill for new construction, 40% for modifications)									
		Yes	No	N/A	Comments					
GI	ROUNDING	168	INO	IN/A	Confinents					
•	Ground rods are provided for all light poles,	Τ	I							
_	illuminated signs and manholes									
•	Electrical service drop is grounded									
•	Continuous ground wire is provided from each luminaire, pole, illuminated sign, and manhole to power supply									
				N1/A	0					
	THE THE C	Yes	No	N/A	Comments					
-	TILITIES End of the second sec	Yes	No	N/A	Comments					
•	Utility relocations coordinated	Yes	No D	N/A	Comments					
-	Utility relocations coordinated Utility company has approved service location	Yes	No	N/A	Comments					
•	Utility relocations coordinated Utility company has approved service	Yes	No □	N/A	Comments					
•	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service	Yes	No D	N/A	Comments					
•	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE The following are clearly and correctly shown				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE The following are clearly and correctly shown Lateral location (offset)				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE De following are clearly and correctly shown Lateral location (offset) Pole height and type				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE De following are clearly and correctly shown Lateral location (offset) Pole height and type Bracket arm length (matches sizes provided in MDSHA Book of Standards)				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE The following are clearly and correctly shown Lateral location (offset) Pole height and type Bracket arm length (matches sizes provided in MDSHA Book of Standards) Luminaire wattage				Comments					
• • • • • • • • • • • • • • • • • • •	Utility relocations coordinated Utility company has approved service location Pole number is shown on plans for service drop location Utility poles for leased lighting are clearly shown with pole numbers DLE SCHEDULE De following are clearly and correctly shown Lateral location (offset) Pole height and type Bracket arm length (matches sizes provided in MDSHA Book of Standards)				Comments					

The following are clearly and correctly shown in the panel schedule:

All luminaires and signs on panel

Main breaker and contactor ratings

Amperage loads

	SEC	TION 2	- LIGH	ΓING	
		Yes	No	N/A	Comments
•	Luminaire operating voltage				
•	Number, type and wattage of luminaires				
SIC	ON LIGHTING SCHEDULE				
Th	e following are clearly and correctly shown	in the s	ign ligh	ting sch	edule:
•	All illuminated overhead and cantilever sign				
	structures are included (as appropriate)				
•	Luminaire quantity, type, wattage, and operating voltage				
•	Correct luminaire spacing				
•	Sign lighting system (where required)				
•	Circuit numbers				
•	Sign panel sizes agree with signing plans				
•	2 circuits are used per structure, alternated				
	between adjacent luminaires				
		Yes	No	N/A	Comments
SA	FETY CONSIDERATIONS				
Th	e following safety considerations have been	addres	sed:		
•	Poles are located outside roadside clear				
	zone or suitable protection or breakaway				
	bases are provided				
•	High mast structures are located outside of				
	clear zone or protected by traffic barrier				
•	Pole locations and luminaire placement	_			
	allow for maintenance activities to take				
	place off the traveled roadway				
•	Pole locations provide adequate safety				
	clearance (100' minimum) in gore areas of		ΙШ	ш	
	exit / entrance ramps				
•	Pole locations minimize interference with				
•	driver's sight distance Poles are not placed within 50' of a sign		<u> </u>		
•	structure				
•	Poles are not placed on traffic side of traffic				
-	barrier				
•	Poles behind traffic barrier provide				
	necessary clear distance for barrier				
	deflection		_		
•	Required clearance is provided to existing				
	and proposed underground and overhead				
	utilities				
		Yes	No	N/A	Comments
	HER DESIGN CONSIDERATIONS				
Th	e following design considerations have bee	n addre	ssed:		
•	Pole locations conform to ADA requirements				
•	Design reflects consideration of light				
	pollution (i.e. glare, light trespass, sky glow)				
•	Design reflects aesthetic considerations				

MARYLAND STATE HIGHWAY ADMINISTRATION

SECTION 2 – LIGHTING									
	Comments								
Design considers annual cost of energy and maintenance, maintenance capability, and responsibility for maintenance of the lighting system									

SECTION 3 - TRAFFIC SIGNALS - Complete Section 3 for projects that include signal design.

SECTION 3 – TRAFFIC SIGNALS									
		Yes	No	N/A	Comments				
PL	AN SHEETS	•	•	•					
The following items are included and shown correctly on the Plan Sheets:									
•	Existing and proposed conditions (Only								
	pertinent information should be shown on								
	plans. All other levels should be turned off.)								
•	Limits of work								
•	Base mapping								
•	North arrow / North arrow note								
•	Correct scale								
•	Utility legend								
•	Consultant logo								
•	Revision letter matches TS number								
•	Right-of-way lines and labels (existing and proposed)								
•	Equipment within Right-of-Way		П						
•	Overhead utilities (heights indicated)								
•	Log mile								
•	General Notes								
•	Street names								
•	Directional arrows with destinations								
•	Route numbers with cardinal direction								
	(e.g. I-70 (WBL)) and road names		Ш	Ш					
•	TIMS number and Construction Contract number								
•	Current borders / signature / revision block								
•	Construction details								
Ex	isting Signal Information								
•	Existing signal plans have been verified								
•	Site characteristics have been inventoried and examined								
•	Existing signals are to be replaced with LED modules								
•	Existing signals to be removed are noted								
		•							
Pro	pposed Signal Information								
Th	e following signal items are included and sh	nown co	rrectly o	on the P	Plan Sheets:				
•	Appropriate signal structures								
•	Appropriate signal structure configuration / placement								
	Lateral clearance requirements are met								
	Alternative pole configurations are used								
	where applicable		Ш						
	 Breakaway bases or couplings are used for pedestal poles and median pedestal poles 								

	SECTION 3 – TRAFFIC SIGNALS										
			Yes	No	N/A	Comments					
•	Sig	nal controller cabinet location and type									
	0	Cabinet location permits safe access by maintenance									
	0	Cabinet is located near a power source (if possible)									
	0	Cabinet is protected (if needed)									
	0	Cabinet does not restrict driver visibility									
•	_	nal heads are numbered and placement									
	_	correct	Ш		Ш						
	0	Distances from stop line are acceptable (40' to 120'; up to 180' with near side)									
	0	Minimum of two signal heads are provided for each movement									
	0	Near side signals are provided (if		П							
		required)									
	0	Vertical signal head clearance requirements are met									
	0	Adequate signal visibility is provided									
	0	Appropriate signal head size									
	0	Appropriate signal head sections									
•	pus	untdown pedestrian signals and APS shbuttons follow Design and Installation idelines									
	0	Countdown signal located near and									
		visible within crosswalk	Ш		Ш						
	0	Pushbuttons located correctly and readily accessible from 60"x60" level landing area on the sidewalk (maximum 10 feet from curb)									
•	Av	ailability of electrical power determined									
	0	Power location and feed coordination with utility company complete									
	0	Confirm cabinet / service pedestal / electrical service equipment locations are constructable as shown									
		Metered service pedestal (preferred)									
		Overhead service									
		 Underground service 									
		 Utility pole or transformer number labeled 									
	0	Confirm service load is available (SHA prefers 120/240 voltage service with 100 amp cabinet)									
•		otoelectric control specified for individual ninaires (as required)									
•	Sig	nal equipment meets clear zone juirements (SHA & AASHTO criteria)									
•		ndholes and manholes are appropriately ated									

	SECTION	N 3 – TR	AFFIC S	SIGNAL	S
		Yes	No	N/A	Comments
•	Handholes, conduit and wire are correct size and type				
•	Conduit sizes accommodate fill requirements (25% maximum fill for new construction, 40% for modifications)				
•	Signal preemption provided (if required)				
•	Numbering (including signs) is correct				
•	Signal legend matches plan				
	·	•			
	gns				
Th	e following signing items are included and s	shown d	correctly	on the	Plan Sheets:
•	Street name signs				
	o 20" max on span wire				
	 Back to back on mast arm if over 32" 				
	o Dual-faced if 16" or 20"				
	 Advance street name signs (NEXT SIGNAL) 				
•	Route marker / shield assemblies				
•	Signal warning signs				
•	Turn prohibitions				
	o LTOR / RTOR				
•	Lane use control signs				
•	Remove Stop / Stop Ahead signs				
•	Pedestrian pushbutton and sign (oriented correctly)				
•	Special sign layouts				
•	Sign legend matches plan				
•	New signal warning signs with NEW plaque and flags				
•	Signs on signal plans match signing plans			П	
	3 3 1				
Pa	vement Markings				
Th	e following pavement marking items are inc	luded a	nd shov	vn corre	ectly on the Plan Sheets:
•	Arrow / Only for lane drops				
•	Stop lines (perpendicular to curb)				
•	Edgelines, centerlines, lane lines				
•	Turn bays (arrows for double movements only)				
•	Crosswalks				
	 Hatched (school zones, ramps, free right turns and midblock) 				
•	Other markings per MdMUTCD				
NE	MA Phasing				
•	Correct orientation				
•	Flashing operation				
•	Matches phase chart				
•	Solid / Dash lines shown correctly				
•	Notes				
•	Preemption				

	SECTION 3 – TRAFFIC SIGNALS									
		Y	es		No	1	N/A	Comments		
•	Pedestrian phases									
•	Split phasing									
Dir	nensions / Stationing									
	Dimensions or Station/Offset are provided for the following items:									
•	Pavement Markings									
•	Signals and Signs									
•	Detectors (presence and advanced)		1							
•	Poles	Ī	-				$\overline{\sqcap}$			
•	Controller cabinet	Ī	-				$\overline{\sqcap}$			
•	Breaklines	Ī	┪		$\overline{}$	1	Ħ			
De	tectors									
•	Detection included and applied properly	Г	7				П			
•	Location of presence detection (1' behind		=			1	_			
	stop line) is correct	L	┙				Ш			
•	Location of system detection is correct	Г					П			
•	Sizes and locations are correct	Ī	-				一			
•	Side road advance detection is warranted (if									
	used)	L					Ш			
•	Inductive loops									
•	Micro-loop probes	Ī	1				$\overline{\sqcap}$			
•	Non-invasive micro-loop probes	ĪĪ	1			T	$\overline{\sqcap}$			
•	Detector sleeves conduit for loops	Ī	1				一			
•	Video detection equipment locations are	_								
	correct	L					Ш			
•	Dilemma zone at correct distance									
								•		
Ge	ometrics									
•	Stop line set back adequate distance for	Г	7				П			
	turning vehicles						<u> </u>			
•	Crosswalk curb ramps are correctly located	Ιг	٦				П			
	and ADA compliant			'		-				
•	Pad or sidewalk provides access to	Г	٦				П			
	pedestrian push button	_				-	_			
•	Detectable Warning Surfaces (DWS) are									
	applied correctly									
Tra	affic Barrier Details and Design									
	e traffic barrier details and design comply w	vith	the	foll	owir	าต	lesi	ian requirements:		
•	Traffic barrier is warranted	Γ	7	1				.9		
•	Appropriate type of traffic barrier is indicated				<u> </u>	+	<u> </u>			
	on plans (per MDSHA guidelines)	L	╛				Ш			
•	Lateral location and elevation of traffic	_	_			1	$\overline{}$			
	barrier are correct						Ш			
•	Length of need calculations are submitted	Г	7				П			
	and correct						Ш			
•	Appropriate end treatment is indicated on	-	٦				\Box			
	plans (per MDSHA guidelines)					_	<u> </u>			
•	Non-breakaway supports within the clear zone are protected by traffic barrier (if									

	SECTION	N 3 – TR	AFFIC S	SIGNAL	S
		Yes	No	N/A	Comments
	warranted)				
•	Existing barrier can be extended to meet project need				
•	Barrier protects traffic in both directions				
•	Existing traffic barrier end treatments meet current standards				
			1		L
		Yes	No	N/A	Comments
GE	NERAL INFORMATION SHEET				
Pro	ject Description				
•	Reconstruction / Modification / New installation				
•	Road direction – North / South or East / West				
•	Street lighting				
•	Controller requirements				
•	Interconnect (fiberoptic / copper)				
•	Check phasing with plan				
•	Special notes				
•	APS button message special note				
	uipment List "A"				T
•	Cabinet (Base / Pole Mount)		片片	\vdash	
•	Controller Equipment – Specifics	片	H	H	
•	Mast-arm / pole / span wire mounted signs Special Signs		片片		
•	Video Detection Interface Equipment				
•	Amplifiers		片片	\vdash	
	Ampliners				<u> </u>
Eq	uipment List "B"				
•	Items match construction details				
•	Items match wiring diagram				
•	Test pit (for conduit bore)				
•	Install equipment from Equipment List "A"				
•	Equipment removal for disposal				
•	Correct item numbers as per areawide contract or category codes				
•	Verify all items applied and used				
	тел, вы него времения в в в в в в в в в в в в в в в в в в в				L
Eq	uipment List "C"				
•	Equipment to be Removed and Salvaged (e.g. Controller)				
147	dia a Bianana				
Wi	ring Diagram				
•	Signals		 		
•	Detectors		 		
•	Existing cables to be reused Ground wire and rods	片	ᅡ井	片片	
•	Legend				

	SECTION	N 3 – TF	RAFFIC S	SIGNAL	S
		Yes	No	N/A	Comments
•	North arrow				
•	Power service with pole number /				
	transformer number				
•	Interconnect				
Ph	ase Chart				
•	Check signals with plans				
•	Check movements versus indications				
•	Preemption				
•	Pedestrian phase				
•	North arrow				
•	Flashing operation				
Ma	intenance of Traffic				
•	Standards specified as needed				
		1	1		-
		Yes	No	N/A	Comments
_	THER DESIGN CONSIDERATIONS				
In	e following design considerations have been	n addre	essea:		T
•	ADA requirements are met	닏	1 4	닏ᆜ	
•	Median disturbance is minimized		\perp \sqcup	Ш	
•	Design addresses environmental concerns (if present)				
•	Design addressed unique construction problems (if present)				
•	Design adheres to driver expectancy for the corridor				
•	Equipment locations do not hinder maintenance activities				
•	Other facilities within the project limits that require traffic signal devices (i.e. schools) are noted				
•	Railroad signal interconnect is provided (if required)				
•	Signal design meets the requirements of the Design Request				
•	Signal is not in conflict with any utilities				
•	Special design considerations such as HIBs, pedestrians, preemption or interconnection are addressed				
•	Signal will work as a system with the roadway, signing and marking design				
•	Design is in accordance with Federal and SHA standards				
UT	TLITIES				
•	Overhead utility conflicts avoided				
•	Underground utility conflicts avoided				
•	Special signal poles detailed (if needed)				

MARYLAND STATE HIGHWAY ADMINISTRATION

	SECTION 3 – TRAFFIC SIGNALS									
		Yes	No	N/A	Comments					
•	Special pole foundations detailed (if needed)									
•	Utility relocations coordinated									
	 Utility relocation details provided (if required) 									
•	Overhead clearance callouts at cable crossing with signal structure are provided									
RIC	GHT-OF-WAY									
•	Adequate right-of-way is available for proposed pole locations									
•	Required right-of-way acquisitions are noted (if needed)									
•	Easement for special purpose is noted (if needed)									

SECTION 4 – DOCUMENT PREPARATION – Complete the following sections for all projects.

FORMS

		Yes	INO	N/A	Comments
SIC	GNING		•	•	
•	Structure design request (input sheets and x-sections for new overhead and cantilever				
	sign structures)				
	o Complete	$\vdash \vdash \vdash$	$\vdash \vdash$	$\vdash \vdash$	
	Submitted to Structural Design Section				
•	Structure verification sheet (for modifications to an existing sign structure)				
	o Complete				
	 Submitted and approved by Structural Design Section 				
	J				
	PROJ	ECT CO	ORDIN	ATION	
		Yes	No	N/A	Comments
HIG	GHWAY DESIGN				
Ve	rify that the following coordination with Hig	hway De	esign ha	as been	completed:
•	Traffic barrier is provided where required				
•	Signing/lighting/signal design corresponds with current roadway design				
•	Locations of curb ramps correspond to crosswalks, pedestrian signals, pushbuttons, etc.				
•	Proposed and/or existing grades allow for correct installation of foundations and equipment				
•	Cross sections show that TCDs are not installed in ditches				
•	No conflicts exist with landscaping, drainage structures and adjacent construction projects				
•	Check project limits against pavement marking plans				
		Yes	No	N/A	Comments
	RUCTURE DESIGN				
Ve	rify that the following coordination with Stru	ucture D	esign h	as been	completed:
•	Conflicts with noisewalls / retaining walls have been resolved				
•	All signing / lighting / signal equipment located on bridges has been coordinated with structure and bridge designer				
•	All conduits / junction boxes located in parapets or barrier / retaining walls have been coordinated with structure and bridge designer.				

PROJECT COORDINATION					
		Yes	No	N/A	Comments
UT	ILITIES	_	_	_	
•	Utility conflicts or impacts have been resolved (overhead and underground, drainage ditches, etc.)				
•	Power source location and available service have been confirmed with utility company				
•	Telephone line and power source have been confirmed with the power/phone company				
•	Service application completed and submitted to power company				
			l NI-	N1/A	0
DI/	GHT-OF-WAY	Yes	No	N/A	Comments
•	Verify that all work will be completed within SHA Right of Way (ROW)				
•	ROW needs submitted to Plats and Surveys				
•	Existing and proposed ROW clearly indicated on plans				
		Vaa	No	NI/A	Commonto
TR	AFFIC	Yes	No	N/A	Comments
•	Sign numbers and messages match on plan				
	sheets and detail sheets				
•	Quantities items match on Sign Supports Sheets (SN-4, SN-8 and SN-9), Summary of Quantities sheets (SN-11), and Engineer's Estimate				
•	All bid items and quantities are included on Summary of Quantities Sheet (SN-11)				
•	Pavement markings correspond to signing and signal operation				
•	All bid items and quantities are included on Engineer's Estimate				
•	Lighting details match on plan sheets, detail sheets, and schedules				
•	Sign lighting information is included on appropriate plans (Signing or Lighting)				
•	Wording and quantities match in Special Provisions and Category Codes				
	SPE	CIAL P			0
1/-	rify that the following items are included in the	Yes	No	N/A	Comments
ve	rify that the following items are included in the State Highway Administration (SHA)	opeciai i 	-rovisior	i5.	
	Contract Number				
•	950 Material Specs				
•	Project Description				

MARYLAND STATE HIGHWAY ADMINISTRATION

	SPECIAL PROVISIONS								
		Yes	No	N/A	Comments				
•	Clearinghouse and Shelf Specs								
	Correlate to items on Estimate								
•	Shelf typicals								
•	900 Specs								
•	Verify that Special Provisions correlate to								
	items on SN-11 Sheet								
	ENG	INIEED'	S ESTIM	IATE					
	Litto	Yes	No	N/A	Comments				
•	Estimate includes category code number,	103	140	14//-1	Comments				
•	item description, unit of measure, quantity,								
	unit cost and total cost for each item								
•	Current category codes / item codes are								
	used								
•	All necessary bid items are included								
•	Unit of measurement matches category		Ιп						
•	code / specification for each item Cost estimate consistent with SHA Price								
•	Index, areawide contract and/or industry		Ιп						
	trends								
•	Cost share breakdown (county/state/federal)								
	included		Ш	Ш					
•	Appropriate contingency added (no		ΙП						
	contingency for PS&E submittal)								
•	Breakout is provided for federally funded and SHA supplied items								
	o Cabinets 900000								
	Signing (mast-arm/pole/span wire)								
	mounted)								
			_						
		Yes	No	N/A	Comments				
SIC	SNING	ı	1	ı					
•	One breakaway base support system is supplied for each sign post								
•	Aluminum angles quantity is included for		_						
	mounting signs on existing steel supports								
•	Concrete quantity is included for								
	foundations for steel supports and overhead / cantilever sign structures								
•	Item for removal of signs, sign supports and								
	sign structures is included in quantities /								
	estimate								
		Yes	No	N/A	Comments				
PA	VEMENT MARKING	ı	T	ı					
•	Pavement marking words and symbols are measured in SF (not EA)								
•	Item for removal of pavement markings is included in quantities / estimate								

MARYLAND STATE HIGHWAY ADMINISTRATION

	ENGINEER'S ESTIMATE								
		Yes	No	N/A	Comments				
•	Quantities are separated by line width, color, and material								
		Yes	No	N/A	Comments				
LIC	GHTING		1						
•	Pole height is included in measurements when a pole is used to transport electrical cable from overhead to underground								
•	Connector kits are quantified								
•	Cable estimate accounts for total measured quantity plus 10-20% for excess in handholes, cable slack, connections, splices, and drip loops								
•	Ground rod quantity is included								
01/	20141.0	Yes	No	N/A	Comments				
	GNALS	1	T						
•	Span wire quantity accounts for sag and extra wire at each end								
•	Pole height is included in measurements when a pole is used to transport electrical cable from overhead to underground								
•	Loop wire estimate accounts for the number of turns per sawcut, plus two times the distance from the detector to the handhole, plus 5% to account for twisted cable								
•	Cable estimate accounts for total measured quantity plus 10-20% for excess in handholes, cable slack, connections, splices, and drip loops								
•	Loop detector lead-in cable quantity is included								
•	Detector Cable quantity for signal preemption accounts for extra 20% in the length for slack, coil, connections, etc.								
•	Test pits quantity is included								
		FIELD F	REVIEW						
		Yes	No	N/A	Comments				
•	Existing signing, pavement markings, lane configurations, traffic barrier, etc. are as shown on the plans								
•	Existing signing equipment to be reused is in good condition and accommodates intended use as shown on plans								
•	Existing traffic patterns, including lane drops, reductions, transitions, etc. are as shown on the plans								

		FIELD F	REVIEW		Traine Control Bovicos Boolgii Marida
		Yes	No	N/A	Comments
•	Existing lighting, electrical systems, drainage elements, overhead and underground utilities, existing power service, etc. are as shown on the plans				
•	Existing lighting and electrical equipment to be reused is in good condition and accommodates intended use as shown on plans				
•	Existing signals and associated equipment (e.g. cabinet, conduit runs, detection, signal structures, signal heads, etc.) are as shown on the plans				
•	Existing signal equipment to be reused is in good condition and accommodates intended use as shown on plans				
•	Existing roadway geometrics, drainage elements, sidewalks / ramps, traffic barrier, etc. are as shown on the plans				
•	Posted speed corresponds with design speed used for the project				
•	Project limits are correct				
•	Adequate right of way and/or easements have been provided for signing, lighting, and signal installations				
•	Existing bicycle facilities have been retained in the proposed design				
•	Proposed power feeds and telephone lines are available for service				
•	Heights of overhead utilities will not conflict with proposed signing, lighting and signal installations				
•	Proposed structures / foundations are not located in drainage facilities				
•	Locations exist where existing guardrail may be extended rather than new guardrail installed, as proposed in the plans				
•	All physical constraints that may prevent traffic control device installation are shown on the plans (e.g. trees, shrubbery)				
•	There are no obvious special conditions that have been omitted from the plans (e.g. onstreet parking, bus lanes / stops)				
•	Digital photographs of the project site have been submitted				

Maryland Department of Transportation State Highway Administration Traffic Engineering Design Division Areawide Checklist

Contract No.: Scheduled PSE:		TIMS No. Location	:	Designer:		
Description: Project Type:						
Tasks	Reques Began		Received/ Completed	Comments		
Contact DR Preparer Obtain Existing Plans — Construction/ROW Environmental Review Request w/ Site Map Field Review Power Location Requested Request Structure Design Utility Conflicts Cleared? Final Review FR Minutes (to Team Leader from Designer for concurrence) Modified 25C to CFD w/ map Note: Cost Sharing PSE Package for Signature PSE Submittal If APS, approved APS Message Worksheet emailed to Edward	☐ Yes	□ No	□ N/A			
Rodenhizer?	in a		Final	Costs		
Transmittal Letter Work Description Independent Review Power Confirmation Traffic Barrier Include Structure Details Signing & Lighting Details Engineer's Estimate	Yes N/A		Partial Reimburse	nental Review Request Final Review Letter Modified 25C- CPD CD ements - Logo projects Consultant Report Card LED Tracker UPS Tracker	Yes	N/A
			Checked by T	Feam Leader (signature)		

Maryland Department of Transportation State Highway Administration Traffic Engineering Design Division Insert Checklist

Contract No.:		'IMS No.: _		Designer:		
Scheduled PSE:		Location: _				
Description:						
Project Type:						
Tasks		Date		Comment	S	
	_	iested/	Received			
E. IID .	Bega	ın	Completed			
Field Review						
Request Structure Design						
Power Location Requested			T			
Utility Conflicts Cleared?	Y	es LN	o N/A			
Final Review						
FR Minutes (to Cedric Ward from Chief for concurrence)						
PSE Package for Signature						
PSE Submittal						
If APS, approved APS Message	ТП	es N	o N/A			
Worksheet emailed to Edward						
Rodenhizer?						
PSE Package Contains the Following			Final	l Cost:		
Yes	N/A				Yes	N/A
Transmittal Letter				Final Review Letter		
Work Description				CD		
Signal Plan & SP Info – GI				Consultant Report Card		
Power Confirmation				Design Checklist		
Traffic Barrier Include				LED Tracker		
Structure Details				UPS Tracker		
Signing & Lighting Details						
Engineer's Estimate						
			Checked by	Team Leader (signature))	

Maryland Department of Transportation State Highway Administration Traffic Engineering Design Division Developer Checklist

Contract No.:		TIMS No.:		Designer:		
Scheduled PSE:	_	Location:				
Description:						
Project Type:						
Tasks		Dates		Com	ments	
	Rec	uested/	Received/			
	Beg	_	Completed			
Field Review			•			
Utility Conflicts Cleared?	☐ Ye	s No	N/A			
Final Review						
FR Minutes (to Team Leader from Desig for concurrence)	ner					
PSE Package for Signature						
PSE Submittal						
If APS, approved APS Message	e 🔲 Ye	s No	□ N/A			
Worksheet emailed to Edward						
Rodenhizer?						
PSE Package Contains the Fo	ollowing:					
			Final Cost:			
Transmittal Letter: Work Description: Traffic Barrier Include: Structure Details: Signing & Lighting Details: Engineer's Estimate:	Yes N/A			l Review Letter: CD: ant Report Card:	Yes	N/A
			Checked by T	Геат Leader (sign	ature)	