

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Solicitation

NUMBER 8513C2012 PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:

ALAN CUMMINGS

304-558-2402

DIVISION OF HIGHWAYS TRAFFIC SERVICES COMPLEX

180 DRY BRANCH ROAD CHARLESTON, WV

> 25306 304-558-2908

RFO COPY TYPE NAME/ADDRESS HERE Avery Dennison Corporation 7542 N Natchez Avenue

Niles IL 60714

DATE PRINTED 07/02/2013 BID OPENING DATE: 07/17/2013 BID OPENING TIME 1:30PM LINE QUANTITY UOP ITEM NUMBER UNITPRICE AMOUNT NO 0001 S \$50-48 1 REFLECTIVE SIGN SHEETING & ASSOCIATED MATERIALS REQUEST FOR QUOTATION (PEN-END CONTRACT) THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS TO PROVIDE THE AGENCY WITH AN OPEN-END CONTRACT FOR REFLECTIVE SIGN SHEETING AND ASSOCIATED MATERIALS PER THE ATTACHED SPECIFICATIONS. \$252,659.25 THIS IS THE END OF REQ 8513C2012 \*\*\*\*\* TOTAL: 09/17/13 09:48:07 AM West Virginia Purchasing Division SIGNATURE TELEPHONE DATE 9/16/13 847-588-7226 Director of Sales ADDRESS CHANGES TO BE NOTED ABOVE 95-1492269



7542 N Natchez Avenue Niles, IL 60714 Phone: 847-588-7226 Fax: 847-588-7227

September 16, 2013

Department of Administration Purchasing Division 2019 Washington Street East Charleston, WV 25305-0130

Attn: Alan Cummings

Re: Solicitation No. 8513C2012 (Reflective Sign Sheeting & Associated Materials)/

**Bid Notes** 

We would like to summarize our bidding activities regarding the above solicitation.

We submitted the first bid package on August 8 including Addenda Nos. 1 and 2 and Product Data Information by UPS Next Day Air.

We revised our pricing after receiving the Addenda Nos.3 and 4. The revised pricing (Pages 34 - 56) is enclosed here in the package. Please accept our revised pricing for the above solicitation.

## INSTRUCTIONS TO VENDORS SUBMITTING BIDS

- REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids.
  Please read these instructions and all documents attached in their entirety. These instructions provide
  critical information about requirements that if overlooked could lead to disqualification of a Vendor's
  bid. All bids must be submitted in accordance with the provisions contained in these instructions and
  the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
- 2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3.	PF	REE	BID MEETING: The item identified below shall apply to this Solicitation.
	[🗸	<b>/</b> ]	A pre-bid meeting will not be held prior to bid opening.
	[	]	A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

A MANDATOR	Y PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required

information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Question Submission Deadline:

O7/09/2013

Alan Cummings

2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305
Fax: 304-558-3970
Email: Alan.W.Cummings@WV.Gov

- 5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including that made at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.
- 6. BID SUBMISSION: All bids must be signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The bid delivery address is:

Department of Administration, Purchasing Division 2019 Washington Street East P.O. Box 50130, Charleston, WV 25305-0130

The bid should contain the information list considered:	ed below on the face of the envelope or the bid may not be
SEALED BID	
~~~~~	
SOLICITATION	NO.:
RID OPENING I	DATE:
BID OPENING	DATE:
FAX NI IMBER:	ГIME:
THE THOMBER.	
technical and one original cost proposal plu Division at the address shown above. Addi	request for proposal, the Vendor shall submit one original so n/a convenience copies of each to the Purchasing tionally, the Vendor should identify the bid type as either a sh bid envelope submitted in response to a request for
BID TYPE: [	] Technical ] Cost
· ·	J Cost
identified below on the date and time listed	sponse to this Solicitation will be opened at the location below. Delivery of a bid after the bid opening date and time poses of this Solicitation, a bid is considered delivered when rision time clock.
Bid Opening Date and Time:	07/17/2013 - 1:30 P.M.
Pid Opening Legation	Description of the control of the co
Bid Opening Location:	Department of Administration, Purchasing Division
	2019 Washington Street East P.O. Box 50130,
	Charleston, WV 25305-0130
ADDENDUM ACKNOWLEDGEMENT	: Changes or revisions to this Solicitation will be made by

- 8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
- 9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

7.

#### **GENERAL TERMS AND CONDITIONS:**

- 1. CONTRACTUAL AGREEMENT: Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
- 2. **DEFINITIONS:** As used in this Solicitation / Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation / Contract.
  - 2.1 "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
  - 2.2 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.
  - 2.3 "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.
  - 2.4 "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.
  - 2.5 "Purchase Order" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the successful bidder and Contract holder.
  - **2.6 "Solicitation"** means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.
  - 2.7 "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
  - 2.8 "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3.	CONTRACT TERM; RENEWAL; EXTENSION:	The term of this Contract shall be determined in
	accordance with the category that has been identified as	s applicable to this Contract below:

[ ] Term Co	ntract
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Initial Contract Term: This Contract becomes effective on award
and extends for a period of 1 year(s).
Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal must be submitted to the Purchasing Division Director thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract
is limited to 2 successive one (1) year periods. Automatic renewal of
this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.
Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written

notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice.

Purchasing Division approval is not required on agency delegated or exempt purchases, but

Notwithstanding the foregoing,

[ ] Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days.

Automatic extension of this Contract is prohibited.

Attorney General approval may be required.

One Time Purchase: The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall this Contract extend for more than one fiscal year.

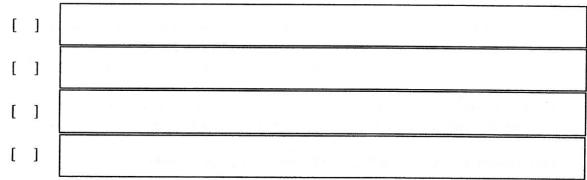
Other: See attached.

- 4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed
- 5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.
  - [√] Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.
  - [ ] Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.
  - Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.
  - [ ] One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.
- 6. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.
- 7. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.
- 8. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
  - [ ] BID BOND: All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

[	]	PERFORMAN in the amount of	CE BOND: The apparent successful Vendor shall provide a performance bond of
		issued and rece	eived by the Purchasing Division prior to Contract award. On construction reformance bond must be 100% of the Contract value.
I	]	labor/material p	ERIAL PAYMENT BOND: The apparent successful Vendor shall provide a ayment bond in the amount of 100% of the Contract value. The labor/material nust be issued and delivered to the Purchasing Division prior to Contract award.
or san	tificirre irre ne or/i	ed checks, cashie vocable letter of o schedule as the	Performance Bond, and Labor/Material Payment Bond, the Vendor may provide r's checks, or irrevocable letters of credit. Any certified check, cashier's check, credit provided in lieu of a bond must be of the same amount and delivered on the bond it replaces. A letter of credit submitted in lieu of a performance and bond will only be allowed for projects under \$100,000. Personal or business le.
Į	]		CE BOND: The apparent successful Vendor shall provide a two (2) year and covering the roofing system. The maintenance bond must be issued and Purchasing Division prior to Contract award.
[	1		COMPENSATION INSURANCE: The apparent successful Vendor shall have kers' compensation insurance and shall provide proof thereof upon request.
[	]	INSURANCE: prior to Contrac	The apparent successful Vendor shall furnish proof of the following insurance taward:
		[]	Commercial General Liability Insurance: or more.
		L J	<b>Builders Risk Insurance:</b> builders risk – all risk insurance in an amount equal to 00% of the amount of the Contract.
		[ ]	
		[ ]	
		[ ] [	
		[ ] [	
		[]	

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

[ ] LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.



The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

- 9. LITIGATION BOND: The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.
- 10. ALTERNATES: Any model, brand, or specification listed herein establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.
- 11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or

pursue any other available remedy.

other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

	Vendor shall pay liquidated damages in the amount
described herein	for delivery delays

- 13. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.
- 14. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee if applicable.
- 1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.
- 16. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.
- 17. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."
- 18. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.
- 19. DELIVERY: All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.
- 20. INTEREST: Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.
- 21. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

- failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.
- 22. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid on or after July 1, 2012, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to submission of its bid to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.
- 23. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 24. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
- 25. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.
- 26. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.
- 27. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- 28. COMPLIANCE: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
- 29. PREVAILING WAGE: On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code 21-5A-1 available et seq. and http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

- requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.
- 30. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
- 31. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.
- 32. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
- 33. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.
- 34. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.
- 35. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.
- **36. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
- 37. BANKRUPTCY: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

#### 38. [RESERVED]

- 39. CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <a href="http://www.state.wv.us/admin/purchase/privacy/default.html">http://www.state.wv.us/admin/purchase/privacy/default.html</a>.
- 40. DISCLOSURE: Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondiclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

- 41. LICENSING: In accordance with West Virginia Code of State Rules §148-1-6.1.7, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.
- 42. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Purchase Order from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the

purchasing agency tenders the initial payment to Vendor.

43. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this RFQ in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

The individual signing this bid on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

- 44. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.
  - [ ] Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.
- 45. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting,

supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

46. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered

by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

- 47. PURCHASING AFFIDAVIT: In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
- 48. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
- 49. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire any interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.
- **50. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:
  - [√] Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.
  - [ ] Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at <a href="mailto:purchasing.requisitions@wv.gov">purchasing.requisitions@wv.gov</a>.
- 51. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state

repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

- 52. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:
  - a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
  - b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.

The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

- a. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- **b.** The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.
- 53. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance

with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

## **CERTIFICATION AND SIGNATURE PAGE**

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

(Company)		
(Authorized Signature)		
(Representative Name, Title)		
(Phone Number)	(Fax Number)	-
(Date)		).

## **CERTIFICATION AND SIGNATURE PAGE**

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Company)	
Du	
Authorized Signature)	
Dan Zampa, Directo	or of Sales
Representative Name, T	itle)
847-588-7226	847-588-7227
Phone Number)	(Fax Number)
9/16/13	

## ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: 8513C2012

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

## Addendum Numbers Received:

(Check the box next to each addendum received)

[X]	Addendum No. 1	[	]	Addendum No. 6
[X]	Addendum No. 2	[	]	Addendum No. 7
[X]	Addendum No. 3	[	]	Addendum No. 8
[x]	Addendum No. 4	]	]	Addendum No. 9
[ ]	Addendum No. 5	[	]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

# Avery Dennison Corporation Company Authorized Signature 9/16/13 Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

## **SPECIFICATIONS**

- 1. PURPOSE AND SCOPE: The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH), the West Virginia Parkways Authority (WVPA), and the West Virginia Division of Corrections (WVDOC) to establish an open-end contract for Reflective Sign Sheeting & Associated Materials.
- 2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in Section 2 of the General Terms and Conditions.
  - 2.1 "Contract Item" or "Contract Items" means the list of items identified in Section 3, Subsection 1 below.
  - 2.2 "Pricing Pages" means the schedule of prices, estimated order quantity, and totals attached hereto as Exhibit A and used to evaluate the RFQ.
  - 2.3 "RFQ" means the official RFQ published by the Purchasing Division and identified as 8513C2012.
  - 2.4 "WVDOH" means the West Virginia Division of Highways
  - 2.5 "WVDOC" means the West Virginia Division of Corrections
  - 2.6 "WVPA" means the West Virginia Parkways Authority
  - 2.7 "CSS" means the WVDOH Central Sign Shop manufacturing facility.
  - 2.8 "Transfer Tape" means a film (also known as "Transfer Film") for premasking or applying prespaced legends using transparent or opaque films.
  - 2.9 "Type ASTM-I Reflective Sheeting" means a retroreflective sheeting referred to as "engineering grade" that is typically an enclosed lens glass-bead sheeting.
  - 2.10 "Type ASTM-IV Reflective Sheeting" means a retroreflective sheeting referred to as "high-intensity" that is typically an unmetalized microprismatic retroreflective element material.
  - **2.11 "Type ASTM-XI Reflective Sheeting"** means a retroreflective sheeting typically manufactured as an unmetalized cube corner microprismatic retroreflective element material.

- 2.12 "Opaque Film" means an opaque, typically vinyl or acrylic pressure-sensitive film designed for permanent graphics that may be prespaced and electronically cut.
- **2.13** "Transparent Film" means a colored, transparent, typically acrylic, transparent pressure-sensitive film designed for permanent graphics that may be prespaced and electronically cut.
- 2.14 "Opaque Ink" means an opaque, weather resistant, quick drying ink designed for use in traffic sign screen printing processes.
- 2.15 "Transparent ink" means a transparent, weather resistant, quick drying ink designed for use in traffic sign screen printing processes.
- 2.16 "UV" means ultraviolet.
- 2.17 "O.D." means Outside Diameter.
- 2.18 "I.D." means Inside Diameter
- 2.19 "Overage" means the total width of excess material (beyond the specified nominal width) provided on a roll of reflective sheeting material in order to insure complete coverage of the aluminum blanks the material is applied to.
- 2.20 "Matched Components" means the reflective sheeting manufacturer's recommended transparent & opaque inks & films to be used for manufacturing purposes with the manufacturer's reflective sheeting products.
- 2.21 "Special Provision" means the latest special provision of the WVDOH Standard Specifications for Roads and Bridges pertaining to the materials included in this Contract. This Special Provision is attached hereto as Exhibit B.

Specific material approval requirements for the materials included in this Contract, as well as compensative requirements of the material manufacturer in the event of material failure, as defined by the material durability and warranty requirements, are included in the Special Provision. Material approval requirements include, but may not be limited to, performance, durability, testing, manufacturer certification, and general material characteristic requirements. The Special Provision also specifies additional requirements required to be met by materials in order for those materials to be qualified for use in manufacturing processes within the CSS. All materials supplied under this Contract must be qualified for use in manufacturing

processes within the CSS. The specifications and Contract Award provisions herein are reflective of this requirement.

2.22 "APL" means the version of the WVDOH Approved Products List for Retroreflective Sign Sheeting in effect as of the advertising date of this Contract. This APL may be found at:

 $\frac{http://www.transportation.wv.gov/highways/mcst/Documents/Reflective%20Sheeting%20Approved%20List-5-31-13.pdf$ 

The APL is established in a manner consistent with the requirements contained in the Special Provision. All materials supplied under this Contract shall be listed on the APL. Additional requirements shall apply as specified herein. Please make reference to Note #1 associated with the APL. The Special Provision referenced in Note #1 shall be applicable to this RFQ. The referenced Special Provision is the same as the Special Provision referenced in Section 2.8 and attached to this RFQ. Per the notes included under Note #1, the second table listed under Note #1 shall be used to verify materials considered to be acceptable to be provided under this Contract. The APL establishes a list of products that meet the acceptable level of quality and is not intended to reflect a preference or favor any particular brand or vendor. Any manufacturer whose product(s) meet the established level of quality may become an approved supplier and have their product(s) added to the APL in accordance with the approval procedures described in the Special Provision.

Note that, as indicated in the Special Provision, the inclusion of the manufacturer's reflective sheeting material on the APL is not the sole requirement for that material to be eligible to be supplied under this Contract. All requirements are specified in detail in the Special Provision. The APL notes any restrictions in place in regards to the use of a particular reflective sheeting product or its' matched components for manufacturing purposes within the CSS. Note that this Contract is divided into Sections based on material type and is further divided into Sections based on the potential use of matched components with the reflective sheetings included within the Contract Sections. Therefore, restrictions which may apply to a material in one Section may not apply in another. For example, Section III includes Type ASTM-IV materials which the Agency will use in conjunction with manufacturer matched components. Section IV includes Type ASTM-IV materials which the Agency will not use in conjunction with manufacturer matched components. If the reflective sheeting product is approved, but there are restrictions in place regarding the use of the manufacturer recommended matched components within the CSS, this would result in the reflective material being eligible to be supplied under Section IV only.

2.23 "WVDOH Standards" means official standards published by the WVDOH pertaining to design, fabrication, construction, and material testing/acceptance. Examples of WVDOH Standards include the "WVDOH Standard Specifications Roads and Bridges", the WVDOH "Standard Details Book" (Volumes I, II, and III), and the WVDOH "Materials Procedures". Specific WVDOH Standards applicable to this RFQ are identified in the RFQ.

## 3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements: Vendor shall provide the indicated Agencies with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the requirements previously noted and any additional mandatory requirements noted below.

The specifications of this RFQ and/or any WVDOH Standards referenced in and/or attached to this RFQ may include references to specific recognized "industry standard" specifications which are issued by third parties, such as the American Society for Testing and Materials (ASTM) and the American Association of State and Highway Transportation Officials (AASHTO). Such specifications are protected by strict copyright restrictions and cannot be published as part of this RFQ. The ability to access such specifications shall be considered a mandatory requirement for participation in the RFQ process as a Vendor or as a supplier to the Vendor, as applicable.

3.1.1 Contract Bid Items: The following Sections and described Items are listed on the Pricing Pages.

### 3.1.1.1 Section I: Transfer Tape

- 3.1.1.1 The transfer tape supplied under this Contract shall be listed on the APL.
- 3.1.1.2 Note that the "Overage Preferences" column on the Pricing Pages is not applicable to the materials in this Section.

## 3.1.1.2 Section II: Type ASTM-I Retroreflective Sheeting & Matched Components

- 3.1.1.2.1 The reflective sheeting material supplied under this Section shall be listed on the APL. The reflective sheeting material and the manufacturer recommended matched components (transparent film & ink, opaque film & ink) for use with the supplied reflective sheeting must all be approved by the WVDOH for manufacturing purposes within the CSS.
- 3.1.1.2.2 For particular nominal roll sizes of reflective sheeting listed on the Pricing Pages, a "preferred" overage is indicated in the "Overage Preferences" column. The preferred overage indicates the agencies' preferred overages only, and are not a minimum requirement; however, these materials shall be provided with overage. If nothing is indicated in the "Overage Preferences" column, then no overage is required; however, the width specified in the "Item Description" column shall be the minimum actual width of the material. Note that

the "Overage Preferences" column is not applicable to non reflective sheeting materials listed in this Section.

# 3.1.1.3 Section III: Type ASTM-IV Retroreflective Sheeting & Matched Components – Matched Component Dependent

- 3.1.1.3.1 The reflective sheeting material supplied under this Section shall be listed on the APL. The reflective sheeting material and the manufacturer recommended matched components (transparent film & ink, opaque film & ink) for use with the supplied reflective sheeting must all be approved by the WVDOH for manufacturing purposes within the CSS.
- 3.1.1.3.2 For particular nominal roll sizes of reflective sheeting listed on the Pricing Pages, a "preferred" overage is indicated in the "Overage Preferences" column. The preferred overage indicates the agencies' preferred overages only, and are not a minimum requirement; however, these materials shall be provided with overage. If nothing is indicated in the "Overage Preferences" column, then no overage is required; however, the width specified in the "Item Description" column shall be the minimum actual width of the material. Note that the "Overage Preferences" column is not applicable to non reflective sheeting materials listed in this Section.

# 3.1.1.4 Section IV: Type ASTM-IV Retroreflective Sheeting – Matched Component Non-Dependent

3.1.1.4.1 The reflective sheeting material supplied under this Section shall be listed on the APL and shall be approved for manufacturing purposes within the CSS. No matched component approval

requirements shall apply to materials within this Section.

3.1.1.4.2 For particular nominal roll sizes of reflective sheeting listed on the Pricing Pages, a "preferred" overage is indicated in the "Overage Preferences" column. The preferred overage indicates the agencies' preferred overages only, and are not a minimum requirement; however, these materials shall be provided with overage. If nothing is indicated in the "Overage Preferences" column, then no overage is required; however, the width specified in the "Item Description" column shall be the minimum actual width of the material.

# 3.1.1.5 Section V: Type ASTM-XI Retroreflective Sheeting & Matched Components – Matched Component Dependent

- 3.1.1.5.1 The reflective sheeting material supplied under this Section shall be listed on the APL. The reflective sheeting material and the manufacturer recommended matched components (transparent film & ink, opaque film & ink) for use with the supplied reflective sheeting must all be approved by the WVDOH for manufacturing purposes within the CSS.
- 3.1.1.5.2 For particular nominal roll sizes of reflective sheeting listed on the Pricing Pages, a "preferred" overage is indicated in the "Overage Preferences" column. The preferred overage indicates the agencies' preferred overages only, and are not a minimum requirement; however, these materials shall be provided with overage. If nothing is indicated in the "Overage Preferences" column, then no overage is required; however, the width specified in the "Item Description" column shall be the minimum actual width of the material. Note that

the "Overage Preferences" column is not applicable to non reflective sheeting materials listed in this Section.

# 3.1.1.6 Section VI: Type ASTM-XI Retroreflective Sheeting – Matched Component Non-Dependent

- 3.1.1.6.1 The reflective sheeting material supplied under this Section shall be listed on the APL and shall be approved for manufacturing purposes within the CSS. No matched component approval requirements shall apply to materials within this Section.
- 3.1.1.6.2 For particular nominal roll sizes of reflective sheeting listed on the Pricing Pages, a "preferred" overage is indicated in the "Overage Preferences" column. The preferred overage indicates the agencies' preferred overages only, and are not a minimum requirement; however, these materials shall be provided with overage. If nothing is indicated in the "Overage Preferences" column, then no overage is required; however, the width specified in the "Item Description" column shall be the minimum actual width of the material.
- 3.1.1.7 Ancillary Items: For particular Sections of this Contract, the Vendor shall be required to supply ancillary items with the sheeting materials. These ancillary items shall be supplied at no additional cost to the Agency and shall be incidental to the pricing provided by the Vendor for the bid items in the applicable Sections of the Contract. The quantity of the items provided shall be based on the square footage of sheeting material ordered, as described below.
  - 3.1.1.7.1 Inks: This requirement shall apply to Sections III and V of this Contract. The ink provided shall be the reflective sheeting material manufacturer

recommended matched component ink with UV inhibitor. The Vendor shall be required to supply one (1) gallon of transparent ink per 1,200 square feet of reflective sheeting ordered and/or one (1) gallon of black ink per 2,500 square feet of reflective sheeting ordered. The square footage shall be calculated based on the nominal roll size (the size listed under the line item). The square footage of transparent or opaque inks and films ordered under these Sections shall not be included in the square footage used to determine the quantity of ink to be supplied. The number of gallons of ink in each color shall be indicated by the purchasing Agency on the Release Order. The quantity of ink required to be supplied shall be calculated separately for Sections III and V.

Example: If the Agency orders 8,500 square feet of material within Section III, the organization may elect to require the Vendor to supply five (5) gallons of transparent ink and one (1) gallon of black ink  $[(1 \times 2,500) + (5 \times 1,200) = 8,500]$ .

The Vendor shall not be required to supply partial gallons. For example, if the Agency orders 8,000 square feet of material within Section III, and the Agency requires the Vendor to supply one (1) gallon of black ink, the Vendor shall only be required to supply as much as four (4) gallons of transparent ink.

3.1.1.7.2 Nylon Washers: This requirement shall apply to Sections III through VI of this Contract. The washers provided shall measure 5/16" (I.D.) x 7/8" (O.D.) x 1/16" thick, and shall be manufactured from commercial grade nylon. The Vendor shall be required to supply one (1) package of washers per 3,500 square feet of reflective sheeting ordered. In

order to integrate with the WVDOH's inventory system, each package of washers shall include 1,000 individual washers. The square footage shall be calculated based on the nominal roll size (the size listed under the line item). The total square footage of reflective sheeting ordered under Sections III through VI shall be combined in order to determine the quantity of washers required to be supplied. The square footage of transparent or opaque inks and films ordered under Sections III and V shall not be included in the square footage used to determine the quantity of washers to be supplied. The number of washers required to be supplied shall be indicated by the purchasing Agency on the Release Order.

Example: If 17,500 total square feet of reflective sheeting material is ordered from the indicated Sections, the Vendor shall be required to supply 5,000 washers (five packages) (5 x 3,500 = 17,500).

The Vendor shall not be required to supply partial packages. For example, if 18,500 total square feet of reflective sheeting is ordered, then the Vendor shall only be required to supply five (5) packages (5,000 washers).

3.1.1.8 Slip Sheeting: This requirement shall apply to Sections III through VI of this Contract. With the exception of 12-3/4" reflective sheeting, the Vendor shall supply slip sheeting equal in width to each different width (nominal) reflective sheeting material ordered under these Sections. The total length of each width supplied shall be at least equal to the total length of each width of reflective sheeting ordered under these Sections. All slip sheeting shall be supplied in roll form. The Vendor shall not be required to supply slip sheeting for 12-3/4" wide sheeting material. The slip sheeting shall be compatible with the sheeting manufacturer's reflective sheeting material and matched

components. The minimum total length of each width of slip sheeting required to be supplied shall be indicated by the purchasing Agency on the Release Order.

#### 4. CONTRACT AWARD:

- 4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price on all Contract Items. Contract Sections shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost within each Section, as shown on the Pricing Pages. Each Section shall be evaluated independently and award shall be made to multiple Vendors if needed.
- Matched Component Film Line Items: Sections II, III, and V of this Contract include line items for transparent and opaque films, rather than there being a separately defined Section for films. This is necessary to insure that the manufacturer recommended films are available on the Contract in the event that the Contract is split among two or more Vendors, or if the manufacturer recommended films for the reflective sheeting to be supplied under one Section differs from those for the reflective material to be supplied under another Section. It is understood that the manufacturer recommended films for use with the reflective sheeting materials included within one or more Sections may be identical. The Vendor shall provide unit pricing within each Section regardless of this. If the same Vendor is awarded two or more Sections in which the manufacturer recommended films are identical, only the film related line items associated with one of the Sections will be awarded. If an identical Series film is bid in multiple Sections awarded to a Vendor, but the pricing of the film differs for one or more rolls of the same width and length, the line item(s) with the lower price(s) shall be the one(s) awarded.
- 4.3 Pricing Pages: The Vendor shall complete the Pricing Pages by providing a unit price for each item listed. In order for the Vendor's bid in a particular Section to be considered for award, the Vendor must indicate a unit price for each item listed. Failure to do so will result in Vendor's bid for that Section being disqualified.

The Vendor should also specify the material to be supplied (manufacturer product code) in the location provided for each line item. This Contract shall not be awarded to any Vendor prior to receipt of this information from the Vendor.

The Vendor should also enter a calculated value [estimated quantity x unit price (except as noted below for 50 yard length 12-3/4" roll widths)] in the "Extended Total Amount" column.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied. Note, in Section I & Sections III through VI, not all line items include a value in the estimated quantity column. For line items that do not include an estimated quantity, the Vendor shall enter a unit price but should not enter a value in the "Extended Total Amount" column is greyed out for these line items out for this reason. Although the Vendor is required to provide a unit bid price for line items which do not include an estimated quantity, only the "Extended Total Amount" values associated with line items which do include an estimated quantity shall be totaled in order to determine the Vendor's total bid price for each Section.

Note that Sections IV and VI include 12-3/4" x 100 yard roll sizes in various colors. The preference of the Agencies is to procure these materials in 100 yard lengths. However, it is understood that some manufacturers only manufacture particular 12-3/4" wide sheeting material grade / color combinations in 50 yard lengths. If this is the case, the Vendor shall indicate this for each applicable line item in the location provided. Otherwise, if the Vendor is awarded that Section of the Contract, they shall be required to provide 100 yards of material for each unit ordered under those line items. If the Vendor indicates that the material is to be supplied in 50 yard length rolls and an estimated quantity is provided, the value entered in the "Extended Total Amount" column should be equal to double the value calculated by multiplying the unit price by the estimated quantity (2 x estimated quantity x unit price). This is to insure that the value entered in the "Extended Total Amount" column is based on the same overall quantity of material as the Vendor's who provide a unit price based on 100 yd. length rolls.

Notwithstanding the foregoing, the Purchasing Division may correct errors at its discretion. If there is a discrepancy between the correct calculated "Extended Total Amount" [estimated quantity x unit price (except as noted above for 50 yard length 12-3/4" roll widths)] and the value entered in the "Extended Total Amount" column by the Vendor, the correct calculated "Extended Total Amount" shall take precedence in total bid amount calculations. The specified unit prices shall not be modified for any reason. The Vendor should type or electronically enter the information into the Pricing Pages to prevent errors in the evaluation. The Pricing Pages were

created as a Microsoft Excel document and Vendor can request an electronic copy for bid purposes by sending an email request to the following address: Alan.W.Cummings@wv.gov.

#### 5. ORDERING AND PAYMENT:

- 5.1 Ordering: Vendor shall accept orders by regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Any on-line ordering system must have the capability to restrict prices and available items to conform to the items included in this RFQ and the prices provided by the Vendor is response to this RFQ. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 5.2 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.
- 5.3 Minimum Order Size: There shall be no minimum order size associated with this Contract.

#### 6. DELIVERY AND RETURN:

- **6.1 Delivery Time:** Vendor shall deliver standard orders within twenty-five (25) Working Days after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.
- 6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

Regardless of whether or not the vendor provides written notification of an order delay, if the Vendor is unable to deliver in full within twenty-five (25) Working Days after receipt of the order, the Vendor shall be subject to a daily (per Calendar Day) penalty at the purchasing Agency's discretion for each Calendar Day beyond the delivery deadline date until the order is received in full. This penalty shall be

assessed by subtracting the penalty from the original total value of the Release Order. The penalty shall not exceed the original total amount of the Release Order. The penalty shall be calculated based on the Table shown at the following address:

 $\underline{http://www.transportation.wv.gov/highways/contractadmin/specifications/Pages/LiquidDatedDamages.aspx}$ 

A hard copy of this Table is attached to this RFQ as Exhibit C.

The original total amount of the Release Order shall be substituted for the "Original Contract Amount" when using this Table.

- 6.3 Delivery Payment/Risk of Loss: Standard order delivery shall be F.O.B. destination to the Agency's specified location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery.
- 6.4 Packaging & Material Condition: Upon delivery, all materials shall be of good appearance free from ragged edges, cracks, and extraneous materials, and shall be supplied in roll form. The materials shall be evenly wound on a core of sufficient rigidity to prevent distortion of the roll. For sheeting materials, the maximum number of splices shall be four (4) per 50-yd roll. Each splice shall be visible at the edge of the roll. Rolls shall be packaged snugly in corrugated fiberboard boxes such that no damage or defacement may occur during shipment or storage.
- 6.5 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall make arrangements for pickup of the items to be returned within five (5) days of being notified that items are unacceptable. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion. If the Agency elects to have the retuned items replaced, the provisions of Sections 6.1 and 6.2 shall remain in effect until the order is completed in full with material accepted by the Agency.
- 6.6 Return Due to Agency Error: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

#### 7. MISCELLANEOUS:

- 7.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the RFQ. Vendor shall not supply substitute items without Purchasing Division approval.
- 7.2 Vendor Supply: Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 7.3 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 7.4 Technical Assistance: If awarded any Section of this Contract, the successful Vendor shall upon request provide technical assistance for the service of application equipment and instruction and training of Agency personnel in the proper application of the materials supplied. This may include, but shall not be limited to, calibration and trouble shooting of application equipment, training films, material application, screen printing, packaging, storage, and the proper use & handling of inks.
- 7.5 Certification Submittal: Certifications shall be required for all sheeting material supplied as part of this Contract. Certifications are to be received within ten (10) Calendar Days after receipt of the material.
- 7.6 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager:	
Telephone Number:	
Fax Number:	
Email Address:	

#### 7. MISCELLANEOUS:

- 7.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the RFQ. Vendor shall not supply substitute items without Purchasing Division approval.
- 7.2 Vendor Supply: Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 7.3 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
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- 7.6 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager:
Telephone Number:

Fax Number:

Manager:

447-588-7226

847-588-7227

Yasu.Masaka@averydennison.com

#### **EXHIBIT A - PRICING PAGES**

Quantities listed in this RFQ are approximations only. It is understood and agreed that the contract shall cover the quantities actually ordered for delivery during the term of the contract, whether more or less than the quantities shown. Award will be based on lowest total cost.

			SEC	TION I: Transfer Films				
Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventor Subcode
		Transfer Tape, Low Tack, 2						
1	-	inch x 100 yds.	NA	R-Tape, AT60	NA	\$4.00		-
		Transfer Tape, Low Tack, 3						
2	- 1, -	inch x 100 yds.	NA	R-Tape, AT60	NA	\$6.00		-
		Transfer Tape, Low Tack, 12						
3	-	inch x 100 yds.	NA	R-Tape, AT60	NA NA	\$24.00		-
3 (0.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0 - 3.0		Transfer Tape, Low Tack, 15					united the Autom	
4	-	inch x 100 yds.	NA	R-Tape, AT60	NA	\$30.00		-
		Transfer Tape, Low Tack, 18						
5	6	inch x 100 yds.	NA	R-Tape, AT60	NA	\$36.00	\$216.00	
6	5	Transfer Tape, Low Tack, 24 inch x 100 yds.	NA	R-Tape, AT60		\$48.00	\$240.00	_
		Transfer Tape, Low Tack, 30					·	
7	19	inch x 100 yds.	NA	R-Tape, AT60	NA	\$60.00	\$1,140.00	-
		Transfer Tape, Low Tack, 36						
8	6	inch x 100 yds.	NA	R-Tape, AT60	NA NA	\$72.00	\$432.00	-
		Transfer Tape, Low Tack, 42						
9	-	inch x 100 yds.	NA	R-Tape, AT60	NA	\$84.00		-
		Transfer Tape, Low Tack, 48						
10	7	inch x 100 yds.	NA	R-Tape, AT60	NA	\$96.00	\$672.00	

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity	=	Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number		1		Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Type ASTM-I Sheeting, 15 inch	1/16" min. overage					
11	1	x 50 yds., White	preferred	Avery Dennison, T-1500	NA	\$131.25	\$131.25	111015
		Type ASTM-I Sheeting, 15 inch	1/16" min. overage					
12	1	x 50 yds., Yellow	preferred	Avery Dennison, T-1501	NA	\$131.25	\$131.25	112015
		Type ASTM-I Sheeting, 18-1/2						
13	1	inch x 50 yds., White	-	Avery Dennison, T-1500	NA	\$157.50	\$157.50	-
		Type ASTM-I Sheeting, 18-1/2						
14	1	inch x 50 yds., Yellow	· ·	Avery Dennison, T-1501	NA	\$157.50	\$157.50	112018
		Type ASTM-I Sheeting, 21 inch	1/16" min. overage			***************************************	1	
15	1	x 50 yds., White	preferred	Avery Dennison, T-1500	NA	\$183.75	\$183.75	111021
		Type ASTM-I Sheeting, 21 inch	1/16" min. overage					
16	1	x 50 vds., Yellow	preferred	Avery Dennison, T-1501	NA	\$183.75	\$183.75	-
		Type ASTM-I Sheeting, 24-1/2				·············		
17	1	inch x 50 yds., White		Avery Dennison, T-1500	NA	\$210.00	\$210.00	111024
		Type ASTM-I Sheeting, 24-1/2			<u> </u>		- <del> </del>	
18	1	inch x 50 yds., Yellow	•	Avery Dennison, T-1501	NA	\$210.00	\$210.00	112024
		Type ASTM-I Sheeting, 30-1/2						
19	1	inch x 50 yds., White	-	Avery Dennison, T-1500	NA	\$262.50	\$262.50	111030
		Type ASTM-I Sheeting, 30-1/2						
20	1	inch x 50 yds., Yellow	- 1	Avery Dennison, T-1501	NA	\$262.50	\$262.50	112030
		Type ASTM-I Sheeting, 36 inch	5/16" min. overage					
21	1	x 50 yds., White	preferred	Avery Dennison, T-1500	NA	\$315.00	\$315.00	111036
		Type ASTM-I Sheeting, 36 inch	5/16" min. overage					
22	1	x 50 yds., Yellow	preferred	Avery Dennison, T-1501	NA	\$315.00	\$315.00	112036
		Type ASTM-I Sheeting, 42 inch	5/16" min. overage					
23	1	x 50 yds., White	preferred	Avery Dennison, T-1500	NA	\$367.50	\$367.50	-
		Type ASTM-I Sheeting, 42 inch	5/16" min. overage					
24	1	x 50 yds., Yellow	preferred	Avery Dennison, T-1501	NA	\$367.50	\$367.50	_
		Type ASTM-I Sheeting, 48 inch	7/16" min. overage					
25	1	x 50 yds., White	preferred	Avery Dennison, T-1500	NA	\$420.00	\$420.00	111048
	<del></del>	Type ASTM-I Sheeting, 48 inch	7/16" min. overage					
26	1	x 50 yds., Yellow	preferred	Avery Dennison, T-1501	NA	\$420.00	\$420.00	112048
		Type ASTM-I Sheeting, 1/2	P. S.			*		
27	1	inch x 50 yds., White	_	Avery Dennison, T-1500	NA	\$4.38	\$4.38	111050
		Type ASTM-I Sheeting, 1/2		, , , , , , , , , , , , , , , , , , , ,			1	<del>                                     </del>
28	1	inch x 50 yds., Yellow		Avery Dennison, T-1501	NA	\$4.38	\$4.38	112050

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity	l lieur parent	Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number	Quantity		Treferences	Code	50 yd. Length	0031	(Qty x Unit Cost)	Subcode
Italiibei	<b>-</b>	Type ASTM-I Sheeting, 1 inch x			Jo yar cengui		(Qty x onit cost)	Subcouc
29	1	50 yds., White	-	Avery Dennison, T-1500	NA	\$8.75	\$8.75	111100
	<del>                                     </del>	Type ASTM-I Sheeting, 1 inch x		Avery beamson, 1 1500	100	<del>40.75</del>	+	111100
30	1	50 yds., Yellow	.	Avery Dennison, T-1501	NA	\$8.75	\$8.75	112100
		Type ASTM-I Sheeting, 15 inch	1/16" min. overage	,				
31	1	x 50 yds., Blue	preferred	Avery Dennison, T-1505	NA	\$131.25	\$131.25	115015
		Type ASTM-I Sheeting, 18-1/2	F.3.3.3.3			7		
32	1	inch x 50 yds., Blue	-	Avery Dennison, T-1505	NA NA	\$157.50	\$157.50	
		Type ASTM-I Sheeting, 21 inch	1/16" min. overage		<del>                                     </del>	7-2-1-2	1	
33	1	x 50 yds., Blue	preferred	Avery Dennison, T-1505	NA	\$183.75	\$183.75	_
		Type ASTM-I Sheeting, 24-1/2	P-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3					
34	1	inch x 50 yds., Blue		Avery Dennison, T-1505	NA	\$210.00	\$210.00	115024
		Type ASTM-I Sheeting, 30-1/2						
35	1	inch x 50 yds., Blue		Avery Dennison, T-1505	NA NA	\$262.50	\$262.50	115030
		Type ASTM-I Sheeting, 36 inch	3/16" min. overage					
36	1	x 50 yds., Blue	preferred	Avery Dennison, T-1505	NA	\$315.00	\$315.00	115036
		Type ASTM-I Sheeting, 42 inch	5/16" min. overage					
37	1	x 50 yds., Blue	preferred	Avery Dennison, T-1505	NA	\$367.50	\$367.50	
		Type ASTM-I Sheeting, 48 inch	7/16" min. overage					
38	1	x 50 yds., Blue	preferred	Avery Dennison, T-1505	NA	\$420.00	\$420.00	115048
		Transparent film, Acrylic, 12						
39	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$117.00	\$117.00	-
		Transparent film, Acrylic, 12						
40	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$117.00	\$117.00	-
***************************************		Transparent film, Acrylic, 12						
41	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$117.00	\$117.00	-
		Transparent film, Acrylic, 12						
42	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$117.00	\$117.00	-
		Transparent film, Acrylic, 12						
43	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$117.00	\$117.00	-
		Transparent film, Acrylic, 15						
44	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$146.25	\$146.25	-
		Transparent film, Acrylic, 15			320007-3	1120 Free Control (1870 F	Transfer Australian (Control	
45	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$146.25	\$146.25	-
		Transparent film, Acrylic, 15	2000				mode approved and the ST	
46	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$146.25	\$146.25	-

Contract	Estimated	Item Description		reflective Sheeting & Matched Com				T
		item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity	- i#	Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Transparent film, Acrylic, 15						
47	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$146.25	\$146.25	-
-		Transparent film, Acrylic, 15		as as assistance of		10000000		1 DOLC - SOOT - STATE
48	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$146.25	\$146.25	-
		Transparent film, Acrylic, 18						
49	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$175.50	\$175.50	-
		Transparent film, Acrylic, 18						
50	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$175.50	\$175.50	-
		Transparent film, Acrylic, 18					***************************************	
51	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$175.50	\$175.50	_
		Transparent film, Acrylic, 18						
52	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$175.50	\$175.50	904018
		Transparent film, Acrylic, 18						
53	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA NA	\$175.50	\$175.50	906018
		Transparent film, Acrylic, 24						
54	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$234.00	\$234.00	902024
		Transparent film, Acrylic, 24						
55	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA I	\$234.00	\$234.00	907024
		Transparent film, Acrylic, 24				<b>\$20 1100</b>		307024
56	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA NA	\$234.00	\$234.00	905024
		Transparent film, Acrylic, 24				7-07/00	<b>V201100</b>	303024
57	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$234.00	\$234.00	904024
		Transparent film, Acrylic, 24		1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1	<b>7254.00</b>	\$254.00	304024
58	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$234.00	\$234.00	906024
		Transparent film, Acrylic, 30		Twenty Deminson, OE 2005	144	<b>\$254.00</b>	\$254.00	300024
59	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$292.50	\$292.50	
		Transparent film, Acrylic, 30		Tweny Bennison, OE 2001	100	<b>VZJZ.30</b>	\$252.50	
60	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$292.50	\$292.50	907030
		Transparent film, Acrylic, 30		Avery Bermison, 62-2008	IVA	3232.30	\$292.50	907030
61	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$292.50	\$292.50	905030
	-	Transparent film, Acrylic, 30	147	Avery Dennison, OL-2005	IVA	3232.30	\$252.50	903030
62	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA NA	\$292.50	\$292.50	904030
	<u>-</u>	Transparent film, Acrylic, 30	IVA	Avery Dennison, OL-2007	IVA	3232,30	\$292.50	904030
63	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$202 FC	¢202.50	000000
- 03		Transparent film, Acrylic, 36	IVA	Avery Dennison, OL-2009	INA	\$292.50	\$292.50	906030
64	1	inch x 50 yds., Yellow	NA	Aven Dennison Ol 2001	l NA	¢351.00	tar1.00	000000
04	1	men x 50 yas., renow	NA NA	Avery Dennison, OL-2001	NA	\$351.00	\$351.00	902036

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity		Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Transparent film, Acrylic, 36				***************************************	1	
65	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA NA	\$351.00	\$351.00	_
		Transparent film, Acrylic, 36						
66	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA NA	\$351.00	\$351.00	905036
		Transparent film, Acrylic, 36						
67	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA NA	\$351.00	\$351.00	904036
		Transparent film, Acrylic, 36						
68	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA NA	\$351.00	\$351.00	906036
		Transparent film, Acrylic, 42						
69	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA NA	\$409.50	\$409.50	_
		Transparent film, Acrylic, 42						
70	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$409.50	\$409.50	
		Transparent film, Acrylic, 42						
71	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$409.50	\$409.50	
		Transparent film, Acrylic, 42						
72	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$409.50	\$409.50	904042
		Transparent film, Acrylic, 42						
73	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA .	\$409.50	\$409.50	
		Transparent film, Acrylic, 48						
74	1	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$468.00	\$468.00	
		Transparent film, Acrylic, 48						
75	1	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$468.00	\$468.00	_
		Transparent film, Acrylic, 48						
76	1	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA NA	\$468.00	\$468.00	905048
		Transparent film, Acrylic, 48				· · · · · · · · · · · · · · · · · · ·		
77	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$468.00	\$468.00	904048
		Transparent film, Acrylic, 48						
78	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA NA	\$468.00	\$468.00	906048
		Opaque film, Vinyl, 3/8 inch x						
79	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$2.25	\$2.25	518038
		Opaque film, Vinyl, 5/8 inch x						
80	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$3.75	\$3.75	518062
		Opaque film, Vinyl, 3/4 inch x				· · · · · · · · · · · · · · · · · · ·		
81	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$4.50	\$4.50	518075
		Opaque film, Vinyl, 7/8 inch x						
82	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$5.25	\$5.25	518088

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity		Preferences	Product	Supplied In	Cost	Total Amount	Inventory
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Opaque film, Vinyl, 1-1/4 inch	*****					
83	1	x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$7.50	\$7.50	518125
15000 V		Opaque film, Vinyl, 18 inch x	444					
84	1	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$108.00	\$108.00	
		Opaque film, Vinyl, 18 inch x					1	
85	1	50 yds., Black	NA	Avery Dennison, SC 900-190-O	NA NA	\$108.00	\$108.00	
12/1		Opaque film, Vinyl, 18 inch x				4.00.00	4400.00	ē
86	1	50 yds., Yellow	NA	Avery Dennison, SC 900-220-O	NA	\$108.00	\$108.00	-
		Opaque film, Vinyl, 18 inch x	***			4400.00	4400.00	
87	1	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$108.00	\$108.00	
								ĺ
		Opaque film, Vinyl, 24 inch x	1000			4	4444.00	
88	1	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$144.00	\$144.00	
		Opaque film, Vinyl, 24 inch x	***			¢1.44.00	£144.00	F40034
89	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$144.00	\$144.00	518024
		Opaque film, Vinyl, 24 inch x				6444.00	6144.00	
90	1	50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$144.00	\$144.00	-
		Opaque film, Vinyl, 24 inch x	N/A	A Di 66 000 670 0	NA	\$144.00	\$144.00	
91	1	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	INA	\$144.00	\$144.00	
		Opaque film, Vinyl, 30 inch x						
92	1	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$180.00	\$180.00	_
32	<del>                                     </del>	Opaque film, Vinyl, 30 inch x	NA	Avery Dennison, 3c 300-102-0	TVA .	<b></b>	\$100.00	
93	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$180.00	\$180.00	518030
	<del></del>	Opaque film, Vinyl, 30 inch x		7.11.7 2.11.11.11.11.11.11.11.11.11.11.11.11.11		7		
94	1	50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$180.00	\$180.00	512030
		Opaque film, Vinyl, 30 inch x		1,				
95	1	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$180.00	\$180.00	-
		Opaque film, Vinyl, 36 inch x						
96	1	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$216.00	\$216.00	_
- 50	<del>                                     </del>	Opaque film, Vinyl, 36 inch x		7.1.0.7 Doi.in.doi., 0.0.00.00.00				
97	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$216.00	\$216.00	518036
		Opaque film, Vinyl, 36 inch x	,				<u> </u>	
98	1	50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$216.00	\$216.00	512036
		Opaque film, Vinyl, 36 inch x					1	
99	1	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$216.00	\$216.00	-
		Opaque film, Vinyl, 48 inch x						
100	1	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$288.00	\$288.00	_

		SECTION	II: Type ASTM-I Retro	reflective Sheeting & Matched Comp	onents (Continued)			
Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
101	1	Opaque film, Vinyl, 48 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$288.00		518048
102	1	Opaque film, Vinyl, 48 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$288.00	\$288.00	_
103	1	Opaque film, Vinyl, 48 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$288.00	\$288.00	-
104	1	Opaque film, Vinyl, 60 inch x 50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$360.00	\$360.00	-
105	1	Opaque film, Vinyl, 60 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$360.00	\$360.00	-
106	1	Opaque film, Vinyl, 60 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$360.00	\$360.00	-
107	1	Opaque film, Vinyl, 60 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$360.00	\$360.00	<u>-</u>

Contract	Estimated	Item Description	Overage	eeting & Matched Components – Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity	ownopen agestromounter attendante or the thin day of the second south an	Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Type ASTM-IV Sheeting, 15	1/16" min. overage					1
108	-	inch x 50 yds., White	preferred	Avery Dennison, T-6500	NA NA	\$181.88		211015
		Type ASTM-IV Sheeting, 15	1/16" min. overage			20112-00		
109	-	inch x 50 yds., Yellow	preferred	Avery Dennison, T-6501	NA NA	\$181.88		
		Type ASTM-IV Sheeting, 18-						
110	9	1/2 inch x 50 yds., White	-	Avery Dennison, T-6500	NA	\$218.25	\$1,964.25	211018
		Type ASTM-IV Sheeting, 18-					1	
111	5	1/2 inch x 50 yds., Yellow	-	Avery Dennison, T-6501	NA	\$218.25	\$1,091.25	212018
		Type ASTM-IV Sheeting, 21	1/16" min. overage			The Market		
112	5	inch x 50 yds., White	preferred	Avery Dennison, T-6500	NA	\$254.63	\$1,273.13	211021
		Type ASTM-IV Sheeting, 21	1/16" min. overage					
113		inch x 50 yds., Yellow	preferred	Avery Dennison, T-6501	NA	\$254.63		-
		Type ASTM-IV Sheeting, 24-						
114	28	1/2 inch x 50 yds., White	-	Avery Dennison, T-6500	NA	\$291.00	\$8,148.00	211024
115	20	Type ASTM-IV Sheeting, 24- 1/2 inch x 50 yds., Yellow	200	Avenu Danniana T 6501		¢201.00	dr. 000 00	242024
113	20	1/2 mcn x 50 yds., renow		Avery Dennison, T-6501	NA NA	\$291.00	\$5,820.00	212024
		Type ASTM-IV Sheeting, 30-						
116	76	1/2 inch x 50 yds., White	-	Avery Dennison, T-6500	NA	\$363.75	\$27,645.00	211030
		Type ASTM-IV Sheeting, 30-						
117	54	1/2 inch x 50 yds., Yellow	-	Avery Dennison, T-6501	NA	\$363.75	\$19,642.50	212030
		Type ASTM-IV Sheeting, 36	3/16" min. overage					
118	21	inch x 50 yds., White	preferred	Avery Dennison, T-6500	NA	\$436.50	\$9,166.50	211036
		Type ASTM-IV Sheeting, 36	3/16" min. overage					
119	16	inch x 50 yds., Yellow	preferred	Avery Dennison, T-6501	NA	\$436.50	\$6,984.00	212036
		Type ASTM-IV Sheeting, 42	5/16" min. overage					\$15
120	16	inch x 50 yds., White	preferred	Avery Dennison, T-6500	NA NA	\$509.25	\$8,148.00	211042
121		Type ASTM-IV Sheeting, 42 inch x 50 yds., Yellow	5/16" min. overage preferred	Aven Dennison T 6501	NA	¢500.25		212042
121		Type ASTM-IV Sheeting, 48	7/16" min. overage	Avery Dennison, T-6501	NA	\$509.25		212042
122	22	inch x 50 yds., White	preferred	Avery Dennison, T-6500	NA NA	\$582.00	\$12,804.00	211048
		Type ASTM-IV Sheeting, 48	7/16" min. overage		14/5	7302.00	712,004.00	211040
123	10	inch x 50 yds., Yellow	preferred	Avery Dennison, T-6501	NA	\$582.00	\$5,820.00	212048
		Transparent film, Acrylic, 12						
124	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$117.00		-
		Transparent film, Acrylic, 12						
125	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$117.00		-

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity	1	Preferences	Product	Supplied in	Cost	Total Amount	Inventory
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Transparent film, Acrylic, 12						
126	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$117.00		-
		Transparent film, Acrylic, 12						
127	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$117.00		
		Transparent film, Acrylic, 12						
128	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$117.00		-
		Transparent film, Acrylic, 15						
129	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$146.25		-
and the same		Transparent film, Acrylic, 15						
130		inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$146.25		-
		Transparent film, Acrylic, 15						
131	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$146.25		-
		Transparent film, Acrylic, 15						
132	_	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$146.25		
		Transparent film, Acrylic, 15					CENTURAL PROPERTY.	
133		inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA I	\$146.25		-
		Transparent film, Acrylic, 18						
134		inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$175.50		-
		Transparent film, Acrylic, 18						
135		inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA NA	\$175.50		2
		Transparent film, Acrylic, 18				75,515		
136	_	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA NA	\$175.50		_
200		Transparent film, Acrylic, 18		, , , , , , , , , , , , , , , , , , , ,	1	<b>V</b> =	1	
137	8	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$175.50	\$1,404.00	904018
		Transparent film, Acrylic, 18				7		1
138	2	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$175.50		906018
100		Transparent film, Acrylic, 24		7.10.17.00.11.11.00.17.02.2003	1	<b>V</b> 275.50		300010
139		inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA NA	\$234.00		902024
133		Transparent film, Acrylic, 24		Avery bennison, or 2001	T NA	<del>γ254.00</del>		302024
140		inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$234.00		907024
140		Transparent film, Acrylic, 24	. IIA	7.0c1 y Dennison, OE-2008	140	7237.00		30,024
141		inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$234.00		905024
141	<del> </del>	Transparent film, Acrylic, 24	11/1	7.0017 Deminson, GE-2003	14/3	Q234.00		303024
142	7	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$234.00	\$1,638.00	904024
142	-	Transparent film, Acrylic, 24	IVA	Avery Delinison, OL-2007	100	7234.00	71,050.00	304024
143	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$234.00	\$234.00	906024
145	T	mon x 30 yus., brown	INA	Avery Dellillson, OL-2009	INA	\$234.00	7234,00	300024

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity		Preferences	Product	Supplied In	Cost	Total Amount	Inventor
Number				Code	50 yd. Length	(7.7.7.7	(Qty x Unit Cost)	Subcode
		Transparent film, Acrylic, 30			7		(QC) it Cliff Cost)	Justouc
144		inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$292.50		_
		Transparent film, Acrylic, 30		1		7		
145	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$292.50		907030
		Transparent film, Acrylic, 30						-
146	2	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	l NA	\$292.50	\$585.00	905030
- ASSE		Transparent film, Acrylic, 30					7	-
147	34	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$292.50	\$9,945.00	904030
		Transparent film, Acrylic, 30						1
148	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$292.50		906030
		Transparent film, Acrylic, 36						
149	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$351.00		902036
		Transparent film, Acrylic, 36						
150	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$351.00		-
	110	Transparent film, Acrylic, 36					T	
151	2	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$351.00	\$702.00	905036
		Transparent film, Acrylic, 36						
152	7	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$351.00	\$2,457.00	904036
		Transparent film, Acrylic, 36						
153	1	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$351.00	\$351.00	906036
		Transparent film, Acrylic, 42						
154	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$409.50		-
		Transparent film, Acrylic, 42				N.		
155	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA NA	\$409.50		-
		Transparent film, Acrylic, 42						
156	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$409.50		-
		Transparent film, Acrylic, 42						
157	1	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$409.50	\$409.50	904042
		Transparent film, Acrylic, 42						
158	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$409.50		-
		Transparent film, Acrylic, 48	1 //30/16/19					
159	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$468.00		-
		Transparent film, Acrylic,, 48						
160	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$468.00		
		Transparent film, Acrylic, 48						
161	4	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$468.00	\$1,872.00	905048

Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
		Transparent film, Acrylic, 48						
162	2	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$468.00	\$936.00	904048
163	-	Transparent film, Acrylic, 48 inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$468.00		906048
164	1	Opaque film, Vinyl, 3/8 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$2.25	\$2.25	518038
		Opaque film, Vinyl, 5/8 inch x		hy 1918 X1 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
165	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$3.75		518062
166	_	Opaque film, Vinyl, 3/4 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$4.50		518075
167	_	Opaque film, Vinyl, 7/8 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$5.25		518088
168	1	Opaque film, Vinyl, 1-1/4 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$7.50	\$7.50	518125
169	-	Opaque film, Vinyl, 18 inch x 50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$108.00		2
170	-	Opaque film, Vinyl, 18 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$108.00		_
171	-	Opaque film, Vinyl, 18 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$108.00		-
172	•	Opaque film, Vinyl, 18 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$108.00		-
173	-	Opaque film, Vinyl, 24 inch x 50 yds., Matte White Opaque film, Vinyl, 24 inch x	NA	Avery Dennison, SC 900-102-0	NA	\$144.00		-
174	4	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$144.00	\$576.00	518024
175	-	Opaque film, Vinyl, 24 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$144.00		_
176		Opaque film, Vinyl, 24 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$144.00		
177	-	Opaque film, Vinyl, 30 inch x 50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$180.00		-
178	2	Opaque film, Vinyl, 30 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$180.00	\$360.00	518030
179	-	Opaque film, Vinyl, 30 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA NA	\$180.00		512030

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item Number	Quantity		Preferences	Product Code	Supplied In 50 yd. Length	Cost	Total Amount (Qty x Unit Cost)	Inventory Subcode
		Opaque film, Vinyl, 30 inch x						
180	-	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA NA	\$180.00		-
404		Opaque film, Vinyl, 36 inch x	NA	4		<b>†245.00</b>		
181	-	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA NA	\$216.00		<u> </u>
182	2	Opaque film, Vinyl, 36 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$216.00	\$432.00	518036
		Opaque film, Vinyl, 36 inch x						
183	-	50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$216.00		512036
		Opaque film, Vinyl, 36 inch x						
184	-	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$216.00		-
				20				
		Opaque film, Vinyl, 48 inch x						
185	-	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$288.00		-
		Opaque film, Vinyl, 48 inch x				\$107000 KM		25 (42
186	2	50 yds., Black	NA	Avery Dennison, SC 900-190-O	NA NA	\$288.00	\$576.00	518048
187		Opaque film, Vinyl, 48 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$288.00		
10/		Opaque film, Vinyl, 48 inch x	INA	Avery Dennison, 3C 900-220-0	INA	\$200.00		<u> </u>
188	-	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$288.00		
		Opaque film, Vinyl, 60 inch x		# 1207 S	123000.000			
189	-	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$360.00		
		Opaque film, Vinyl, 60 inch x			TOWN TO STATE OF	. ■ 00000000000000000000000000000000000		
190	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$360.00		-
191		Opaque film, Vinyl, 60 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA NA	\$360.00		_
		Opaque film, Vinyl, 60 inch x	177	, 555, 55.55.225.5		7000.00	Secretary and the second	
192	-	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$360.00		-

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
Item	Quantity		Preferences	Product	Supplied In	Cost	Total Amount	Inventory
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Type ASTM-IV Sheeting, 1/2						
193	-	inch x 50 yds., White	12	Avery Dennison, T-6500	NA	\$6.06		211050
		Type ASTM-IV Sheeting, 1/2				Marine Marine		
194	-	inch x 50 yds., Yellow	-	Avery Dennison, T-6501	NA	\$6.06		-
		Type ASTM-IV Sheeting, 1 inch					No transfer and the	
195	-	x 50 yds., White		Avery Dennison, T-6500	NA	\$12.13		211100
		Type ASTM-IV Sheeting, 1 inch						
196	-	x 50 yds., Yellow	-	Avery Dennison, T-6501	NA	\$12.13		-
		Type ASTM-IV Sheeting, 12-						
197	4	3/4 inch x 100 yds., White	-	Avery Dennison, T-6500		\$309.19	\$1,236.75	211012
	30, 30, 3, 3, 3, 3, 3, 3							
		Type ASTM-IV Sheeting, 12-						
198	-	3/4 inch x 100 yds., Yellow	-	Avery Dennison, T-6501		\$309.19		212012
		Type ASTM-IV Sheeting, 12-					20-	
199	20	3/4 inch x 100 yds., Blue		Avery Dennison, T-6505		\$309.19	\$6,183.75	215012
		Type ASTM-IV Sheeting, 12-						
200	27	3/4 inch x 100 yds., Green	-	Avery Dennison, T-6507		\$309.19	\$8,348.06	214012
			2117 to 19700					
		Type ASTM-IV Sheeting, 12-						
201	3	3/4 inch x 100 yds., Brown	2	Avery Dennison, T-6509		\$309.19	\$927.56	2016012
		Type ASTM-IV Sheeting, 15	1/16" min. overage					
202	-	inch x 50 yds., Blue	preferred	Avery Dennison, T-6505	NA	\$181.88		215015
		Type ASTM-IV Sheeting, 15	1/16" min. overage					
203	-	inch x 50 yds., Green	preferred	Avery Dennison, T-6507	NA	\$181.88		
		Type ASTM-IV Sheeting, 15	1/16" min. overage					
204	-	inch x 50 yds., Brown	preferred	Avery Dennison, T-6509	NA	\$181.88		-
		Type ASTM-IV Sheeting, 18-						
205	-	1/2 inch x 50 yds., Blue	•	Avery Dennison, T-6505	NA	\$218.25		-
		Type ASTM-IV Sheeting, 18-						
206	-	1/2 inch x 50 yds., Green	-	Avery Dennison, T-6507	NA	\$218.25		-
		Type ASTM-IV Sheeting, 18-						
207	-	1/2 inch x 50 yds., Brown	<u> </u>	Avery Dennison, T-6509	NA	\$218.25		-
		Type ASTM-IV Sheeting, 21	1/16" min. overage					
208	-	inch x 50 yds., Blue	preferred	Avery Dennison, T-6505	NA	\$254.63		-
		Type ASTM-IV Sheeting, 21	1/16" min. overage					
209	-	inch x 50 yds., Green	preferred	Avery Dennison, T-6507	NA	\$254.63		-
		Type ASTM-IV Sheeting, 21	1/16" min. overage					
210	-	inch x 50 yds., Brown	preferred	Avery Dennison, T-6509	NA	\$254.63		-

Contract	Estimated	Item Description	Overage	Manufacturer	Item To Be	Unit	Extended	DOH
item	Quantity	*	Preferences	Product	Supplied In	Cost	Total Amount	Inventory
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
		Type ASTM-IV Sheeting, 24-			, , , , , , , ,			
211		1/2 inch x 50 yds., Blue	1.	Avery Dennison, T-6505	NA	\$291.00		_
	The Street Lines							
		Type ASTM-IV Sheeting, 24-						
212	-	1/2 inch x 50 yds., Green		Avery Dennison, T-6507	NA	\$291.00		_
		Type ASTM-IV Sheeting, 24-						
213	- T- F	1/2 inch x 50 yds., Brown		Avery Dennison, T-6509	NA	\$291.00		216024
		Type ASTM-IV Sheeting, 30-						
214	-	1/2 inch x 50 yds., Blue	-	Avery Dennison, T-6505	NA	\$363.75		215030
		1 =						
		Type ASTM-IV Sheeting, 30-						
215	-	1/2 inch x 50 yds., Green	-	Avery Dennison, T-6507	NA	\$363.75		214030
		Type ASTM-IV Sheeting, 30-						
216	-	1/2 inch x 50 yds., Brown	-	Avery Dennison, T-6509	NA	\$363.75		216030
		Type ASTM-IV Sheeting, 36	3/16" min. overage					
217		inch x 50 yds., Blue	preferred	Avery Dennison, T-6505	NA	\$436.50		215036
		Type ASTM-IV Sheeting, 36	3/16" min. overage					
218	-	inch x 50 yds., Green	preferred	Avery Dennison, T-6507	NA	\$436.50		214036
		Type ASTM-IV Sheeting, 36	3/16" min. overage					
219	-	inch x 50 yds., Brown	preferred	Avery Dennison, T-6509	NA	\$436.50		-
		Type ASTM-IV Sheeting, 42	5/16" min. overage					
220	-	inch x 50 yds., Blue	preferred	Avery Dennison, T-6505	NA NA	\$509.25		215042
220		Type ASTM-IV Sheeting, 42	5/16" min. overage			2		
221	-	inch x 50 yds., Green	preferred	Avery Dennison, T-6507	NA NA	\$509.25		214042
222		Type ASTM-IV Sheeting, 42	5/16" min. overage					
222	-	inch x 50 yds., Brown	preferred	Avery Dennison, T-6509	NA NA	\$509.25		-
223		Type ASTM-IV Sheeting, 48	7/16" min. overage	Aven Dennison T 6505		ć502.00		245055
223		inch x 50 yds., Blue	preferred	Avery Dennison, T-6505	NA	\$582.00		215048
224		Type ASTM-IV Sheeting, 48 inch x 50 yds., Green	7/16" min. overage preferred	Avon Donnison T 6507	NA	\$582.00		214040
224		Type ASTM-IV Sheeting, 48	7/16" min. overage	Avery Dennison, T-6507	IVA	\$302,00		214048
225		inch x 50 yds., Brown	preferred	Avery Dennison, T-6509	NA	\$582.00		216048
223		men x 50 yus., brown	preferred	Avery Dellinson, 1-0509	IVA	\$302,00		210048

Contract Item	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product	Item To Be Supplied In	Unit Cost	Extended Total Amount	DOH Inventory
Number				Code	50 yd. Length		(Qty x Unit Cost)	Subcode
226	1	Type ASTM-XI Sheeting, 12 inch x 100 yds., White	-	Avery Dennison, T-11500	NA	\$810.00	\$810.00	611012
227	_	Type ASTM-XI Sheeting, 15 inch x 50 yds., White	1/16" min. overage preferred	Avery Dennison, T-11500	NA	\$506.25		_
228	_	Type ASTM-XI Sheeting, 15 inch x 50 yds., Fluorescent Orange	1/16" min. overage preferred	Avery Dennison, W-11514	NA NA	\$465.00		_
229	1	Type ASTM-XI Sheeting, 18- 1/2 inch x 50 yds., White	_	Avery Dennison, T-11500	NA NA	\$607.50	\$607.50	611018
		Type ASTM-XI Sheeting, 18- 1/2 inch x 50 yds., Fluorescent					\$607.50	611018
230	4	Orange	-	Avery Dennison, W-11514	NA	\$558.00	\$2,232.00	-
231	-	Type ASTM-XI Sheeting, 21 inch x 50 yds., White	1/16" min. overage preferred	Avery Dennison, T-11500	NA	\$708.75		-
232	-	Type ASTM-XI Sheeting, 21 inch x 50 yds., Fluorescent Orange	1/16" min. overage preferred	Avery Dennison, W-11514	NA	\$651.00		_
233		Type ASTM-XI Sheeting, 24- 1/2 inch x 50 yds., White		Avery Dennison, T-11500	NA	\$810.00		611024
234	4	Type ASTM-XI Sheeting, 24- 1/2 inch x 50 yds., Fluorescent Orange	-	Avery Dennison, W-11514	NA NA	\$744.00	\$2,976.00	613024
235	_	Type ASTM-XI Sheeting, 30- 1/2 inch x 50 yds., White	-	Avery Dennison, T-11500	NA NA	\$1,012.50	7337333	-
236		Type ASTM-XI Sheeting, 30- 1/2 inch x 50 yds., Fluorescent	_					613030
236	-	Orange Type ASTM-XI Sheeting, 36 inch x 50 yds., White	3/16" min. overage	Avery Dennison, W-11514  Avery Dennison, T-11500	NA NA	\$930.00 \$1,215.00		613030 611036

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	& Matched Components - Matche Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
		Type ASTM-XI Sheeting, 36	900 NAME OF THE TOTAL OF THE TO					
		inch x 50 yds., Fluorescent	3/16" min. overage					
238	5	Orange	preferred	Avery Dennison, W-11514	NA	\$1,116.00	\$5,580.00	613036
		Type ASTM-XI Sheeting, 42	5/16" min. overage					
239	-	inch x 50 yds., White	preferred	Avery Dennison, T-11500	NA	\$1,417.50		-
		Type ASTM-XI Sheeting, 42						
		inch x 50 yds., Fluorescent	5/16" min. overage					
240	-	Orange	preferred	Avery Dennison, W-11514	NA NA	\$1,302.00		-
		Type ASTM-XI Sheeting, 48	7/16" min. overage					200200-00000-0000
241	2	inch x 50 yds., White	preferred	Avery Dennison, T-11500	NA	\$1,620.00	\$3,240.00	611048
		Type ASTM-XI Sheeting, 48						
		inch x 50 yds., Fluorescent	7/16" min. overage					
242	3	Orange	preferred	Avery Dennison, W-11514	NA NA	\$1,488.00	\$4,464.00	613048
243	6	Type ASTM-XI Sheeting, 9 inch x 100 yds., Fluorescent Yellow Green	-	Avery Dennison, T-11513	NA NA	\$607.50	\$3,645.00	-
		Type ASTM-XI Sheeting, 12						
		inch x 100 yds., Fluorescent						
244	-	Yellow	- 1	Avery Dennison, T-11511	NA	\$810.00		612012
245	2	Type ASTM-XI Sheeting, 12- 3/4 inch x 100 yds., Fluorescent Yellow Green	_	Avery Dennison, T-11513		\$860.63	\$1,721.25	612412
	<del>                                     </del>	Type ASTM-XI Sheeting, 15		Avery Bernison, 1 11313	<del> </del>	3800.03	\$1,721.25	012412
		inch x 50 yds., Fluorescent	1/16" min. overage					1
246		Yellow	preferred	Avery Dennison, T-11511	NA	\$506.25		
			protetted	Titaly beninson, 1-11311	1 1	7300.23		<u> </u>
		Type ASTM-XI Sheeting, 15						1
		inch x 50 yds., Fluorescent	1/16" min. overage					
247	_	Yellow Green	preferred	Avery Dennison, T-11513	NA	\$506.25		
		Type ASTM-XI Sheeting, 18-	p	, 555011, 1 22525	† · · · · ·	7550,25		
		1/2 inch x 50 yds., Fluorescent						1
248	-	Yellow	-	Avery Dennison, T-11511	NA	\$607.50		612018
					1 1	7007.00		312010
240		Type ASTM-XI Sheeting, 18- 1/2 inch x 50 yds., Fluorescent						
249	-	Yellow Green		Avery Dennison, T-11513	NA	\$607.50		612418

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
		Type ASTM-XI Sheeting, 21 inch x 50 yds., Fluorescent	1/16" min. overage					
250	-	Yellow	preferred	Avery Dennison, T-11511	NA	\$708.75		-
251		Type ASTM-XI Sheeting, 21 inch x 50 yds., Fluorescent Yellow Green	1/16" min. overage	Avery Dennison, T-11513	NA NA	\$708.75		-
231		Type ASTM-XI Sheeting, 24-	preferred	Avery Delinison, 1-11313	I NA	\$708.73		
		1/2 inch x 50 yds., Fluorescent						
252	12	Yellow		Avery Dennison, T-11511	NA	\$810.00	\$9,720.00	612024
		Type ASTM-XI Sheeting, 24- 1/2 inch x 50 yds., Fluorescent				****		
253		Yellow Green Type ASTM-XI Sheeting, 30-	-	Avery Dennison, T-11513	NA NA	\$810.00		612424
		1/2 inch x 50 yds., Fluorescent						
254	6	Yellow	-	Avery Dennison, T-11511	NA	\$1,012.50	\$6,075.00	612030
255	2	Type ASTM-XI Sheeting, 30- 1/2 inch x 50 yds., Fluorescent Yellow Green	_	Avery Dennison, T-11513	NA	\$1,012.50	\$2,025.00	612430
233	-	Type ASTM-XI Sheeting, 36		Avery bennison, 1 21313	100	\$1,012.50	\$2,023.00	012430
256	12	inch x 50 yds., Fluorescent Yellow	5/16" min. overage preferred	Avery Dennison, T-11511	NA	\$1,215.00	\$14,580.00	612036
257	-	Type ASTM-XI Sheeting, 36 inch x 50 yds., Fluorescent Yellow Green	5/16" min. overage preferred	Avery Dennison, T-11513	NA NA	\$1,215.00		612436
		Type ASTM-XI Sheeting, 42 inch x 50 yds., Fluorescent	5/16" min. overage					
258	-	Yellow	preferred	Avery Dennison, T-11511	NA	\$1,417.50		-
259		Type ASTM-XI Sheeting, 42 inch x 50 yds., Fluorescent Yellow Green	5/16" min. overage preferred	Avery Dennison, T-11513	NA	\$1,417.50		-
260	12	Type ASTM-XI Sheeting, 48 inch x 50 yds., Fluorescent Yellow	7/16" min. overage	Avery Dennison, T-11511	NA NA	\$1,620.00	\$19,440.00	612048

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
		Type ASTM-XI Sheeting, 48						
		inch x 50 yds., Fluorescent	7/16" min. overage					
261	-	Yellow Green	preferred	Avery Dennison, T-11513	NA	\$1,620.00		612448
		Transparent film, Acrylic, 12						022110
262	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$117.00		
*****		Transparent film, Acrylic, 12				722.100		
263	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$117.00		_
		Transparent film, Acrylic, 12						
264		inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$117.00		
		Transparent film, Acrylic, 12						
265	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$117.00		-
		Transparent film, Acrylic, 12						
266	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA NA	\$117.00		
		Transparent film, Acrylic, 15		~				
267	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA NA	\$146.25		-
		Transparent film, Acrylic, 15						
268	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$146.25		-
		Transparent film, Acrylic, 15						
269	<b>-</b>	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$146.25		-
		Transparent film, Acrylic, 15						
270	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$146.25		
		Transparent film, Acrylic, 15						
271	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$146.25		-
		Transparent film, Acrylic, 18						
272	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$175.50		-
		Transparent film, Acrylic, 18						
273	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$175.50		-
		Transparent film, Acrylic, 18						
274	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$175.50		-
		Transparent film, Acrylic, 18						
275		inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$175.50		904018
1		Transparent film, Acrylic, 18						
276	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$175.50		906018
		Transparent film, Acrylic, 24						
277	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA NA	\$234.00		902024

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
2202		Transparent film, Acrylic, 24						
278	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$234.00		907024
000		Transparent film, Acrylic, 24						
279	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$234.00		905024
		Transparent film, Acrylic, 24						
280	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$234.00		904024
		Transparent film, Acrylic, 24						
281	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$234.00		906024
		Transparent film, Acrylic, 30						
282	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA NA	\$292.50		-
		Transparent film, Acrylic, 30						
283	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$292.50		907030
		Transparent film, Acrylic, 30						
284	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$292.50		905030
		Transparent film, Acrylic, 30						
285	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$292.50		904030
		Transparent film, Acrylic, 30						
286	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$292.50		906030
		Transparent film, Acrylic, 36						
287	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$351.00		902036
		Transparent film, Acrylic, 36						
288	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$351.00		-
		Transparent film, Acrylic, 36						
289	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$351.00		905036
		Transparent film, Acrylic, 36						
290	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$351.00		904036
		Transparent film, Acrylic, 36						
291	-	inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$351.00		906036
		Transparent film, Acrylic, 42						
292	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$409.50		-
		Transparent film, Acrylic, 42				W. 102		
293	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$409.50		
		Transparent film, Acrylic, 42						
294	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$409.50		-
		Transparent film, Acrylic, 42						
295	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$409.50		904042

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	ng & Matched Components — Matche Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
		Transparent film, Acrylic, 42						
296		inch x 50 yds., Brown	NA	Avery Dennison, OL-2009	NA	\$409.50		-
		Transparent film, Acrylic, 48						
297	-	inch x 50 yds., Yellow	NA	Avery Dennison, OL-2001	NA	\$468.00		-
		Transparent film, Acrylic,, 48						
298	-	inch x 50 yds., Red	NA	Avery Dennison, OL-2008	NA	\$468.00		-
		Transparent film, Acrylic, 48						
299	-	inch x 50 yds., Blue	NA	Avery Dennison, OL-2005	NA	\$468.00		905048
		Transparent film, Acrylic, 48						
300	-	inch x 50 yds., Green	NA	Avery Dennison, OL-2007	NA	\$468.00		904048
		Transparent film, Acrylic, 48						
301	-	inch x 50 yds., Brown	NA NA	Avery Dennison, OL-2009	NA	\$468.00		906048
		Opaque film, Vinyl, 3/8 inch x				TO		
302	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$2.25		518038
		Opaque film, Vinyl, 5/8 inch x						
303	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$3.75		518062
		Opaque film, Vinyl, 3/4 inch x						
304	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$4.50		518075
		Opaque film, Vinyl, 7/8 inch x				- Vi		
305	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$5.25		518088
		Opaque film, Vinyl, 1-1/4 inch						
306	1	x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$7.50	\$7.50	518125
		Opaque film, Vinyl, 18 inch x						
307	-	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$108.00		_
		Opaque film, Vinyl, 18 inch x						
308	-	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$108.00		-
		Opaque film, Vinyl, 18 inch x						
309	-	50 yds., Yellow	NA NA	Avery Dennison, SC 900-220-0	NA	\$108.00		
		Opaque film, Vinyl, 18 inch x		9. 2019 - 11. 10.000 - 11.				
310	-	50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$108.00		-
		Opaque film, Vinyl, 24 inch x						
311	-	50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$144.00		-
		Opaque film, Vinyl, 24 inch x						
312	2	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$144.00	\$288.00	518024
		Opaque film, Vinyl, 24 inch x						
313	-	50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$144.00		-

Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
314	4	Opaque film, Vinyl, 24 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$144.00		-
315	-	Opaque film, Vinyl, 30 inch x 50 yds., Matte White Opaque film, Vinyl, 30 inch x	NA	Avery Dennison, SC 900-102-0	NA	\$180.00		-
316	2	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA	\$180.00	\$360.00	518030
317	-	Opaque film, Vinyl, 30 inch x 50 yds., Yellow	NA NA	Avery Dennison, SC 900-220-0	NA NA	\$180.00	\$360.00	512030
318	-	Opaque film, Vinyl, 30 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$180.00		-
319	-	Opaque film, Vinyl, 36 inch x 50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$216.00		_
320	2	Opaque film, Vinyl, 36 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$216.00	\$432.00	518036
321		Opaque film, Vinyl, 36 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA NA	\$216.00	\$432.00	512036
322	-	Opaque film, Vinyl, 36 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$216.00		-
323	-	Opaque film, Vinyl, 48 inch x 50 yds., Matte White Opaque film, Vinyl, 48 inch x	NA	Avery Dennison, SC 900-102-0	NA	\$288.00		-
324	1	50 yds., Black	NA	Avery Dennison, SC 900-190-0	NA NA	\$288.00	\$288.00	518048
325		Opaque film, Vinyl, 48 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-0	NA	\$288.00		-
326	-	Opaque film, Vinyl, 48 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$288.00		-
327	-	Opaque film, Vinyl, 60 inch x 50 yds., Matte White	NA	Avery Dennison, SC 900-102-0	NA	\$360.00		-
328	-	Opaque film, Vinyl, 60 inch x 50 yds., Black	NA	Avery Dennison, SC 900-190-O	NA	\$360.00		
329	-	Opaque film, Vinyl, 60 inch x 50 yds., Yellow	NA	Avery Dennison, SC 900-220-O	NA	\$360.00		
330	_	Opaque film, Vinyl, 60 inch x 50 yds., Blue	NA	Avery Dennison, SC 900-670-0	NA	\$360.00		-

Contract Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventor Subcode
331	-	Type ASTM-XI Sheeting, 12-3/4 inch x 100 yds., White		Avery Dennison, T-11500		\$860.63		611012
332	-	Type ASTM-XI Sheeting, 12- 3/4 inch x 100 yds., Blue	-	Avery Dennison, T-11505		\$860.63		
333	( <del>-</del>	Type ASTM-XI Sheeting, 12- 3/4 inch x 100 yds., Green	-	Avery Dennison, T-11507		\$860.63		614012
334	-	Type ASTM-XI Sheeting, 12- 3/4 inch x 100 yds., Fluorescent Orange	-	Avery Dennison, W-11514		\$790.50		613012
335	2	Type ASTM-XI Sheeting, 12- 3/4 inch x 100 yds., Fluorescent Yellow	-	Avery Dennison, T-11511		\$860.63	\$1,721.25	612012
336	_	Type ASTM-XI Sheeting, 15 inch x 50 yds., Blue	1/16" min. overage preferred	Avery Dennison, T-11505	NA	\$506.25		-
337	-	Type ASTM-XI Sheeting, 15 inch x 50 yds., Green	1/16" min. overage preferred	Avery Dennison, T-11507	NA	\$506.25		-
338	-	Type ASTM-XI Sheeting, 18- 1/2 inch x 50 yds., Blue	-	Avery Dennison, T-11505	NA	\$607.50		-
339	-	Type ASTM-XI Sheeting, 18- 1/2 inch x 50 yds., Green	2	Avery Dennison, T-11507	NA	\$607.50		-
340		Type ASTM-XI Sheeting, 21 inch x 50 yds., Blue	1/16" min. overage preferred	Avery Dennison, T-11505	NA NA	\$708.75		-
341	-	Type ASTM-XI Sheeting, 21 inch x 50 yds., Green	1/16" min. overage preferred	Avery Dennison, T-11507	NA	\$708.75		-
342	-	Type ASTM-XI Sheeting, 24- 1/2 inch x 50 yds., Blue	-	Avery Dennison, T-11505	NA	\$810.00		-
343		Type ASTM-XI Sheeting, 24- 1/2 inch x 50 yds., Green		Avery Dennison, T-11507	NA	\$810.00		

Item Number	Estimated Quantity	Item Description	Overage Preferences	Manufacturer Product Code	Item To Be Supplied In 50 yd. Length	Unit Cost	Extended Total Amount (Qty x Unit Cost)	DOH Inventory Subcode
344	-	Type ASTM-XI Sheeting, 30- 1/2 inch x 50 yds., Blue	-	Avery Dennison, T-11505	NA	\$1,012.50		-
345	-	Type ASTM-XI Sheeting, 30- 1/2 inch x 50 yds., Green		Avery Dennison, T-11507	NA	\$1,012.50		-
346	-	Type ASTM-XI Sheeting, 36 inch x 50 yds., Blue	5/16" min. overage preferred	Avery Dennison, T-11505	NA	\$1,215.00		-
347	-	Type ASTM-XI Sheeting, 36 inch x 50 yds., Green	5/16" min. overage preferred	Avery Dennison, T-11507	NA	\$1,215.00		_
348		Type ASTM-XI Sheeting, 42 inch x 50 yds., Blue	5/16" min. overage preferred	Avery Dennison, T-11505	NA	\$1,417.50		
349		Type ASTM-XI Sheeting, 42 inch x 50 yds., Green	5/16" min. overage preferred	Avery Dennison, T-11507	NA	\$1,417.50		-
350	-	Type ASTM-XI Sheeting, 48 inch x 50 yds., Blue	7/16" min. overage preferred	Avery Dennison, T-11505	NA	\$1,620.00		-
351	-	Type ASTM-XI Sheeting, 48 inch x 50 yds., Green	7/16" min. overage preferred	Avery Dennison, T-11507	NA	\$1,620.00		-

#### **EXHIBIT B**

# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

#### **DIVISION OF HIGHWAYS**

## **SPECIAL PROVISION**

#### FOR

#### **SECTION 715**

## **MISCELLANEOUS MATERIALS**

#### 715.9-WARNING DEVICES:

715.9.1 - General:

## DELETE THIS SECTION AND REPLACE WITH THE FOLLOWING:

715.9.1-General: Warning devices shall include, but shall not be limited to, signs, barricades, auxiliary barriers, channelizing devices, hazard warning lights, flares, and reflectors. Unless otherwise indicated such devices shall conform to the standard, "Manual On Temporary Traffic Control for Streets and Highways", published by the Division. The Contractor shall exhibit evidence that the warning devices furnished meet the requirements detailed.

715.9.2-Signs:

## DELETE THIS SECTION AND REPLACE WITH THE FOLLOWING:

715.9.2-Signs: Sign blank material shall be either 0.080 in. flat sheet aluminum, 0.040 in. flat sheet aluminum (guide sign demountable shields, legend, & border only), or extruded panel as specified in Section 661. Retroreflection shall be required and shall be accomplished by using approved retroreflective sheeting as specified in Section 661 and meeting the requirements specified herein.

All references herein to ASTM specification D4956 shall be interpreted as referencing version D4956 – 11a. Any portion of this specification which is in contradiction to ASTM D4956 shall supersede ASTM D4956. All references herein to AASHTO (American Association of State Highway and Transportation Officials) specification M268 shall be interpreted as referencing version M 268-10. Any portion of this specification which is in contradiction to AASHTO M268 shall supersede AASHTO M268. All AASHTO-NTPEP references herein shall be interpreted as referring to the AASHTO National Transportation Product Evaluation Program (NTPEP). All retroreflectivity values referenced herein shall be are in units of cd/fc/ft2(cd•lx-1•m-2). All "matched component" references herein shall be

interpreted as referencing the retroreflective sheeting manufacturer's recommended inks and overlay films to be used for manufacturing purposes with the manufacturer's sheeting. All APL references herein shall be interpreted as referring to the Division's Approved Products List (APL) for Retroreflective Sheeting. All CSS references herein shall be interpreted as referring to the Division's Central Sign Shop (CSS) internal sign manufacturing facility in Charleston, WV.

715.9.2.1-Retroreflective Sheeting, Type ASTM-I: A retroreflective sheeting referred to as "engineering grade" that is typically an enclosed lens glass-bead sheeting.

# 715.9.2.1.1- Type ASTM-I Sheeting Requirements:

715.9.2.1.1.1- Coefficient of Retroreflection: New sheeting shall meet the Minimum Coefficient of Retroreflection requirements in ASTM specification D4956 for Type I material, as defined in ASTM D4956.

For transparent ink printed or transparent film covered areas over white sheeting, the Minimum Coefficient of Retroreflection requirements shall be seventy (70) % of the values specified in ASTM D4956 for sheeting of the same color as the ink or film.

All testing shall be conducted in accordance with ASTM D4956.

- 715.9.2.1.1.2- Color: New sheeting shall meet the Daytime Color & Nighttime Color requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These requirements shall also apply to transparent ink and transparent film covered areas over white sheeting.
- 715.9.2.1.1.3- Daytime Luminance Factor: New sheeting shall meet the Daytime Luminance Factor requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These requirements shall also apply to transparent ink and transparent film covered areas over white sheeting.
- 715.9.2.1.1.4- Adhesion: New sheeting with a pressure sensitive backing shall meet the adhesion requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.1.1.5- Shrinkage: New sheeting shall meet the shrinkage requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.1.1.6- Flexibility: New sheeting shall meet the flexibility requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.1.1.7- Liner Removal: New sheeting shall meet the liner removability requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.

- 715.9.2.1.1.8- Impact Resistance: New sheeting shall meet the impact resistance requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.1.1.9-Rotational Sensitivity: New sheeting shall meet the applicable requirements of AASHTO M268 in order for the sheeting to be considered rotationally insensitive. Testing shall be conducted at the viewing geometry of 0.5/-4 as recommended in AASHTO M268, and the results of retroreflectivity readings at rotation angles of 0, 45, 90, and 120 degrees shall be compared as recommended in AASHTO M268. If the sheeting does not meet these requirements, it shall be noted on the APL that the material is rotationally sensitive.
- 715.9.2.1.1.10- Shelf Life: Any Type ASTM-I material to be considered for listing on the Division's APL shall have a minimum one (1) year shelf life. The same provisions shall apply to the manufacturer recommended matched components. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.
- 715.9.2.1.1.11- Backing Class: Type ASTM-I sheeting shall have a Class 1 adhesive backing, as defined in ASTM D4956.
- 715.9.2.1.1.12- Durability: The durability requirements of finished products manufactured using Type ASTM-I sheeting are specified within Section 715.9.2.7.
- **715.9.2.1.2- Approval Process:** The WVDOH approval process for Type ASTM-I sheeting products is specified within Section 715.9.2.9.
- 715.9.2.2- Retroreflective Sheeting, Type ASTM-IV: A retroreflective sheeting referred to as "high-intensity" that is typically an unmetalized microprismatic retroreflective element material.

## 715.9.2.2.1- Type ASTM-IV Sheeting Requirements:

715.9.2.2.1.1- Coefficient of Retroreflection: New material shall meet the Minimum Coefficient of Retroreflection requirements in ASTM D4956 for Type IV material, as defined in ASTM D4956.

For transparent ink printed or transparent film covered areas over white sheeting, the Minimum Coefficient of Retroreflection requirements shall be seventy (70) % of the values specified in ASTM D4956 for sheeting of the same color as the ink or film.

All testing shall be conducted in accordance with ASTM D4956.

715.9.2.2.1.2- Color: New sheeting shall meet the Daytime Color & Nighttime Color requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These requirements shall also apply to transparent ink and transparent film covered areas over white sheeting.

- 715.9.2.2.1.3- Daytime Luminance Factor: New sheeting shall meet the Daytime Luminance Factor requirements in specification D4956 when tested in accordance with ASTM specification D4956. These requirements shall also apply to transparent ink and transparent film covered areas over white sheeting.
- 715.9.2.2.1.4- Adhesion: New sheeting shall meet the adhesion requirements in specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary adhesion requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.2.1.5- Shrinkage: New sheeting shall meet the shrinkage requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.2.1.6- Flexibility: New sheeting shall meet the flexibility requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary flexibility requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.2.1.7- Liner Removal: New sheeting shall meet the liner removability requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.1.8- Impact Resistance: New sheeting shall meet the impact resistance requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary impact resistance requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.2.1.9- Rotational Sensitivity: New sheeting materials, with exceptions noted herein, shall meet the applicable requirements of AASHTO M268 in order for the sheeting to be considered rotationally insensitive. Testing shall be conducted at the viewing geometry of 0.5/-4 as recommended in AASHTO M268, and the results of retroreflectivity readings at rotation angles of 0, 45, 90, and 120 degrees shall be compared as recommended in AASHTO M268. If the sheeting does not meet these requirements, it shall be noted on the APL that the material is rotationally sensitive. With the exception of fluorescent-orange materials intended for application to rigid substrate signs, "work zone" materials as defined herein shall not be subject to rotational sensitivity testing.
- 715.9.2.2.1.10- Shelf Life: A minimum shelf life shall not be required for the sheeting to be listed on the APL. However, in order for the sheeting to be approved for manufacturing purposes within the Division's CSS, a minimum (1) year shelf life shall be required. The same provisions shall apply to the manufacturer recommended matched components. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.

715.9.2.2.1.11- Backing Class: All Type ASTM-IV material supplied to the Division for manufacturing purposes within the CSS shall have a Class 1 adhesive backing, as defined in ASTM D4956. The adhesive backing on all Type ASTM-IV material supplied to manufacturers providing finished products to the Division or to Contractors performing work on Division Contracts shall have the most appropriate ASTM D4956 defined adhesive backing for the materials intended purpose, as determined by the manufacturer.

715.9.2.2.1.12- Durability: Durability requirements of finished products manufactured using Type ASTM-IV to be warranted by the sheeting manufacturer are specified within Section 715.9.2.7.

715.9.2.2. Approval Process: The WVDOH approval process for Type ASTM-IV sheeting products is specified within Section 715.9.2.9.

715.9.2.3- Retroreflective Sheeting, Type ASTM-VI: An elastomeric retroreflective sheeting without adhesive. This sheeting is typically a vinyl microprismatic retroreflective material.

# 715.9.2.3.1- Type ASTM-VI Sheeting Requirements:

715.9.2.3.1.1- Coefficient of Retroreflection: New sheeting shall meet the Minimum Coefficient of Retroreflection requirements as specified in Table 715.9.2.3.1.1-I below.

1		<del>2 715.9.2.3.1.1</del> ·	
Observation	Entrance		Color
Angle	Angle	White	Fluorescent-Orange
0.2	-4	300	200
0.2	+30	180	120
0.2	+45	100	60
0.5	-4	200	120
0.5	+30	75	50
0.5	+45	60	30

For transparent ink printed areas over white sheeting, the Minimum Coefficient of Retroreflection requirements shall be as shown in Table 715.9.2.3.1.1-II below.

Table 715.9.2.3.1.1-II						
				THE PARTY COLOR	1	1
		Color				
Observation	Entrance	-	H		a 1 au ,	
Angle	Angle	Green	Blue	Red	Yellow	Brown
0.2	-4	21	9.5	29	147	6.1

- All testing shall be conducted in accordance with ASTM D4956.
- 715.9.2.3.1.2- Color: New sheeting shall meet the Daytime Color & Nighttime Color requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These same requirements shall apply to transparent ink covered areas over white sheeting.
- 715.9.2.3.1.3- Daytime Luminance Factor: New sheeting shall meet the Daytime Luminance Factor requirements of ASTM specification D4956 when tested in accordance with ASTM specification D4956. These requirements shall also apply to transparent ink covered areas over white sheeting.
- 715.9.2.3.1.4- Shrinkage: New sheeting shall meet the shrinkage requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.3.1.5- Flexibility: New sheeting shall meet the flexibility requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.3.1.6- Impact Resistance: New sheeting shall meet the impact resistance requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.3.1.7- BLANK
- 715.9.2.3.1.8- Backing Class: All Type ASTM-VI material shall have a Class 5 backing, as defined in ASTM D4956.
- 715.9.2.3.1.9- Durability: Durability requirements of finished products manufactured using Type ASTM-VI material to be warranted by the sheeting manufacturer are specified within Section 715.9.2.7.
- 715.9.2.3.2- Approval Process: The WVDOH approval process for Type ASTM-VI sheeting products is specified within Section 715.9.2.9.
- 715.9.2.4- Retroreflective Sheeting, Type ASTM-XI: A retroreflective sheeting typically manufactured as an unmetalized cube corner microprismatic retroreflective element material.
  - 715.9.2.4.1- Type ASTM-XI Sheeting Requirements:
    - 715.9.2.4.1.1- Coefficient of Retroreflection: New sheeting shall meet the Minimum Coefficient of Retroreflection requirements in ASTM specification D4956 for Type XI material, as defined in ASTM D4956.

For transparent ink printed or transparent film covered areas over white sheeting, the Minimum Coefficient of Retroreflection requirements shall be seventy (70) % of the values specified in ASTM D4956 for sheeting of the same color as the ink or film.

All testing shall be conducted in accordance with ASTM D4956.

- 715.9.2.4.1.2- Color: New sheeting shall meet the Daytime Color & Nighttime Color requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These same requirements shall apply to transparent ink and transparent film covered areas over white sheeting.
- 715.9.2.4.1.3- Daytime Luminance Factor: New sheeting shall meet the Daytime Luminance Factor requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. These same requirements shall apply to transparent ink and transparent film covered areas over white sheeting.
- 715.9.2.4.1.4- Adhesion: New sheeting shall meet the adhesion requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary adhesion requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.4.1.5- Shrinkage: New sheeting shall meet the shrinkage requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.4.1.6- Flexibility: New sheeting shall meet the flexibility requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary flexibility requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.4.1.7- Liner Removal: New sheeting shall meet the liner removability requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956.
- 715.9.2.4.1.8- Impact Resistance: New sheeting shall meet the impact resistance requirements in ASTM specification D4956 when tested in accordance with ASTM specification D4956. If the material is marketed as a reboundable material, the supplementary impact resistance requirements in ASTM D4956 for reboundable materials shall apply.
- 715.9.2.4.1.9-Rotational Sensitivity: New sheeting materials, with exceptions noted herein, shall meet the applicable requirements of AASHTO M268 in order for the sheeting to be considered rotationally insensitive. Testing shall be conducted at the viewing geometry of 0.5/-4 as recommended in AASHTO M268, and the results of retroreflectivity readings at rotation angles of 0, 45, 90, and 120 degrees shall be compared as recommended in AASHTO M268. If the sheeting does not meet these requirements, it shall be noted on the APL that the material is rotationally sensitive. With the exception of fluorescent-orange materials intended for application to rigid substrate signs, "work zone" materials as defined herein shall not be subject to rotational sensitivity testing.

- 715.9.2.4.1.10- Shelf Life: A minimum shelf life shall not be required for the sheeting to be listed on the APL. However, in order for the sheeting to be approved for manufacturing purposes within the Division's CSS, a minimum (1) year shelf life shall be required. The same provisions shall apply to the manufacturer recommended matched components. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.
- 715.9.2.4.1.11- Backing Class: All Type ASTM-XI material supplied to the Division for manufacturing purposes within the CSS shall have a Class 1 adhesive backing, as defined in ASTM D4956. The adhesive backing on all Type ASTM-XI material supplied to manufacturers providing finished products to the Division or to Contractors performing work on Division Contracts shall have the most appropriate ASTM D4956 adhesive backing for the materials intended purpose.
- 715.9.2.4.1.12- Durability: Durability requirements of finished products manufactured using Type ASTM-XI material to be warranted by the sheeting manufacturer are specified within Section 715.9.2.7.
- 715.9.2.4.2- Approval Process: The WVDOH approval process for Type ASTM-XI sheeting products is specified within Section 715.9.2.9.
- 715.9.2.5-Transfer Film: Transfer film for premasking or applying prespaced legends using transparent or opaque films.
  - 715.9.2.5.1 Transfer Film Requirements:
    - 715.9.2.5.1.1 Transparency: Transfer films shall be transparent.
  - 715.9.2.5.2 Approval Process: The WVDOH approval process for Transfer Film is specified within Section 715.9.2.9.

#### 715.9.2.6-Matched Components:

715.9.2.6.1-Black Opaque Overlay Film: A black, opaque, typically vinyl or acrylic pressure-sensitive film designed for permanent graphics that may be prespaced and electronically cut. These films have a synthetic liner that resists moisture absorption and static buildup.

# 715.9.2.6.1.1-Black Opaque Overlay Film Requirements:

- 715.9.2.6.1.1.1- Adhesive: This material shall utilize a pressure sensitive adhesive.
- 715.9.2.6.1.1.2- Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.

- 715.9.2.6.1.1.3- Shrinkage: After application, this material shall not exhibit shrinkage in excess of 0.010 inches.
- 715.9.2.6.1.1.4- Durability: Durability requirements of black opaque overlay films, depending on the Type sheeting the material is to be utilized with and the intended application, are specified in Sections 715.9.2.1 through 715.9.2.4.
- 715.9.2.6.1.1.5 Shelf Life: A minimum shelf life shall not be required for the film to be approved for use with the manufacturer's sheeting products. However, in order for the film to be approved for manufacturing purposes within the Division's CSS, a minimum (1) year shelf life shall be required. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.
- 715.9.2.6.1.1.6- CSS Requirements: In addition to, but not limited to, any other requirements stated herein, all black opaque overlay film to be approved for manufacturing purposes within the CSS shall be a vinyl material. In addition, this material shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the manufacturer without appreciable stretching, tearing, or other damage. The material shall permit cutting and application at temperatures of 40 to 100°F (4 to 38°C).
- **715.9.2.6.1.2-Approval Process:** The WVDOH approval process for Black Opaque Overlay Film is specified within Section 715.9.2.9.
- 715.9.2.6.2- Transparent Overlay Films: A colored, transparent, typically acrylic, transparent pressure-sensitive film designed for permanent graphics that may be prespaced and electronically cut. These films have a synthetic liner that resists moisture absorption and static buildup.
  - 715.9.2.6.2.1- Transparent Overlay Film Requirements:
    - 715.9.2.6.2.1.1- Adhesive: This material shall utilize a transparent pressure sensitive adhesive.
    - 715.9.2.6.2.1.2- Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.
    - 715.9.2.6.2.1.3- Color Standards: Transparent overlay films applied to the manufacturer's approved white sheeting shall produce colors meeting the daytime and nighttime color requirements of ASTM D4956 for like colored sheeting. Testing shall be conducted in accordance with ASTM D4956.
    - 715.9.2.6.2.1.4- Transparency: After application over the manufacturer's white sheeting, the film's level of transparency shall result in a minimum retroreflectivity level of seventy (70) % of the minimum required retroreflectivity level, as specified

- herein, of the like colored sheeting of the same grade as the white sheeting. Testing shall be conducted in accordance with ASTM D4956.
- 715.9.2.6.2.1.5- Durability: Durability requirements of transparent overlay films, depending on the Type sheeting the material is to be utilized with and the intended application, are specified in Sections 715.9.2.1 through 715.9.2.4.
- 715.9.2.6.2.1.6 Shelf Life: A minimum shelf life shall not be required for the film to be approved for use with the manufacturer's sheeting products. However, in order for the film to be approved for manufacturing purposes within the Division's CSS, a minimum (1) year shelf life shall be required. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.
- 715.9.2.6.2.1.7- CSS Requirements: In addition to, but not limited to, any other requirements stated herein, all transparent overlay film to be approved for manufacturing purposes within the CSS shall be an acrylic material and shall be supplied on a clear liner. In addition, this material shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the manufacturer without appreciable stretching, tearing, or other damage. The material shall permit cutting and application at temperatures of 40 to 100°F (4 to 38°C).
- **715.9.2.6.2.2-Approval Process:** The WVDOH approval process for Transparent Overlay Film is specified within Section 715.9.2.9.
- 715.9.2.6.3- Opaque and Transparent Inks: Weather resistant, quick drying inks designed for use in traffic sign screen printing processes.
  - 715.9.2.6.3.1- Opaque and Transparent Ink Requirements:
    - 715.9.2.6.3.1.1- Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.
    - 715.9.2.6.3.1.2- Color Standards: Transparent inks applied to the manufacturer's approved white sheeting shall produce colors meeting the daytime and nighttime color requirements of ASTM D4956 for like colored sheeting. Testing shall be conducted in accordance with ASTM D4956.
    - 715.9.2.6.3.1.3- Transparency: After application over the manufacturer's white sheeting, the level of transparency of the transparent ink shall result in a minimum retroreflectivity level of seventy (70) % of the minimum required retroreflectivity level, as specified herein, of the like colored sheeting of the same grade as the white sheeting. Testing shall be conducted in accordance with ASTM D4956.
    - 715.9.2.6.3.1.4- Durability: Durability requirements of opaque & transparent inks, depending on the Type sheeting the material is to be utilized with and the intended application, are specified in Sections 715.9.2.1 through 715.9.2.4.

715.9.2.6.3.1.5—Shelf Life: A minimum shelf life shall not be required for the ink to be approved for use with the manufacturer's sheeting products. However, in order for the ink to be approved for manufacturing purposes within the Division's CSS, a minimum (1) year shelf life shall be required. Reasonable conditional requirements pertaining to storage, such as temperature and relative humidity, shall be permitted.

715.9.2.6.3.2-Approval Process: The WVDOH approval process for Opaque and Transparent Ink is specified within Section 715.9.2.9.

715.9.2.7 – Durability Requirements: The durability requirements of the various type sheeting materials described herein and their matched components are specified in this Section. The sheeting manufacturer's obligations in the event that the manufacturer's material(s) fails to meet the durability requirements specified herein, as applicable, are specified within Section 715.9.2.8.

#### 715.9.2.7.1-Non Work Zone Applications:

715.9.2.7.1.1-Type ASTM-I Sheeting: Finished signs manufactured using Type ASTM-I sheeting shall exhibit the minimum level of performance described herein for a period of seven (7) years after field installation.

The retroreflectivity levels maintained by the sheeting placed on the signs shall be a minimum of fifty (50) % of the required values for new sheeting of the same color, per 715.9.2.1.1.1. For transparent ink and film covered areas over white sheeting, the retroreflectivity levels maintained by these areas of the signs shall be a minimum of thirty-five (35) % [seventy (70) % of the fifty (50) % value specified above] of the required values for new sheeting of the same color as the ink or film, per 715.9.2.1.1.1.

The colors and luminance factors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

All retroreflectivity testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

715.9.2.7.1.2-Type ASTM-IV Sheeting: Finished signs manufactured using Type ASTM-IV sheeting shall exhibit the minimum level of performance described herein for a period of ten (10) years after field installation.

The retroreflectivity levels maintained by the sheeting placed on the signs shall be a minimum of eighty (80) % of the required values for new sheeting of the same color, per 715.9.2.2.1.1. For transparent ink and transparent film covered areas over white sheeting, the retroreflectivity levels maintained by these areas of the signs shall be a minimum of fifty-six (56) % [seventy (70) % of the eighty (80) % value specified above] of the required values for new sheeting of the same color as the ink or film, per 715.9.2.2.1.1.

The colors and luminance factors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

All retroreflectivity testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

#### 715.9.2.7.1.3-Type ASTM-XI Sheeting:

715.9.2.7.1.3.1-Non Fluorescent Materials: Finished signs manufactured using Type ASTM-XI non-fluorescent sheeting shall exhibit the minimum level of performance described herein for a period of twelve (12) years after field installation.

The retroreflectivity levels maintained by the sheeting placed on the signs shall be a minimum of eighty (80) % of the required values for new sheeting of the same color, per 715.9.2.4.1.1. For transparent ink and film covered areas over white sheeting, the retroreflectivity levels maintained by these areas of the signs shall be a minimum of fifty-six (56) % [seventy (70) % of the eighty (80) % value specified above] of the required values for new sheeting of the same color as the ink or film, per 715.9.2.4.1.1.

The colors and luminance factors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

All retroreflectivity testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

715.9.2.7.1.3.2-Fluorescent Materials: Finished signs manufactured using Type ASTM-XI fluorescent sheeting shall exhibit the minimum level of performance described herein for a period of ten (10) years after installation.

The retroreflectivity levels maintained by the sheeting placed on the signs shall be a minimum of eighty (80) % of the required values for new sheeting of the same color, per 715.9.2.4.1.1.

The colors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

The daytime luminance factor of all areas of finished signs shall be in conformance with the daytime luminance factor requirements referenced in Section 715.9.2.4.1.3.

All testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

#### 715.9.2.7.2-Work Zone Applications:

#### 715.9.2.7.2.1-Type ASTM-IV Sheeting:

715.9.2.7.2.1.1-Channelization & Delineation Devices: Products in this category include but may not be limited to plastic posts, tubes, barricades, drums, cones, and channelizer cones, including "permanently" installed plastic posts and tubes.

Applicable colors are orange, white, yellow, blue, and red. The sheeting placed on finished products of this type shall have its' performance warranted for a period of three (3) years after application on the finished product.

The Minimum Coefficient of Retroreflection shall be fifty (50) % of the values specified in Section 715.9.2.2.1.1 for sheeting of the same color.

The colors and luminance factors of the applied sheeting shall be such that the sheeting remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

All retroreflectivity testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

## **715.9.2.7.2.2-Type ASTM-VI Sheeting:**

715.9.2.7.2.2.1-Roll-Up Signs: Finished roll-up signs manufactured using Type ASTM-VI sheeting shall have their performance warranted for a period of three (3) years after manufacturing.

The retroreflectivity levels maintained by the white or fluorescent-orange areas of the finished signs shall be a minimum of fifty (50) % of the required values for new sheeting of the same color, per Table 715.9.2.3.1.1-I. For transparent ink covered areas over white sheeting, the retroreflectivity levels maintained by these areas of the signs shall be a minimum of fifty (50) % of the required values for like colored screen printed areas over new sheeting (50% of the values in Table 715.9.2.3.1.1-II).

The colors and luminance factors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

The daytime luminance factor of fluorescent-orange finished signs shall be in conformance with the daytime luminance factor requirements referenced in Section 715.9.2.3.1.3.

All testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

# 715.9.2.7.2.3-Type ASTM-XI Sheeting:

715.9.2.7.2.3.1-Signs: Finished work zone signs manufactured using fluorescent-orange Type ASTM-XI material shall have their performance warranted for a period of three (3) years after manufacturing.

The retroreflectivity levels maintained by the sheeting placed on the signs shall be a minimum of fifty (50) % of the required values for new fluorescent-orange sheeting, per 715.9.2.4.1.1.

The colors of all areas of finished signs shall be such that the sign remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

The daytime luminance factor of all areas of finished signs shall be in conformance with the daytime luminance factor requirements referenced in Section 715.9.2.4.1.3 for fluorescent-orange.

All testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

715.9.2.7.2.3.2--Channelization & Delineation Devices: Products in this category include but may not be limited to plastic posts, tubes, barricades, drums, cones, and channelizer cones, including "permanently" installed plastic posts and tubes. Applicable colors are orange, white, yellow, blue, and red. The sheeting placed on finished products of this type shall have its' performance warranted for a period of three (3) years after application on the finished product.

The Minimum Coefficient of Retroreflection shall be fifty (50) % of the values specified in Section 715.9.2.4.1.1 for sheeting of the same color.

The colors and luminance factors of the applied sheeting shall be such that the sheeting remains effective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision.

The daytime luminance factor of fluorescent-yellow sheeting shall be in conformance with the daytime luminance factor requirements referenced in Section 715.9.2.4.1.3.

All testing shall be done in accordance with ASTM D4956. All retroreflectivity testing shall be done at the set observation angle / entrance angle geometry of 0.2/-4.

715.9.2.8- Warranty Claims: The sheeting manufacturer's obligations in the event that the manufacturer's material(s) fails to meet the warranty requirements specified herein are specified within this Section. The retroreflective sheeting and/or matched components used to manufacture finished signs, channelization devices, & delineation devices shall be considered to be in non-compliance with these specifications where it can be shown that during the specified warranty period the finished product has deteriorated due to natural causes to the extent that is in non-compliance with the quantitative requirements contained herein related to retroreflectivity or luminance factor, as applicable, or is otherwise determined to be ineffective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions by drivers with normal vision. Under such circumstances, the sheeting manufacturer's warranty obligations shall be as outlined as described herein. The retroreflectivity, color, & luminance factor durability requirements of the various type sheeting materials described herein and their matched components, as well as the required warranty periods, are specified within Section 715.9.2.7.

Warranty claims shall be based on failures which occur as a result of design or manufacturing defects in the manufacturer's sheeting and/or matched components and not of outside causes such as improper fabrication, handling, maintenance, or installation; use of non manufacturer recommended inks, thinners, coatings, or overlay films for the sheeting being used; use of application equipment not recommended by the manufacturer; failure of sign substrate; exposure to chemicals, abrasion, or damage from fasteners used to mount the sign; snow burial; collisions, vandalism, or malicious mischief. It shall be the sheeting manufacturer's responsibility to investigate and demonstrate that the recommendations contained in their product bulletins, information folders, and technical memos have not been followed in cases where the manufacturer chooses to contest the warranty claim.

Replacement sheeting shall carry the unexpired warranty of the sheeting it replaces.

#### 715.9.2.8.1-Non Work Zone Applications:

#### 715.9.2.8.1.1-Signs:

715.9.2.8.1.1.1-Non Fluorescent Type ASTM-IV and Type ASTM-XI Sheeting: If the failure occurs within the first seven (7) years from the date of field installation, the sheeting manufacturer shall, at its expense, restore the sign surface to its original effectiveness. The Division will be responsible for no labor, equipment, or material costs in this case.

If the failure occurs after seven (7) years from the date of field installation, but less than ten (10) years from the date of field installation for Type ASTM-IV material or less than twelve (12) years from the date of field installation for Type ASTM-XI material, the manufacturer shall furnish the necessary amount of sheeting to restore the sign surface to its original effectiveness.

715.9.2.8.1.1.2-Fluorescent Type ASTM-XI Sheeting: If the failure occurs within the first seven (7) years from the date of field installation, the sheeting manufacturer shall, at its expense, restore the sign surface to its original effectiveness. The Division will be responsible for no labor, equipment, or material costs in this case.

If the failure occurs after seven (7) years from the date of field installation, but less than ten (10) years from the date of field installation, the manufacturer shall furnish the necessary amount of sheeting to restore the sign surface to its original effectiveness.

#### 715.9.2.8.2-Work Zone Applications:

#### 715.9.2.8.2.1-Signs:

715.9.2.8.2.1.1-Type ASTM-VI and Type ASTM-XI Sheeting: If the failure occurs within one (1) year from the date of manufacturing, the sheeting manufacturer will, at its expense, provide all required sheeting to restore the effected sign(s) to their original effectiveness.

If failure occurs after one (1) year from the date of manufacturing, but less than two (2) years from the date of manufacturing, the sheeting manufacturer will, at its

expense, provide two-thirds (2/3) of the required sheeting to restore the effected sign(s) to their original effectiveness.

If failure occurs after two (2) years from the date of manufacturing, but less than three (3) years from the date of manufacturing, the sheeting manufacturer will, at its expense, provide one-third (1/3) of the required sheeting to restore the effected sign(s) to their original effectiveness.

#### 715.9.2.8.2.2-Channelization & Delineation Devices:

715.9.2.8.2.2.1-Type ASTM-IV and Type ASTM-XI Sheeting: If the failure occurs within one (1) year from the date of manufacturing, the sheeting manufacturer will, at its expense, provide all required sheeting to restore the effected device(s) to their original effectiveness.

If failure occurs after one (1) year from the date of manufacturing, but less than two (2) years from the date of manufacturing, the sheeting manufacturer will, at its expense, provide two-thirds (2/3) of the required sheeting to restore the effected device(s) to their original effectiveness.

If failure occurs after two (2) years from the date of manufacturing, but less than three (3) years from the date of manufacturing, the sheeting manufacturer will, at its expense, provide one-third (1/3) of the required sheeting to restore the effected device(s) to their original effectiveness.

715.9.2.9-Approval Processes: The WVDOH processes for review and approval of the various material types described in Sections 715.9.2.1 through 715.9.2.6 are described within this Section.

Retroreflective sheeting materials of the Types described herein, manufacturer recommended matched components for use with the sheeting materials, and transfer films to be considered for inclusion on the WVDOH APL shall be submitted to the Materials Division following the current procedures specified by the Materials Division. The manufacturer may contact the Traffic Engineering Division for verification. The manufacturer should include all relevant documentation and information with their submittal, including but not limited to Product Data Sheets, Product Flyers, Manufacturer Product Specifications, Product Bulletins, and any required independent test results described herein.

In addition to the above described documentation and information, the manufacturer shall submit a letter of certification prior to approval. This letter shall include the following:

 Certification that the material(s) submitted for approval will meet all applicable requirements contained within Section 715 of the WVDOH Standard Specifications.
 The applicable material Type designation, as defined in this specification, should also be referenced. If the material is a Type ASTM-I, IV, or XI material and not intended solely for application to work zone devices as defined herein, or is a fluorescent-orange material intended for application to rigid substrate signs, and does not meet the requirements of this specification to be considered rotationally insensitive, the manufacturer should note this exception in the certification letter. Classification of the material as being rotationally sensitive will not prevent approval of the material.

- 2. Certification that the manufacturer agrees to warranty the performance of the material(s) in accordance with Section 715 of the WVDOH Standard Specifications.
- 3. Certification that the material(s) have a minimum one (1) year shelf life, when stored as recommended by the manufacturer, if the manufacturer is seeking approval of the material(s) for manufacturing purposes within the CSS.

All submitted information will be forwarded to the WVDOH Traffic Engineering Division, which will in turn contact and work directly with the manufacturer during the evaluation process. The Traffic Engineering Division will evaluate all submitted literature and documentation for compliance with the specified requirements as well as satisfactory independent testing results, as applicable. The Traffic Engineering Division will also arrange for the manufacturer to furnish test samples for evaluation of the materials suitability for use within the CSS, as applicable. After the evaluation is complete, the Traffic Engineering Division will inform the Materials Division in writing of the outcome of its evaluation.

The WVDOH reserves the right to conduct testing, whether internally or through an independent testing agency of its choice, on any material submitted for approval in order to verify that the material meets any of the material specifications herein. This testing may be conducted prior to or any time after approval is issued. Any such testing shall be conducted in accordance with the testing requirements of the applicable standardization body, such as ASTM or AASHTO.

#### 715.9.2.9.1-Retroreflective Sheeting Materials & Matched Components:

715.9.2.9.1.1-Independent Test Results: In order for the material to be evaluated and considered for approval, independent test results must be supplied by the manufacturer demonstrating the sheeting material's conformance with the requirements specified within the applicable Section 715.9.2.1, 715.9.2.2, 715.9.2.3, or 715.9.2.4, with the exception of the requirements specified in the "Shelf Life", "Backing Class", and "Durability" subsections. The independent test results shall include accelerated outdoor weathering test results conducted in conformance with ASTM D4956. Artificial accelerated lab weathering shall not be accepted except for materials intended for work zone applications. Materials intended for work zone applications shall include all Type ASTM-VI materials and shall include, but may not be limited to, other "Type" materials

intended for use on plastic posts, tubes, barricades, drums, cones, and channelizer cones, including "permanently" installed plastic posts and tubes. However, any approval granted based on the results of artificial accelerated lab weathering shall be provisional in nature and noted as such on the APL. As a condition of the acceptance of artificial accelerated lab weathering results in lieu of accelerated outdoor weathering results, the accelerated outdoor weathering process shall be ongoing at the time of issuance of the provisional approval. In addition, the material manufacturer shall submit the standard outdoor weathering test results to the WVDOH within nine (9) months after the effective date of the provisional approval for Type ASTM-VI materials, and within fifteen (15) months after the effective date of the provisional approval for all other material "Types". AASHTO-NTPEP results shall be considered acceptable for meeting the accelerated outdoor weathering test results requirement.

Rotational sensitivity testing is not required for sheeting materials intended solely for application to work zone devices, as defined herein, with the exception of fluorescent-orange materials intended for application to rigid substrate signs. Otherwise, if a material submitted for approval does not meet the rotational sensitivity requirements herein, rotational sensitivity testing may be omitted from the independent test results provided that the manufacturer notes that the material does not meet the rotational sensitivity requirement in their required certification letter described in Section 715.9.2.9.

715.9.2.9.1.1.1-Accelerated Weathering Test Results: The duration of testing required shall be based on the sheeting material Type, as defined by this specification, and the intended application of the material. All Type ASTM-I sheeting materials shall be subjected to two (2) years of accelerated outdoor weathering. Type ASTM-IV and Type ASTM-XI materials intended for non work zone applications shall be subjected to three (3) years of accelerated outdoor weathering. Type ASTM-IV and Type ASTM-XI materials intended for work zone applications shall be subjected to one (1) year of accelerated outdoor weathering. Type ASTM-VI materials shall be subjected to six (6) months of accelerated outdoor weathering.

After completion of the accelerated outdoor weathering, all materials shall be in conformance with the general durability requirements related to cracking, scaling, pitting, blistering, edge lifting, curling, shrinkage, and expansion specified in ASTM D4956.

The retroreflectivity level of the sheeting material after completion of the accelerated outdoor weathering, when tested in accordance with ASTM D4956, shall be in conformance with the requirements of ASTM D4956. ASTM D4956 specifies the level of retroreflectivity to be maintained by the material as a percentage of the initial required retroreflectivity level specified in ASTM D4956. An exception to this shall apply to Type ASTM-VI materials. In this case, the percentage specified in ASTM

D4956 shall be applied to the applicable initial required retroreflectivity levels specified in Section 715.9.2.3.1.1 rather than the initial values specified in ASTM D4956.

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After completion of the accelerated weathering, the sheeting material shall be in conformance with the requirements specified in the "Color" (daytime) and "Luminance Factor" subsections within the applicable Section 715.9.2.1, 715.9.2.2, 715.9.2.3, or 715.9.2.4 when tested in accordance with ASTM D4956.

The manufacturer recommended matched components for use with the sheeting material must also be subjected to accelerated outdoor weathering in order for approval to be given for the manufacturing of signs requiring the use of these matched components. The duration of accelerated outdoor weathering required for the matched components shall be the same as the applicable duration required for the sheeting.

The retroreflectivity level of the areas of all signs processed with transparent inks or transparent films after completion of the accelerated outdoor weathering, when tested in accordance with ASTM D4956, shall be a minimum of seventy (70) % of the retroreflectivity values required for like colored sheeting of the same material Type upon completion of the accelerated outdoor weathering.

After completion of the accelerated outdoor weathering, the areas of all signs processed with transparent inks or transparent films shall be in conformance with the requirements specified in the "Color" (daytime) and "Luminance Factor" subsections within the applicable Section 715.9.2.1, 715.9.2.2, 715.9.2.3, or 715.9.2.4 when tested in accordance with ASTM D4956.

If artificial accelerated lab weathering is conducted in order to obtain provisional approval for a material intended for work zone applications, per Section 715.9.2.9.1.1, the weathering process shall be done in accordance with the ASTM D4956 specifications. The performance requirements for the results of the testing shall be the same as described herein for accelerated outdoor weathering.

715.9.2.9.1.2--CSS Evaluation: Material Types and their matched components that are typically used in manufacturing processes within the CSS are subject to evaluation by WVDOH personnel for their suitability for use within the Division's CSS. This evaluation is primarily focused on the compatibility, workability, and general "user friendliness" of the materials when used for production purposes within the CSS using the equipment in place at the CSS, as well as the characteristics of the materials in these regards relative to other materials which have already been approved. The suitability of the materials in these regards shall be based solely on the judgment of the Division. The un-acceptance of the manufacturer's sheeting material and/or matched components based

on this evaluation shall not prevent the listing of these materials on the APL and the use of these materials by private fabricators supplying finished products to the WVDOH or to Contractors performing Contracts for the WVDOH.

In order for a sheeting material to be eligible for bidding on any Division raw material supply Contract, particular Section(s) of the Contract may require that only the sheeting material be determined to be suitable for use within the CSS. Other Section(s) may require that one or more of the matched components also be determined to be suitable for use within the CSS. These requirements shall be indicated in the raw material supply Contract.

In addition to any other requirements specified herein, in order to be accepted for manufacturing purposes within the CSS all sheeting materials shall permit application to aluminum blanks and shall permit processing with compatible matched components at temperatures between 60 to 100°F (16 to 38°C) and relative humidity at 20% to 80 % when performed in accordance with the manufacturer's recommendations. In addition, the sheeting and the matched component inks shall allow oven accelerated curing, providing that the manufacturer's recommendations are followed.

Any restrictions on the use of the material or any of the matched components within the CSS shall be noted on the APL.

In addition to the information provided above, note the following:

- 1. Type ASTM-I material is not specified for any applications on WVDOH advertised construction projects. The specifications and approval process described herein for Type ASTM-I material are in place solely for the purpose of establishing requirements for the placement of Type ASTM-I materials on the Division's APL. A listing of approved Type ASTM-I materials is maintained in order to establish a list of materials approved for bidding on Division raw material supply Contracts. Therefore, no Type ASTM-I material that is not accepted by the Division for manufacturing purposes within the CSS shall be placed on the APL.
- 2. Type ASTM-IV sheeting materials and their matched components intended for work zone (as described herein) applications only are not required to be evaluated for use within the CSS.
- 3. Type ASTM-VI sheeting materials and their matched components are not required to be evaluated for use within the CSS.
- 4. With the exception of fluorescent-orange material and its' applicable matched components intended for use in manufacturing temporary work zone signs, Type ASTM-XI sheeting materials and their matched components intended for work zone (as described herein) applications only are not required to be evaluated for use within the CSS.

715.9.2.9.2-Transfer Films: The transfer film section of the APL is solely for the purpose of establishing an approved list of transfer tapes for bidding on Division raw material supply Contracts. Private fabricators are not required to utilize transfer tapes listed on the APL. This shall be noted on the APL. Therefore, no transfer film that is not accepted by the Division for manufacturing purposes within the CSS shall be placed on the APL.

All transfer films submitted for approval shall be transparent. No other specific requirements are listed herein. However, transfer films shall be thoroughly evaluated by personnel within the Division's CSS. The CSS evaluation is primarily focused on the compatibility, workability, and general "user friendliness" of the material when used for production purposes within the CSS using the equipment in place at the CSS, as well as the characteristics of the material in these regards relative to other transfer films which have already been approved. The suitability of the material in this regard shall be based solely on the judgment of the Division.

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From More Than	To And Including	Per Calendar Day				
\$0	\$ 25,000	£ 40				
\$ 25,000	\$ 100,000	\$ 40 \$ 70				
\$ 100,000	\$ 500,000	\$ 150				
\$ 500,000	\$ 1,000,000	\$ 310				
\$ 1,000,000	\$ 2,000,000	\$ 570				
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ee \$5,000,000	\$ 10,000,000	\$ 1410				
\$ 10,000,000		\$ 3280				

<u>Vendor comments/inquiries which have been submitted for this RFQ and responses/answers are as follows:</u>

Comment/Inquiry #1: Page 23, 3.1.1.1.1 says, "The transfer tape supplied under this Contract shall be listed on the APL."

- We checked the APL (July 25, 2012), but could not find the products approved. Transfer tape is typically not a APL/QPL material due to the short life of usage.

APL/QPL requirement on this item might cause sole source situation.

Response/answer #1: The APL referenced is not the most current APL, and is not the APL that is applicable to this RFQ. The current APL is dated 6/14/13, and lists approved Transfer Films. The purpose of listing Transfer Films on the APL is explained in Section 715.9.2.9.2 of Exhibit B. A direct link to the 6/14/13 APL is as follows:

 $\frac{http://www.transportation.wv.gov/highways/mcst/Documents/Reflective \% 20 Sheeting \% 20 Approved \% 20 List-5-31-13.pdf$ 

A hard copy of the above referenced APL is also attached.

The 6/14/13 APL went into effect prior to the advertising date of this RFQ, therefore it is the APL applicable to this RFQ. However, this APL went into effect after the RFQ specifications were drafted. The direct link to the applicable APL changed when the 6/14/13 version went into effect (the direct link listed in the RFQ specs still points to the 7/25/12 version). All potential Vendors should consult the 6/14/13 version referenced above.

Comment/Inquiry #2: Page 64, 715.9.2.6.1 - Black Opaque Overlay Film

- It seems that DOT allows Black vinyl here, but does not allow Black vinyl with paper liner. The requirement for synthetic liner for non-reflective sheeting significantly restrict competition. We respectfully request DOT to accept Black vinyl with paper liner. There are only three manufacturers, who can potentially participate in the Solicitation. Avery Dennison, 3M and Nippon Carbide Industries (NCI). NCI does not have Type IV nor Type XI. They can bid Type IV with beaded Type III, but it is not viable against prismatic Type IV So, practically we (Avery Dennison) are the only one who can bid against 3M, if the spec allows.

Response/answer #2: The WVDOH does not allow vinyl black opaque film as an option under this RFQ. Per Section 715.9.2.6.1.1.6 of Exhibit B, any black opaque film supplied under this Contract is required to be a vinyl material. Generally speaking, as explained in Exhibit B the primary requirements for a matched component film material to be accepted for bidding under this RFQ (under the RFQ Sections that are applicable) are that a) the reflective sheeting material be listed on the APL, and b) the manufacturer's recommended matched components (this would include matched component films such as black vinyl material) be noted on the APL as being accepted by the WVDOH for manufacturing purposes within the Central Sign Shop. The liners associated with the matched component films provided by any potential Vendor for this Contract are a characteristic that may only potentially affect the WVDOH's acceptance of the material for use in the Central Sign Shop, since the type of liner will not affect the field performance of the material. In regards to reflective sheeting materials that may potentially be supplied under this RFQ, the footnote on the

APL associated with each applicable Avery Dennison reflective sheeting material states "All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop." Furthermore, it is noted that when testing was performed with the Avery Dennison black vinyl material in the Central Sign Shop, it was noted that this material is supplied on a paper liner. The language contained within Section 715.9.2.6.1 of Exhibit B is intended to be a very general description of the material and interpretation of the term "synthetic" as used here is an exercise in semantics. The Avery Dennison black vinyl matched component material with paper liner is acceptable under this RFQ.

#### Comment/Inquiry #3: White and Colored Vinyl:

- Sections II, III and V include White and Colored non-reflective vinyl. We respectfully request DOT to accept our (Avery Dennison) SC 900-xxx-O with paper liner.
- Response/answer #3: See Response/answer #2 above. In regards to reflective sheeting materials that may potentially be supplied under this RFQ, the footnote on the APL associated with each applicable Avery Dennison reflective sheeting material states "All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop." The matched component materials referenced are acceptable.
- Comment/Inquiry #4: Even though DOT created Sections IV and VI (non-dependent), the Solicitation is not "Full and Open". It is restrictive. We (Avery Dennison) respectfully request DOT to adopt the Generally Accepted Competitive Bid Procedures for Governments.
- Response/answer #4: We respectfully disagree with this observation. The RFQ is open to any manufacturer which can demonstrate and provide materials which meet the requirements explained in detail in Exhibit B. Furthermore, no portions of the requirements in Exhibit B are in place as a result of any preference to any particular brand(s) or vendor(s). We are not familiar with the referenced "Generally Accepted Competitive Bid Procedures for Governments".

# Approved Products List Retroreflective Sign Sheeting (715.9.2)

3M         TPM5 clear transfer tape (see note 11)         1433733           Avery Dennison         TYPE ASTM-I           MANUFACTURER 3M 34XX Series (See note 21)         LAB APPROVAL NUME 1433735           Avery Dennison         T-15XX Series (See note 3)         1394149           TYPE ASTM-III           MANUFACTURER Nippon Carbide         PRODUCT LAB APPROVAL NUMB 1394159           TYPE ASTM-IV	I	Effective Date: June 14, 2013 (see notes 1	
3M         TPM5 clear transfer tape (see note 11)         1433733           Avery Dennison         TYPE ASTM-I           MANUFACTURER 3M 34XX Series (See note 21)         LAB APPROVAL NUME 1433735           Avery Dennison         T-15XX Series (See note 3)         1394149           TYPE ASTM-III           MANUFACTURER Nippon Carbide         PRODUCT LAB APPROVAL NUMB 1394159           TYPE ASTM-IV		TRANSFER FILMS	
MANUFACTURER         PRODUCT         LAB APPROVAL NUME           3M         34XX Series (See note 21)         1433735           Avery Dennison         T-15XX Series (See note 3)         1394149           TYPE ASTM-III           MANUFACTURER         PRODUCT         LAB APPROVAL NUMB           Nippon Carbide         ULG-II N8XX Series (See note 15)         1394159	3M	TPM5 clear transfer tape (see note 11)	
3M         34XX Series (See note 21)         1433735           Avery Dennison         T-15XX Series (See note 3)         1394149    TYPE ASTM-III  MANUFACTURER Nippon Carbide  PRODUCT Nippon Carbide  ULG-II N8XX Series (See note 15)  TYPE ASTM-IV		TYPE ASTM-I	
MANUFACTURER PRODUCT LAB APPROVAL NUMB Nippon Carbide ULG-II N8XX Series (See note 15) 1394159  TYPE ASTM-IV	3M	34XX Series (See note 21)	
Nippon Carbide ULG-II N8XX Series (See note 15) 1394159  TYPE ASTM-IV		TYPE ASTM-III	
			LAB APPROVAL NUMBER 1394159
MANUEACTURED PRODUCT LAR APPROVALABILIAR		TYPE ASTM-IV	4
MANDFACTURER         PRODUCT         LAB APPROVAL NOMB           3M         Series 393X (See note 3)         1392883           3M         Series 331X (See note 4)         1433736           3M         Series 333X (See note 5)         1433737           3M         Series 33X (See note 5)         1394157           3M         Series 3340 (See note 17)         1433738           Avery Dennison         T-6XXX Series (See note 3)         1394161           Avery Dennison         W-6XXX Series (See note 4)         1394160	3M 3M 3M 3M Avery Dennison	Series 331X (See note 4) Series 333X (See note 5) Series 33X (See note 5) Series 3340 (See note 17) T-6XXX Series (See note 3)	1433736 1433737 1394157 1433738 1394161

	TYPE ASTM-VI	
MANUFACTURER	PRODUCT	LAB APPROVAL NUMBER
3M	RS-2X Series (See note 6)	1394162
Orafol of Americas	High Performance Series (See note 20)	1394163

	TYPE ASTM-IX	
MANUFACTURER 3M	PRODUCT 399X Series (See note 7)	LAB APPROVAL NUMBER 1394171
3M	3981 Series (NOTICE: See note 19)	1394169
3M	3983 Series (See note 13)	1394170
Avery Dennison	T-950X (See note 7)	1394166
Avery Dennison	T-9511 (See note 12)	1394167
Avery Dennison	T-9513 (See note 13)	1394168
Avery Dennison	W-9514 (See note 10)	1394165
Nippon Carbide	Nikkalite CRG 95847 (See note 16)	1424104

	TYPE ASTM-XI	5
MANUFACTURER	PRODUCT	LAB APPROVAL NUMBER
3M	409X Series (See note 14)	1395497
3M	4081 Series (See note 8)	1395498
3M	4083 Series (See note 9)	1395499
3M	4084 Series (See note 18)	1394172
Avery Dennison	T-1150X (See note 7)	1424106
Avery Dennison	T-11511 (See note 12)	1424107
Avery Dennison	T-11513 (See note 13)	1424108
Avery Dennison	W-11514 (See note 10)	1424105

- purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 14 Various colored pressure sensitive sheetings for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. This approval does not include fluorescent materials. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 15 Various colored pressure sensitive sheetings for use with aluminum substrate signs. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. The manufacturer matched components are not approved for manufacturing purposes within the WVDOH Central Sign Shop.
- 16 Fluorescent orange pressure sensitive sheetings for use with aluminum substrate signs. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. The manufacturer matched components are not approved for manufacturing purposes within the WVDOH Central Sign Shop.
- 17 Pressure sensitive sheeting for use with traffic cones, as specified and as recommended by the sheeting manufacturer.
- 18 Fluorescent orange pressure sensitive sheeting for use with aluminum substrate signs. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 19 Fluorescent yellow pressure sensitive sheeting for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop. NOTE: Approval of this material has been placed on "hold". No finished products utilizing this material are to be supplied on any projects advertised on or after 7/25/12.
- 20 Sheeting for use in manufacturing work zone roll-up signs. This material shall not be considered approved on projects for which the 5/2/13 Special Provision referenced under Note #1 applies to.
- 21 Various colored pressure sensitive sheetings for use with aluminum substrate signs, as specified. This material is classified as being rotationally sensitive. The reflective sheeting material and all manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 22 The value(s) "X" in material designations are place holders which indicate variable numerical values. These values vary based on different colors and/or widths (cut widths or stripe widths) configurations of the material and/or intended substrates for the material.



DOUZEN

State of West Virginia Department of Administration **Purchasing Division** 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

#### Solicitation

NUMBER 8513C2012 PAGE

ADDRESS CORRESPONDENCE TO ATTENTION OF:

ADDRESS CHANGES TO BE NOTED ABOVE

ALAN CUMMINGS

304-558-2402

RFQ COPY TYPE NAME/ADDRESS HERE Avery Dennison Corporation 7542 N Natchez Avenue Niles IL 60714

DIVISION OF HIGHWAYS TRAFFIC SERVICES COMPLEX

180 DRY BRANCH ROAD CHARLESTON, WV 25306 304-558-2908

DATE PRINTED 08/08/2013

Director of Sales

	08/28/				PENING TIME	1:30PM
LINE	QUANTITY	UOP NO	ITEM NU	MBEH	UNIT PRICE	AMOUNT
	ISSUED TO CH 08/14/2013 A	ANGE THE	DENDUM NO. BID OPENIN .M. TO 08/2	IG DATE A	ND TIME FROM: T 1:30 P.M.	
001	1 REFLECTIVE S	LS IGN SHEE'	550-48 FING & ASSO	OCIATED M	ATERIALS	
	***** THIS	IS THE :	END OF RFQ	8513C20	12 ***** TOTF	AL:
INATURE \	1 2,-		_ <b>I</b>	TELEPHONE (84	7) 588-7226	NTE 8/26/13

95-1492269

#### SOLICITATION NUMBER: 8513C2012 Addendum Number: 3

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

#### Applicable Addendum Category:

14		Modify bid opening date and time
[		Modify specifications of product or service being sought
[	]	Attachment of vendor questions and responses
[	I	Attachment of pre-bid sign-in sheet
[	1	Correction of error
[	1	Other

#### Description of Modification to Solicitation:

ISSUED TO CHANGE THE BID OPENING DATE AND TIME FROM: 08/14/2013 AT 1:30 P.M. TO 08/28/2013 AT 1:30 P.M.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

#### Terms and Conditions:

- 1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
- Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

### ATTACHMENT A

#### ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: 8513C2012

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

# Addendum Numbers Received: (Check the box next to each addendum received)

[X ]	]	Addendum No. 1	[	]	Addendum No. 6
[X]	]	Addendum No. 2	[	]	Addendum No. 7
[X]	]	Addendum No. 3	[	]	Addendum No. 8
[ ]	]	Addendum No. 4	[	]	Addendum No. 9
[ ]	]	Addendum No. 5	ſ	1	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

# Avery Dennison Corporation Company Authorized Signature Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing. Revised 6/8/2012



State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

#### Solicitation

NUMBER 8513C2012 PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF

TRAFFIC SERVICES COMPLEX

304-558-2402 DIVISION OF HIGHWAYS

180 DRY BRANCH ROAD CHARLESTON, WV

25306

304-558-2908

RFQ COPY
TYPE NAME/ADDRESS HERE
Avery Dennison Corporation
7542 N Natchez Avenue

DATE PRINTED 08/27/2013

BID OPENING DATE: 09/18/2013

Niles IL 60714

BID OPENING TIME

1:30PM

LINE	QUANTITY	UOP	CAT. NO:	ITEM NUMBER	UNIT PRICE	AMOUNT
Ā	DDRESS VENDO	R QUE	SPEC STION	DUM NO. 04 CIFICATIONS IN THE STAND AGENCY RESETTO 09/18/13 AT	PONSES, AND TO	
)01 F	1	S GN SH		50-48 IG & ASSOCIATED Ī	IATERIALS	
*	***** THIS	IS TH	ie eni	OF RFQ 8513C20	12 ***** TOTAL:	\$252,659.25
NATURE DIPECTOR O	f Soloo FE			TELEPHONE 84	7-588-7226	9/16/13

#### SOLICITATION NUMBER: 8513C2012 Addendum Number: 4

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

#### Applicable Addendum Category:

[]	Modify bid opening date and time
[ \	Modify specifications of product or service being sought
[1]	Attachment of vendor questions and responses
1 1	Attachment of pre-bid sign-in sheet
[1]	Correction of error
[ ]	Other

#### Description of Modification to Solicitation:

CREATED TO REISSUE SPECIFICATIONS IN THEIR ENTIRETY, ADDRESS VENDOR QUESTIONS AND AGENCY RESPONSES, AND TO EXTEND THE BID OPENDING TO 09/18/13 AT 1:30 P.M.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

#### **Terms and Conditions:**

- 1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
- 2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

#### ATTACHMENT A





#### PRODUCT DESCRIPTION

AT60n features a one side embossed polypropylene backing with excellent clarity, abrasion resistance and lay flat characteristics. Its acrylic adhesive is designed for clean pick up and transfer performance on all brands of cast or calendered vinyl. The stable and plasticizer-resistant adhesive will not build in tack level when applied to vinyl graphics for extended periods of storage, therefore transfer is never a problem.

Adhesive	Modified polyacrylate
Color	Clear matte finish, polypropylene
Caliper, facestock	3.7 mils (83 micron)
Caliper, facestock + adhesive	4.1 mil (103μ)
Adhesion to Stainless Steel	1 – 3 oz./inch width (1 N/25mm)
Tensile	3600 psi (25 MPa)
Elongation	700%
Tear Resistance (grams)	n/a
Shelf life Stored at 22°C (72°F)/ 50-55 % RH	1 year

#### FEATURES & BENEFITS

RTape's AT60n Application Film combines many of the features of our most popular film products:

- · Excellent lay flat to resist curling.
- · Lower static for easier handling.
- Better adhesion across a wider range of vinyl films.
- · Forgiving adhesive system! If the adhesive side of the film accidentally folds onto itself, AT60n pulls apart easily without adhesive delamination!
- Outstanding clarity to aid precise registration of multi-color overlays.
- Rigid polypropylene facestock minimizes misalignment problems.
- Easier unwind eliminates exhausting application tape struggles.
- Unique adhesive system will not build to vinyl during storage of graphics. Trouble-free release from graphics following vinyl application.

#### **APPLICATIONS**

General purpose application tape for wet and dry applications.

Important Notice: All RTape products are subject to continuous quality control throughout the manufacturing process and are warranted to be free from manufacturing defects. RTape stands behind its products and will replace or credit any defective material. Because RTape products are used for a variety of applications, the purchaser is responsible for determining the suitability and performance of this product for their specific purpose, prior to use and the purchaser shall assume all risks regarding such use.

#### RTape Corp.

6 Ingersoll Road, South Plainfield, NJ 07080 908-753-5570 Fax 908-753-5014 800-440-1250 E-mail: sales@rtape.com www.rtape.com

09/18/13 10:34:36 AM West Virginia Purchasing Division Represented in Europe by Industrial Consultants

Industriezone Langevoorde Groendreef 35 9880 Aalter, Belgium Ph: (+) 32.9.216.6700 FAX: (+) 32.9.216.6709

sales@rtape.eu

Issued: April 2011

Revision 1

Avery Dennison® T-1000 & W-1000 Series Beaded Engineering Grade Retroreflective Film for permanent and temporary traffic signage, is a high-quality, durable, enclosed lens retroreflective material with a pressure sensitive adhesive.

T-1000 & W-1000 Series sheeting is an Omni-Directional beaded film. This feature benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.



#### Performance:

ASTM D4956 Type I, EN-12899 RA1 See Page 2 for complete list.



Orientation: Omni-Directional



**Durability:** 7 years Vertical Exposure Only



Face: High-Gloss Urethane with Glass Microspheres (D-version: High Gloss PVC)



Adhesive: Permanent Pressure Sensitive



Liner: White Polyethelene Coated Paper StaFlat®

#### Features:

- Omni-Directional
- Field proven long term durability on safety devices worldwide
- Pattern free face allows for clean graphic imaging
- Economical choice for non-critical signs
- Uniform daytime and nighttime visual appearance

#### Conversion:

- Screen Printing
- M Thermal Transfer Printing
- Solvent Based Inkiet Printing
- Mild/Eco Solvent Inkjet Printing
- ☐ Thermal Die-Cut
- ☑ Drum Roller Sign-Cut
- ☑ Steel Rule Sign-Cut

#### Applications:

- Rigid Permanent and Temporary Outdoor Signage
- ☑ Nonessential Signage where Retrorelection is Necessary

Product Data Sheet Page 1 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077

#### Product Availability\*:

	raffic Product	s			
T-1100	White				
T-1101	Yellow				
T-1500	White	White			
T-1500-D	White (Matar	1)			
T-1501	Yellow				
T-1501-D	Yellow (Mata	n)			
T-1505	Blue	2002			
T-1507	Green Red				
T-1508					
T-1509	Brown				
Wor	k Zone Produc	ts**			
W-1104					
W-1204	Orange				
W-1504					
W-1142	Orange	4" Left			
W-1143	Pre-Striped	4" Right			
W-1144		6" Left			
W-1145	Barricade	6" Right			

\*See Page 5 for Nomenclature.

\*\*3 Year Durability



Issued: April 2011 Revision

#### Retroreflectivity:

Table A:

Min. coefficients of retroreflection (RA)1 per ASTM D49562 Type I

Observation Angle	Color Entranc		e Angle
	Color	- 4°	+ 30°
	White	70	30
	Yellow	50	22
	Orange	25	7
0.2°	Blue	4	1.7
	Green	9	3.5
	Red	14	6
	Brown	1.0	0.3
0.5°	White	30	15
	Yellow	25	13
	Orange	13	4
	Blue	2.0	0.8
	Green	4.5	2.2
	Red	7.5	3.0
	Brown	0.3	0.2

Table B:

Min. coefficients of retroreflection (RA)1 EN 12988 Table 3

α Observation Angle		β1 (β2	β1 (β2=0°) Entrance Angle	
	Color	+ 5°	+ 30°	+ 40°
	White	70	30	10
	Yellow	50	22	7
12'	Orange	25	10	2.2
(0.2°)	Blue	4	1.7	0.5
(0.2)	Green	9	3.5	1.5
	Red	14.5	6	2
	Brown	1	0.3	
	White	50	24	9
	Yellow	35	16	6
001	Orange	20	8	2.2
20' (0.33°)	Blue	2	1	
(0.33)	Green	7	3	1.2
	Red	10	4	1.8
	Brown	0.6	0.2	
2°	White	5	2.5	1.5
	Yellow	3	1.5	1.0
	Orange	1.2	0.5	
	Blue			
	Green	0.5	0.3	0.2
	Red	1	0.5	0.5
	Brown			

T-1000 & W-1000 Series exceeds all values listed in Table A and Table B.

T-1000 & W-1000 Series also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
EN-12899	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135334	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 10 033	Argentina

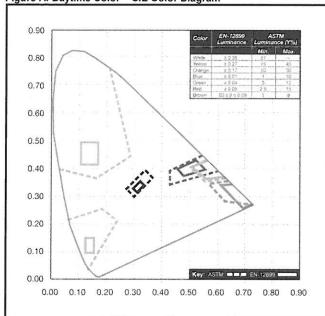
Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

<sup>&</sup>lt;sup>1</sup>R<sub>A</sub> = candelas per foot-candle per square foot (cd/fc/ft²) OR Candelas per lux per square meter (cd/lx/m²)

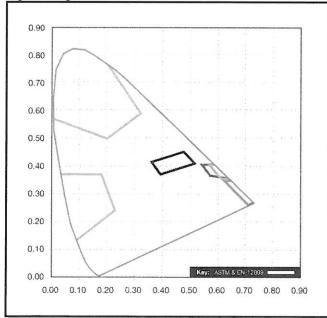
<sup>&</sup>lt;sup>2</sup> Measured according to ASTM E810

#### **Colors and Specification Limits:**

Figure A: Daytime Color - CIE Color Diagram







T-1000 & W-1000 Series meets the current applicable daytime and nighttime color requirements for ASTM D4956 and EN-12899 as well as standards listed on Page 2.

#### **Chromaticity Coordinate Limits**

Figures A & B show the four pairs of chromaticity coordinates from ASTM D4956 and EN-12899 on the color grid.

#### **Daytime Color**

The four pairs of chromaticity coordinates in Figure A determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in Figure A.

Note: The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

#### **Nighttime Color**

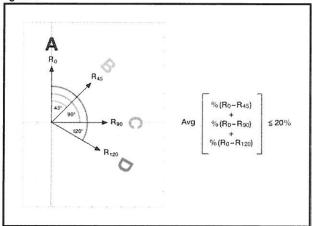
The four pairs of chromaticity coordinates in Figure B determine the acceptable color measured using CIE Illuminant A, obvservation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

Issued: April 2011 Revision 1

#### **Sheeting Orientation:**

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive, the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore, no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and

Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

cumbersome fabrication techniques are required to orient sheets,

cut sign legend or border tape during sign fabrication.

T-1000 & W-1000 Series is Omni-Directional and **passes** the AASHTO specification as being **rotationally insensitive.** 

Retroreflectivity  $R_A$  values taken per ASTM E810  $0.5^{\circ}$  Observation angle and  $-4^{\circ}$  or  $5^{\circ}$  Entrance angle

As a datum for laboratory measurements R<sub>0</sub> is identified in the crossweb direction.

Watermark: T-1000 & W-1000 Series does not have a watermark.

Product Data Sheet Page 4 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077



ssued: April 2011 Revis

#### Nomenclature:



Initial Letter	Application	Durability*
Т	Traffic/Permanent Sheeting	7 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

<sup>\*</sup> See your local representative for complete details.

	100000000000000000000000000000000000000	
Series	1000	
407 107 1 1 431 107	1000	

2 <sup>nd</sup> Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 <sup>rd</sup> & 4 <sup>th</sup> Numbers	Color	
00	White	
01	Yellow	
04	Orange	
05	Blue	
07	Green	
08	Red	
09	Brown	
11	Fluorescent Yellow	
13	Fluorescent Yellow-Green	
14	Fluorescent Orange	
42	4" LEFT Orange Pre-Striped Barricade	
43	4" RIGHT Orange Pre-Striped Barricade	
44	6" LEFT Orange Pre-Striped Barricade	
45	6" RIGHT Orange Pre-Striped Barricade	

<sup>†</sup>OmniCube is the exception and leads with the number 11

The following Warranty is limited to North America.

WARRANT

Avery Dennison T-1000 & W-1000 beaded retroreflective sheeting ('Product(s)') are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or re, airs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

Avery Dennison further warrants that Avery Dennison® T-1000 & W-1000 Beaded reflective sheeting will retain its effectiveness as a component of traffic control and guidance signs, and will meet the stated minimum values for coefficient of retroreflection ("Performance Warranty") as set forth in accordance with the following standards:

Warranty Period*	Minimum Percentage R <sub>A</sub> Retained
1-7 years	50%
*Performance Warranty P	eriod for Work Zone products

\*Performance Warranty Period for Work Zone production is one to three (1-3) years

Note: For transparent color screen printed areas using Avery Dennison supplied or approved inks or OL-2000 Overlay films on Avery Dennison® T-1500 white sheeting, values shall be a minimum of 70% of values in Table A

 $R_{\rm A}$  percentage retained above apply to all entrance and observation angles in Table A, and shall be measured per ASTM E 810.

All measurements shall be made after cleaning according to Avery Dennison procedures.

#### PERFORMANCE WARRANTY

If within seven (7) years of installation such deterioration occurs or the Product fails to retain the minimum seven (7)-year reflectivity values, Avery Dennison will restore the installation surface to its original effectiveness at no cost for materials or labor.

#### CONDITIONS.

This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data sheets.



#### Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	4.5 – 5.5 mils (114 – 140μ) W-1100 Series: 5.5 - 6.5 mils (139 - 165μ)	NA
Min. Application Temperature	65° F (18° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with T-1000 & W-1000 is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Inkjet Printing	User assumes responsibility for fitness of use for this converting method. Long term durability of inkjet printing in combination with T-1000 & W-1000 series is not warranted.	#8.55
Thermal Transfer Printing	Long term durability of thermal transfer printing in combination with T-1500D is warranted. Refer to Instructional Bulletin.	#8.60

ADDITIONAL LIMITATIONS
Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective.

Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or o'herwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other soilled chemicals pollutants. organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force

majeure events are not covered by this warranty.

Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product. whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UTLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Issued: April 2011

#### **Converting Information:**

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

#### Approved screen printing inks, overlays, thermal transfer ribbons:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	7TS	1 Part Solvent	#8.37
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60

#### Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
7TS Series Ink	#8.37
Ink Recommendations Guide	#8.55
Matan Thermal Transfer Printing	#8.60

#### Substrates:

The application of Avery Dennison T-1000 & W-1000 Series sheeting is limited to properly prepared substrates which differ by product. For traffic products and W-1504, application is limited to properly prepared Aluminum. For products in the W-1100 line, application is limited to properly prepared plastic. For products in the W-1200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

#### DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data ilmitations nerein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

distance.

Outdoor Durability: is based on normal middle

European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

Vertical Exposure: means that the face of the finished

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this exposure.

Flat surfaces: means a two dimensional flat surface

without protruding objects.

Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery

Printing, Curing and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other

treatment or processing errors are not warranted.

Achesion to Application Surfaces: This warranty
does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product

INDEPENDENT TESTING REQUIRED

information All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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Issued: April 2011

Revision 1

Avery Dennison® OL-1000/OL-2000 Series Transparent Overly Film is a quality, durable, computer cuttable film. OL-2000 Series is ideal for use as overlaminate for manufacturing traffic control devices and guidance signage. OL-2000 Series are designed to be laminated over Avery Dennison retroreflective films.



#### Performance:

Same as underlying base sheeting



Durability: Same as

retroreflective film to which it is applied



Face

OL-1000: Fluoropolymer OL-2000: Acrylic



Adhesive: Permanent Pressure Sensitive



Liner: Friction Coated Film

#### Features:

- High clarity product for use with Avery Dennison Reflective Sheeting
- · Field proven long term durability on safety devices worldwide
- Uniform daytime and nighttime visual appearance
- · Conforms to specifications of base reflective sheeting

#### Conversion:

- ☐ Designed to be used with Avery Dennison Reflective Films
- □ Designed to be used as part of the Integrated Component System of Avery Dennison Reflective Materials
- Drum Roller Sign-Cut
- Steel Rule Sign-Cut

#### **Product Availability:**

OL-1000	Anit-Graffiti
OL-2000	Clear
OL-2001	Yellow
OL-2003	Black
OL-2004	Orange
OL-2005	Blue
OL-2007	Green
OL-2008	Red
OL-2009	Brown

#### Applications:

- ⊠ Rigid Work Zone Devices

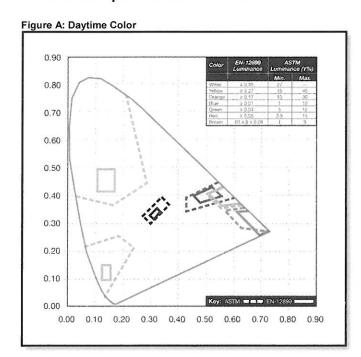
Product Data Sheet Page 1 of 4 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077



Issued: April 2011

Revision 1

#### **Colors and Specification Limits:**



0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90

Product Data Sheet Page 2 of 4 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077 OL-2000 Series Overlay Films meets the current applicable daytime and nighttime color requirements for ASTM D4956 and EN 12889.

#### **Chromaticity Coordinate Limits**

**Figures A & B** show the four pairs of chromaticity coordinates from ASTM D4956 and EN 12889 on the color grid.

#### **Daytime Color**

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in **Figure A**. *Note*: The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

#### **Nighttime Color**

The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.



Revision 1

#### Characteristics:

Property Value		Instructional Bulletins	
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.		
Typical film Caliper	OL-1000: 1.7 – 2.7 mils (43 - 69 µ) OL-2000: 4 mils (100µ)	NA	
Min. Application Temperature	65° F (18° C)	#8.10	
Service Temperature	-10°F to +150°F (-40°C to + 65°C)	#8.00	

**Product Data Sheet** Page 3 of 4 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077

WARRANTY
Avery Dennison OL-1000 & OL-2000 Overly Films ("Products) are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer), It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product Without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

CONDITIONS
This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, improper storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the Procedures). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carriers only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product data sheets.

ADDITIONAL LIMITATIONS
Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the convertes, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison Product Data Sheets and Instructional Bulletins and that approve application procedures are followed, to team converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or

Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective. Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force majeure events are not covered by this warranty. Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

#### INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.



www.reflectives.averydennison.com AnswerLine: 800-231-4654

Revision 1

#### Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website. www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

OL-2000 Clear is designed for use with Matan printed reflective sheeting.

#### Instructional Bulletins:

Film Care & Handling	#8.00		
Substrate Requirements	#8.01		
Application Techniques for PS Film	#8.10		
Cutting Methods	#8.20		
Computer Sign Cutting	#8.25		
Matan Thermal Transfer Printing	#8.60		

#### Substrates:

The application of Avery Dennison OL-1000/OL-2000 Overlay Film Series sheeting is limited to properly prepared Avery Dennison reflective film. Users are urged to carefully evaluate. under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

The remedies provided under this warranty are exclusive The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, incliental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage used by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set nability inerculore exceed unit entertied specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HERBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excess-vely such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air alden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on sixth localized conditions. such localized conditions

Vertical Exposure: means that the face of the finished graphic

Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this

exposure.

Flat surfaces: means a two dimensional flat surface without protruding objects.

Weathering Effects: Some degradation of Product performance.

Weathering Effects: Some degradation or Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, erwironmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

Printing, Guring and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by Ink over-saturation, excessive or under curing, failure of Ink to render desired colors on Product, or other treatment or processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the

to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath

If any court of competent jurisdiction or relevant government agency holds any provision of this warranty and limitation of liability to be illegal, void, invalid or unenforceable, whether in terms of any competition, legislation or otherwise, such provision shall be deleted and severable from this warranty and limitation of liability but deletion shall not affect the validity or enforceability of any other crowvisions hereof. of any other provisions hereof

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# Avery® SC 900 Super Cast Series

Opaque Permanent Kraft & StaFlat Revision: New Dated: 11/08/2010

#### Uses:

Avery SC900 series cast films are premium quality, flexible, opaque solid color high gloss vinyl films designed for use in a wide range of outdoor advertising, fleet marking, of outdoor uses where excellent durability, conformability, color, and gloss are required.



Face: 2.0 mil (50 microns) high gloss cast film



Adhesive: Permanent Acrylic (clear, gray, or white)



Liner: 83# Kraft or 90# StaFlat



Durability: Up to 12 years



Flat, Flat with Rivets, Corrugations, Deep Recesses

#### Features:

- · Superior conformability to irregular substrates
  - Deeply concave shaped
  - Extremely conves shaped
  - Compound (concave & convex) shaped
  - Best performance on rivets
  - Best conformance in channels
- Available in Pantone<sup>®</sup> Color simulations
- · Outstanding durability and outdoor performance
- Dimensionally stable liner for easy converting
- High gloss finish
- · Excellent conversion on CAD plotters
- · Excellent UV, temperature, humidity, and salt-spray resistance
- Custom colors available (contact your sales representative)
- Meets CPSIA standards for limitations on lead and pthalates White & Clear Only

# Conversion: ☑ Thermal Die-Cutting ☑ Flat Bed Sign-Cut

Drum Roller Sign-Cut

☑ Thermal Transfer☑ Screen Printing (StaFlat)

Cold Overlaminating
Water based inkjet

☐ Solvent based inkjet☐ Mild/Eco Solvent inkjet

UV inkjet

#### Common Applications:

🛛 Cars & Vans

Marine

Architectural Signage

☑ Directional Signage
 ☑ Emergency Vehicles
 ☑ Trains & light rail

⊠ Buses

Outdoor advertising

**Product Data Sheet** 

Page 1 of 3



# Avery® SC 900 Super Cast Series

Opaque Permanent Kraft & StaFlat Revision: New Dated: 11/08/2010

#### Physical Characteristics:

Property		Value			
Caliper, face Caliper, adhesive		2.0 mil (50 μm) 1.0mil (25 μm)			
					Dimensional stability
Tensile at Yield		4.0 - 8.0 lb/in (0.7–1.5 kg/cm)			
Elongation		150% min.			
Gloss		90%			
Adhesion: 15 min.		3.0 lbs/in (525 N/m)			
24 hr.		4.0 lbs/in (700 N/m)			
Flammability		Self Extinguishing			
Shelf-Life	***************************************	1 year			
Durability	Vertical Exposure				
	Black & White	12 years			
	Colors & Clear	Up to 10 years			
Min. Application Temperature		40° F (4° C)			
Service		-50° - 180°F (-45° - 82° C)			
Temperature		(Reasonable range of			
		temperatures which would			
		be expected under normal environmental conditions).			
Chemical		Resistant to most mild			
resistance		acids, alkalis, and salt			
		solutions.			

Important: information on physical and chemical characteristics Information on physical and chemical characteristics are based on tests believed to be reliable. The values are inlended only as a source of information. This information is given without guaranty and do not constitute a werranty. The purchaser should independently determine, prior to use, the suitability of any material for their specific purpose (Data represents average values where applicable, and is not intended for specification purposes).

#### Warranty:

All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES. WHETHER OF WARRANTIES, WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTY-OLLAR USE, OR OTHERWISE (EXCEPT AS TO TITLE), OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY AVERY DENNISON. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER ALTERATION. ADDITION OR NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Page 2 of 3 Graphics & Reflective Products Division 250 Chester Street Painesville, OH 44077



AnswerLine: 800-231-4654 www.averygraphics.com

# Avery® SC 900 Super Cast Series

#### Opaque Permanent Kraft & StaFlat Revision: New Dated: 11/08/2010

#### Dimensional stability:

Is measured on a 6" x 6" (150 x 150 mm) aluminum panel to which a specimen has been applied; 72 hours after application the panel is scored in a cross pattern, exposed for 48 hours to 150°F (65°C), after which the shrinkage is measured.

#### Adhesion:

(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel panel, 24 hours after the specimen has been applied under standardized conditions. Initial adhesion is measured 15 minutes after application of the specimen.

#### Flammability:

A specimen applied to aluminum is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

#### Temperature range:

A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

#### Chemical Resistance:

All chemical tests are conducted with test panels to which a specimen has been applied for 72 hours, after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.

#### **Accelerated Aging:**

No negative impact on films performance, wherein the color is within industry standards for Delta  $\Sigma$  shift. Material is applied to panels, and placed in a Xenon Arc Artificial Weatherometer, and exposed under conditions of SAE J1960, for 2000 hours. Some color fade may occur in severe environmental areas. Reference IB 1.30 for durability guidelines.

#### Color Matching:

Fast turnaround service is offered for projects where specific color needs cannot be obtained from the broad offering of stock colors. Matches can be made to Pantone color references, or by submitting a small reference sample (minimum 4" x 4") For match requirements, contact your Avery Dennison representative.

#### Pantone® Cross Reference:

Avery Dennison has been certified to produce custom color films matching Pantone color number references. A range of pre-matched Pantone colors are available for ease of use for designers and signmakers. Custom color matches are available by referencing the Pantone color system. For match requirements, contact your Avery Dennison representative.

#### Absence of banned substances:

Avery Dennison Black, White, and Clear SuperCast films meet the following European Directives. EU Directive 94/62 on packaging and packaging waste Article11: Max. sum of concentration levels of lead, cadmium, mercury and hexavalent chromium: < 100 ppm.

EU Directive 2002/96/EC on restrictions of use of hazardous substances in electrical and electronic equipment Article 4.1: no contents of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenylethers (PBDE).

EU Directive 2000/53/EC on end-of life of vehicles article 4.2.(a): no contents of lead, mercury, cadmium or hexavalent chromium.

#### Revisions are italicized

Avery Dennison is a registered trademark of Avery Dennison Corp.

Pantone is a registered trademark of Pantone LLC, and X-Rite Inc.

#### **Product Data Sheet**

Page 3 of 3 Graphics & Reflective Products Division 250 Chester Street Painesville, OH 44077



AnswerLine: 800-231-4654 www.averygraphics.com



Film Type Cast virtyl
Adhesive Permanent
Liner Kraft
Conformability Rivers'corrugations, compound curves
Durability Up to 8 years

Glass S

Converting CAS, screen print (SF only) thermal transfer

**AVERY 900 SUPERCAST (SC) OPAQUE** 

Permanent • Kraft

SCREEN & CUT

Choose from 110 standard colors, including 19 colors matched to Pantone® standards, Custom colors available. StaFlat<sup>TM</sup> liner and specialized adhesives available on select colors.

#### STANDARD COLORS

ITEM NUMBER	PRODUCT	ITEM NUMBER	PRODUCT		
SC9003O	SC 900-103-Q Clear +	SC9552O	SC 900-652-O Butterfly Blue		
SC9004O	SC 900-104-O Matte Clear	SC95550	SC 900-655-O Medium Blue		
✓ SC90010	SC 900-101-O White ++ 11 ++	SC9557O	SC 900-657-O PANTONE® 292 C ■ 4		
SC9002O	SC 900-102-O Matte White + + BI	SC9559O	SC 900-659-O PANTONE® 293 C ■ +		
SC90050	SC 900-105-O True White II	SC95650	SC 900-665-O Intense Blue 4		
✓ SC9080C	SC 900-180-O Matte Black +	SC9570O	SC 900-670-O Vivid Blue *		
✓ \$C9090O	SC 900-190-O Black + 49	SC95750	SC 900-675-O interstate Blue		
SC91020	SC 900-202-O Luminous Yellow	SC9578O	SC 900-678-O PANTONE® 300 C ■ ◆		
SC91050	SC 900-205-O Butter	SC95790	SC 900-679-O PANTONE® Reflex Blue C ■ ❖		
SC9106O	SC 900-206-O PANTONE® Process Yellow C ■ x	✓ SC95800	SC 900-680-O Sapphire Blue *		
SC91130	SC 900-216-O PANTONE® 109 C ■ *	SC9582O	SC 900-682-O PANTONE® Process Blue C ■ -	4	
SC91200	SC 900-220-O Canary Yellow +	SC9590O	SC 900-690-O Light Navy •		
SC9130O	SC 900-230-O Medium Yellow ■ 4	SC9595O	SC 900-695-O Dark Blue +		
SC9140C	SC 900-240-O Sunflower Yellow +	SC9597O SC9605O	SC 900-697-O Dark Navy Blue +		
SC9150O	SC 900-250-O Dark Yellow +	SC9609O	SC 900-705-O Dark Aqua		
SC9250O	SC 900-253-O Imitation Gold &	SC9610O	SC 900-709-O Light Sage SC 900-710-O Spectra Everglade		
SC93150	SC 900-315-O Tangerine	SC9615O	SC 900-715-O Real Teal		
SC91550	SC 900-355-O Apricot	SC9620O	SC 900-713-0 Real teal SC 900-720-0 Teal ◆		
SC9160O SC9169O	SC 900-360-O Orange ❖ SC 900-362-O PANTONE® 021 C ■ ★	SC9626O	SC 900-726-O PANTONE® 354 C ■ +		
SC9180O	SC 900-380-O Bright Orange 4	SC9630O	SC 900-730-O Dark Teal &		
SC9304O	SC 900-404-O Warm Red	SC9632O	SC 900-732-O Lime Aid		
SC9305O	SC 900-405-O PANTONE® 1797 C ■ +	SC9633O	SC 900-733-O Aquamarine		
SC9306O	SC 900-406-O PANTONE® 032 C ■ *	SC9634O	SC 900-734-O PANTONE® 375 C ■ +		
SC9317O	SC 900-417-O Real Red	SC9655O	SC 900-755-O Vibrant Green + ■		
SC9318O	SC 900-418-O Luminous Red	SC9660O	SC 900-760-O Apple Green &		
SC93210	SC 900-421-O PANTONE® 485 C ■ *	SC9665O	SC 900-765-O Olive Green		
✓ SC9325O	SC 900-425-O Tomato Red +	SC9670O	SC 900-770-O Kelly Green 4		
✓ SC9330O	SC 900-430-O Cardinal Red +	SC9672O	SC 900-772-O Grow Green		
SC9345O	SC 900-445-O Fire Red ◆■	SC96750	SC 900-775-O Bright Green 4		
SC9350O	SC 900-450-O Dark Red	SC9685O	SC 900-785-O Forest Green +		
SC9360O	SC 900-460-O Spectra Red <b>+</b> ■	SC9690O	SC 900-790-O Deep Green 4		
SC9365O	SC 900-465-O Apple Red	SC9693O	SC 900-793-O Dark Green 4		
SC9370O	SC 900-470-O Burgundy *	SC9695O	SC 900-795-O Polo Green		
SC9380O	SC 900-480-O Burgundy Maroon	SC9050O	SC 900-804-O Pewter		
SC94110	SC 900-511-O PANTONE® Process Magenta C ■ *	SC9010O	SC 900-810-O Light Gray		
SC9413O	SC 900-513-O PANTONE® Violet C m x	SC9020O	SC 900-820-O Palm Oyster		
SC94150	SC 900-515-O Blossom ■ *	SC9025O	SC 900-825-O Light Ash Gray		
SC9430O	SC 900-530-O Magenta	SC9030O	SC 900-830-O Slate Gray	KE'	Y
SC9435O	SC 900-535-O Raspberry	SC90350	SC 900-835-O Medium Gray ❖	34	6-yr durability
SC9440O	SC 900-540-O Plum	SC9055O	SC 900-855-O Dark Gray	*	8 yr durability
SC9450O	SG 900-550-O Deep Purple	SC90600 SC90690	SC 900-860-O Medium Marine Gray SC 900-869-O PANTONE® 877 C■ ¥	-10	10-yr durability
SC94650	SC 900-565-O Purple 4	SC9205O	SC 900-905-O Parchment	4	
SC94750	SC 900-575-O Lavender	SC92100	SC 900-910-O Almond	4	Available in widths up to 60". All other
SC9505O	SC 900-605-O Copenhagen	SC92100 SC92200	SC 900-920-O Beige +		colors available in
SC95150	SC 900-615-O Cadet Blue	SC9230O	SC 900-921-O Dark Beige		widths up to 48.*
SC9520O SC9525O	SC 900-620-O Shadow Blue SC 900-625-O Majestic Blue	SC9235O	SC 900-935-O Putty	m	Pigmented adhesive—
SC9526O	SC 900-625-O Majestic Bide SC 900-626-O PANTONE® 285 C ■+	SC9240O	SC 900-940-O Camel		not reversible
SC9528O	SC 900-628-O PANTONE® 286 C ■ +	SC9252O	SC 900-952-O PANTONE® 466 C ■ ❖	+	Thermal transfer
SC9530O	SC 900-630-O Olympic Blue +	SC9260O	SC 900-960-O Terra Cotta		printable
SC9635O	SC 900-635-O Nautical Blue	SC9265O	SC 900-965-O Sandstone	THE .	Standard with
SC9540O	SC 900-640-O Light Blue	SC92700	SC 900-970-O Buckskin		blue liner
SC9545O	SC 900-645-O Peacock Blue	SC9278O	SC 900-978-O Cocoa	V	Custom Finish available
SC9550O	SC 900-650-O Powder Blue	SC9295O	SC 900-995-O Brown ◆	-	in 1-day lead time







Film Type Adhesive Liner

Converting

Gloss

Cast vinyl Permonent Kraft

Conformability Rivets
Durability Up to

Rivets/corrugations, co-apound curves

Up to 9 years

CAS, screen print (SF only), thermal transfer

AVERY 900 SUPERCAST (SC) OPAQUE

Permanent • Kraft

SCREEN & CUT

Choose from 110 standard colors, including 19 colors matched to Pantone® standards. Custom colors available StaFlat<sup>1M</sup> liner and specialized adhesives available on select colors.

### STANDARD COLORS

See page 15 for color selection.

### STOCK

ROLL CODE	FINISHED SIZE	WEIGHT	WHI	CLEAR / TE / BLACK ICE/ROLL		COLORS RICE/ROLL
A	15" x 10 yd punched	2 lb 11 oz	\$	43 96	S	49.58
K	24* x 10 yd	4 lb 9 oz	\$	70 32	\$	79 30
Ε	30" x 10 yd punched	5 lb 11 oz	5	87.91	S	99 14
R	48" x 10 yd	6 lb 13 oz	\$	140 65	5	158 61
F	15' x 50 yd	10 lb	ŝ	183 07	\$	210 07
D*	15" x 50 yd punched - No Splice	10 lb	\$	183 07		
G	16" x 50 yd punched	10 lb	S	163 07	S	210 07
М	24" x 50 yd	15 lb 5 oz	3	292 92	ŝ	338 11
Q	30° × 50 yd	19 lb 5 oz	5	366 14	\$	420 14
G	30" x 50 yd punched	19 lb 5 oz	\$	366 14	S	420.14
p	36" x 50 yd	22 lb 15 oz	\$	439.37	S	504.17
U	48* × 50 yd	32 lb 9 pz	S	585 83	S	672.21
W	60" x 50 yd	41 lb 2 oz	S	732 28	S	840.27
S	48" x 100 yd	65 lb 2 oz	9	1,054 23	S	1,195.98
V	60° × 100 yd	130 lb 4 az	\$	1,317.77	s	1,494,94
T	48" × 250 yd	162 lb 13 oz	\$	2.635 56	S	2 989 89
Z	60° x 250 yd	205 lb 10 oz	3	3,294 45	S	3 737.36

<sup>&</sup>quot;Thermal transfer optimized for producing longer graphics on Gerber Edge® and Roland® Color Camin thermal transfer printers by leaving the virigl to the edges splice-free

### **CUSTOM FINISH**

Items with a check mark are available with custom linish in 1 day lead time

QUANTITY	48" -	WHT / BLK FULL WEB CE/SO FT	48"-	OLORS FULL WEB CE/SQ FT	MIN. ORDER QTY
Custom Sitting	ŝ	1.026	S	1.178	50 yd
Custom Punching	\$	997	S	1,141	100 yd
Custom Premasking/Slitting	\$	1 101	9	1 245	100 yd

<sup>\*</sup> Purchase of full web width required

### **CUSTOM COLOR**

QUANTITY PER ORDER	PRIC	FULL WEB CE/SQ FT - KOLLS*
3,000 - 5,999 square feet	Ş	1,400
5.000 - 11,999 square feet	\$	1.232
12,000 + square feet	\$	1 120

<sup>\*</sup> Does not include standard upcharges for punching or premasking





<sup>&</sup>quot;P configuration available in products with 60" widths

Issued: April 2011

Revision 1

Avery Dennison® T-6000 & W-6000 Series High Intensity Microprismatic (HIP) Retroreflective Film for permanent and temporary traffic signage, is a high-quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. Its unique microprismatic construction provides a high level of retroreflectivity for demanding traffic control situations.

T-6000 & W-6000 Series sheeting is an Omni-Directional microprismatic film that incorporates tiles of microprisms arranged in multiple orientations. This feature – "Smart at Every Angle" benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.



#### Performance:

ASTM D4956 Type III & IV, CUAP Table 7 See Page 2 for complete list.



Orientation: Omni-Directional



**Durability:** 10 year Vertical Exposure only



Face: High-Gloss Acrylic Retroreflective Film with Microprisms



Adhesive: Permanent Pressure Sensitive



Liner: Polypropylene Film

### Features:

- Omni-Directional
- High Intensity Microprismatic Retroreflective Performance
- Field proven long term durability on safety devices worldwide
- Uniform daytime and nighttime visual appearance

### Conversion:

- Screen Printing
- ☐ Thermal Transfer Printing
- Solvent Based Inkjet Printing
- Mild/Eco Solvent Inkjet Printing
- ☑ UV Inkjet Printing

- □ Drum Roller Sign-Cut
- ☑ Steel Rule Sign-Cut

### Applications:

- Rigid Permanent and Temporary Outdoor Signage

### Product Availability\*:

	Traffic Produ	cts
T-6500	White	
T-6501	Yellow	
T-6505	Blue	
T-6507	Green	
T-6508	Red	
T-6509	Brown	
Wo	ork Zone Prod	ucts**
W-6100	White	
W-6200	White	
W-6204	Orange	
W-6504	Orange	
W-6511	Fluorescent Y	'ellow
W-6513	Fluorescent Y	'ellow-Green
W-6142		4" Left
W-6143	Orange	4" Right
W-6144	100000000000000000000000000000000000000	6" Left
W-6145	Pre-Striped	6" Right
W-6242	Barricade	4" Left
W-6243		4" Right
W-6244		6" Left
W-6245		6" Right

\*See Page 5 for Nomenclature.

\*\*3 Year Durability

Product Data Sheet
Page 1 of 7
Graphics and Reflective Solutions
250 Chester Street
Painesville, OH 44077



# Avery Dennison® T-6000 & W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: April 2011

Revision 1

### Retroreflectivity:

Table A:

Min. coefficients of retroreflection (R<sub>A</sub>)<sup>1</sup> per ASTM D4956<sup>2</sup> Type III & IV

Observation	Colon	Entrand	e Angle
Angle	Color	- 4°	+ 30°
	White	500	240
	Yellow	380	175
	Orange	200	94
0.1° <sup>3</sup>	Blue	42	20
	Green	70	32
	Red	90	42
	Brown	25	12
	White	360	170
	Yellow	270	135
	Orange	145	68
0.2°	Blue	30	14
	Green	50	25
	Red	65	30
	Brown	18	8.5
	White	150	72
	Yellow	110	54
	Orange	60	28
0.5°	Blue	13	6.0
	Green	21	10
	Red	27	13
	Brown	7.5	3.5

Table B:

Min. coefficients of retroreflection (R<sub>A</sub>)<sup>1</sup> CUAP Table 7 (EN-12899 RA2)

α	0.1	β1 (β2	=0") Entranc	e Angle
Observation Angle	Color + 5°	+ 5°	+ 30°	+ 40°
	White	250	150	110
	Yellow	170	100	70
40'	Orange	100	60	29
12' (0.2°)	Blue	20	11	8
(0.2)	Green	45	25	12
	Red	45	25	15
	Brown	12	8.5	5.0
	White	180	100	95
	Yellow	120	70	60
202	Orange	65	40	20
20' (0.33°)	Blue	14	8.0	7.0
(0.33)	Green	21	12	11
	Red	25	14	13
	Brown	8.0	5.0	3.0
	White	5.0	2.5	1.5
	Yellow	3.0	1.5	1
	Orange	1.5	1	
2°	Blue	0.2		
	Green	0.5	0.3	0.2
	Red	1	0.4	0.3
	Brown	0.2		

Product Data Sheet Page 2 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077 HIP Series sheeting exceeds all values listed in Table A and Table B.

HIP Series sheeting also exceeds the current applicable requirements for the following specifications:

ASTM D4956	International
AASHTO M268	USA
CUAP	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135340	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 3952	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

 $R_{A}$  = candelas per foot-candle per square foot (cd/fc/ft²) OR Candelas per lux per square meter (cd/lx/m²)

<sup>&</sup>lt;sup>3</sup> Note that 0.1° Observation angle is a "supplemental Requirement" in ASTM D4956. It represents long highway viewing distances of about 900 ft (275 Meters) and greater.



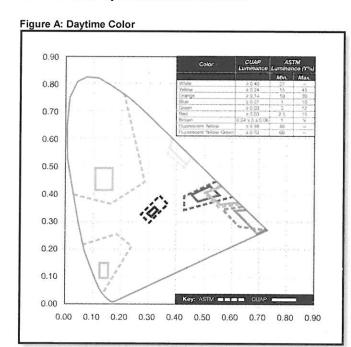
<sup>&</sup>lt;sup>2</sup> Measured according to ASTM E810

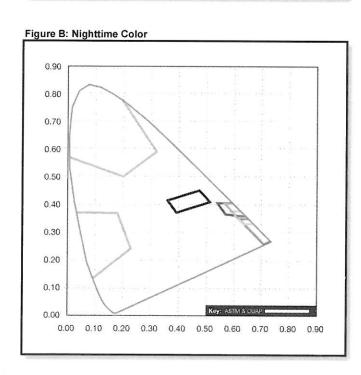
# Avery Dennison® T-6000 & W-6000 HIP Series

### High Intensity Microprismatic Retroreflective Film

Issued: April 2011 Revision 1

### **Colors and Specification Limits:**





HIP Series sheeting **meets** the current applicable daytime and nighttime color requirements for ASTM D4956 and CUAP as well as standards listed on Page 2.

### **Chromaticity Coordinate Limits**

**Figures A & B** show the four pairs of chromaticity coordinates from ASTM D4956 and CUAP on the color grid.

### **Daytime Color**

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in **Figure A**.

Note: The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

### **Nighttime Color**

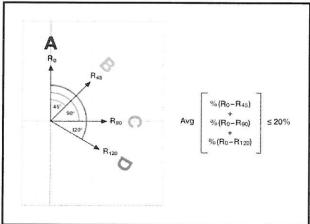
The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

Issued: April 2011 Revision 1

### **Sheeting Orientation:**

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

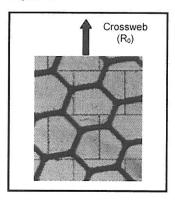
Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

HIP Series sheeting is Omni-Directional and **passes** the AASTHO specification as being **rotationally insensitive.** 

Retroreflectivity  $R_A$  values taken per ASTM E810 0.5° Observation angle and -4° or 5° Entrance angle

As a datum for laboratory measurements  $R_0$  is identified in the crossweb direction. See Figure D

Figure D



Watermark: HIP Series contains the watermark seen in Figure E.

Figure E

HIP Lot #

Product Data Sheet
Page 4 of 7
Graphics and Reflective Solutions
250 Chester Street
Painesville, OH 44077



# Avery Dennison® T-6000 & W-6000 HIP Series

High Intensity Microprismatic Retroreflective Film

Revision 1

### Nomenclature:



Initial Letter	Application	Durability*
Т	Traffic/Permanent Sheeting	10 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

<sup>\*</sup> See your local representative for complete details.

Series	6000	
Marie Control of the		

2 <sup>nd</sup> Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 <sup>rd</sup> & 4 <sup>th</sup> Numbers	Color	
00	White	
01	Yellow	
04	Orange	
05	Blue	
07	Green	
08	Red	
09	Brown	
11	Fluorescent Yellow	
13	Fluorescent Yellow-Green	
14	Fluorescent Orange	
42	4" LEFT Orange Pre-Striped Barricade	
43	4" RIGHT Orange Pre-Striped Barricade	
44 6" LEFT Orange Pre-Striped Barrica		
45	6" RIGHT Orange Pre-Striped Barricade	

TOmniCube is the exception and leads with the number 11

#### The following Warranty is limited to North America.

WARRANTY
Avery Dennison T-6000 & W-6000 prismatic retroreflective sheeting ('Product(s)') are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

Avery Dennison further warrants that Avery Dennison® T-6000 & W-6000 prismatic retroreflective sheeting will retain its effectiveness as a component of traffic control and guidance signs, and will meet the stated minimum values for coefficient of retroreflection ("Performance Warranty") as set forth in accordance with the following standards:

	Warranty Period*	Minimum Percentage R₄ Retained
- 1	1-7 years	80%
1	8-10 years	80%
- 6	Performance Warrant	Period for Work Zone products

Note: For transparent color screen printed areas using Avery Dennison supplied or approved inks or OL-2000 Overlay films on Avery Dennison® T-6500 white sheeting, values shall be a minimum of 70% of values in Table A

 $R_{\rm A}$  percentage retained above apply to all entrance and observation angles in Table A, and shall be measured per ASTM E 810.

All measurements shall be made after cleaning according to Avery Dennison procedures.

PERFORMANCE WARRANTY
If within ten (10) years from the initial date of installation, the
Product deteriorates due to natural causes to the extent that: 1)
the Product fails to retain the minimum reflectivity values
warranted for the ten (10) year period under the standard in force
at the time of installation, or 2) the Product is ineffective for its
intended purpose when viewed from a moving vehicle under
normal daytime or nighttime driving conditions, Avery Dennison
will furnish a replacement amount of like Product at no cost to
enable the installed surface to be restored to its original
effectiveness. If within seven (7) years of installation such
deterioration occurs or the Product fails to retain the minimum
seven (7) year reflectivity values, Avery Dennison will restore the seven (7) year reflectivity values, Avery Dennison will restore the installation surface to its original effectiveness at no cost for

CONDITIONS.
This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vanadism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the Proces. Jures). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Scheet including adhesive and other material product data sheets.

Issued: April 2011 Revision 1

### Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	18 – 19 mils (457 – 483μ) Orange: 17 – 18 mils (432 – 457μ)	NA
Min. Application Temperature	65° F (18° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with HIP series sheeting is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Inkjet Printing	User assumes responsibility for fitness of use for this converting method. Long term durability of inkjet printing in combination with HIP series sheeting is not warranted.	#8.55
Thermal Transfer Printing	Long term durability of Thermal Transfer Printing in combination with any HIP series sheeting is warranted. Refer to Instructional Bulletin	#8.60

ADDITIONAL LIMITATIONS
Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined not uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective. Missuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other signiled chemicals polluta

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON AVERY DENNISON.

Issued: April 2011 Revision 1

### Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

### Approved screen printing inks, overlays, thermal transfer ribbons:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	4930 Inks	1 Part Solvent	#8.40
Avery Dennison	UVTS Nazdar	UV	#8.38
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60

#### Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
UVTS Nazdar Inks	#8.38
4930 Series Inks	#8.40
Ink Recommendations Guide	#8.55
Matan Thermal Transfer Printing	#8.60

The application of Avery Dennison HIP Series sheeting is limited to properly prepared substrates which differ by product. For traffic products and W-6504, application is limited to properly prepared Aluminum. For products in the W-6100 line, application is limited to properly prepared plastic. For products in the W-6200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

### Product Data Sheet Page 7 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077

#### DEFINITIONS

DEFINITIONS
Durability means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Builetins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.
Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions

Vertical Exposure: means that the face of the finished graphic

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this

Flat surfaces: means a two dimensional flat surface without

Flat surfaces: means a two dimensional flat surface without protruding objects.

Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God do not constitute a breach of warranty or civile. other acts of God, do not constitute a breach of warranty or give

other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

Printing, Guring and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate sparate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product

INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its

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Full Cube Microprismatic Retroreflective Film

Issued: April 2011

Revision 1

Avery Dennison® OmniCube<sup>TM</sup> T-11000 & W-11000 Series High Intensity Microprismatic Retroreflective Film takes full-cube reflective sheeting to a new level. OmniCube full-cube prisms are 100% efficient – returning approximately 60% of the available light back to the driver compared to only 40% with other prismatic reflective sheetings.

OmniCube's Intelligent Cube Technology incorporates the needs of all vehicle types; trucks, SUVs, automobiles, and motorcycles into one reflective sheeting.

OmniCube T-11000 & W-11000 is an Omni-Directional microprismatic film that incorporates tiles of full-cube microprisms arranged in multiple orientations. This feature – "Smart at Every Angle" benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.



Performance: ASTM D4956 Type XI See Page 2 for complete list.



Orientation: Omni-Directional



**Durability:** 12 year Vertical exposure only.



Face: High-Gloss Acrylic Retroreflective Film with Microprisms



Adhesive: Permanent Pressure Sensitive



Liner: Polypropylene Film

### Features:

- Omni-Directional
- Designed for all drivers in trucks, SUVs, automobiles, and motorcycles
- Field proven long term durability on safety devices worldwide
- · Uniform daytime and nighttime visual appearance

### Conversion:

- Solvent Based Inkjet Printing
- Mild/Eco Solvent Inkjet Printing
- □ Thermal Die-Cut
- Drum Roller Sign-Cut
- Steel Rule Sign-Cut

### Applications:

- □ Rigid Work Zone Devices
- Safety Devices that require Superior Retroreflective Performance

### Product Availability\*:

	Traffic Produc	ts
T-11500	White	
T-11501	Yellow	
T-11505	Blue	- 100 W. C.
T-11507	Green	
T-11508	Red	
T-11511	Fluorescent Yellow	
T-11513	Fluorescent Yellow-Green	
Wo	ork Zone Produ	icts**
W-11514	Fluorescent O	range
W-11142	Orange	4" Left
W-11143		4" Right
W-11144	Pre-Striped	6" Left
W-11145	Barricade	6" Right

<sup>\*</sup>See Page 5 for Nomenclature

Product Data Sheet Page 1 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077



<sup>\*\*3</sup> Year Durability

Full Cube Microprismatic Retroreflective Film

Issued: April 2011

Revision 1

### Retroreflectivity:

Table A:

Min. coefficients of retroreflection (RA)1 per ASTM D49562 Type XI

Observation	Color	Entrand	e Angle
Angle	Color	- 4°	+ 30°
	White	830	325
	Yellow	620	245
	Blue	37	15
0.1°3	Green	83	33
0.1	Red	125	50
	Fluorescent Yellow	500	200
	Fluorescent Yellow-Green	660	260
	Fluorescent Orange	250	100
	White	580	220
	Yellow	435	165
	Blue	26	10
0.2°	Green	58	22
0.2	Red	87	33
	Fluorescent Yellow	350	135
	Fluorescent Yellow-Green	460	180
	Fluorescent Orange	175	66
	White	420	150
	Yellow	315	110
	Blue	19	7.0
0.5°	Green	42	15
0.5	Red	63	23
	Fluorescent Yellow	250	90
	Fluorescent Yellow-Green	340	120
	Fluorescent Orange	125	45
	White	120	45
	Yellow	90	34
	Blue	5.0	2.0
1.0°	Green	12	5.0
1.0	Red	18	7.0
	Fluorescent Yellow	72	27
	Fluorescent Yellow-Green	96	36
	Fluorescent Orange	36	14

OmniCube Series exceeds all values listed in **Table A** and **Table B**.

CmniCube Series also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
AASHTO M268	USA
CUAP	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135340	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 3952	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

<sup>1</sup>R<sub>A</sub> = candelas per foot-candle per square foot (cd/fc/ft<sup>2</sup>) OR Candelas per lux per square meter (cd/lx/m<sup>2</sup>)

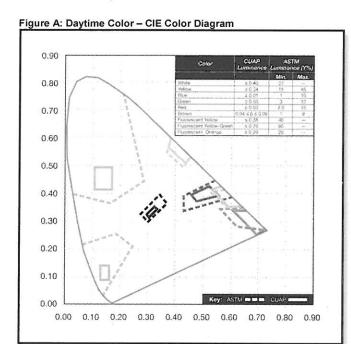
<sup>&</sup>lt;sup>2</sup>Measured according to ASTM E810

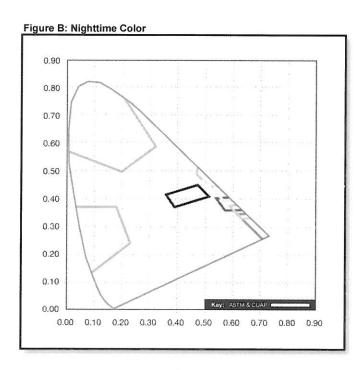
<sup>&</sup>lt;sup>3</sup> Note that 0.1° Observation angle is a "supplemental Requirement" in ASTM D4956. It represents long highway viewing distances of about 900 ft (275 Meters) and greater.

Full Cube Microprismatic Retroreflective Film Issued: April 2011

Revision 1

### **Colors and Specification Limits:**





OmniCube Series meets the current applicable daytime and nighttime color requirements for ASTM D4956 and CUAP as well as standards listed on Page 2.

### **Chromaticity Coordinate Limits**

**Figures A & B** show the four pairs of chromaticity coordinates from ASTM D4956 and CUAP on the color grid.

### **Daytime Color**

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in

### Figure A.

Note: The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

### Nighttime Color

The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, obvservation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

Product Data Sheet Page 3 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077



Full Cube Microprismatic Retroreflective Film

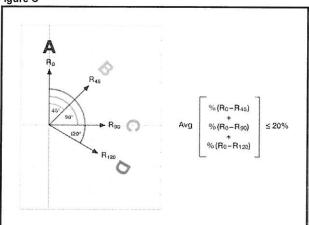
Issued: April 2011

Revision 1

### **Sheeting Orientation:**

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive, the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore, no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

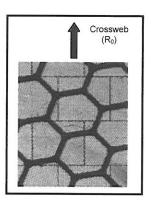
Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

OmniCube Series is Omni-Directional and **passes** the AASHTO specification as being **rotationally insensitive.** 

Retroreflectivity R<sub>A</sub> values taken per ASTM E810 0.5° Observation angle and -4° or 5° Entrance angle

As a datum for laboratory measurements  $R_0$  is identified in the crossweb direction. See Figure D.

Figure D



Watermark: OmniCube contains the watermark seen in Figure E.

Figure E



Product Data Sheet Page 4 of 7 Graphics and Reflective Solutions 250 Chester Street Painesville, OH 44077



# Avery Dennison® OmniCube™ T-11000 & W-11000 Series

### Full Cube Microprismatic Retroreflective Film

Issued: April 2011

Revision 1

### Nomenclature:



Initial Letter	Application	Durability*
T**	Traffic/Permanent Sheeting	12 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

<sup>\*</sup> See your local representative for complete details.

<sup>\*\*</sup>Fluorescent Yellow & Fluorescent Yellow-Green durability is 10 year

Series	11000

200	2 <sup>nd</sup> Number	Substrate
	1	Pressure Sensitive for Plastic Substrates
	2	Pressure Sensitive for Wood Substrates
Γ	5	Pressure Sensitive for Aluminum Substrates

3rd & 4th Numbers	Color	
00	White	
01	Yellow	
04	Orange	
05	Blue	
07	Green	
08	Red	
09	Brown	
11	Fluorescent Yellow	
13	Fluorescent Yellow-Green	
14	Fluorescent Orange	
42	4" LEFT Orange Pre-Striped Barricade	
43	4" RIGHT Orange Pre-Striped Barricade	
44	6" LEFT Orange Pre-Striped Barricade	
45	6" RIGHT Orange Pre-Striped Barricade	
	<del></del>	

OmniCube is the exception and leads with the number 11

#### The following Warranty is limited to North America.

WARRANTY
Avery Dennison OmniCube¹¹¹² T-11000 & W-11000
microprismatic reflective sheeting ('Product(s)') are warranted to
be free from defects in material and workmanship for one (1)
year from date of purchase (or the period stated on the specific
product information literature in effect at time of delivery, if
longer). It is expressly agreed and understood that Avery
Dennison's sole obligation and Purchaser's exclusive remedy
under this warranty, under any other warranty, express or
implied, or otherwise, shall be limited to repair or replacement of
defective Product without charge at Avery Dennison's election), or in the
event replacement or repairs is not commercially practical, to
Avery Dennison's issuing Purchaser a credit reasonable in light
of the defect in the Product.

Avery Dennison further warrants that Avery Dennison® OmniCube T-11000 & W-11000 Microprismatic reflective sheeting will retain its effectiveness as a component of traffic control and guidance signs, and will meet the stated minimum values for coefficient of retroreflection ("Performance Warranty") as set forth in accordance with the following standards:

Warranty Period	Minimum Percentage R <sub>A</sub> Retained
1-7 years	80%
8-12 years	70%
*Performance Warrar	ty Period for Mark Zone products

\*Performance Warranty Period for Work Zone products is one to three (1-3) years \*\*Performance Warranty Period for Fluorescent Yellow and Fluorescent Yellow-Green is ten (10) years

Note: For transparent color screen printed areas using Avery Dennison supplied or approved inks or OL-2000 Overlay films on Avery Dennison® T-11500 white sheeting, values shall be a minimum of 70% of values in Table A

 $R_{\rm A}$  percentage retained above apply to all entrance and observation angles in Table A, and shall be measured per ASTM E 810.

All measurements shall be made after cleaning according to Avery Dennison procedures.

PERFORMANCE WARRANTY
If within twelve (12) years from the initial date of installation, the Product deteriorates due to natural causes to the extent that: 1) the Product fails to retain the minimum reflectivity values warranted for the twelve (12) year period under the standard in force at the time of installation, or 2) the Product is ineffective for its intended purpose when viewed from a moving vehicle under normal daytime or nightlime driving conditions, Avery Dennison will furnish a replacement amount of like Product at no cost to enable the installed surface to be restored to its original effectiveness. If within seven (7) years of installation such deterioration occurs or the Product tails to retain the minimum seven (7) year reflectivity values. Avery Dennison will restore the installation surface to its original effectiveness at no cost for materials or labor.

<u>CONDITIONS.</u>
This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration and claim demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty, Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data

### Avery Dennison® OmniCube™ T-11000 & W-11000 Series

### Full Cube Microprismatic Retroreflective Film

Issued: April 2011 Revision 1

### Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	16 – 20 mils (406 – 508μm)	NA
Min. Application Temperature	50° F (10° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with OmniCube Series is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Inkjet Printing	User assumes responsibility for fitness of use for this converting method. Long term durability of inkjet printing in combination with OmniCube Series is not warranted.	#8.55
Thermal Transfer Printing	Long term durability of thermal transfer printing in combination with OmniCube Series is warranted. Refer to Instructional Bulletin.	#8.60

ADDITIONAL LIMITATIONS
Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmiess Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective. Missus and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutan

The remedies provided under this warranty are exclusive. In no The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

# Avery Dennison® OmniCube™ T-11000 & W-11000 Series

### Full Cube Microprismatic Retroreflective Film

Issued: April 2011

### **Converting Information:**

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website. www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

#### Approved screen printing inks, overlays, thermal transfer ribbons:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	4930 Inks	1 Part Solvent	#8.40
Avery Dennison	UVTS Nazdar	UV	#8.38
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10

#### Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
UVTS Nazdar Inks	#8.38
4930 Series Inks	#8.40
nk Recommendations Guide	#8.55

### Substrates:

The application of Avery Dennison OmniCube Series sheeting is limited to properly prepared substrates which differ by product. For traffic products, application is limited to properly prepared Aluminum. For products in the W-11100 line, application is limited to properly prepared plastic. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

#### DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

Revision 1

Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application: for recommended surfaces. Actual performance life will dapend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

Vertical Exposure: means that the face of the finished graphic is ±10° from vertical.

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this exposure. Outdoor Durability: is based on normal middle European and

exposure.

Flat surfaces: means a two dimensional flat surface without

protruding objects.

Weathering Effects: Some degradation of Product performance Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary fozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Demisison.

Printing, Curing and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty, Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath

INDEPENDENT TESTING REQUIRED
All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are rold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

Avery Dennison, OmniCube, and the logo are registered trademarks or tradenames of Avery Dennison Corp. © 2011 All Patent RE 40,700E US Patent RE 40,455E 1.

### State of West Virginia

### **VENDOR PREFERENCE CERTIFICATE**

Certification and application\* is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1.	Application is made for 2.5% resident vendor preference for the reason checked:  Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this configuration or
	Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,  Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents.
	years immediately preceding the date of this certification; or,
2.	Application is made for 2.5% resident vendor preference for the reason checked:  Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3.	Application is made for 2.5% resident vendor preference for the reason checked:  Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4.	Application is made for 5% resident vendor preference for the reason checked:  Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6.	Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
	Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.  Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.
against s	inderstands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the nents for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency cted from any unpaid balance on the contract or purchase order.
the requi	nission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and es the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid ired business taxes, provided that such information does not contain the amounts of taxes paid nor any other information by the Tax Commissioner to be confidential.
ariu acci	enalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true urate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.
	Signed:
Date:	Title:

RFQ No.	8513C2012
REQ No.	OJIJGZVIZ

### STATE OF WEST VIRGINIA **Purchasing Division**

### **PURCHASING AFFIDAVIT**

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

### **DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently definquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

### Vendor's Name: Avery Dennison Corporation Date: 9/16/13 Authorized Signature: State of Illinois County of Cook to-wit Taken, subscribed, and sworn to before me this 16th ay of September My Commission expires May 26 AFFIX SEAL HERE **NOTARY PUBLIC**

OFFICIAL SEAL JANE M BARRIENTOS NOTARY PUBLIC - STATE OF ILLINOIS MY COMMISSION EXPIRES:05/26/15

WITNESS THE FOLLOWING SIGNATURE:

Purchasing Affidavit (Revised 07/01/2012)

NOTE:

Vendor and Notary's date must be the same. Notary required to AFFIX SEAL on Purchasing Affidavit.