LODI UNIFIED SCHOOL DISTRICT

TOKAY HIGH SCHOOL
RE-ROOFING PROJECT NUMBER: 3213-4416-5

ADDENDUM NO. 1

November 28, 2023

Owner: Lodi Unified School District
880 N. Guild Ave.
Lodi, CA 95240

This Addendum has been prepared to clarify, modify, delete, or add to the drawings and/or specifications for the above referenced project, and revisions to items listed here shall supersede description thereof prior to the above stated date. All conditions not specifically referenced here shall remain the same. It is the obligation of the Prime Contractor to make subcontractors aware of any items herein that may affect submitted bids.

Acknowledge receipt of this addendum by inserting its number and date in the bidding documents. Failure to do so may subject bidder to disqualification.

All addenda items refer to the plans and specifications unless specifically noted otherwise.

Documents included:

- Asbestos Sampling Report – Environmental Science Services
- Garland Repair Details
  - TC-01
  - TC-05
- Solar Brite Roofing Systems Drawings
  - SBK-DI2
  - SBK-DD1
  - SBK-DE1
  - SBK-DE3
  - SBK-DP1I
  - SBK-DP1
  - SBK-DP7
  - SBK-DP8i
  - SBK-DP3
  - Solar Brite Universal – 15A
  - Solar Brite Universal – 15C
- Section 09800- Elastomeric Acrylic Wall Coating
- Section 07 54 20- Single Ply Kee Membrane Roofing
- Site Photo

TOTAL PAGES IN THIS ADDENDUM (including attachments): 1

PART A – RESPONSES TO CONTRACTOR QUESTIONS

1.1 **Question:** Can contractor Substitute 50 Mil Roofing for 60 Mil.

Response: No substitution will be allowed. Use 60 Mil Roofing as requested in Spec.

PART B – Asbestos Report

1.2 Environmental Science Services Report

PART C – Garland Details

1.3 TC -01 and TC-05

PART D – Solar Brite Drawings

1.4 Environmental Science Services Report

- Solar Brite Roofing Systems Drawings
  - SBK-DI2
  - SBK-DD7
  - SBK-DE1
  - SBK-DE3
  - SBK-DP1I
  - SBK-DP1
  - SBK-DP7
  - SBK-DP8i
  - SBK-DP3
  - Solar Brite Universal – 15A
  - Solar Brite Universal – 15C

PART E – Manual Sections

1.5 Section 09800-Elastomeric Acrylic Wall Coating
1.6 Section 075420-Single Ply Kee Membrane

PART F – Site Photo

1.7 Attached

TOTAL PAGES IN THIS ADDENDUM (including attachments): 39

End of Addendum

AIHA Laboratory ID # 232274

November 09, 2023

Joe Patty
Lodi Unified School District
880 N. Guild Ave
Lodi Ca 95242

RE: Asbestos Sampling Report for: Lodi Unified School District
Tokay High School (Roof Survey Admin., Library, Theater, Cafeteria)
Lodi, CA
ESS Project Number: 20231888-1

Environmental Science Services performed a limited asbestos survey of suspect asbestos containing materials (ACBM) at the above referenced site on 11/09/23 for building materials identification.

Bulk Sampling Report

Materials suspected of containing asbestos that were identified and sampled include,

- **ROOFING**

Sampling and Analysis

Asbestos bulk samples were collected and analyzed by Polarized Light Microscopy (PLM) with dispersion staining as described in the “Interim Method for the Determination of Asbestos in Bulk Insulation Samples”, Method EPA-600/R-93/116 (Federal Register/Volume 40, CFR 763, Subpart F Appendix A, July 1993). Samples were analyzed by Environmental Science Services Laboratories, located in Lodi, CA.

Findings

For all samples collected within the present scope, laboratory analysis indicated:
PLM Analysis CVE Calibrated Visual Estimation Method EPA-600/R-93/116

Sample #	Material	Location	Type/% of Asbestos
1-3	ROOFING	ADMIN ROOF	NAD
4-7	ROOFING	LIBRARY	NAD
8-11	ROOFING	THEATER	NAD
12-14	ROOFING	CAFETERIA	NAD

NAD: NO ASBESTOS DETECTED
RFT: RESILIANT FLOOR TILE

NO ASBESTOS DETECTED

Limitations

Reasonable effort was made by ESS, Inc. personnel to locate and sample all accessible areas regarding the remediation. This report is intended to assist in the areas specified only. If any additional areas are to be impacted or that the scope of work is modified, additional investigation is advised.

Thank you for allowing Environmental Science Services to assist you with your asbestos consulting needs. Please feel free to contact us with any questions regarding this report at: (916) 417-5361.

Sincerely,

John Shane Jones, CAC, IH
California Certified Asbestos Consultant
CA DOSH #16-5690 CDPH I/A
00004810
Nevada DOSH # IJPM-20188
Senior Staff Hygienist
Environmental Science Services

2033 Heritage Park Dr, Oklahoma City, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 364003
Account Number: C152

Date Received: 11/10/2023
Received By: Baylie Longstreth
Date Analyzed: 11/10/2023
Analyzed By: Cassie Sanborn
Methodology: EPA/600/R-93/116

Client: Environmental Science Services
PO Box 452
Lockeford, CA 95237

Project: TOKAY HIGH
Project Location: LODI
Project Number: 20231888-1

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
001	1	Layered	White Roofing	Asbestos Not Present	NA		CaCO3 Binder
001a		Layered	Black Roofing	Asbestos Not Present	Glass Fiber	20	Tar Sand
001b		Layered	Brown Roofing	Asbestos Not Present	Cellulose	100	
002	2	Layered	White Roofing	Asbestos Not Present	NA		CaCO3 Binder
002a		Layered	Black Roofing	Asbestos Not Present	Glass Fiber	20	Tar Sand
002b		Layered	Black Roofing	Asbestos Not Present	Synthetic	10	Tar
002c		Layered	Black	Asbestos Not Present	Cellulose	10	Tar

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited Testing PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested.
NVLAP accreditation applies only to analysis performed utilizing EPA—40 CFR Appendix E to Subpart E of Part 763 and EPA/600/R-93/116 methods.
This report may not be used to claim product endorsement by NVLAP or any agency of the US Government.

2033 Heritage Park Dr, Oklahoma City, OK 73120 | 1.800.822.1650

Roofing

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 364003
Account Number: C152

Client: Environmental Science Services
PO Box 452
Lockeford, CA 95237

Date Received: 11/10/2023
Received By: Baylie Longstreth
Date Analyzed: 11/10/2023
Analyzed By: Cassie Sanborn
Methodology: EPA/600/R-93/116

Project: TOKAY HIGH
Project Location: LODI
Project Number: 20231888-1

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
003	3	Layered	White Roofing	Asbestos Not Present	NA		CaCO3 Binder
003a		Layered	Black Roofing	Asbestos Not Present	Glass Fiber	20	Tar Sand
003b		Layered	Black Roofing	Asbestos Not Present	Synthetic	20	Tar
003c		Layered	Brown Insulation	Asbestos Not Present	Cellulose	80	Perlite
004	4	Layered	White Roofing	Asbestos Not Present	NA		CaCO3 Binder

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited Testing PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested.
NVLAP accreditation applies only to analysis performed utilizing EPA—40 CFR Appendix E to Subpart E of Part 763 and EPA/600/R-93/116 methods.
This report may not be used to claim product endorsement by NVLAP or any agency of the US Government.

2033 Heritage Park Dr, Oklahoma City, OK 73120 | 1.800.822.1650

004a	Layered	Black Roofing	Asbestos Not Present	Glass Fiber	10	Tar Sand	

Polarized Light Microscopy Asbestos Analysis Report

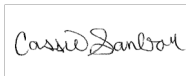
QuanTEM Lab No. 364003
Account Number: C152

Date Received: 11/10/2023
Received By: Baylie Longstreth
Date Analyzed: 11/10/2023
Analyzed By: Cassie Sanborn
Methodology: EPA/600/R-93/116

Client: Environmental Science Services
PO Box 452
Lockeford, CA 95237

Project: TOKAY HIGH
Project Location: LODI
Project Number: 20231888-1

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
004b		Layered	Black Roofing	Asbestos Not Present	Synthetic	20	Tar Sand



11/10/2023
Cassie Sanborn, Laboratory Analyst — Date of Report

ASBESTOS CHAIN OF CUSTODY

QuanTEM LABORATORIES
www.QuanTEM.com
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Onl
Lab No. 3640
Accept

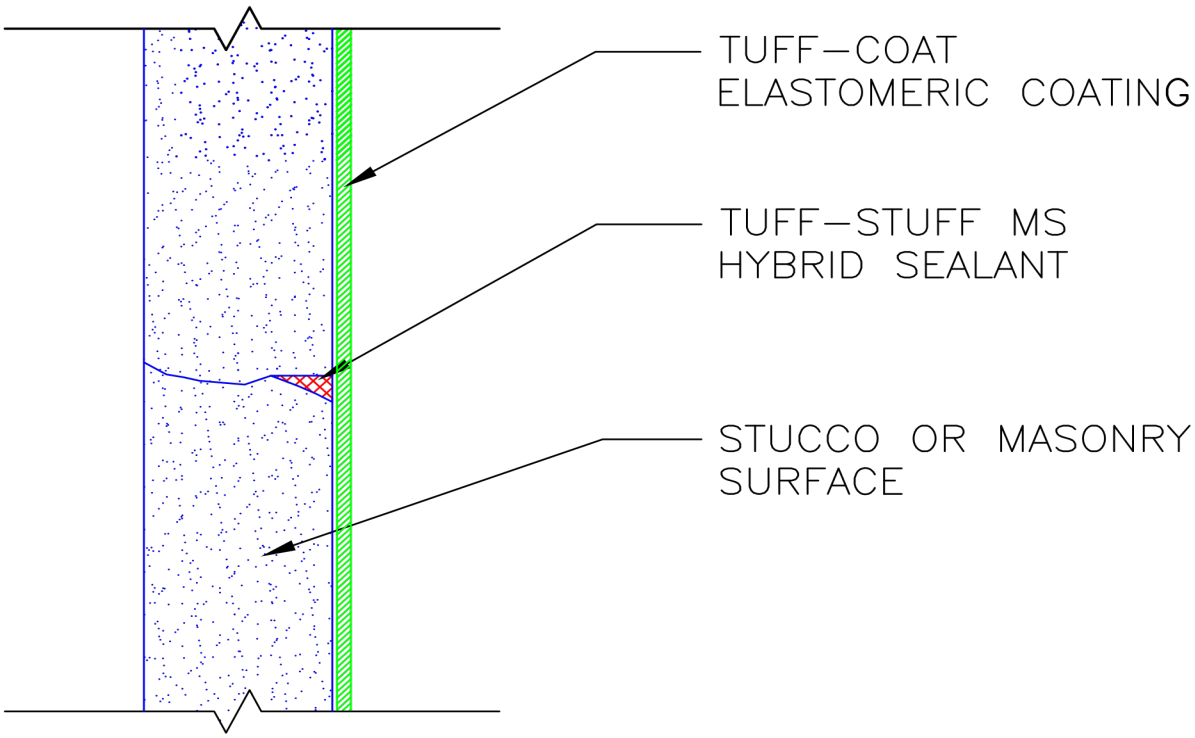
Contact Information			
Company: ESS	Phone: (916) 417-5361	Project Name: TOKAY HIGH	Report Results (☑ or
Contact: SHANE JONES	Cell Phone:	Project Location: LODI	☐ QuanTEM Webs
Account #: C152	E-mail: envss1ca@gmail.com	Project ID: 20231888-1	☑ Email envss1ca@gm
SAMPLED BY: Name: CHASE JONES	Date: 11/09/2023	P.O. Number:	☐ Other

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & T
Jacob Taylor	11/09/23 1350	Fedex		11/10/23

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

PLM	PLM	TEM	TEM	TURNAROUN
☑ Bulk Analysis **	☐ Vermiculite Attic Insulation (EPA 600/R-04/004)	☐ Air- AHERA	☐ Bulk- Presence / Absence EPA600/R-93/116	☐ Rush
☐ 400 Point Count	☐ Other	☐ Air- NIOSH 7402	☐ Bulk- Quantitative [weight%]- Chatfield	☑ Same Da
☐ 1000 Point Count	PCM	☐ Air- ISO 10312	☐ Dust- Presence / Absence	☐ 24 - Hour
☐ Gravimetric Preparation	☐ NIOSH 7400	☐ Drinking Water- EPA 100.2	☐ Dust- Quantitative [fibers/sq.cm]- ASTM D5755	☐ 3 - Day
☐ Particle ID		☐ Waste Water- EPA 600/4-83-043	☐ Other	☐ 5 - Day

No.	Sample ID (10 Characters Max)	☑ To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	1	☑		ADMIN ROOF		
2	2	☑		LIBRARY		
3	3	☑		THEATER		
4	4	☑		CAFETERIA		
5		☐				
6		☐				
7		☐				
8		☐				



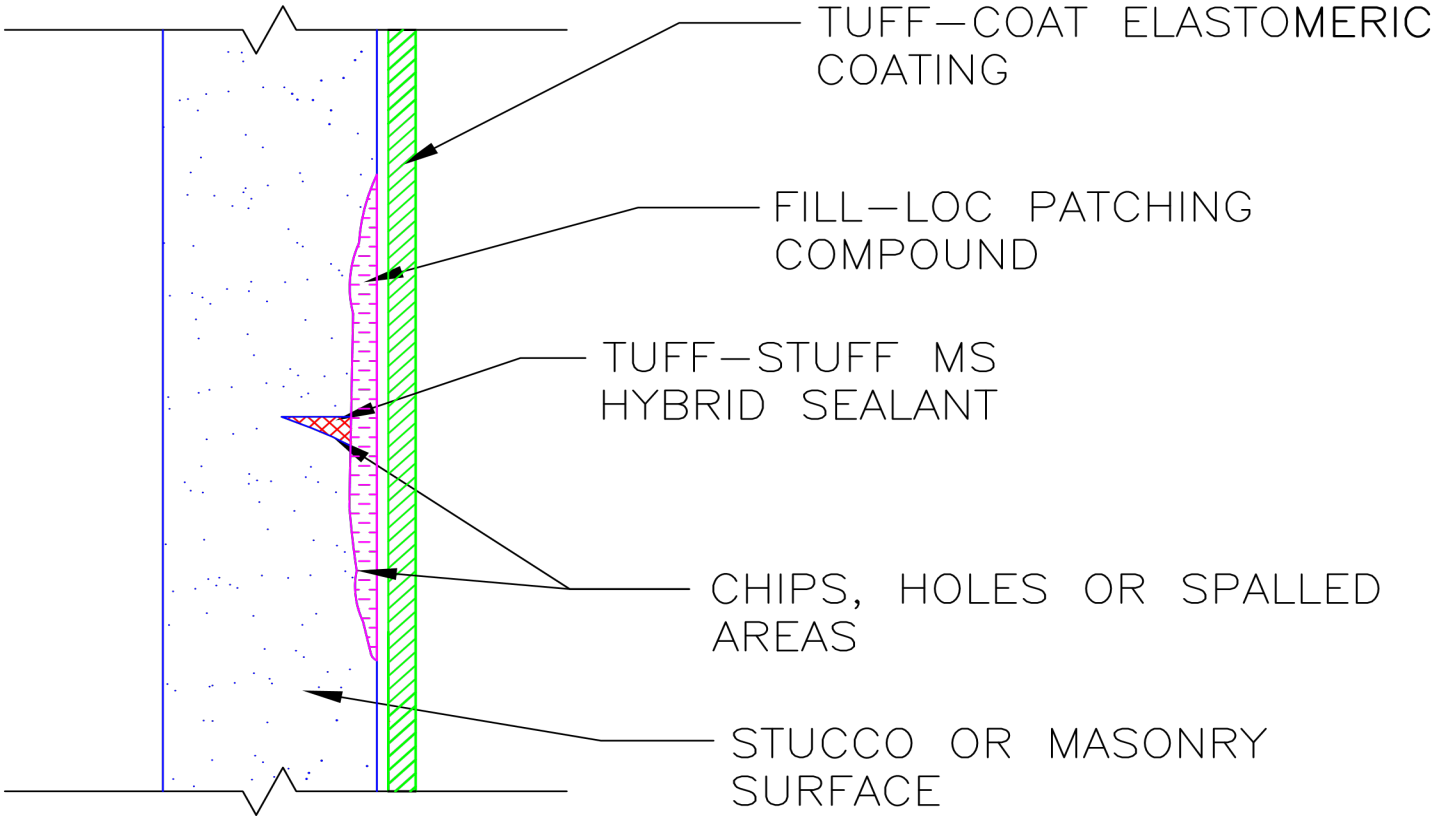
NOTES:
CRACKS TO BE SEALED
MUST BE 1/16" OR LESS

since 1895

THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

DETAIL:
SMALL CRACK REPAIR

TUFF-COAT



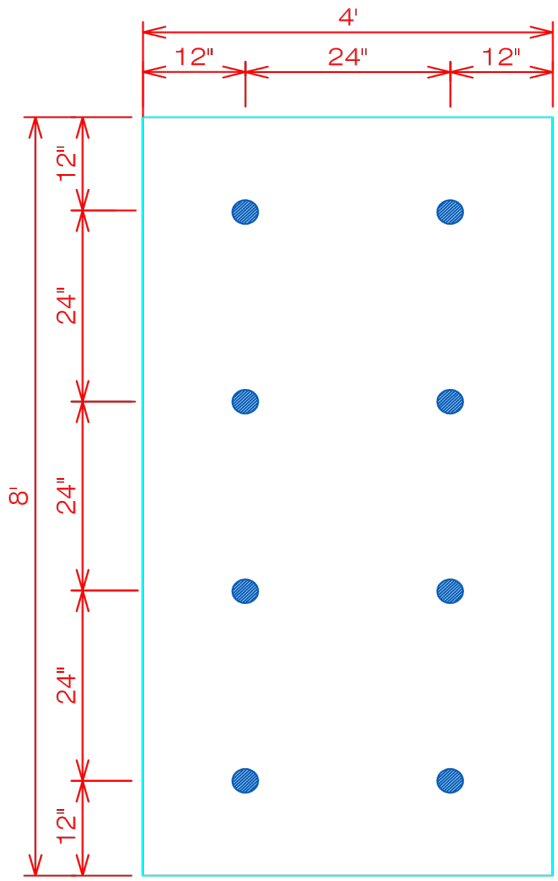
GARLAND since 1895

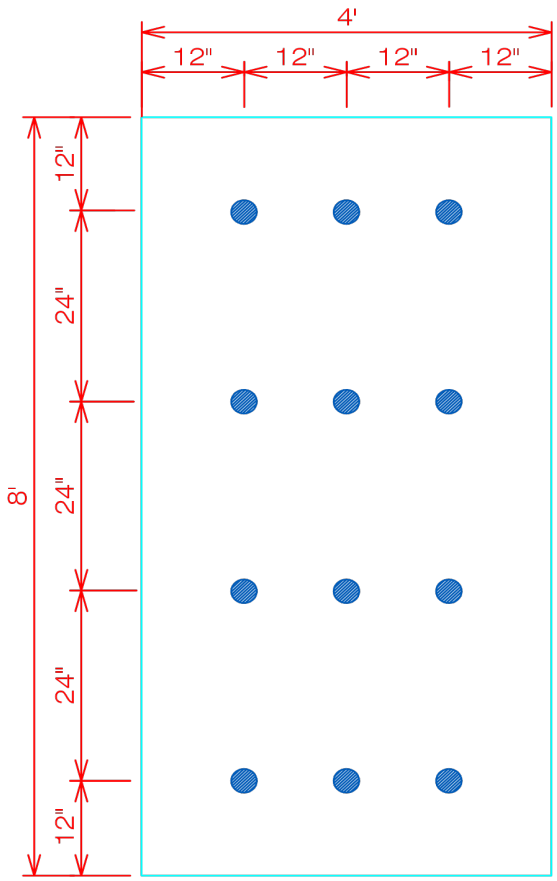
THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

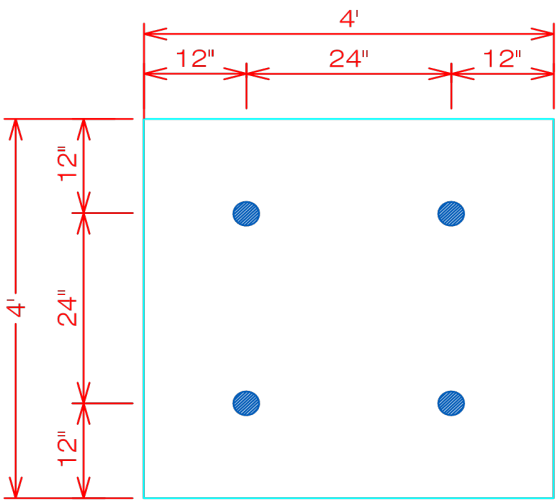
DETAIL:

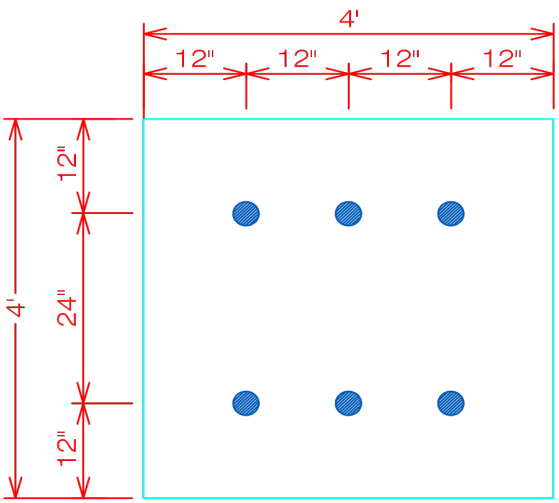
SURFACE REPAIR

TUFF-COAT









FIELD PATTERN 1-75 OR 1-90

4' X 8' = 8 PER BOARD

4' X 4' = 4 PER BOARD

PERIMETER PATTERN 1-75 ONLY

4' X 8' = 12 PER BOARD

4' X 4' = 6 PER BOARD

Solar Brite

ROOFING SYSTEMS

GENERAL REFERENCE:

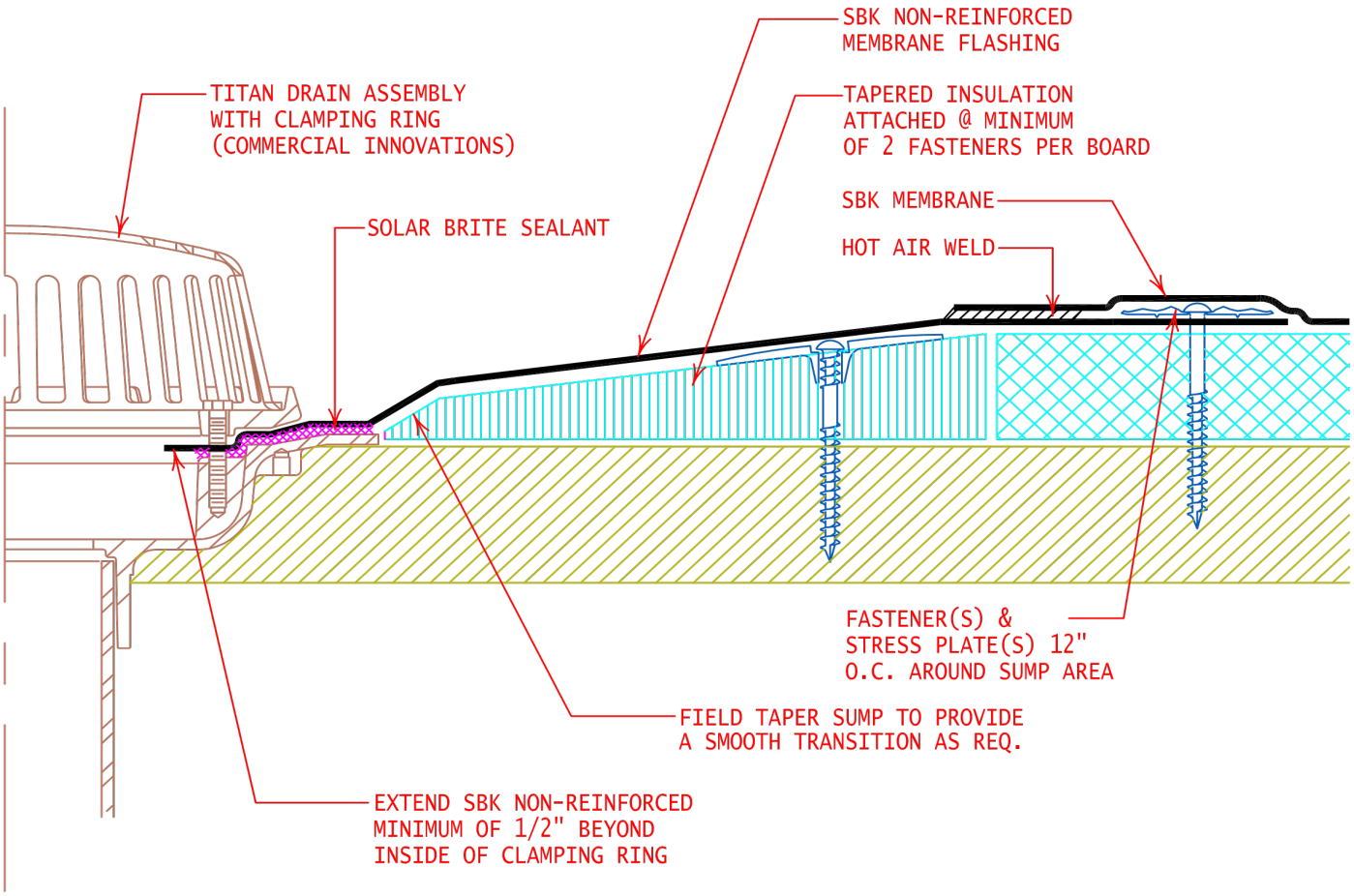
"SBK GS06"

APPLICABLE SYSTEMS:

"SBK AD06"

FULLY ADHERED SYSTEM
MECHANICALLY ATTACHED INSULATION.
INSULATION 2.0" THICKNESS OR GREATER

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DI2



NOTE: USE TAPERED ROOF INSULATION (EDGE STRIPS) TO CREATE DRAIN SUMP. IF TOTAL INSULATION THICKNESS IS LESS THAN OR EQUAL TO 1 1/2 IN., TAPER 12 IN. FROM THE DRAIN CENTER. IF TOTAL INSULATION THICKNESS IS GREATER THAN 1 1/2 IN., TAPER 18 IN. FROM DRAIN CENTER.

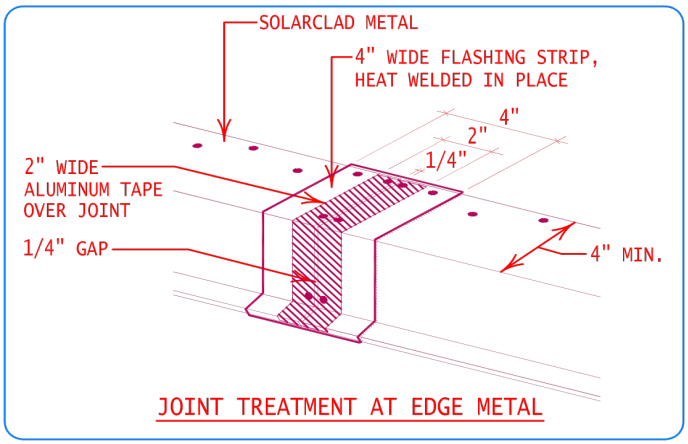
Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

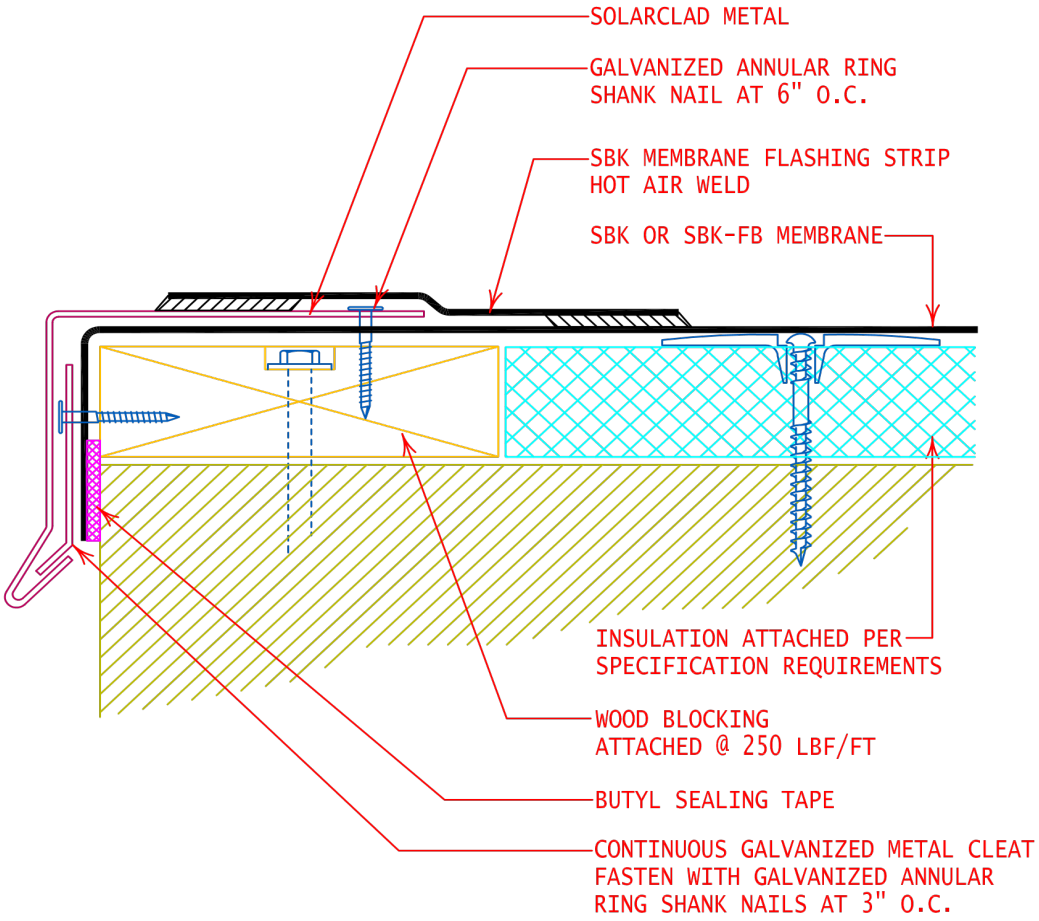
APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"
"SBK BA06"

TYPICAL DRAIN FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DD1



JOINT TREATMENT AT EDGE METAL



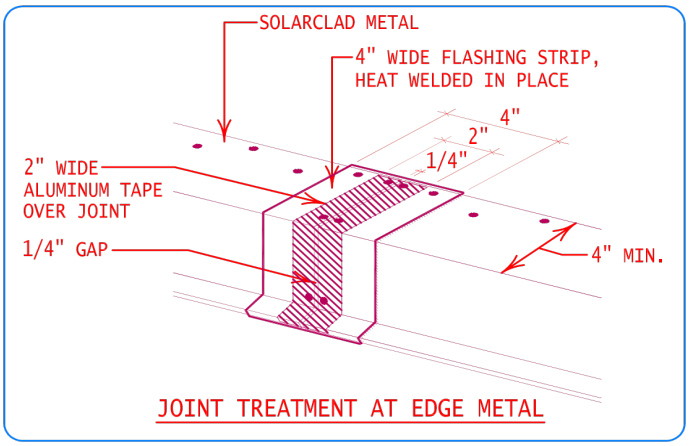
Solar Brite
ROOFING SYSTEMS

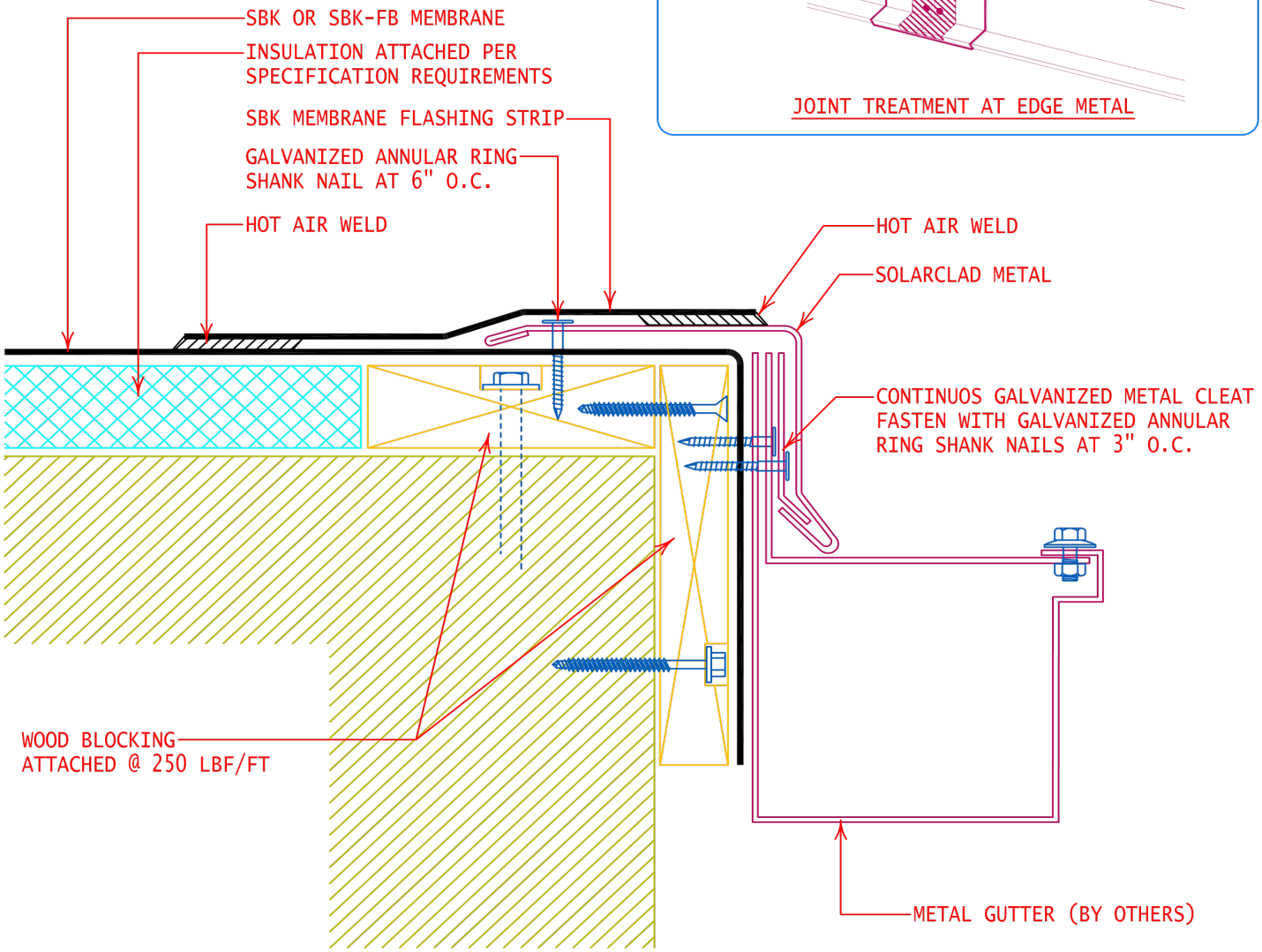
GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"

TYPICAL EDGE FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DE1





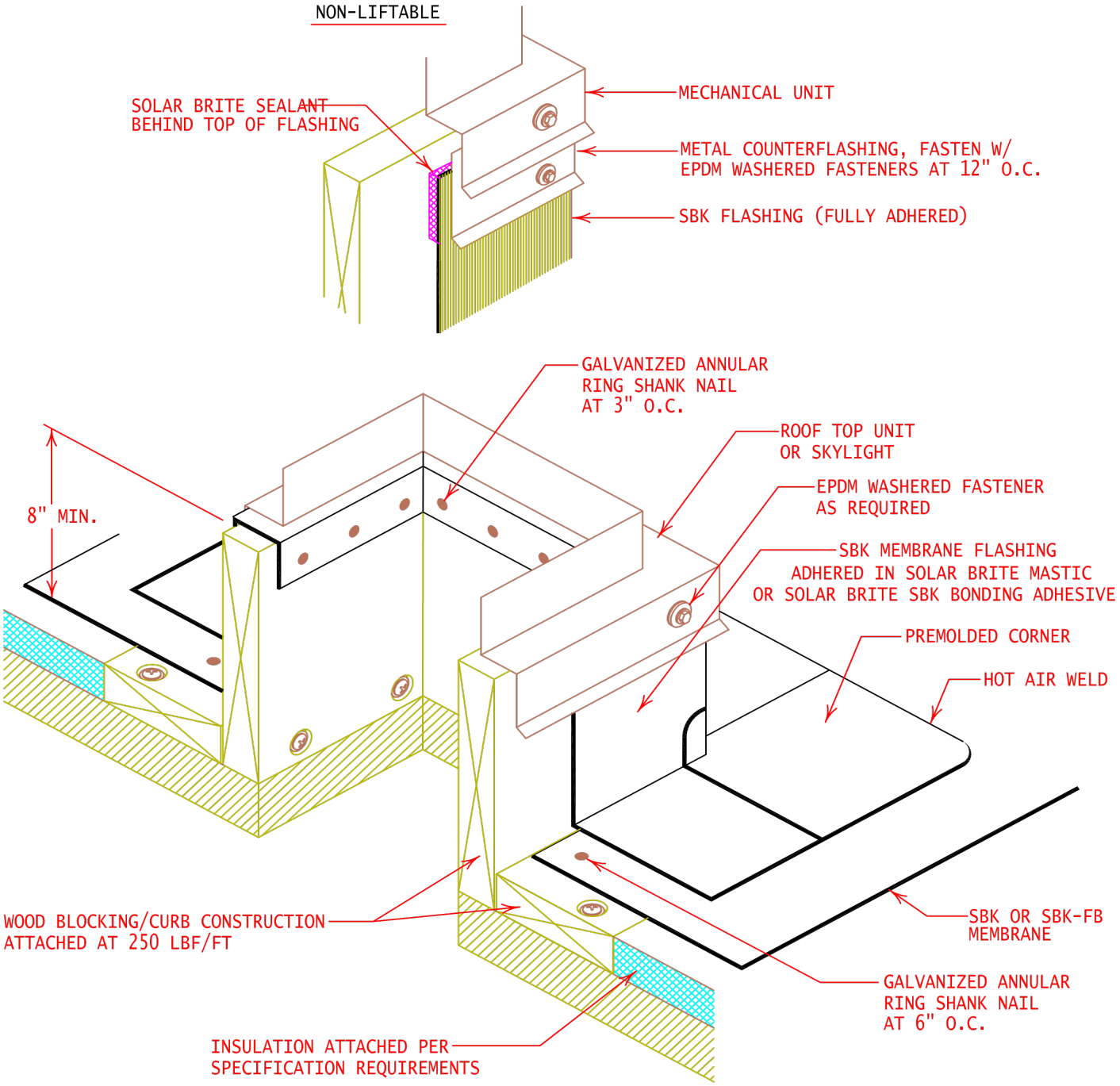
Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"

GUTTER FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DE3



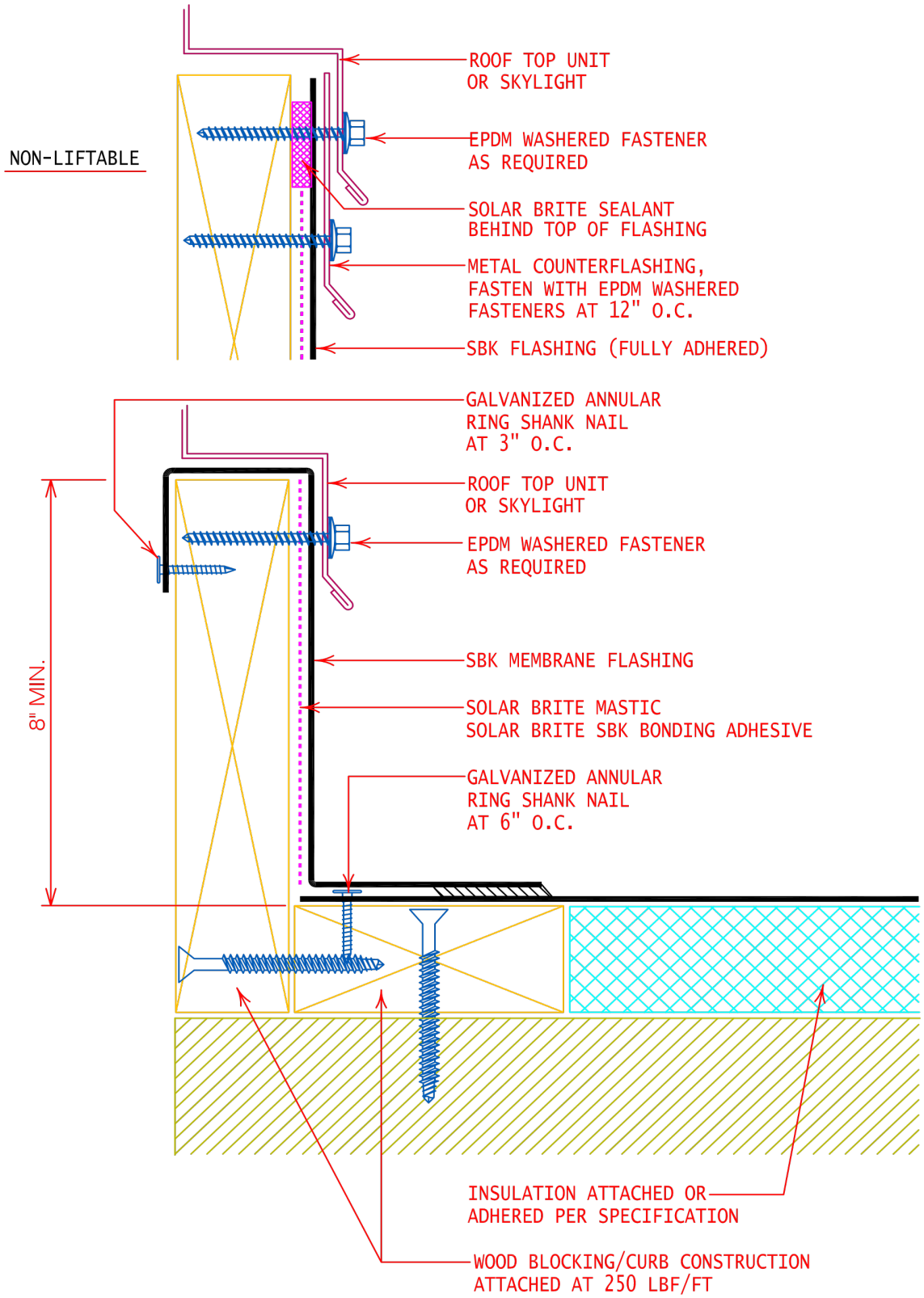
Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"
"SBK BA06"

TYPICAL WOOD CURB
OR SKYLIGHT FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DP1I



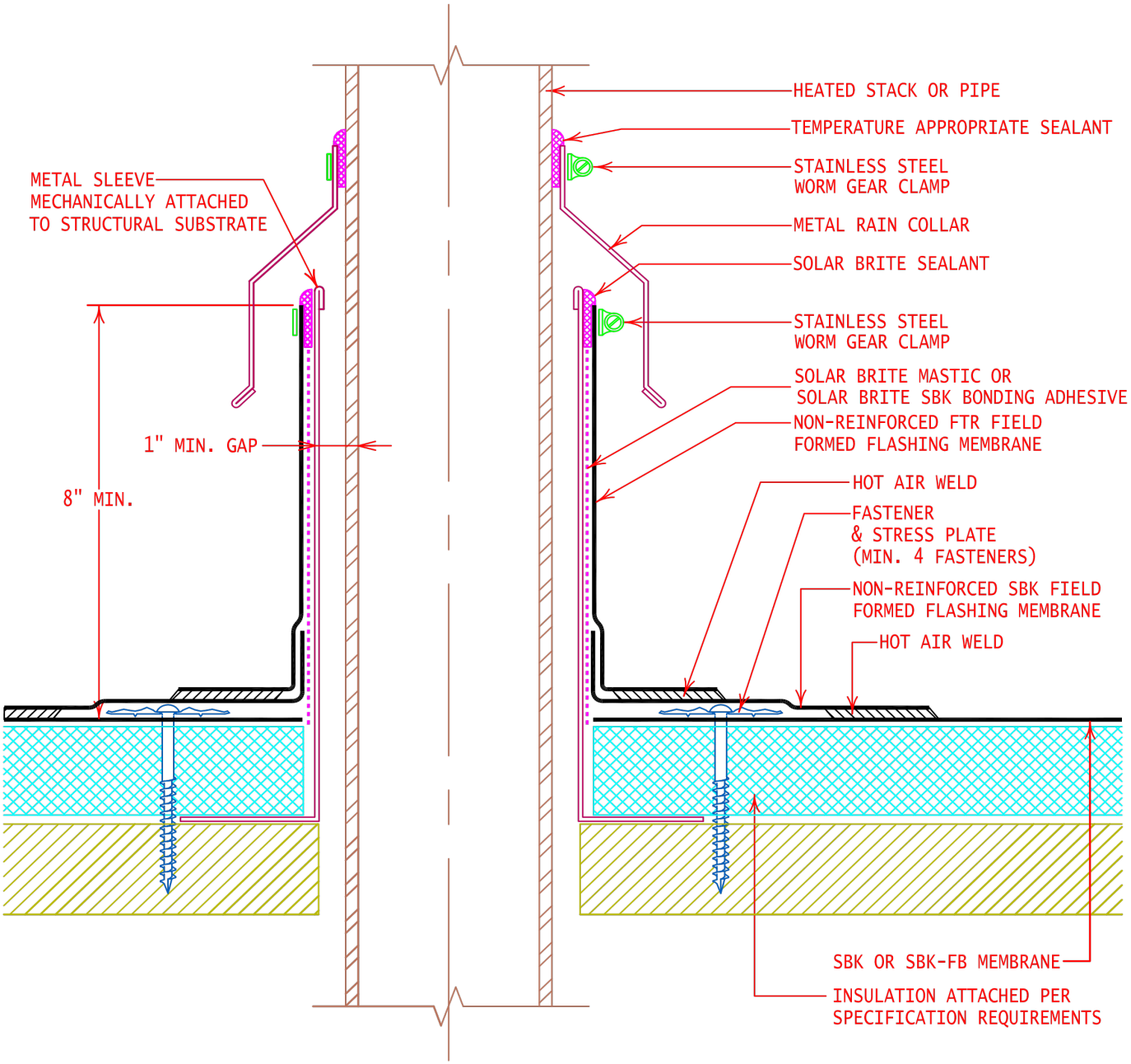
Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"
"SBK BA06"

TYPICAL WOOD CURB
OR SKYLIGHT FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DP1



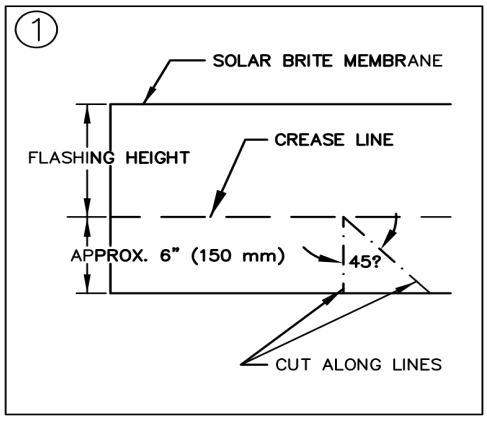
Solar Brite
ROOFING SYSTEMS

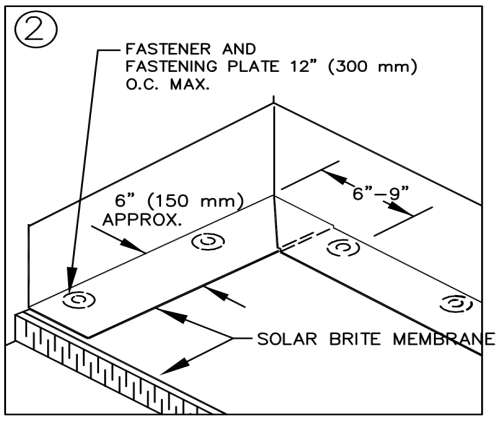
GENERAL REFERENCE:
"SBK GS06"

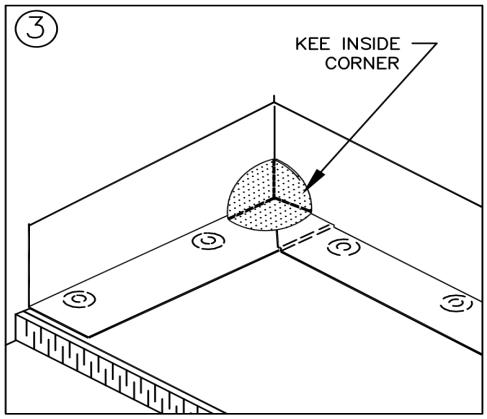
APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"
"SBK BA06"

HEATED STACK FLASHING WITH METAL COLLAR

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DP7



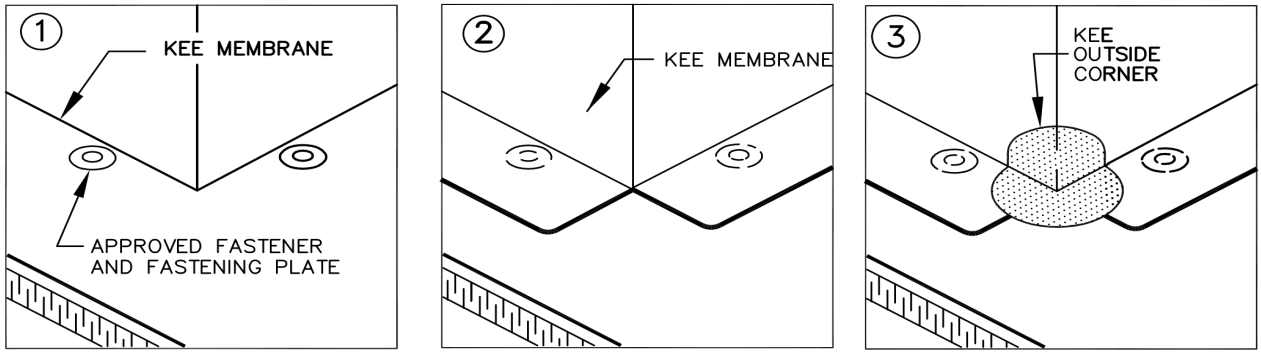




NOTES:

1. BEGIN INSTALLATION OF FASTENING PLATES 6" TO 9" (150 TO 230 mm) FROM THE CORNER.
2. POSITION FASTENING PLATES 1/2" TO 1" (13 mm to 25 mm) FROM EDGE OF MEMBRANE.
3. APPROXIMATELY 1/8" (3 mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED MEMBRANE.

PRE-MOLDED INSIDE CORNER FLASHING	SOLAR BRITE UNIVERSAL – 15A

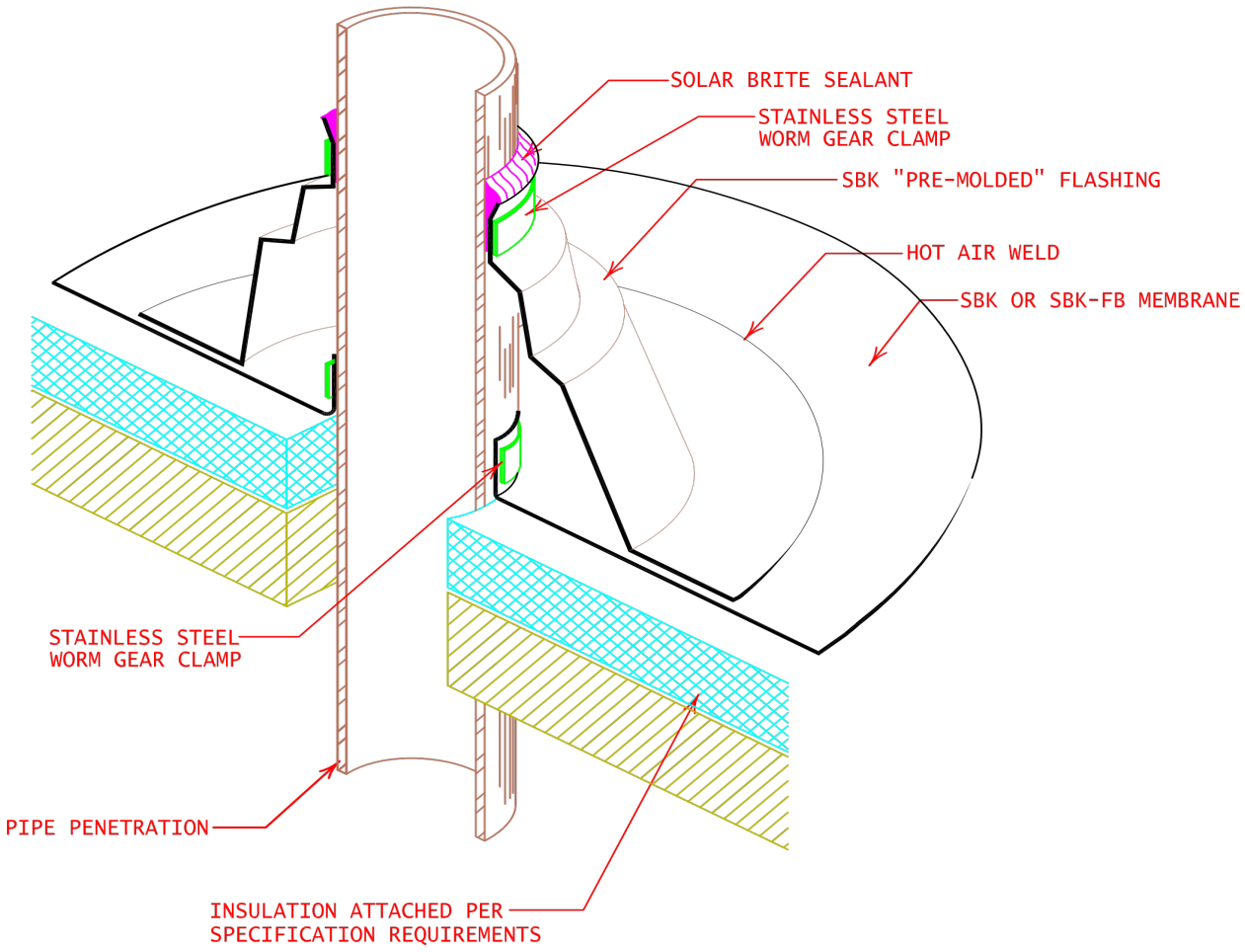


NOTES:

1. BEGIN INSTALLATION OF FASTENING PLATES APPROXIMATELY 6" (150 mm) FROM CORNER.

2. POSITION FASTENING PLATES 1/2" TO 1" (13 mm to 25 mm) FROM EDGE OF DECK MEMBRANE.

PRE-MOLDED OUTSIDE CORNER	SOLAR BRITE UNIVERSAL – 15C



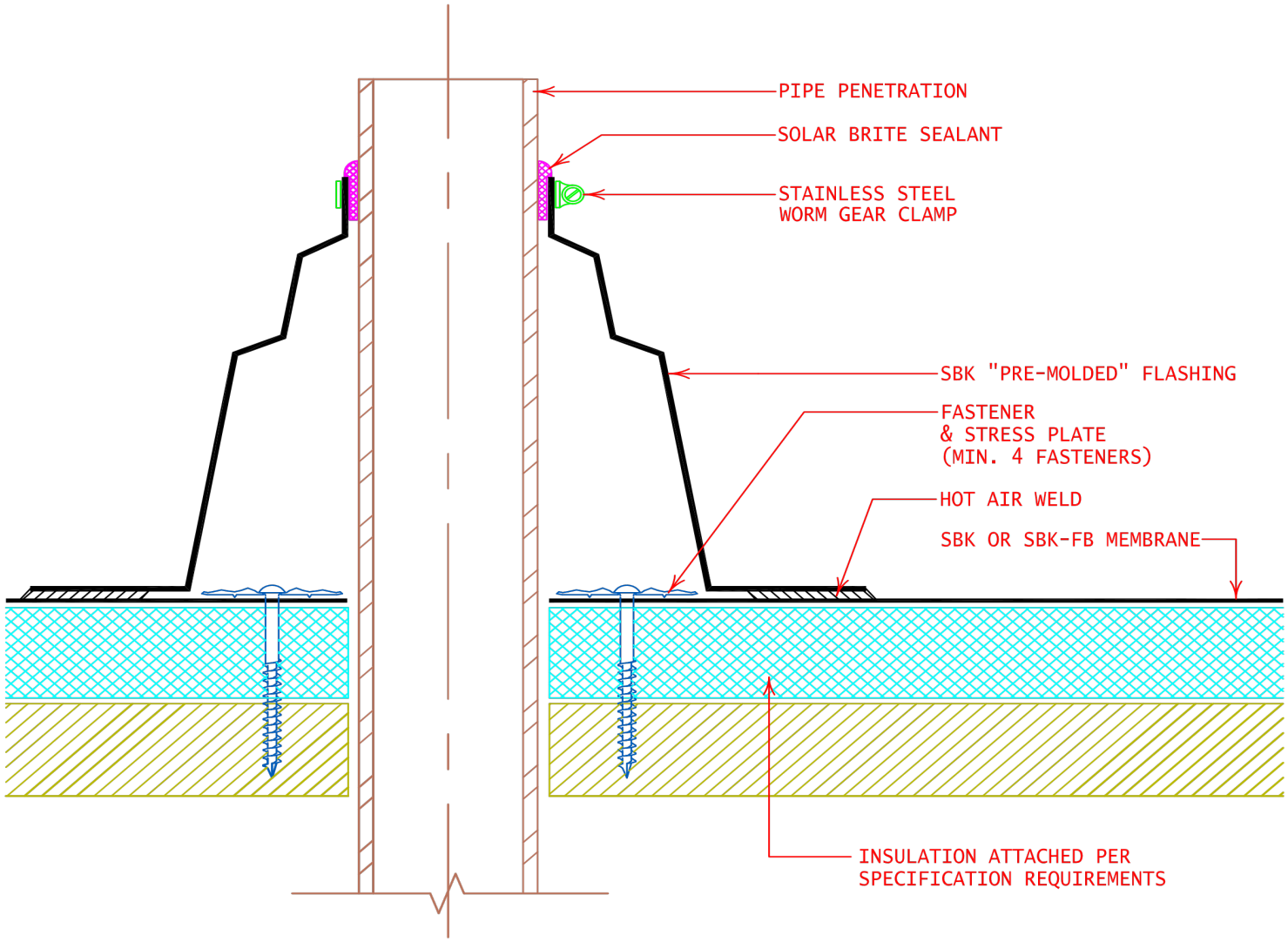
Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK AD06"
"SBK BA06"

PRE-FORMED PIPE FLASHING
ALTERNATE BASE RESTRAINT

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DP8i



Solar Brite
ROOFING SYSTEMS

GENERAL REFERENCE:
"SBK GS06"

APPLICABLE SYSTEMS:
"SBK MA06"
"SBK AD06"
"SBK BA06"

PRE-MOLDED PIPE FLASHING

REVISES DETAIL	ISSUE DATE	DRAWING NUMBER
ALL PREVIOUS	03-01-07	SBK-DP3

SECTION 09800

ELASTOMERIC ACRYLIC WALL COATING

PART 1 – GENERAL

1. SUMMARY

A. This specification is for a one component, low solvent, emulsified poly-resin architectural wall coating. It damp proofs and beautifies all types of exterior and interior masonry surfaces such as concrete, brick work, stucco and exterior insulating finishing systems (EIFS).

2. RELATED SECTIONS

A. Drains, Vents, Ducts, Penetrations: Section 07700

B. Cast-In-Place Concrete: Section 03300

C. Repairs and cleaning of masonry surfaces: Section 04500

D. Repairs to expansion joints and application of joint sealants: Section: 07900

3. SUBMITTALS

A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.

B. Applicator Qualifications: Submit a current qualified applicator certificate from the specified waterproofing manufacturer.

4. QUALIFICATIONS

A. Primary elastomeric coating materials shall be products from a single manufacturer. The primary manufacturer shall recommend any secondary materials. Manufacturer shall have a minimum of 10 years experience in the manufacturing of materials of this type.

B. Applicators shall have a minimum of 5 years experience in the application of damp proofing materials of the type specified. Applicator shall be an authorized applicator from the specified damp proofing manufacturer.

C. Pre-bid Job Walk: Ten (10) working days prior to bid opening there is to be a mandatory pre-bid job walk. Anyone not attending the pre bid job walk will not be allowed to bid the project. All products considered an equal to the specified product or any changes in the scope of work or installation or specifications must be presented at the pre bid job walk. If a change in the specification is accepted, it will be considered as an alternate and will be presented as a bid amendment issued five (5) working days prior to the bid opening. No other changes to the specification or bid documents will be accepted.

D. Pre-Installation Conference: Just prior to commencement of the elastomeric coating system, meet at the site with a representative of the coating manufacturer. The elastomeric coating contractor, the general contractor, the architect and other parties affected by this section. Review methods and procedures, substrate conditions, scheduling and safety.

5. DELIVERY, STORAGE AND HANDLING

A. Store all coating materials in the original unopened containers between 50° - 80°F (10° - 26°C) until ready for use.

B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.

C. Safety: Refer to all applicable data, including but not limited to, MSDS sheets, PDS sheets, product labels, and specific instructions for specific personal protection requirements.

D. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during application.

E. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

6. WARRANTY

A. The contractor shall guarantee that all work performed will be free from defects in materials and workmanship. The contractor is to provide a 2 year labor/workmanship warranty. Upon notice of defect in writing, the contractor within one year after completion of work shall, at his own expense, make all necessary repairs or replacements of the defective work in question.

B. A 5-year, material warranty is available with this system provided it has been installed by a Approved Applicator and is installed according to this specification.

PART 2 – PRODUCTS

1. MANUFACTURERS

A. The design is based upon coating systems engineered and manufactured by The Garland Company or approved equals or better than products:

The Garland Company
Representative: Rich Jones
Telephone: (559) 647-1196
Email: rjones@garlandind.com
Website: www.garlandco.com

2. MATERIALS

A. **(Metal Areas)** Acrylic Finish: Two finish coats over a rust-inhibitive primer.
   1. Substrates:
      a. Ferrous metal.
   2. Acrylic Primer : PPG Paints. Pitt-Tech Plus EP Interior/Exterior Acrylic DTM Primer, 90-1912 Series. Applied Dry Film Thickness: 2.0 mils min.
   3. Exterior Gloss Acrylic Finish:
      a. PPG Paints. Pitt-Tech Plus EP Interior/Exterior Acrylic Satin DTM Industrial Enamel, 90-1710 Series. Applied Dry Film Thickness: 2.0 mils min.

B. **(Stucco & Wood Areas)** Emulsified Acrylic Coating: Tuff-Coat for damp proofing and beautifying all types of exterior and interior masonry surfaces such as concrete, brick work, stucco and exterior insulation finish systems (EFIS).

Tuff-Coat has the following physical properties:

Tensile Strength: 160 psi (ASTM D-2370)

Elongation: 585% (ASTM D-2370)

Water Vapor Permeability @ 10 mils: 20 Perms (ASTM D-1653)

Solids by Volume: 47.4%

C. Hybrid Sealant: Tuff-Stuff MS single-component MS Polymer sealant for joints and cracks in masonry surfaces.

D. Cement-based patching compound: Gar-Rock is an all-weather, fast setting, chemical action concrete patching material designed to patch concrete surfaces where quick permanent repairs are desired. (Coating will not adhere to Gar-Rock Compound).

E. Epoxy-based patching compound: Fill-Loc Crack Repair is a two-component, VOC compliant, 100% solids epoxy patching product designed to make repairs to small surface imperfections prior to applying a thin coating.

F. Polyester Tape: Dura-Walk Polyester Tape is a fusion bonded fabric polyester designed to be reinforcement fabric over cracks or joints.

G. Nontoxic Biodegradable Cleaner: B-Clean is a heavy-duty chemical formulation designed to clean a variety of masonry substrates including: concrete, brick, stone, aggregate, and block surfaces.

H. Misc. Accessories: All items incorporated into this system shall be compatible with and approved by coating manufacturer.

NOTE: Allow additional material for rough or irregular surfaces and up to 10% for material loss during application and differences in substrate porosity.

PART 3 – EXECUTION

1. EXAMINATION

A. Verify that substrate is ready to receive work; surface is clean, dry and free from projections and depressions, loose scale, sand, curing compounds, grease, oil, asphalt, loose coatings need removed and other foreign deposits.

B. Do not begin work until concrete substrate has cured 28 days, minimum. Water cured treatment of concrete is preferred. Resin or water based curing compound should not be used. Non-compatible curing agents must be removed prior to application.

C. The work shall not be started when temperature is under 50°F (10°C) or when precipitation is imminent.

D. Verify that all other work involved with this area, done under other sections, has been completed and accepted by the architect and general contractor prior to starting the waterproofing application.

E. Concrete surface pH level must not be higher than 11 prior to coating.

F. Damaged areas of concrete, mortar joints or EFIS should be repaired prior to coating.

2. PREPARATION

A. Clean substrate to remove any and all surface contaminants. Surfaces to be coated must be cleaned to a sound surface. Refer to your Garland representative for specific preparation techniques.

B. Mask-off all adjoining areas that are not to receive the elastomeric wall coating.

C. Provide a suitable workstation to mix the coating materials.

D. Concrete: Special attention should be given to smoothness of surface and freedom from contaminants, including paint or previous coatings. Consult your Garland representative for alternate procedures for coating over existing paint. Such procedures are highly dependent on specific job conditions. Curing compounds, if used, shall be removed either by blast media or etching. In the event specifications are not met, the following corrective procedures are recommended.

E. Cleaning Methods:

1. Nontoxic Biodegradable Cleaner: Nontoxic Biodegradable Concrete & Masonry Cleaner: Scrape, sand, or wire brush all hard or glossy surfaces and residual contaminants to assure effective cleaning. Use the most abrasive methods necessary to remove all contaminants that will inhibit the cleaning solution from properly saturating the substrate.
   Rinse the substrate to be treated thoroughly with clean water to remove excess debris and dampen the surface. Beginning at the top of the substrate working down to the bottom, generously apply the B-Clean solution directly to the affected areas using overlapping patterns. Allow the solution to soak into surface for 20-30 minutes. Do NOT allow surface to dry. Reapply a light mist of the solution intermittently to ensure the surface remains damp. Depending on the degree of contamination and exposure a stiff bristle brush may be required once the solution reacts. Next, using overlapping patterns rinse the surface from top to bottom with water. Additional applications may be required dependent upon the severity of the contaminant, using the same approach as
   above. Allow the substrate sufficient time to dry.

2. Solvent & Acid Cleaners: Wipe up grease or oil with a solvent and absorbent material. Disposal of this material should be in accordance with local laws and codes. Wash with solvent-alkaline cleaners diluted one part cleaner and five parts water. Rinse thoroughly with clean water. If evidence of oil film remains as indicated by water “beading,” etch surface with 10% solution muriatic acid. Agitate surface with stiff bristle broom; then rinse with clean water.
   Remove curing compounds by etching with 10% muriatic acid followed by clean water rinse. Allow to thoroughly dry before applying coating. Grinding or sandblasting can remove heavy deposits of contaminants. Any residual traces of asphalt stains must be sealed with an epoxy primer to avoid staining of light colored top coats. Apply primer in two coats and allow a minimum of 48 hours cure time.

F. Cracks less than 1/16” (1.5 mm) wide shall be sealed after cleaning has been performed using an elastomeric hybrid sealant. Crack shall be cleared of all loose debris, dirt and widened slightly at the surface to accommodate elastomeric hybrid sealant. Apply elastomeric hybrid sealant by knifing into crack or gunning over crack surface, followed by tooling to match adjacent surface profile, pressing the sealant into the crack cavity to fill completely.

G. Cracks 1/16” (1.5 mm) to 1/8” (3.0 mm) wide shall be routed to a ¼” to ½” groove, backer rod shall be installed, groove shall be caulked with elastomeric hybrid sealant. Fill grooves flush with adjacent surfaces.

H. Allow sufficient curing time for all sealants to dry-through before proceeding with elastomeric coating application – at least 1 hour not exceeding 3 hours prior to stripe coating with approved elastomeric coating.

I. All sealed expansion joints or sealant repairs must be stripe coated within 1-3 hours with a half inch nap roller or approved brush extending the coating a minimum of 2 inches past the perimeter of the joints sealant or sealant repair ensuring a good protective base of the elastomeric coating is present.

I. Defective mortar or stucco areas should be repaired using a cement-based patching compound.

3. INSTALLATION

A. Technical Advice: The installation of this elastomeric coating system shall be accomplished in the presence of, or with the advice of the manufacturer's technical representative.

B. Joint Treatment:
   1. Non-moving Cracks: Stripe coats all non-moving cracks. Fill the crack first with a bead of Tuff-Stuff MS sealant and strike flush. After filling, apply Tuff-Coat for a distance of 2" on each side of the crack 16-20 mils thick and allow curing. When applying the elastomeric coating system on the wall, go over the stripe coat to achieve a total thickness of 48-52 mils.
   2. Moving Cracks: Remove all dirt and loose chips of concrete from the crack. Fill with Tuff-Stuff MS and strike flush with the wall surface. Center 4" wide piece of polyester tape over the crack and adhere it firmly and thoroughly to the wall. Stripe coat 16-20 mils of Tuff-Coat over the polyester tape and for 2" on each side of the crack. When applying the elastomeric coating system on the wall, go over the stripe coat to achieve a total thickness of 48-52 mils.
   3. Control Joints: Place a backer material (solvent expanded plastic such as polyethylene or polypropylene) in joint. The backer material should be oversized so it can be compressed into the joint and flush to the wall surface. Apply a bead of Tuff-Stuff MS sealant over the backer rod sealing the joint and strike flush with the wall surface.

C. Elastomeric Coating: Apply Tuff-Coat to secure a total minimum coverage of 2 gallons per 100 square feet (total wet film thickness 32 mils). Product shall be applied by phenolic core roller or airless spray at a rate of 100-200 sq. ft. per gallon depending on the porosity and roughness of the surface with a minimum 2 coat process.

3.1. FIELD QUALITY CONTROL

A. The contractor for work under this section shall maintain a quality control program specifically to verify compliance with this specification. A daily log shall be kept to record actions in the field.

B. Inspections: A minimum of three (Substrate, Application and Final) inspections by an approved manufacturer's representative, will be required on all projects requiring a warranty.

END OF SECTION

SECTION 07 54 20

SINGLE PLY KEE MEMBRANE ROOFING

1. GENERAL

1. SECTION INCLUDES

1.1. Includes all labor, materials, and equipment to install an adhered KEE Membrane roof system over the properly prepared substrate.

1.2. Includes removal and disposal of existing roofing system(s), insulation boards, gutters, flashings, sheet metal items, copings, etc. for a complete prepared roof surface to receive the new roofing system.

2. RELATED SECTIONS

A. Related Work Specified Elsewhere:

a. Section 06: Rough Carpentry

b. Section 07: Insulation

c. Section 07: Sheet Metal Flashing and Trim

d. Section 07: Sealants

3. SUBMITTALS

A. Product Data: Provide manufacturer's technical product data for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.

B. Samples: Submit two (2) samples of the following:

1. Membrane, 3 each 12”x12”.

2. Fasteners / Plates, 3 each

3. Insulation Board, 3 each 12” x 12”

C. Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.

D. Design Loads: Submit copy of manufacturer's minimum design load calculations according to ASCE 7, In no case shall the design loads be taken to be less than those detailed in Design and Performance Criteria article of this specification.

E. Certificates: Cool Roofing certified by Cool Roof Rating Council.

F. Shop Drawings: For roofing system. Include plans, elevations, sections, details and attachments to other Work.

G. Samples: If specifically requested for specified products; required for alternate products.

H. Installer Qualifications: Provide evidence that installers meet the requirements of Article 1.4.

I. Closeout Submittals:

1. O & M Manuals: Maintenance instructions.

2. Guarantee: Provide completed form per Article 1.5.

3. Manufacturer's weekly inspection reports noting issues, corrections, and final inspection photos.

4. QUALITY ASSURANCE

A. Installer Qualifications:

1. Minimum of 5 years of experience on similar work; knowledge and understanding of standards referenced herein; skill necessary to perform in compliance with this specification. Installers failing to demonstrate the required experience, knowledge, or skill shall be removed from the project.

2. Factory trained and approved applicator, certificate must be current.

3. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress. Maintain proper supervision of workmen.

4. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer.

B. Testing Characteristics: UL Class A roof; I-90 wind uplift.

C. Applicator-Manufacturer Review: Provide Drawings and Specifications reviewed by Applicator with agent of roofing manufacturer; obtain manufacturer's agreement that specified system is proper for application shown.

D. Manufacturers Participation:

1. Pre-Application Job-Site Conference: Arranged by Applicator, with a minimum of 1 week advance notice; for review of storage, handling, protection, surface preparation, materials and application specifications; attended by applicator, his foreman, Architect, inspector, and manufacturer's agent.

2. Source Quality Control: Manufacturer shall have in place a documented, standardized quality control program such as ISO-9001.

3. When the project is in progress, the roofing system manufacturer will provide the following:

   a. Report progress and quality of the work as observed.

   b. Provide weekly job site inspections throughout the course of construction.

   c. Provide electronic inspection reports submitted weekly to the Owner and/or Architect.

   d. Report to the Architect and/or Owner in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.

   e. Confirm after completion that manufacturer has observed no application procedures in conflict with the specifications other than those that may have been previously reported and corrected.

5. WARRANTY

A. Manufacturer: Provide a fifteen (15) year warranty on manufacturers form. Warranty shall period shall begin on date of acceptance of roofing by Owner.

B. Manufacturer will provide the following services at years 2, 5, 10 & 15 at no cost to the owner.

   1. Inspection by a technical service representative and delivery of a written inspection report documenting roof conditions.

   2. General rooftop housekeeping, subject to limits but generally including removal of incidental debris.

C. Provide one warranty by a single approved manufacturer for membrane roof areas, coping metal systems and transitions between the material types.

D. Installer: Provide in required form for a period of three (3) years from date of acceptance by Owner.

2.PRODUCTS

2.1. KEE SINGLE-PLY ROOFING

A. Products:

   1. Basis of Design: Materials, manufacturer's product designations, and/or manufacturer's names specified herein shall be regarded as the minimum standard of quality required for work of this section.

   2. The design is based upon roofing systems by The Garland Company Inc./VPG, Local representative Richard Jones (559) 647-1196. Or equal or better than.

a. Solar Bright 60 Membrane (ASTM D 751)
b. Membrane Thickness: (ASTM D 751) 60 mil nominal
c. Breaking Strength (ASTM D 751): 298X278 lbf/in
d. Tearing Strength (ASTM D 751): 89X109 lbf/in
e. Factory Seam Strength (ASTM D 751) 286 lbf
f. Solar Reflectivity (ASTM C 1549) 82% (White)
g. Emissivity (ASTM C 1371) 91% (White)
h. SRI (ASTM E1980) 109 (White)

B. The Products specified are intended and the Standard of Quality for the products required for this project. If other products are proposed the bidder must disclose in the bid the manufacturer and the products that they intend to use on the Project. If no manufacturer and products are listed, the bid may be accepted only with the use of products specified.
1. Bidder will not be allowed to change materials after the bid opening date.
2. If alternate products are included in the bid, the products must be equal to or exceed the products specified. Supporting technical data shall be submitted to the Architect/ Owner for approval seven (7) days prior to the bid date for review. A pre-bid addendum shall be submitted for all bidders to review if the substitution is permitted.
3. In making a request for substitution, the Bidder/Roofing Contractor represents that it has:
   a. Personally investigated the proposed product or method, and determined that it is equal or superior in all respects to that specified.
   b. Will provide the same guarantee for substitution as for the product and method specified.
   c. Will coordinate installation of accepted substitution in work, making such changes as may be required for work to be completed in all respects.
   d. Will waive all claims for additional cost related to substitution, which consequently become apparent.
   e. Cost data is complete and includes all related cost under his/her contract or other contracts, which may be affected by the substitution.
   f. Will reimburse the Owner for all redesign cost by the Architect for accommodation of the substitution.
4. Architect/ Owner reserves the right to be the final authority on the acceptance or rejection of any or all bids, proposed alternate roofing systems or materials that has met ALL specified requirement criteria.
5. Failure to submit substitution package, or any portion thereof requested, will result in immediate disqualification and consideration for that particular contractors request for manufacturer substitution.

2.2. VAPOR RETARDER

A. Red Rosin or equal: One ply of mechanically attached to the prepared substrate, install at all wood deck roof areas.

2.3. NAILERS

A. Douglas Fir; No. 2 or better, pressure treated; no creosote or asphalt preservatives allowed.

2.4. ROOF BOARD INSULATION

A. Roof Insulation Base Layer 4’ x 8’ max dimension: N/A

1. Thickness: 1”

2. R-Factor Average: 5.7

3. Attachment Method: Mechanically attached with (16) screws and plates per 4’x8’ sheet.

B. Roof Insulation top layer: Georgia Pacific Dens Dek Prime Roof Board. Or equal or better than.

1. Max Dimension: 4’ x 8’

2. Thickness: 1/2” at all horizontal surfaces and 1/4” inch at all vertical surfaces.

3. Attachment Method: Insuloc Insulation Adhesive, 12” ribbon pattern.

C. Tapered Insulation: Tapered roof board insulation to be used as required for tapered insulation system or tapered crickets. Hunter or equal or better than, ASTM C 1289, Type II, Class 1, Grade 2, (20psi) polyisocyanurate insulation board.

1. Field Slope: __1/2”__ inch per foot.

2. Sump Slope: ___1/2”___ inch per foot.

3. Cricket Slope:__1/2”__ inch per foot as needed for crickets and proper slope.

4. Attachment Method: Mechanically Attached

2.5. FASTENERS

A. Heavy duty #15 threaded fastener with a #3 Phillips drive used with barbed fastening plate to secure the insulation board to the structural decking. It is used on minimum 22 gauge steel decks or minimum 15/32" CDX plywood decks. It is also designed to offer an optimum combination of driving performance, back-out and corrosion resistance with excellent pullout performance.

1. TruFast #15 EHD Roofing Fasteners or equal or better than.

B. Fastening Plate: A 2-3/8" diameter metal barbed fastening plate used with HP-X, CD-10 or HD 14-10 Fasteners for membrane or insulation securement. This plate can be used for membrane or insulation securement.

1. TruFast Metal Seam Plates, 2.4” barbed.

C. Insulation Fastening Plate: A nominal 3-inch metal plate used for insulation attachment in conjunction with the appropriate fastener.

1. TruFast Metal Insulation Plates, 3” round.

2.6. ACCESSORIES

A. Solar Bright 60 membrane shall be used for all flashing requirements to match the field membrane and warranty expectations selected for the roofing system.

B. Solar Bright Inside Corners: Pre-molded corner flashing for inside corners. 80 mil thickness. Color - White.

C. Solar Bright Outside Corners: Pre-molded corner flashing for outside corners. 80 mil thickness. Color - White.

D. Solar Bright T-Joint Covers: 40 mil thick non-reinforced PVC flashing cut into a 4.5 inch (114mm) diameter circle used to seal step-offs at splice intersections.

E. Solar Bright Pipe Flashings: A pre-molded flashing and clamping ring used for pipe penetrations. Available for 1 inch to 6 inch (25 - 152mm) diameter pipes.

F. Solar Bright Split Pipe Seals: Pre-fabricated flashing consisting of 60 mil reinforced Membrane for pipes 1 inch to 6 inch (25 - 152mm) in diameter. A split (cut) and overlap tab are incorporated to allow the pipe seal to be opened and wrapped around the pipe when it is not possible to pull a standard pipe flashing over a round penetration.

G. Solar Bright Non-Reinforced Flashing: 60 mil thick rolls 12 inches and 24 inches wide. Used for inside/outside corners and field fabricated pipe flashings when use of pre-molded accessories is not feasible.

H. Solar Bright Heat Weldable Walkway Rolls: offering superior tear, puncture and weather resistance and designed to protect membrane in those areas exposed to repetitive foot traffic or other hazards. Walkway material may be heat welded to membrane using an automated heat welder or hand held heat welder. Walkway Rolls are 36 inches (914mm) wide by 60 feet (18.3 M) long and are nominal 80 mils thick.

I. Single ply Coated Sheet Metal: Provide where flashing, gravel stops and sheet metal are in contact with single ply roofing membrane. Install 22 gauge cleat all all edge metal conditions.

2.7. SOLVENT, SEALANT, AND ADHESIVES

A. As recommended by manufacturer.

B. SolarBright Low VOC two sided Bonding Adhesive: Low VOC solvent-based contact adhesive that allows bonding of membrane to various porous and non-porous substrates.

1. Weight: 7.4lbs

2. VOC: 199

3. Color: Amber

4. Solids: 20%

3.EXECUTION

3.1. EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

D. Do not commence Work until all other work trades have completed jobs that require them to traverse the deck on foot or with equipment.

E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. PREPARATION

A. Do not apply wet roofing, on wet application surface, or when temperature of deck less than 50 degrees F.

B. Provide entire roof system including treated wood nailers, Single-ply coated sheet metal, and coordination of items such as roof drains, sumps, jacks, etc.

C. Protect adjoining materials from stains particularly around perimeter of building; prevent debris from clogging roof drains.

D. Deck surface swept clean and dry; keep free of loose and foreign materials.

3.3. INSTALLATION

A. Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.

1. Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/4 inch (6 mm). Stagger joints both horizontally and vertically if multiple layers are provided.

2. Secure insulation to the substrate with the required mechanical fasteners or insulation adhesive in accordance with the manufacturer's current application guidelines and as specified in section 07 54 20, 2.4, A, B, & C above.

3. Securely attach insulation to the roof deck. Attachment must have been successfully tested to meet or exceed the calculated uplift pressure required by Factory Mutual (FM I-90) & the International Building Code (ASCE-7) or ANSI/SPRI WD-1.

B. Application; Adhered system over roof deck

1. Position SolarBright membrane over the acceptable substrate. Fold membrane sheet back lengthwise so half the underside of the membrane is exposed.

2. Apply SolarBright Bonding Adhesive in accordance with the manufacturer's published instructions, to the exposed underside of the membrane and the corresponding substrate area. Do not apply Bonding Adhesive along the splice edge of the membrane to be hot air welded over the adjoining sheet. Allow the adhesive to dry until it is tacky but will not string or stick to a dry finger touch.

3. Roll the coated membrane into the coated substrate while avoiding wrinkles. Brush down the bonded section of the membrane sheet immediately after rolling the membrane into the adhesive with a soft bristle push broom to achieve maximum contact.

4. Fold back the un-bonded half of the sheet lengthwise and repeat the bonding procedures.

5. Position adjoining sheets to allow a minimum overlap of 2 inches (51mm).

6. Hot-air weld the SolarBright membrane sheets using the Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's hot air welding procedures.

7. Continue to install adjoining membrane sheets in the same manner, overlapping edges a minimum of 2 inches (51mm) and complete the bonding procedures as stated previously.

8. Parapet Wall Covering: Install as shown, extend to full height of parapet; lap under parapet cap flashing and over wall substrate 2 inches minimum on the back side of the wall. Secure in adhesive and attach at 9” on center on the outside face to assure a completely watertight installation.

9. Walkway: Per manufacturer's instructions and as shown on drawings. If drawings do not show walkways a minimum required will be;

    a. A path from the main roof access point to and around all HVAC units, to and around all serviceable roof top equipment, to and around all roof hatches, to and around all access points as designated by the owner, and as needed for protection of the roofing system will have walkway installed.

    b. All support blocking will have walkway pad installed as a protection mat.

C. Fasteners:

1. General: Per manufacturer's recommendation; fastening length and pattern based on performance values supplied by the fastener/disc manufacturer and conforming to Factory Mutual I-90 fastening pattern.

2. Walkway Fastening: Provide 2 inch continuous heat weld strip around perimeter of membrane. A 3” opening is to be left non-welded at the lower side of the walkway pad to allow drainage and venting.

D. Hot Air Welding

1. All field seams exceeding 10 feet in length shall be welded with an approved automatic welder.

2. All field seams must be clean and dry prior to initiating any field welding.

3. Remove foreign materials from the seams (dirt, oils, etc.) with Acetone or authorized alternative. Use CLEAN WHITE COTTON cloths and allow approximately five minutes for solvents to dissipate before initiating the automatic welder. **Do not use denim or synthetic rags for cleaning**.

4. All welding shall be performed only by qualified personnel to ensure the quality and continuity of the weld.

5. Contaminated areas within a seam will inhibit proper welding and will require a membrane patch or replacement of the membrane.

E. Hand Welding

1. The lap or seam area of the membrane should be intermittently tack welded to hold the membrane in place.

2. The back "interior" edge of the membrane shall be welded first, with a thin, continuous weld to concentrate heat along the exterior edge of the lap during the final welding pass.

3. The nozzle of the hand held hot air welder shall be inserted into the lap at a 45° angle to the lap. Once the polymer on the material begins to flow, a hand roller shall be use to apply pressure at a right angle to the tip of the hand welder. Properly welded seams shall utilize a 1-1/2 inch wide nozzle, to create a homogeneous weld, a minimum of 1-1/2 inches in width.

4. Smaller nozzles may be used for corners, and other field detailing, maintaining a minimum 1 inch weld.

F. Automatic Machine Welding

1. Follow all manufacturers' instructions for the safe operation of the automatic welder.

2. Follow local code requirements for electric supply, grounding and surge protection.

3. The use of a dedicated, portable generator is highly recommended to ensure a consistent electrical supply, without fluctuations that can interfere with weld consistency.

4. Properly welded seams shall utilize a 1-1/2 inch wide nozzle, to create a homogeneous weld, a minimum of 1-1/2 inches in width.

G. Inspection

1. The job foreman and/or supervisor shall initiate daily inspections of all completed work which shall include, but is not limited to the probing of all field welding with a dull pointed instrument to assure the quality of the

application and ensure that any equipment or operator deficiencies are immediately resolved.

2. Ensure that all aspects of the installation (sheet layout, attachment, welding, flashing details, etc.) are in strict accordance with the most current Solar Bright Roofing Systems Specifications and Details.

3. Excessive patching of field seams because of inexperienced or poor workmanship will not be accepted at time of final inspection for warranty acceptance.

H. Metal Flashings:

1. General: Fabricate and install per Section 07601 - FLASHING AND SHEET METAL, as shown and per manufacturer's recommendations. Install PVC coated metal flashing at intersections of roofs with sloped or vertical surfaces, roof interruptions and penetrations.

2. Base Flashing: Extend up vertical surfaces 6 inches, minimum, and onto the horizontal roof surfaces not less than 3 inches, unless otherwise noted. Provide PVC coated metal flashing with 2 inches minimum overlap of roofing membrane; heat weld in the horizontal plane, with subsequent sealing of seams with sealant.

3. All perimeter edge details are to be fabricated from Garland/VPG SolarBright Clad Metal and required to have 22 gauge cleat.

4. Ensure all fascia extend a minimum of 2 inch lower than the bottom of the wood nailers.

5. Fasten all metal flashing to wood nailers or approved substrate with approved fasteners eight (8”) inches on center.

6. Manufacture and install Solar Bright Clad metal in accordance with approved details, ensuring proper attachment, maintaining 1/2 inch expansion joints and the installation of a minimum 2 inch bond breaker tape prior to sealing the joint.

7. Solidly weld Solar Bright Clad expansion joints with a 6 inch strip of Solar Bright membrane welded to the Solar Bright Clad, covering the bond breaker tape (cover plates are optional).

I. Roof Drains

1. Flash all roof drains in accordance with Solar Bright roof drain details.

2. Replace all worn or broken parts that may cut the Solar Bright membrane or prevent a watertight seal. This includes the clamping ring and strainer basket.

3. Replace all drain bolts or clamps used to hold the drain compression ring to the drain bowl.

4. Solar Bright non-reinforced 60 mil membrane shall be used for flashing the drain assembly. Drain assemblies and basins or "sumps" must be free of any asphalt or coal tar pitch residue prior to installation.

5. The drain target sheet should be sized and installed to provide for a minimum of 12 inch of exposed 60 mil on all sides of the drain.

3.4. FIELD QUALITY CONTROL

A. Perform field inspection and testing as required under provisions of Division 01 Section Quality Requirements & manufacturers recommendations.

B. Heat weld test cuts will be required. One (1) test cut per 5,000 square feet will be required.

C. Correct defects or irregularities discovered during field inspection.

D. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system a minimum of two (2) days per week. A copy of the specification should also be on site at all times.

3.5. CLEANING

A. Keep premises free from accumulation of waste and debris. At completion of installation remove surplus materials and debris.

B. At completion clean exposed surfaces in a manner that will not damage finish.

3.6. FINAL INSPECTION

A. At completion of roofing installation and associated work, meet with Contractor, Architect, installer, installer of associated work, Owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of roofing system.

B. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.

C. The roofing system manufacturer reserves the right to request a thermographic scan of the roof during final inspection to determine if any damp or wet materials have been installed. The thermographic scan shall be provided by the Roofing Contractor.

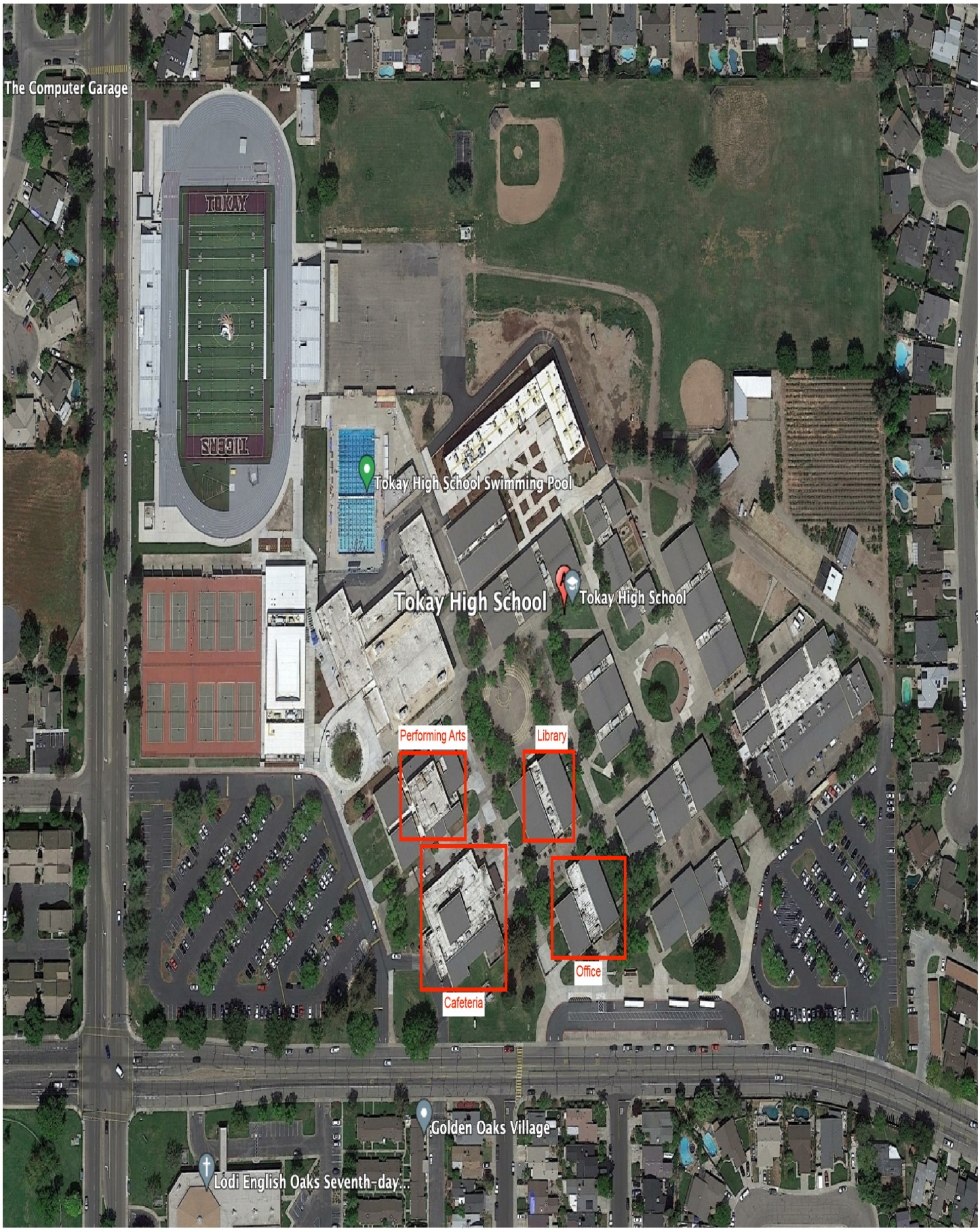
D. If core cuts verify the presence of damp or wet materials, the Roofing Contractor shall be required to replace the damaged areas at his own expense.

E. Repair or replace deteriorated or defective work found at time above inspection as required to a produce an installation which is free of damage and deterioration at time of Substantial Completion and according to warranty requirements

F. Notify the Contractor, Architect, & Owner upon completion of corrections.

G. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

END SECTION 07 54 20


The Computer Garage
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Tokay High School Swimming Pool
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Golden Oaks Village
Lodi English Oaks Seventh-day...