

David M. Naber, Senior Technical Consultant
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May 21, 2019

Dawn Crenshaw
City of Deer Park
610 E San Augustine
Deer Park, Texas 77536

Re: Community Center and Earl Dunn Gymnasium

Dear Ms. Crenshaw,

Please see the provided project information for your roofing solution for the Community Center and Earl Dunn Gymnasium.

Included within this correspondence is a narrative of the existing conditions, recommendations for bringing the roof assemblies to acceptable and functional condition, not to exceed cost estimates, and product data information.

The objective of these efforts is to understand all facets of the roofing assembly and related building components. Then, provide a technical solution that will reconcile the issues, internal leakage and extend the service life of the building.

We developed (2) options for the Gymnasium Roof F and both options were based on service life we have provided a (5) year repair option and a (20) year retrofit application which includes updated plumbing to eliminate the internal gutter and provide proper plumbing, roof drains, and crickets. Roof E has a fluid applied application currently and will be re sealed and have an additional coat installed as part of either option.

We developed (1) option to provide repair and maintenance procedures to the roof areas noted at areas A and B. Please see the below scope for further detail.

1. Earl Dunn Gymnasium

a. Option #1 – (5) Year Fluid Applied Solution – Roof Areas E and F

- i.** Provide pre-construction analysis of the roof structure to determine the extent of corrosion within the assembly. The intended purpose of this analysis is to fully understand the condition of these structural member prior to construction and reduce delays during construction.
- ii.** Mobilize, stage, load and set up, (safety may be a combination of but not limited to, temporary anchor system, warning line/monitor with life lines set up in a fall restraint method.

- iii. Prepare the existing surface in accordance with the surface preparation standards noted in SSPC SP-1 (Cleaning) and SSPC SP-2 (Hand Tooling) to provide a suitable surface for coating adhesion.
- iv. Check all fasteners, tighten or replace loose fasteners with oversized fasteners and seal.
- v. Provide a 3-course application of Geoguard Seamsealer and 4" PermaFab to ridge vent and vertical rake seams.
- vi. Apply Alumination 301 reflective coating at a film thickness of 32 WFT.
- vii. Clean up, download, dispose fall debris in proper receptacle and demobilize.

b. Option #2 – Single Ply Metal Roof Retrofit with Plumbing Upgrades – 20-year Warranty Roof Area F

- i. Installation of new mechanically attached treated lumber perimeter and projection blocking.
- ii. The elevation of the perimeter wood blocking must meet the final installed elevation of the top surface of the thermal insulation and gypsum substrates. Adjust the perimeter wood block to promote positive drainage and accommodate tapered insulation.
- iii. Pre-secure one layer of 1" Polyisocyanurate insulation to the metal deck.
- iv. Mechanically fasten a top layer 1/2" Tremco Dens Deck board insulation. Attachment shall conform to the ASCE 7 criteria for wind uplift as dictated by wind zone of the building location.
- v. Installation of one (1) ply of a smooth surfaced, reinforced membrane, Heavy Duty Base, shingle fashion in a Tremco Premium IV hot melt adhesive.
- vi. Over the prepared surfaces install one (1) base layer of Polyisocyanurate insulation within the field of the existing steel panel. Match or slightly exceed the elevation of the adjoining rib detail. Cross directionally install one (1) top layer of .5" Dens Deck Sheathing Primed. Stagger all joints. Simultaneously pre-secure. Frequency of fastener spacing: Field of the roof: 8 fasteners per 32 sf. Perimeters of roof: 8 fasteners per 32 sf. Corners of roof: 8 fasteners per 32 sf. Install all layers in a configuration that promotes smooth transition onto the adjoining surfaces.
- vii. Install new plumbing system to include three (3) new drains and new plumbing trunk line to properly drain the new TPA system. Include tapered cricket insulation between the drains.
- viii. Installation of new mechanically attached 60 Mil Tri Polymer Alloy (TPA) Thermoplastic Roof Membrane, by Tremco Incorporated, to the entire field of the roof.
- ix. Installation of new fully adhered Tri Polymer Alloy (TPA) Thermoplastic Flashing to the all vertical surfaces and horizontal stripping ply. Frame up the walls with new treated plywood new wood nailers at the parapet walls.
- x. Fabricate and install new twenty-four (24) gauge Tri Polymer Alloy (TPA) coated galvanized steel perimeter metal edging, pitch pans, and other related metal flashing components, which tie-into the new roofing membrane
- xi. Fabricate and install new twenty four (24) gauge Kynar pre-finished galvanized steel perimeter and projection flashing components which are not in direct contact with the TPA thermoplastic membrane, including,

fascia, trim, collector heads, downspouts, external mounted gutters, slip flashing, counter flashing, expansion joint covers, coping and other related metal flashing components not specifically noted.

2. Community Center – Roof Areas A and B

a. Built-Up Roof (BUR) - East Side Roof A

- i.** Spud entire perimeter and install composite ply flashing set in cold adhesive.
- ii.** Install new flood coat over repair area and embed aggregate surfacing.
- iii.** Install Alumination on all base flashing.
- iv.** Replace the expansion joint metal.

b. Modified Bitumen (MB) - West Side – Roof B

- i.** Properly prepare entire perimeter and Alpha Guard fluid applied system.
- ii.** Install the Alpha Guard System on all base flashing.
- iii.** Clean construction related debris

Each assembly will be installed in accordance with the Primary Manufacturer's Installation Guidelines.

Please see the attached proposals from a first in class certified applicator for the scope items noted. The provided pricing includes the utilization of a Cooperative Purchasing vehicle to allow for expedited procurement. This procurement method provides a legally approved transparent means for the purchasing of these work items.

Thank you for your interest in Tremco. If you or your organization has further needs or questions related to the information outlined within this report, we may be reached at the telephone number referenced above. We look forward to serving you.

Sincerely,

Gregory E. Martin
Tremco Incorporated

cc:

David M. Naber, Tremco Incorporated



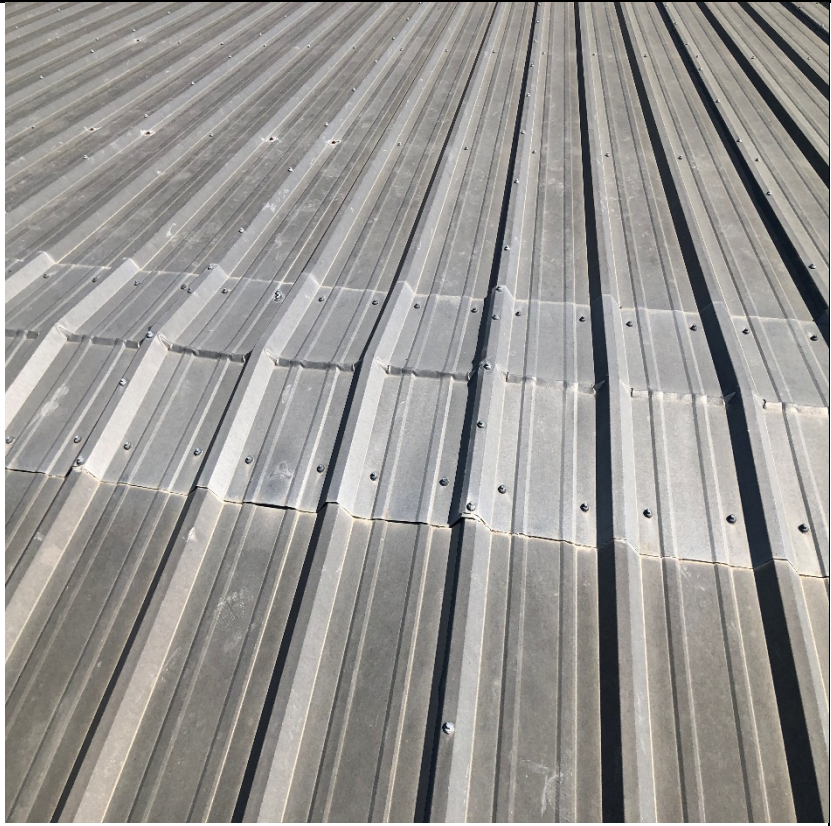
TREMCO

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281.450.3575

**Community Center and Earl Dunn Gymnasium
610 San Augustine Street
Deer Park, TX 77536**

Revision Date:
Not issued for construction
Issued Date:
May 21, 2019 - 75% Draft
Drawn By:
GEM
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Tremco Incorporated, 2019
Title:
Condition Photos – Roof E and F



TREMCO

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Title:

Condition Photos – Roof F

ATLAS UNIVERSAL ROOFING, INC.

735 W. Tidwell, Suite A * HOUSTON, TEXAS 77091
PHONE (713) 695-1626 FAX (713) 695-1654

May 20, 2019

City of Deer Park
710 San Augustine
Deer Park, TX

Choice Facility Partners
Member # 18/060JN-01

RE: City of Deer Park – Earl Dunn Gym / Community Center

Having carefully examined the instructions to proposers, project specifications, drawings, we propose to furnish all labor, materials, equipment required to accomplish the work in accordance with contract documents for the following projects.

EARL DUNNE GYM

A. TPA Roof System – Roof F Option 2

1. Installation of new mechanically attached treated lumber perimeter and projection blocking.
The elevation of the perimeter wood blocking must meet the final installed elevation of the top surface of the thermal insulation and gypsum substrates. Adjust the perimeter wood block to promote positive drainage and accommodate tapered insulation.
2. Presecure one layer of 1" Polyisocyanurate insulation to the metal deck.
3. Mechanically fasten a top layer 0.5" Tremco Dens Deck board insulation. Attachment shall conform to the ASCE 7 criteria for wind uplift as dictated by wind zone of the building location.
4. Installation of one (1) ply of a smooth surfaced, reinforced membrane, Heavy Duty Base, shingle fashion in a Tremco Premium IV hot melt adhesive.
5. Over the prepared surfaces install one (1) base layer of Polyisocyanurate insulation within the field of the existing steel panel. Match or slightly exceed the elevation of the adjoining rib detail. Cross directionally install one (1) top layer of .5" Dens Deck Sheathing Primed. Stagger all joints. Simultaneously pre-secure. Frequency of fastener spacing: Field of the roof: 8 fasteners per 32 sf. Perimeters of roof: 8 fasteners per 32 sf. Corners of roof: 8 fasteners per 32 sf. Install all layers in a configuration that promotes smooth transition onto the adjoining surfaces.
6. Install new plumbing system to include three (3) new drains and new plumbing trunkline to properly drain the new TPA system. Include tapered cricket insulation between the drains.
7. Installation of new mechanically attached 60 Mil Tri Polymer Alloy (TPA) Thermoplastic Roof Membrane, by Tremco Incorporated, to the entire field of the roof.
8. Installation of new fully adhered Tri Polymer Alloy (TPA) Thermoplastic Flashing to the all vertical surfaces and horizontal stripping ply. Frame up the walls with new treated plywood new wood nailers at the parapet walls.
9. Fabricate and install new twenty four (24) gauge Tri Polymer Alloy (TPA) coated galvanized steel perimeter metal edging, pitch pans, and other related metal flashing components, which tie-into the new roofing membrane.
10. Fabricate and install new twenty four (24) gauge Kynar pre-finished galvanized steel perimeter and projection flashing components which are not in direct contact with the TPA thermoplastic membrane,
11. including, fascia, trim, collector heads, downspouts, external mounted gutters, slip flashing, counter
12. flashing, expansion joint covers, coping and other related metal flashing components not specifically noted.
13. Total System Warranty - Provide a 20 Year Quality Assurance Warranty.

Proposal (TPA Roof System) \$237,141

B. Fluid Applied Roof System Roof E and F Option 1

1. Properly clean and dry roof surface.
2. Seal horizontal seams with Seam Sealer.
3. Seal any loose or rusted fasteners.
4. Install Alumination at approximately 2 gal per sq.
5. Warranty - Provide a 5 Year Quality Assurance Warranty.

Proposal (Fluid Applied) \$74,171

COMMUNITY CENTER

Roof Repairs

Built-Up Roof (BUR) - East Side

- 1) Spud entire perimeter and install composite ply flashing set in cold adhesive.
- 2) Install new flood coat over repair area and embed aggregate surfacing.
- 3) Install Alumination on all base flashing.
- 4) Replace the expansion joint metal.

Modified Bitumen (MB) - West Side

- 1) Properly prepare entire perimeter and AlphaGuard fluid applied system.
- 2) Install the AlphaGuard System on all base flashing.
- 3) Clean construction related debris.

Proposal (Fluid Applied) \$41,696

Sincerely Submitted,



JUSTIN PRICE
ATLAS UNIVERSAL, INC.
281-235-9148 (cell)