



## TECHNICAL REQUIREMENTS AND SPECIFICATIONS

**PROJECT:** Urb. Las Mercedes Damage Repair

**City:** Las Piedras

**Location:** Latitude: 18.1727 Longitude: -65.8634

**Project Num.:** 87524 **PW:** 1863 **Damage Inventory:** 275569

**Acquisition :** Formal Bid

**Proposal Solicitation:** RFP

**HON. RAY J. QUIÑONES VÁZQUEZ**  
**SECRETARY**  
**DRD- PUERTO RICO**  
**HURRICANE MARIA DAMAGE RECONSTRUCTION**



Recovery, Reconstruction, Resiliency



## **Urb. Las Mercedes Facility Damages Repair**

### ***Facility Damage – Metal Roof Basketball Court***

- 1) Remove approximately 6000 SF of metal roof deck.
- 2) Install Metal roof. Approximately 6000 SF
- 3) Install new 4' siding. Approximately 320 LF.
- 4) Install aluminum Downspouts. Approximately 120 LF. See typical details included.

### ***Facility Damage – Handrail***

- 1) Install new 2" diameter steel handrail double pipe. by the stairs. Include footings. Meet the standard height. See detail. (40 LF Aprox.)

### ***Facility Damage – Paint***

- 1) Paint basketball steel structure.
  - 2) Paint basketball court markings. See Multisport Court Technical Specifications.
  - 3) Paint basketball goals.
  - 4) Paint steel handrails.
  - 5) Paint all existing structure. (Bleachers, benches, buildings, Steel structure, basketball court, basketball court steel structure, basketball court markings, basketball goals, steel handrails, etc. (where occur).
- Clean and patch all existing surfaces
  - Basketball Flooring: See Multisport Court Technical Specifications.
  - Product Description:
    - a. Floors: See Multisport Court Technical Specifications.
    - b. Steel Structures: Similar or equal to Sherwin Williams Pro Industrial DTM Acrylic Primer/Finish. Apply two (2) coats.
    - c. Exterior Wall Paint: Similar or equal to Sherwin-Williams Quick Dry Interior/ Exterior Stain Blocking Primer. Apply One (1) coat. of primer. A-100 Exterior acrylic Latex. Apply two (2) coats of paint.

**Buy American Act Requirements:**

Buy American requirements apply to purchases of iron, steel, and other manufactured products permanently incorporated into infrastructure projects. To be considered as being produced in the U.S., goods must be manufactured in the U.S. and at least 50% of the cost of their components must come from the U.S.

**Additional Notes:**

- 1) The contractor shall visit the job site and become acquainted with the existing field conditions.
- 2) The contractor shall submit with the proposal, the proposed Synthetic Acrylic System specifications with the warranty terms and conditions. The system must be equal or similar to the specified and shall comply with a minimum of minimum five (5) year warranty, excluding damages by improper use and wear due to normal use.
- 3) The contractor is responsible to comply with all laws, regulations, codes, professional licenses required by Municipal, State, Federal and Local laws.
- 4) To all existing concrete surface (where occur) - All spalling concrete must be repair. Chip the existing loose concrete and treat the exposed rebar. Clean with a steel brush and apply (equal or similar) Loctite Extend Rust Neutralizer, apply (equal or similar) Sika Armatec – 110 EpoCem and then patch and finish the affected area with Vinyl Concrete Patch. For all product, follow the manufacturer mixing and application recommendations.
- 5) All basketball court marking paint must be Multisport Court (Basketball and Volleyball) as specified. Where volleyball pole system is missing, the contractor must include the new volleyball net pole system as per specifications.
- 6) The word “Typical” or “Typ.”, “Standard Drawing” or “Std. DWG” and “where occur”, means whenever or wherever the mentioned or illustrated conditions happened, the note, detail or scope will apply.
- 7) All exterior concrete structure or item must be painted with exterior paint. (where occur).

# Damage Repairs – Las Mercedes, Las Piedras

## Scope of Work Reference

Coordinates: Latitude – 18.1727, Longitude: -65.8634



# Basketball Court Repairs:



- Replace existing roof panels, sidings, trims gutters and downspouts.
- Paint existing steel structure and goals.
- Paint Basketball court area
- Paint concrete surfaces.
- Install new Volleyball Post Net System

\* See scope of work attached.



# Install new hand rail

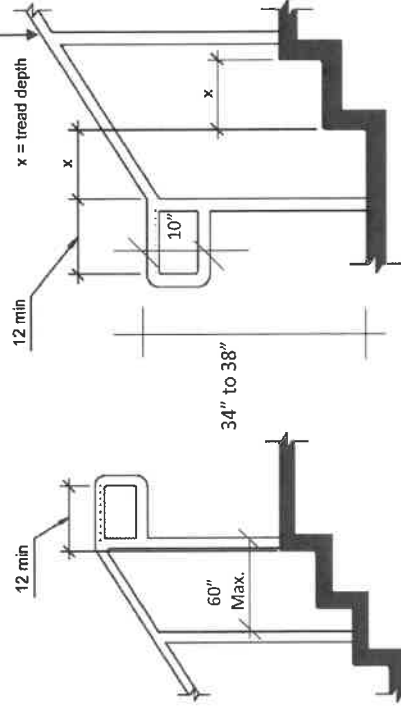


\* See scope of work attached.

# Railing Detail

2" Galv. Steel Railing

GA 12



Top Handrail Extensions at Stairs

Bottom Handrail Extensions at Stairs

2"  $\varnothing$  GALV. RAILING POST

GA 12

FFE

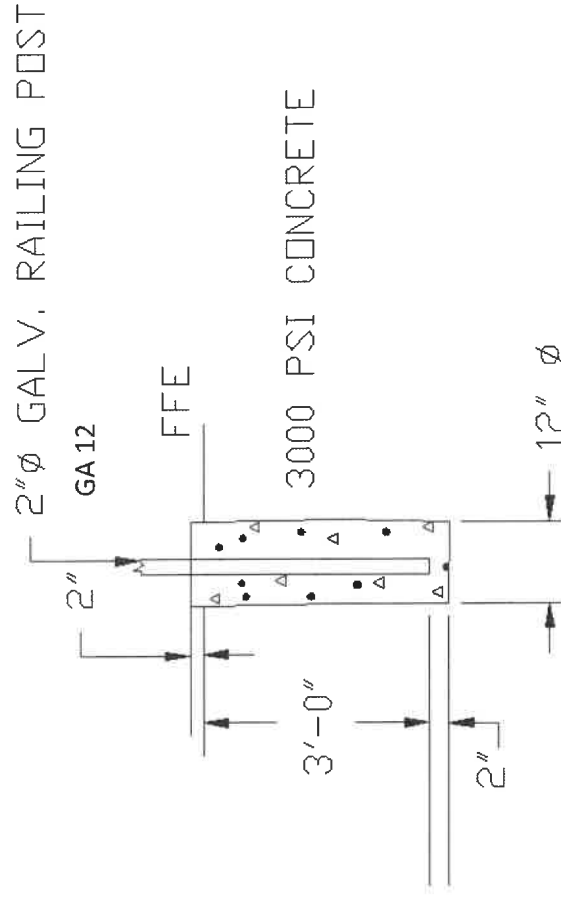
3000 PSI CONCRETE

3'-0"

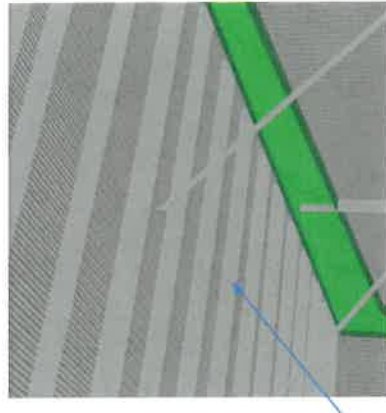
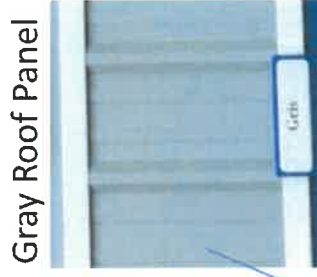
2"

12"  $\varnothing$

RAILING CONCRETE BASE



# Basketball Court Paint



Main Steel Structure



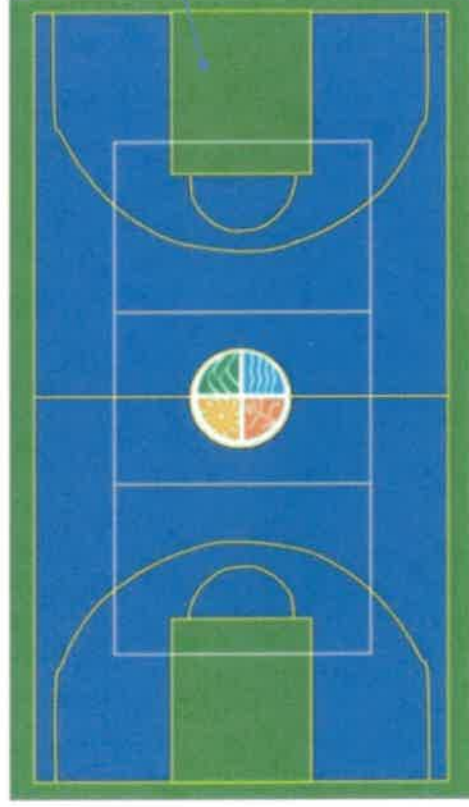
Walls (where Occur)  
and Purlings



Floor Acrylic Synthetic System  
See color pattern and specifications.



# Basketball Court Floor Paint Color



Floor Acrylic Synthetic System  
See specifications.

\* Logo Art will be provided by owner

Color Pattern

## GENERAL NOTES

### NOTES:

- 1- In activities that backfill is required the contractor must use A-2-4 or similar compacted in layers of 6" inches thickness at 95% and been verified by laboratory tests, which will be paid by the contractor.
2. All document included in this bidding process are part of the contract.
3. The contractor shall connect the structure to the existing water and sewer connection services of the site if it where not connected.
4. Demolition and construction disposal will be contractor's responsibility.
5. The contractor will be responsible to implement Plan CEST, PFE (Permiso de Fuente de Emision) and DS3 (Desperdicios Solidos no Peligrosos) as required by the Junta de Calidad Ambiental. (If required)
6. The contractor shall maintained the site clean and free of debris during work in progress.
7. A boundary shall be identified on field to isolated the construction area from the areas that are not impacted. The limit will be defined using a temporary fence that must be provided by the contractor.
8. The contractor will be responsible for all the demolition and debris disposal during the construction. Everything must be coordinated with the Consultant including any foundation demolition if it where the case.
9. "The contractor will plant Soisa Meyer grass in tight squares in all the Green areas affected by the construction.
10. All site dimensions must be verified on site by the contractor.
11. The contractor shall be responsible for any damage cause by the contractor or his employee to the existing infrastructure on the field.
12. All sidewalks finishes shall be broom finish.
13. The contractor shall be familiarized with the existing site conditions before the bidding.
14. The construction site perimeter will be protected with a temporary fence.
15. The contractor will submit a work plan in addition to the cost breakdown for payment for owner's Consultant approval.
16. If applicable any slopes that are generated on the site will not have a slope greater than 1:1 and shall be duly stabilized with Jute or a Similar approved geotextile product and Soysa Meyer grass will be tightly installed for permanent stabilization.
17. The contractor Will familiarize himself with the included Electrical and structural notes and specifications where applicable.

Bid Documents for  
Method of Repair (MOR)

SEAL

SIGNATURE

DEPARTAMENTO DE RECREACIÓN Y DEPORTES (DRD)

PUERTO RICO

DATE: July 15, 2020

REVISIONS: 03

DRAWN BY: Miralda Rodriguez  
SCALE: N/A

SHEET NAME:

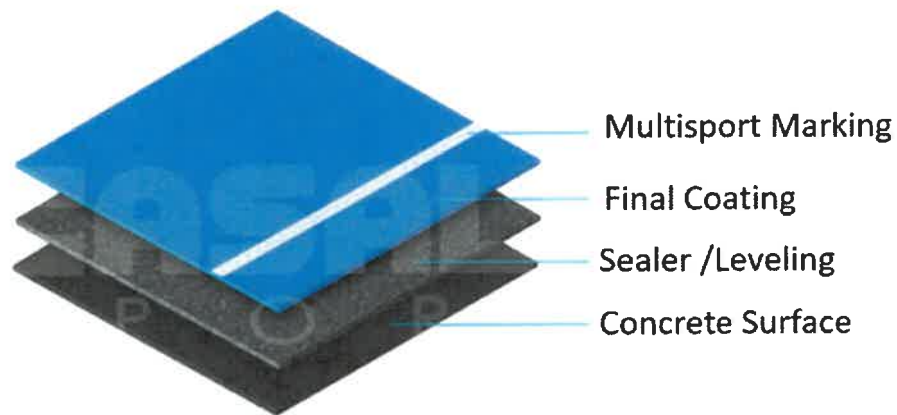
GENERAL NOTES

SHEET 24 OF 26



**Multisport Court Repair Scope of Work**  
**Multisport Acrylic Synthetic Flooring System**  
**Technical Specification**

***Basketball Court Surface Preparation***



# Acrylic Synthetic Sport Flooring System

***EQUAL OR SIMILAR TO POLYSPORT SYSTEM  
BY OAFA***



## 1) Concrete surface preparation

- Remove existing surface paint with paint removal product.
- Product should be compatible with acrylic system product.
- Scarify existing concrete.
- Pressure washes existing scarified concrete surface to remove all remaining dust.
- Treat all concrete cracks with product compatible and recommended by system's manufacturer.
- Seal existing concrete surface applying a synthetic resin-based filler using an acrylic resin based coating containing select sands, in water emulsion, especially formulated to seal concrete surfaces. Be sure that the product is compatible and recommended by system's manufacturer.

CHARACTERISTICS OF THE LIQUID PRODUCT			
Characteristic	U.M.	Value	Tolerance
Specific weight	Kg/dm <sup>3</sup>	1,64	± 0,1
Dry mass residue	%	75	± 3
Dry volume residue	%	59	± 3
Residue at 450°C	%	61	± 3
Brookfield viscosity (with Brookfield viscosimeter rotor no. 6, speed 10)	mPa·s	90000	± 5000
pH	-	8	± 1

- Surface must be sloped correctly to ensure rainwater runoff and prevent pooling.

## 2) Supply and apply Final Acrylic Coating System. Acrylic resin-based covering developed for multi-purpose sports flooring. The hard resin-based formula with UV ray resistant pigments and select sands that makes the ideal sports surfaces for many different games. Resin surfaces must be waterproof (non-draining).

CHARACTERISTICS OF THE LIQUID PRODUCT			
Characteristic	U.M.	Value	Tolerance
Specific weight	Kg/dm <sup>3</sup>	1,7	± 0.1
Dry mass residue	%	76	± 3
Dry volume residue	%	60	± 3
Residue at 450°C	%	65	± 3
Brookfield viscosity (with Brookfield viscosimeter rotor no. 6, speed 3)	mPa·s	240000	± 12000
pH	-	8	± 1



- Coverage as recommended by manufacturer.
- Ductile and resistant to abrasion
- Weather Resistant
- Maintenance Free
- Always available to play even when a heavy rain or hot weather have occurred.

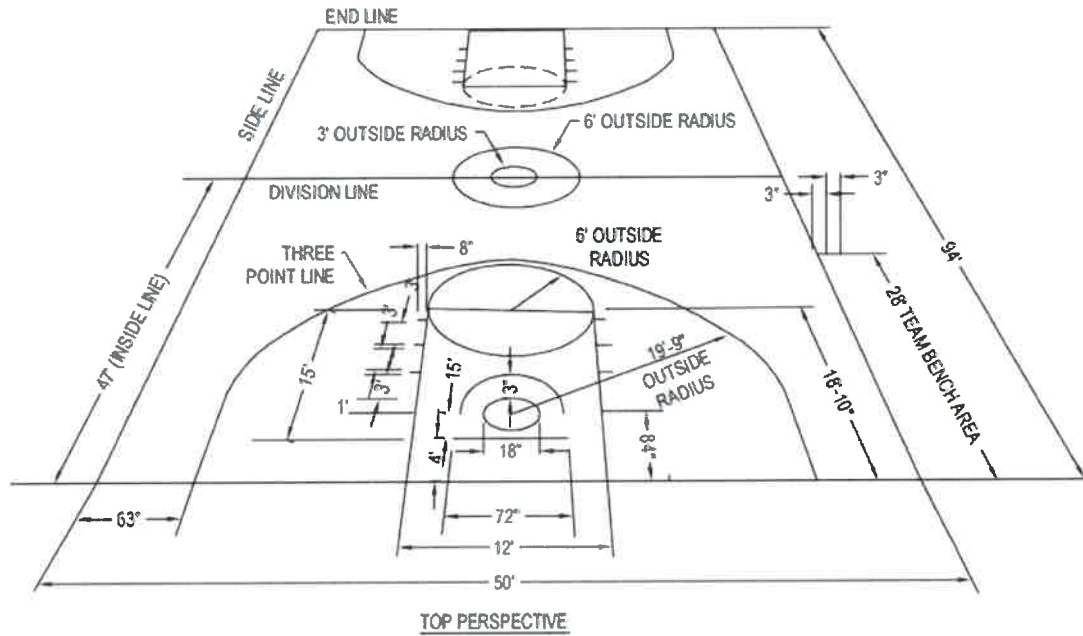
3) Basketball court marking – use a highly covering acrylic paint, especially developed to mark field (2") lines on acrylic surfaces.

CHARACTERISTICS OF THE LIQUID PRODUCT			
Characteristic	U.M.	Value	Tolerance
Specific weight	Kg/dm <sup>3</sup>	1.38	± 0.1
Dry mass residue	%	54	± 0.5
Dry volume residue	%	36	± 0.5
Residue at 450°C	%	37	± 0.5
Brookfield viscosity (with Brookfield viscosimeter rotor no. 6, speed 5)	mPa·s	23000	± 2000
pH	-	9	± 1

- See typical color pattern
- See basketball court layout.

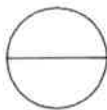
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**NOTES:**

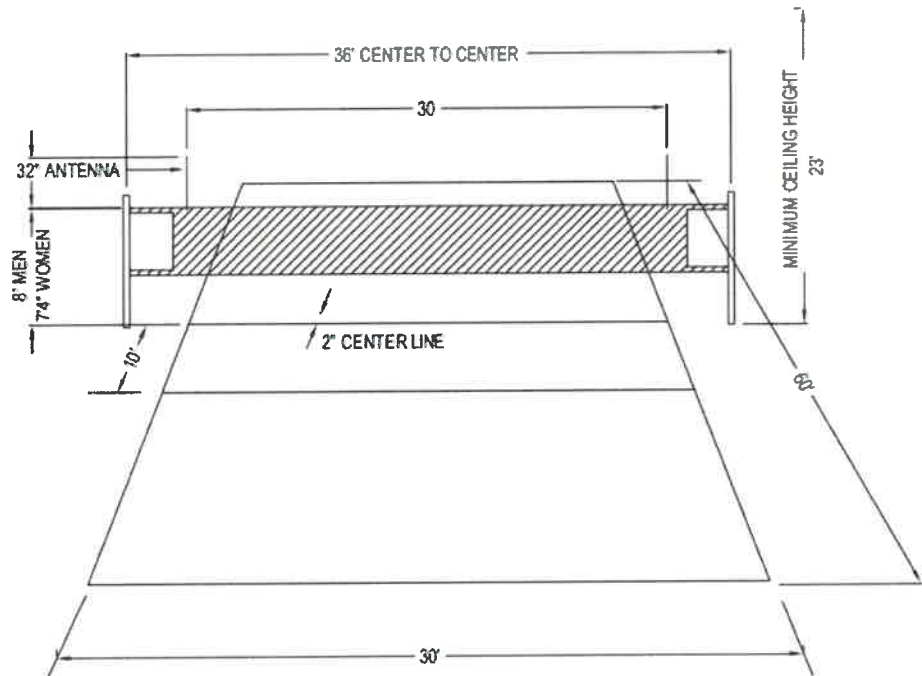
1. ALL DIMENSIONS ARE TO THE OUTSIDE EDGE OF THE LINES.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.



**DETAILED DRAWINGS**

BASKETBALL

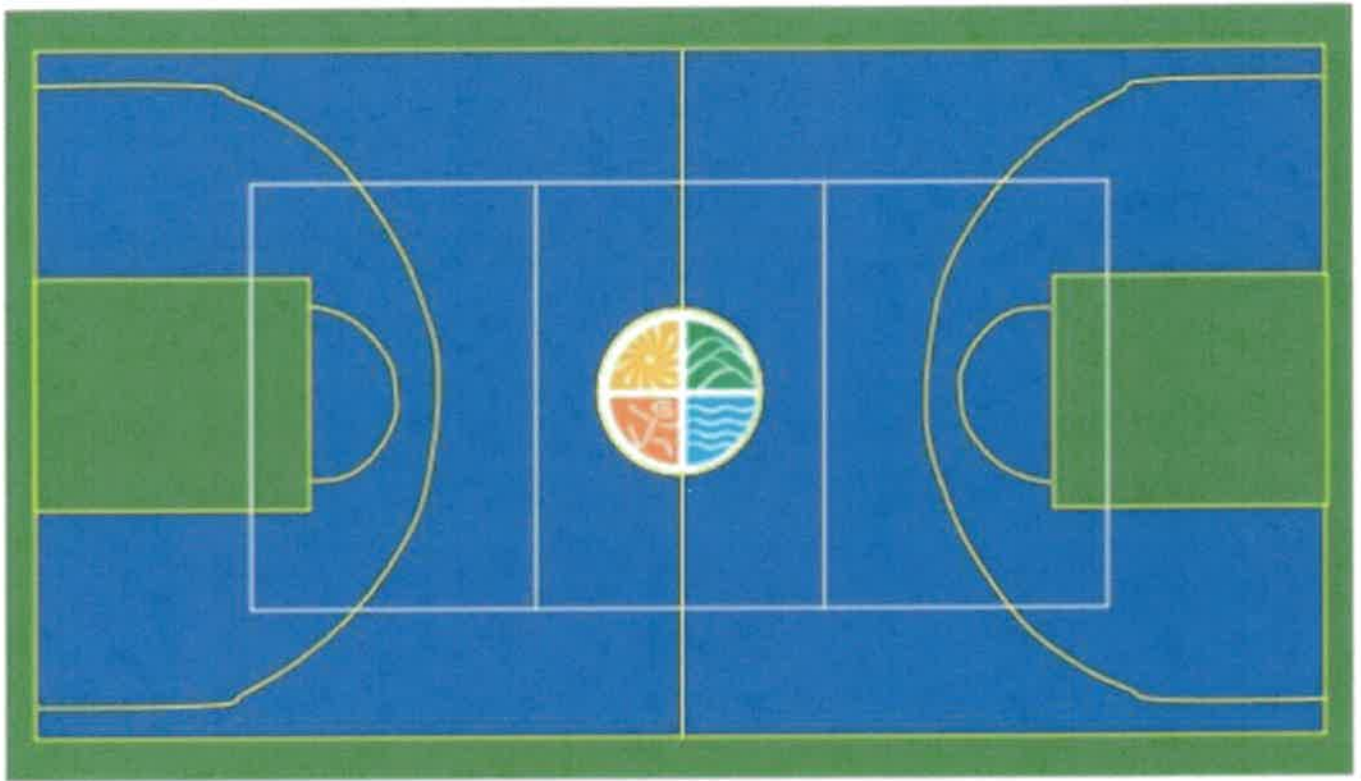




**NOTES:**

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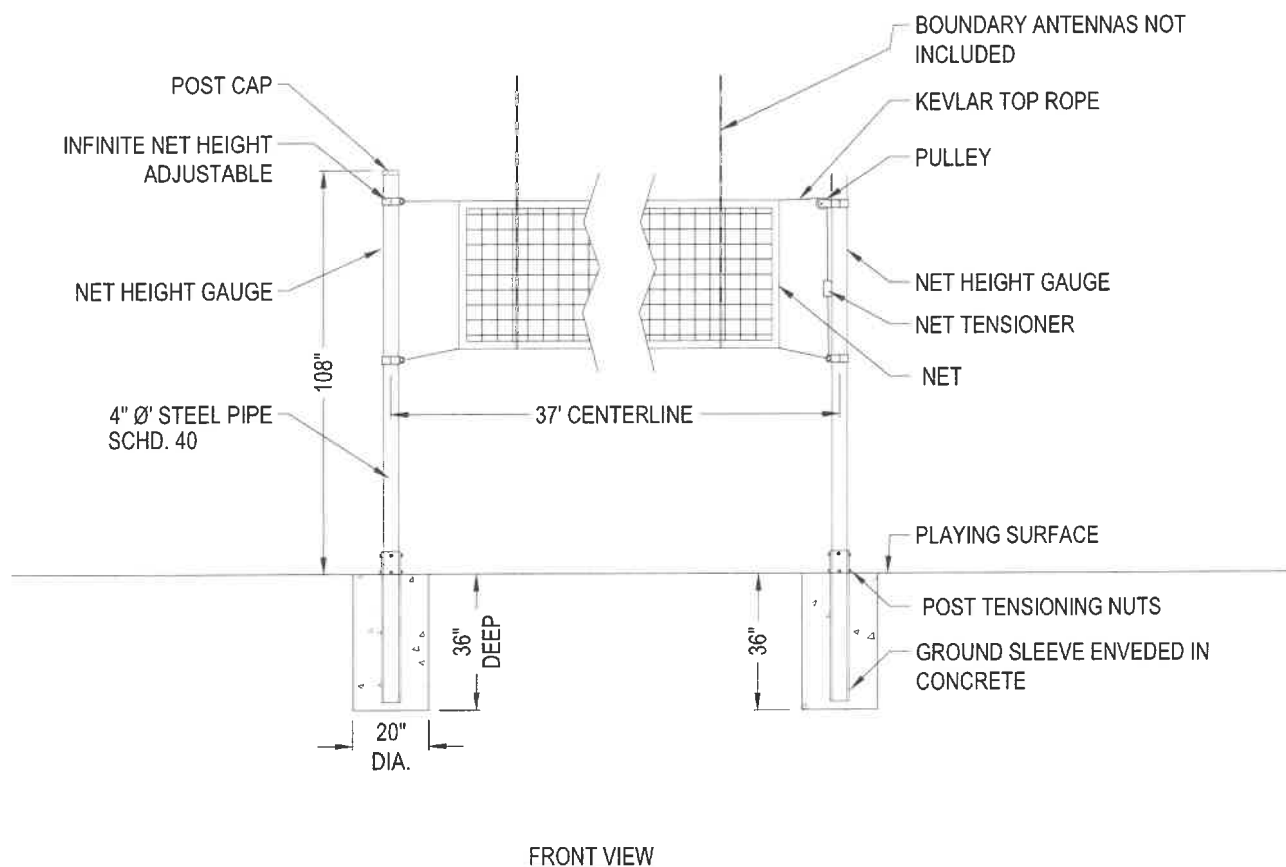
### VOLLEYBALL COURT DETAIL



All line markings on the floor are  
2 inches wide

\*Logo art will be provided by owner

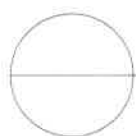
# Color Pattern



Equal or Similar to Model:  
Worm-Gear Winch by United Volleyball Supply

**MANUFACTURER NOTES:**

1. NET NOT INCLUDED IN CONTRACT.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

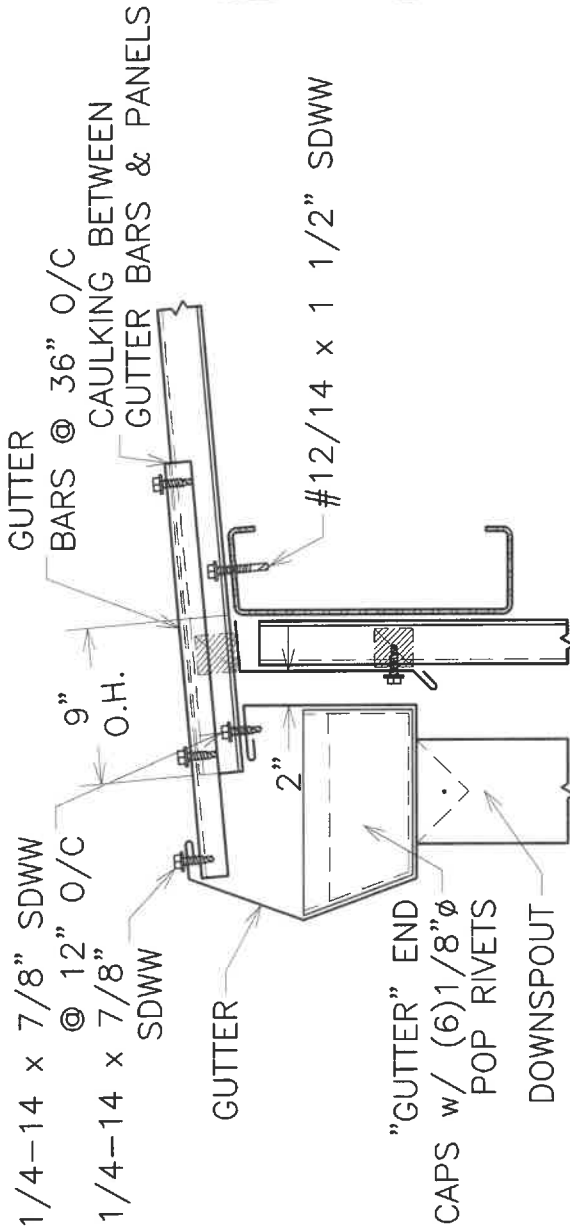


**RECREATIONAL VOLLEYBALL SYSTEMS**

RECREATIONAL VOLLEYBALL SYSTEMS

## PAINT NOTES

- 1 ALL INTERIOR AND EXTERIOR WALLS SHALL BE PAINTED WITH THREE COATS OF PAINT. THE INTERIOR THREE COAT SYSTEM CONSISTS OF A SEALER PRIMER COAT AND TWO FINISH COATS WITH 100% ACRYLIC LATEX PAINT, EGGSHELL FINISH. EXTERIOR THREE COAT SYSTEM CONSISTS OF A QUICK DRY STAIN BLOKER AND SEALER PRIMER AND TWO FINISH COAT OF 100% ACRYLIC PAINT. COLOR TO BE SELECTED BY THE ENGINEER. PATCH AND REPAIR WITH CONCRETE PLASTER ALL SURFACE IF NECESSARY, BEFORE PAINT.
- 2 ITEMS NOT TO BE PAINTED WHICH ARE IN CONTACT WITH OR ADJACENT TO PAINTED SURFACES SHALL BE REMOVED OR PROTECTED PRIOR TO SURFACE PREPARATION AND PAINTING OPERATIONS. ITEMS REMOVED PRIOR TO PAINTING SHALL BE REPLACED WHEN PAINTING COMPLETED.
- 3 EXTERIOR WALL TO BE PAINTED SHALL BE CLEAN WITH WATER WASHER MACHINE AND BE FREE OF FOREIGN MATTER BEFORE APPLICATION OF PAINT OR SURFACE TREATMENTS. OIL AND GREASE SHALL BE REMOVED PRIOR TO MECHANICAL CLEANING. CLEANING SHALL BE PROGRAMED SO THAT DUST AND OTHER CONTAMINANTS WILL NOT FALL ON WET, NEWLY PAINTED SURFACES.
- 4 BLISTERING, CRACKING, FLAKING AND PEELING OR OTHER DETERIORATED COATINGS SHALL BE REMOVED. SLICK SURFACES SHALL BE ROUGHENED. DAMAGED AREAS SUCH AS BUT NOT LIMITED TO, NAIL HOLES, CRACKS, CHIPS, AND SPALLS SHALL BE REPAIRED WITH SUITABLE MATERIAL TO MATCH ADJACENTS UNDAMAGED AREAS.
- 5 STEEL STRUCTURE SHALL BE SANDED AND PAINTED WITH ONE ANTI -RUST PRIMER AND TWO COAT OF STOPS RUST INDUSTRIAL WATER BASE ENAMEL PAINT.
- 6 SEE PAINTING SPECIFICATIONS



Fecha de Expiración: 2026-04-19

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DRD - CONSOLIDATED PARKS  
PROJECT DAMAGE FACILITIES

## METAL GUTTER & DOWNSPOUT DETAIL

### NOTES:

1. GUTTER TO BE CAULKED & LAPPED 4" MIN. AND POP RIVETED TOGETHER USING (8) 1/8"Ø POP RIVETS.
2. FIELD LOCATE AND MARK DOWNSPOUT LOCATION IN BOTTOM OF GUTTER. DRAW LINE FROM CORNER TO CORNER AND CUT ALONG LINE. BEND TABS DOWN AND POP RIVET INSIDE DOWNSPOUT.
3. USE THE CHART TO THE LEFT FOR DIMENSION VALUES FOR YOUR PARTICULAR ROOF PITCH.
4. GUTTER SIZE AND GUTTER BAR SPACING MUST BE ADJUSTED TO SUIT LOCAL WEATHER PECULIARITIES AND/OR TO ACCOMMODATE LONG ROOF SLOPES.

TITLE: METAL GUTTER & DOWNSPOUT DETAIL		S-5	
BY: H. A. GONZALEZ P.E.		DATE: 11-17-2021	
		SCALE: 3/4"=1'-0"	

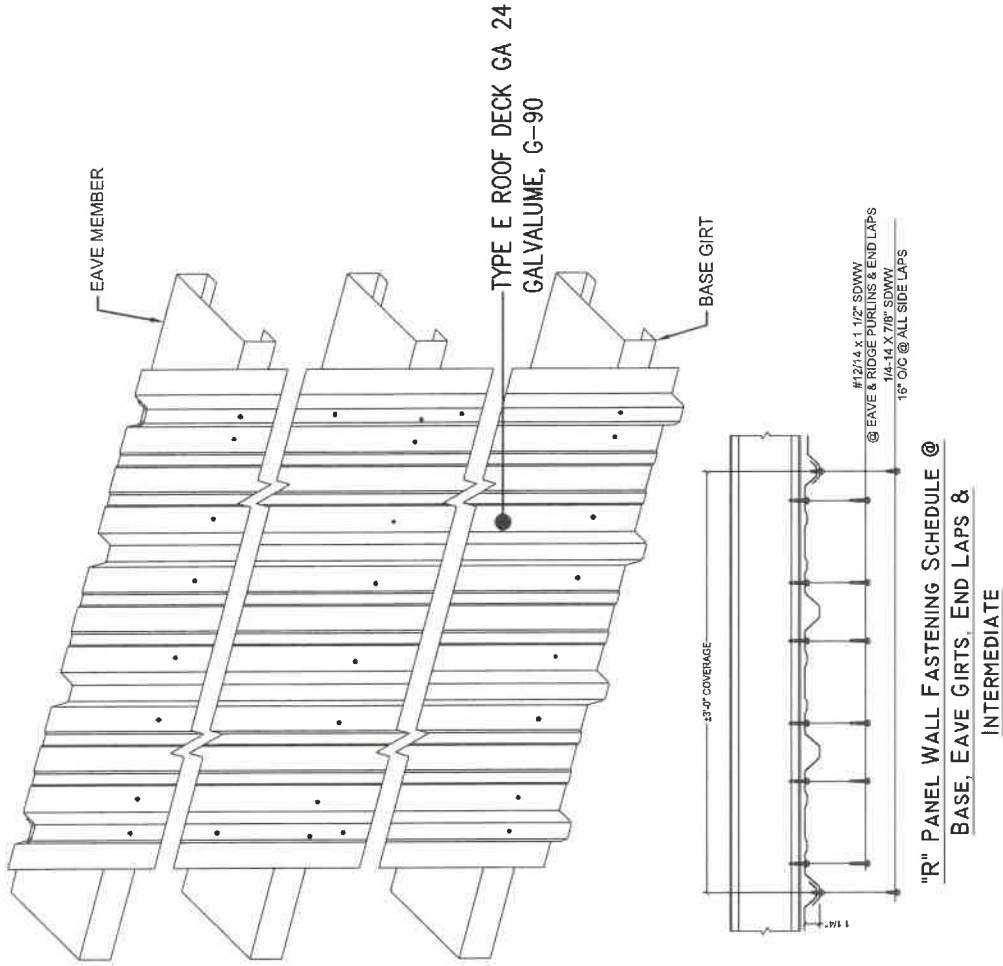
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DRD - CONSOLIDATED PARKS  
PROJECT DAMAGE FACILITIES

TITLE: METAL WALL PANEL DETAIL		
BY: H. A. GONZALEZ P.E.	S-6	
DATE: 11-17-2021		
SCALE: 3/4"=1'-0"		



Fecha de Expiración: 2028-04-19

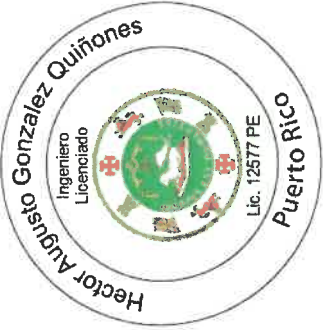




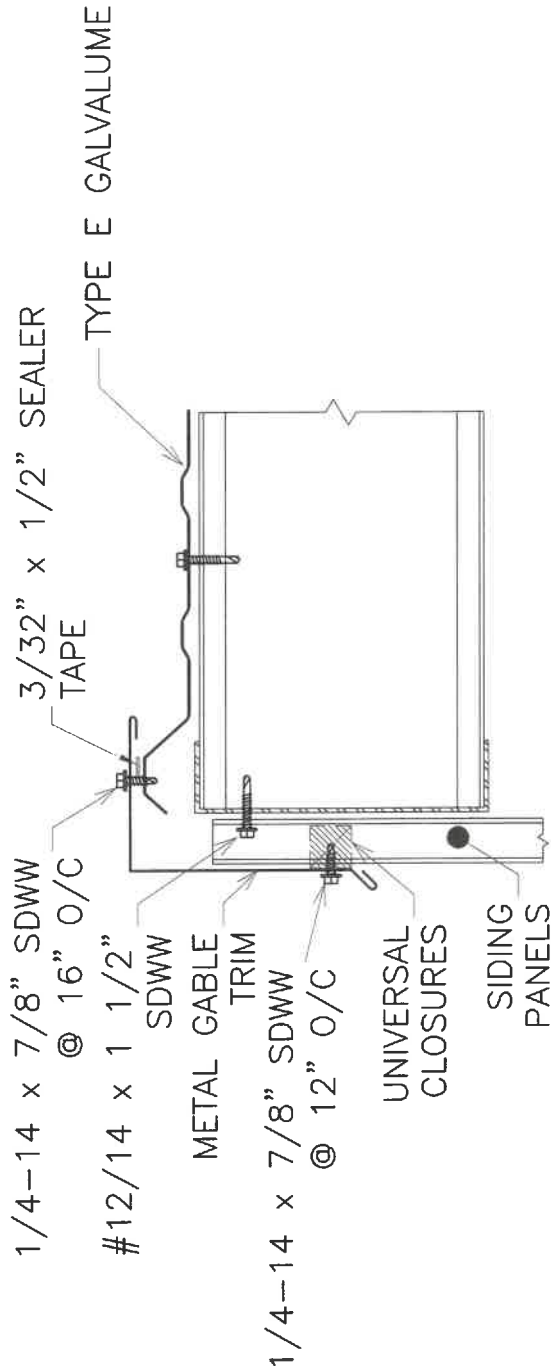
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DRD - CONSOLIDATED PARKS  
PROJECT DAMAGE FACILITIES

TITLE: METAL ROOF CLOSURE TRIM DETAIL		
BY: H. A. GONZALEZ P.E.	S-7	
DATE: 11-17-2021		
SCALE: 3/4"=1'-0"		



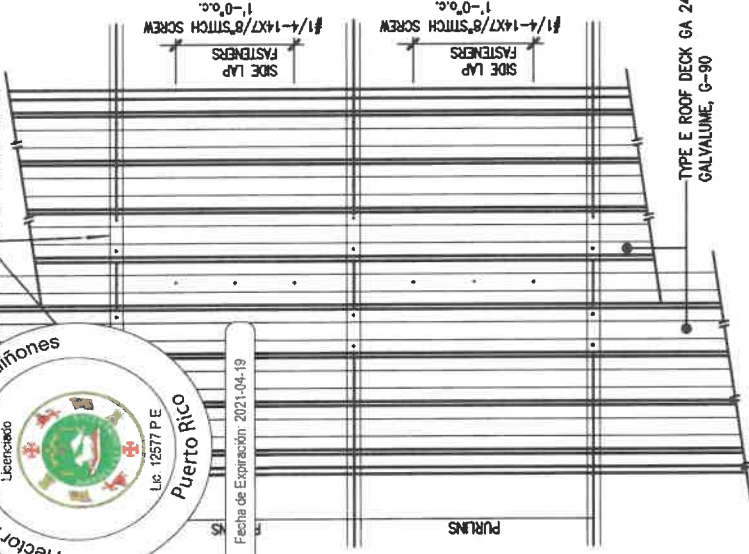
Fecha de Expiración: 2026-04-19



# METAL ROOF END CLOSURE TRIM DETAIL



PANEL TO JOIST FASTENER  
AT 2" AT END LAPS.



### INSTALLATION DETAIL OF STEEL ROOF DECK (NOT TO SCALE)

#1/4-14X7/8\" STITCH  
CREW(1'-0\" o.c.)

TAPE SEALANT

TYPE E GALVALUME



### INSTALLATION INSTRUCTIONS

- 1- STEEL DECK PLATES SHALL SPAN AT LEAST 3 JOIST.
- 2- DECK SHEETS SHOULD BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWINGS SUPPLIED BY THE DECK MANUFACTURE'S STANDARDS AND SHALL BE ERECTED BEGINNING AT THE LOW SIDE TO INSURE THAT END LAPS ARE SINGLE FASHION.
- 3- END LAPS SHALL BE 2" MINIMUM AND SHOULD OCCURS OVER SUPPORT.
- 4- ALL LAPS SHALL BE CENTER DIRECTLY OVER PURLINS
- 5- ALL FASTENERS SHALL BE IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATION AND ERECTION LAYOUTS.
- 6- SUPPORT FASTENERS #12-14X1 1/4 SELF DRILLER
- 7- METAL DECK SHALL BE FACTORY MUTUAL APPROVED.

### NOTES :

DECK SHALL BE FASTENED TO JOIST SO AS TO RESIST AN UPLIFT PRESSURE OF 80PSF.

TITLE:  
METAL PANELS ROOFING  
MATERIAL REPLACEMENT

BY: H. A. GONZALEZ P.E.

DATE: 3/11/2020

SCALE: 3/4"=1'-0"

S-1

DRD - CONSOLIDATED PARKS  
PROJECT DAMAGE FACILITIES  
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