

ANGLE SMALL SECTION OF PIPE TO CONNECT VERTICAL BAR AND GUARD, TYP.

1 1/2" DIAMETER (1.9" O.D.) PIPE, TYP.

2'-0" CLEAR

6'-0" TYP.

SELF CLOSING GATE

EQUAL EQUAL

3'-6"

TOP OF ROOF OR LOW PARAPET

1" x 2" x 3 1/2" BENT ALUMINUM PLATE WITH 9/16" HOLE, TYPICAL. HANDRAIL PIPE TO BE SET FLUSH AGAINST WALL, TYP.

1" x 2 1/2" ALUMINUM FLAT PLATE

1/2" DIA. STAINLESS STEEL ANCHOR, USE EITHER THREADED ROD & EPOXY OR MECHANICAL ANCHOR. SUBMIT PROPOSED ANCHOR TO PSU FOR APPROVAL.

1" DIA. SOLID ROUND ALUMINUM BAR WITH NON-SLIP FINISH, TYP. MUST EXTEND TO OUTSIDE EDGE OF FLAT PLATE. SEE NOTES.

1" x 7" x 3 1/2" BENT ALUMINUM PLATE WITH 9/16" HOLE, TYPICAL. SPACE PLATES AT 48" O.C. MAXIMUM.

GRADE/LOW ROOF

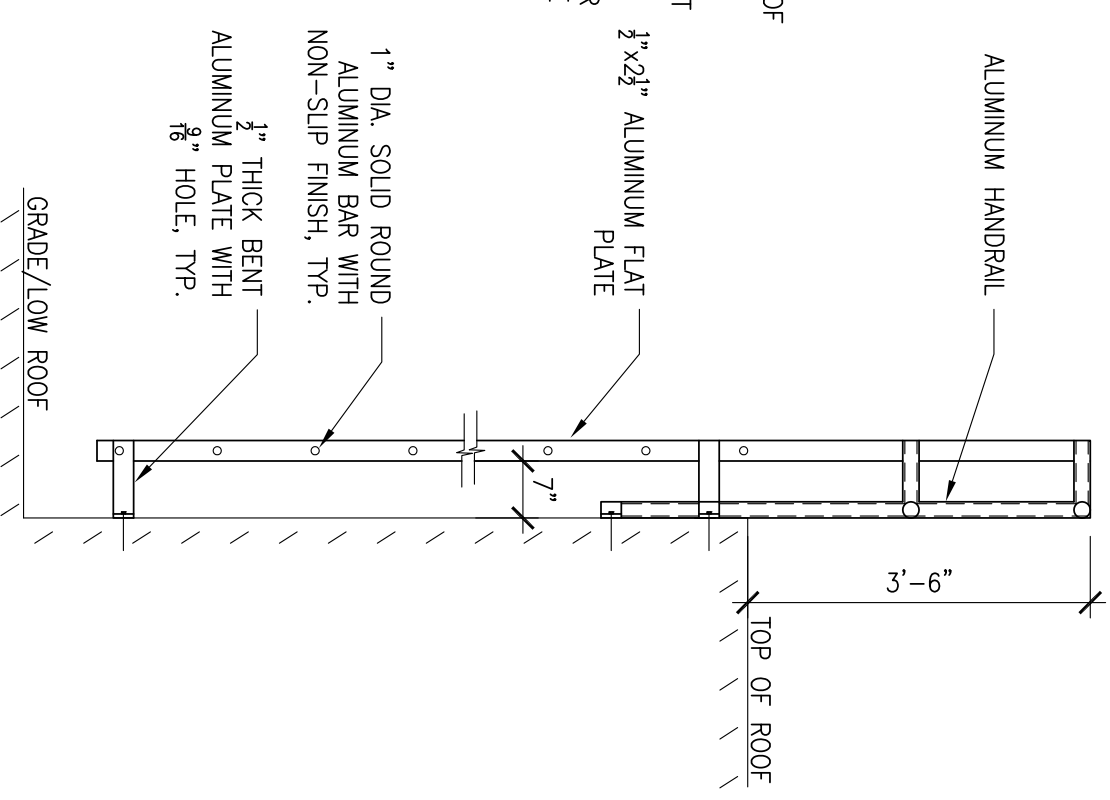
1'-0" MAX

NOTES-SPECIFICATIONS:

- 1. ALUMINUM
- A. EXTRUDED BARS AND TUBING: ASTM B221, ALLOY 6063-T5.
- B. PLATE AND SHEET: ASTM B209, ALLOY 6061-T6.
- C. FINISH: MECHANICAL FINISH, AA-M12.

NOTES:

- 1. ROOF EDGE DETAIL WILL GOVERN THE LOCATION OF THE LADDER & GUARD TOP ANCHORS. VERIFY FIELD CONDITIONS PRIOR TO FABRICATION AND COORDINATE WITH PSU PERSONNEL FOR APPROVAL OF ATTACHMENT LOCATION.
- 2. FLAT PLATE SIDE RAILS MUST BE DRILLED TO RECEIVE ROUND BAR LADDER RUNGS. IF ROUND BAR EXTENDS BEYOND OUTSIDE EDGE OF FLAT PLATE SIDE RAILS, CONTRACTOR SHALL GRIND SMOOTH. LADDER RUNGS THAT TERMINATE AT INTERIOR FACE OF SIDE RAILS NOT PERMITTED.



ALUMINUM HANDRAIL

1" x 2 1/2" ALUMINUM FLAT PLATE

1" DIA. SOLID ROUND ALUMINUM BAR WITH NON-SLIP FINISH, TYP.

1" THICK BENT ALUMINUM PLATE WITH 9/16" HOLE, TYP.

GRADE/LOW ROOF

TOP OF ROOF

** THIS DESIGN IS TO BE USED WHERE THERE IS NO PARAPET WALL OR A PARAPET WALL OF HEIGHT 12" OR LESS **

** IF THE HEIGHT FROM THE LOW ROOF TO THE TOP OF THE HIGH ROOF/PARAPET WALL IS GREATER THAN 24'-0", A RIGID RAIL LADDER SAFETY SYSTEM MUST BE INSTALLED **



PennState
Physical Plant
DESIGN SERVICES

113 PHYSICAL PLANT BUILDING
UNIVERSITY PARK, PA 16802

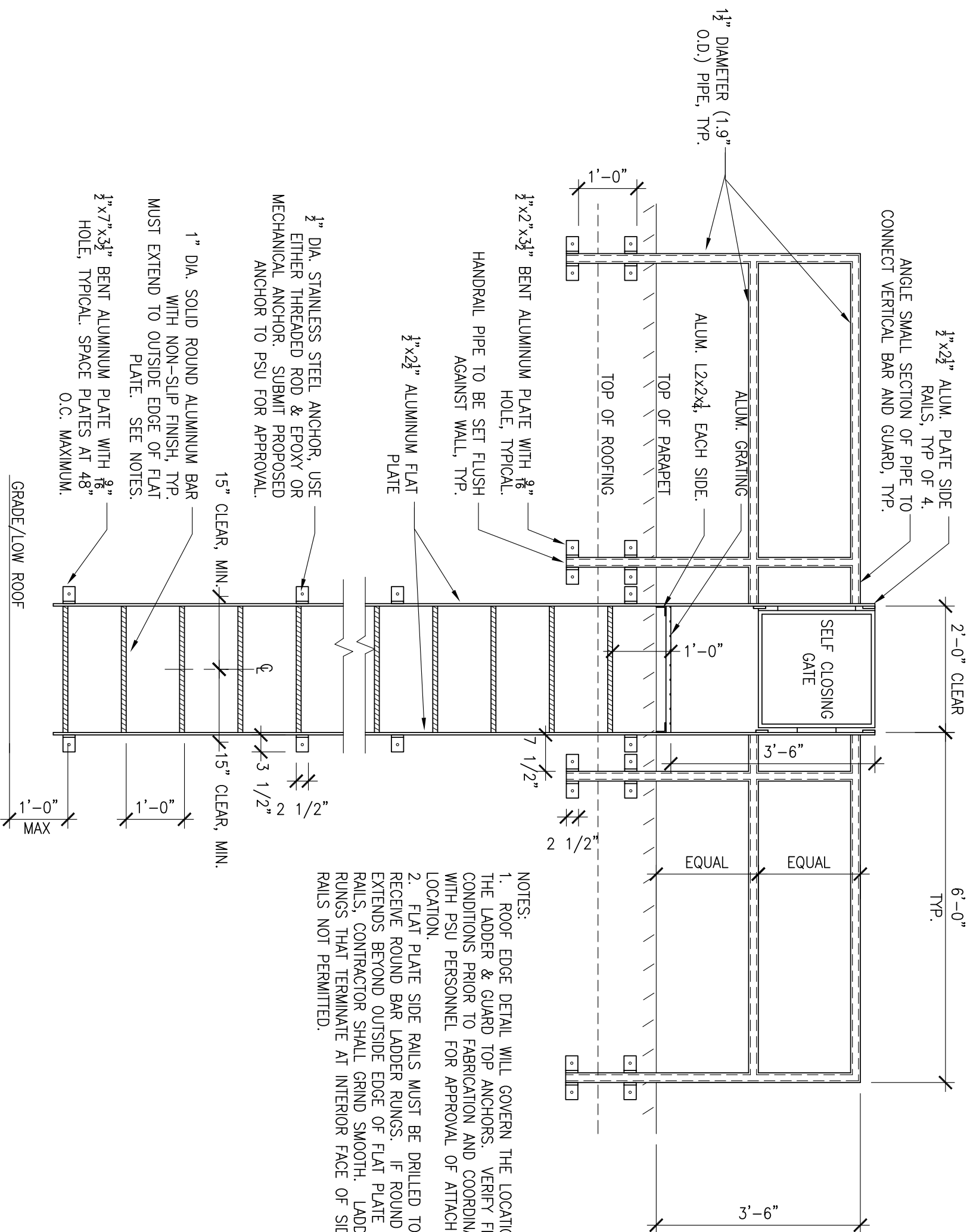
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www.opp.psu.edu

BLDG-NAME
PROJECT #
SHEET # S-1

DATE: 02-15-19

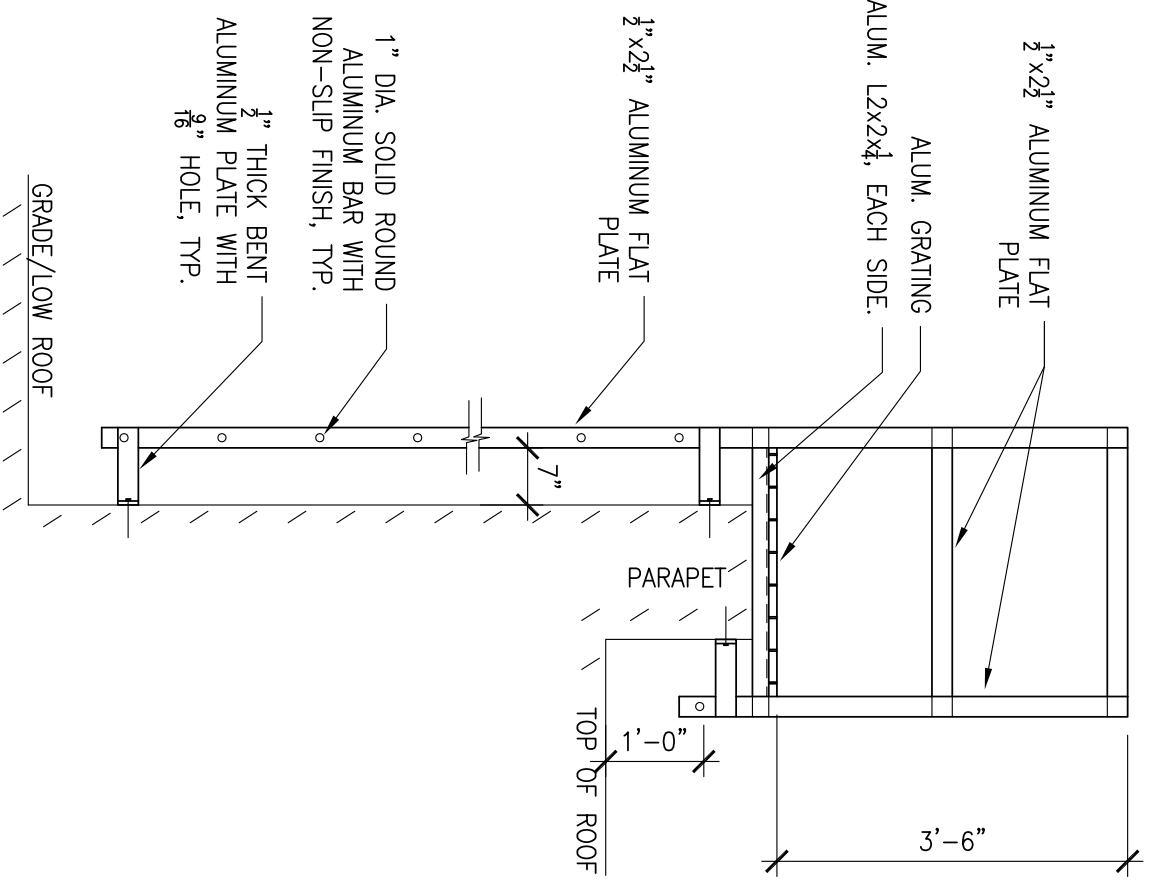
DESCRIPTION: TYPICAL FIXED LADDER,
NO, OR LOW, PARAPET (< 12")



NOTES-SPECIFICATIONS:

- 1. ALUMINUM
- A. EXTRUDED BARS AND TUBING: ASTM B221, ALLOY 6063-T5.
- B. PLATE AND SHEET: ASTM B209, ALLOY 6061-T6.
- C. FINISH: MECHANICAL FINISH, AA-M12.
- D. GRATING: 1" x 3/8" ALUMINUM RECTANGULAR BAR GRATING 19-SG-2 WITH SERRATED SURFACE.

- NOTES:
1. ROOF EDGE DETAIL WILL GOVERN THE LOCATION OF THE LADDER & GUARD TOP ANCHORS. VERIFY FIELD CONDITIONS PRIOR TO FABRICATION AND COORDINATE WITH PSU PERSONNEL FOR APPROVAL OF ATTACHMENT LOCATION.
 2. FLAT PLATE SIDE RAILS MUST BE DRILLED TO RECEIVE ROUND BAR LADDER RUNGS. IF ROUND BAR EXTENDS BEYOND OUTSIDE EDGE OF FLAT PLATE SIDE RAILS, CONTRACTOR SHALL GRIND SMOOTH. LADDER RUNGS THAT TERMINATE AT INTERIOR FACE OF SIDE RAILS NOT PERMITTED.



** THIS DESIGN IS TO BE USED WHERE THERE IS PARAPET WALL OF HEIGHT GREATER THAN 12" **
 ** IF THE HEIGHT FROM THE LOW ROOF TO THE TOP OF THE HIGH ROOF/PARAPET WALL IS GREATER THAN 24'-0", A RIGID RAIL LADDER SAFETY SYSTEM MUST BE INSTALLED **



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BLDG-NAME
 PROJECT #
 SHEET # S-2

DATE: 02-15-19
 BY:
 DESCRIPTION: TYPICAL FIXED LADDER,
 HIGH PARAPET (> 12')