

# AS-EPA 5 PEN IHAKA SYSTEM PIGGERY DESIGN

CLIENT: \_\_\_\_\_

VILLAGE: \_\_\_\_\_

This ihaka wash down piggery design has been approved by the American Samoa Environmental Protection Agency on \_\_\_\_\_ (Date)

## GENERAL CONDITIONS

- AS-EPA must be notified at least one week before construction activity begins. A pre-construction meeting on-site with AS-EPA is required before any construction starts. To schedule a pre-construction meeting, contact the AS-EPA Compliance Assistance Officer, Fa'auuga Laititi 633-2304.
- AS-EPA must be notified when construction is complete. A final walk-thru inspection must be conducted by AS-EPA before pigs can be placed in the new piggery.
- Piggeries with Ihaka waste management systems must have a Conservation Nutrient Management Plan (CNMP) with the USDA Natural Resource Conservation Service. Contact John Womack at NRCS for details 633-1031 ext 130.

## WASH DOWN PIGGERY DESIGN NOTES

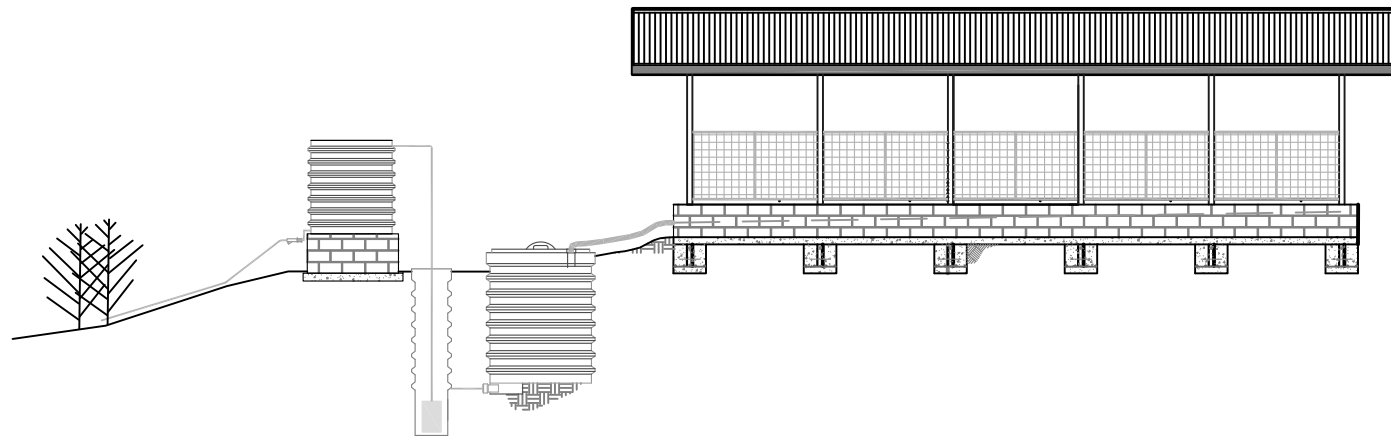
- All pen floors are to be sloped at 3%. In other words for every 10 feet in length a pen floor must drop 3½ inches in the direction indicated on the construction drawings.
- The roof must extend at least 2-feet beyond all concrete floor area including waste canals.
- Rain gutters w/ down spouts must be installed where indicated on construction drawings.
- New hog panel walls must be reinforced as indicated on construction drawings. New concrete slabs must be a minimum of 4 inches in thickness reinforced with mesh wire.
- All concrete must be 3000 psi.
- Concrete columns can be used instead of galvanized 3-inch tubing as indicated on construction drawings.
- It is recommended that all galvanized members be painted with anti-corrosive paint.
- Water nipples should be attached to hog panels 2-feet from the waste canal. Water nipples must be attached using galvanized fittings and must connect to a pressurized water source.
- Ihaka waste management components must be installed according to the Ihaka Installation Manual with an Ihaka representative or AS-EPA Engineer on site during the installation.
- The storage tank outlet must be a minimum of 6 feet above the area to be irrigated. This will typically require the construction of a storage tank CMU platform. In some cases there may be an existing elevated location at the site that can accommodate the storage tank.

## DRAWING LIST

- Sheet 1: Title Sheet & Site Plan
- Sheet 2: Floor Plan & Ihaka Layout
- Sheet 3: Building Profiles & Roof Detail
- Sheet 4: Roof Framing Plan & Details

## IHAKA WASH DOWN OPERATIONAL NOTES

- Filter tank bags solids will need to be removed and applied to crops every 4 to 9 months. If contents of bags are not dry at time of removal, contents must be placed in well ventilated and covered area until dry before being applied crops.
- Minimize the water useage by scraping pens of solids prior to washing the pens down.
- All pens must use a water nipple to supply water to the animals.
- The ihaka drip irrigation system must be periodically relocated as stated in the cooresponding CNMP.
- Only surface crops and crops indicated in the CNMP can be used with the ihaka drip irrigation system.
- The Ihaka system must be operated as stated in the Ihaka Waste Management Guide.



1 SITE PLAN

SITE COORDINATES

LAT: ° LOG: °

SHEET NO:  
1

DATE:	REVISION:

DRAWN BY:	B.R.
CHECKED BY:	M.V.
PROJECT MGR:	



PROJECT:  
ENGINEERING DESIGNS FUNDED BY  
ANA GRANT "PIGS IN PARADISE"

SHEET TITLE:  
TITLE SHEET

CLIENT:

SCALE:

AS SHOWN





CASE NO.

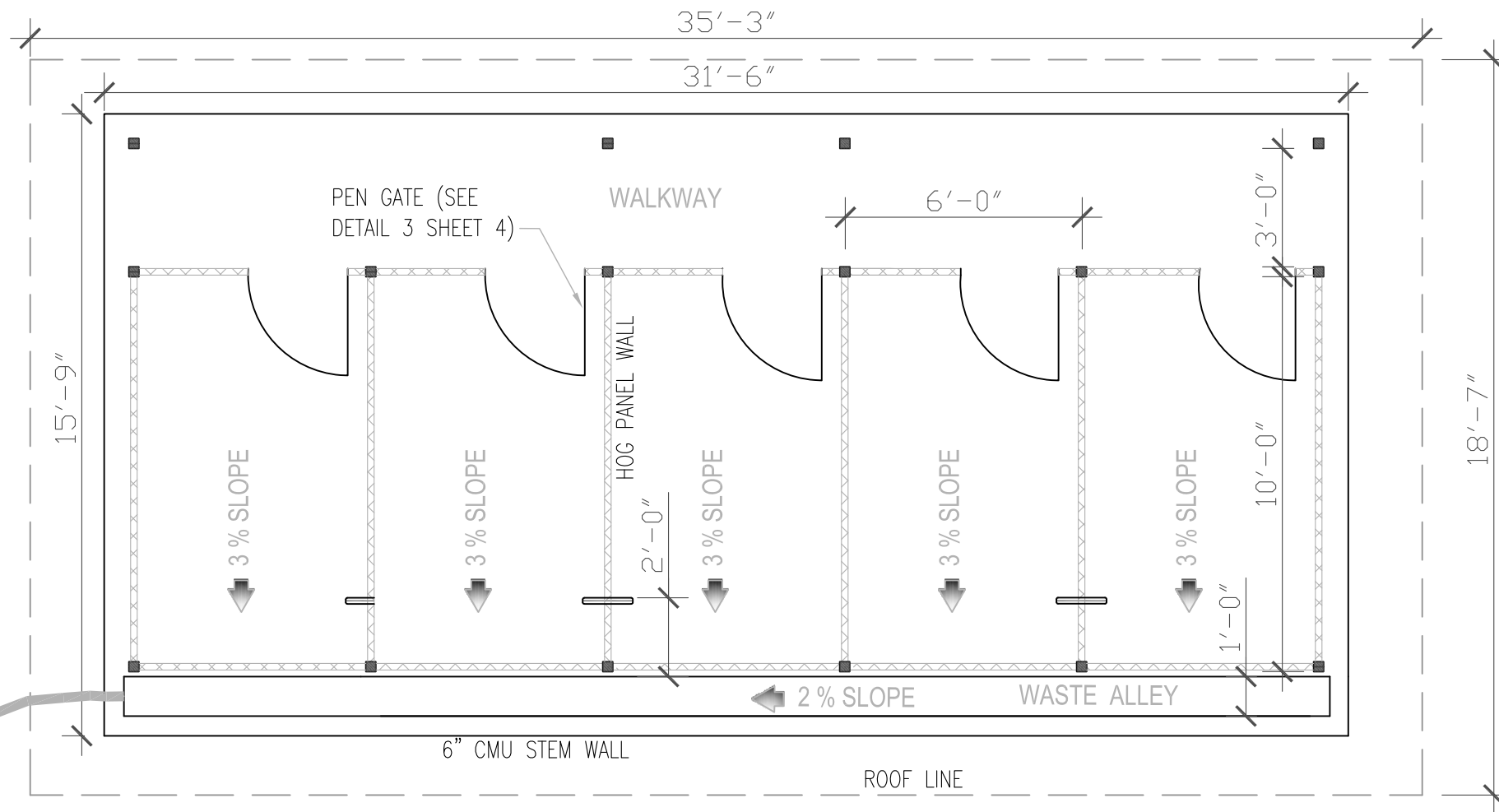
DATE:

SHEET NO.

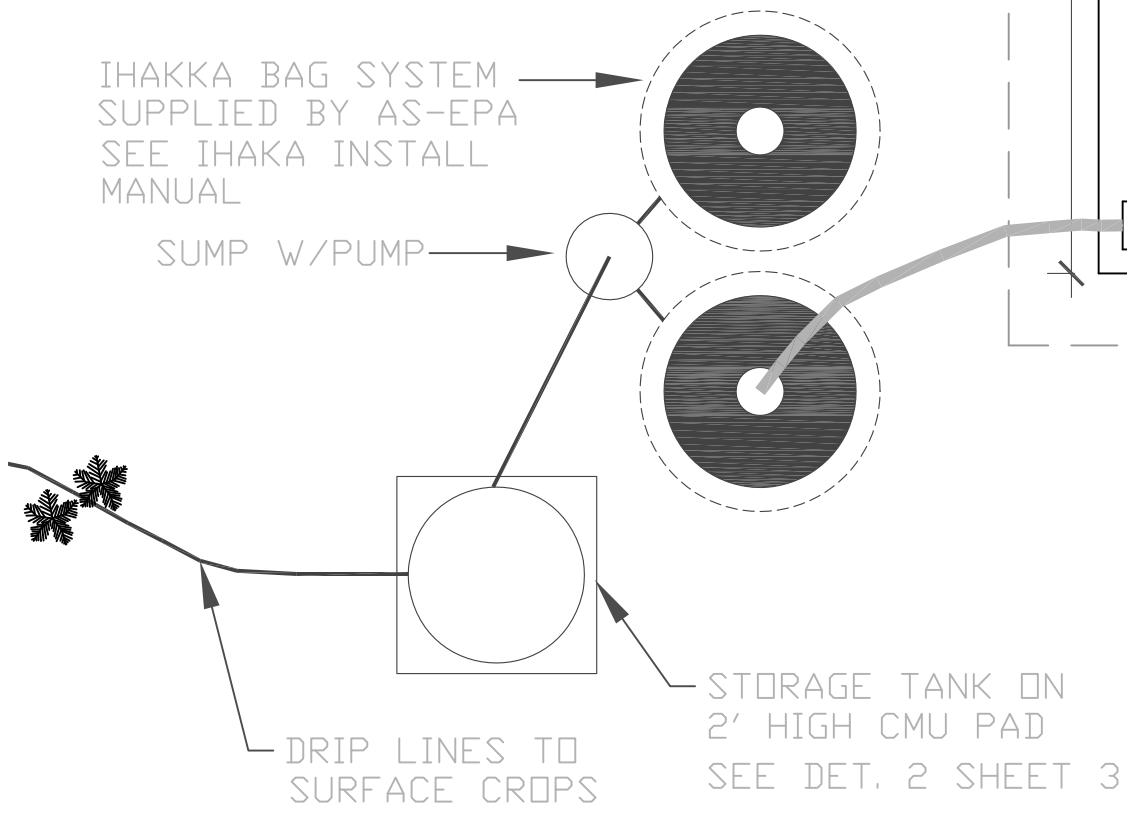
1 OF 4

**LEGEND**

-  HOG PANNEL WALL
-  EDGE OF ROOF
-  3"x3" GALV. SQ TUBING
-  WATER NIPPLE W/TEE ON HOG PANNEL (SEE DETAIL 5 SHEET 4)



**1 FLOOR PLAN**  
1/4" = 1'



**1 IHAKA SYSTEM LAYOUT**  
1/4" = 1'

SHEET NO:  
**2**

DATE:	REVISION:

DRAWN BY: B.R.  
CHECKED BY: H.V.  
PROJECT MGR:



PROJECT:  
ENGINEERING DESIGNS FUNDED BY ANA GRANT "PIGS IN PARADISE"

SHEET TITLE:  
**FLOOR PLAN & IHAKA SYSTEM LAYOUT**

CLIENT:

SCALE:  
AS SHOWN

FILE NO.

DATE:

SHEET NO.

DATE:	REVISION:

DRAWN BY:	B.R.
CHECKED BY:	M.V.
PROJECT MGR:	



PROJECT: ENGINEERING DESIGNS FUNDED BY ANA GRANT "PIGS IN PARADISE"

SHEET TITLE: BUILDING PROFILES & ROOF / GUTTER DETAILS

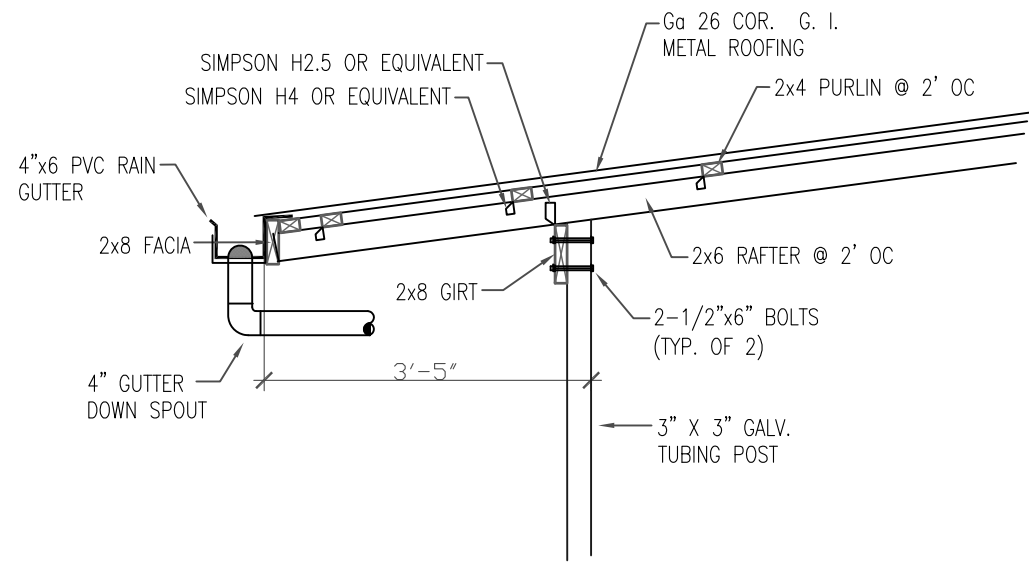
CLIENT: .

SCALE: AS SHOWN

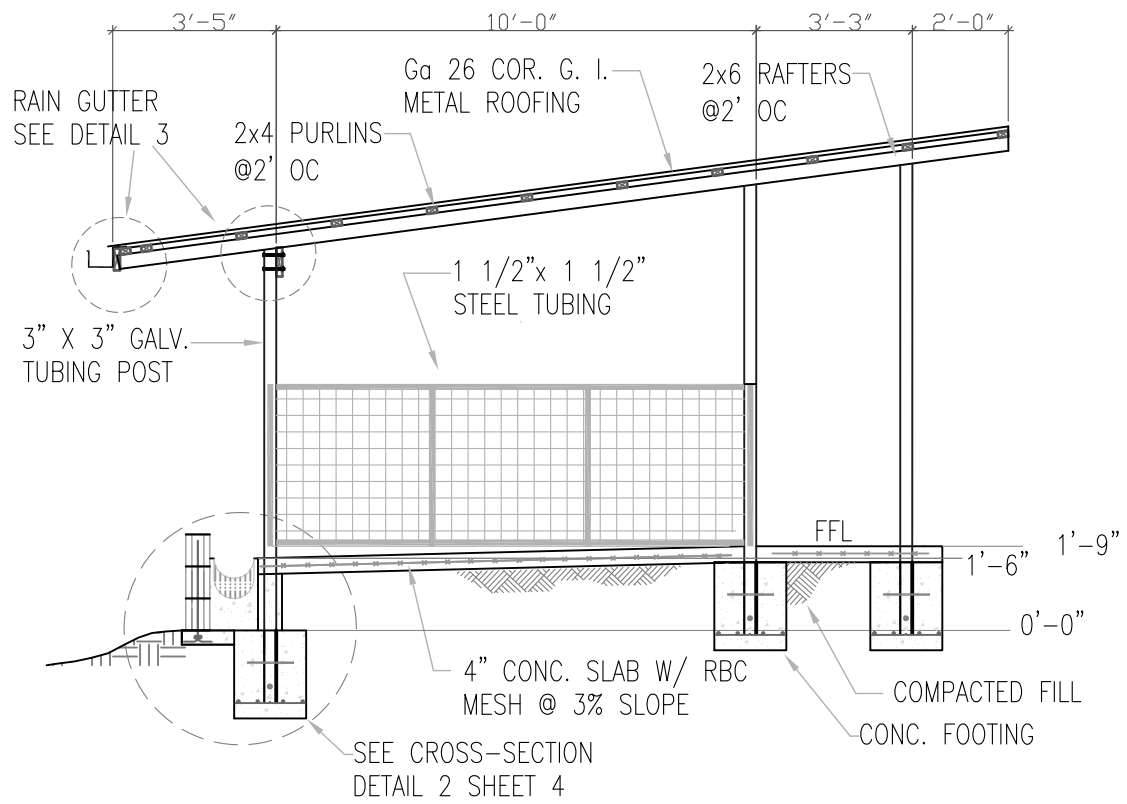
FILE NO.

DATE:

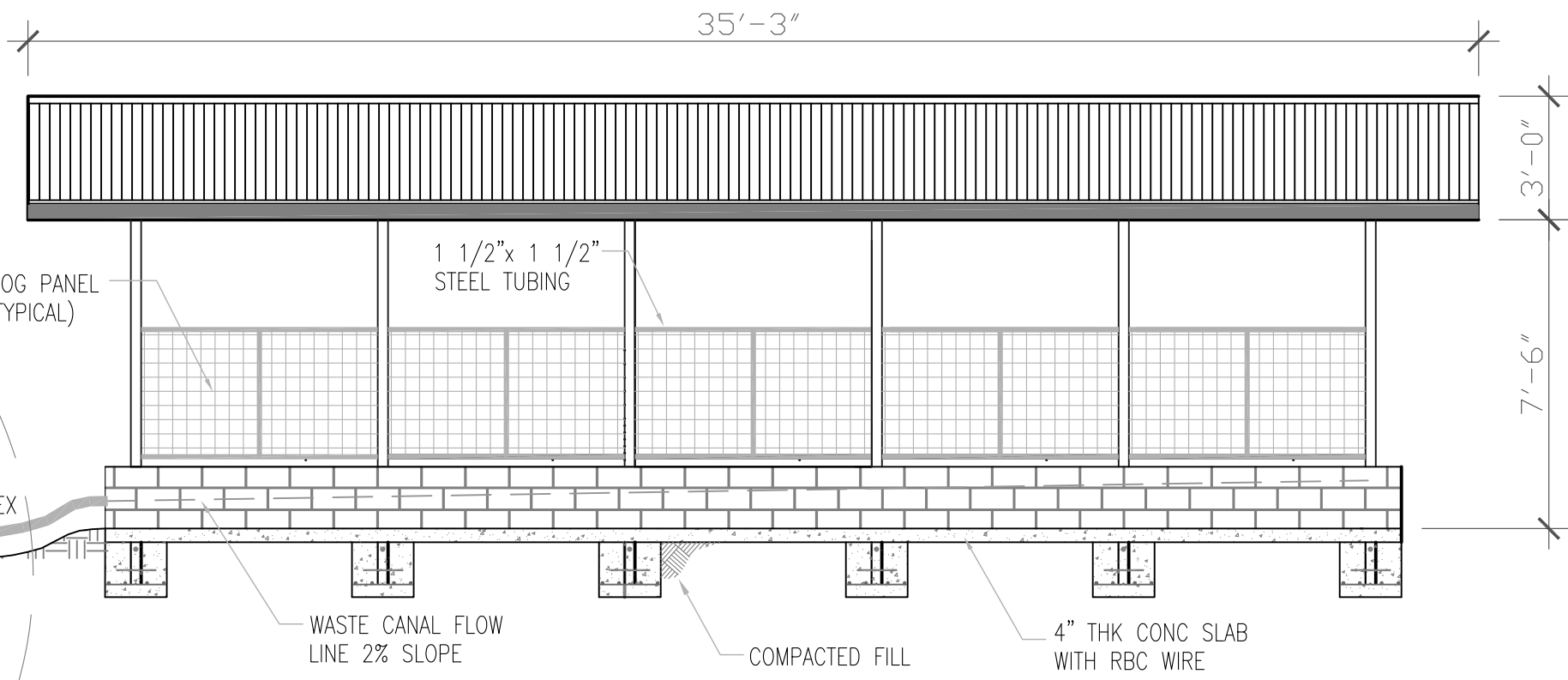
SHEET NO.



3 ROOF PROFILE & GUTTER DETAIL 1/2"=1'



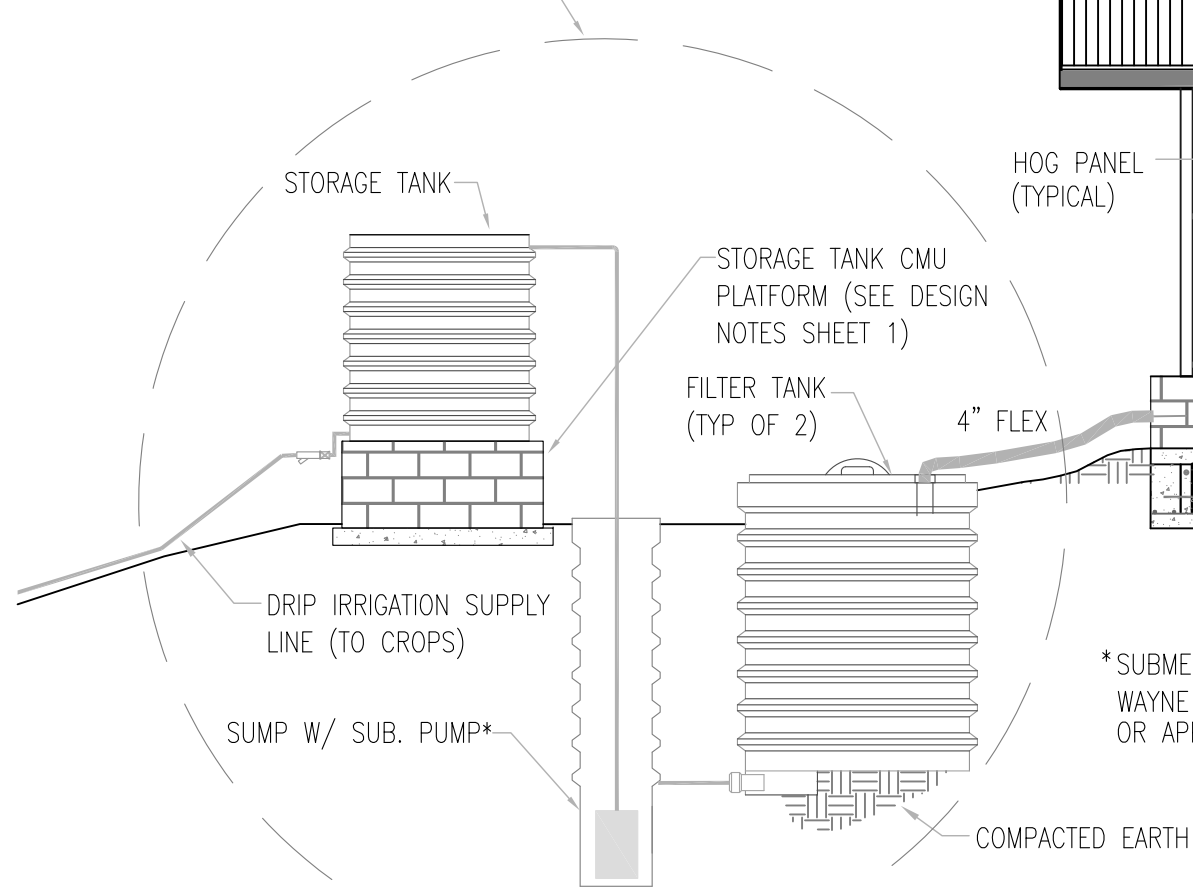
1 RIGHT SIDE VIEW 1/4"=1'



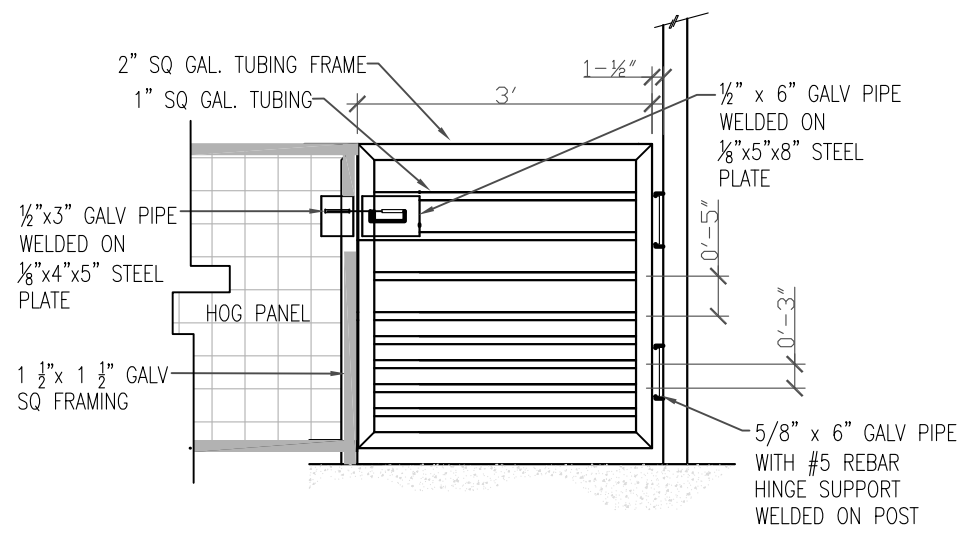
2 FRONT VIEW 1/4"=1'

Gutter Install Notes:  
 Gutter Brackets must be spaced no more than 32 inches apart.  
 Gutter must have a minimum slope of 1/16" per foot.

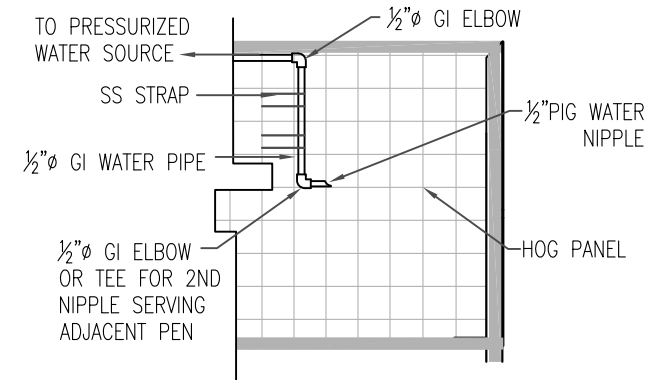
IHAKA WASTE MANAGEMENT SYTEM (SEE IHAKA INSTALL MANUAL)



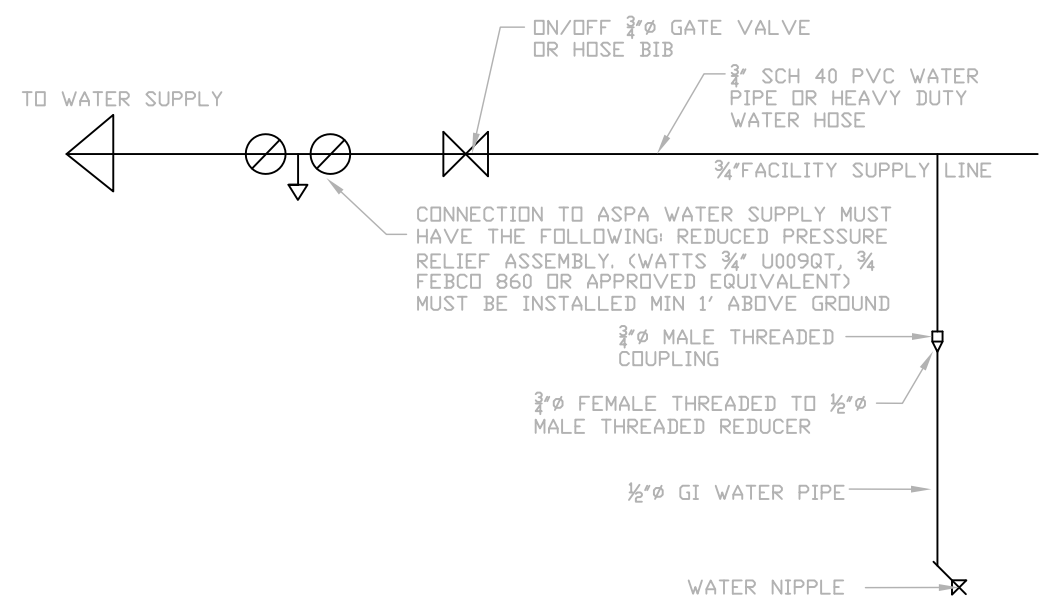
\*SUBMERSIBLE PUMP: WAYNE 1/3 HP SWITCH GENIUS OR APPROVED EQUIVALENT



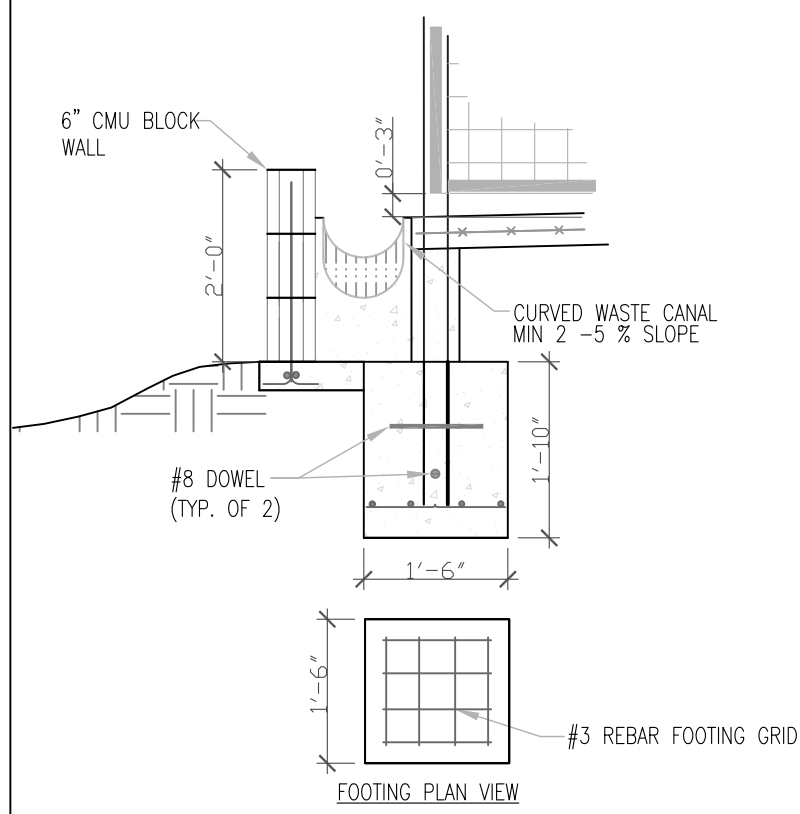
**3 PEN GATE ASSEMBLY DETAIL**  
1/2"=1'



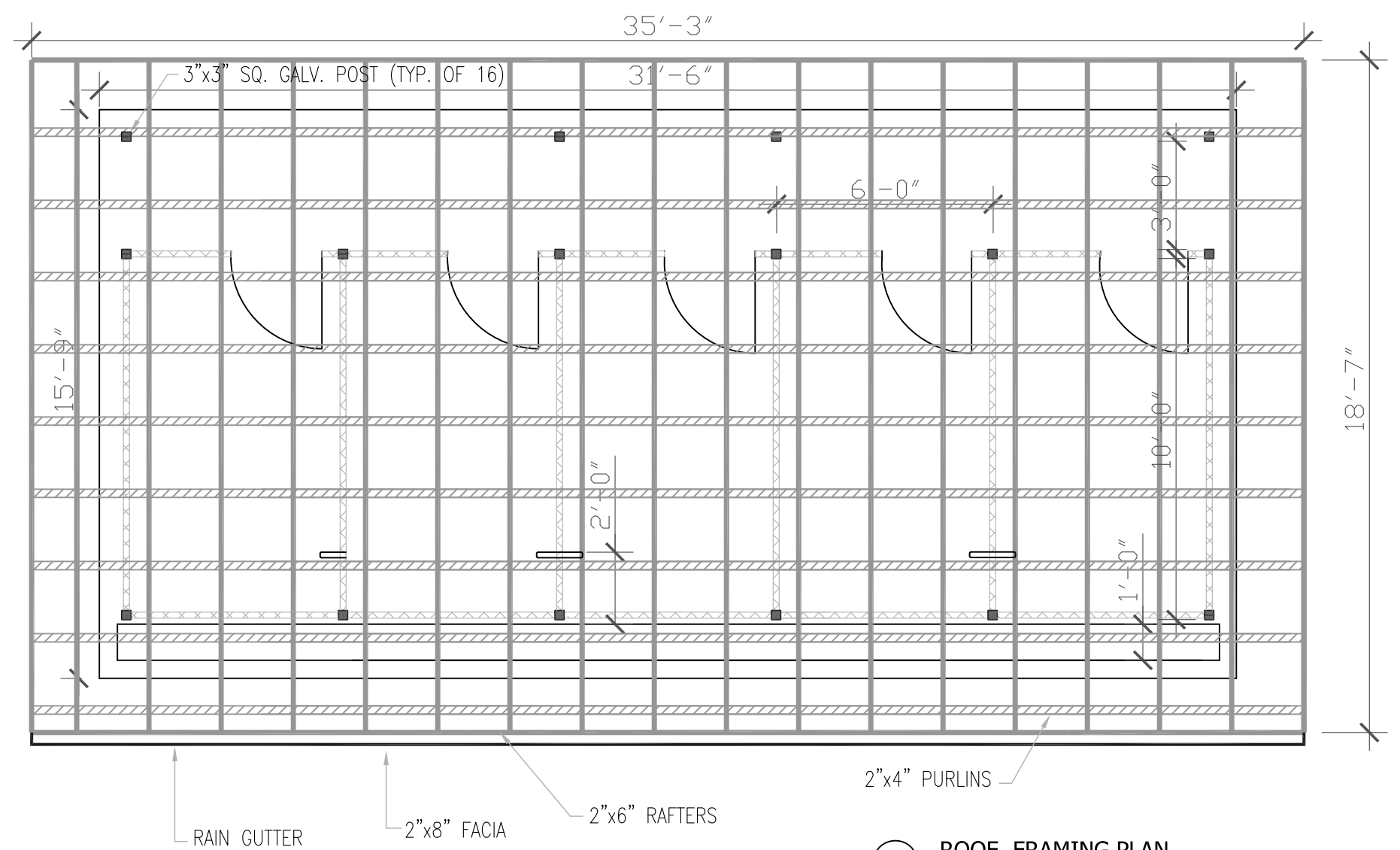
**4 PIG WATER NIPPLE DETAIL**  
1/2"=1'



**5 WATER SUPPLY DETAIL**  
NTS



**2 WASTE CANAL CROSS-SECTION**  
1/2"=1'



**1 ROOF FRAMING PLAN**  
1/4"=1'

SHEET NO: <b>4</b>	
DATE:	REVISION:
DRAWN BY:	B.R.
CHECKED BY:	M.V.
PROJECT MGR:	
PROJECT: ENGINEERING DESIGNS FUNDED BY ANA GRANT 'PIGS IN PARADISE'	
SHEET TITLE: ROOF FRAMING PLAN & DETAILS	
CLIENT:	
SCALE: AS SHOWN	
CASE NO.:	
DATE:	
SHEET NO.:	
<b>4 OF 4</b>	