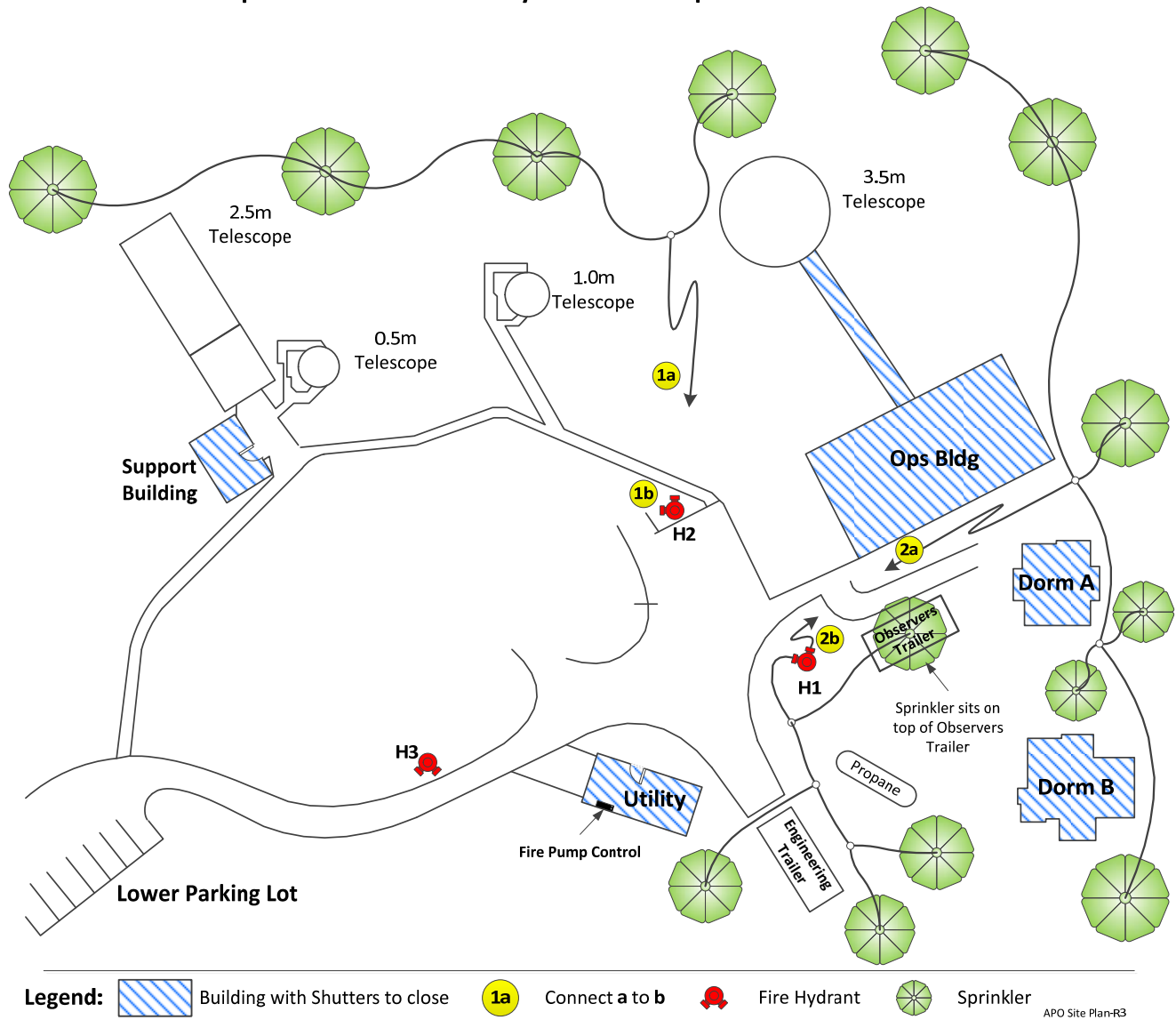


# APO Sprinkler and Shutter Procedure

This document is a supplement to the APO Forest Fire Procedure Pre-plan and is intended as a quick reference map and guide for SVFD in the event that the APO fire shutters need to be closed and the exterior fire suppression sprinklers turned on. Although not in the same order, the steps contained in this procedure can be found in Section 3 of the attached APO Forest Fire Procedure.

## Apache Point Observatory – Site Plan: Sprinklers and Shutters



## GUIDELINES

- The following procedure should be implemented if fire is encroaching from the south/west/northwest and will reach Sunspot/APO within the hour.
- Shutter crank handles are located throughout the facility leaning against exterior walls of the buildings.
- Fire Hydrant wrenches are pre-positioned at each fire hydrant.

(OVER)

## PROCEDURE

1. **Roll down shutters on all buildings indicated above.**
  - a. This includes the Support Building, Operations Building, Dorm A, Dorm B, and the Utility/Garage/Shop.
2. **Connect 1a → 1b: Sprinklers along West Ridge – 3.5m Telescope**
  - a. Pull pre-connected hose across pavement from sprinklers west of 3.5m telescope and connect to Fire Hydrant H2.
  - b. Open Fire Hydrant H2. NOTE: Water will not flow from hydrant until Step 4.
3. **Connect 2a → 2b: Sprinklers along West/NorthWest Ridge – 3.5m Telescope, Support Building, Dorms**
  - a. Pull pre-connected hose across sidewalk from sprinklers west/northwest of Operations Building and Dorms and connect to pre-connected hose from Fire Hydrant H1.
  - b. Open Fire Hydrant H1. NOTE: Water will not flow from hydrant until Step 4.
4. **Turn On Fire Pump**
  - a. Obtain key to Utility/Garage/Shop building from key-box in truck.
  - b. Unlock west door and turn light switch on and proceed to opposite side of shop.  
Lights will automatically turn on when you enter the shop but you need to turn the light switch on.
  - c. Start fire pump located on the wall opposite the door by pressing the Black start button.  
Lights will automatically turn out except for the light fed by the light switch by the door.  
Pump will take 15 seconds to build up pressure. Water leakage is normal.

## NOTES

- Fire pump obtains its water from the water tank located on the hill in the middle of the APO grounds.
- Each sprinkler consumes ~10 gallons/minute – with pump pressure bleed and sprinklers the system consumes ~150-200 gallons/minute. The water tank holds about 23000 gallons providing approximately 100 minutes of protection. Prior to the 100 minute time frame the water tank must be re-filled. A 6" white pipe w/cap on the hill in the parking log covers the tank fill valve. Remove cap, obtain long red valve tool (located next to fire pump control in the utility building), and open valve.
- If commercial power is lost, APO automatically switches to generator power and the fire pump will continue to run.
- Fire Hydrant H3 is fed from the incoming water supply and is between the tank and pump. If the generator fails (i.e. chokes or runs out of diesel) then reconnect sprinkler hoses from Hydrants H1 and H2 to Hydrant H3.