



Operation & Maintenance Plan Heavy Use Area Protection (Code 561)

Landowner/Operator:

Date:

NRCS Service Center:

Conservation District:

Practice Location:

Tract/Field ID:

(Lat/Long or UTM Coord, or Sec/TS/R)

Expected Lifespan

The minimum expected lifespan of this practice is at least 10 years.

A properly operated and maintained **Heavy Use Area Protection (HUAP)** system is an asset to your property. The purpose of this practice is to provide a stable, non-eroding surface for areas frequently used by animals, people or vehicles and to protect or improve water quality. The life of the practice can be assured and usually extended by developing and carrying out a good operation and maintenance program.

This practice will require you to perform periodic operation and maintenance to maintain satisfactory performance. The following are some requirements to help you develop a good operation and maintenance program.

Safety

1. When necessary to confine livestock and exclude human access, provide fencing, gates and other barriers. Inspect fence and gates at least twice a year. Repair and/or replace damaged fences and gates as soon as possible. Keep gates closed at all times.
2. Roughen concrete and other smooth surfaces to prevent livestock from slipping and causing injury.
3. Remove livestock from the barnyard when scraping manure or otherwise operating equipment to prevent injury to the livestock.
4. Consider excluding livestock from the barnyard when weather becomes too cold and surface becomes icy and slippery.
5. Do not overcrowd barnyard. Overcrowding can cause injury to livestock. Livestock generally requires approximately 50 Square Feet per Animal Unit.

Operation

1. A concrete barnyard is not a substitute for housing. Barnyard is generally where livestock go to exercise, feed, heat check, etc. four to six hours per day. A barn or housing immediately adjacent to the barnyard should be provided where the livestock can go to lay down.
2. Confine livestock to the barnyard (HUAP). Do not allow livestock to loaf, congregate, stand, etc. outside of the confines of the barnyard at any time.
3. When possible, scrape manure from the barnyard on a daily basis. A maximum of seven days between scrapings is allowable. The scraping interval may be increased when it is impracticable to scrape due to freezing weather. Scrape immediately once manure has thawed. If necessary, stack or store frozen and dry manure on the barnyard for no longer than one week.
4. Manure from the barnyard shall be scraped to an approved waste storage facility or be hauled away to an approved field stacking location; or land applied in accordance with the nutrient management plan.
5. Do not stack or store manure outside the confines of the barnyard, except in a designated storage facility.
6. For vegetated heavy use areas, restrict use as needed to protect the stand and to allow vegetative recovery.
7. For gravel heavy use areas, the routine replacement of the wear surface material should be expected every three or four years.

Inspection and Maintenance

1. Inspect all paved areas, including curbing and push-off ramps, at least twice a year, for cracks, spalls, settlement, or separations. Make repairs as necessary.
2. Periodically inspect fencing and gates installed around the perimeter of the barnyard. Make repairs as necessary.
3. Inspect the barnyard after every significant rain event (ie. greater than one inch) to ensure that manure, wastewater, contaminated runoff, and other wastes are flowing into a designated waste storage facility. If manure laden runoff is observed flowing away from the barnyard and not to where it is intended to go, make necessary repairs to stop this from happening.
4. Promptly repair or replace damaged components especially surfaces that are subjected to wear or erosion.

Operation, Maintenance and Inspection Costs

1. It is estimated that the annual time to routinely inspect and make minor repairs to your Heavy Use Area Protection will be:
 - a. Inspection = 2 hours/month/2500 square feet
 - b. Minor Repairs = 2 hours/month/2500 square feet
 - c. Cleaning = 2 hours/day/2500 square feet
 - d. Major repairs to damaged concrete and other components caused by equipment and livestock will require extra time and materials.
2. Most maintenance, such as grading, gravel replacement, etc. can be accomplished using common farm machinery. Occasional damage, caused by major storm events may require heavy construction equipment to make the necessary repairs.
3. Most minor repairs, such as fencing, gates, minor damage to concrete, etc. can be made by the operator using basic hand tools. However, major repairs to damaged concrete, roofing, etc. may require hiring a professional experienced in these repairs and improvements.

Specific Site Requirements