

Single-Ply Roof Data (10/31/95)

General Information

1. Building name: _____ 2. Number: _____
 3. Section #: _____ 4. Square footage: _____ 5. Year installed: _____

Condition Assessment

	Priority	Description	W	P
	0 1 2 3 4			
6. Repair leaks:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
7. Correct ponding:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ sf _____	<input type="checkbox"/>	<input type="checkbox"/>
8. Repair physical damage:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ sf _____	<input type="checkbox"/>	<input type="checkbox"/>
9. Add/repair ballast:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ sf _____	<input type="checkbox"/>	<input type="checkbox"/>
10. Repair surface coating:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ sf _____	<input type="checkbox"/>	<input type="checkbox"/>
11. Repair membrane:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ sf _____	<input type="checkbox"/>	<input type="checkbox"/>
12. Repair seams:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ lf _____	<input type="checkbox"/>	<input type="checkbox"/>
13. Repair base/counter flashings:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ lf _____	<input type="checkbox"/>	<input type="checkbox"/>
14. Repair equipment/vent flashing:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ lf _____	<input type="checkbox"/>	<input type="checkbox"/>
15. Repair expansion joints:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	_____ lf _____	<input type="checkbox"/>	<input type="checkbox"/>
16. Repair roof drains, scuppers:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	number: _____ size: _____ in	<input type="checkbox"/>	<input type="checkbox"/>

17. Comments: _____

18. Completed by: _____ Date: _____

Facility Assessment - Single-Ply Roofing
Instructions 11/1/95

General:

The values to be entered for the items in the roof rating are averages for that section of roofing. If sections of a buildings roof have been replaced at different times, a separate data sheet is to be completed for each section. When defects are discovered, note the location and type of defect on a sketch of the roof. For each item being rated, two check boxes are provided labeled "W" and "P". If a work order is written to correct an identified deficiency, check the "W" box. If the inspector recommends that the defect be corrected through the implementation of a facility renewal project, check the "P" box.

Single-ply roof data:

- Item 1: The building name is the official name as assigned by the institution.
- Item 2 If the building has been assigned a building number, enter the number.
- Item 3: In most buildings, there will be multiple sections of roof. To identify the area being surveyed, each section must be assigned a unique number. Enter the section number of the roof.
- Item 4: Determine the total gross square footage of the roof. Do not subtract the area of roof penetrations.
- Item 5: Estimate the year in which the existing roof was installed.
- Item 6: Examine building maintenance records to determine if the building occupants have reported roof leaks in the past. Examine the underside of the roof or the suspended ceiling tile for signs of leaks. Make certain that the leaks are from the roof and not plumbing or HVAC equipment. Indicate the location of all leaks on the roof diagram. Rate the priority of repairing the leaks as follows:
- 0 - No action required
 - 1 - Signs of minor leaking in past, no current leaks
 - 2 - Minor current leaking, recommend immediate repairs
 - 3 - Moderate leaking, recommend immediate repairs and replacement within five years
 - 4 - Extensive leaking, recommend immediate major repairs or replacement
- Item 7: The best method used to examine a roof for evidence of ponding is to walk the roof 24 hours after a moderate to heavy rain has ended. If there is standing water on the roof at any location, the roof has a ponding problem. Estimate the total square footage of the roof that is impacted by ponding and enter the value in the description section. Note the location of areas impacted by ponding on the roof

sketch. Rate the priority of repairing the roof ponding problem as follows:

- 0 - No action required
- 1 - Ponding of small areas less than five feet in diameter and less than 1/2 inch deep
- 2 - Ponding that extends less than 10 feet in diameter and less than one inch deep
- 3 - Ponding less than 15 feet in diameter and less than one inch deep
- 4 - Ponding greater than 15 feet in diameter or more than one inch deep

Item 8: Walk the roof looking for signs of damage from foot traffic, dropped equipment or tools, tree limbs, and other elements that could physically destroy the roof. Note the location of damage on the roof sketch. Rate the priority of repairing roof damage as follows:

- 0 - No action required
- 1 - Minor damage in a few isolated areas, no immediate threat to the integrity of the roof
- 2 - Minor damage in a number of locations, no immediate threat to the integrity of the roof
- 3 - Major damage resulting in no roof leaks, recommend repairs within two years
- 4 - Major damage resulting in roof leaks, recommend immediate repairs

Item 9: Not all singly-ply roofing systems use ballast. If there is no ballast, check "0" for priority and skip to item 10. Walk the roof looking for areas where the roof ballast is thin or missing. Note the areas on the roof sketch. Estimate the total square footage of areas requiring additional ballast and enter the value in the description section. Rate the priority of repairing the roof ballast as follows:

- 0 - No action required
- 1 - No areas of exposed coating, but ballast thin in some areas
- 2 - Some bare spots but no more than 5% of the roof coating exposed
- 3 - Less than 10% of the roof coating exposed, recommend adding ballast within one year
- 4 - More than 10% of the roof coating exposed, recommend adding ballast immediately

Item 10: Some single ply roofs use a coating to protect the roof membrane from ultraviolet light. In order to rate the condition of the surface coating, it may be necessary to temporarily remove small sections of the aggregate. The most common defects are blistering, alligating, peeling, cracking, and fishmouths. Note the type of defects found and the total estimated square footage in the description section. Rate the priority of repairing the surface coating as follows:

- 0 - No action required
- 1 - Minor isolated defects
- 2 - Defects found on less than 10% of the roof surface
- 3 - Defects found on less than 25% of the roof surface

- 4 - Defects found on more than 25% of the roof surface, recommend replacement within one year

Item 11: The most common defects found in single-ply roof membranes are tears, punctures, detachment, and cracking. Note the type of defects found and the total estimated square footage in the description section. Rate the priority of repairing the membrane as follows:

- 0 - No action required
- 1 - Minor isolated defects
- 2 - Defects found on less than 10% of the roof surface
- 3 - Defects found on less than 25% of the roof surface
- 4 - Defects found on more than 25% of the roof surface, recommend replacement within one year

Item 12: Examine the roof seams for signs of splitting. Rate the priority of repairing the seams as follows:

- 0 - No action required
- 1 - Minor isolated defects
- 2 - Defects found on less than 10% of the roof seams
- 3 - Defects found on less than 25% of the roof seams
- 4 - Defects found on more than 25% of the roof seams, recommend replacement within one year

Item 13: The most common defects found in flashing are corrosion, separation from walls, separation from the roofing material, and open joints. Estimate the linear footage of the flashing in need of repair or replacement and enter the value in the description section. Rate the priority of repairing the flashing as follows:

- 0 - No action required
- 1 - Minor damage in a few isolated areas, recommend repairs within one year
- 2 - Damage to less than 10% of the flashing, recommend repairs within one year
- 3 - Damage to 10 to 25% of the flashing, recommend immediate repairs
- 4 - Damage to more than 25% of the flashing, recommend immediate replacement

Item 14: The most common defects found in equipment and vent flashing are corrosion, separation from equipment and vent bases, separation from the roofing material, and open joints. Estimate the linear footage of the flashing in need of repair or replacement and enter the value in the description section. Rate the priority of repairing the base flashing as follows:

- 0 - No action required
- 1 - Minor damage in a few isolated areas, recommend repairs within one year
- 2 - Damage to less than 10% of the flashing, recommend repairs within

one year

3 - Damage to 10 to 25% of the flashing, recommend immediate repairs

4 - Damage to more than 25% of the flashing, recommend immediate replacement

Item 15: The most common defects in expansion joints are surface cracks, deteriorated membranes, damaged flashings, and damaged blockings. Note the location of defective expansion joints on the roof sketch. Estimate the linear footage of the expansion joints that need repair or replacement and enter the value in the description section. Rate the priority of repairing or replacing the expansion joints as follows:

0 - No action required

1 - Minor defects in a few isolated locations, no leaks; no action required within three years

2 - Minor damage in a few isolated locations with possible leaking, recommend immediate repairs

3 - Damage to less than 10% of the expansion joints, recommend immediate repairs

4 - Damage to more than 10% of the expansion joints, recommend immediate replacement

Item 16: The most common defects found in roof drains include improper installation height, separation from the roofing membrane, and corroded or missing parts. Do not count debris as a defect. Note the location of roof drains with defects on the roof sketch. Note the size and number of the roof drains with defects in the description section. Rate the priority for repairing the roof drains as follows:

0 - No action required

1 - Minor repairs required within three to five years

2 - Minor repairs in one to three years

3 - Repair or adjust height of roof drain within one year

4 - Replace the drains immediately

Item 17: Enter any notes or comments concerning the roof installation or condition.

Item 18: Print the name of the person inspecting the roof, and the date when the inspection was completed.

**Facility Assessment - Single-Ply Roofing
Rating System (02/05/97)**

The overall rating for the condition of the single-ply roofing will be produced by the computer based on the age of the roof and relative values assigned to the 12 condition assessment items identified for single-ply roofs. All scoring will be completed automatically by the computer based on the assessment data. Those relative weights are as follows:

Assessment Item	Relative Weight
Age	high
Leaking	medium
Ponding	high
Visible physical damage	high
Ballast condition	low
Surface coating condition	low
Membrane condition	medium
Seams condition	high
Flashing condition	low
Equipment/vent flashing condition	low
Expansion joint condition	low
Roof drain condition	low