

ROOF ASSESSMENT REPORT
FOR



**US Army Corps
of Engineers.**

NATIONAL ROOFING PROGRAM

72 North Street
Danvers, MA 01923

July 27, 2021

020CHS-087 - 99th RD-MA008



ROOF ASSESSMENT REPORT
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Section 1

OVERALL MAP



FACILITY SUMMARY TABLE

Facility Name	Section Quantity	Average Condition	Total Replacement Cost
USARC	4,644	Red	\$127,710
OMS	2,120	Red	\$58,300
USARC-2	2,919	Red	\$80,273
Other	1,931	Red	\$53,103

Facility Overview - OD001 USARC



Northeast Elevation



Southwest Elevation



Southeast Elevation



Total Sections: 1

Total Sq Ft: 4644

Total Cost: \$127,710

Material	Name	Quantity	Est Install	CI	Cost
B301002 LOW SLOPE ROOF SYSTEMS	Section 1	4,644	2001	61	\$127,710
B201010 EXTERIOR JOINT SEALANT	Exterior Walls	60	1970	0	

Comments

Building is a single story construction and has EIFS cladding directly applied to CMU masonry block interior with a gravel built-up roof. The roof is in poor to fair condition and should be replaced in 3-4 years.

Exterior joint sealants are severely deteriorated and should be replaced.

Section: Section 1

Composition

Size: 4644 SF

Year: 2001

Material Category: B301002 LOW SLOPE ROOF SYSTEMS

Component Subtype: Built-Up



Overview

Core Cut:

Gravel

5-Ply Built-up Roof

1/2" Wood Fiber Insulation

3 1/2" Polyisocyanurate Insulation

Red Rosin Paper

Felt

Wood Deck

Wood Deck at Core Cut

Overview

Inspection

Inspection Date: 7/12/2021

Inspector: Ross, Mike

Inspected Condition: Amber -



Repairs observed to existing roof system. 2 SF

Displacement of gravel likely due to wind and water erosion, inadequate top pour coat, little or no embedment of aggregate, or moved intentionally by workman. 70 SF

Exposed Felts - Typically wind displaces gravel and exposes the underlying waterproofing membrane. As the membrane is exposed to UV and the elements it quickly breaks down allowing water in the system. 70 SF

Summary

Current Estimated Condition: Fair

Remaining Service Life: 4 years

Estimated Replacement Year: 2025

Replacement Cost: \$127,710

Comment:

Gravel built-up roof is in poor to fair condition and should be replaced in 3-4 years. Deficiencies found in this report should be repaired to extend life cycle of the roof system until roof can be replaced.

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GENERAL NOTES:
1. ALL ROOF PENETRATION SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
2. SECTION ELEVATIONS SHOWN IN FEET

PIPE PENETRATION SIZE	QUANTITY
4"	2
6"	2

PROJECT NAME:
**US ARMY RESERVE
ROOF ASSESSMENT
MA008**

PROJ. NO.: 20CHS-087 DATE: 07/20/21

72 NORTH ST
DANVERS, MA 01923

REVISIONS:

NO.	DATE	DESCRIPTION

DRAWN BY: RLW

THIS LINE IS 1 INCH ON THE ORIGINAL DRAWING
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SHEET TITLE:
ROOF PLAN

DRAWING:
A-001

GENERAL NOTES:
1. ALL ROOF PENETRATION SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
2. SECTION ELEVATIONS SHOWN IN FEET

KEY:

- ROOF EDGE
- STRUCTURAL SCOPE
- PENETRATION
- ROOF PENETRATOR

USARC OD001
SCALE: 1/8" = 1'-0"

Facility Overview - OD052 OMS



Southeast Elevation



Northwest/Northeast Elevations

Total Sections: 1

Total Sq Ft: 2120

Total Cost: \$58,300

Material	Name	Quantity	Est Install	CI	Cost
B301002 LOW SLOPE ROOF SYSTEMS	Section 1	2,120	2001	50	\$58,300
B201010 EXTERIOR JOINT SEALANT	Exterior Walls	50	1970	0	

Comments

Building is a single story construction and has CMU masonry block exterior walls with a gravel built-up roof. The roof is in poor to fair condition and should be replaced in 1-2 years.

Exterior joint sealants are severely deteriorated and should be replaced.

Section: Section 1

Composition

Size: 2120 SF

Year: 2001

Material Category: B301002 LOW SLOPE ROOF SYSTEMS

Component Subtype: Built-Up



Core Cut:
Gravel
5-Ply Built-up Roof
1/2" Wood Fiber Insulation
3 1/2" Polyisocyanurate Insulation
Steel Deck



Overview



Overview

Inspection

Inspection Date: 7/12/2021

Inspector: Ross, Mike

Inspected Condition: Red +



Exposed Felts - Typically wind displaces gravel and exposes the underlying waterproofing membrane. As the membrane is exposed to UV and the elements it quickly breaks down allowing water in the system. 80 SF



Displacement of gravel likely due to wind and water erosion, inadequate top pour coat, little or no embedment of aggregate, or moved intentionally by workman. 80 SF

Summary

Current Estimated Condition: Fair

Remaining Service Life: 2 years

Estimated Replacement Year: 2023

Replacement Cost: \$58,300

Comment:

Gravel built-up roof is in poor to fair condition and should be replaced in 1-2 years. Deficiencies found in this report should be repaired to extend life cycle of the roof system until roof can be replaced.

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SEALS:

PIPE PENETRATION SIZE	QUANTITY
4"	1
6"	1

PROJECT NAME:
US ARMY RESERVE

ROOF ASSESSMENT
MA008

72 NORTH ST
DANVERS, MA 01923

PROJ. NO.: 20CHS-087 DATE: 07/20/21

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SHEET TITLE
ROOF PLAN

DRAWING
A-001

GENERAL NOTES:
1. ALL ROOF PENETRATIONS SHALL BE TYPE METAL DECK
STRUCTURALLY FLASHPED 1"-2"
2. SECTION 1 TAKE HEIGHT 21 FEET

PLAN

KEY
 — ROOF EDGE
 — STRUCTURAL SLOPE
 ○ PENETRATION
 □ ROOF PENETRATION

A OMS OD052
SCALE: 1/8" = 1'-0"

Facility Overview - OD059 USARC-2



Southeast Elevation



Southwest Elevation



Northwest Elevation



Northeast Elevation

Total Sections: 1

Total Sq Ft: 2919

Total Cost: \$80,273

Material	Name	Quantity	Est Install	CI	Cost
B301002 LOW SLOPE ROOF SYSTEMS	Section 1	2,919	2001	50	\$80,273
B201010 EXTERIOR JOINT SEALANT	Exterior Walls	50	1970	0	

Comments

Building is a single story construction and has EIFS cladding directly applied to CMU masonry block interior with a gravel built-up roof. The roof is in poor to fair condition and should be replaced in 1-2 years.

No joint sealants observed at exterior walls.

Section: Section 1

Composition

Size: 2919 SF

Year: 2001

Material Category: B301002 LOW SLOPE ROOF SYSTEMS

Component Subtype: Built-Up



Core Cut:
Gravel
5-Ply Built-up Roof
1/2" Wood Fiber Insulation
3 1/2" Polyisocyanurate Insulation
Ice and Water Shield
Wood Deck



Overview



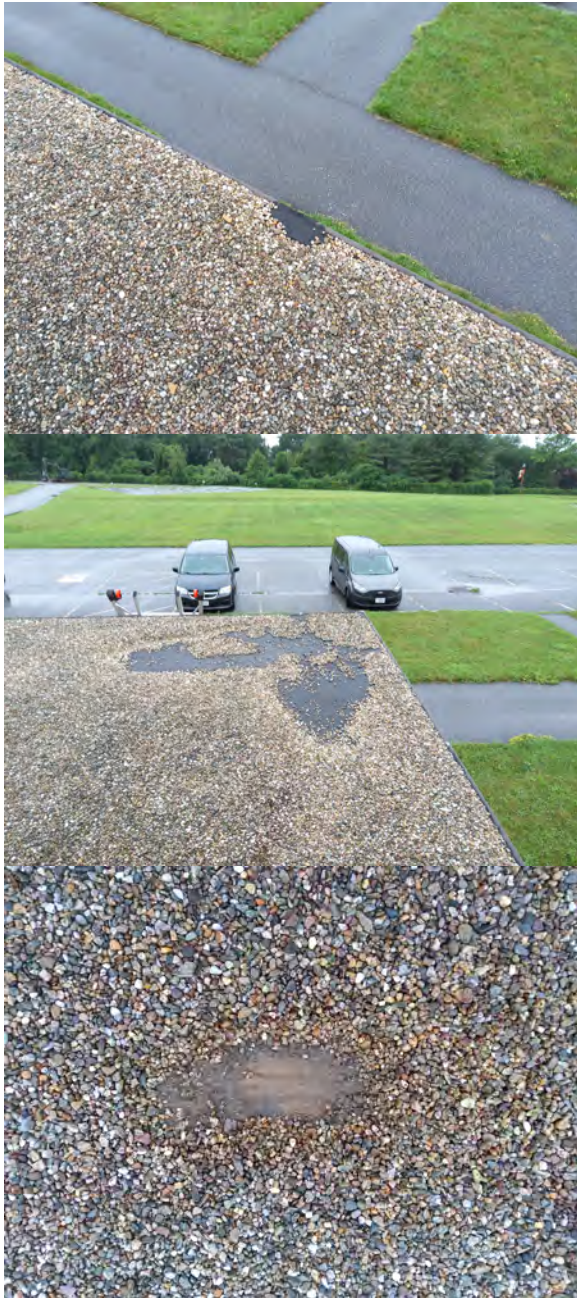
Overview

Inspection

Inspection Date: 7/12/2021

Inspector: Ross, Mike

Inspected Condition: Red +



Repairs observed to existing roof system. 1 SF

Exposed Felts - Typically wind displaces gravel and exposes the underlying waterproofing membrane. As the membrane is exposed to UV and the elements it quickly breaks down allowing water in the system. 50 SF

Displacement of gravel likely due to wind and water erosion, inadequate top pour coat, little or no embedment of aggregate, or moved intentionally by workman. 50 SF

Summary

Current Estimated Condition: Fair

Remaining Service Life: 2 years

Estimated Replacement Year: 2023

Replacement Cost: \$80,273

Comment:

Gravel built-up roof is in poor to fair condition and should be replaced in 1-2 years. Deficiencies found in this report should be repaired to extend life cycle of the roof system until roof can be replaced.

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PROJECT NAME:
US ARMY RESERVE
ROOF ASSESSMENT
MA008

PROJ. NO.: 20CHS-087 **DATE:** 07/20/21

**72 NORTH ST
DANVERS, MA 01923**

SEALS:

EQUIPMENT CLASS	QUANTITY
PIPE PENETRATION	1
PIPE PENETRATION	3

GENERAL NOTES:

1. ALL ROOF TYPE WOODSCK STRUCTURALLY RATED 1/2" 2"
2. SECTION BASE HEIGHT 14 FEET

EQUIPMENT CLASS	QUANTITY
PIPE PENETRATION	1
PIPE PENETRATION	3

REVISIONS:

NO.	DATE	DESCRIPTION

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SHEET TITLE:
ROOF PLAN

DRAWING:
A-001

USARC OD069
SCALE: 1/8" = 1'-0"

Facility Overview - OD070 Other



Partial Northwest Elevation



Building C52



Southeast Elevation



Total Sections: 1

Total Sq Ft: 1931

Total Cost: \$53,103

Material	Name	Quantity	Est Install	CI	Cost
B301002 LOW SLOPE ROOF SYSTEMS	Section 1	1,931	2001	50	\$53,103
B201010 EXTERIOR JOINT SEALANT	Exterior Walls	40	1970	0	

Comments

Building is a single story construction and has CMU masonry block exterior walls with a gravel built-up roof. The roof is in poor to fair condition and should be replaced in 1-2 years.

Exterior joint sealants are severely deteriorated and should be replaced.

Section: Section 1

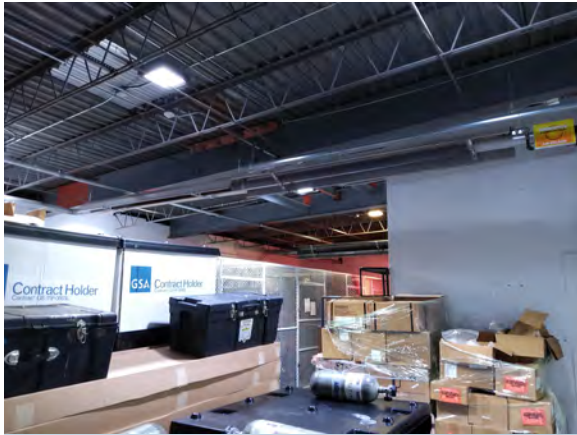
Composition

Size: 1931 SF

Year: 2001

Material Category: B301002 LOW SLOPE ROOF SYSTEMS

Component Subtype: Built-Up



Steel Deck

Overview

Core Cut:

Gravel

5 Ply Built-up Roof

1/2" Wood Fiber Insulation

3 1/2" Polyisocyanurate Insulation

Steel Deck

Overview

Inspection

Inspection Date: 7/12/2021

Inspector: Ross, Mike

Inspected Condition: Red +



Repairs observed to existing roof system. 1 SF

Exposed Felts - Typically wind displaces gravel and exposes the underlying waterproofing membrane. As the membrane is exposed to UV and the elements it quickly breaks down allowing water in the system. 40 SF

Displacement of gravel likely due to wind and water erosion, inadequate top pour coat, little or no embedment of aggregate, or moved intentionally by workman. 40 SF

Summary

Current Estimated Condition: Fair


Remaining Service Life: 2 years

Estimated Replacement Year: 2023

Replacement Cost: \$53,103

Comment:

Gravel built-up roof is in poor to fair condition and should be replaced in 1-2 years. Deficiencies found in this report should be repaired to extend life cycle of the roof system until roof can be replaced.



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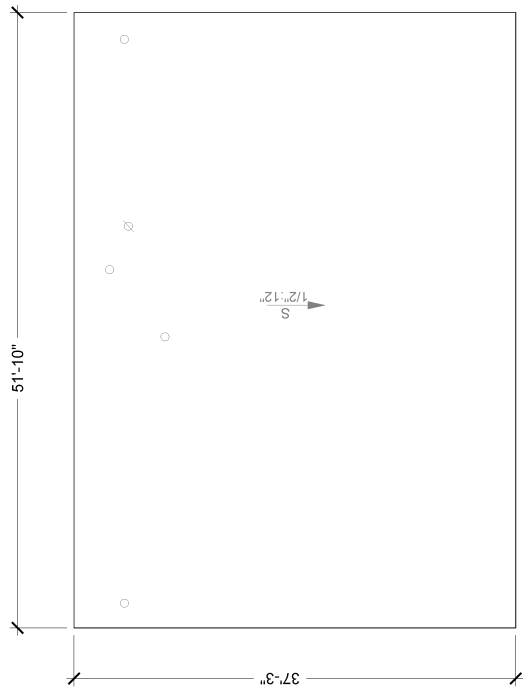
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GENERAL NOTES:
1. ALL PENETRATION PIPE METAL WORK STRUCTURALLY ALLOWED 1/2" O.P.
2. SECTION BASE HEIGHT: 14 FEET

SEALS:

PIPE PENETRATION SIZE	QUANTITY
1/2"	4
3/4"	1
ABANDON	1



PROJECT NAME:
US ARMY RESERVE

ROOF ASSESSMENT
MA008

72 NORTH ST
DANVERS, MA 01923

PROJ. NO. 20CHS-087 DATE: 07/20/21

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SHEET TITLE
ROOF PLAN

DRAWING
A-001

LEGEND:

- ROOF EDGE
- - - STRUCTURAL SLOPE
- ABANDON PENETRATION
- PENETRATION
- ROOF PENETRATION

SCALE: 1/4" = 1'-0"

A STORAGE OD052