Transmittal Letter



το Erin Baum	1	FROM Kristoffer Hinskey	
34367 Cap		248-994-2240	
Livonia, MI 48150		kristoffer.hinskey@arcadis.com	
,			
	` '	DATE October 4, 2022	
PROJECT N 30146655	-	SUBJECT Operation, Monitoring, and Maintenance Field Notes - 34367 Capitol	
We are se	nding you:		
Copies	Delivery Date	Description	
1	10/6/2022	Operation, monitoring, and maintenance field notes.	
Action*			
☐ AN Ap	proved proved as Noted Requested	□ CR Correct and Resubmit □ Resubmit Copies □ F File □ Return Copies □ FA For Approval □ Review and Comment	
Mailing M	ethod		
U.S. Postal Service 1 st Class ☐ Courier/Hand Delivery ☐ FedEx Priority Overnight ☐ FedEx 2-Day Delivery ☐ Certified/Registered Mail ☐ United Parcel Service (UPS) ☐ FedEx Standard Overnight ☐ FedEx Economy ☐ Other: Email			
Comment	s:		
		reemptive mitigation (IPM) system Operation, Monitoring, and Maintenance (OM&M)	
field notes. These field notes were recorded during OM&M visits at the property between March 31, 2020 and			
March 31	, 2022. Please le	t me know if you have any questions.	

Created	2020-11-19 18:02:18 UTC by Seth Turner
Updated	2020-11-19 18:49:02 UTC by Seth Turner
General Information	
System Inspector	Seth Turner
Date	2020-11-19
Time	13:02
System Details Link	34367 Capitol
Property Address	34367 Capitol
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	Mostly Cloudy
Ambient Temperature	57.02
Barometric Pressure	30.07
Indoor Temperature	70
Design Components	
Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	Yes
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	No
Does the house have a water sensor?	No
System Inspection	
Fan	
Fan(s) operating?	Yes
Are there any unusual fan noises?	No
Piping	
Is any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
Is the insulation and insulation jacket damaged or missing in garage or exterior piping?	No

Upon arrival, are all valves in the same position as Yes

the prior visit (reference Power BI)?

Drains

Page: 1 of 5

Do any drain seals need to be repaired or	No
replaced?	

Garage Retrocoat

Is retrocoat damaged or missing?

Crawlspace Barrier

Is water present on the vapor barrier?

Labels

Are labels present at the pipe, control panel, utube, and breaker?

Yes

Garage Retrocoat Label Photos



Are labels present at the garage retrocoat?

Are labels present at the crawlspace barrier?

Yes

Barrier Label Photos



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Vacuum	Mon	ITO	rıng)
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Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)?	Yes
Is the vacuum switch accurate (test with micromanometer)?	Yes
Do any monitoring points (MP/SSMP) need to be repaired or replaced?	No
If multiple systems are present, were both inspected?	N/A

Inspection Measurements

Pre-Measurement Conditions

Are vacuum readings being taken under closed	Yes
building conditions?	
Do any monitoring points have transmitters?	No

Measurements and Valve Positions

MP-3, 13:07, -0.034

Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2020-11-19
Time	13:07
Vacuum Reading (in. w.c.)	-0.034
Number Vacuum Reading	-0.034

MP-4, 13:07, -0.024

<u> </u>		
Vacuum ID Link	34367 Capitol, MP-4	
Vacuum ID	MP-4	
Date	2020-11-19	
Time	13:07	
Vacuum Reading (in. w.c.)	-0.024	
Number Vacuum Reading	-0.024	

MP-1, 13:08, -0.051

Vacuum ID Link	34367 Capitol, MP-1
Vacuum ID	MP-1
Date	2020-11-19
Time	13:08
Vacuum Reading (in. w.c.)	-0.051
Number Vacuum Reading	-0.051

MP-2, 13:09, -0.026

Vacuum ID Link	34367 Capitol, MP-2
Vacuum ID	MP-2
Date	2020-11-19

Time	13:09
Vacuum Reading (in. w.c.)	-0.026
Number Vacuum Reading	-0.026
U-Tube Manometer, 13:14, -1.3	
Vacuum ID Link	34367 Capitol, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2020-11-19
Time	13:14
Vacuum Reading (in. w.c.)	-1.3
Number Vacuum Reading	-1.3
BV-2, 13:03, 100	
Valve ID Link	34367 Capitol, BV-2
Valve ID	BV-2
Date	2020-11-19
Time	13:03
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100
BV-1, 13:05, 50	
Valve ID Link	34367 Capitol, BV-1
Valve ID	BV-1
Date	2020-11-19
Time	13:05
Valve Position at Arrival (% Open)	50
Valve Position at Departure (% Open)	50
Were interim vacuum readings taken between initial and final vacuum readings?	No
Inspection Reading Analysis	
inspection reduing / indivisis	
Manometer	
Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
Were any ball valve positions changed?	No
Alarm Testing	
Sensaphone Link	N/A
Does the vacuum switch alarm work? Test the	Yes
alarm condition and verify an alarm registers.	

Notes	Caulked in garage by doorway and in corner.
Additional Notes and Photos	
email body	
Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text	N/A
Engineer Notification	
email body	
Send Inspection Completion Email	N/A
Engineer Notification	
Have any structures been built or modified that require vapor mitigation?	No
Have there been any changes to the fan noise level or vibration?	No
Owner/Tenant Observations	
Are there outstanding repairs to be completed?	No
Were system repairs completed during this visit?	No
Were seam repairs completed during this visit?	No
Repair Completion	
email body	
Sample Delay Send Sample Delay Email	N/A
Repairs Sample Delay	
in to check)?	
Is the cloud logging vacuum readings properly (log	N/A
Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes

Created	2021-02-16 17:47:47 UTC by Seth Turner
Updated	2021-02-17 12:24:09 UTC by Seth Turner
General Information	
System Inspector	Seth Turner
Date	2021-02-16
Time	13:30
System Details Link	34367 Capitol
Property Address	34367 Capitol
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	18F, cloudy
Ambient Temperature	18F
Barometric Pressure	30.05
Indoor Temperature	70
Design Components	
Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	Yes
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	No
Does the house have a water sensor?	No
System Inspection	
Fan	
Fan(s) operating?	Yes
Are there any unusual fan noises?	No
Piping	N-
ls any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
ls the insulation and insulation jacket damaged or missing in garage or exterior piping?	No
Valves	
Upon arrival, are all valves in the same position as	Yes

the prior visit (reference Power BI)?

Drains

Page: 1 of 10

Do any drain seals need to be repaired or replaced?

Garage Retrocoat

Is retrocoat damaged or missing?

Crawlspace Barrier

Is water present on the vapor barrier?

Labels

Are labels present at the pipe, control panel, utube, and breaker?

Yes

No

Common Label Photos



Are labels present at the garage retrocoat?

Yes

Garage Retrocoat Label Photos



Are labels present at the crawlspace barrier?

Yes

Barrier Label Photos



	V.
Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)?	Yes
Is the vacuum switch accurate (test with micromanometer)?	Yes
Do any monitoring points (MP/SSMP) need to be repaired or replaced?	No
If multiple systems are present, were both inspected?	N/A
Inspection Measurements	
Pre-Measurement Conditions	
Are vacuum readings being taken under closed building conditions?	Yes
Do any monitoring points have transmitters?	No
Measurements and Valve Positions	
INCASALETTELICS ALIA VAIVE FUSICIOLIS	
MP-2, 13:40, -0.018	
Vacuum ID Link	34367 Capitol, MP-2
Vacuum ID	MP-2
Date	2021-02-16
Time	13:40
Vacuum Reading (in. w.c.)	-0.018
Number Vacuum Reading	-0.018
MP-1, 13:41, -0.043	
Vacuum ID Link	34367 Capitol, MP-1
Vacuum ID	MP-1
Date	2021-02-16
Time	13:41
Vacuum Reading (in. w.c.)	-0.043
Number Vacuum Reading	-0.043
<u> </u>	
MP-4, 13:43, -0.011	
Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2021-02-16
Time	13:43
Vacuum Reading (in. w.c.)	-0.011
Number Vacuum Reading	-0.011
MP-3, 13:45, -0.026	
Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2021-02-16
Time	12-45

13:45

Time

Vacuum Reading (in. w.c.)	-0.026
Number Vacuum Reading	-0.026
MP-2, 13:52, -0.051	
Vacuum ID Link	34367 Capitol, MP-2
Vacuum ID	MP-2
Date	2021-02-16
Time	13:52
Vacuum Reading (in. w.c.)	-0.051
Number Vacuum Reading	-0.051
MP-4, 14:14, -0.021	
Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2021-02-16
Time	14:14
Vacuum Reading (in. w.c.)	-0.021
Number Vacuum Reading	-0.021
MP-3, 14:18, -0.031	
Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2021-02-16
Time	14:18
Vacuum Reading (in. w.c.)	-0.031
Number Vacuum Reading	-0.031
MP-1, 14:19, -0.094	
Vacuum ID Link	34367 Capitol, MP-1
Vacuum ID	MP-1
Date	2021-02-16
Time	14:19
Vacuum Reading (in. w.c.)	-0.094
Number Vacuum Reading	-0.094
U-Tube Manometer, 14:23, -1	.2
Vacuum ID Link	34367 Capitol, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2021-02-16
Time	14:23
Vacuum Reading (in. w.c.)	-1.2
Number Vacuum Reading	-1.2
BV-1, 13:53, 50	
Valve ID Link	34367 Capitol, BV-1
Valve ID	BV-1

Date	2021-02-16
Time	13:53
Valve Position at Arrival (% Open)	50
Valve Position at Departure (% Open)	50
BV-2, 13:54, 100	
Valve ID Link	34367 Capitol, BV-2
Valve ID	BV-2
Date	2021-02-16
Time	13:54
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100
Were interim vacuum readings taken between initial and final vacuum readings?	No
Inspection Reading Analysis	
Manometer	
Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
Were any ball valve positions changed?	No
Alarm Testing	
Sensaphone Link	N/A
Does the vacuum switch alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
Is the cloud logging vacuum readings properly (log in to check)?	N/A
Repairs	
Sample Delay	
Send Sample Delay Email	N/A
email body	
Repair Completion	
Were seam repairs completed during this visit?	Yes

Were system repairs completed during this visit?	No
Additional sealing completed:	Sealed multiple lining gaps.
Sealing Completion Date	2021-02-16

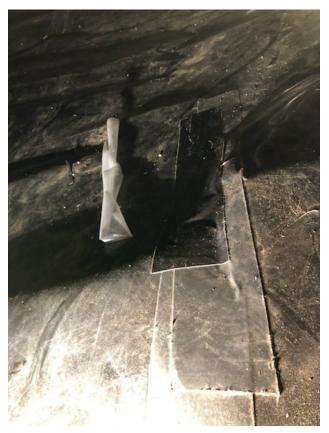
Sealing Repair Photos













Are there outstanding repairs to be completed?

No

Owner/Tenant Observations

Have there been any changes to the fan noise level No or vibration?

Have any structures been built or modified that require vapor mitigation?

No

Engineer Notification

Send Inspection Completion Email	N/A
email body	
Engineer Notification	
Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text	N/A
email body	

34367 Capitol	, 2022-01-18, I	Full System	Inspection
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Created	2022-01-18 14:36:59 UTC by Seth Turner
Updated	2022-01-19 15:14:25 UTC by Seth Turner

General Information

System Inspector	Seth Turner
Date	2022-01-18
Time	09:36
System Details Link	34367 Capitol
Property Address	34367 Capitol
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	30F, cloudy
Ambient Temperature	30F
Barometric Pressure	29.29
Indoor Temperature	70

Design Components

Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	Yes
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	No
Does the house have a water sensor?	No

System Inspection

Fan

Fan(s) operating?	Yes
Are there any unusual fan noises?	No

Piping

Is any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
Is the insulation and insulation jacket damaged or missing in garage or exterior piping?	No

Insulation Repairs Needed

Valves

Upon arrival, are all valves in the same position as

Is water present on the vapor barrier?



the prior visit (reference Power BI)? Drains Do any drain seals need to be repaired or replaced? Garage Retrocoat Is retrocoat damaged or missing? No Crawlspace Barrier

Yes

No

Labels	
Are labels present at the pipe, control panel, utube, and breaker?	Yes

Common Label Photos



Are labels present at the garage retrocoat?

Yes

Garage Retrocoat Label Photos





Vacuum Monitoring

Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)?	Yes
Is the vacuum switch accurate (test with micromanometer)?	Yes
Do any monitoring points (MP/SSMP) need to be repaired or replaced?	No
If multiple systems are present, were both inspected?	No

Inspection Measurements

Pre-Measurement Conditions

Are vacuum readings being taken under closed building conditions?	Yes	
Do any monitoring points have transmitters?	No	

Measurements and Valve Positions

U-Tube Manometer, 09:42, -1.2

Vacuum ID Link	34367 Capitol, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-01-18
Time	09:42
Vacuum Reading (in. w.c.)	-1.2

34367 Capitol, MP-2

MP-2

2022-01-18

MP-2, 11:13, -0.025

Vacuum ID Link

Vacuum ID

Date

Time	11:13
Vacuum Reading (in. w.c.)	-0.025
Number Vacuum Reading	-0.025
MP-3, 11:14, -0.023	
Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2022-01-18
Time	11:14
Vacuum Reading (in. w.c.)	-0.023
Number Vacuum Reading	-0.023
MP-4, 11:14, -0.011	
Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2022-01-18
Time	11:14
Vacuum Reading (in. w.c.)	-0.011
Number Vacuum Reading	-0.011
Number vacuum keaumg	-0.011
BV-3, 09:55, 100	
Valve ID Link	34367 Capitol, BV-3
Valve ID	BV-3
Date	2022-01-18
Time	09:55
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100
BV-1, 11:12, 45	
Valve ID Link	34367 Capitol, BV-1
Valve ID	BV-1
Date	2022-01-18
Time	11:12
Valve Position at Arrival (% Open)	45
Valve Position at Arrival (% Open)	45
valve Position at Departure (% Open)	45
BV-2, 11:12, 100	
Valve ID Link	34367 Capitol, BV-2
Valve ID	BV-2
Date	2022-01-18
Time	11:12
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100
Were interim vacuum readings taken between initial and final vacuum readings?	No

Inspection Reading Analysis

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Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	No
Which ones don't and why?	MP-4 was unable to reach metric, possibly due to needed seam repairs.
Proposed modifications to address vacuum?	Seam repairs

No

Alarm Testing

Were any ball valve positions changed?

Sensaphone Link	N/A
Does the vacuum switch alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
Is the cloud logging vacuum readings properly (log in to check)?	N/A

Repairs

Sample Delay

Send Sample Delay Email	N/A
email body	

Repair Completion

Yes
No
Sealing done in North side of crawlspace where tape was coming loose.
2022-01-18

Sealing Repair Photos





Are there outstanding repairs to be completed?

No

Owner/Tenant Observations

Have there been any changes to the fan holse level	
or vibration?	
Have any structures been built or modified that	No
require vapor mitigation?	

Engineer Notification

Send Inspection Completion Email	N/A
email body	
Engineer Notification	
Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text	N/A
email body	

34367 Capitol, 2022-01-28, System Check

Created	2022-01-28 14:48:20 UTC by Seth Turner
Updated	2022-01-28 17:22:02 UTC by Seth Turner

General Information

System Inspector	Seth Turner
Date	2022-01-28
Time	10:31
System Details Link	34367 Capitol
Property Address	34367 Capitol
Check Inspection(s) to be Completed	System Check
Get weather data from National Weather Service Website for your current location?	N/A
Weather	20F, sunny
Ambient Temperature	25f
Barometric Pressure	29.97
Indoor Temperature	70

Inspection Measurements

Pre-Measurement Conditions

Are vacuum readings being taken under closed building conditions?

Yes

Measurements and Valve Positions

U-Tube Manometer, 10:32, -1.2

Vacuum ID Link	34367 Capitol, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-01-28
Time	10:32
Vacuum Reading (in. w.c.)	-1.2
Number Vacuum Reading	-1.2

MP-4, 10:32, -0.009

Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2022-01-28
Time	10:32
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

MP-2, 10:33, -0.022

Vacuum ID Link	34367 Capitol, MP-2
Vacuum ID	MP-2
Date	2022-01-28
Time	10:33

Vacuum Reading (in. w.c.)	-0.022
Number Vacuum Reading	-0.022
MP-1, 10:34, -0.035	
Vacuum ID Link	34367 Capitol, MP-1
Vacuum ID	MP-1
Date	2022-01-28
Time	10:34
Vacuum Reading (in. w.c.)	-0.035
Number Vacuum Reading	-0.035
MP-3, 10:34, -0.021	
Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2022-01-28
Time	10:34
Vacuum Reading (in. w.c.)	-0.021
Number Vacuum Reading	-0.021
MP-4, 10:35, -0.014	
Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2022-01-28
Time	10:35
Vacuum Reading (in. w.c.)	-0.014
Number Vacuum Reading	-0.014
MP-4, 11:34, -0.025	
Vacuum ID Link	34367 Capitol, MP-4
Vacuum ID	MP-4
Date	2022-01-28
Time	11:34
Vacuum Reading (in. w.c.)	-0.025
Number Vacuum Reading	-0.025
MP-3, 11:35, -0.032	
Vacuum ID Link	34367 Capitol, MP-3
Vacuum ID	MP-3
Date	2022-01-28
Time	11:35
Vacuum Reading (in. w.c.)	-0.032
Number Vacuum Reading	-0.032
MP-1, 11:35, -0.043	
Vacuum ID Link	34367 Capitol, MP-1
Vacuum ID	MP-1
-	

Date	2022-01-28
Time	11:35
Vacuum Reading (in. w.c.)	-0.043
Number Vacuum Reading	-0.043
MP-2, 11:36, -0.026	
Vacuum ID Link	34367 Capitol, MP-2
Vacuum ID	MP-2
Date	2022-01-28
Time	11:36
Vacuum Reading (in. w.c.)	-0.026
Number Vacuum Reading	-0.026
U-Tube Manometer, 11:37, -1.2	
Vacuum ID Link	34367 Capitol, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-01-28
Time	11:37
Vacuum Reading (in. w.c.)	-1.2
Number Vacuum Reading	-1.2
BV-1, 12:20, 100	
Valve ID Link	34367 Capitol, BV-1
Valve ID	BV-1
Date	2022-01-28
Time	12:20
Valve Position at Departure (% Open)	100
BV-2, 12:20, 45	
Valve ID Link	34367 Capitol, BV-2
Valve ID	BV-2
Date	2022-01-28
Time	12:20
Valve Position at Departure (% Open)	45
BV-3, 12:20, 100	
Valve ID Link	34367 Capitol, BV-3
Valve ID	BV-3
Date	2022-01-28
Time	12:20
Valve Position at Departure (% Open)	100
Were interim vacuum readings taken between initial and final vacuum readings?	No
Inspection Reading Analysis	

Manometer

Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
Were any ball valve positions changed?	No
Alarm Testing	
Sensaphone Link	N/A
Repairs	
Sample Delay	
Send Sample Delay Email	N/A
email body	
Repair Completion	
Were seam repairs completed during this visit?	Yes
Were system repairs completed during this visit?	No
Additional sealing completed:	Seam repairs done where tape was lifting.

Sealing Repair Photos

Sealing Completion Date







Send Inspection Completion Email	N/A
email body	
Engineer Notification	
Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text	N/A
email body	