



Florida Department of TRANSPORTATION



Earthwork Records System Materials Certification Review Program Maintenance User Manual

April 3, 2024



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Introduction

What is the ERS IA Project Review?

The ERS IA Project Materials Certification (MC) Review is part of the MC Review that focuses on the data collected in the Earthwork Records System (ERS) project. It is performed by a person working for the District Materials and Research Office (DMRO) with the role of Program Maintenance User (PMU). This person is described in these instructions as the ERS IA Project Reviewer.

The MC Review generates a Project Materials Certification Letter (PMCL). The person performing the MC Review is known as the MC Reviewer and is also a PMU.

What is a finding?

A finding is a potential issue with the Materials Certification. A finding may or may not result in an Exception on the PMCL. Findings can be generated by the system, or they can be added manually by a PMU or Project Administrator (PA).

What is an issue?

An issue is a finding that is not Excluded or MC Resolved and needs further action. It may result in an Exception. All issues must be promoted to the Materials Acceptance Resolution (MAR) process. Not all issue promoted to MAR will have an Exception created.

What is an Exception?

An Exception is a materials issue that meets the definition of a PMCL Exception per [Materials Manual 5.4 Volume 1](#). Findings must be promoted to MAR to have the ability to create the Exception.

What is a PMCL?

The PMCL is generated at the end of the MC Review by an MC Reviewer. The letter certifies that the contract and specification Material Method of Acceptance (MOA) requirements have been met and include detailed information about an Exceptions.

These instructions focus on the ERS IA Project Review. Detailed instructions on the PMU MC Review can be found in the [MC Review Program Maintenance User Manual](#).

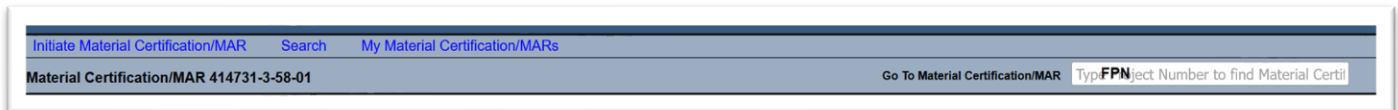
Chapter 1 – Initiating an MC Review

To navigate to an MC Review:



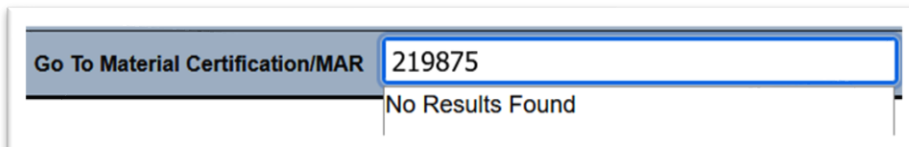
1. Select the Materials Certification/MAR menu option.
2. Select the Materials Certification/MAR submenu option.

You will be navigated to the MC Review screen.



3. **Go To Material Certification/MAR** – enter the Financial Project Number (FPN) and select the entry from the returned list.

You will be navigated to the MC review for that project. The MC Review is initiated for each project on a contract by an MC Reviewer. If the MC Reviewer has not initiated the MC Review, the field will say there are No Results found. Let the appropriate MC Reviewer know that the MC Review needs to be initiated.



As MC Reviews are initiated for the other projects, they will appear as a hyperlink in the header. Click on the hyperlink to navigate to another project's MC Review.



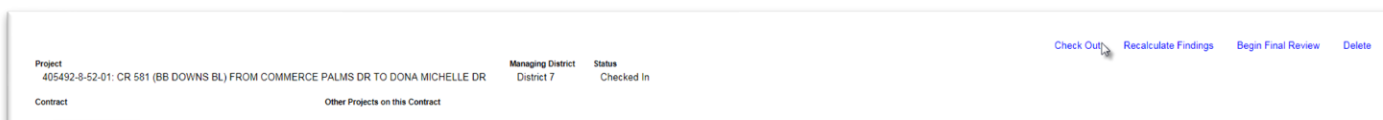
Each project has its own findings and Exceptions. The MC Reviews are conducted per project, but the PMCL is generated for the contract.

When an MC Review is initiated, it is checked out by the MC Reviewer who created it. When it is checked out, no other PMU can make modifications to the review. PAs can continue to create manual findings and respond to findings. This function is intended to ensure no two MC Reviewers are working on the same MC Review at the same time.

After initiating the MC Review, to allow other MC Reviewers to work on the MC Review, you should check it back in.



1. Select the Check In option to show the MC Review as checked in.



2. To check out an MC Review to indicate to other MC Reviewers that you are working on it, select the Check Out option.

NOTE: District Application Coordinators can also check in a checked-out MC Review if it needs to be checked in.

Chapter 2 – ERS IA Project Review

MAC detects conditions in ERS samples and manual findings to differentiate between an ERS finding and a MC Finding. ERS findings are listed on the MC Review page under the ERS Findings tab. MAC sends a finding to the ERS tab when:

- An automatic finding on an ERS sample
 - Example of a failing test notification on a sample with an ERS test
 - Populated under the ERS Findings tab

1160984	Sample 2301136657 has a failing result on required Test ERS: FM 1-T 238 Nuclear Density	System	2301136657 VT	ERS: FM 1-T 238 Nuclear Density	Submitted	3/28/2024
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- Example of a failing test notification on a sample that is not an ERS sample or with an ERS test
 - Populated under the Findings tab

1161103	Sample 2401334565 has a failing result on required Test FM 1-T 166 Gmb - Roadway	System	2401334565 IV	FM 1-T 166 Gmb - Roadway	Submitted	3/28/2024
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- A manual finding is created on an ERS sample regardless of the Finding Type

The screenshot shows the 'Add Manual Finding' form. The 'Finding Type' dropdown is set to 'Sample Data Issues'. A blue callout bubble points to the 'Description' field with the text: 'Does not have to be ERS when an ERS sample is selected'. The 'Sample' field contains '2301061113' and has a blue callout bubble pointing to it with the text: 'This is an ERS sample'. The 'Create' button is visible at the bottom.

- A manual finding is created for the ERS finding type

The screenshot shows the 'Add Manual Finding' form. The 'Finding Type' dropdown is set to 'ERS'. The 'Sample' field contains 'Type Sample Id'. The 'Create' button is visible at the bottom.

A. ERS Findings List

When the MC Review is created or when it is checked out, the system will populate the automatic findings for the selected project in a list.

The screenshot shows a project summary card for Project 444008-2-52-01: I-75 (SR 93) FROM BROWARD COUNTY LINE TO W OF BRIDGE NOS.030243/030244. The card includes fields for Contract (E1U56: DISTRICT CONSTRUCTION CONTRACT [ASPHALT GROUP, INC.]), Final Review (Yes), Final Review Begin Date (3/28/2024), Date Notified To Begin Final Review (3/28/2024), and Notification Of Final Acceptance Date (3/28/2024). At the top right, there are action buttons: Check In, Recalculate Findings, Undo Final Review, Update Final Review Dates, and Delete. Below the summary, there are three expandable tabs: Findings [196], ERS Findings [59], and PMCL Letters [0]. A blue link 'Add Manual Finding' is located to the right of the Findings tab.

1. Click on the ERS Findings tab to expand it.

The list of findings from the last recalculation will be shown under the tab.

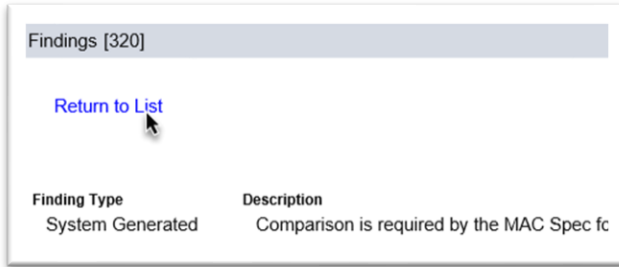
B. Findings Details

A rectangular button with a light blue background and a white border. The text 'View Details' is written in blue, with a mouse cursor icon pointing at the end of the text.

1. To see the specific finding and the related information, select the View Details option.

The finding details subscreen will appear over the findings list screen. The findings screen is still visible behind the findings detail subscreen.

The screenshot shows the 'Findings screen' in the background, which is partially obscured by a 'Findings Detail subscreen'. The background screen displays project information for Project 432897-1-02-01: SR93/ING ST) FROM SR93/AVENIDA MENENDEZ) TO BAYWALL, District 2, Checked In. The Findings Detail subscreen shows details for Finding ID 114038, Finding Type System Generated, Description Sample 230118401 has a failing result on required Test Certified Test Report, Sample 230118401 VT, P107 Sample Number, Sample Protocol Test Certified Test Report, and Status Promoted to MAR. The subscreen includes sections for Sample Info, Responses [3], Recommendations [2], Resolutions [3], Locations [2], Documents [3], and Comments [2]. The background Findings screen also shows a list of findings with a 'Return to List' link and an 'Add Manual Finding' link.



2. Select the Return to List option to return to the list of findings.

C. Recalculate Findings

MAC does not automatically refresh the list of findings. An MC Reviewer needs to trigger the findings refresh if you want to see if any new issues have been created by the system. If an MC Review needs to be recalculated, contact the MC Reviewer.

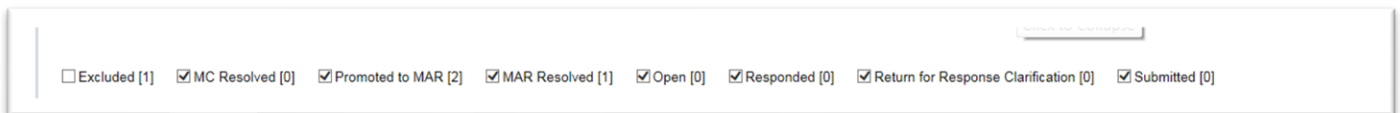
D. Finding Statuses

Finding statuses are as follows:

Findings statuses are as follows:

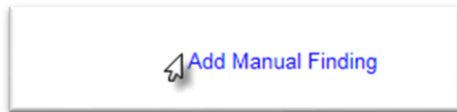
1. **Excluded** – The MC Reviewer has determined that the finding is not an issue. It does not have to be responded to by the PA.
2. **MC Resolved** – The MC Reviewer is satisfied with the PA's response and determined the finding is not an issue.
3. **Promoted to MAR** – the finding has a response from the PA and the MC Reviewer and PA agree that the finding should be processed as a Materials Acceptance Resolution (MAR) issue.
4. **MAR Resolved** – the finding has made it to the end of MAR process and has a final resolution.
5. **Open** – A manual finding has been created by a PA or the MC Reviewer and it has not yet excluded it or submitted it to the PA for response.
6. **Responded** – The PA has submitted a response to the MC Reviewer.
7. **Returned for Response Clarification** – the MC Reviewer has returned a responded finding to the PA for additional response.
8. **Submitted** – the MC Reviewer has submitted the finding to the PA for a response.

NOTE: The findings statuses can be used as filters to shorten the list that is displayed. Deselecting an option does not remove the findings. It just takes them off the view.



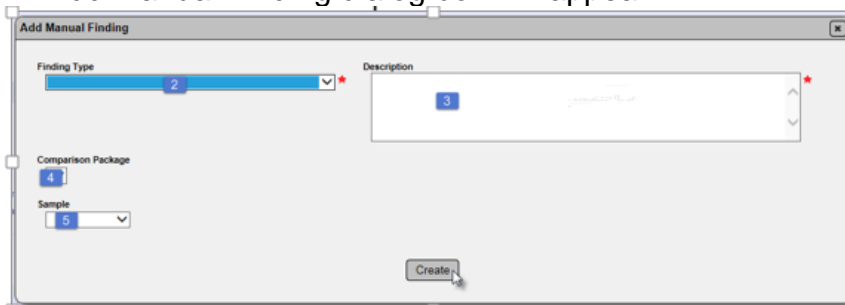
E. Manual Findings

ERS issues not detected by the system will need to be added to an MC Review as a manual finding. These can be created by PMUs and users with the Project Administrator (PA) role.



1. Select the Add Manual Finding option.

An Add Manual Finding dialog box will appear.



2. **Finding Type** – select the finding type from the dropdown list.

a. **ERS** – select this type to put the finding under the ERS tab.

b. **Final Commercial Inspection Report** – does not apply to ERS.

c. **Final Construction Compliance Report** – does not apply to ERS.

d. **Final Quantity of Reinforcing Steel on the Contract** – does not apply to ERS.

e. **Final Sign Inspection Report** – does not apply to ERS.

f. **Missing Frequency** – select this type if there is a missed frequency indicated in the MC Review that was not designated by an automatic finding. An example is missed density tests that cannot be retaken.

g. **Missing Certifications** – does not apply to ERS.

h. **Process Open MAR Issues** – select this type if there is a MAR issue that has not yet been processed to remind the PA to complete the MAR issue.

i. **Process Open Samples** – select this type if there are open samples that have not yet been processed to remind the PA to close the samples. When the Final Review each open sample will have a finding.

i. **Project Administrator's Material Statement** – does not apply to ERS.

j. **Quantities Not Being Reported** – does not apply to ERS.

k. **Sample Data Issues** – select this type if sample data appears to be incorrect or incomplete. Samples cannot be updated once the PMCL is generated so any questionable data should be addressed with the PA.

l. **Other** – select this type to indicate any other issues and include information in the description field.

3. **Description** – enter a description of the issue. Keep it short, no more than two sentences.

4. **Comparison Package** – if the manual finding is for a specific comparison package, select it from the dropdown list.

5. **Sample** – if the manual finding is for a specific sample, select it from the dropdown list.

NOTE: If the sample selected is an ERS sample, MAC will group the manual finding under the ERS findings tab.

6. Select the Create option.

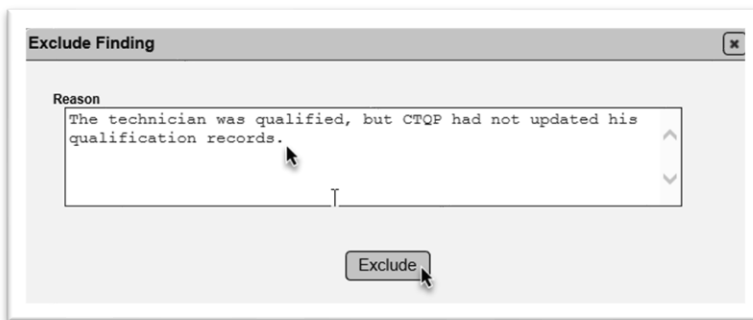
F. Excluding a Finding

If the ERS IA Project Reviewer determines that a finding does not need further action, it can be excluded.

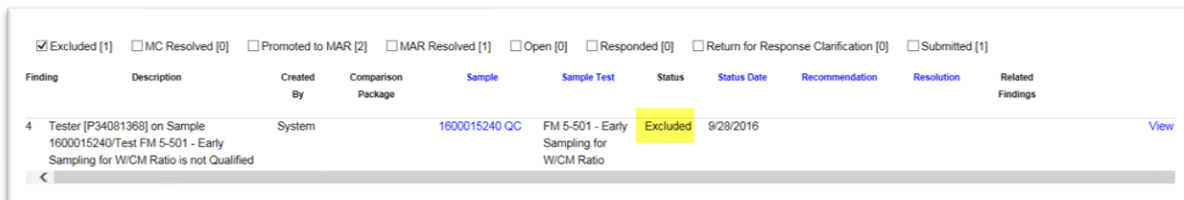


1. Select the Update Status option.
2. Select the Exclude option.

An Exclude Finding dialog box will appear.



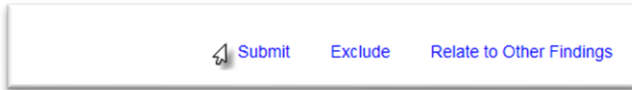
3. **Reason** – enter a reason, if desired. It is a good practice to include the reason for excluding the finding for future reference.
4. Select the Exclude option.



The finding status will be changed to Excluded. The excluded findings can be seen by selecting the Excluded checkbox on the status selector. Excluded findings are considered to have final resolution.

G. Submitting a Finding for PA Response

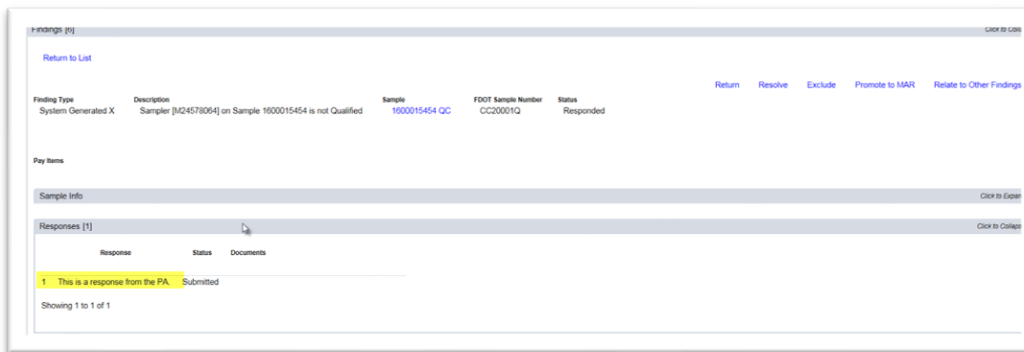
If you are not sure if a finding should be Excluded or MC Resolved, you can submit an open finding to the PA for a response or wait for the PA's response on a submitted finding. The PA's response should provide more detail about the finding to assist the ERS IA Project Reviewer and PA determine if the finding warrants more action, like promoting it to MAR.



1. Select the Submit option to submit the finding to the PA for response.

The finding status will be submitted. The PA will add a response and submit the response. Once this has occurred the finding status changes to Responded.

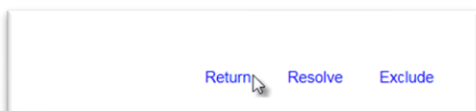
H. Reviewing a PA's Response



1. Click on the Responses tab to expand it. The PA's response can be viewed here. Any documents the PA has attached can also be viewed here.

I. Returning the Finding for Additional Clarification

If the PA's response is incomplete or unclear, you may return the finding to the PA to get additional information.

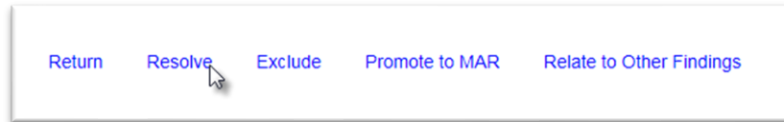


1. Select the Return option.

The finding will be placed in the status Return for Response. The PA will be required to provide additional information. When the PA submits additional information, the finding status will be updated back to Responded.

J. Resolving a Finding with MC Resolved

If after the ERS IA Project Reviewer reads the PA's response and determines that the finding needs no further action, the finding status can be updated to MC Resolved. Like excluded findings, MC Resolved findings cannot be promoted to MAR and cannot have an Exception created from the finding.



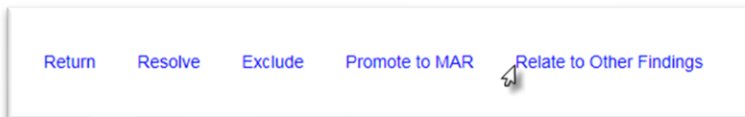
1. Select the Resolve option.

The status of the finding will be designated as MC Resolved. MC Resolved findings are considered to have final resolution.

NOTE: Resolving the finding does not allow you to include a reason. It can be included in the comments, or the finding can be Excluded.

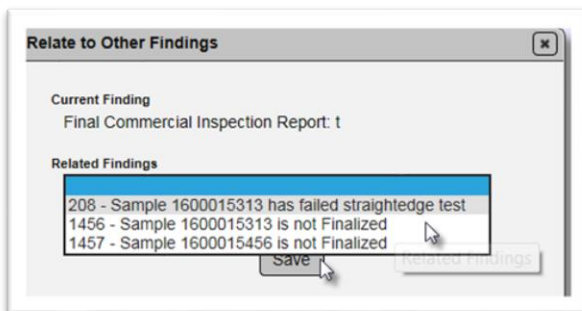
K. Relating a Finding to other Findings

Often times, findings will be similar in nature and will be resolved with the same disposition. You can connect findings together by relating them to each other.



1. Select the Relate to Other Findings option.

A Relate to Other Findings dialog box will appear.



2. **Related Findings** – select the finding(s) that is/are related.
3. Select the Save option.

The finding details will be updated to show the related findings.



The related findings will be listed on the findings listing under the Related Findings header.

Item Test	Status	Status Date	Recommendation	Resolution	Related Findings		
9	MAR	9/28/2016	Leave in Place		1456, 1466		View Details
ness by	Resolved		Reduced Payment				Update
ing or			[Final]				
idge	Responded	10/11/2016			208, 1456		View Details
							Update

NOTE: This only connects the findings together. Each finding must still be processed to final resolution.

L. Findings Icons

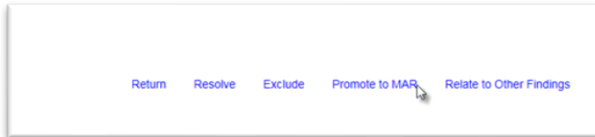
The following are icons related to findings and what they mean.

Icon	What it indicates
	Has a finding response from the PA
	Has a comment on the finding from the PMU
	Finding has a document attached
	Finding has an Exception
	Finding has location information
1040398, 1051599, 1051604	Finding is related to other finding(s) (Finding number(s))

M. Promoting a Finding to MAR

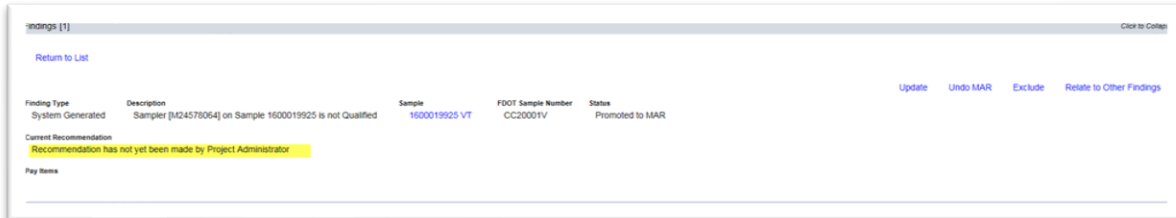
MAR stands for Materials Acceptance Resolution. All findings that are determined to be an issue must be promoted to MAR so the resolution of the issue can be documented. All findings that potentially could be an Exception must be promoted to MAR for the Exception to be created.

To promote an issue to MAR:



1. Select the Promote to MAR option.

The finding recommendation will be updated to “Recommendation has not yet been made by the Project Administrator”.



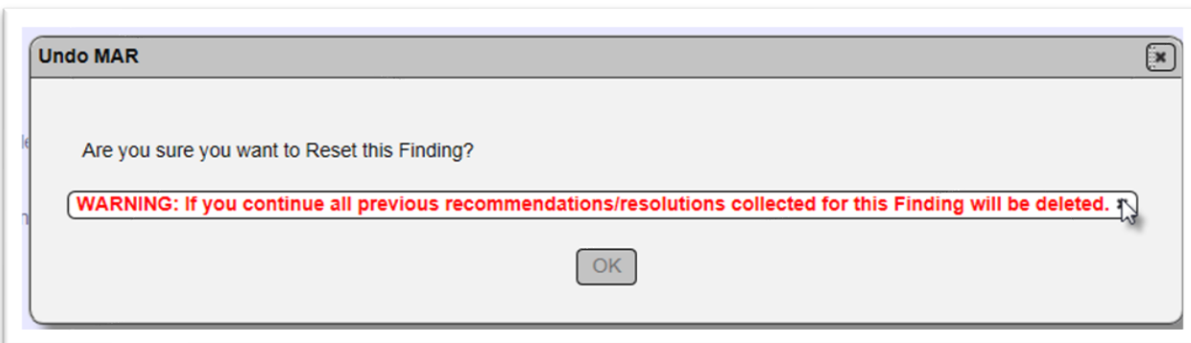
N. Undoing a MAR Promotion

If an item is inadvertently sent to MAR, or if one of the users in the MAR process selects the incorrect recommendation or resolution, the ERS IA Project Reviewer can undo the process.



1. Select the Undo MAR option.

An Undo MAR dialog box will appear with a warning message. The warning message indicates that selecting the option will delete **ALL** previous recommendations/resolutions.

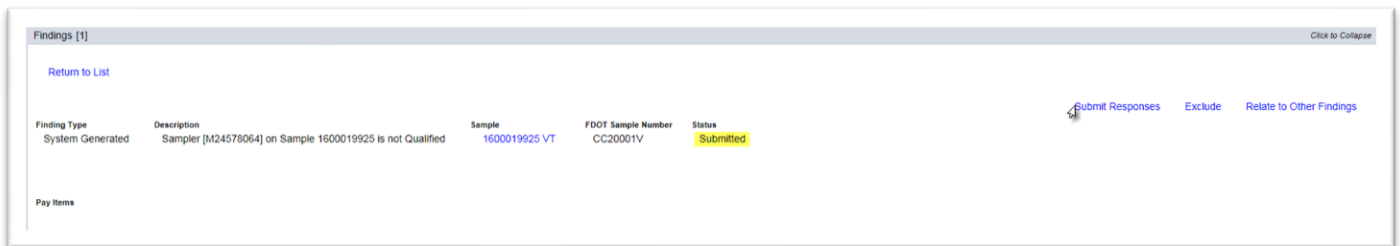


2. If you are sure you wish to undo the MAR, select the x by the warning message to acknowledge it.



3. Select OK to undo the MAR.

The finding status will be changed to submitted. The PA will need to resubmit the responses.



O. Processing an Issue through MAR

The ERS IA Project Reviewer has no MAC functions in MAC for the MAR process. The MAR process users are the PA, District Materials and Research Engineer (DMRE), District Construction Engineer (DCE), and sometimes the Director, Office of Construction (DOC). ERS IA Project Reviewers may be a delegate for the DMRE. ERS IA Project Reviewers may be asked to assist users with the MAR process. For additional information on the MAR process, see the PA, DMRE, and DCE MAR instructions on the [Materials Acceptance and Certification](#) website.

An issue is considered to be processed when it has a final resolution. Sometimes final resolution can be indicated by the PA and no other users are needed. When the material is defective and should be removed and replaced, but the Contractor requests to leave the material in place by use of an EAR, the DMRE, DCE and possibly the DOC need to designate both a recommendation and a final resolution.

Once the issue has a final resolution, the MC Reviewer can determine if it qualifies as an Exception to the PMCL. For findings promoted to MAR this is indicated by a status of MAR Resolved. MAR Resolved findings are considered to have final resolution.

P. Reviewing MAR Location Information

As part of the PA's responsibilities for processing the MAR issue, he must include the location information on the location tab. The location information should be included even if an Exception is not created. If an Exception is created, MAC uses this information in the PMCL. The ERS IA Project Reviewer should review the information before creating an Exception.

The PA fills out the Add Location of Representative Material dialog box. If the areas do not match, notify the PA that revisions are needed. This information will be used as the Location Information on the PMCL and cannot be updated anywhere but here if the data is incorrect.

-LOCATIONS [-]												
Total Affected Quantity		Total Affected Quantity Units		Accumulative Quantity								
5,000.00		Ton(s)		3,500								
RCI Lanes	From Station	To Station	Latitude	Longitude	Ending Latitude	Ending Longitude	Offset Distance	Offset Direction	Reference Line	Placement Designation	Quantity	Units
1	L1	100+00	700+00	21.000000	-80.000000	21.500000	-80.000000			Partial Remove and Replace	5,000.00	Ton(s)
	L2											
2	L1	100+00	200+00	21.000000	-80.000000	21.200000	-80.000000			Left in Place	1,000.00	Ton(s)
3	L1	250+00	600+00	21.000000	80.000000	21.000000	-80.000000			Removed	2,500.00	Ton(s)

Showing 1 to 3 of 3 entries

Annotations:

- Accumulated quantity does not match total affected quantity
- No entries for L2
- Stationing not fully represented.
- Lat/Long not fully represented.

Q. Work Order MC Reviews

With the implementation of Work Order NSJGS, MC Reviews can be conducted per Work Order.

On an MC review with a Work Order NSJGS, each Work Order will have its own tab under the Findings tab. If the project has an ERS project, the MC Reviewer may need to recalculate to view the ERS Findings tab.

Project: 420007-1-58-01: CR 17 (OLD SR 8) FROM 8.88 MI S OF SR 70 TO SR 70 Managing District: District 1 Status: Checked Out by Susan Musselman

Contract: AON16: PROJ PARTICIPATION (HIGHLANDS COUNTY BOARD OF COUNT)

In Final Review: No

Check In Recalculate Findings Begin Final Review Delete

Findings [0] Add Manual Finding

Excluded [0] MC Resolved [0] Promoted to MAR [0] MAR Resolved [0] Open [0] Responded [0] Return for Response Clarification [0] Submitted [0]

No results found

Findings WO01 - Open [2] Click to Expand

Findings WO03 - Open [1] Click to Expand

ERS Findings [1] Click to Expand

PMCL Letters [0] Click to Expand

Annotation: May need to recalculate.

The ERS IA Project Review is not Work Order based. MAC will designate all ERS findings to the ERS tab using the logic described in [A. ERS Findings List](#). This is because ERS projects are not work order based. ERS projects may have logbooks that are work order based; however, there is only one entry per FPN for an ERS project so the ERS IA Project Review only has one ERS tab whether it is a Work Order based MC Review or not.

Chapter 3 – Conducting Monthly Reviews

ERS IA Project Reviews can be performed monthly to assist with tracking MC Review issues during the life of the contract. ERS IA Project Reviewers and PAs can address findings as they occur and do not have to wait until the final review.

There is no special indicator for a monthly review. The process is done through checking in and checking out the MC Review and processing findings.

Some possible topics/areas of review for ERS IA project review:

- Plot records
 - MAC does not automatically detect plot issues
 - An issue with the plot or lifts would not be an MC Review issue unless the incorrect plot resulted in a missed required sample (Minimum Frequency)
- Open Samples
 - Use Open Sample Report
- Sample Data
 - Correct Proctor Selected?
 - Proctor Sample Comparison package Does not Compare
 - Did noncomparison result in a different proctor being used for densities?
 - Were impacted density samples updated with new proctor
 - Did update result in any new failing density test results?
 - Can the tests be performed again?
- Failing Test Results
 - Deficient Base Thickness
 - Failing VT = comparison package
 - Failing QR = follow up testing for that LOT with a QC and VT in its own comparison package
- Unqualified Technicians
 - Testing Technicians
 - Witnessed By Technicians
- Missed Frequency
 - Missed density tests that cannot be performed
 - Missed stabilizing mixing depth measurements
 - Missed base thickness tests
 - Incomplete Packages
 - Resolution Not Performed

Chapter 4 – Conducting a Final Review

The Final Review is conducted when the PMCL is ready to be generated. MC Reviewers will conduct the final review and create Exceptions, including those for the ERS IA Project Review. The MC Reviewer may need to consult with the ERS IA Project Reviewer for details regarding the status of the findings and disposition of the material.

In association with the project final review, ERS IA Project Reviewers should ensure all ERS findings are in one of the following statuses:

- Excluded
- MC Resolved
- MAR Resolved

They should also ensure ERS findings Promoted to MAR have complete and accurate location information documented by a user in the PA role. If the information is not complete, notify the PA that the information is needed for the PMCL.