

# FMIS Projects Area Modernization Requirements



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# Document Control

## Change Record

Date	Author	Version	Change Reference
10-11-2012	Aravinth Kaliappan	1.0	No Previous Document
10/25/2012	Phil Troutman	1.1	Revised GIS rules relating to Urbanized area Per a conversation with Theresa Hutchings.
12/18/12	Phil Troutman		The following changes were approved by Elissa Konove on 12/17/12  Add Project Prefix and estimated completion date back to data base  Separate Design Build, CMGC, Other SEP-14 into separate Y/N items rather than a combined drop-list.
04/18/13	Phil Troutman/Mikal Barnes	1.2	<ul style="list-style-type: none"> <li>Requirements for State Remarks were replaced</li> <li>Environmental Decision requirements were replaced.</li> <li>Rules for Project Action were revised to allow one and only one Project Action.</li> <li>Emergency Relief Code has been added to match super-storm Sandy changes that were made to FMIS-4 . Find references to this element to locate all changes.</li> <li>Summary of Project Agreement Data Changes was replaced</li> <li>Geospatial rules section was replaced</li> <li>Modified Project Data Items by Category to indicate that NBI and Tunnel numbers are not required on statewide detail lines.</li> <li>Project detail Program Code rules – Removed a reference to FMCSA program codes.</li> <li>Added a missing validation for tunnel number – Tunnel number must be valid.</li> </ul>
04/29/13	Phil Troutman	1.3	<ul style="list-style-type: none"> <li>Geospatial rules were modified for improvement types that are optional for new construction or when off-roadway. The user can indicate that the whole project is new construction or off roadway, and signatories get a prompt which identifies project details where geospatial data was omitted.</li> <li>Added the following to project detail copy description: “User supplied percentages in the sub-detail should be nullified.....“</li> </ul>
05/03/2013	Phil Troutman	1.4	<ul style="list-style-type: none"> <li>The requirements for the AC convert function have been revised to describe the same capabilities provided by FMIS4.</li> <li>Added “Rules for legacy bridge detail lines”</li> <li>Geospatial rules were modified – An “exceptions” table was added to define all situations where geospatial data can be omitted. “Bridge” rules were modified to indicate that route ID and beginning milepoint are not required on Statewide detail lines and “old detail” exceptions.</li> </ul>
07/17/2013	Mikal Barnes	1.5	<ul style="list-style-type: none"> <li>Applied changes to the document in response to DLJ001-DLJ133 as appropriate. In addition, rural/urban was renamed Urban or Rural throughout the document.</li> </ul>
12/15/2013	Vijay Padmanabhan	1.6	<ul style="list-style-type: none"> <li>Applied the changes from DLJ-001 to DLJ-133 (for items not already addressed in prior revisions) that were applicable to requirements to the document, with the exception of DLJ-021 and DLJ-100. Also applied PDT-009, PDT-011, PDT-019</li> </ul>

## Reviewers

Name	Position

## Distribution

Copy No.	Name	Location

## Document Location

The working document is in:

\\FMIS\Documents\Controlled-Documents\

This document is accessible from the SharePoint repository for System Certificate documents.

The URL for the SharePoint repository is:

<http://fhqwsmoss/sites/Apps/default.aspx>

## Introduction

This Requirements document outlines all FMIS functions associated with project agreements and modifications.

## Points of Contact

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## Audience

The intended audiences of this document are ITD Points of Contact and developers for FMIS modernization, the Database Team, and the Security Team.

The document content format is designed with non-technical audiences in mind.

## General Project Area requirements

In addition to the general rules stated below, all Projects area software shall comply with the General System Requirements Document for the modernization.

General Project Area Requirements apply to all screens and windows within the Projects area. Any user can view any Current, Pending, or Historical project from any State.

## Update Rules

The rules below define how the overall disposition of the application or the project impact whether or not a project can be updated or signed.

Signature Rules – Many of the rules below are marked with an asterisk. This indicates that these rules apply to signature privileges as well as update, and the word “signature” can be used interchangeably with “update” anywhere in these rules.

1. \*System Lockout - Even if the user normally has privileges to update the project, the user may not be allowed to update the project if the restriction set for the state indicates that updates are not allowed.
2. Historical Project - No updates of any kind are allowed for historical projects. Historical project versions are those that have been replaced by a subsequent “Current” version.
3. Current Projects Having a Pending Version - No updates of any kind are allowed for a current project when a pending version already exists for the same project.
4. \*Update Authority – The UPACS approval process assures that all project update and signature privileges are vetted by the appropriate authorizing personnel. A State user can only have update privileges within the State where the user is located. An FHWA user can be granted Division update privileges for one or many Divisions, regardless of the user’s location.
5. State and Division users with update privileges shall be able to update, add, and delete projects.
6. \*Division or State users having update privileges for the following States shall automatically have update privileges in associated territories, Canada, or NY/NJ Port Authority as indicated below. No entry in UPACS is required to specifically grant such privileges:
  - a. State 72 can update state 78

- b. State 02 can update state 81 (Canada)
  - c. State 15 can update states 60, 66, and 75
  - d. New York users can update New York/New Jersey Port Authority.
7. - A current project which is closed or withdrawn may not be updated.
  8. \*Concurrent access – If a user is in the process of viewing or updating a current or pending project, subsequent users who access the same project concurrently with the first user shall not be able to update, sign, or delete it. This is true even if the first user does not have update authority.
  9. In the above scenario, a warning message shall be issued to subsequent users, which identifies the user who has locked the project.

## Summary of Project Agreement Data Changes

**Purpose:** The purpose of this section is to describe all changes that will be made to the project agreement data in FMIS as a result of the FMIS modernization. Changes will be implemented for the start of FY 2015. This section consists of the Data Change Summary, followed by a Geospatial Capabilities section. The Geospatial Capabilities section provides detailed rules for defining project detail location using each State’s Linear Reference System (LRS).

### Data Change Summary

	<b>Data Change Description</b>	<b>Background</b>
1.	“State” has been relabeled to be “Recipient”.	This change was made to accommodate a possible increase in Federal –Aid recipients that are not State Departments of Transportation.
2.	Project Detail Location shall be carried on the project detail line as Route ID from the State’s Linear Reference System (LRS), along with beginning and ending mile points for that Route ID. Multiple Route IDs are allowed within the same detail line.  Validation of Route ID and mile points will rely on geospatial data that is submitted to the Office of Policy on an annual basis for Highway Performance Monitoring Systems (HPMS) purposes, as well as Metropolitan Planning Area “shape” files that are compiled by the Office of Planning.	See Geospatial Capabilities for complete details.

<p><b>3.</b></p>	<p>NBI structure number shall be relocated to the project detail line.</p> <p>Where possible, relocation shall happen automatically as project agreement data is migrated to the new system.</p> <p>NBI structure numbers cannot automatically be relocated to project details if a project has multiple NBI numbers with the same improvement type and program code. States shall have the option to provide migration instructions for such projects, or to relocate NBI number if and when such projects are modified using the new system.</p>	<p>This change allows a bridge to be associated with obligation amounts for accurate reporting of investment in individual bridges.</p>
<p><b>4.</b></p>	<p>Environmental decision and decision date will be dropped from FMIS. Instead of collecting these values, FMIS 5.0 will prompt first-level signatories at the State and Division to confirm that the environmental decision process has been followed, and all required steps are complete. The prompt will appear for construction and right-of-way projects</p>	<p>Environmental decision data that is currently held in FMIS is duplicative of FHWA’s Project And Program Action Information System (PAPAI), which is the appropriate repository for environmental data.</p>
<p><b>5.</b></p>	<p>Remove Inventory Route Number and associated beginning and ending mile points from the Project Header.</p>	<p>This item and its associated mile points were intended to support a federal Linear Reference System, which is now obsolete. The current approach is for each State to use their own LRS and mile points.</p>
<p><b>6.</b></p>	<p>Increase the max length of the Project Description to 2000 characters</p>	<p>Addresses user survey requests for a longer description.</p>
<p><b>7.</b></p>	<p>A new “Project Title” element shall be added. This is a required value on all projects. Project description shall be placed in both project title and project description when pre-existing projects from FMIS 4 are migrated to FMIS 5.0. This way, all projects will have a title.</p>	<p>Addresses user survey requests for a project title.</p>
<p><b>8.</b></p>	<p>FTA indicator shall be removed from detail lines</p>	<p>This item is obsolete. FTA Obligations are no longer held as detail lines within FMIS projects.</p>

9.	Data from FMCSA projects shall not be accessible.	FMCSA is no longer an active user of FMIS.
10.	All FMCSA related data elements shall be removed from the application. These include the OMC indicator on the program code table, as well as the FMCSA date on the project summary table in production FMIS.	FMCSA is no longer an active user of FMIS.
11.	Remove Standard Place Code from project header:	This standard was withdrawn 02/05/2008. Federal register reference: 70FR/6623
12.	<p>Changes to State Defined Fields</p> <ul style="list-style-type: none"> <li>• These items are now called “Recipient Defined Fields” to allow for the possibility that future grantees will be non-state organizations. *</li> <li>• Recipients (States) can define date fields (must be a valid date or null). Up to 3 date fields can be defined on the project header, and up to 3 on the detail line.</li> <li>• Text fields can be designated to be Boolean (valid values are Yes, No, or null).</li> </ul>	
13.	Estimated Construction Date will be converted into a Recipient Defined Field on the project header for all States. Any existing values for Estimated Construction Date will be relocated to the “Estimated Construction Date” defined field, prior to opening FMIS 5 for the start of FY 2015.	Estimated Construction Date is not needed as part of the “standard” elements of the project agreement, however many States reported that this item contains valuable information. For this reason, it has been relocated to the Recipient Defined Fields.
14.	<p>Changes to Division Defined Fields:*</p> <ul style="list-style-type: none"> <li>• Divisions can define date fields (must be a valid date or null). Up to 2 date fields can be defined on the project header, and up to 2 on the detail line.</li> <li>• Text fields can be designated to be Boolean (valid values are Yes, No, or null).</li> </ul>	
15.	FHWA Area will be converted into a Division Defined Field on the project detail for all Divisions. Any existing values for FWHA Area will be relocated to the	FWHA Area is not needed as part of the “standard” elements of the project agreement, however many Divisions reported that this item contains

	“FHWA Area” defined field, prior to opening FMIS 5 for the start of FY 2015.	valuable information. For this reason, it has been relocated to the Division Defined Fields.
<b>16.</b>	102 Expenditures has been renamed “ROW Revolving Funds”.	The new name is more descriptive of the purpose of the field.
<b>17.</b>	FMIS 5 has two-way related projects. For example, if project B is added as a related project for project A, FMIS will automatically add project A as a related project for project B. Only project A has to be modified to establish the two-way relationship.	This is in contrast to FMIS 4, where a State has to modify both project A and project B to have the two-way relationship.

\* The file formats in this document refer to “User Defined Fields” rather than recipient or Division defined fields. The reason is that the User Defined Fields XML tag can contain both recipient and Division defined fields when project data is downloaded. The upload file format also refers to User Defined Fields. This was done for consistency with the download format, even though a recipient would never upload a Division defined value.

## Geospatial Capabilities

### Considerations

1. Accuracy – Geospatial reference data eliminates ambiguity regarding project location
2. Standard Place Code is obsolete - This item was in FMIS as a means to pinpoint project location. Geospatial referencing is the standard means of tracking location related data. FHWA is simply adopting the new industry standard.
3. All states have a Linear Reference System (LRS) so the data is available.
4. The agency is moving toward performance based management, where the investment in a roadway is compared to the roadway’s performance. Such information is then used as the basis for improving the performance of the highway system. As such, the agency’s goal is to track the financial investment down to the roadway.
5. FMIS needs to meet today’s expectations for accuracy, presentation, comprehensive analysis, and reporting.

### Requirements

1. The geospatial rules that follow apply both to online FMIS, as well as Electronic Data Sharing (EDS). As such, “EDS” can be used interchangeably with the word “user” anywhere within these geospatial requirements, unless noted otherwise.
2. Geospatial data shall be carried on the project detail line as Route ID, with beginning and ending mile points for that Route ID
3. Route ID shall be defined in accordance with each State’s linear reference system.
4. Mile Points must be valid for the Route ID.

5. Beginning mile point must be < ending
6. **Location** - When geospatial data is on a project detail line, FMIS 5.0 shall derive the following location based data. This contrasts with current FMIS where users provide these values. Note that throughout this document, project detail “location” refers to a unique combination of the following items:
  - a. County
  - b. Congressional district (in States that have congressional districts)
  - c. Urbanized Area (If the Route ID and mile points fall entirely within an Urbanized Area)
  - d. Functional System
  - e. General Ownership
  - f. System Code
  - g. Urban or Rural
7. **Fund Amounts** – The term “fund amounts” refers to the following amounts throughout this document:
  - a. Federal
  - b. State
  - c. AC
  - d. Local
  - e. Non-monetary
  - f. Private
  - g. Other.
8. In general, geospatial data shall be required both for new detail lines as well as for modifications to old detail lines that existed on a Current project prior to implementation of FMIS 5.0, however geospatial data is not required if a detail line fits any of the following exceptions:

**Exceptions**

	<b>Automatic Exceptions:</b> FMIS automatically recognizes that geospatial data is not required, and allows omission of geospatial data without issuing a warning.	Applicable Details*
a.	<b>Statewide detail lines</b> – This is the only situation where geospatial data is not allowed.	All
b.	<b>Off-roadway</b> – The detail line has an improvement type that commonly occurs off-roadway. The “Geospatial Categories for Improvement Types” section below can be referenced for this and all other exceptions that are driven by improvement type.	All
c.	<b>New construction</b> - The detail line has an improvement type that applies only to new construction.	All
d.	<b>Close or withdrawal</b> - A Close or withdrawal transaction will not force geospatial data to be added, regardless of which data elements were changed on the detail line.	Old only

e.	<b>Fund amounts or location data are not changed</b> - Geospatial data is not required for changes to project detail elements other than fund amounts or location.	Old only
	<b>User-Supplied Exceptions:</b> 1. If no automatic exceptions apply, FMIS will prompt the State to provide justification as to why geospatial data is omitted on a detail line. 2. One or more of the following justifications may be provided by the State. First State and first Division signatories will be prompted to confirm the accuracy of the justification. An EDS State would provide a “GISOmissionJustification” as part of its project upload.	
f.	<b>New Construction</b> – This justification is allowed if the detail line has an improvement type where “New Construction or Off-Roadway is Possible”. The State shall supply this justification for each detail line where it applies.	All
g.	<b>Off-roadway</b> - This justification is allowed if the detail line has an improvement type where “New Construction or Off-Roadway is Possible”. The State shall supply this justification for each detail line where it applies.	All
h.	<b>Prepare for Close</b> – The State may indicate that the project is being modified in preparation for closure as justification for omitting geospatial data. The State shall only have to supply this justification once for the entire project.	Old only
i.	<b>Construction Complete</b> - The State may indicate that the construction phase of the project is complete as justification for omitting geospatial data.  This rule is intended to accomodates GARVEE, public-private partnership (PPP), and similar situations.  Project completion date must be in the past if it contains a value.  The State shall only have to supply this justification once for the entire project.	Old only

\*The "Applicable Details" column indicates if the exception applies to old project detail lines only, or all detail lines.

- Old detail lines are those that existed on a Current project prior to implementation of FMIS 5.0.
- All detail lines applies to old lines as well as those that were added to FMIS after implementation of FMIS 5.0.

9. When an old detail line is modified, geospatial data will only be required if all of the following are true:
  - Detail location or at least one fund amount has changed.
  - The “Geospatial Categories for Improvement Types” table below categorizes the Improvement Type as “On-Roadway”, “New Construction Possible”, “Off-Roadway Possible”
  - No “Automatic” or “User Supplied” Exceptions are applicable.

For online input, if geospatial data is required and the user does not supply it, the detail record will be saved with a warning message. If the GIS data is not present by the time of first signature, then the system will present an error message and the signature will not be applied. For EDS submissions, FMIS will reject projects where State signatures are included, and one or more detail lines lack required geospatial data.

10. Geospatial data is allowed on all project detail lines except statewide. Geospatial data is not allowed on statewide detail lines, because they cannot be linked to a specific roadway.
11. When required, geospatial data **must** be present by the time of first State signature
12. An individual detail line may have multiple Route IDs, each with its own set of mile points. FMIS will assign a default “percentage of funds” to each route ID, based on its share of total mileage across all route IDs for the detail line. **Note:** Users can change the percentage of funds for a route ID if the cost per mile is not identical from one roadway segment to the next.

**Example:** Figure 1 depicts 3 route IDs that are associated with the same detail line. Federal funds on the detail line total \$112,000, and the total mileage across all route IDs is 30. FMIS assigns 2/3 of funds to the first route ID, because it accounts for 20 miles, which is 2/3 of total mileage. The remaining two route IDs each account for 5 miles, and therefore receive 1/6 of funding.

Percent of funds for each route ID can be adjusted on-line or via EDS in cases where mileage-based assignment of funds by FMIS is inaccurate.

### **Figure 1**

▼ General Detail Information

<b>State</b> AL - Alabama	<b>Project ID</b> 0275(027)
<b>Suffix</b>	<b>State Project #</b>
<b>Version</b> Pending	<b>Program Code</b> LZ2E
<b>Detail #</b> 01	<b>Demo ID</b> <input type="text"/>
<b>Status</b> Active	<b>Improvement Type</b> Preliminary Engineering <input type="button" value="▼"/>
<b>Fund Source</b> LZ2E	<b>Recode</b> 587

▼ Funding

<b>Adv. Construction</b>	\$0.00
<b>Federal Funds</b>	\$112,000.00
<b>State Funds</b>	\$22,400.00
<b>Local Funds</b>	\$0.00
<b>Private Funds</b>	\$0.00
<b>Non-Monetary</b>	\$0.00
<b>Other Funds</b>	\$0.00
<b>Total Cost</b>	\$134,400.00

 View On Map  Export

Route ID	Begin Mile Point	End Mile Point	% Of Federal Funds	Federal Funds <input type="button" value="→"/>
1006012	10.000	30.000	66.67%	\$74,666.67
1006013	20.000	25.000	16.67%	\$18,666.67
1006014	25.000	30.000	16.66%	\$18,666.66
<b>Total</b>				<b>\$112,000.00</b>

13. Route IDs using funds from particular project detail line must be as complete and as specific as possible within the limitations of each States LRS. Examples:
  - a. Dual Carriage Roadway (aka divided highways) - Work occurring on only one-direction of a dual-carriage roadway should reference the Route ID of that direction (if available)
  - b. Ramp – Work occurring on a ramp should reference the Route ID of the ramp (if available)
  - c. One-way Pairs (aka “couplets”) - Each direction of a one-way pair has a separate route ID in the State LRS, therefore separate directions on the same pair should be entered separately on the detail line.
14. Geospatial data for Urban Required (Metropolitan Planning or Urban Attributable) detail lines having federal funds or AC must fall entirely within a Metropolitan Planning Area (MPA).
  - a. Metro Planning detail lines which are Statewide Planning (SWP) or Small Urbanized Area (SUA) are exempt from this requirement.
  - b. Valid MPA boundaries will be based on geospatial shape files compiled by the Office of Planning.
15. For non-urban required detail lines, urbanized area shall be derived from geospatial data in cases where the detail line falls entirely within a single MPA. Urbanized area shall be left blank when geospatial data only falls partially within an urbanized area.
16. If a bridge or tunnel number is included on a detail line, then route ID, and beginning mile point are required except if the line is Statewide, or subject to an “old only” exception (see #8 above). Ending mile point is not required.
17. A single “bridge” detail line can reference multiple bridges, and a single “tunnel” detail line can reference multiple tunnels. When this occurs, a percentage of funds must be user supplied for each bridge or tunnel, so that FMIS can determine the proportion of funding (federal, AC, State, etc.) that is associated with each bridge or tunnel. Figure 2 depicts how a project detail which references 3 bridge numbers might appear. County, Urbanized Area, and Congressional district are derived based on route ID and beginning mile point.

**Figure 2**

<input checked="" type="checkbox"/> Use Route ID	Route ID <input type="text" value="1006012"/>	Begin Mile Point <input type="text" value="10.000"/>	Structure ID <input type="text" value="19A3005"/>	Percentage <input type="text" value="66.67%"/>				
				<a href="#">View On Map</a> <a href="#">Export</a> <a href="#">Print</a>				
Route ID	Begin Mile Point	Structure ID	County	Urbanized Area	Congressional District	% Of Federal Funds	Federal Funds	
1006012	10.000	19A3005	Fresno	Bakersfield	18	66.67%	\$89,604.48	...
1244556	25.000	24D6987	Orange	Palm Springs	47	16.67%	\$22,397.76	...
1456666	30.000	3BE75W0	Los Angeles	Hemet	35	16.67%	\$22,397.76	...

18. Route ID and mile points should be provided when an improvement is associated with a roadway, but is not part of the roadway. Example: Route ID and mile points should be provided for landscaping along a stretch of road.
19. Route ID and mile points should refer to the “inventory direction” in cases where an improvement applies to both directions of a dual carriage roadway, and costs are not easily allocated to one direction versus another. Example: Landscaping in the median of a dual-carriage roadway.
20. When geospatial data is optional:
  - a. States should still provide optional geospatial data if it is available. When geospatial data is not available, the States shall specify all project detail location items that are required.
  - b. Users may specify multiple locations for a single detail line. “Location” is defined above. The user must supply a percent of funds for each location.

### Special Cases

1. A variance in Cost per mile within the same route ID and improvement type can cause FMIS to inaccurately distribute funding by county, congressional district, and urbanized area. If this is the case, a State or Division can enter the same route ID as multiple segments on the same detail line, with a separate percentage of the detail cost for each segment.
2. Different route IDs within the same detail line may have different cost per mile, and this difference can cause FMIS to distribute project costs inaccurately by county, congressional district, etc. An example would be a “resurfacing” detail line that has one route ID for a three-lane road, and another route ID for a one-lane on-ramp. If costs are not accurately distributed, the user can override the FMIS-assigned percentages of cost.
3. The shape of a roadway can change between annual submittals of GIS data to FHWA. Example: State funded projects can alter the shape of a roadway. Such shape changes can affect how FMIS distributes funding by county, congressional district, and urbanized area.

There are no plans to address this situation, because its impact is expected to be infrequent and minor.

4. Considerations for projects where a portion of the project location falls in another State:
  - a. Beginning and ending mile points must fall within the State that owns the project. For example, a Kentucky-owned bridge project cannot have an ending mile point in Ohio, even if some small portion of the work is actually taking place in Ohio.
  - b. FMIS shall never distribute project costs to locations outside the State that owns a project. Consider a roadway where the beginning and ending mile points both fall within Kansas, but the roadway enters Colorado at one or more points in between. FMIS will allow this situation, but will not distribute any of the project costs to counties and congressional districts within Colorado.
5. Boundaries of congressional districts and urbanized areas can shift over time due to events such as redistricting or census. In addition, new congressional districts can be established or existing districts removed. Such “shifts” will be managed as follows:
6. Reports – Reports will accumulate funds to congressional districts and urbanized areas based on the boundaries that existed as of the time frame of the report. Example: a new congressional district is added on 06/17/2016.
  - a. Any report run for a time frame of 06/17/2016 or later will attribute all funds from within the district to the new district, even if those funds were obligated before the new district was established.
  - b. Any report run for a time frame earlier than 06/17/2016 will attribute funds to the congressional districts that existed as of the report date.
7. Project Versions – Any report or screen that depicts a specific project version shall accumulate funds to congressional districts and urbanized areas that existed as of the date that the project version received final Division signature. Pending projects shall always reflect the boundaries in force as of the current date and time.

## Geospatial Categories for Improvement Types

<b>On-Roadway Improvement Types</b> - These improvement types invariably occur on a roadway.
<b>New Construction</b> – Geospatial data is optional because geospatial data is not universally available for new construction.
<b>New Construction or Off-Roadway is Possible</b> – These improvement types may be part of a new construction effort or may correspond to work that is occurring off-roadway. The State can indicate “New Construction” or “Off-Roadway” as justification to omit geospatial data.
<b>Commonly Off Roadway</b> - Geospatial data is optional because this improvement type commonly takes place off-roadway.
<b>Obsolete</b> – Geospatial rules are not applicable for obsolete improvement types. It will not be possible for a detail line with geospatial data to reference an obsolete improvement type.

## Improvement Types

Color is used to assign each improvement type to one of the above geospatial categories.

New Construction Roadway	01
4R – Reconstruction (obsolete)	02
4R - Added Capacity	03
4R - No Added Capacity	04
4R - Maintenance Resurfacing	05
4R – Restoration & Rehabilitation	06
4R - Maintenance Relocation	07
Bridge New Construction	08
Bridge Replacement - Added Capacity	10

Bridge Replacement - No Added Capacity	11
Bridge Rehabilitation - Added Capacity	13
Bridge Rehabilitation - No Added Capacity	14
Preliminary Engineering	15
Right of Way	16
Construction Engineering	17
Planning	18
Research	19
Environmental Only	20
Safety	21
Rail/Hwy Crossing	22
Transit	23
Traffic Management/Engineering - HOV	24
Vehicle Weight Enforcement Program	25
Ferry Boats	26
Administration	27
Facilities for Pedestrians and Bicycles	28
Acquisition of Scenic Easements and Scenic or Historic Sites	29
Scenic or Historic Highway Programs	30
Landscaping and Other Scenic Beautification	31
Historic Preservation	32
Rehabilitation and Operation of Historic Transportation Buildings, Structures, or Facilities	33
Preservation of Abandoned Railway Corridors	34
Control and Removal of Outdoor Advertising	35
Archaeological Planning & Research	36
Mitigation of Water Pollution due to Highway Runoff	37
Safety and Education for Peds/Bicyclists	38
Establishment of Transportation Museums	39
Special Bridge	40
Youth Conservation Service	41
Training	42
Utilities	43
Other	44
Debt Service	45
Design-Build Contract (obsolete)	46

Bridge Preventive Maintenance	47
Bridge Protection	48
Bridge Inspection and Bridge Related Training	49
New Tunnel	50
Tunnel Replacement	51
Tunnel Rehabilitation	52
Tunnel Preventive Maintenance	53
Tunnel Protection	54
Tunnel Inspection and Tunnel Related Training	55
Other Asset Inspection	56
Safety-Non Infrastructure	57
Freight	58
Unknown	99

## Required and Protected Data Rules for Projects

The following rules apply only to:

- Active Current Projects and all Pending projects. These rules do not apply to historical projects, or Current projects that are withdrawn or closed, because such projects always 100% protected from update.
- Active detail lines. Withdrawn detail lines are never subject to validation. They must be reestablished in order for the rules to apply.
- User supplied fields. All system generated data items shall be protected at all times.
- Projects that are updatable based on “Update Rules”.

### Required field messages:

Required data items must be supplied by various points in the signature process, depending on the categories listed below. If an item is missing and shall be required at a future point in the signature process, the user receives a warning. Such warnings are issued when saving and signing.

The user shall receive an error once provision of missing data can no longer be deferred. The timing of when a warning becomes an error depends on the category of the data item. Errors are issued when signature is attempted.

### Example:

% Federal Share is required by the time of final State signature, but has been left blank on a detail line.

Users saving the detail line or performing the first two State signatures of the project would receive a warning that % Federal Share is required by the time of final State signature.

The user who attempts final State signature would get an error and signature would be disallowed.

## Item Categories

The timing of when data items are to be required and protected fall into 4 categories

#	Category	Protection Rules	Required data Rules
1	Project header and detail key items	Protected after 1 <sup>st</sup> Save	Required at the time of 1 <sup>st</sup> Save,
2	Fund or Program Code related items.	Changeable on Current Projects, as well as Pending Projects with no signatures.* Protected on Pending projects having one or more signatures (State or Division).	When required, such fields must be present for first signature (State or Division)
3	Standard items	Changeable by <b>Division</b> users on Current projects and all Pending projects regardless of signatures that are present. Changeable by <b>State</b> users on Current projects, as well as Pending projects that do not have any Division signature.	When required, such fields must be present for first Division signature or final State signature, whichever occurs first.
4	Special items	See special rules below	See special rules below

\*Note that entering a change on a Current project will cause the Current project to be converted to a pending project with no signatures.

### Required Fields When “Limited Statistics Required”

“STP, SIB, and Emergency Relief projects are all “Limited Statistics Required” projects. This means that data items listed as Special or Standard in the “Required & Protected Data Rules” are not required with the following two exceptions:

- When a limited statistics project is to be closed, the statistical requirements become the same as for a conventional project.
- Emergency Relief projects require Disaster year and sequence number even though these items are Standard.

## Project Data Items by Category

#	Name	Category	Required?	Special Rules
	Recipient	Key	Y	
	Detail number	Key	Y	
	Program Code	Key	Y	
	Project Number	Key	Y	
	Demo ID	Fund or Program	N	Required for demo program codes. Not allowed on non-demo program codes.
	Emergency Relief Code	Fund or Program	N	<ol style="list-style-type: none"> <li>1. Required if there is at least one active detail that references a program code having ER Type of “Y”</li> <li>2. Required if Eligible for Emergency Relief is “Y”</li> </ol>
	Fund amounts (AC, Federal, State, Private, Local, Non-monetary, other)	Fund or Program	Y	<p>At least one fund amount must be non-zero when a detail line is saved. Note that AC is a fund amount, but AC Converted is not. Soft Match is not a fund amount.</p> <p>The total for either federal funds or AC must be &gt; 0 at time of first signature for each program code on the project. Program Codes where all detail lines are withdrawn or deleted are not subject to this rule.</p> <p>Adding or deleting a detail line affects money, and is disallowed after first signature.</p>
	NBI number	Fund or Program		<ol style="list-style-type: none"> <li>1. Required if a detail line has a bridge program code and the improvement type is other than a “NBI not Required” improvement type such as “new bridge”.</li> <li>2. Required if the detail line has a non-bridge program code and has an “NBI required” improvement type.</li> <li>3. Exception: NBI number is not allowed on Statewide detail lines, regardless of program code and improvement type.</li> <li>4. NBI number is not allowed on detail lines that do not require it. <ol style="list-style-type: none"> <li>a.</li> </ol> </li> <li>5. Rules for legacy bridge detail lines that were converted from FMIS-4.</li> </ol>

				<p>a. The user is only required to supply NBI number on project detail if at least one fund amount is being changed.</p> <p>b. There cannot be a mix of NBI numbers that are associated with the Project Header verses the detail within the same project. Therefore if one NBI number is relocated to the project detail line, then all NBI numbers must be relocated.</p> <p>c. Conversion note: NBI number on active current projects shall be placed on the detail line as part of conversion provided that the following conditions are met :</p> <ul style="list-style-type: none"> <li>• The State has provided conversion instructions for each NBI number that shares a program code / improvement type with at least one other NBI number on the project.</li> <li>• Any NBI number which does not have conversion instructions, must have a program code / improvement type that is unique within the project.</li> </ul>
	Tunnel number	Fund or Program	N	<ol style="list-style-type: none"> <li>1. Required for “Tunnel” Improvement Types.</li> <li>2. Not allowed for other Improvement Types</li> <li>3. Exception: Tunnel number is not allowed on Statewide detail lines, regardless of improvement type.</li> </ol>
	Project Type	Fund or Program	Y	
	Safety	Fund or Program	Y	Must Be Y or N.

	Urbanized Area	Fund or Program	Y	<ol style="list-style-type: none"> <li>1. Required for “urban required” program codes.</li> <li>2. Treated as a “Fund or Program” field for urban attributable program codes, otherwise treated as “Standard” field.</li> <li>3. See footnote. *</li> </ol>
	Withdrawal	Fund or Program	N	<p>Required for withdrawal-attributable program codes. Not allowed on non- withdrawal program codes.</p>
	Division defined fields on header or detail	Special	N	Always enterable by Division users, never enterable by State.
	Division Remarks	Special	N	<p>Enterable by Division only on any pending project. Protected from update by all users on Current project</p>
	State defined fields on header or detail	Special	N	Always enterable by State users, never enterable by Division
	State Remarks	Special	N	<p>Enterable by State only. Protected from State update after final State sig or first Division sig. Protected from update by all users on Current project</p>
	% Federal Share	Standard	Y	
	Authorization dates	Standard	Y	At least one authorization date is required by the time of first Division signature.
	Congressional District and Percent ( if county is not statewide)	Standard	Y	<p>Required in States that have multiple congressional districts if County is not Statewide. See footnote.*</p>
	County	Standard	Y	See footnote.*
	Disaster year and sequence	Standard	N	<ol style="list-style-type: none"> <li>1. Required if at least one active (not withdrawn) detail line on the project contains an Emergency Relief program code(Limited Statistics Required = ER”). This rule is applicable to both ER90 and older Emergency Relief codes.</li> <li>2. Required for emergency relief projects and “Eligible for Emergency Relief” projects.</li> </ol>
	Eligible for	Standard	N	Not allowed on ER projects

	Emergency Relief			
	DUNS	Standard	Y	
	Federal-aid System	Standard	Y	
	FHWA Area	Standard	N	
	Functional System	Standard	Y	Required
	Geospatial data – (LRS ID and Mile points)	Standard	N	Refer to Geospatial Capabilities section for a description of when geospatial data is required verses optional.
	Improvement Type	Standard	Y	
	Oversight	Standard	Y	
	Project Description	Standard	Y	
	Project Title	Standard	Y	
	Rural Urban ( if county is not statewide) County	Standard	N	<ol style="list-style-type: none"> <li>1. “Selection of Urban or Rural is required when county code other than statewide is selected or if the detail line is statewide and the recipient is DC .</li> <li>2. Urban or Rural is not allowed for statewide detail lines when the recipient is other than DC</li> </ol>
	Special Project Grouping	Standard	N	
	Recipient Project Number	Standard	N	
	STIP Reference	Standard	N	
	Toll Facility Temporary Match Indian Reservation Construction HWYS for Life CMGC Other SEP14 Design Build	Standard	Y	Must Be Y or N.

\* The user cannot change, counties, congressional districts, or urban areas when these items have been derived based on geospatial data, however these items can be user supplied when geospatial data has been omitted. See “Geospatial Requirements” for details of when omission is allowed.

## Project Summary Screen

### Purpose

The Project Summary screen serves as the core part of the Projects area, and it provides an overview for all aspects of a project.

- Gives the user an overview of the entire project including project header information, detail line summary information, signature status and related projects.
- Allows the following actions:

Function	Description
<b>View</b>	<ol style="list-style-type: none"> <li>1. View Current, Pending, or Historical, project versions.</li> <li>2. For a given project, a complete change history showing all project versions shall be readily available.</li> </ol>
<b>Add</b>	Add a new project authorization.
<b>View Fund History</b>	View fund history information for an individual program code within the project. All fund amounts from the project detail shall be displayed, as well as expenditures. All applicable standard reporting timeframes shall be listed.
<b>Close</b>	<ol style="list-style-type: none"> <li>1. Close a project that is in an active status.</li> <li>2. Advanced Construction funds must be zero 0 for a project close action to be allowed.</li> <li>3. Closed transaction, none of the Authorization or Project Status dates should have a future value.</li> </ol>
<b>Re-open</b>	Re-open a closed project.
<b>Withdraw</b>	<ol style="list-style-type: none"> <li>1. Withdraw one or more active detail lines from an active project.</li> <li>2. Withdrawal of all project detail lines will cause the entire project to be withdrawn.</li> <li>3. A withdrawal action is subject to over-expenditure checks, but is not subject to any other business rule checking of any kind. Example: Users should not be expected to correct an obsolete improvement type, or missing authorization date if they are withdrawing a Project.</li> </ol>

<b>Re-establish</b>	Re-establish one or more withdrawn detail lines. If the entire project was withdrawn, it shall be assigned an active status.
<b>View Authorization and Modification documents</b>	<ol style="list-style-type: none"> <li>1. View all Authorization and Modification documents associated with a project.</li> <li>2. Each project version is associated with a single document.</li> </ol>
<b>Sign pending project</b>	
<b>FHWA-37 Report</b>	View all statistics associated with a given project version.
<b>Update Block Signature List</b>	Add or remove a pending project from an individual's block signature list.

### Access Rights

Historical, Current, and Pending versions of a Project may be viewed by any FMIS user.

"Update Rules" above define when a project is updatable.

When a "Current" version of a project is updated, a "Pending" version of the project is created. Once a "Pending" version receives final Division signature, it becomes the "Current" version.

### Project Summary Elements

Data Element	Description	Business Rules
<b>Recipient</b>	State or Organization that owns the project.	Division and State users shall default to their home State.
<b>Federal Project Number (FPN)</b>	Federal number used to identify the project.	<ol style="list-style-type: none"> <li>1. Project Number may not contain the letter O</li> <li>2. Characters 5 through 7 must be numeric</li> </ol>
<b>FPN Suffix</b>	Differentiates distinct projects that share the same State and project number.	<ol style="list-style-type: none"> <li>1. This value is used to retrieve projects that cannot be uniquely identified based on State and Project Number alone.</li> <li>2. If Suffix is non-zero, it shall be appended to project number, separated with a hyphen (ppppppp-ss). FMIS will no longer have a separate screen element for suffix.</li> </ol>
<b>Recipient Project Number</b>	Aka State Project Number. A number used by the recipient to identify the project.	<ol style="list-style-type: none"> <li>1. See "Enterable Character fields" in General Requirements.</li> <li>2. There will be a maximum of 500 Recipient Project numbers associated with a single FMIS project.</li> </ol>
<b>Category and</b>	Displays the available	<ol style="list-style-type: none"> <li>1. Categories are</li> </ol>

<b>Version</b>	versions of the project	<ul style="list-style-type: none"> <li>• Pending</li> <li>• Current</li> <li>• Historical</li> </ul> <ol style="list-style-type: none"> <li>2. Current and historical versions are further qualified with transaction date, with time visible to support multiple versions within the same day.</li> <li>3. Category is changed at the time of final Division signature. The Pending project shall change to Current, and any previous Current project shall change to historical.</li> </ol>
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### Project Summary Elements

Data Element	Description	Business Rules
<i>General Project Information</i>		
<b>Transaction Business month</b>	Business month of final Division Signature	
<b>Transaction Number</b>	Number used to identify each instance of final Division Signature System	
<b>DUNS number</b>	Must be a valid DUNS number	<p>FHWA will use a DUNS subscription and this service will be used by FMIS 5.0 to validate DUNS number as follows, in real time:  The DUNS is a valid value  The DUNS belongs to the recipient that owns the project</p>
<b>Project Type</b>	Type of project. Possible type are <u>C</u> onventional <u>S</u> TP <u>S</u> IB <u>E</u> mergency Relief <u>D</u> emo Project	<ol style="list-style-type: none"> <li>1. If Project Type is Emergency Relief, then the project cannot have active detail lines with Demo Program codes. It should atleast have one active detail line with Program Code that has Limited Statistics Required set to Emergency Relief.</li> <li>2. If Project Type is STP, then all active detail lines must be STP Program Codes.</li> <li>3. If Project Type is SIB, then all active detail lines must be SIB Program Codes.</li> </ol>
<b>Project</b>	Status of the	Project Status is revised as a result of any signature action,

<b>Status</b>	displayed Project	and may also be revised when expenditure is recorded against a project that is either closed or withdrawn “pending expenditures”. The Project Status Rules table below describes project status settings.
<b>Project Action</b>	New Project Project Close Convert Funding Project Withdrawal Reopen Project Change	<ol style="list-style-type: none"> <li>1. One of the following actions will be applied to a pending project. <ol style="list-style-type: none"> <li>a. New Project – The pending project is for a new recipient/federal project number</li> <li>b. Project Close – Self explanatory</li> <li>c. Convert Funding – AC converted funds balance of the project has increased.</li> <li>d. Project Withdrawal - All detail lines within the project are withdrawn</li> <li>e. Reopen – The project had been closed but is now in an active status</li> <li>f. Project Change – The default action that is assigned to the pending project if none of the actions above apply.</li> </ol> </li> <li>2. Project Action ranking if more than one action has been performed against the same pending project: <ol style="list-style-type: none"> <li>a. Project Change is lowest – If one of the other actions is taken after Project Change, then Project change shall be replaced. If Project Change occurs after any of the other actions, it will not replace these other actions.</li> <li>b. Convert Funding ranks higher than Project Change, but lower than all others.</li> <li>c. Reopen ranks higher than Convert Funding and Project Change, but lower than all others.</li> <li>d. New, Close, and Withdraw are the highest rank, and are all ranked equally. No two of these actions should be allowed against the same pending project. Close and Withdraw, shall replace an action of Change, Convert, or Reopen.</li> </ol> </li> <li>3. Project Action is never nullified. It shall be carried forward when the Pending project becomes Current, and if the Current becomes a historical project.</li> </ol>
<b>Project Title</b>	A brief description of the project location and character of work.	<ol style="list-style-type: none"> <li>1. Length is 250 Characters.</li> <li>2. Required data element on all projects.</li> </ol>
<b>Project Description</b>	Detailed text description of the project.	Length is 2000 characters

<i>Project Status Dates</i>		
<b>Project Completed Date</b>	The date that all work and inspections were completed on the project.	<ol style="list-style-type: none"> <li>1. Completion date must be later than all authorization dates.</li> <li>2. May be user supplied.</li> <li>3. If blank at the time final voucher is paid, set equal to Final voucher Paid Date.</li> </ol>
<b>Final Voucher Paid date</b>		<ol style="list-style-type: none"> <li>1. Date and time of final expenditure if the project has a Status of “Closed Pending Expenditures”, and an expenditure transaction causes the project to close.</li> <li>2. Set equal to the date of the most recent expenditure if total project expenditures = total project federal funds at the time of Final Division signature and project action = “project close”.</li> </ol>
<b>Latest Payment Date</b>	Max Latest Payment Date for the project	Latest Payment date shall be tracked for each distinct non-demo program code within the project, and for each distinct demo ID/demo program code combination within the project.
<b>Last Action Date</b>	Date of last activity on a the project. 1 line.	System generated value. This date is updated each time any part of the project is saved, when the project is signed, or when an expenditure is recorded against the project.
<b>Estimated Construction Date</b>	Date construction is estimated to begin	ECD will be converted as a Recipient Defined date field, rather than a standard FMIS data element.
<i>Effective Authorization dates</i>		
Rules that apply to all authorization dates. If an authorization date is changed from what’s on the current version of the project, then a warning is displayed and the user has the option to continue or cancel the change.		
<b>PE Date</b>	Approval for Preliminary Engineering phase of work.	<p>Following rules apply.</p> <ol style="list-style-type: none"> <li>1. PE date must be earlier than Construction date, and project Completed date.</li> <li>2. PE is required when at least one active detail line with PE improvement type.</li> <li>3. If PE date is not null, then the project must contain at least one active detail with a PE improvement type.</li> </ol>
<b>ROW Date</b>	Approval for Right of Way phase of work.	<p>Following rules apply.</p> <ol style="list-style-type: none"> <li>1. ROW date must be later than PE dates, but earlier than project Completion date.</li> <li>2. ROW date must be earlier than Construction date, and project Completion date</li> <li>3. ROW is required when at least one active detail line</li> </ol>

		with ROW improvement type 4. If ROW date is not null, then the project must contain at least one active detail line with an ROW improvement type or a program code where TAP/TE = 'Y'.
<b>Construction Date</b>	Approval for Construction phase of work.	Following rules apply. 1. Construction date must be later than ROW dates, but earlier than project Completion date. 2. If construction date is not null, then the project must contain at least one active detail line with the following properties: construction indicator = Y or improvement type is a construction improvement type.
<b>SPR date</b>	Approval for Planning and Research phase of work.	1. SP&R is required when at least one active detail line where recode is in '090', '222'. 2. If SPR date is not null, then the project must contain at least one active detail line with the following properties: program code must be from recode 090 or 222.
		1.
<b>Other Date</b>	Approval date for activities other than PE, ROW, Const., and SPR such as Transit.	The following rules apply. 1. If none of the other Authorization dates is required and they are null, and the project is not withdrawn, then other date is required.
<i>Related Projects Section</i>		
<b>Related Projects</b>	Example of how related projects is used: Allow different phases of the same project (namely ROW, Construction & PE) that have been entered as separate FMIS projects to be related to each other and then reported together.	1. Users can add or delete related project entries. 2. A related project entry shall be a two-way relationship. If a user makes an entry in Project A that says project B is related. Then if Project B is displayed, project A will appear as a related project of B. 3. A project cannot be related to itself. 4. The same project can appear multiple times in the related project list provided that the relationship indicator has a different value for each entry.
<b>Recipient</b>	Recipient of the to-be related project	
<b>Project #</b>	FMIS Project value of the to-be related project	Valid FMIS Project Number must be entered.
<b>Project Suffix</b>	Project suffix of the to-	When non-zero suffix will be appended to

	be related project	project number, separated by a hyphen.
<b>Relationship</b>	Type of relationship value for the to-be related project  <b>Values</b> CONSTRUCTION CONVERTED DEMO ENVIRONMENTAL IMPACT STATEMENT GARVEE JOINT-FUNDED WITH ANOTHER STATE MULTI-FUNDED PRELIMINARY ENGINEERING RIGHT-OF-WAY	CONVERTED and MULTI-FUNDED shall be obsolete in the new application. The values shall be usable for display and reporting purposes, but will not be selectable on new project relationships or if changing a relationship type on an existing relationship.
<i>Project Funds</i>	FMIS shall provide a summary of fund totals across all project detail lines and program codes within the project, to include the following amounts.	
<b>Advanced construction</b>	Total of Advanced construction funds on this project.	
<b>Federal Funds</b>	Total of federal obligations on this project.	
<b>State Funds</b>	Total of state funds on this project.	
<b>Local Funds</b>	Total of local funds on this project.	
<b>Private Funds</b>	Total of Private donations/contributions towards this project.	
<b>Non-monetary donations</b>	Total of value of all non-monetary contributions towards this project.	
<b>Other Funds</b>	Total of Other funds towards this project.	

<b>Total Cost</b>	Total of all funds used to finance this project.		
<b>Adv. Const. Converted Funds</b>	Total of Advanced construction converted funds on this project.		
<b>Expenditures</b>	Total of expenditures applied to the project...	<ol style="list-style-type: none"> <li>1. For Current and Pending projects, the current expenditure balance shall be displayed.</li> <li>2. For historical projects, this item shall be the expenditure balance at the time that the historical version was replaced by the subsequent project version.</li> </ol>	
<b>ROW Revolving Funds</b>	Called 102 expenditures in FMIS-4		
<i>Project Bridge Data</i>			
<b>NBI #, NBI Program Code, NBI Improvement Type.</b>	<p>These items are for display only, and are only visible on project versions that were signed in FMIS-4.</p> <p>At the time of conversion, the States shall have the capability to provide a file which can be processed in order to automatically relocate specified NBI entries from the project summary to the project detail.</p>		
<i>Other Project Information</i>			
<b>Project Oversight</b>	Used to identify the level of FHWA project oversight. Required for every project.	<p>S - Full Oversight/State Administered</p> <p>F - Full Oversight/Locally Administered</p> <p>T - Delegated/State Administered</p> <p>D - Delegated/Locally Administered</p> <p>Z - Other</p>	<p>The following obsolete values are allowed for display and view purposes only. Any update or selection of Project Oversight shall require selection of one of the above values.</p> <p>N - Full Oversight (NHS)</p> <p>X - Full Oversight (non-NHS)</p>

A - State Administered		
<b>STIP reference</b>	A reference which links the FMIS project to the State Transportation Improvement Plan (STIP).	1. The State and Division determine what is appropriate for this field.
<b>Eligible for Emergency Relief</b>	A Y/N indicator which indicates that a particular project shall become eligible for ER funds once they become available.	<ol style="list-style-type: none"> <li>1. Must be "Y" or "N"</li> <li>2. Disaster Year and Sequence number are required if "Eligible for ER" is set to "Y".</li> <li>3. "Eligible for Emergency Relief" cannot be set to "Y" for Demo and Emergency Relief Projects. "Y" is allowed on all other project types.</li> <li>4. Limited statistics required rules shall apply when a project is eligible for ER.</li> </ol>
<b>Disaster Fiscal Year</b>	Identifies the disaster year for emergency relief projects	<ol style="list-style-type: none"> <li>1. Required if at least one active (not withdrawn) detail line on the project contains an Emergency Relief program code (Limited Statistics Required = ER" or Emergency_Relief_Type='Y'). This rule is applicable to both ER90 and older Emergency Relief codes.</li> <li>2. Required for emergency relief projects and "Eligible for Emergency Relief" projects.</li> <li>3. Not allowed if requirement #1 or 2 is not met.</li> <li>4. Users can key in a year but must be a valid year beginning with 19 or 20.</li> <li>5. Cannot be a future year</li> <li>6. If a user enters a disaster year older than current calendar year - 2, a warning will appear which prompts the user to confirm that the selected year is accurate. The user will be allowed to save the year if accuracy is confirmed.</li> </ol>
<b>Disaster Sequence #</b>	Sequential Identifier for a disaster within State and FY.	<ol style="list-style-type: none"> <li>1. Must be a numeric value.</li> <li>2. Required if disaster year is present.</li> <li>3. Not allowed if disaster year is null.</li> <li>4. Disaster numbers are not required to be entered in numeric sequence.</li> </ol>
<b>Emergency Relief Code</b>	Eight-character identifier that allows an ER allocation or apportionment to be	<ol style="list-style-type: none"> <li>1. Only one Emergency Relief Code is allowed per project.</li> <li>2. Must be eight characters in length</li> </ol>

broken down by FY, Program Code, and ER ID.

3. The first two characters of emergency relief code must match state code. Example – Emergency Relief Codes for Alabama projects must begin with AL.
4. Required if there is at least one active detail that references a program code having Emergency Relief Type of “Y”.  
**Note:** Currently ER90 is the only emergency relief code, but additional program codes can/will be added
5. Required if Eligible for Emergency Relief is “Y”
6. Not allowed if the project type is not Emergency Relief and Eligible for Emergency Relief is “N”
7. If the program code has an Emergency Relief Type of “Y”, then Apportionment balances are tracked by Emergency Relief code.
8. Emergency Relief Code is validated only if the project contains a detail record that has the program code with Emergency Relief Type of “Y”. **Note:** Currently ER90 is the only emergency relief code, but additional program codes can/will be added

*Special Project Groupings*

Initially, valid categories shall be Major, Pooled Fund, and Other.

If needed, Additional categories can be established without making changes to the Project Summary software to accommodate the new category.

1. Major and Pooled Fund project groups from FMIS-4 shall be available in the new system.
2. Demo Projects grouping is no longer needed and will not be supported in future. Existing Demo Projects will be moved to “Other” category during conversion, and the states will be notified as such.
3. Cross checks which disallow a project from being part of more than one type of grouping will be eliminated. While it is true that a pooled fund project cannot be part of any other group it is not necessary to enforce such a rule.
4. A given project can only be associated with one Special Project Group within a

		<p>category. Example: A project can only be part of one Major project group.</p> <p>5. A given project can be associated with more than one special project category. Example: A project can be associated with a Major project group as well as a Pooled Fund project group.</p>
<b>Recipient and Division Defined Fields</b>	The properties defined by the recipient (State) or the Division shall be enforced as follows:	Refer to “Rules” within the “State and Division Defined Fields” section
<b>State Remarks</b>	Length of this field will be increased to 2000 Chars length	<p>For simplicity of the requirements document, the following rules are written to cover both the Recipient and Division perspective, even though they are listed under State remarks.</p> <ol style="list-style-type: none"> <li>1. Date, time, and the individual who entered the remark will also be captured.</li> <li>2. Remarks will fall into two categories “Document Remarks”, which will Show on Agreement or Modification Document and “Comments”, which are strictly for temporary communication regarding the pending project.</li> <li>3. States can edit their document remarks as well as comments up until the time of final State signature.</li> <li>4. Divisions can edit their document remarks and comments up until the time of final Division signature</li> <li>5. State and Division comments shall be erased at the time of final Division signature.</li> <li>6. The Pending Project List will provide the means to identify pending projects that have comments.</li> <li>7. Document remarks will not have any special appearance on the Pending Project List, because they are part of the formal document and were not entered for the purpose of communicating between users.</li> <li>8. When a new version of an existing project is created, document remarks from the Current project are carried forward for display on the new version. If a user changes and saves the document remark, then a new document remark is saved</li> </ol>

		with a the creation datetime and user ID. The document remark on the old Current project shall remain unchanged.
<b>Division Remarks</b>	Length of this field will be increased to 2000 Chars length	Same as State Remarks
<i>Signatures</i>		
<b>Project First Updated by</b>	User ID of user that first entered/updated this version of the project	For projects modified by EDS,this field should explicitly indicate that a project came from EDS in addition to showing user name
<b>Project First Updated Date</b>	Date of first modification	Date that the Pending Project was first entered in the FMIS system. The date is system generated.
<b>Modification #</b>	Modification # of the project	Numerical value indicating the number of modifications made on the project. Newly created projects will have Mod number 0 and it increments by 1 with every modification.
<b>State Certified Date</b>	Date State signer certified that funds are available for obligation	
<b>State Certified Signature</b>	Name of State signer that certifies that funds were available for obligation.	
<b>State Recommended Date</b>	Date State signer recommends that the obligation of funds be authorized.	
<b>State Recommended Signature</b>	Name of State signer that recommends that the obligation of funds be authorized	
<b>State Approved Date</b>	Date State signer authorizes the obligation of funds.	
<b>State Approved Signature</b>	Name of the State signer that authorizes the obligation of funds. EDS should allow States to send a name in the signature fields	
<b>Division</b>	Date the FHWA signer	

<b>Reviewed Date</b>	approves detail data.
<b>Division Reviewed Signature</b>	Name of the FHWA signer that approves Detail data.
<b>Division Recommended Date</b>	Date FHWA signer recommends that the obligation of funds be authorized.
<b>Division Recommended Signature</b>	Name of the FHWA signer that recommends that the obligation of funds be authorized.
<b>Division Approved Date</b>	Date FHWA signer authorizes the obligation of funds.
<b>Division Approved Signature</b>	Name of the FHWA signer that authorizes the obligation of funds.

### Project Status Rules

		Pending Project Statuses
Code	Status	When
01	State Certification Signature needed	<ol style="list-style-type: none"> <li>1. Pending project belongs to an electronic signature state AND</li> <li>2. Initial status of a newly created pending project that does not contain any signatures and has never been signed before.</li> </ol>
02	Unsigned, State Certification Signature needed	<ol style="list-style-type: none"> <li>1. Pending project belongs to an electronic signature state AND</li> <li>2. One or more state signatures were present on the pending project at some point and all the signatures have now been removed.</li> </ol>
03	State Recommendation Signature needed	<ol style="list-style-type: none"> <li>1. Pending project belongs to an electronic signature state.</li> <li>2. Only “State Certification Signature” is present.</li> </ol>
04	State Authorization Signature needed	<ol style="list-style-type: none"> <li>1. Pending project belongs to an electronic signature state AND</li> <li>2. Only “State Certification Signature” &amp; “State Recommended Signature” are present AND</li> <li>3. Project modification number is 0 (when no current</li> </ol>

		version of the project exists).
05	State Modification Signature needed	<ol style="list-style-type: none"> <li>1. Pending project belongs to an electronic signature state AND</li> <li>2. Only “State Certification Signature” &amp; “State Recommended Signature” are present AND</li> <li>3. The project has a modification number greater than 0 (when a current version of the project exists).</li> </ol>
06	Division Review Signature needed	<ol style="list-style-type: none"> <li>1. When a pending project belongs to a paper signature state and one of the following is true. <ol style="list-style-type: none"> <li>i. Initial status of a newly created pending project that does not contain any signatures and has never been signed before.</li> <li>ii. One or two division signatures were present on the pending project at some point and all the signatures have now been removed.</li> </ol> </li> </ol> <p>OR</p> <ol style="list-style-type: none"> <li>2. When a pending project belongs to an electronic signature state and all three state signatures are present on the project.</li> </ol>
07	Division Recommendation Signature needed	When a pending project does not belong to an electronic signature state and “Division Review Signature” is present.
08	Division Authorization Signature needed	“Division Review Signature” and “Division Recommendation Signature” are present on the project.
16	Rejected by Division	The pending project has been returned to the State by the Division for remediation.
<b>Project Statuses for Current Projects</b>		
10	Active	Active is the default project status when no other “Current” project status is applicable.
11	Closed	<ol style="list-style-type: none"> <li>1. Project Action is “Project Close” AND</li> <li>2. Obligations = Expenditures for each program code on the project where program code is not 1020 AND</li> <li>3. Expenditure balance for 1020 is zero</li> </ol>
12	Closed Pending Expenditures	<ol style="list-style-type: none"> <li>1. Project Action is “Project Close” AND</li> <li>2. Obligations is not = Expenditures for at least one program code on the project where program code is not 1020 OR</li> <li>3. Expenditure balance for 1020 is non- zero</li> <li>4. A project which is “Closed Pending Expenditures” will be closed as a result of one or more expenditure transactions. If expenditures are equal</li> </ol>

		to obligations for the project for program codes other than 1020 and the 1020 expenditure balance is zero, then the project will close. Final voucher paid date must be set equal to the date/time that final expenditure was applied.
13	Withdrawn	<ol style="list-style-type: none"> <li>1. Project Action “Project Withdrawal” AND</li> <li>2. Total expenditures for each program code on the project are 0.</li> </ol>
14	Withdrawn Pending Expenditures	<ol style="list-style-type: none"> <li>1. One of the Project actions on a project is “Project Withdrawal” AND</li> <li>2. Total expenditures for any program code on the project are non-zero.</li> <li>3. A project which is “Withdrawn Pending Expenditures” will be withdrawn as a result of one or more expenditure transactions. If expenditures are equal to 0 for all program codes on the project, then the project will be withdrawn.</li> </ol>

### Additional Information

1. If a project is marked for block sign by a user, no updates are allowed on the project by anyone else, with the exception that other users with update authority for the project can unmark the project for block signature and then make subsequent changes.
2. Signature of projects is allowed only for projects with at least one detail line for each program code having advanced construction funds > 0 or federal funds >0.
3. If non-signature changes were made to a Current version of a project, then a new entry must be inserted into the transaction table for that project. A single transaction shall be logged when the user exits the project.

A non-signature change occurs when the only changes to the project are to data items that are not part of the agreement between the State and FHWA as follows:

- State Defined fields
  - Division Defined fields
  - Special Project Groupings
4. A screen or report similar to a spreadsheet shall be supplied, where each column represents a project version, and rows are project phases, with individual program codes listed as rows under each project phase row. Body of the sheet would be fed funds. Purpose is to keep States from de-obligating money, and then re-obligating it back in under a different program code later.

## Project Detail Screen

### Purpose

The Project Detail screen is where funding for a project is maintained. Projects can be funded by one program code or by a series of program codes. Detail lines are established for every funding category and then broken down by statistical data. A detail line consists of detail identifier information, geographic, Congressional District and other statistical data, and dollar amounts which provide funding for the detail line. Depending on the funding and the mix of statistics, there may be numerous project detail records associated with a given project.

### Project Detail Functions:

Project Detail Functions:	Rules
Add a detail line	Use of this function is subject to the rules defined in the “Update Rules” section of this document.
Update a detail line	Use of this function is subject to the rules defined in the “Update Rules” section of this document.
Withdraw detail lines	<ol style="list-style-type: none"> <li>1. Use of this function is subject to the rules defined in the “Update Rules section of this document.</li> <li>2. A detail cannot be updated if it is withdrawn. It must first be reestablished before updates can be made to it.</li> <li>3. Withdrawal of a new detail line shall result in physical removal of the line from the data base. A new detail line is one that exists on a Pending project, but not on the Current version of the same project.</li> <li>4. Withdrawal of an existing detail line causes it to be marked withdrawn, with money amounts set to zero, and all other detail statistics left unchanged. An existing detail line is one where program code + line number do exist on the Current version of the same project.</li> <li>5. Default view of project detail lines for a project: Withdrawn detail lines shall be hidden, with the exception that detail lines that are being withdrawn as part of a Pending transaction should be visible. Such detail lines are those that that are withdrawn on the Pending project but not withdrawn on the Current version of the same project.</li> </ol>

<p>Convert AC funds to Federal Funds.</p>	<p>Use of this function is subject to the rules defined in the “Update Rules” section of this document.</p> <p>The following rules are true of any AC conversion:</p> <ol style="list-style-type: none"> <li>1. The conversion amount may be all or part of the AC amount.</li> <li>2. AC converted amount and federal funds amount shall both be incremented by the conversion amount.</li> <li>3. AC amount shall be decremented by the conversion amount.</li> </ol> <p>Three scenarios are possible when AC funds are converted as described below:</p> <ol style="list-style-type: none"> <li>1. Same Detail – In more than 80% of cases. AC funds are converted to federal funds on the same detail line.</li> <li>2. Convert to other existing detail line - <ol style="list-style-type: none"> <li>a. Federal funds amount on a target detail line other than the source detail line are incremented by the conversion amount. “Source detail” refers to the detail line from which AC funds are being converted.</li> <li>b. Last action date on the target line shall be updated.</li> <li>c. The user shall have the option to transfer some or all of each fund amount from the source detail line to the target detail line. The amount on the target detail line shall be incremented by the transfer amount and the amount on the source detail line shall be decremented by the transfer amount.</li> </ol> </li> <li>3. Convert to new detail line – A new detail line shall be created as a result of the conversion. Each element on the new detail line shall carry the same value as on the source detail line, except for the following: <ol style="list-style-type: none"> <li>a. Federal funds shall be set equal to the conversion amount.</li> <li>b. AC, soft match, and AC converted amounts amount shall be set to 0</li> <li>c. Fund amounts other than AC and federal funds shall default to 0 unless funds have been transferred from the source detail line as described in 2.c above.</li> <li>d. Program code and detail number shall be user supplied.</li> <li>e. The source and target program codes may not have compatible data requirements, therefore the new detail line will need to be fully validated and the user will need to be prompted to address any such issues. Example: If a non-demo detail line is created from a demo detail line, the user will need to remove demo ID from the new detail line.</li> </ol> </li> </ol>
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Copy detail line (excluding funds)	<ol style="list-style-type: none"> <li>1. Use of this function is subject to the rules defined in the “Update Rules section of this document.</li> <li>2. An exact copy of the detail line is created, with the exception of the following elements, which are set as follows on the new detail line: <ol style="list-style-type: none"> <li>a. A new detail number is assigned, and the user has the option to change it.</li> <li>b. Last Action Date reflects date and time the detail line was copied.</li> <li>c. All money amounts are zero, and the user must supply values.</li> <li>d. User supplied percentages in the sub-detail should be nullified, or reset to FMIS-assigned default values when such exist (defaulted to 100% when there is only one county, defaulted to a pro-rate of mileage when specific routes are involved, etc).</li> </ol> </li> </ol>
View a detail history report	A report which displays fund amounts for the detail line across all Standard reporting time periods that apply.
Review detail data for signature	When reviewing a Pending project modification, the user should be provided with the means to quickly identify all differences between the Pending and Current versions of the detail data.
Reestablish a withdrawn detail line	Use of this function is subject to the rules defined in the “Update Rules section of this document.

### Access Rights

Same as Project Summary screen.

### Information Displayed

Data Element	Description
<b>Recipient</b>	Project owner
<b>Federal Project Number (FPN)</b>	Federal number of the project.
<b>Recipient Project Number</b>	Number used by the recipient to identify a project, aka State Project Number.
<b>Version</b>	Displays the version of the project.
<b>Fund Source</b>	Indicates the source of funding for a given Program Code.
<b>Recode</b>	Used for reporting purposes to group like Program codes together. System-generated, protected field.
<b>Last Action Date</b>	The date the project detail line was last saved.

## Inputs

Data Element	Description	Business Rules
<b>Detail ID</b>		
<b>Program Code</b>	Indicates the category of funds in the new system.	<ol style="list-style-type: none"> <li>1. Must be on the program code table</li> <li>2. The program code's Federal Funds Source must be "FMIS Only".</li> <li>3. Obsolete program code is not valid on a new detail line, unless it already exists on the project.</li> <li>4. New Detail lines cannot be added for cancelled program codes under any conditions.</li> <li>5. Obligations cannot be increased within a project for an obsolete program code. Fed funds can be increased on individual detail lines or even new detail lines, but any such increases must be offset by decreases on other detail lines.</li> <li>6. Expired "FMIS Only" program codes are not allowed.</li> <li>7. The program code may not exist on another project with the same state and project number (project suffix is different).</li> <li>8. If the Project Type is Emergency Relief, at least one of the program codes on the project should be Emergency Relief program code (limited-statistics-required = 'Emergency Relief')</li> <li>9. Must be an SIB Program Code (limited-statistics-required = 'SIB') if Project Type is SIB.</li> <li>10. Must be an STP Program Code (limited-statistics-required = 'STP') if Project Type is STP.</li> <li>11. When a user enters a demo program code for a non-demo project, the project will be converted to a demo project.</li> <li>12. When a user enters a Emergency Relief program code for a non-Emergency Relief project, the project will be converted to a Emergency Relief project.</li> </ol>
<b>Detail Number</b>	Used to identify a portion of work.	<ol style="list-style-type: none"> <li>1. Numeric integer, length 3.</li> <li>2. Line number must be unique within a project and program code.</li> <li>3. The system generates the first available line number for the project and program code (max + 1), but the user has the option to change to another unused line number.</li> </ol>
<b>Demo ID</b>	Relates the project to a particular Demonstration	<ol style="list-style-type: none"> <li>1. Demo ID will be enabled for new details with demo program codes.</li> </ol>

	Project (Demo). Assigned by the responsible program office.	<ol style="list-style-type: none"> <li>2. When a value for demo ID is entered, a warning message to indicate demo Id cannot be changed after final signature is displayed.</li> <li>3. Demo ID must exist on an allocation or apportionment for the State and program code.</li> </ol>
<b>Detail Status</b>	Used to identify the status of the detail line.	Detail lines can be either withdrawn or active. All money amounts are set to zero on withdrawn detail lines. All other statistics can remain.
<b>Improvement Type</b>	Field which indicates the nature of work involved.	See the “Improvement Type” table below for a complete list of rules regarding usage of Improvement Types.
<b>County*</b>	Identifies County in which the detail line is located.	<ol style="list-style-type: none"> <li>1. Must be a valid County Code.</li> <li>2. See Geospatial rules for details regarding when user supplied verses derived.</li> </ol>
<b>Urbanized Area Code *</b>	Identifies the urbanized Area in which the project is located.	<ol style="list-style-type: none"> <li>1. Must be a valid Urbanized Area code. A valid code will meet one of the following criteria: <ol style="list-style-type: none"> <li>i. Defined as valid code by the Census Bureau</li> <li>ii. Statewide Planning (code = “SWP”)</li> <li>iii. Small Urbanized Area (code = “SUA”)</li> <li>iv. The code is a FMIS 4 urbanized area code having at least one apportionment, which has no equivalent Census bureau code, and has therefore carried forward from FMIS 4.</li> </ol> </li> <li>2. Required for “urban required” program codes. Note: All “urban attributable” codes are also “urban required”</li> <li>3. If program code is urban attributable, urbanized area must refer to an urbanized area with a population of at least 200,000. Urban required program codes that are not urban attributable can use any valid urbanized area as well as SWP and SUA.</li> <li>4. Obsolete urbanized area code is not allowed when changing or adding a detail line. Such values include ‘000’ and ‘NAV’</li> <li>5. Some program codes require all detail lines within the same project which refer to that code to have the same urbanized area. “Many urban areas allowed” is a property of the program code.</li> <li>7. Urbanized area may not be selected when county is Statewide.</li> <li>8. See Geospatial rules for details regarding when user supplied verses derived.</li> <li>9. There is no restriction on adding a detail line that references an obosolete urbanized area. If funds are available, then a line can be added that</li> </ol>

		references the obsolete area.
<b>Withdrawal Area</b>	Identifies the withdrawal area codes for projects using Interstate Transfer funds.	<ol style="list-style-type: none"> <li>1. Must be a valid Withdrawal Area for withdrawal-attributable program codes.</li> <li>2. Not allowed on detail lines having non-withdrawal-attributable program codes.</li> </ol>
<b>Congressional* District</b>	Identifies the Congressional district in which the project is located.	<ol style="list-style-type: none"> <li>1. Must be a valid congressional district for the State</li> <li>2. Required for States that have congressional districts, except when county is statewide, in which case district is not allowed.</li> <li>3. See Geospatial rules for details regarding when user supplied verses derived</li> </ol>
<b>Percent of Detail Funds*</b>	<p>Bridge or tunnel detail line: The percentage of detail funds that is assigned to a particular bridge or tunnel.</p> <p>Other detail line: The percentage of detail funds that is assigned to a unique County, Urbanized Area (when present), and Congressional District(when present)</p>	<ol style="list-style-type: none"> <li>1. The sum of all congressional district percent's must be equal to 100%.</li> <li>2. Required for each Congressional District</li> </ol>
<b>Urban or Rural*</b>	Used to indicate whether a project is located in an urban or rural area.	<ol style="list-style-type: none"> <li>1. "U" is required when: <ol style="list-style-type: none"> <li>a. Urbanized area is selected on the detail line OR</li> <li>b. Detail line is for a project for DC or PANYNJ</li> </ol> </li> <li>2. If the detail line is statewide and State is other than DC or PANYNJ Urban or Rural must be blank</li> <li>3. If Urban or Rural is not required to be either "U" or blank and Program Code is an HRRR, Default to Rural. If the user changes it to another value, ask for confirmation.</li> <li>4. Selection of Urban or Rural is required when county code other than statewide .</li> <li>5. See Geospatial rules for details regarding when user supplied verses derived</li> </ol>

<b>Functional System*</b>	<p>Field which groups streets and highways into classes, or systems, according to the character of service they provide.</p> <p><b>Values:</b>  Interstate  Principal Arterial – Other  Freeways and Expressways  Principal Arterial – Other  Minor Arterial  Major Collector  Minor Collector  Local  No Functional Class</p>	<ol style="list-style-type: none"> <li>1. Functional System must be “Interstate”, "Other Principal Arterial" or "Freeways &amp; Expressway" when System Code is "Interstate."</li> <li>2. Functional System cannot be “Interstate”, "Other Prin. Arterial" or "Freeways and Express ways" when System Code is "Not on any Federal-aid System."</li> <li>3. See Geospatial rules for details regarding when user supplied verses derived</li> </ol>
<b>System Code*</b>	<p>Identifies the Federal-aid Highway System on which a project is located.</p>	<ol style="list-style-type: none"> <li>1. Must be a valid Federal-aid Highway System. Possible values are <ol style="list-style-type: none"> <li>a. Interstate</li> <li>b. NHS non-Interstate</li> <li>c. Not on any Federal-aid system</li> <li>d. Other Federal-aid Highway</li> </ol> </li> <li>2. See Geospatial rules for details regarding when user supplied verses derived</li> </ol>
<b>General Ownership*</b>	<p>Identifies the ownership of the roadway.</p>	<ol style="list-style-type: none"> <li>1. Required when <ol style="list-style-type: none"> <li>a. Program code belongs to recode 963 HSIP or 964 HRRR OR</li> <li>b. When improvement type on the detail is Safety (21, 57) OR</li> <li>c. When the safety indicator on the detail line is marked Y.</li> </ol> </li> <li>2. Possible values are: <ol style="list-style-type: none"> <li>a. State</li> <li>b. Local</li> <li>c. Other</li> </ol> </li> <li>3. See Geospatial rules for details regarding when user supplied verses derived</li> </ol>
<b>Last Action Date</b>	<p>Date of last activity on a given detail line.</p>	<p>System generated value. This date is updated each time the detail line is saved.</p>
<b>Toll Facility</b>	<p>Indicates Toll Facilities financed with Federal Funds.</p>	<p>Must be Y or N</p>

<b>Safety 100%</b>	100% Safety is eligible for 100% Federal Share.	The Program Code must be eligible for 100% safety if Safety 100% is set to 'Y'. Eligibility is indicated by a Y/N indicator on the program code.
<b>Temporary Match Waived</b>	Indicates funds waived of the State matching share requirement.	Must be Y or N
<b>Indian Reservation</b>	Identifies whether the project is on an Indian Reservation.	Must be Y or N
<b>Construction</b>	Identifies wher the project is a construction project.	<ol style="list-style-type: none"> <li>1. Must be Y or N</li> <li>2. When Construction indicator is Y, Improvement Type must be a valid Construction Improvement Type</li> </ol>
<b>Design Build</b>	An agreement that provides for design and construction by a contractor, regardless of whether the agreement is in the form of a design build contract, franchise agreement or any other form of contract approved by the Secretary.	Must be Y or N, default is N
<b>CMGC</b>	Construction Manager/General Contractor	Must be Y or N, default is N
<b>Other SEP14</b>	FHWA's special Experimental Project No. 14 that allows the states to use alternative project delivery or alternative contracting procedures.	Must be Y or N, default is N
<b>HWYS for Life</b>		Must be Y or N
<b>FHWA Area*</b>		Will be converted as a State Defined text field. Will not be a standard data element in FMIS.
<b>Appalachia</b>		Must be Y or N. Defaulted to N for new detail lines.
<b>Fund Amounts</b>	<b>Description</b>	<b>Business Rules</b>
<b>Advanced construction amount</b>	The amount of AC that has been converted to federal funds.	<ol style="list-style-type: none"> <li>1. Can be entered only when advanced-construction-allowed indicator for the program code = Y.</li> <li>2. System will track the amount that was converted between detail lines within the project.</li> </ol>

<b>Federal Funds</b>	Federal Obligations for this segment of the project.	
<b>Percent Federal Share</b>	Percentage of Federal Funds versus Total Cost of this segment of the project.	1. Percent cannot exceed 100%.
<b>State Funds</b>	Total of State Funds used to finance this segment of the project.	
<b>Local Funds</b>	Total of local funds used to finance this segment of the project.	
<b>Private Matching Funds</b>	Private donations/contributions towards this segment of the project.	
<b>Value of Non-Monetary Donations</b>	Total value of all non-monetary contributions towards this segment of the project (i.e., land, equipment, etc.).	
<b>Other funds amount</b>	Other funds towards this segment of the project	
<b>Total Cost</b>	Total of all funds used to finance this segment of the project.	<ol style="list-style-type: none"> <li>1. Without exception, this item shall be calculated by summing the other fund amounts.</li> <li>2. This item shall carry dollars and cents for consistency with other money amounts.</li> </ol>
<b>End of Fund Amounts</b>		
<b>Advanced construction converted funds</b>	Total funds that have been converted from AC to Federal Funds.	
<b>Soft Match amount</b>	Soft match amounts	
<b>NBI Number*</b>	National Bridge Inventory Number	<ol style="list-style-type: none"> <li>1. A maximum of 200 NBI numbers will be supported on per project.</li> <li>2. Must be the “best” bridge number for the span, as indicated by the NBI database.</li> <li>3. Obsolete NBI number must be updated to the “best” bridge number if an existing detail line is updated. <ol style="list-style-type: none"> <li>a.</li> </ol> </li> <li>4. The same structure may not be referenced twice on the same detail line.</li> </ol>
<b>Route ID*</b>	Unique identifier of a	See “Geospatial Business Rules” for details.

	roadway segment from each State's own Linear Reference System.	
<b>Beginning Mile Point*</b>	The starting point for the physical location of the project detail line	See "Geospatial Business Rules" for details.
<b>Ending Mile Point*</b>	The ending point for the physical location of the project detail line	See "Geospatial Business Rules" for details.
<b>Tunnel Number*</b>	Structure number of the tunnel	<ol style="list-style-type: none"> <li>1. 0 to n tunnel numbers can be entered for a single project detail.</li> <li>2. The tunnel numbers are subject to duplicate checking. Duplicate numbers are not allowed.</li> <li>3. Must be a valid tunnel number.</li> </ol>
<b>Project Prefix</b>	Character item which corresponds with given funding categories.	
<b>State Defined Fields</b>		
<b>Detail State Defined Fields</b>	A data item that has been named by the State for its own purposes.	Refer to "Rules" within the "State and Division Defined Fields" section
<b>Detail Division Defined Fields</b>	A data item that has been named by the Division for its own purposes.	Refer to "Rules" within the "State and Division Defined Fields" section

**\*Each project detail line can have multiple occurrences of these data items. See the Geospatial Capabilities section below for details.**

*Improvement Types*

Type of Improvement	Code	Validations (If blank, assume None)
<input type="checkbox"/> New Construction Roadway	01	
4R – Reconstruction	02	If any item on the detail line is changed, improvement type '02' is invalid.
	03	

<b>Type of Improvement</b>	<b>Code</b>	<b>Validations (If blank, assume None)</b>
4R - Added Capacity		
4R - No Added Capacity	04	
4R - Maintenance Resurfacing	05	
4R - Restoration & Rehabilitation	06	
4R - Maintenance Relocation	07	
Bridge New Construction	08	NBI number not required.
Bridge Replacement - Added Capacity - No Added Capacity - Bridge Rehabilitation - Added Capacity - No Added Capacity	09 10 11 12 13 14	1. If any item on the detail line is changed, improvement type '09' is invalid. 2. If any item on the detail line is changed, improvement type '12' is invalid.  <input type="checkbox"/> Preliminary
<input type="checkbox"/> Preliminary Engineering	15	If TAP/TE on the program code table 'Y', Improvement type must be a "TAP/TE" improvement type.
<input type="checkbox"/> Right of Way	16	
<input type="checkbox"/> Construction Engineering	17	
<input type="checkbox"/> Planning	18	
<input type="checkbox"/> Research	19	
<input type="checkbox"/> Environmental Only	20	
<input type="checkbox"/> Safety	21	
Rail/Hwy Crossing	22	
<input type="checkbox"/> Transit	23	
<input type="checkbox"/> Traffic Management/Engineering - HOV	24	
<input type="checkbox"/> Vehicle Weight Enforcement Program	25	
<input type="checkbox"/> Ferry Boats	26	
<input type="checkbox"/> Administration	27	If ADMIN_ONLY on the program code table = Y, improvement type 27 is mandatory.

<b>Type of Improvement</b>	<b>Code</b>	<b>Validations (If blank, assume None)</b>
Facilities for Pedestrians and Bicycles	28	
Acquisition of Scenic Easements and Scenic or Historic Sites	29	
<input type="checkbox"/> Scenic or Historic Highway Programs	30	
<input type="checkbox"/> Landscaping and Other Scenic Beautification	31	
<input type="checkbox"/> Historic Preservation	32	
<input type="checkbox"/> Rehabilitation and Operation of Historic Transportation Buildings, Structures, or Facilities	33	
Preservation of Abandoned Railway Corridors	34	
<input type="checkbox"/> Control and Removal of Outdoor Advertising	35	
<input type="checkbox"/> Archaeological Planning & Research	36	
<input type="checkbox"/> Mitigation of Water Pollution due to Highway Runoff	37	
<input type="checkbox"/> Safety and Education for Peds/Bicyclists	38	
<input type="checkbox"/> Establishment of Transportation Museums	39	
<input type="checkbox"/> Special Bridge	40	
<input type="checkbox"/> Youth Conservation Service	41	
<input type="checkbox"/> Training	42	If Subsidiary Training account = 'Y', then improvement type must = 42
<input type="checkbox"/> Utilities	43	
<input type="checkbox"/> Other	44	
<input type="checkbox"/> Debt Service	45	

<b>Type of Improvement</b>	<b>Code</b>	<b>Validations (If blank, assume None)</b>
<input type="checkbox"/> Design-Build Contract	46	Construction Authorization Date is required.
<input type="checkbox"/> Bridge Preventive Maintenance	47	
<input type="checkbox"/> Bridge Protection	48	
<input type="checkbox"/> Bridge Inspection and Bridge Related Training	49	
<input type="checkbox"/> New Tunnel	50	
<input type="checkbox"/> Tunnel Replacement	51	
<input type="checkbox"/> Tunnel Rehabilitation	52	
<input type="checkbox"/> Tunnel Preservation	53	
<input type="checkbox"/> Tunnel Protection	54	
<input type="checkbox"/> Tunnel Inspection and Tunnel Related Training	55	
<input type="checkbox"/> Other Asset Inspection	56	
<input type="checkbox"/> Safety-Non Infrastructure	57	
<input type="checkbox"/> Freight	58	
Unknown	99	Improvement type '99' is used for those imp type codes that could not be converted from FMIS3. If any item on the detail line is changed, improvement type '99' is invalid.

## State and Division Defined Fields

### Purpose

#### State Defined Fields

To allows State users to activate individual State Defined Fields by specifying a name and other properties. The screen is also used to view and revise properties of previously activated fields.

To accommodate the needs of the States, nineteen special fields are included for State use only. There are ten fields set aside for Project Summary and nine fields for project detail.

State Defined fields set aside for Project Summary will appear on the Project Summary screen if they are given a name and if they are not marked obsolete.

State Defined fields set aside for Project Detail will appear on the Project Detail screen if they are given a name and if they are not marked obsolete.

Ten fields will be allotted for Project Information section of which three will be numeric decimal fields, four will be date fields and three will be Text fields. One of the Date fields will have the Title “Estimated Construction date”. Similarly nine fields will be allotted for Project Detail section. Each text field will have a maximum length of 250 characters on the project summary or project detail screen where it appears. States can use these fields to report any data they wish to collect.

### **Access Rights**

State users with project update authority and FMIS Administrative Team users may can supply or modify all State Defined Field properties.

### **Rules**

1. Renaming for defined fields is restricted if there is any data in the field.
2. A field can be marked as obsolete. The obsolete defined fields will be visible in the Project screens when the user views a project version that is from a time period that precedes the date and time when the defined field became obsolete. For project version from the time period after the date and time the defined field became obsolete, the obsolete defined fields will not be visible in the project
3. States wishing to reuse an obsolete Defined field would need to contact the FMIS Team to have all existing data nullified. This nullification would be irreversible, and would allow the Defined field to be reused. Nullification would be performed by the technical staff.
4. A character field can be designated as a Y/N value which will give it the appearance of a check box. This setting can only be changed if there is no data present for the item on any project within the State.
5. A list of valid values (LOV) may be specified for a character field. If valid values are specified, users shall select from a drop-list when entering project data.
  - a. A max of 50 valid values may be defined.
  - b. A valid-value may be marked obsolete in which case it is available for viewing and reporting but cannot be selected when updating a project.
  - c. When modifying a project, Users are not required to change obsolete LOV values.
  - d. An obsolete value may be changed so that it is no longer obsolete
  - e. A valid value can be removed only if it is not present on any project
  - f. Valid values cannot be defined for free text or Y/N fields that have existing project data within the State.
6. If a character field is neither Y/N nor an LOV field, then it shall be free text up to 250 characters.

## Inputs

Data Element	Description	Business Rules
<b>State</b>	User's State	<p>For State users, Existing State Defined Field names from the user's home State are displayed immediately when the State Defined Fields screen is displayed.</p> <p>FMIS Admin users will not default to a particular State.</p> <p>Users having authority to update more than one State can use the drop list to change State.</p>

### Division Defined Fields

The requirements for Division defined fields are identical to those of State Defined fields, except that Division users replace State users in the role of providing a name for each field, and the number of Division defined fields is not the same as the number of State Defined fields.

To accommodate the needs of the divisions, thirteen special fields are included for Division use only. There are six fields set aside for Project Summary and seven fields for project detail information. On the Project Summary there are two text fields, two numeric decimal fields and two date fields. On the Project Detail there are three text fields, two numeric decimal fields and two date fields. One of the three text fields will be FHWA Area, which has been converted from a standard data element to a Division Defined field.

## Transaction Log

### Purpose

Each instance of final Division signature is a transaction. The transaction shall provide detailed transaction data as described below.

The transaction log shall provide a minimum of the following columns:

Data Element	Description	Business Rules
<b>Business Month</b>		
<b>Transaction Number</b>	A number which is assigned to each project transaction... For each State, transactions are numbered sequentially starting with 1 at the beginning of a new business month.	
<b>State</b>		
<b>Project Number</b>	The Project impacted by the transaction	
<b>Project Action</b>	New Project Project Close Convert Funding Project Withdrawal Reopen Project Change	
<b>Program Code</b>	A program code for which the project balance changed as a result of the transaction	<ol style="list-style-type: none"> <li>1. A single transaction shall be associated with 0 to n program codes.</li> <li>2. If there was not change in Federal Funds or AC as a result of a transaction, then the transaction log will list a single entry having a null program code and fund source.</li> </ol>
<b>Fund Source</b>	The program code to which funds are apportioned or allocated	
<b>Federal Funds Transaction amount</b>	The change in Project Federal Funds as a result of the transaction	
<b>Advanced Construction</b>	The change in Project AC	

<b>Transaction Amount</b>	Funds as a result of the transaction
---------------------------	--------------------------------------

The transaction log shall provide the capability to display transaction data at the following levels of detail:

- a. State – Federal and AC transaction amounts are totaled by State.
- b. State and Fund Source – Federal and AC transaction amounts are totaled by State and Fund Source. Fund Source name is included.
- c. Detail – All transactions log columns other than fund source are included.

### Access Rights

Every user has the same capabilities in the transaction log area.

### Inputs

Transaction log data can be filtered on a minimum of the following items.

Data Element	Description	Business Rules
<b>State</b>	State of the transaction	0 to n States can be specified to select data...
<b>Business Month</b>		<ol style="list-style-type: none"> <li>1. Report run by selected Business Month and year (MM/YYYY)</li> <li>2. A range of 1 to n contiguous Business Months may be specified.</li> <li>3. Maximum time span is 5 years if a single State is selected or 1 year if the selected data is inclusive of multiple States.</li> <li>4. Either Business Month OR Transaction Date range must be specified.</li> </ol>
<b>Transaction Date</b>	Transaction date range desired including both the starting and ending days.	Maximum time span is 5 years if a single State is selected or 1 year if the selected data is inclusive of multiple States.
<b>Project Action</b>		0 to n Project Actions can be specified to select data.
<b>Program Code</b>		0 to 20 Program Codes can be specified to select data

## Electronic Signature

### Purpose

This screen enables the user to electronically sign or un-sign a Pending Project. This screen is accessible to State and Division users having signature authority. The Approval Process consists of optional Electronic Signature by State Representatives, followed by mandatory Electronic Signature by Division Representatives. Final approval occurs when all Division Signatures have been applied to the Pending Project, and it results in the Pending project being converted to a Current Project.

### Access Rights

This screen is accessible from the Project Summary Screen for those users who have authority to electronically sign or un-sign the project being viewed. All of the following must be true in order for signature to be allowed

1. Signature is allowed based on the “Update Rules” above.
2. A State signatory must have privileges to sign the first null State signature, and all Division signatures must be null.
3. A Division signatory must have privileges to sign the first null Division signature. In addition, State signatures cannot be partially signed; State signatures must be completely null, or must be completely signed in order for the Division to sign.
4. The users signature rights have not been revoked for excess PIN violations
5. Legal language will be available at the time of PIN entry for single signature, as well as on the project agreement itself, and can be changed dynamically by FMIS team special user.

### Signatures and Signature Dates

Check	Description
<b>Available Funds Certified By</b>	1 <sup>st</sup> State signature on the project
<b>Available Funds Certified By Date</b>	Date of 1 <sup>st</sup> State signature on the project
<b>Approval Recommended by</b>	2 <sup>nd</sup> State signature on the project
<b>Approval Recommended by Date</b>	Date of 2 <sup>nd</sup> State signature on the project
<b>Authorization/Modification Requested</b>	3 <sup>rd</sup> State signature on the project
<b>Authorization/Modification Requested Date</b>	Date of 3 <sup>rd</sup> State signature on the project
<b>Project Info Reviewed By</b>	1 <sup>st</sup> Division signature on the project

<b>Project Info Reviewed By Date</b>	Date of 1 <sup>st</sup> Division signature on the project
<b>Approval Recommended By</b>	2 <sup>nd</sup> Division signature on the project
<b>Approval Recommended By Date</b>	Date of 2 <sup>nd</sup> Division signature on the project
<b>Approved and Authorized By</b>	3 <sup>rd</sup> Division signature on the project
<b>Approved and Authorized By Date</b>	Date of 3 <sup>rd</sup> Division signature on the project

### Information Displayed

Data Element	Description
<b>State</b>	Project State
<b>Project #</b>	Federal Project ID of the pending project
<b>Recipient Project #</b>	Project identifier used by the State
<b>Modifications #</b>	Modification number of the pending project.
<b>Version</b>	Indicates Pending
<b>Reason for no State Signatures</b>	The reason that that State signature step has been omitted for the project. Valid values: <ul style="list-style-type: none"> <li>a. State Signature on File – to indicate that the approving Division user has the State signatures on file.</li> <li>b. Signature Not Required – To indicate that the approving Division user has approved the project because State signatures are not required.</li> </ul>
<b>Project Action</b>	See Project Summary Elements for valid values.

### Functions

Function	Description	Business Rules
<b>Enter PIN Number</b>	UPACS PIN number which is used to confirm the user's	Authorized users must enter a valid PIN number to sign/un-sign projects. A user's signature authority shall be revoked

identity.

if an excess of 3 PIN violations are made. See the UPACS application requirements for details on hard-lock and soft-lock of PIN for details on how to recover signature authority once it has been revoked.

### *General Rules for Signature process*

1. There are three different levels of signature authority for both State Signatures and Division Signatures. Therefore, a signature user may have signature authority for one to three signatures. UPACS controls which signatures a given user may sign.
2. A user can only apply a signature if UPACS indicates that the user has authority to do so.
3. A user can un-sign a signature if UPACS indicates that the user has authority to sign, or if the signature is at a lower level than a signature that the user has authority to sign.
4. Divisions cannot un-sign State signatures even though they are at a lower level.
5. It is against FHWA policy to allow a single Division user to sign all 3 signatures on a project, because it violates the security principal of “separation of duties”.
  - a. When a single Division user supplies all three signatures, one of the following justifications shall be provided.
    - i. Primary Signatory is out of office.
    - ii. This modification is to close out the project
    - iii. No funds are involved
    - iv. Re-open project.-Final Voucher
    - v. OtherFor “other”, the user is required to enter a justification (text) to be able to continue with the signature process.
  - b. In addition to Justification, FMIS shall display a Single Signatory Justification Document. This document must be printed, signed by the Division Administrator, and filed. An example from FMIS-4 appears below to define content for the document.
  - c. There is no special process when a single State user supplies all three signatures.
6. “Fund Validations” described below are performed for each signature action.
7. When final Division signature is applied, the following entities are impacted or are potentially impacted, and must be revised in accordance with the business rules listed in the Project Summary section of this document for each item:
  - Project Category
  - Project Action
  - Final Voucher Paid Date
  - Project Status
  - Last Action Date
  - Transaction date (see Transaction Log section)

## Single Signatory Justification Document

**Run Date:** 10/11/2012  
**Run Time:** 10:53:33

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

**Report:**FMISD14A

### SINGLE SIGNATORY JUSTIFICATION

All Division signatures for approval of this project agreement/modification were entered by a single individual which is not in accordance with normal procedures. Justification for this action appears below. A paper copy of this document must be signed by the Division Administrator in the space provided below, and must be retained on file for the life of the Project:

**State:** CALIFORNIA

**Project#:** 6201009

**Suffix:**0

**Agreement:** N

**Mod#:** 1

**Division Project Approval by:** PRASUNA LAKSHMI D.  
SOMAROUTHU YERRA

**Date:** 10/11/2012

**Justification:**

Primary Signatory is out of the office

## Block Signature

The following requirements apply to block signature of FMIS projects, and apply both to State and Division signatories.

1. All single-signature requirements apply to block signature, unless stated otherwise.
2. Users can sign up to 100 Pending projects using a single PIN entry.
3. A project shall be added to the user's block signature list using a single mouse click or keyboard action.
4. A project that is marked for block signature cannot be updated by any user, or signed by another user. It must first be removed from the block signature list.
5. Any user with authority to update the pending project based on the "Update Rules" can remove a project from a block signature list. It does not have to be the same user who has marked the project for block signature.
6. Projects will remain in the user's block signature list until a user takes action to remove it, or block signature is performed. Without user action, projects shall remain in the block signature list indefinitely. Block signature action removes all projects from the list without exception (signature may or may not be successful due to validations, etc.).
7. A single Division user cannot apply all 3 Division signatures via block signature.
8. A Division can block sign a project than has no State signatures. As with single signature, a mechanism shall be provided for the Division to indicate why State signatures were not performed within FMIS.
9. When performing block signature, each project on the user's block signature list will be displayed along with the default signatures to be applied to each project.
10. The block signature function shall apply default signatures on each project, unless the user unmarks one or more of the defaults. A signature will be set as a default signature when all of the following are true:
  - a. The user must have UPACS authority to sign it
  - b. The signature must be null
  - c. There cannot be a missing lower level signature that the user does NOT have authority to sign.
  - d. The default signatures cannot result in the same Division user signing all three Division signatures. Final Division signature will not be included as a default signature in this situation.
11. The user can completely omit a project from signature.
12. Un-sign cannot be performed via block signature.
13. FMIS shall maintain an audit trail to distinguish projects that were signed by block signature verses single signature. This data shall not be available to end users.
14. Performing block signature shall clear the user's block signature list.

## Rejection of Pending Project by the Division

Instead of signing a project, a Division user with signature authority has an option to return a pending project back to the State for revision. The data elements and rules which define this process are described below.

## Return and Resubmit Elements

Data Element	Description	Business Rules
<b>Rejected by Division user</b>	The name of the division user who rejected the pending project.	Captured by the system when the project is rejected.
<b>Rejected by Division date</b>	System date and time of the rejection.	Captured by the system when the project is rejected.
<b>Rejected by Division Remarks</b>		<ol style="list-style-type: none"> <li>1. Mandatory data supplied by the Division user when a project is rejected.</li> <li>2. 2000 characters</li> </ol>
<b>Rejection State Remarks</b>		<ol style="list-style-type: none"> <li>1. Optionally supplied by the State user. 2000 characters</li> </ol>

### Rejected for Revision Rules

1. Any Division user with signature authority can reject a pending project, provided that:
  - a. There is not Division signature present that is above the highest signature authority for the user.
  - b. All State signatures are present
2. The following shall take place in the event of rejection:
  - a. All Division signatures are removed
  - b. No State signatures are removed
  - c. The Division user shall be required to enter remarks regarding the rejection.
  - d. The pending project shall have a status of “Rejected by Division”.
3. The State shall remediate “Rejected by Division” projects as follows:
  - a. The State shall revise the project as needed. All State signatures and signature dates shall be removed at this time.
  - b. The State user shall be prompted to enter optional remarks as needed regarding the rejection.
  - c. The pending project remains in a status of “Rejected by Division”, until it is signed by the State or Division, at which time the project status shall reflect the signature that was applied.
4. A Division user may remove a rejection if it is decided that it was done in error.
  - a. Any Division user with update privileges, or authority to sign any signature can remove a rejection.
  - b. A button or similar control shall be provided for the purpose of removal.
5. State and Division remarks regarding each rejection shall be discarded once final Division signature is applied and the project becomes current or if the rejection is removed.
6. The same pending could be rejected 2 or more times. In this situation, the remarks, user information, and date associated with each rejection shall be retained to show a complete audit trail of all actions taken.

## Funding Validations

### Over-Obligation

#### Over-obligation for Conventional Program Codes\*

Over-obligation is an error condition where cumulative funds (allocations or apportionments) are exceeded by corresponding obligations (federal funds) from project detail lines.

\*Program codes that are not demo, urban attributable, or withdrawal attributable

FMIS shall prevent any increase in project obligations, or decrease in allocations or apportionments, that would cause over-obligation to occur.

Cumulative funds are the sum of all apportionments or allocations for a given State and Program code across all 1 to n fiscal years having funds for the State and program. In the example below for Alaska Program Code H100, cumulative funds is the sum of apportionments for fiscal years 2004 and 2005

#### Cumulative Funds

<b>FY</b>	<b>ST</b>	<b>Program</b>	<b>Funds</b>
2004	AK	H100	\$20,809,640.00
2005	AK	H100	\$15,529,736.19
Cumulative Funds			\$36,339,376.19

Obligations which correspond to cumulative funds are calculated as the total federal funds of all project detail lines for the State and Program Code, as well as all subordinate limiting account Program Codes. In this example, Obligations are calculated as the combined total of H100, and H130. H130 federal funds are included, because Program Code H130 references H100 as its Fund Source, and is therefore a subordinate limiting account of H100.

Note that the in this example, cumulative apportionments above for H100 are equal to the corresponding obligations, which means that any increase in obligations or decrease in funds would result in an over-obligation.

#### Obligations

<b>ST</b>	<b>Program</b>	<b>Federal Funds Balance</b>
AK	H100	\$36,320,140.53
AK	H130	\$19,235.66
Obligations		\$36,339,376.19

Note that apportionments for H130 are NOT combined with apportionments from H100 when checking Over-obligation. ONLY federal funds from both the limiting accounts and the fund source are combined when checking over-obligation.

**Over-Obligation for Limiting accounts**

Note that FMIS must also prevent over-obligation within each limiting account. In the example below, Program Code H130 has an un-obligated balance of \$168,845.34, which suggests that additional obligations up to that amount would be allowed. Despite this unobligated balance, FMIS would disallow any increase in obligations for H130, because it would trigger an over-obligation in the H100 Fund Source which is already fully obligated.

**H130 Cumulative Apportionments**

<b>FY</b>	<b>ST</b>	<b>Program</b>	<b>Funds</b>
2004	AK	H130	\$106,172.00
2005	AK	H130	\$81,909.00
Cumulative			\$188,081.00
H130 Obligations			\$19,235.66
Unobligated Balance:			\$168,845.34

**Limiting account on over-obligation checking should be omitted if there are no apportionments or allocations for the limiting account**

Limiting accounts such as H130 are not required to have an apportionment or allocation. If cumulative funds for H130 are 0, then the over-obligation check for H130 shall be omitted. This 0 balance exception does not apply to a parent fund source such as H100, therefore over-obligation checking for H100 is always performed regardless of cumulative funds balance. H100 can be identified as a parent fund source, because the fund source for H100 is H100.

**Multi-Level Limiting accounts**

It is possible for a limiting account such as H130 to have subordinate limiting accounts of its own. In the example below, A510 is a limiting account of parent fund source 0420. In turn, A520 and A530 are limiting accounts within A510, because they reference A510 as their fund source. 0420 can be identified as the top of the structure (parent fund source, because fund source and program code are the same.

<b>PROGRAM_CODE</b>	<b>FUND_SOURCE</b>
0420	0420
0590	0420
17A0	0420

A520	A510
A530	A510
A510	0420
X430	X420
X420	0420

### Checking over-obligation within multi-level does not change the rules

In the scenario above, over-obligation is still checked based on the same rule: Over-obligation occurs when obligations exceed cumulative funds. A change in federal funds for program code A530, would cause the following three over-obligation checks to be performed

#	Sum of fed funds for the program code, plus all subordinate limiting accounts		Cumulative apportionment
1.	A520	Cannot be greater than	A520*
2.	A510, A520, A530,	Cannot be greater than	A510*
3.	0420, 0590, 17A0, A510, A520, A530, X430, X420	Cannot be greater than	0420

\*Over-obligation checking is only performed if apportionment balance is non-zero.

All of the above examples show apportioned program codes. Note that over-obligation checks for allocations are performed in exactly the same manner. Whether the funds are apportionments verses allocations is a property of the individual program code.

### Urban Attributable Program Codes

Obligation and fund balances are tracked by urbanized area for these program codes. As such, the rules for calculating obligation and cumulative funds are exactly the same as described above, with the exception that the obligation and fund balances shall totaled based on the State, program code and urbanized area instead of just the State and program code.

### Withdrawal Attributable Program Codes

Obligation and fund balances are tracked by withdrawal area for these program codes. As such, the rules for calculating obligation and cumulative funds are exactly the same as described above, with the exception that the obligation and fund balances shall totaled based on the State, program code and withdrawal area instead of just the State and program code.

### Demo Program Codes

Obligation and fund balances are tracked by demo ID for these program codes. As such, the rules for calculating obligation and cumulative funds are exactly the same as described above, with the exception that the obligation and fund balances shall be totaled

based on the State, program code and demo ID instead of just the State and program code.

## **Emergency Relief Program Codes**

Obligation and fund balances are tracked by Emergency Relief Code for any program code where ER Type is “Y”. As such, the rules for calculating obligation and cumulative funds are exactly the same as described above, with the exception that the obligation and fund balances shall be totaled based on the State, program code and Emergency Relief Code a instead of just the State and program code.

Note: Older ER program code will have the Limited Statistics Required field on the program code marked as ER, but ER Type will by “N”. Over-obligation checks on these older ER codes will be based on State, and program code only. Emergency relief code will not be considered.

When an over-obligation message is displayed, the amount over-obligated shall be visible, as well as State, project, and Program Code). Urbanized Area, Withdrawal Area or Demo ID shall also be included for Urban attributable, Withdrawal attributable, and Demo attributable Program Codes respectively.

## **Over-Limitation**

### **Limitation Types other than Safety**

Over-Limitation is an error condition where Total Limitation for the current fiscal year, State, and Limitation Type\*, is exceeded by corresponding obligations (federal funds) from the project detail lines.

\*See Fund Control requirements documentation for a list of valid Limitation Types

FMIS shall prevent any increase in project obligations, or decrease in Total Limitation, that would cause over-limitation to occur.

**Example:** Assume that the current fiscal year is 2013. If for FY 2013, Alabama has Total Limitation of \$1,000 for the “Charged to Limitation” Limitation Type, then Alabama’s FY 2013 “Charged to Limitation” obligations for cannot exceed \$1,000.

FY 2013 “Charged to Limitation” obligations = The aggregate change in federal funds during FY 2013 across all project detail lines for a single state which have a “Charged to Limitation” Program code.

“aggregate change” includes federal funds from new detail lines as well as changes in federal funds on existing detail lines.

## **Safety**

Over-Limitation checking for the “Safety” Limitation Type differs from that of all other Limitation Types in that fiscal year obligations for Safety are calculated based on the safety indicator on the project detail line, rather than the Limitation Type of the Program Code.

*Example:* Assume that the current fiscal year is 2013. If for FY 2013, Alabama has Total Limitation of \$1,000 for the “Safety” Limitation Type, then Alabama’s FY 2013 “Safety” obligations for cannot exceed \$1,000.

“Safety” obligations = The sum of federal funds from all project detail lines where the safety indicator is ‘Y’.

FY 2013 “Safety” obligations = (year to date “Safety” obligations) - (end of 2012 “Safety” obligations)

## **Limitation by Demo ID**

Over-Limitation by Demo ID occurs when Total Limitation for the current FY, State, Limitation Type, and Demo ID, is exceeded by corresponding obligations (federal funds) from the project detail lines. The over-limitation check for by Demo ID differs from typical limitation types such as “Charged to Limitation” in that fiscal year obligations are totaled based on FY, State, Limitation Type, and Demo ID, rather than simply FY, State, and Limitation Type.

Over-Limitation by Demo ID is checked only for program codes having “Limit by Demo ID” Limitation Type. Such program codes are Demo program codes, but it is important to note that the majority of program codes don’t use this Limitation Type.

When an over-limitation message is displayed, the over-limitation amount shall be visible, as well as the appropriate identifiers for the Limitation Type (State, project, Limitation Type, plus Demo ID if needed)

## Over-Expended

De-obligation can cause an over-expended condition to occur; therefore over-expended validation shall be part of the projects area process. See Current Bill requirements for a detailed description of the over-expended check.

## Message Timing and Severity

### Save of a project detail and signatures other than final Division Signature

- a. Over-obligation, over-limitation, and over-expended checks are performed.
- b. All checks are performed as warnings. The user is given the option to dismiss the warning and continue, or cancel.
- c. Validations continue after the each warning, if the user elects to continue. All over-obligation, over-limitation, and over-expended warning conditions associated with the project shall be displayed.
- d. Obligations from relevant Current projects as well as relevant Pending projects that are either partially signed or marked for block signature are included when determining over-obligation or over-limitation.\* If obligations from a Pending project is included in a validation check, any Current version of the same project shall be excluded.

\*Relevant projects are those that meet the criteria for totaling obligations when calculating over-obligations or over-limitation.

### Final Division Signature

- a. Over-obligation, over-limitation, and over-expended checks are performed.
- b. All checks are hard errors, and final Division signature is disallowed if one or more validations detect an error.
- c. Validations continue after the first error condition is encountered. All over-obligation, over-limitation, and over-expended conditions associated with the project shall be displayed.
- d. Obligations from the project receiving signature are the only pending obligations used to calculate over-obligation and over-limitation at final Division signature. Current project Obligations are used for all other relevant projects even if pending projects with at least one signature are present.

## Project Work List

### Purpose

To allow the user to view a list of projects based on filter criteria. Both Pending and Current projects shall be viewable on this list. The user shall be able to select a project from the list in order to view, and if appropriate, update or sign the Project.

### Access Rights

All users have access to this screen.

### Requirements

1. System default views
  - a. A Pending project view and a Current project view shall be available to all users. Depending on user type, the work list shall appear as follows when it is initially displayed to the user:
    - i. State user with privileges to sign at least one signature – All Pending projects for the user’s State that need State action (at least one State signature is missing OR the Project has been rejected by the Division)
    - ii. Division with privileges to sign at least one signature – All Pending projects for the user’s Division that need Division action.
    - iii. State and Division users without privileges to sign at least one signature shall be defaulted to their home State, but shall have to provide additional filter criteria before a list is displayed.
    - iv. All other users shall have to provide filter criteria before a list is displayed.
  - b. The columns displayed on the Pending and Current Project views are listed in tables 1 and 2 below.
2. State or Division signature users shall be prompted to go to the work list upon sign-in to FMIS if there are pending projects requiring action by the State or Division respectively.
3. Each user can define one or more custom work lists as follows:
  - a. The user can define selection criteria for the projects displayed on the work list as described in table 3 below.
  - b. The user can specify the columns to be displayed on the work list, as well as the order in which the columns appear.
  - c. If a particular custom work list is needed on a repetitive basis, the user can assign a name so that the custom work list is available to the user in the future.
  - d. A named custom work list can be designated as the user’s personal default view, so that the custom list overrides the system default, and is displayed immediately when the work list screen is accessed.
4. If the user selects a project from the work list and updates or signs it, the work list shall be refreshed so that any changes that impact the columns on the work list are up to date.
5. The work list can be sorted on any column.

6. The work list can be used to delete a Pending project, subject to the following restrictions:
  - a. The user must have authority to update the project based on “Update Rules”.
  - b. The project must be Pending with no signatures.

**Table 1 - Pending Projects Default Columns**

Data Element	Description	Business Rules
<b>Project ID</b>	Federal Project ID of the pending project	Project Number. Append suffix to project number if it is non-zero.
<b>Block Sign</b>	User ID that has marked the project for block signature	
<b>Recipient Project #</b>	Project identifier used by the State	The user shall be able to view all Recipient Project numbers if multiple numbers are associated with a FMIS project.
<b>Project Status</b>	See valid project status values for pending projects above	
<b>Project Oversight</b>	Project oversight listed on the project	
<b>Last Action Date</b>	System generated value. This date is updated each time any part of the project is saved, when the project is signed, or when an expenditure is recorded against the project.	
<b>Federal Funds Change</b>	Change in federal funds on the project	
<b>Project Actions</b>	New Project, AC Convert, etc.	

**Table 2 - Current Projects Default Columns**

Data Element	Description	Business Rules
<b>Project ID</b>	Federal Project ID of the project.	Project Number. Append suffix if it is non-zero.
<b>Recipient Project #</b>	Project identifier used by the State	The user shall be able to view all Recipient Project numbers if multiple numbers are associated with a FMIS project.
<b>Project Title</b>	Title of a given project	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Maximum of 250 characters allowed.</li> </ol>

**Table 3 - Filter Elements**

Required Filter Elements	Description	Business Rules
<b>State</b>		<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Defaults to the user’s home State for Division and State users.</li> </ol>

<b>Pending/Current</b>	Indicates whether Pending versus Current projects are to be displayed	Required. The user must specify whether Pending or Current Projects are to be displayed.
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Basic Filter Elements	Description	Business Rules
<b>Items Needing State Action</b>	An item needs State action if 1) the Division has rejected the project OR 2) the project has at least one State signature but final State signature is blank, or 3) the project has no State signatures, and the State is NOT a paper signature State.	<b>Applies to Pending only</b>
<b>Items Needing Division Action</b>	An item needs Division action if the project has all State signatures or the project has no State signatures and is a paper signature State.	<b>Applies to Pending only</b>
<b>County</b>		
<b>Urbanized Area</b>		
<b>Project Number</b>		Partial value can be entered
<b>Recipient Project Number</b>		Partial value can be entered
<b>Program Code</b>		
<b>Project Status</b>		
<b>Improvement Type</b>		
<b>Recode</b>		
Advanced Filter Elements	Description	Business Rules
<b>Advanced Search</b>	FMIS shall allow projects on the work list to be filtered based on any project data element.	

## Special Projects Grouping

### Purpose

This functional requirements document outlines all functions of Special Project Groupings.

A *Special Project Grouping* allows users to link related FMIS projects together under a named group. A single named group might represent a Major Project such as Woodrow Wilson Bridge, or a single disaster event such as hurricane Katrina.

Project data associated with Special Project Groups shall be downloadable based on user-supplied criteria, and accessible to a Business Intelligence tool such as Business Objects. Standard format reports may also be provided, depending on the final reports design.

### Access Rights

1. All users shall have authority to view special project groups, as well as the projects associated with these groups.
2. All users shall have authority to extract project data based on special project group membership. This would be accomplished using either the FMIS custom download tool, or a vendor supplied Business Intelligence tool such as Business Objects.
3. A Major Project Group, as well as its associated title, description, and valid States can be added, changed, or deleted by FMIS Team users only.
4. Users from a given State and its associated Division can add, update, and delete Other project groups based on the following rules:
  - a. State and Division users must have Projects area update authority.
  - b. When a Special Project Group is added by a Division or State, ownership is assigned to that State, and users from other Division's or State's cannot change the name, description or valid States for the group.
5. FMIS Team users can update any Special Project Group regardless of ownership.
6. FMIS Team users shall have privileges to establish one or more new categories of Special Project Groups. Following conversion from FMIS-4, Major and Other shall be the only categories, but FMIS Team users shall be able to establish new categories as needed.
7. If a new category is established, it will automatically appear on the Project Summary screen, without any software modifications to support the new group.
8. FMIS Team users shall be able to indicate whether or not States and Divisions will have authority to add, update, and delete groups within a new category.

### Functions

The following functions shall be available to support Special Project Groups.

Data Element	Description
<b>Add, Update, Delete Special Project Group</b>	Self-Explanatory
<b>List All Groups within a Special Project Category</b>	Users shall be able to list and filter all project groups that fall into a particular category. Example: A list of the Major Project category would include Major project groups such as Central Artery Tunnel and Woodrow Wilson Bridge.

<b>List all Projects within a Special Project Group</b>	Users shall be able to list and filter all projects that fall within a Special Project Group. Example: Users shall be able to view all FMIS projects from Maryland, Virginia, and DC which users have linked to the Woodrow Wilson Bridge Major Project group. .
<b>Add, Update, Delete Special Project Group category.</b>	FMIS Team users shall have privileges to establish one or more new categories of Special Project Groups as well as to change or delete existing categories. Following conversion from FMIS-4, Major Projects and Other shall be the only categories, but FMIS Team users shall be able to establish new categories as needed.

### Special Project Group Elements

Data Element	Description	Business Rules
<b>Special Project Category Name</b>	Existing categories include Major and Other Projects.	
<b>Category Updateable by Field</b>	Valid values are Y or N. Indicates whether or not States and Divisions can add, update, delete, or own groups within a particular category.	<ol style="list-style-type: none"> <li>1. Set to N for the Major project category and Y for Other project category.</li> <li>2. Can be Y or N for any future categories, at the discretion of the FMIS Team.</li> </ol>
<b>Project Group Code</b>	An Alpha-numeric field that uniquely identifies a Special Project Group.	User Supplied. Must be unique.
<b>Special Project Name</b>	Special Project Group Name	
<b>Project Description</b>	Text description about the Special Project Group	
<b>State</b>	A State which can have FMIS projects associated with a Special Project Group.	Each project group shall have 1 to all States and territories. Example: The Hurricane Katrina group includes only include FMIS projects from LA, MS, FL, AL.
<b>Owner</b>	Indicates the entity that owns a Project Group This will be either the FMIS Team, or other named Recipient group (State, territory, PANYNJ, etc.	<ul style="list-style-type: none"> <li>• Each Special Project Group shall have one and only one owner.</li> <li>• “Owner” will default to the organization name of the user who creates the group.</li> <li>• Project Groups owned by “FMIS Team” cannot be changed by users outside the FMIS Team.</li> <li>• Project Groups owned by a State can be changed by FMIS Team users or State and</li> </ul>

		Division users from the Owner State.
		<ul style="list-style-type: none"> <li>• FMIS Team can own Project Groups of any category.</li> </ul>
<b>Last Updated User</b>	Update the logged in user name	System Generated
<b>Last Updated Date</b>	Date the updates occurred(system generated)	System Generated

### Data Elements for Listing All Groups within a Special Project Category

A minimum of the following elements shall be visible when viewing all special project groups within a category such as Major or Other Projects. Users shall be able to filter project groups by State as well as by key word search against Special Project Name and Description.

Data Element	Description
<b>Project Code</b>	Displays the Special Project Code
<b>Project Group Name</b>	Displays the Special Project group name
<b>Group Description</b>	Displays the Special Project Description
<b>Recipient</b>	Displays the list of states from which it is valid to link special projects to the group. For Example: The Hurricane Katrina group may only include FMIS projects from LA, MS, FL, AL.

### Data Elements for Listing all Projects within a Special Project Group

At a minimum, the following elements shall be visible when viewing a list of FMIS projects that are associated with a Special Project Group.

Data Element	Description
<b>Special Project Code</b>	Special Project Code.
<b>Special Project Name</b>	Special Project Name
<b>Special Project Description</b>	Special Project Description
<b>State</b>	Displays the State that that the FMIS Project belongs to
<b>Project No</b>	Federal Project Number
<b>Suffix</b>	Project Suffix – When non-zero, shall be appended to project number.
<b>Program Code</b>	All Program Codes that are part of the project.
<b>Recipient Proj No</b>	All Recipient Project Numbers that are part of the project.
<b>Status</b>	Project Status
<b>Federal Funds</b>	Sum of Federal Funds from all detail lines on the project.
<b>Expenditures</b>	Sum of expenditures for the project.
<b>Total Costs</b>	Sum of Total Cost from all detail lines on the project.