

**PIMA COUNTY REGIONAL WASTEWATER
RECLAMATION DEPARTMENT**

Computerized Maintenance Management System

**Addition of New Assets for
Major Construction Projects**

REVISION 0 – FEBRUARY 2009

Written by:

Timothy Harmon

Maintenance Manager

Roger Road Wastewater Reclamation Facility

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Section 1

Section 1: Overview

This section outlines the purpose of this manual

During large construction projects at the Pima County Regional Wastewater Reclamation Facilities it is necessary that many individuals from multiple departments and companies work together to ensure that accurate and useful information is obtained about the new assets being installed at the facility. The accuracy and timeliness in which the information is received and entered into Pima County’s Computerized Maintenance Management System (CMMS) determines the success of maintaining and depreciating this new equipment.

I C O N K E Y	
	Design Engineer Responsibilities
	Project Manager Responsibilities
	General Contractor Responsibilities
	Plant Planner Responsibilities
	RWRD Finance Responsibilities

Actions required by specific personnel are annotated throughout this manual by the use of icons. An icon key has been provided to the left as reference to the meanings of these icons.

An index of all responsibilities for individual positions is located in the back of the manual for easy reference.

An example timeline has also been provided in appendix #1 to illustrate at what phase of the construction that information will be provided, and when data will be entered into the CMMS.

Examples of spreadsheets and Visio files that are required to be submitted are included in this manual. Electronic copies of the spreadsheet are on the included disk.

Definitions

CMMS (Computerized Maintenance Management System) –

Pima County Currently uses *“Oracle Utilities Work and Asset Management”* as its CMMS Program which is commonly referred to as *“Synergen”* by County Personnel. A CMMS software package maintains a computer database of information about an organization’s maintenance operations. This information is intended to help maintenance workers do their jobs more effectively (for example, determining which storerooms contain the spare parts they need) and to help management make informed decisions (for example, calculating the cost of maintenance for each piece of equipment used by the organization, possibly leading to better allocation of resources).

Depreciable Asset –

A depreciable asset is any asset whose installed value is greater than \$5,000. A skid can be broken into non-depreciable assets and a depreciable asset with all value assigned to the depreciable asset.

Design Engineer –

The Design Engineer is the company contracted to complete the design of the new equipment to be installed.

General Contractor –

The General Contractor is the company contracted to install the new plant equipment. This may be by construction contract or CMAR (Construction Manager at Risk)

LOV Button –

List of Values Button in Synergen; small grey button located on the far right side of field that gives a list of acceptable values for the field.

Non-Depreciable Asset –

A non-depreciable asset is any asset whose installed value is less than \$5,000. These assets can have their value assigned to the larger depreciable asset. (See section 4 on depreciable assets)

Plant Hierarchy Diagram –

The plant hierarchy diagram is the visual representation of the plant’s assets showing the parent-child relationship between the assets.

Plant Planner –

The Plant Planner is the Trade Maintenance Supervisor in the Treatment Division that is in charge of the CMMS program. He writes all work orders and insures proper closeout of work orders and cost assignment for the work. He also oversees all data entry in the system for new assets added.

Project Manager –

The Project Manager is the RWRD Engineer or RWRD Treatment individual assigned to oversee costs and proper completion of the construction project.

RWRD –

The abbreviation for the Regional Wastewater Reclamation Department of Pima County

RWRD Finance –

RWRD Finance is the section of RWRD that is in charge of reviewing all depreciable assets to ensure all expended funds are depreciated.

Virtual Asset –

A virtual asset is a Parent asset in the hierarchy that is used to group assets and collect labor and repair costs of those assets.

Section 2: Hierarchy Diagram Development

This section outlines how to develop the Plant Hierarchy Diagram and the responsibilities for each step of its development.

The plant hierarchy diagram is an integral part of the Asset Management section in Pima County's CMMS. It graphically displays the parent-child relationship for all assets at the individual facilities. Proper development of the hierarchy is crucial to ensure that plant maintenance costs roll-up to the proper processes. This allows plant management staff to analyze costs and compare plant processes to ensure proper and timely maintenance or replacement is performed.

Development of First Level



The first level of the Plant Hierarchy is developed by the Design Engineer early on in the design process and is submitted for review at 10% design completion. The first level only needs to be developed if the construction project is an entirely new facility or process on an existing facility.

If the project is an add-on or modification to an existing facility, the Engineering firm will obtain the plant's current hierarchy from the Plant Planner and make modifications to the existing hierarchy.

Note

An Example of the first level of the hierarchy can be seen in figure 2.1 below and on the included disk \Actual_Hierarchies\Roger_Example.vsd or Ina_Example.vsd on the "Main Page" tab.

This level sets the name of the new facility at the top level and the major process system names as the first level of child assets. The hierarchy shall be developed using Microsoft Visio Organizational Chart template using the Contemporary theme. The page setup is for 11" x 17" paper in the landscape mode.

HIERARCHY DIAGRAM DEVELOPMENT

Typical processes used for the first level of the hierarchy are: Preliminary, Primary, Biological, Secondary, Disinfection, Effluent, Solids, Service Water, Energy Recovery, and Infrastructure. Where possible, these processes should be used for this level. The Design Engineer will add or delete other major processes as required. The first level hierarchy will be submitted to RWRD with the 10% design review, and requires the approval of the Project Manager and the Plant Planner.

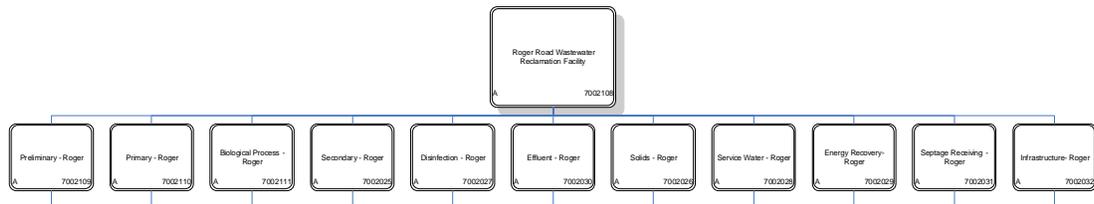
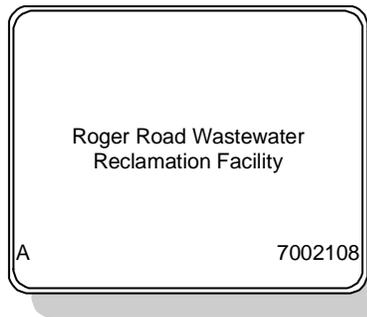
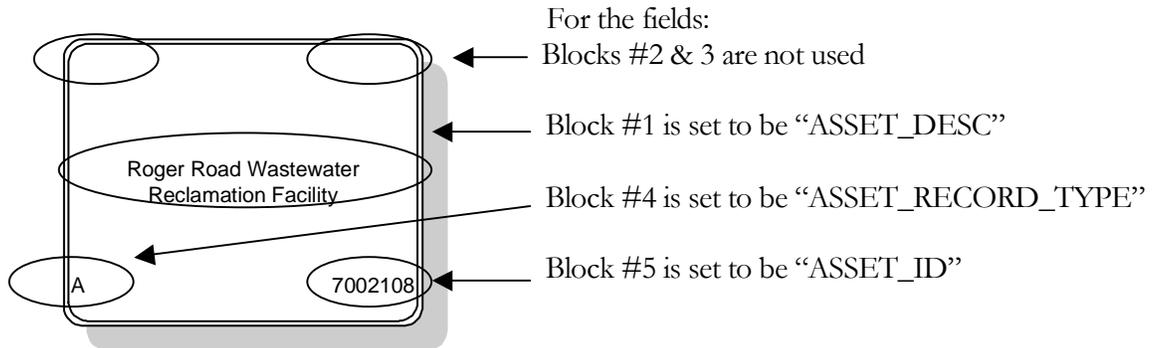


Figure 2.1



The top block of the diagram shows the name of the facility. The top block is formatted using the Contemporary theme and uses the “Executive” type block.

All the process blocks are formatted using the Contemporary theme and uses the “Manager” type block.

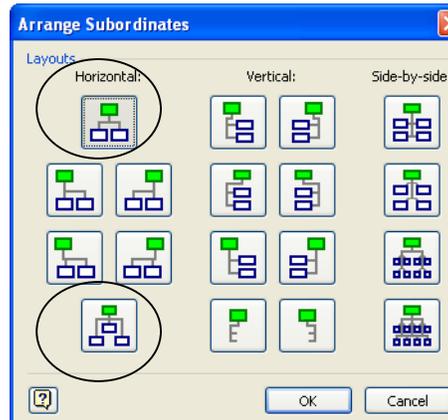


Note

A template for the plant hierarchy is located on the included disk
 \Templates\Blank_Hierarchy.vsd

HIERARCHY DIAGRAM DEVELOPMENT

The layout of the subordinates for the first level in the hierarchy is normally set to “Center Horizontal” or “Double Horizontal” as needed to fit the entire first level on the 11” x 17” page.



This level of asset will be a virtual asset. It is not an actual asset with a manufacturer's name, model number, serial number, etc... It is used as a bucket to roll up the summaries of Maintenance and Asset costs. All Virtual assets in the CMMS System are noted with an ASSET_RECORD_TYPE of “A”. The ASSET_ID is a CMMS generated number and will not be entered into the hierarchy until after the asset has been added to the CMMS program. All virtual assets are non-depreciable; they have no actual value in the system. Only bottom level assets can be depreciable assets, therefore all assets with children are non-depreciable.

The naming convention for the first level of the hierarchy is as follows:

- For the Top level, the actual name of the facility will be used (check with the Plant Planner on additional processes or facilities at the same plant for the existing Top Level of the hierarchy).
- The first level of the hierarchy is always named by using the process, a space, a dash, a space and the short name for the Facility (i.e. Roger for Roger Road Wastewater reclamation facility, Mt Lemmon, Avra Valley, etc...)



After the first level of the plant hierarchy has been approved by the Plant Planner and the Project Manager, the Plant Planner will enter the virtual assets into the CMMS program by following the steps outlined in Section 8 “Adding a Virtual Asset”.

If the plant Top Level does not exist it must be entered first and approved prior to the first level of the hierarchy being entered. This requirement is due to the need of the parent asset having an ASSET_ID number assigned so that it can be entered into the Parent Asset field of the child asset.

Development of the Second and Third Levels



The second and third levels of the hierarchy will be developed and submitted with the 60% design review. These two levels of the hierarchy set the major buildings and process equipment within each of the first level processes.

Major categories for these levels are very dependent on the design of the plant and the Design Engineer will need to work very closely with the Project Manager and the Plant Planner to define these levels. An example is given below in figure 2.2 of the second and third levels of the hierarchy.

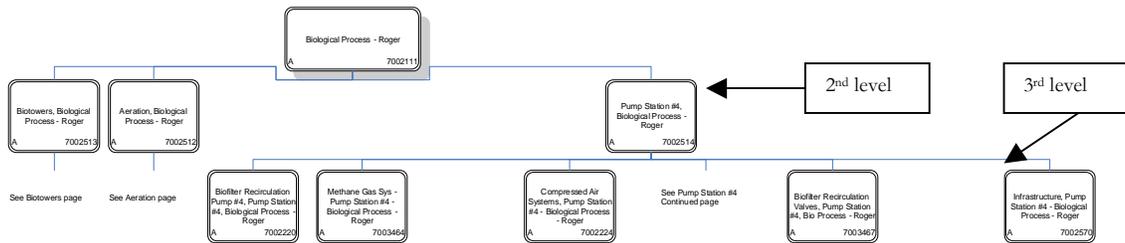


Figure 2.2

The second level of the hierarchy will be on its own tab separate from the “Main Page” tab. The first level hierarchy block from the main page will be duplicated on the page for the second level. A page reference will be added on the main page by using the “Staff” position type and referencing the tab that the second level can be found. This process will also be used whenever the second or third levels do not fit on the 11” x 17” page as seen in figure 2.2 above.

All second level virtual assets will have the same information types as the first level and since they are virtual assets, they will also have an “ASSET_RECORD_TYPE” of “A”. The second level blocks are all “Manager” style blocks. Second level assets are non-depreciable with no value since they always have at least one child asset for each second level asset.

Not all areas will have third level virtual assets. Some second level assets will have children that are just actual assets. Children under the second level can be all virtual third level assets, actual assets, or a mixture of both. It is up to the Design Engineer to consult with the Project Manager and Plant Planner to determine how the structure of second level of the hierarchy and below is to be arranged.

Note

The concept of building a plant hierarchy is to mimic the design of the plant in a “parent-child” relationship of the processes, major components and actual assets.

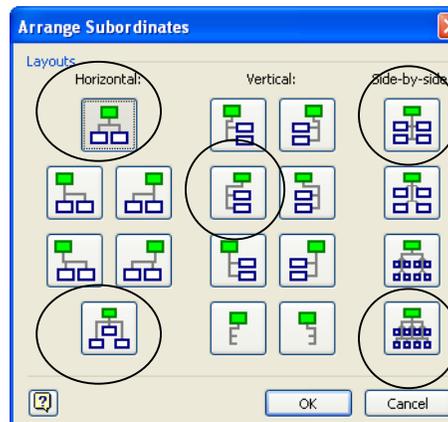
The naming convention for the second level of the hierarchy is as follows:

- The second level of the hierarchy is always named by using the name of the major process equipment or building, a comma, a space, the process name from the first level, a space, a dash, a space and the short name for the Facility (i.e. Aeration, Biological Process – Roger).

The naming convention for the third level of the hierarchy is as follows:

- The third level of the hierarchy is always named by using the name of the major process equipment or building, a comma, a space, and then the same information from the second level (i.e. Methane Gas System, Pump Station #4, Biological Process – Roger or Compressed Air Systems, Pump Station #4 - Biological Process – Roger).

The layout of the subordinates for the second and lower levels in the hierarchy is set using “Center Horizontal”, “Double Horizontal”, “Tight Left Vertical” or the two side-by-sides circled below, as needed to fit the entire first level on the 11” x 17” page. Only these styles are used to keep the hierarchy tight and fitting on as few pages as possible.





After the second and third levels of the plant hierarchy has been approved by the Plant Planner and the Project Manager, the Plant Planner will enter the Virtual assets into the CMMS program by following the steps outlined in section 8 “Adding A Virtual Assets”.

The first level assets must be entered first and approved prior to the second level of the hierarchy being entered. The same applies with the second level of the hierarchy needing to be entered and approved prior to the third level of the hierarchy being entered. This requirement is due to the need of the parent asset needing an ASSET_ID number assigned so that it can be entered into the Parent Asset field of the child asset.

Development of the Forth and Lower Levels



If needed fourth level and lower virtual assets can be added. These levels of the hierarchy will be developed and submitted with the 60% design review. These are still virtual assets and are added as deemed necessary to clarify the process of the plant or add more detailed collection points of costs.

Major categories for these levels are very dependent on the design of the plant and the Design Engineer will need to work very closely with the Project Manager and the Plant Planner to define these levels.

The naming convention for the forth and lower levels of the hierarchy are as follows:

- The lower levels of the hierarchy are always named by using the name of the major process equipment or building, a comma, a space and then the same information from the parent level (i.e. Compressors, Compressed Air System, Pump Station #4 - Biological Process - Roger).



After the forth and lower levels of the plant hierarchy has been approved by the Plant Planner and the Project Manager, the Plant Planner will enter the Virtual assets into the CMMS program by following the steps outlined in section 8 “Adding A Virtual Assets”.

The higher level assets must be entered first and approved prior to the lower levels of the hierarchy being entered. This requirement is due to the need of the parent asset needing an ASSET_ID.

Development of the Bottom Level



The bottom level of the asset hierarchy is where the actual assets reside. This may be 3, 4 or more levels down into the hierarchy. These are the actual physical components. They have plant ID numbers, manufacturer names, model numbers and serial numbers. These assets are either depreciable with a dollar value or non-depreciable with no value. For the development of the hierarchy it does not matter if the asset is depreciable or not. The bottom level of the hierarchy should be completed and reviewed at the 90% design review meeting. Changes to the hierarchy will be made as necessary due to changes in design or change orders as the construction project is built.

To determine the level of detail that will be set as an individual asset, follow the guideline that if the item has a plant ID number then it is an asset. For example, a pump skid would break into multiple assets; the suction isolation valve, discharge isolation valve, discharge check valve, pump and motor would all be separate assets, whereas items such as the discharge pressure switch and seal water solenoid valve, would be considered part of the pump asset. Another way to look at how far to break down the assets would be to what level would the plant want to track costs, labor and bill of materials. The Plant Planner will assist the Design Engineer in determining to which level of detail the assets are broken down if necessary. Also, remember that buildings, pump stations, clarifiers and other major structures are assets as well. An infrastructure asset will also be provided for all major processes.

In Visio the bottom level assets or actual assets uses the “Position” type block. Unlike the virtual assets the “ASSET_RECORD_TYPE” is not “A”; see table 2.1 for the correct “ASSET_RECORD_TYPE” to be used.

ASSET_RECORD_TYPE	Description	Uses
A	Parent Asset	Used for virtual assets that work orders will not be written against, just a placeholder to roll up costs.
B	Building & Other Improvement	Used for buildings and structures, work orders can be written against this type of asset.
E	Equipment	Used for plant equipment, work orders can be written against this type of asset
F	Function	Not used for Wastewater Reclamation Department assets
I	Infrastructure	Used for plant yard piping and other infrastructure, work orders can be written against this type of asset
L	Land	Used for plant grounds and other real estate, work orders can be written against this type of asset
P	Process	Not used for Wastewater Reclamation Department assets
V	Vehicle	Used for Fleet vehicles only, use asset type “E” for vehicles owned by another department

Table 2.1

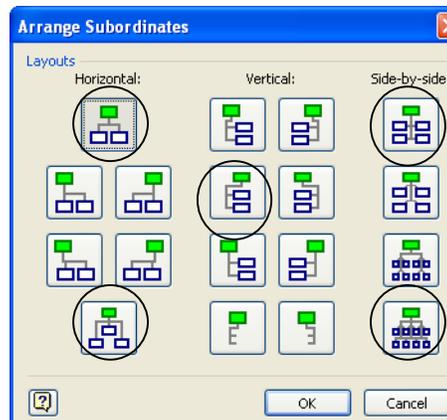
HIERARCHY DIAGRAM DEVELOPMENT

The **naming convention** for the bottom level of the hierarchy (actual assets) is as follows:

- The bottom level of the hierarchy (actual assets) are named by using the noun, a comma, adjectives, the plant ID number in parentheses, location, a comma, process, a space, a dash, a space and the short name for the Facility. (i.e. Valve, Return Sludge Isolation (PV1-FS10), Pump Station #10, Secondary – Roger)
- Note that all new plants will be using the “smart number” naming convention and that plant ID number will be used in the parentheses.

After the hierarchy is complete the Design Engineer will prepare the Microsoft Excel spreadsheets that the General Contractor will need to use to gather all information needed for the asset.

The layout of the subordinates for the fourth and lower levels in the hierarchy is set using “Center Horizontal”, “Double Horizontal”, “Tight Left Vertical” or the two side-by-sides circled below, as needed to fit the entire first level on the 11” x 17” page. Only these styles are used to keep the hierarchy tight and fitting on as few pages as possible.



Preparing the Asset Information Spreadsheet



Using the included spreadsheet \Templates\Blank_Asset_Info.xls, the Design Engineer will develop the Asset Information Spreadsheet which will be provided to the General Contractor so he may ensure all required information is filled out and provided to the Plant Planner for asset addition to the CMMS. It is also at this point that the determination of which assets will be depreciable and which are non-depreciable is made.

A depreciable asset is any asset whose installed cost is greater than \$5,000. Let's take for example a new pump station that is constructed. In this pump station, we have 3 pump skids, interconnecting pipes, lighting and communication. We would break down the assets as follows:

HIERARCH DIAGRAM DEVELOPMENT

- The pump station itself would be listed as a depreciable asset >\$5,000.
- In the case of a pump skid which was broken down to the three valves, the pump and the motor, and where the overall cost to install the skid is >\$5,000; all the costs would be assigned to the pump and it would be listed as depreciable, whereas the other assets would be listed as non-depreciable.
- The interconnecting pipes would not be listed as an asset. They would be part of the infrastructure of the pump station. The interconnecting valves would be listed as non-depreciable assets. All of the installed value of the pipes and valves would be assigned to the depreciable infrastructure asset.
- The lighting and communication would be their own non-depreciable assets with their value being assigned to the infrastructure asset.

Note

Any questions on depreciable assets can be answered by the Plant Planner.

After determining the depreciable status of an asset, the Design Engineer shall fill out the top four (4) lines of the Asset Information Sheet. A new worksheet will be used for each different virtual asset that is used as a parent asset. A new column will be used for each separate actual asset under that virtual parent asset. Table 2.2 shows the top six (6) lines of the Asset Information Sheet and show how the top four lines should be filled out. The Plant Planner will fill out lines 5 & 6. (The actual sheet is over 75 lines long – the additional information will be provided by the General Contractor)

Buildings require different asset information. All buildings will be on the same worksheet and use the “Building” worksheet from the template.

Note

A template for the asset information is located on the included disk
\\Templates\Blank_Asset_Info.xls

HIERARCHY DIAGRAM DEVELOPMENT

Asset Description	Motor, Fine Bar Screen #1, Headworks, Preliminary - Roger	Screens, Fine, Bar #1, Headworks, Preliminary - Roger	Motor, Fine Bar Screen #2, Headworks, Preliminary - Roger	Screens, Fine, Bar #2, Headworks, Preliminary - Roger
Added to Hierarchy?	Yes	Yes	Yes	Yes
Depreciable?	No	Yes	No	Yes
Asset Record Type	E	E	E	E
Asset ID Number				
Added to Synergen?				

Table 2.2



Due to change orders, value engineering and other issues the bottom level of the hierarchy and the Asset Information Spreadsheet is subject to change and will be updated as needed by the Design Engineer. The Project Manager will coordinate any changes made between the Design Engineer and the General Contractor.

Section 3: Asset Information Gathering

This section outlines the responsibilities, methods and timelines for gathering asset information

The Asset Information Sheet is the heart of the data needed for the CMMS. Accurate information is vital for the success of developing work orders and timely repair of the equipment. It is also one of the more time consuming portions of the process. Great care should be taken to ensure that the information provided is accurate and received in a timely manner.

Information Required on the Datasheet



The datasheet used for the collection of asset information is over 75 lines long and as previously stated, the Design Engineer will fill out the top four (4) lines of the sheet and the Plant Planner will fill out lines 5, 6 and 9 through 11 under Purchasing Information, after the sheet has been returned from the General Contractor. All other lines will be filled out as applicable by either the General Contractor or their subcontractor, but it is still the responsibility of the General Contractor to ensure all information is provided.

Note

This section does not cover buildings. See the next section for information required for assets which are buildings.

Table 3.1 below shows all lines of the spreadsheet. It is mandatory to fill out lines 12 and 15 through 17 except for large infrastructure such as piping or clarifiers. Lines 20 through 23 should be filled out for any electrical equipment. Lines 20 through 39 will be filled out as completely as possible from the name plate data for a motor asset. For a pump asset lines 42 through 48 will be filled out. A valve would require that lines 51 through 61 be filled out and instruments will use lines 64 through 78.

ASSET INFORMATION GATHERING

1	Asset Description		
2	Added to Hierarchy?		
3	Depreciable?		
4	Asset Record Type		
5	Asset ID Number		
6	Added to Synergen?		
7			
8	Purchasing Information		
9	Method of Acquisition		
10	Source of Funding (i.e. Grants, Bonds, etc.)		
11	Purchase Document Number		
12	Stationary or Mobile		
13			
14	Manufacturer's Information		
15	Manufacturer's Name		
16	Model Number		
17	Serial Number		
18			
19	Motor/Electrical Information		
20	Voltage		
21	Amperage		
22	Frequency		
23	Phases		
24	HP		
25	Frame		
26	RPM		
27	Power Factor		
28	Max KVAR		
29	Nominal Efficiency		
30	Rating		
31	Design		
32	Enclosure		
33	Code		
34	Insulation Class		
35	Max Ambient Temp		
36	Service Factor		
37	Grease		
38	DE Bearing		
39	OE Bearing		
40			
41	Pump Information		

ASSET INFORMATION GATHERING

42	GPM		
43	Pump Type		
44	Pump Size		
45	Number of Stages		
46	Impeller Diameter		
47	Rotation		
48	Seal Type		
49			
50	Valve Information		
51	Valve Rebuilt Kit No.		
52	Valve Size		
53	Valve Body		
54	Valve Plug Type		
55	Valve Plug Face Type		
56	Valve Seat Type		
57	Valve Temperature Rating		
58	Valve Flange Type		
59	Valve Flange Material		
60	Valve Material		
61	Valve Liner		
62			
63	Instrument Information		
64	Instrument Measurement Type		
65	Instrument Unit of Measure		
66	Instrument Element Type		
67	Instrument Range		
68	Instrument Proof Pressure		
69	Instrument Maximum Measurement		
70	Instrument Material		
71	Instrument Deadband		
72	Instrument Output		
73	Instrument Software Revision		
74	Instrument Flange Type		
75	Instrument Flange Material		
76	Instrument Liner		
77	Instrument Accuracy		
78	Instrument Readability		
Table 3.1			



When construction is nearing completion at any major area of the plant, those sheets will be turned into the Project Manager in electronic format for review. It will be determined by the General Contractor, the Project Manager and the Plant Planner what is considered to be a major area (usually a pump station or similar area). This information needs to be completed and turned in as quickly as possible. The process for entering the asset information into the CMMS is time consuming and early completion of these spreadsheets will ensure that the assets are entered into the CMMS program and are approved and ready for use at the time of substantial completion (depreciable assets will not be available until later – see the depreciable asset Section #4).



The Project Manager will review the spreadsheet for accuracy by checking the information on the sheet to the actual equipment installed in the field. This can be performed while the Project Manager is verifying that all equipment that was specified was correctly installed by the General Contractor. The spreadsheet pages will then be turned over to the Plant Planner in electronic format.



The Plant Planner will then start entering all the non-depreciable assets into the CMMS System by following the instructions for entering a non-depreciable asset found in Section 9.

Information Required for Buildings



The datasheet used for the collection of asset information for a building is different than the one used for other equipment. The Design Engineer will fill out lines 1 through 4 and 15 through 16 at 100% design. There is no data to be collected by the General Contractor and so the electronic sheets will be turned into the Plant Planner directly.

1	Asset Description		
2	Added to Hierarchy?		
3	Depreciable?		
4	Asset Record Type		
5	Asset ID Number		
6	Added to Synergen?		
7			
8	Purchasing Information		
9	Method of Acquisition		
10	Source of Funding (i.e. Grants, Bonds, etc.)		
11	Purchase Document Number		
12	Section		
13	Township		
14	Range		
15	Square Footage		
16	Number of Stories or Levels		



Since buildings will always be depreciable, entering of the building assets will be handled at the end of construction (see section 4 on “Adding Depreciable Assets”).

Section 4: Determining Depreciable Asset Value

This section outlines how to calculate the value to be entered into the CMMS for depreciable assets.

Calculating the costs for depreciable assets is a time consuming process. All costs associated with the project from design to construction to internal labor must be used to calculate the final depreciated value of the assets. In the end, all the values of the depreciated assets must be equal to the entire cost for the project to the penny.

Methodology for Determining Value



Since the Project Manager is the only individual with the big picture view of the budget and costs of the project, they will be the only ones able to determine the value of the depreciable assets. They will need to work very closely with the General Contractor to determine what the final costs are for the installed equipment. The Design Engineer, Plant Planner and Project Manager have already determined which assets would be depreciated, so this section will now explain how to determine the value of those assets.

Below is an example of a methodology used to assign values to depreciable assets. Every parent virtual asset with a depreciable asset as a child will also have an infrastructure depreciable asset as a child asset. This infrastructure asset is to be used to capture the costs of the infrastructure of the process and to be used as a place to estimate final costs. This way all the depreciable equipment assets can be entered with set values, so they can be active as close to substantial completion as possible. The infrastructure asset stays open with an estimated value until the final invoices are paid and then adjusted up or down to get the values of the assets to exactly equal the actual cost of the project. This means the infrastructure assets will not be available until long after the new process is in service, but because the Work Orders and Preventive Maintenance are written on the depreciable and non-depreciable equipment assets, they are available early enough to keep accurate records in the CMMS Program.

DETERMINING DEPRECIABLE ASSET VALUE

Example 4.1:

Our new construction project will build a new pump station with 2 pumps skids. We will keep things simple for this example; a real system would have a multitude of assets in each building and a multitude of areas in one project.

The construction costs (including purchasing the equipment) for the pump station was \$500,000.

We would break the costs down as follows:

Each pump skid in the pumps station would be broken into multiple assets. The suction valve, the discharge valve, the discharge check valve and motor would all be listed as non-depreciable and the pump would be the depreciable asset. All the costs of the non-depreciable items would be rolled up to the depreciable pump asset. So let's say that was \$100,000. We would then have two depreciable assets at a cost of \$100,000 each. The cost of the pump station structure would all go to the depreciable pump station asset, so let's say that that was \$250,000. All the interconnecting piping and valves, the lighting and communications would be listed as non-depreciable and their value would roll into the depreciable infrastructure asset, which means that that would have cost us \$50,000 and so our initial construction value for the infrastructure would be \$50,000. If our final construction bill came in and we found out that the costs on the pumps were less than we expected we would just adjust the infrastructure asset construction value.

So now we have determined construction costs but the value of the assets include all costs for the project so we will need to look at other costs also.

Depreciable Asset	Construction Cost
Pump Skid #1	\$100,000
Pump Skid #2	\$100,000
Pump Station Structure	\$250,000
Infrastructure	\$50,000
Totals:	\$500,000

We also need to look at design costs. For our example the design cost will be \$50,000. We can just spread the design cost over the assets proportionally to their construction costs. For example Pump Skid #1 was 20% of the construction cost so we can assign 20% of the design costs, or \$10,000 to Pump Skid #1. If our final design bill came in and we found out that the costs were more or less than we expected we would just adjust the infrastructure asset design value if the equipment assets had already been entered.

Depreciable Asset	Construction Cost	% of Construction Cost	Design Cost
Pump Skid #1	\$100,000	20%	\$10,000
Pump Skid #2	\$100,000	20%	\$10,000
Pump Station Structure	\$250,000	50%	\$25,000
Infrastructure	\$50,000	10%	\$5,000
Totals:	\$500,000	100%	\$50,000

DETERMINING DEPRECIABLE ASSET VALUE

We also need to look at other costs. For our example we may have had cultural resources at \$25,000 and internal labor at \$5,000. We could just spread these costs over the assets proportionally to their construction costs unless the Project Manager knows that a specific portion of one of the costs was for just one of the assets. So if we know that all the internal labor was for inspections on the pump station structure, all the costs would be added to that asset. The Cultural resources could just be spread out proportionally as was the design costs. For example Pump Skid #1 was 20% of the construction cost so we can assign 20% of the Cultural Resources costs, or \$5,000 to Pump Skid #1. If our final internal labor or Cultural Resources bills came in and we found out that the costs were more or less than we expected we would just adjust the infrastructure asset design value if the equipment assets had already been entered.

Depreciable Asset	Construction Cost	% of Construction Cost	Design Cost	Internal Labor	Cultural Resources	Total Value of Depreciable Asset
Pump Skid #1	\$100,000	20%	\$10,000	\$0	\$5,000	\$115,000
Pump Skid #2	\$100,000	20%	\$10,000	\$0	\$5,000	\$115,000
Pump Station Structure	\$250,000	50%	\$25,000	\$5,000	\$12,500	\$292,500
Infrastructure	\$50,000	10%	\$5,000	\$0	\$2,500	\$57,500
Totals:	\$500,000	100%	\$50,000	\$5,000	\$25,000	\$580,000
Grand Total Cost of Project:					\$580,000	



All these calculations should be made based on common sense and the knowledge the Project Manager has for their project. All explanations and calculations for how the depreciable values were determined will be provided by the Project Manager on an Excel Spreadsheet to the RWRD Finance and Plant Planner.



This spreadsheet will be reviewed by RWRD Finance Department to ensure the methodology is correct and the final numbers match with the actual cost of the project.

Note

A spreadsheet showing how depreciable values were determined is required to be submitted for review to RWRD Finance. A sample spreadsheet can be found on the included disk at \Templates\Depricable_Value.xls



To expedite getting the depreciable assets entered so that work orders and preventive maintenance can be written on the depreciable assets when the project is turned over to the plant these calculations must be completed prior to receiving final billing. The Project Manager will coordinate with the Plant Planner to lock in values for the non-infrastructure depreciable assets as soon as possible using projected cost for the project. Those assets will be entered into CMMS as soon as possible. The infrastructure assets will be entered with their values adjusted to match true project costs when final billing has occurred. See section 10 for details on how to add depreciable assets to the CMMS program.

DETERMINING DEPRECIABLE ASSET VALUE

Section 5: Preventive Maintenance Schedules

This section outlines the requirements for Preventive Maintenance Schedules

Preventive Maintenance (PM) is the cornerstone of reliable plant operations. To ensure that a Preventive Maintenance Schedule is developed in a timely manner so that none of the required maintenance is missed a coordinated effort must be made between the Design Engineer, General Contractor and Plant Planner.



While developing the O&M Manuals, the General Contractor shall have a section outlining the manufacturer's recommended Preventive Maintenance. This table shall be developed and turned in to the Plant Planner in electronic format prior to substantial completion.



The Plant Planner will setup PM schedules as deemed necessary from the table provided by the General Contractor. See instructions outside of this manual for setting up PM Masters and schedules in the CMMS program.

Note

A sample table can be found on the included disk at \Templates\PM_Schedule.doc

PREVENTIVE MAINTENANCE SCHEDULES

Section 6: Operation & Maintenance Manuals

This section outlines the delivery requirements of O&M Manuals and where to enter them in CMMS.

Plant Operation & Maintenance (O&M) Manuals are an important tool for all employees and need to be readily available. By attaching the O&M to specific assets in CMMS, they can be easily be retrieved by all personnel when needed.

Delivery Requirements of O&M Manuals



The General Contractor shall supply all O&M manuals in electronic format along with the required hard copies. The Technical Manuals, Repair Manuals, Cut Sheets and any other equipment manuals shall also be provided in electronic format. The preferred format for all electronic copies of the manuals is *.pdf files from adobe.

The General Contractor will provide a cross reference for all equipment manuals showing which manuals are associated with which pieces of equipment. This is to allow support personnel for the Plant Planner to easily determine which manuals are attached to which assets.

Attaching O&M Manuals in CMMS



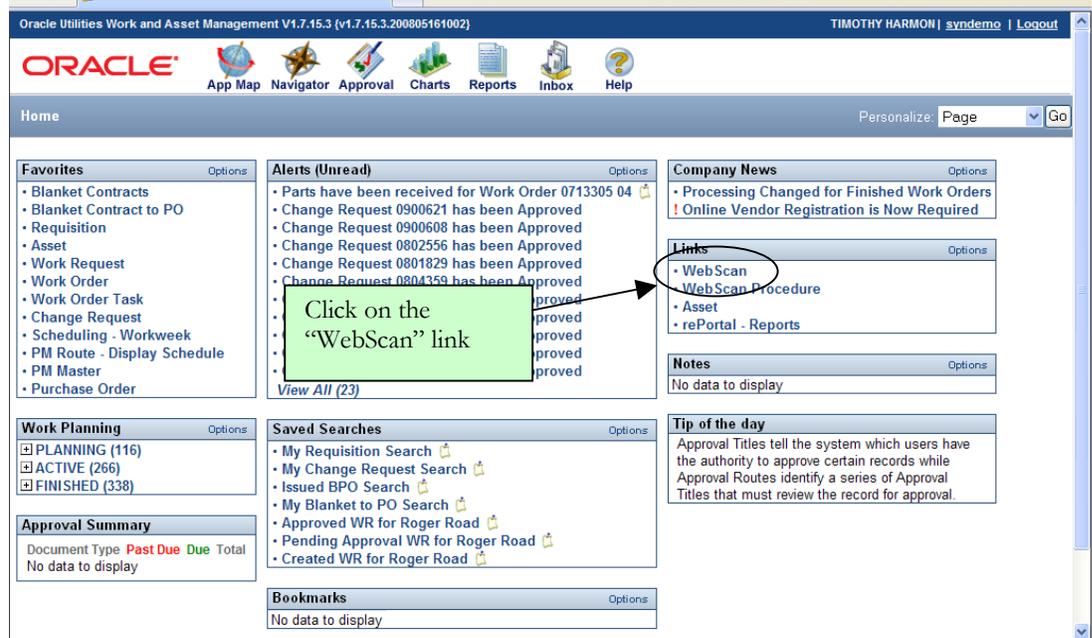
This section gives the details on how to attach electronic manuals into the County's CMMS program (Synergen).

Note

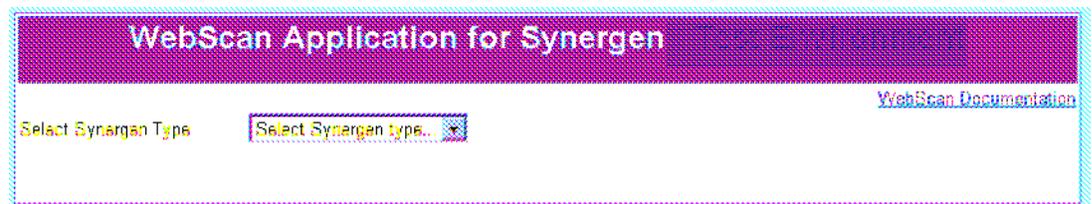
File size may not exceed 4.0 MB (4,096 KB) per file. You can attach multiple files

Equipment manuals will be attached to the actual equipment assets in CMMS. The O&M manuals will be attached to the virtual parent asset which the O&M manual covers.

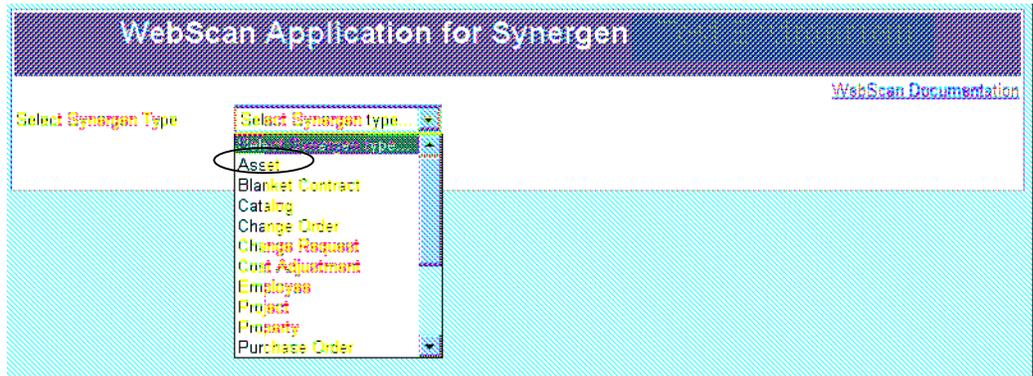
1. Initiate the WebScan program from your Synergen home page in the LINKS portal by clicking on the WEBSCAN link once.



2. You will be taken to the following screen in your browser.



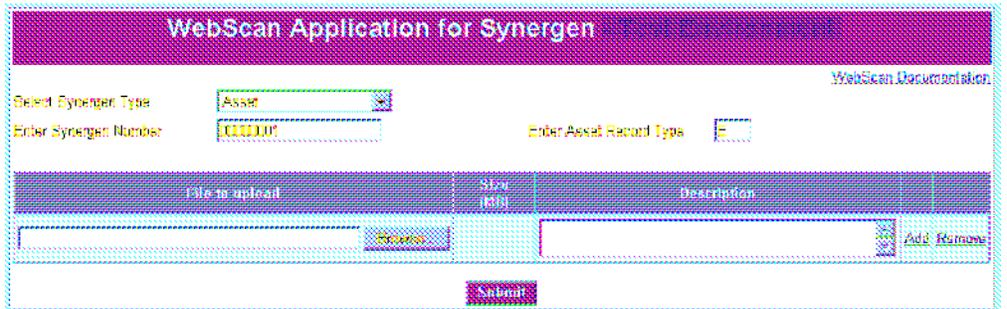
3. Click on the "Select Synergen Type ..." drop-down, and click on the type of record you are attaching to. (Asset)



4. You will now be given two fields to fill in. The "Synergen Number" and "Asset Record type".



5. Once you have filled in all the fields, press the TAB key, and you will be ready to start listing files to attach.



Note

Even though the program is called WebScan – You do not need to print and scan the documents you can just attach the original electronic files.

- Click on the Browse button and select the file you want to attach. After selecting a file, type in a description. Ensure you put the manual title in the description block. – If you leave the description block blank a default description will be used and what is attached will be unclear. If everything looks ok, click the Add button. If not, click the Remove button and start again.

The screenshot shows the 'WebScan Application for Synergen' interface. At the top, there is a blue header with the title. Below the header, there are input fields for 'Select Synergen Type' (set to 'Asset'), 'Enter Synergen Number' (00000001), and 'Enter Asset Record Type' (E). A link for 'WebScan Documentation' is visible in the top right. Below these fields is a table with columns: 'File to upload', 'Size (MB)', 'Description', and two empty columns. The first row contains 'u:\Book1.xls', '0.013', and 'Spreadsheet with asset info.'. There are 'Add' and 'Remove' buttons next to each row. A 'Browse...' button is located below the first row's file input. At the bottom center, there is a 'Submit' button.

- After clicking on the Add button, you can put another file in on the next row. Once you have listed all the files you want to attach to this Synergen number, click on the Submit button.
- Once you click on the Submit button you will see the status appears on the right hand side. You can then close WebScan, or clear the fields and start a new upload sequence.

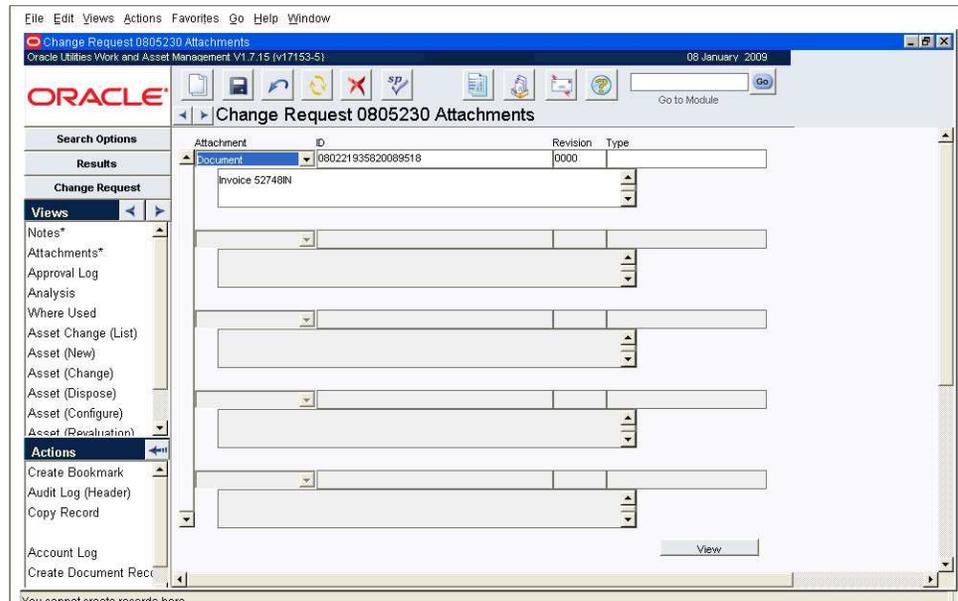
This screenshot shows the same 'WebScan Application for Synergen' interface after the upload. The 'File to upload' column now shows 'u:\Book1.xls' and the 'Status' column shows 'Book1.xls was successfully uploaded.', which is circled in red. A 'Clear form to start another upload' button is now visible above the table. The 'Submit' button is no longer present.

Note

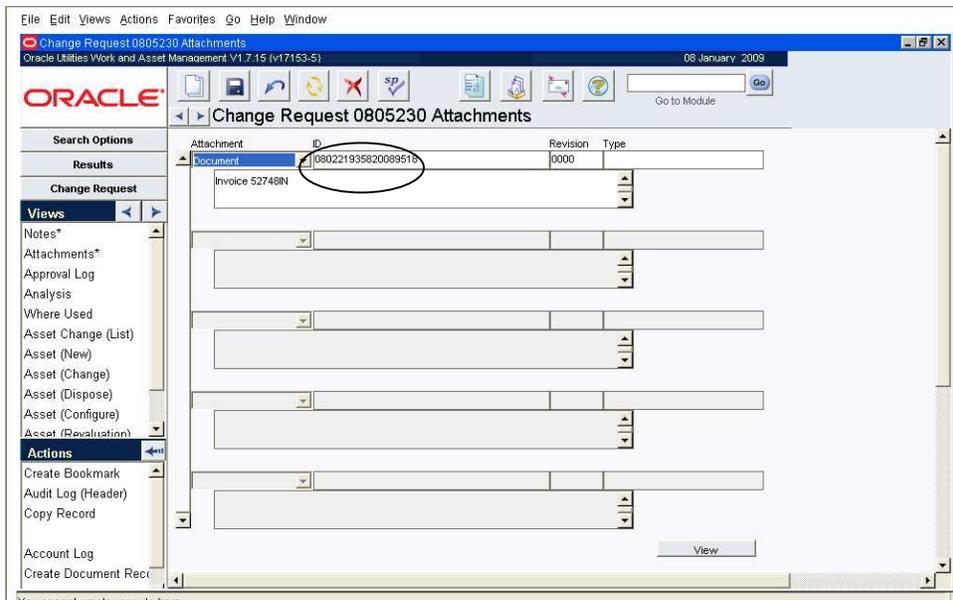
You do not need to enter the manual again for each asset. Entering a manual a second time will result in twice the space used on the server. Once the manual has been enter it can be attached to each separate asset (see copying attachments below) as many times as necessary without taking up extra space.

Copying Attachments from One Asset to Another

1. Go to the Synergen record which has the file attached you wish to copy and click on Attachments under the Views pane on the left side of the screen. When a record in Synergen contains an attachment there will be an asterisk that appears next to the word Attachments.

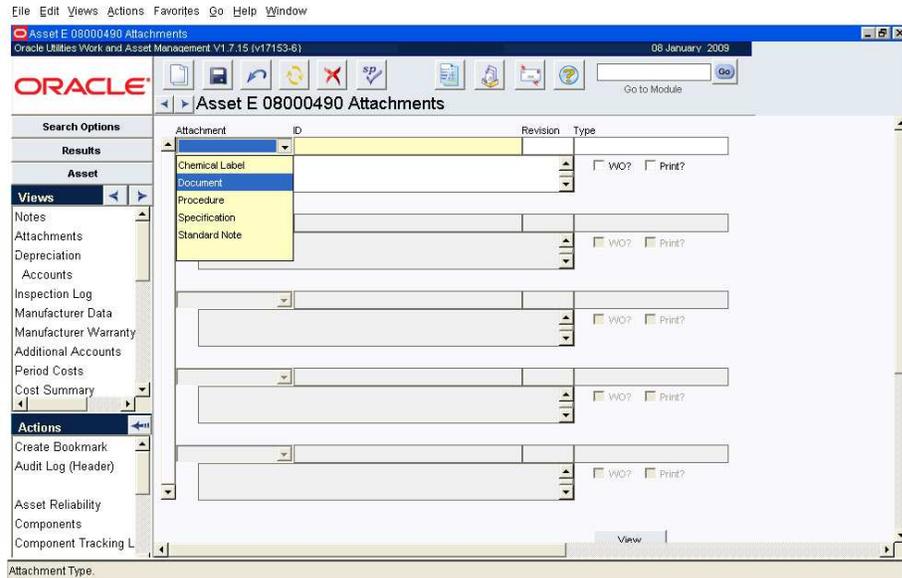


2. Copy the ID Number you wish to copy by highlighting it and pressing Ctrl-c.



OPERATION & MAINTENANCE MANUALS

3. Open the attachment view of the asset for which you want to add the attachment.
4. Select “Document” from the menu for attachment type and then paste the Attachment ID into the ID field by selecting the field and pressing Ctrl-v.



5. Repeat as necessary for each attachment required to be copied.

Section
7

Section 7: Spare Parts Received from the Contractor

This section outlines how spare parts purchased through the construction contract will be turned over to the plant.

Spare parts are often purchased through the construction contract and turned over at the end of the project to the plant. These parts will need to be added to inventory and Bill-of-Materials (BOM) for the assets for which they are associated. Proper documentation of what the parts are, where they are for and their value is very important to keep all of the County’s financial records straight.



The General Contractor will fill out the Spare Parts Spreadsheet provided. All the information listed is required to be filled out. This information is required to add the parts to the CMMS inventory system.

Note

A blank template of the Spare parts is located on the included disk
 \Templates\Spare_Parts.xls

Table 7.1 below shows the information that is required on the spreadsheet

Part Description			
Vendor			
Vendor Part Number			
Manufacturer			
Mfr Part Number			
Quantity			
Per Unit Value			
Total Value			
Associated Assets			
Table 7.1			

Section 8

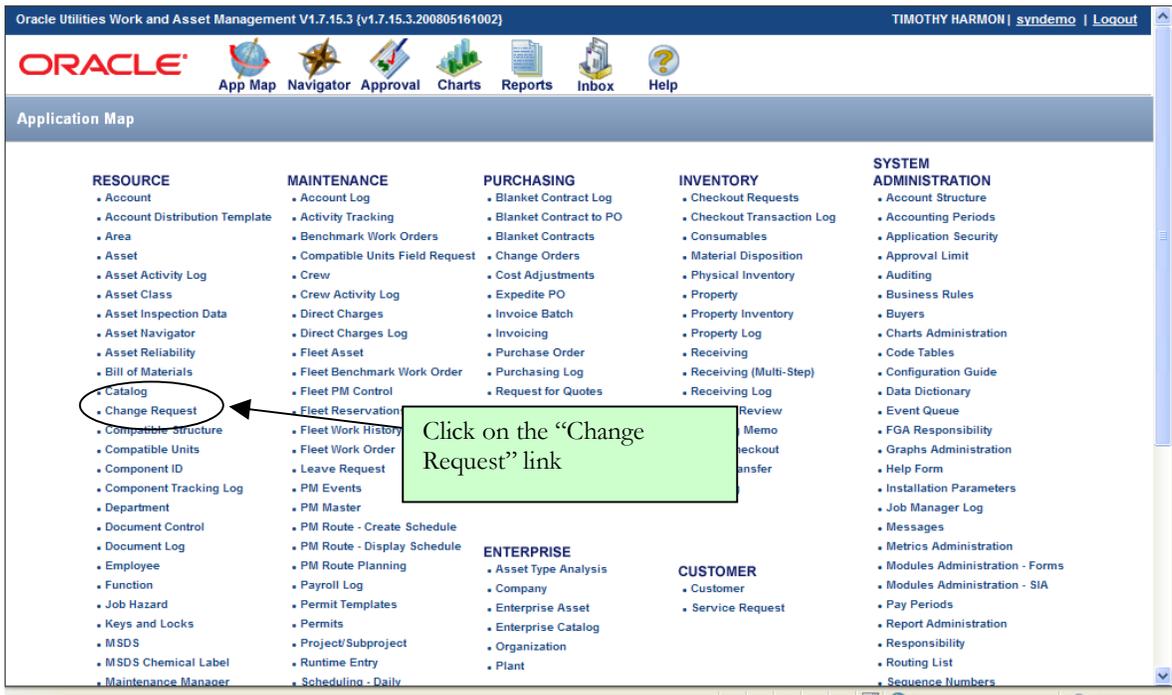
Section 8: Adding a Virtual Asset

This section outlines the details on how to enter a virtual asset into Oracle (Synergen).

This section will provide you step by step instructions on how to add a virtual asset into Oracle (Synergen). This section is provided as a reference but also outlines standards used by RWRD to ensure consistency between the facilities.

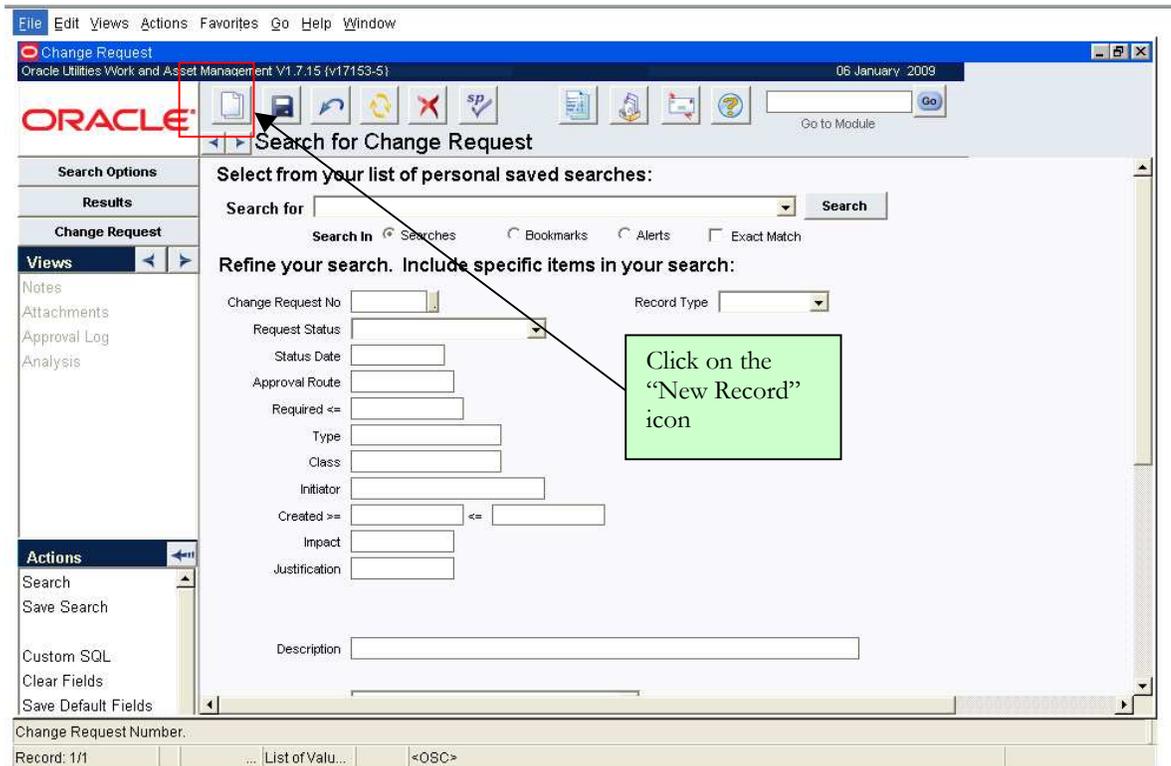


Writing a Change Request for Virtual Assets



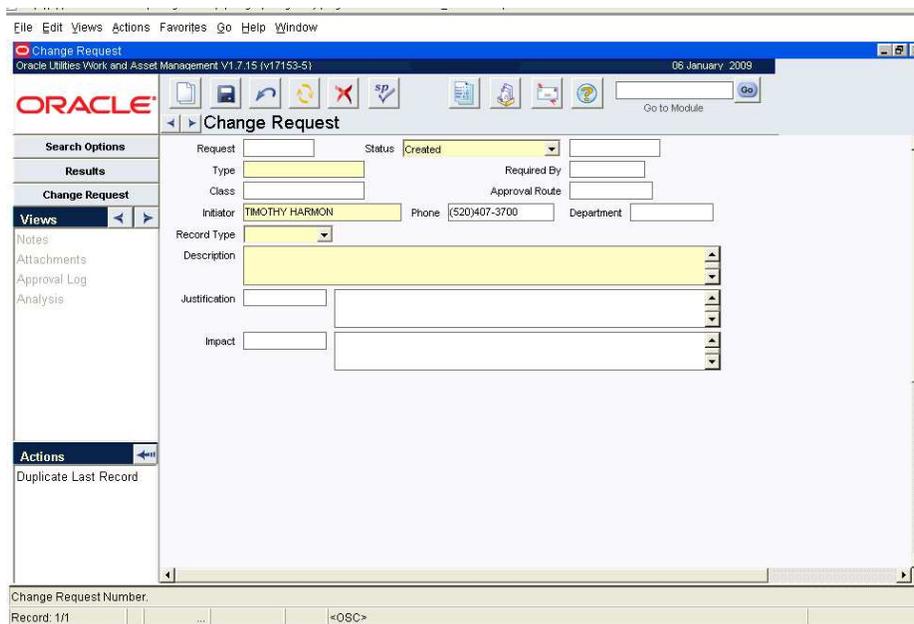
Open the “Change Request” module by clicking on the link in the Application Map or by clicking on the link in your personalized favorites on your home page.

ADDING VIRTUAL ASSETS



Create a new Change Request by selecting the “New Record” icon in the menu bar.

Clicking on the “New Record” icon will open the “Change Request” screen shown below.



ADDING VIRTUAL ASSETS

1. Select "ASSET" for type

2. Select "Create Asset" for class

3. Select "ASSET" for record type

4. Write a short description for the change to include project code and "Virtual parent asset"

5. Enter "WWFASSET" in Approval Route

6. Save the record

Next, fill in the Change Request as follows:

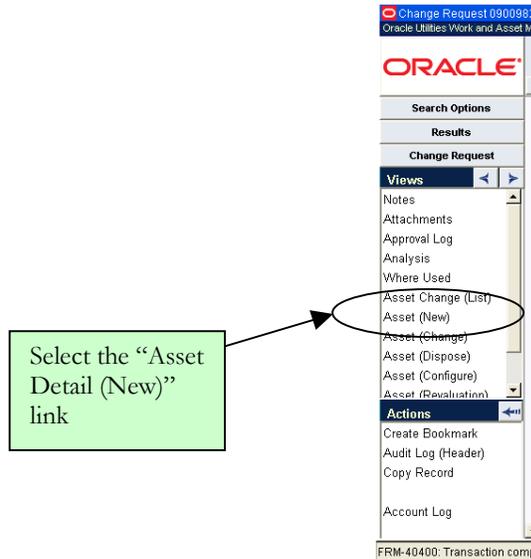
1. In the "Type" field, select "ASSET".
2. In the "Class" field, select "Create Asset".
3. In the "Record Type" field, select "ASSET".
4. Write a short description in the "Description" field. Ensure that the description includes the project code for ease of searching later. Also, include the statement that these are "Virtual Parent Assets" to speed along the approval process. More detail will be entered on other sheets; this just needs to be a short title for the request.
5. In the Approval Route field, enter "WWFASSET".
6. Save the record by clicking on the "Save" icon on the menu bar.

ADDING VIRTUAL ASSETS

Note

Multiple virtual assets can be entered on one Change Request as long as none of the assets are the parent assets of other assets on the request.

Select the “Asset Detail (New)” link in the Views pane.



Clicking on the “Asset Detail (New)” link will open the “Asset Change Item New Detail” screen shown below.

The screenshot shows the "Asset Change Item New Detail" screen in Oracle Utilities Work and Asset Management. The browser window title is "Change Request 0900982 Asset Change Item New Detail". The interface includes a search bar, a "Results" section for "Change Request", and a "Views" pane on the left. The "Views" pane lists several options: Notes, Attachments, Approval Log, Analysis, Where Used, Asset Change (List), Asset (New), More Data, Manufacturer Warrant, Asset (Change), and Actions. The "Actions" pane lists options like Create Bookmark, Audit Log (Header), Copy Record, and Account Log. The main content area contains various input fields for asset details, including Description, Asset Type, Asset Class, Asset Class Type, Dept./Area, Account No., Project, PO No., Item No., Invoiced Amount, Effective Date, Transaction Type, Parent Asset, Process, Specification, Bom ID, Subproject Actual Amount, Ordered Qty, Net Received Qty, Invoiced Qty, Property Unit No., Method (Straight Line), Acquisition Cost, Useful Life (YEARS), Acquisition Reading, Acquisition Date, and In Service Date. A status bar at the bottom indicates "FRM-40350: Query caused no records to be retrieved." and "Record: 1/1".

ADDING VIRTUAL ASSETS

1. Enter "A" in Asset Type

2. Enter an Effective Date (Current date)

3. Enter "Parent" in Transaction Type

4. Enter the description from hierarchy or asset information sheet

Next fill in the Asset Change Item New Detail as follows:

1. Since this is a virtual asset enter "A" in Asset Type

A – Parent Asset

Used for virtual assets that work orders will not be written against, just a placeholder to roll up costs.

2. Enter an Effective Date by double clicking in the field and selecting a date from the calendar. Typically, the current date is used for virtual assets.
3. In the Transaction Type field, enter "Parent" for this virtual asset.
4. Enter the description from hierarchy.

ADDING VIRTUAL ASSETS

5. Select "PARENT" in Asset Type

6. Criticality not used

7-8. Enter Parent Asset ID

9. Enter "NON-DEPRECIABLE" in Asset Class Field

10. Asset Class Type will fill in automatically

5. In the "Asset Type" field, enter "PARENT".
6. RWRD will not be using the Criticality field on the asset record. Criticality will be determined on the Work Order.
7. In the first box of the parent asset, enter the parent asset type. This should be an "A" due to all virtual assets that have children are listed as "A" types. If the parent asset is not an "A" type do not associate a child record to that asset.
8. In the second Parent Asset field, click on the pull-down menu and select the parent asset for the new asset, such as 05000051.
9. For virtual assets enter "Non-depreciable" under "Asset Class".
10. Asset Class Type will fill in automatically.

ADDING VIRTUAL ASSETS

11. Enter the Specification Number. To obtain a Specification Number see the next part of this section.

The screenshot shows the Oracle Utilities Work and Asset Management V1.7.15 (v17153-5) interface. The main window title is "Change Request 0900982 Asset Change Item New Detail". The left sidebar contains navigation options like "Search Options", "Results", "Change Request", "Views", "Notes", "Attachments", "Approval Log", "Analysis", "Where Used", "Asset Change (List)", "Asset (New)", "More Data", "Manufacturer Warrant", "Asset (Change)", and "Actions". The main form area includes fields for "Update Option" (CREATE NEW ASSET), "Effective Date", "Post to Prior Year", "Asset", "Transaction Type", "Description", "Asset Type", "Criticality", "Parent Asset", "Asset Class", "Process", "Asset Class Type", "Specification", "Dept./Area", "Bom ID", "Account No.", "Project", "Subproject Actual Amount", "PO No.", "Ordered Qty", "Item No.", "Net Received Qty", "Invoiced Amount", and "Invoiced Qty". A green callout box with an arrow points to the "Specification" field, containing the text "11. Enter Specification Number as described".

How to enter a specification

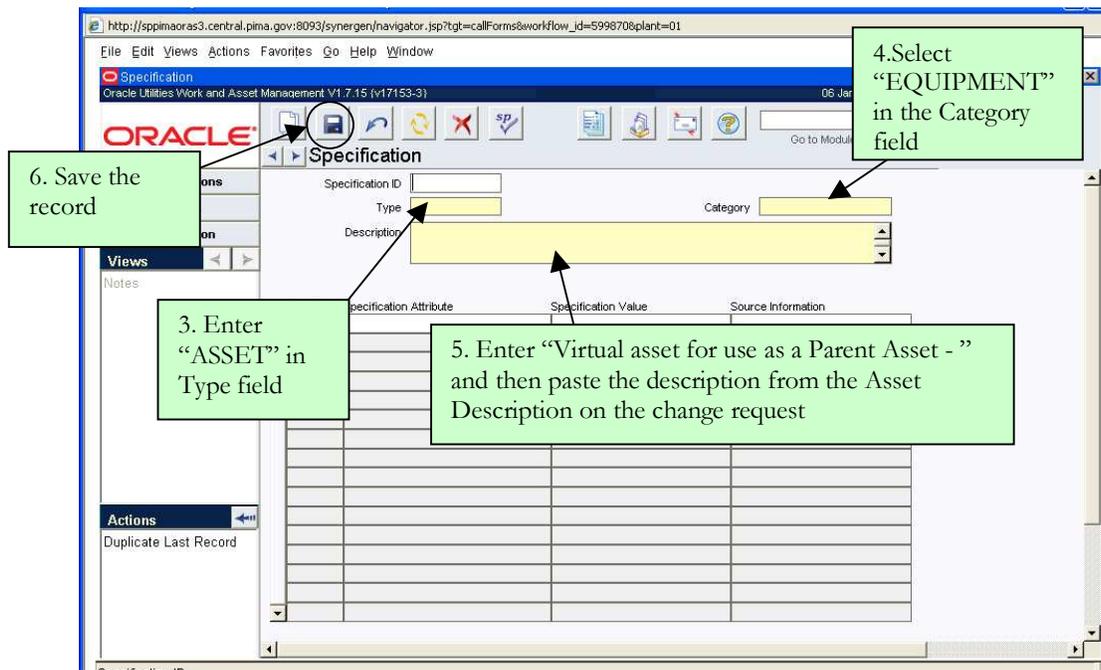
1. Double click in the Specification field, this will open the “Search for Specification” screen below:
2. Click on the “New Record” icon from the menu bar.

The screenshot shows the "Search for Specification" screen. The title bar indicates "Specification" and "Oracle Utilities Work and Asset Management V1.7.15 (v17153-3)". The left sidebar has "Views" and "Notes". The main area has a "Search for" dropdown, a "Search" button, and a "Search In" section with radio buttons for "Searches", "Bookmarks", and "Alerts", and a checkbox for "Exact Match". Below this is a "Refine your search. Include specific items in your search:" section with fields for "ID", "on", "pe", "ry", and "By" (Specification ID). A green callout box with an arrow points to the "New Record" icon in the menu bar, containing the text "2. Click the 'New Record' icon".

ADDING VIRTUAL ASSETS

You should see the new specification screen shown below.

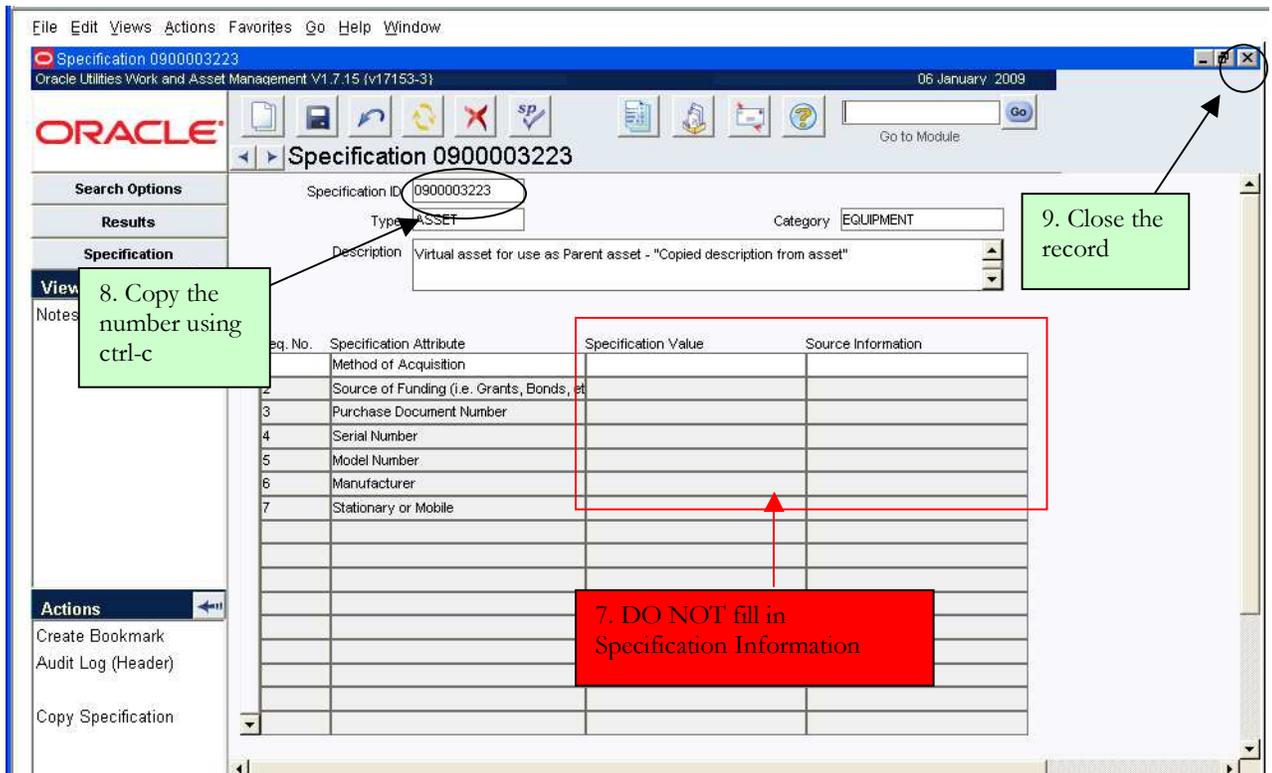
3. In the “Type” field, enter “ASSET”.
4. In the Category field, select “EQUIPMENT”.
5. In the description field, enter “Virtual asset for use as a Parent Asset - ” and then paste the description from the Asset Description on the change request.
6. Save the record by clicking on the “Save” icon on the menu bar.



ADDING VIRTUAL ASSETS

After the record has been saved, the screen will appear as shown below.

7. For virtual assets, do not fill in any information in on the Specification sheet.
8. A Specification ID number will now be assigned to the record. Highlight this number and copy by pressing ctrl+c on the keyboard.
9. Close the Specification screen by clicking on the “X” on the blue bar with the specification number.



File Edit Views Actions Favorites Go Help Window

Specification 0900003223
Oracle Utilities Work and Asset Management V1.7.15 (v17153-3) 06 January 2009

ORACLE

Specification 0900003223

Search Options
Results
Specification

View
Notes

Specification ID: 0900003223
Type: ASSET
Category: EQUIPMENT
Description: Virtual asset for use as Parent asset - "Copied description from asset"

Seq. No.	Specification Attribute	Specification Value	Source Information
2	Method of Acquisition		
3	Source of Funding (i.e. Grants, Bonds, et		
3	Purchase Document Number		
4	Serial Number		
5	Model Number		
6	Manufacturer		
7	Stationary or Mobile		

Actions
Create Bookmark
Audit Log (Header)
Copy Specification

8. Copy the number using ctrl-c

7. DO NOT fill in Specification Information

9. Close the record

Finishing the Change Request

1. On the Asset Change Request, paste the specification number in the specification field by using ctrl-v on the keyboard.
2. Enter appropriate Department/Area:
 - For Ina Road:**
Department: "WW TRT INA" Area: "WW INA MNT"
 - For Roger Road:**
Department: "WW TRT ROG" Area: "WW RGR MNT"
 - For Outlying Facilities:**
Department: "WW TRT OLF"
Area:
 - Avra Valley:** "WW AVRA MN"
 - Corona De Tucson:** "WW CDT MN"
 - Green Valley:** "WW GV MN"
 - Marana:** "WW MAR MN"
 - Mt. Lemon:** "WW MTLM MN"
 - Randolph:** "WW RND MNT"
3. Press the LOV button for Account No. and it will fill in automatically.
4. Bill of Materials are not used on virtual assets.

The screenshot shows the 'Change Request 0701101 Asset Change Item New Detail' form in the SPL Enterprise Asset & Work Management V1.7.5 (v7.48) application. The form is titled 'Change Request 0701101 Asset Change Item New Detail' and includes a 'Search Options' sidebar on the left. The main form area contains the following fields and sections:

- Update Option:** CREATE NEW ASSET
- Effective Date:** (empty field)
- Post to Prior Year:**
- Asset:** (empty field)
- Transaction Type:** (empty field)
- Description:** (empty field)
- Asset Type:** (empty field)
- Criticality:**
- Parent Asset:** (empty field)
- Asset Class:** (empty field)
- Process:** (empty field)
- Asset Class Type:** (empty field)
- Specification:** (empty field)
- Dept./Area:** (empty field)
- Bom ID:** (empty field)
- Account No.:** (empty field)
- Project:** (empty field)
- Subproject Actual Amount:** (empty field)
- PO No.:** (empty field)
- Ordered Qty:** .00
- Item No.:** (empty field)
- Net Received Qty:** .00
- Invoiced Amount:** .00
- Invoiced Qty:** .00
- Depreciation:**
 - Property Unit No.:** (empty field)
 - Useful Life:** (empty field) YEARS

Four callout boxes provide instructions:

1. Paste Specification number in field (pointing to the Specification field)
2. Fill in Department & Area (pointing to the Dept./Area field)
3. Account No. will fill in automatically with the LOV button (pointing to the Account No. field)
4. BOM not used on virtual assets (pointing to the Bom ID field)

ADDING VIRTUAL ASSETS

5. Do not enter any project or accounting information.
6. The Property Unit field will auto fill with “NON-DEPRECIABLE” when LOV button is pressed.
7. In Acquisition Cost field, Enter .00
8. In the Acquisition Date field, enter the same date as the Effective Date.
9. The In Service Date will auto fill.
10. When all fields are completed, click on the “Save” icon on the Menu Bar.
11. Click on the “More Data” link in the Views pane.

The screenshot displays the 'Change Request 0701101 Asset Change Item: New Detail' form. The form is divided into several sections: 'Update Option' (CREATE NEW ASSET), 'Description', 'Asset Type', 'Asset Class', 'Asset Class Type', 'Dept./Area', 'Account No.', 'Project', 'Subproject Actual Amount', 'PO No.', 'Ordered Qty', 'Item No.', 'Net Received Qty', 'Invoiced Amount', 'Invoiced Qty', 'Depreciation' (Property Unit No., Method: Straight Line, Acquisition Cost, Salvage Value, Replacement Value), 'Useful Life', 'Acquisition Reading', 'Acquisition Date', 'In Service Date', 'Retirement Date', and 'Contributed'. The 'Views' pane on the left shows 'More Data' selected. The 'Actions' pane includes 'Create Bookmark', 'Audit Log (Header)', and 'Account Log'. The 'Menu Bar' at the top includes 'File', 'Edit', 'Views', 'Actions', 'Favorites', 'Go', 'Help', and 'Window'. The 'Toolbar' includes a save icon, a refresh icon, a delete icon, and a search icon. The 'Status Bar' at the bottom shows '13 March 2007'.

ADDING VIRTUAL ASSETS

You will now see a window as seen in the screen shot below. The top section (Asset, type and Description) will be filled in automatically from the information entered on the last screen.

1. Since this is a virtual asset leave the Location section blank.
2. Only fill out the Planner code for the appropriate Plant Planner.
 - i. "WWTRP1" is used for Roger Road
 - ii. "WWTIP1" is used for Ina Road
 - iii. "WWTOP1" is used for Outlying Facilities
 - iv. "WWTPP1" is used for Plant Services

File Edit Views Actions Favorites Go Help Window

Change Request 0900982 Asset Change Item New Detail More Data
Oracle Utilities Work and Asset Management V1.7.15 (v17153-5) 06 January 2009

Change Request 0900982 Asset Change Item New Detail More Data

Asset A Transaction Type PARENT
Description Virtual asset demo

Location

Basis Facility Point ID
Building
Room
Location
Position
Breaker Breaker Asset ID
Latitude Longitude

W.O. Defaults

Planner
Work Request Route
Backlog Group
 Safety Environmental
 ISO Related Run to Failure
 Health

Depreciation Accounts and Expense Codes

Asset Cost 5005-W300100- 18099

1. Leave Location blank

2. Enter Planner Code

ADDING VIRTUAL ASSETS

3. If additional Assets will be entered under this change request (i.e. multiple virtual asset for this level of the hierarchy), click on the “Asset Change (List)” link in the Views pane.
4. Click the “New Record” icon on the menu bar. Enter data as directed in the steps above.

The screenshot shows the Oracle Change Request form for Asset Change Item. The menu bar at the top contains several icons, including a document icon with a plus sign, which is circled and labeled with a callout box: "4. Click the 'New Record' icon on the menu bar".

The left sidebar contains a "Views" pane with the following links: Notes, Attachments, Approval Log, Analysis, Where Used, Asset Change (List) (circled and labeled with a callout box: "3. If more assets are to be added to change request: Click the Asset Change (list) link"), Asset (New), More Data, Manufacturer Warrant, Asset (Change), and Account Log.

The main data entry area includes the following fields and sections:

- Asset: A
- Transaction Type: PARENT
- Description: [Text Field]
- Location:
 - Basis: Facility
 - Point ID: [Text Field]
 - Building: [Text Field]
 - Room: [Text Field]
 - Location: [Text Field]
 - Position: [Text Field]
 - Breaker: [Text Field]
 - Breaker Asset ID: [Text Field]
 - Latitude: [Text Field]
 - Longitude: [Text Field]
- Checkboxes: Safety, Environmental, ISO Related, Run to Failure, Health
- Depreciation Accounts and Expense Codes:
 - Asset Cost: 5005-W300100-
 - 18099

ADDING VIRTUAL ASSETS

When all assets have been added to the Change Request, change the status of the request from “Created” to “Pending Approval”.

The screenshot shows the Oracle Utilities Work and Asset Management V1.7.15 (v17153-5) interface. The main window displays the 'Change Request 0900982' form. The 'Status' dropdown menu is open, showing options: Created, Pending Approval, Approved, Completed, Cancelled, and Rejected. A green callout box points to the 'Pending Approval' option with the text: "When all assets have been added to the Change Request, change the status from 'Created' to 'Pending Approval'".

Synergen will ask you if you want to save changes. Click on the “Save” icon.

The screenshot shows an Oracle dialog box with the text: "You have changed the status. Do you want to Save the change?". The 'Save' button is circled in black, and a green callout box points to it with the text: "Save the record".

Note

After the Asset has been approved, remember to go back and update the hierarchy with the proper Asset ID number.

Section 9

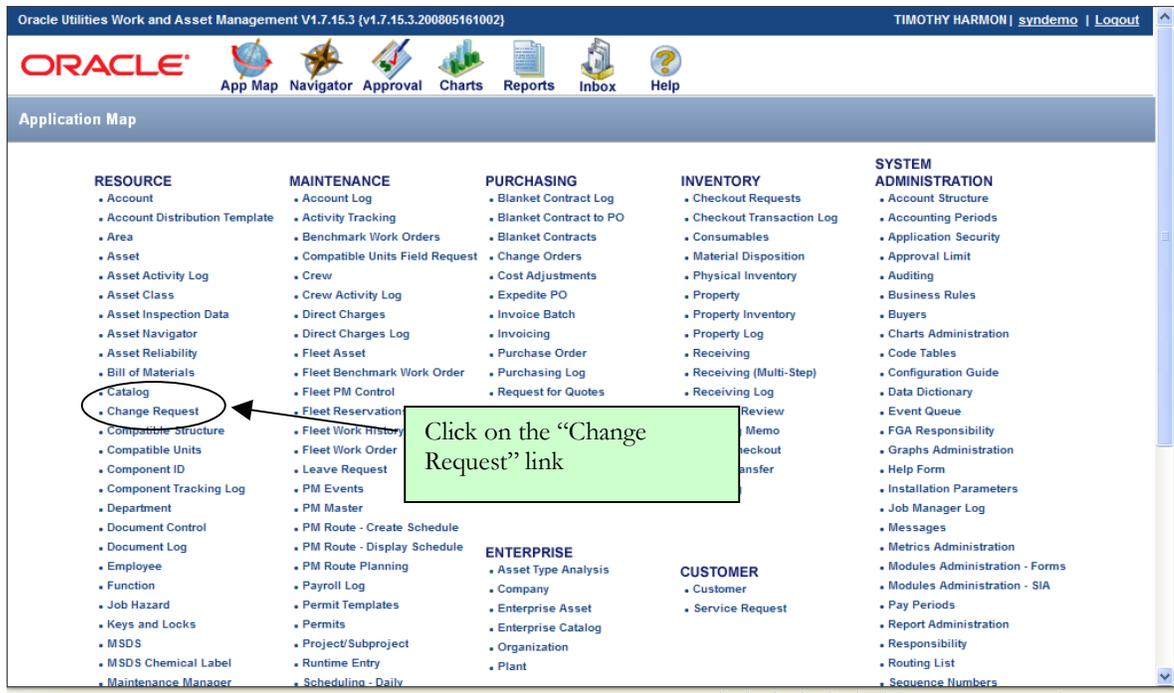
Section 9: Adding a Non-Depreciable Asset

This section outlines the details on how to enter a non-depreciable asset into Oracle (Synergen).

This section will provide you with step by step instructions on how to add a non-depreciable asset into Oracle (Synergen). This section is provided as a reference but also outlines standards used by RWRD to ensure consistency between the facilities.

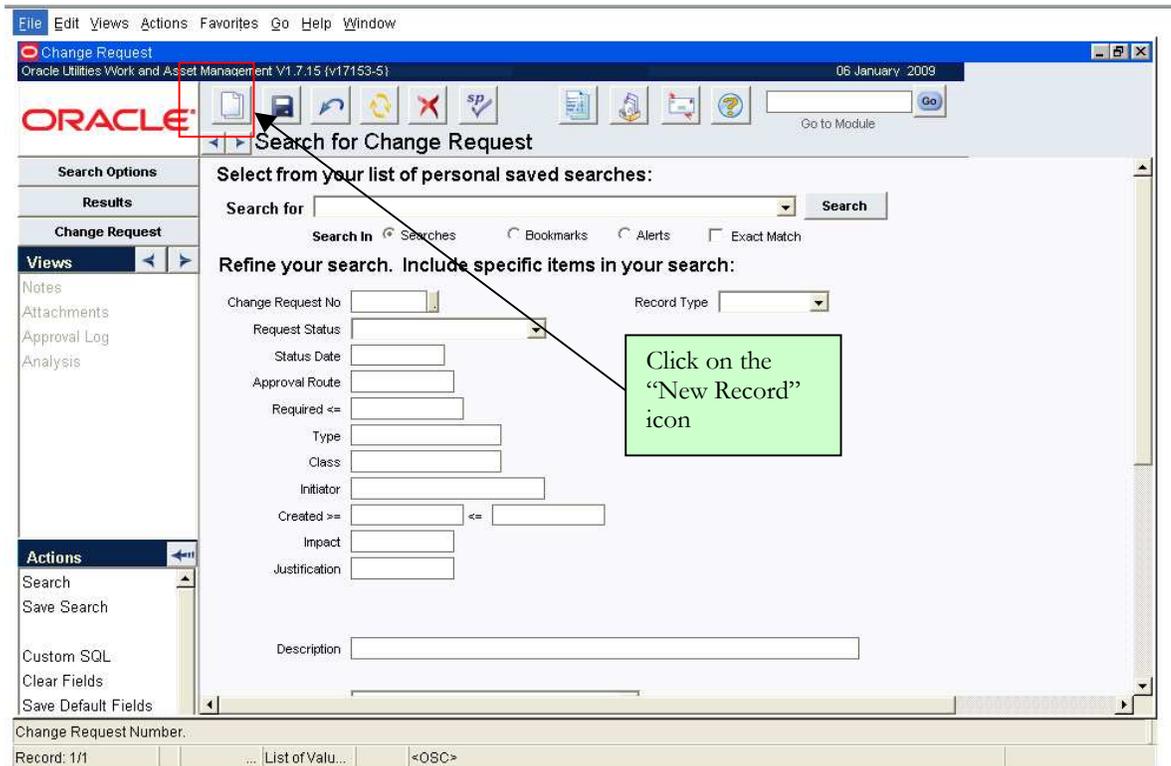


Writing a Change Request for Non-depreciable Assets



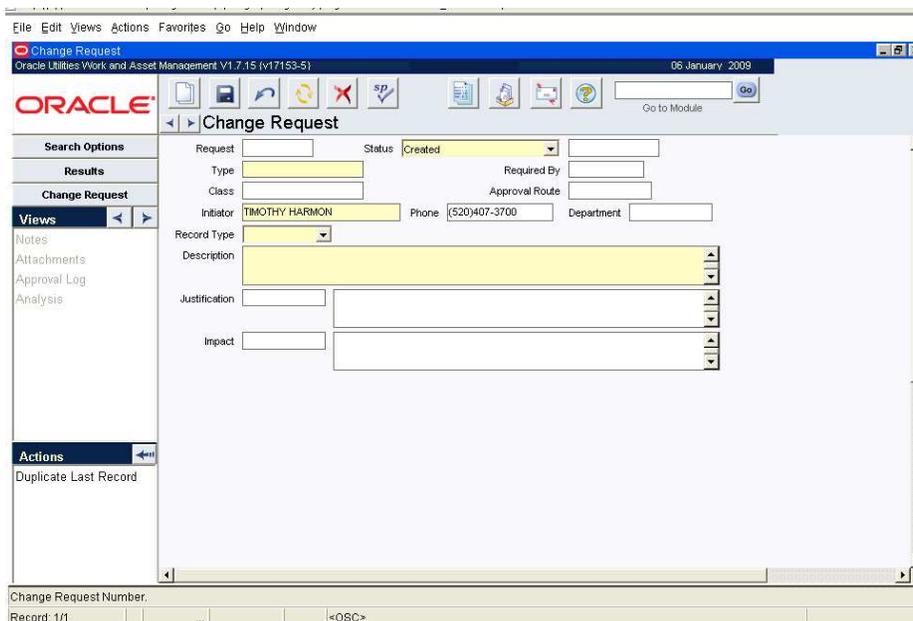
Open the "Change Request" module by clicking on the link in the Application Map or by clicking on the link in your personalized favorites on your home page.

ADDING NON-DEPRECIABLE ASSETS



Create a new Change Request by selecting the “New Record” icon in the menu bar.

Clicking on the “New Record” icon will open the “Change Request” screen shown below.



ADDING NON-DEPRECIABLE ASSETS

1. Select "ASSET" for type

2. Select "Create ASSET" for class

3. Select "ASSET" for record type

4. Write a short description for the Change Request to include the project code and that these are Non-Depreciable Assets

5. Enter "WWFASSET" in Approval Route

6. Save the record

Next fill in the Change Request as follows:

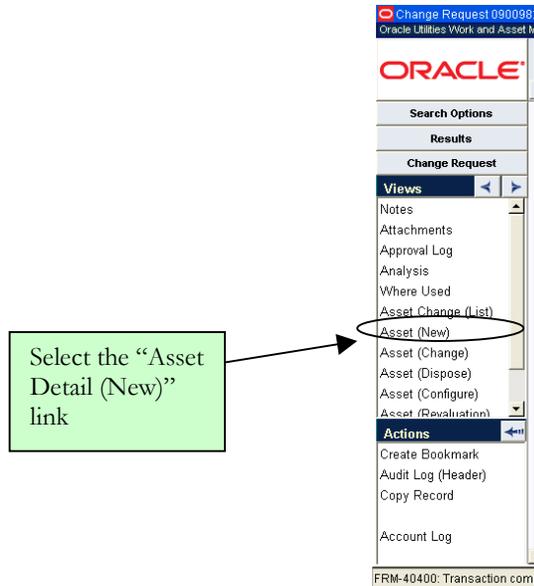
1. In the "Type" field, select "ASSET".
2. In the "Class" field, select "CREATE ASSET".
3. In the "Record Type" field, select "ASSET".
4. Write a short description in the "Description" field; insure that the description includes the project code for ease of searching later. Also, include that these assets are non-depreciable; this will expedite the approval process. More detail will be entered on other sheets; this just needs to be a short title for the request.
5. In the Approval Route field, enter "WWFASSET".
6. Save the record by clicking on the "Save" icon on the menu bar.

ADDING NON-DEPRECIABLE ASSETS

Note

Multiple non-depreciable assets can be entered on one change request as long as they are all from the same project.

Select the “Asset Detail (New)” link on the Views pane.



Clicking on the “Asset Detail (New)” link will open the “Asset Change Item New Detail” screen shown below.

The screenshot shows the Oracle Asset Change Item New Detail screen. The interface is titled 'Change Request 0900982 Asset Change Item New Detail'. It features a top navigation bar with 'File Edit Views Actions Favorites Go Help Window'. The main area contains various input fields for asset details, including 'Update Option' (CREATE NEW ASSET), 'Effective Date', 'Asset', 'Transaction Type', 'Description', 'Asset Type', 'Criticality', 'Parent Asset', 'Asset Class', 'Process', 'Asset Class Type', 'Specification', 'Dept./Area', 'Bom ID', 'Account No.', 'Project', 'Subproject Actual Amount', 'PO No.', 'Ordered Qty', 'Item No.', 'Net Received Qty', 'Invoiced Amount', 'Invoiced Qty', 'Property Unit No.', 'Useful Life', 'Method', 'Acquisition Reading', 'Acquisition Cost', 'Acquisition Date', 'Salvage Value', and 'In Service Date'. The 'Method' is set to 'Straight Line' and 'Useful Life' is set to 'YEARS'. The 'Acquisition Reading' is set to '0'. The 'Acquisition Date' and 'In Service Date' are empty. The 'Contributed' checkbox is unchecked. The bottom status bar shows 'FRM-40350: Query caused no records to be retrieved.' and 'Record: 1/1 ... List of Valu... <OSC>'.

ADDING NON-DEPRECIABLE ASSETS

1. Select Asset Type from Hierarchy

2. Enter an Effective Date

3. Enter "Constructed" in Transaction Type

4. Enter the description from hierarchy or asset information sheet

Next fill in the Asset Change Item New Detail as follows:

1. Enter the Asset Type from the hierarchy.
 - B – Building & Other Improvement**
Used for buildings and structures, work orders can be written against this type of asset.
 - E – Equipment**
Used for plant equipment, work orders can be written against this type of asset.
 - I – Infrastructure**
Used for plant yard piping and other infrastructure, work orders can be written against this type of asset.
 - L – Land**
Used for plant grounds and other real estate, work orders can be written against this type of asset.
2. In the Effective Date field, double click and select a date from the calendar.
3. In the Transaction Type field, enter "CONSTRUCTED" for this equipment asset.
4. Enter the description from hierarchy or Asset Information Sheet. Verify it follows the proper naming convention:
 - Noun, adjective (plant ID), location, process – plant
 - Example:*
Valve, Return Sludge Isolation (PV1-FS10), Pump Station #10, Secondary – Roger

Smart numbers will be used at all new facilities. The smart number would replace the PV1-FS10 in the parentheses

ADDING NON-DEPRECIABLE ASSETS

5. Enter Asset Type from list

6. Criticality not used

7-8. Enter Parent Asset ID

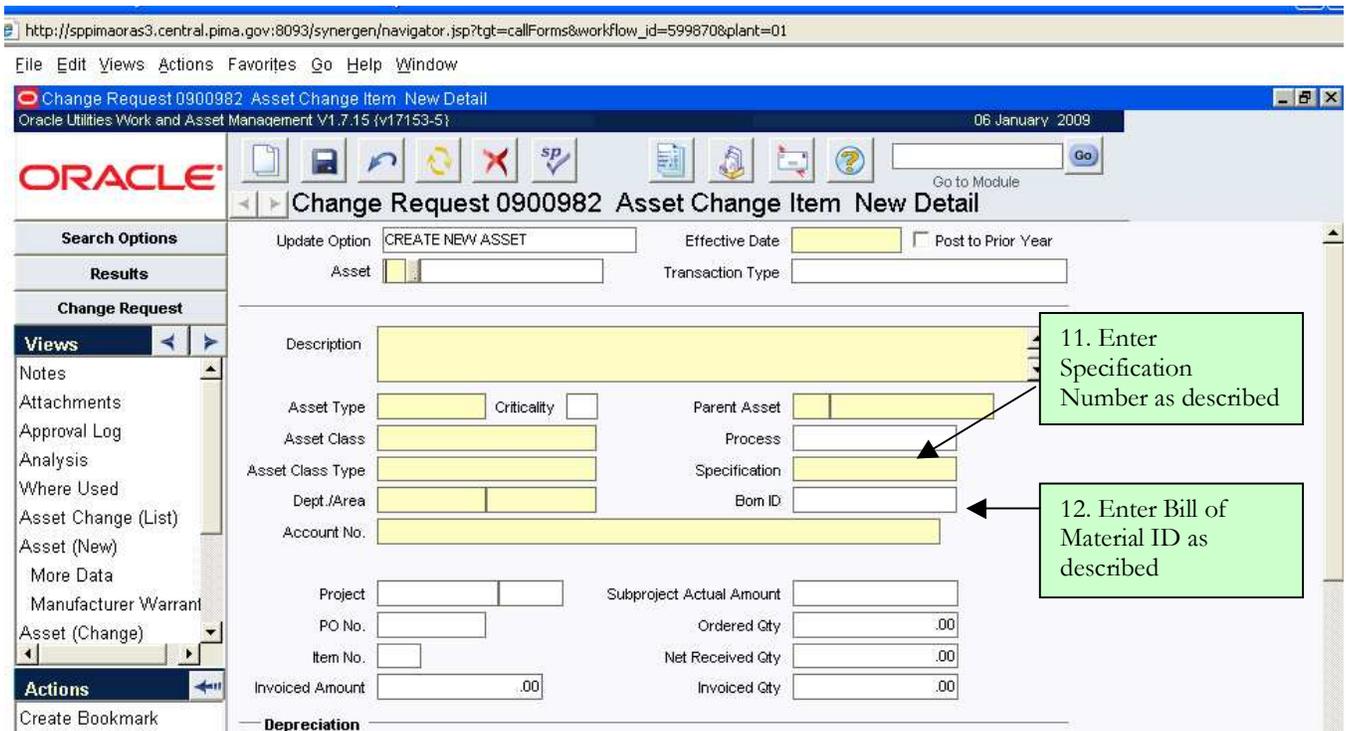
9. Enter "NON-DEPRECIABLE" in Asset Class Field

10. Asset Class Type will fill in automatically

5. Enter the Asset Type from the list of assets. Choose the one that represents the asset the closest. If nothing on the list is correct, contact the System Administrator to add items to Code Table 29.
6. RWRD will not be using the criticality field on the asset record. Criticality will be determined on the Work Order.
7. In the first box of the parent asset, enter the parent asset type. This should be an "A" due to all virtual assets that have children are listed as "A" types. If the parent asset is not an "A" type do not associate a child record to that asset.
8. In the second Parent Asset field, click on the LOV button and select the parent asset for the new asset from the hierarchy.
9. For non-depreciable assets, enter "NON-DEPRECIABLE" under "Asset Class".
10. Asset Class Type will fill in automatically.

ADDING NON-DEPRECIABLE ASSETS

11. Enter Specification number following the steps listed below:
12. Enter BOM per following steps.



Oracle Utilities Work and Asset Management V1.7.15 (v17153-5)

Change Request 0900982 Asset Change Item New Detail

Update Option: CREATE NEW ASSET Effective Date: [] Post to Prior Year: []

Asset: [] Transaction Type: []

Description: []

Asset Type: [] Criticality: [] Parent Asset: []

Asset Class: [] Process: []

Asset Class Type: [] Specification: []

Dept./Area: [] Bom ID: []

Account No.: []

Project: [] Subproject Actual Amount: []

PO No.: [] Ordered Qty: .00

Item No.: [] Net Received Qty: .00

Invoiced Amount: .00 Invoiced Qty: .00

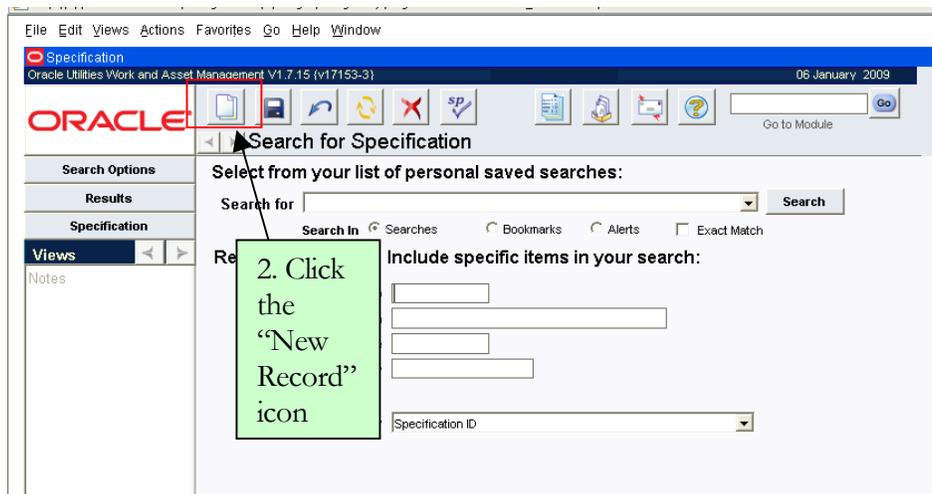
Depreciation

11. Enter Specification Number as described

12. Enter Bill of Material ID as described

How to enter a Specification

1. Double click in the specification field, this will open the “Search for Specification” screen below:
2. Click on the “New Record” icon from the menu bar.



Oracle Utilities Work and Asset Management V1.7.15 (v17153-3)

Search for Specification

Select from your list of personal saved searches:

Search for: [] Search: []

Search in: [] Searches [] Bookmarks [] Alerts [] Exact Match []

Include specific items in your search:

[]

[]

[]

Specification ID: []

2. Click the “New Record” icon

ADDING NON-DEPRECIABLE ASSETS

You should see the new specification screen shown below.

3. In the Type field, select “WWASSET”.
4. In the Category field, select “Equipment”.
5. Copy and paste the description from the Asset Description on the Change Request.
6. Save the record by clicking on the “Save” icon on the menu bar.

The screenshot displays the Oracle Utilities Work and Asset Management V1.7.15 (v17153-3) Specification screen. The interface includes a menu bar with 'File', 'Edit', 'Views', 'Actions', 'Favorites', 'Go', 'Help', and 'Window'. The main form area contains the following fields:

- Specification ID:
- Type:
- Category:
- Description:

Below the form is a table with the following columns: Specification Attribute, Specification Value, and Source Information. The table contains several empty rows.

The 'Actions' panel at the bottom left shows 'Duplicate Last Record'. The 'Views' panel shows 'Notes:'. The 'Go to Module' field is empty.

Green callout boxes provide instructions:

- 3. Enter “WWASSET” in “Type” field
- 4. Enter “EQUIPMENT” in the Category field
- 5. Copy and paste the description from the Asset Description on the Change Request
- 6. Save the record

ADDING NON-DEPRECIABLE ASSETS

After the record has been saved, the screen will appear as shown below.

7. In the Specification Value field, enter the data from the spreadsheet provided by the General Contractor. You will need to click the save icon after each line entered on the specification sheet. Do not fill in Source Information. Repeat for all applicable lines.
8. A Specification ID number will now be assigned to the record. Highlight this number and copy by pressing ctrl+c on the keyboard.
9. Close the specification screen by clicking the "X" icon on the blue bar with the specification number.

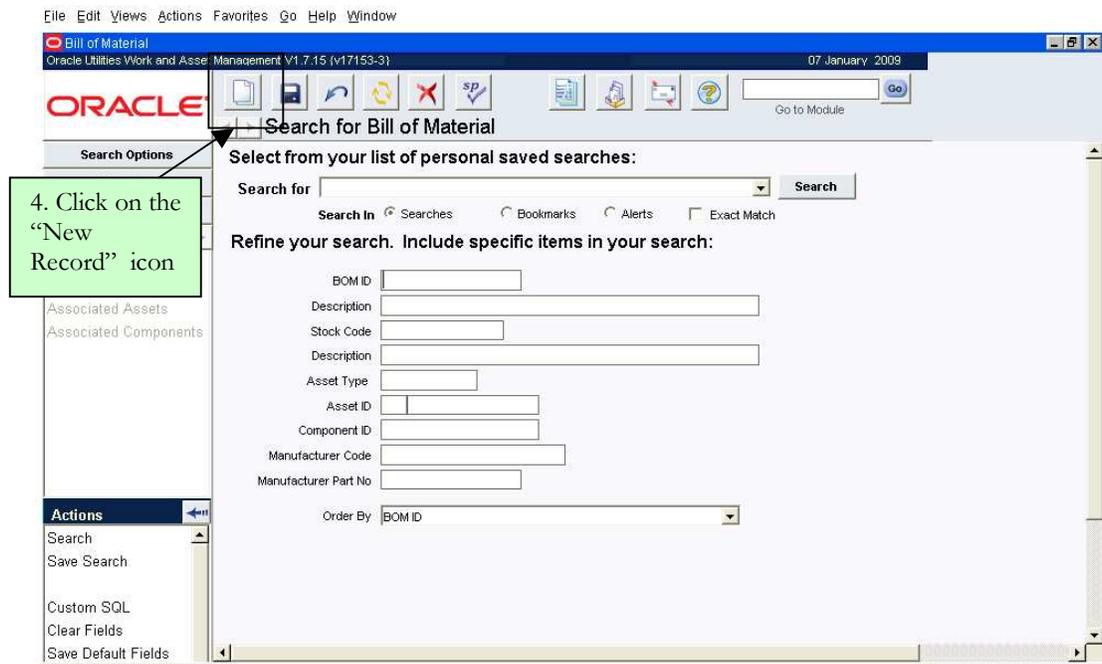
The screenshot shows the Oracle Utilities Work and Asset Management v1.7.15 (v17153-3) application window. The title bar indicates the window is titled "Specification 0900003224". The main content area displays the "Specification 0900003224" form. The "Specification ID" field is highlighted with a blue box and contains the value "0900003224". The "Type" field is set to "EQUIPMENT" and the "Description" is "Scrubber, Biofilter #2, Odor Control, Headworks, Preliminary - Roger". Below the form is a table with columns for "Seq. No.", "Specification Attribute", "Specification Value", and "Source Information". The table has 45 rows, with the first row being "Method of Acquisition". The "Source Information" column is highlighted with a red box. The "Actions" menu is visible on the left side of the screen, with options like "Create Bookmark", "Audit Log (Header)", and "Copy Specification".

Seq. No.	Specification Attribute	Specification Value	Source Information
1	Method of Acquisition		
2	Source of Funding (i.e. Grants, Bonds, etc.)		
3	Purchase Document Number		
4	Serial Number		
5	Model Number		
6	Manufacturer		
7	Stationary or Mobile		
10	Voltage		
15	Amperage		
20	Frequency		
21	Phases		
25	HP		
30	Frame		
35	RPM		
40	GPM		
45	Power Factor		

10. On the Asset Change Request paste the specification number in the specification field by using ctrl+v on the keyboard.

How to enter a Bill of Material

1. Double click in the Bill of Material Field in the Change Request, this will open the “Search for Bill of Material” screen below:
2. Search for an existing Bill of Material (BOM) by Manufacturer’s name and model number.
3. If a BOM exists, enter the BOM ID number on the Change Request.
4. If a BOM does not exist, click on the “New Record” icon from the menu bar.



ADDING NON-DEPRECIABLE ASSETS

5. The BOM ID is auto generated.
6. Fill in the description using the following Naming Convention:
WW, Noun, Descriptors, Rating, Manufacturer
Example: WW, Pump, Centrifugal, 250 GPM, Moyno
7. Pick Asset Type from list (If required item is not on list contact System Administrator to update Code Table 29)
8. Pick Manufacturer from list (If required item is not on list contact System Administrator to update Code Table 186)
9. Enter Manufacturer part number.
10. Save the record by clicking on the “Save” icon on the menu bar.
11. Attach the BOM to the asset record by entering the BOM Number on the asset record in the BOM field. (Ctrl-c to copy; Ctrl-v to paste).

10. Save the Record

5. The BOM ID is auto generated

7. Select Asset Type from list

8. Select Manufacturer from list

9. Enter Manufacturer's Part Number

6. Enter description per Naming Convention

Oracle Asset Management V11.7.15 (v17153-3) 07 January 2009

Bill of Material

BOM ID: [] Reference BOM ID: []

Description: []

Asset Type: []

Manufacturer: []

Manufacturer Part No: []

BREAKDOWN for [] TOP Level UP One Level

BOM Item	Type	Seq	Item Description	UOI	Quantity
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			

Actions
Duplicate Last Record

ADDING NON-DEPRECIABLE ASSETS

Finishing the Change Request

1. Verify the Specification and BOM numbers have been entered from previous steps.
2. Enter appropriate Department/Area:

For Ina Road:

Department: "WW TRT INA" Area: "WW INA MNT"

For Roger Road:

Department: "WW TRT ROG" Area: "WW RGR MNT"

For Outlying Facilities:

Department: "WW TRT OLF"

Area:

Avra Valley: "WW AVRA MN"

Corona De Tucson: "WW CDT MN"

Green Valley: "WW GV MN"

Marana: "WW MAR MN"

Mt. Lemon: "WW MTLM MN"

Randolph: "WW RND MNT"

3. Click on the LOV button for Account No. and it will fill in automatically.

The screenshot displays the 'Change Request 0701101 Asset Change Item New Detail' window in the SPL Enterprise Asset & Work Management V1.7.5 (v7.48) application. The interface includes a menu bar (File, Edit, Views, Actions, Favorites, Go, Help, Window), a toolbar with various icons, and a 'Go to Module' search box. The main form area is titled 'Change Request 0701101 Asset Change Item New Detail' and contains several input fields and sections:

- Update Option:** A dropdown menu set to 'CREATE NEW ASSET'.
- Effective Date:** A date field set to '13 March 2007'.
- Post to Prior Year:** A checkbox that is currently unchecked.
- Asset:** A dropdown menu.
- Transaction Type:** A dropdown menu.
- Description:** A large text area.
- Asset Type:** A dropdown menu.
- Criticality:** A checkbox.
- Parent Asset:** A dropdown menu.
- Asset Class:** A dropdown menu.
- Process:** A dropdown menu.
- Asset Class Type:** A dropdown menu.
- Specification:** A dropdown menu.
- Dept./Area:** A dropdown menu.
- Bom ID:** A dropdown menu.
- Account No.:** A dropdown menu with a 'LOV' (List of Values) button next to it.
- Project:** A dropdown menu.
- Subproject Actual Amount:** A text field.
- PO No.:** A text field.
- Ordered Qty:** A text field with a value of '.00'.
- Item No.:** A text field.
- Net Received Qty:** A text field with a value of '.00'.
- Invoiced Amount:** A text field with a value of '.00'.
- Invoiced Qty:** A text field with a value of '.00'.
- Depreciation:** A section with a 'Property Unit No.' dropdown menu and a 'Useful Life' text field with a 'YEARS' label.

Three green callout boxes with arrows pointing to specific fields provide instructions:

- Box 1 (top right):** '1. Verify Specification Number entered' with an arrow pointing to the 'Specification' dropdown.
- Box 2 (middle left):** '2. Fill in Department & Area' with an arrow pointing to the 'Dept./Area' dropdown.
- Box 3 (bottom left):** '3. Account No. will fill in automatically with the LOV button' with an arrow pointing to the 'Account No.' dropdown.

ADDING NON-DEPRECIABLE ASSETS

4. Do not enter any project or accounting information.
5. The Property Unit field will auto fill with “NON-DEPRECIABLE” when LOV button is clicked.
6. In the Acquisition Cost field, enter .00.
7. In the Acquisition Date field, enter the same date as the Effective Date.
8. The In Service Date field will auto fill.
9. When all fields are completed, click on the “Save” icon on the Menu Bar.
10. Click on the “More Data” link in the Views pane.

10. Click the “More Data” link

9. Save the record

4. Do not enter project or purchasing information

7. Acquisition Date is always same as Effective Date

8. In service date will auto fill

5. Property Unit will auto fill with “NON-DEPRECIABLE”

6. Enter Acquisition Cost of .00

ADDING NON-DEPRECIABLE ASSETS

You will now see a window as seen in the screen shot below. The top section (Asset, Transaction Type and Description) will be filled in automatically from the information entered on the last screen.

For asset on a plant site use “Facility” basis as shown below

1. Fill in the Location section by using the “Facility” basis if the asset is on a plant site. If this is a conveyance line or pipeline not on a plant site, use the “Address” or “Address with Nodes” basis (see next page).
2. Select Building from the drop down list – If this is a new building contact the System Administrator to add the building to code table 25.
3. Fill in the Room field if building has multiple rooms.
4. The Location field is used to narrow the location down if the building covers a large area (i.e. If the building number covers a pump station and two clarifiers and the asset is at Clarifier #12 then enter “Clarifier #12” in the field).
5. Position is used to show where in the building or room the asset is located (north, south, roof ...).
6. Fill in the Planner code for the appropriate Plant Planner.
 - i. “WWTRP1” is used for Roger Road
 - ii. “WWTIP1” is used for Ina Road
 - iii. “WWTOP1” is used for Outlying Facilities
 - iv. “WWTPP1” is used for Plant Services

File Edit Views Actions Favorites Go Help Window

Change Request 0900982 Asset Change Item 1 New Detail More Data
Oracle Utilities Work and Asset Management V1.7.15 (v17153-5) 07 January 2009

Change Request 0900982 Asset Change Item 1 New Detail More Data

Asset A Transaction Type PARENT
Description non-depricable asset demo

Location

Basis Facility Point ID
Building
Room
Location
Position
Breaker Breaker Asset ID
Latitude Longitude

W.O. Defaults

Planner
Work Request Route
Backlog Group

Safety Environmental
ISO Related Run to Failure

Depreciation Accounts and Expense Codes

Asset Cost 5005-W300100-

Fill in location for facility based on steps 1-5 above

6. Enter Planner Code

ADDING NON-DEPRECIABLE ASSETS

For asset not on a plant site use “Address” or “Address with Nodes” basis as shown below

1. Fill in the Location section by using the “Address” basis if the asset is not on a plant site. If this is a conveyance line or pipeline not on a plant site that spans between assets, use the “Address with Nodes” basis (see next page).
2. Point ID Field is not used.
3. The Address line contains five fields:
 - a. Street Prefix, which will not be used
 - b. Street Number, enter the street number
 - c. Street Suffix, enter the street direction, if any
 - d. Street Name, enter the name of the street
 - e. Street Direction, enter the street direction if any
4. The Suite field can be filled out if it is applicable.
5. Cross Street can be used if helpful to pinpoint asset’s location.
6. The City/State/Zip fields are to be entered.
7. The Offset and Direction fields may be used to indicate the relative location of the asset and the direction. For example, if the asset is a manhole, it may be 50 yards east of the address entered.
8. Fill out the Planner code for the appropriate Plant Planner
 - i. “WWTRP1” is used for Roger Road
 - ii. “WWTIP1” is used for Ina Road
 - iii. “WWTOP1” is used for Outlying Facilities
 - iv. “WWTPP1” is used for Plant Services

Fill out location for address based on steps 1-7 above)

8. Enter Planner Code

ADDING NON-DEPRECIABLE ASSETS

9. "Address with Nodes" is the same as "Address" above with the following additions.
10. Fill out address by following 2-7 above
11. Enter the asset IDs for the "To" and "From" assets.
12. Fill out the Planner code for the appropriate Plant Planner
 - i. "WWTRP1" is used for Roger Road
 - ii. "WWTIP1" is used for Ina Road
 - iii. "WWTOP1" is used for Outlying Facilities
 - iv. "WWTPP1" is used for Plant Services

10. Fill in Location for address based on steps 2-7 on previous page

11. Fill in Asset IDs on the "To" and "From" lines

12. Enter Planner Code

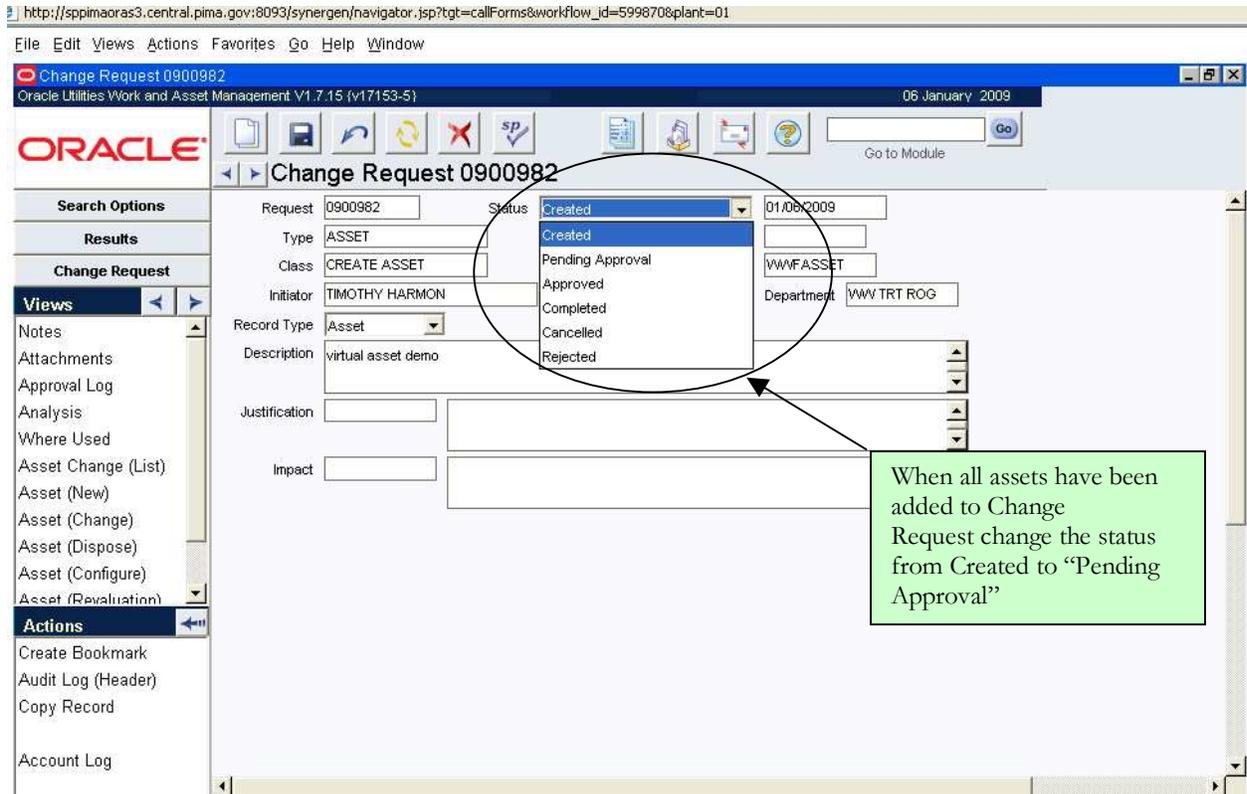
ADDING NON-DEPRECIABLE ASSETS

1. If additional Assets will be entered under this change request (i.e. multiple virtual asset for this level of the hierarchy), click on the “Asset Change (List)” link under the Views pane.
2. Then click on the “New Record” icon on the menu bar. Enter data as directed in the steps above.

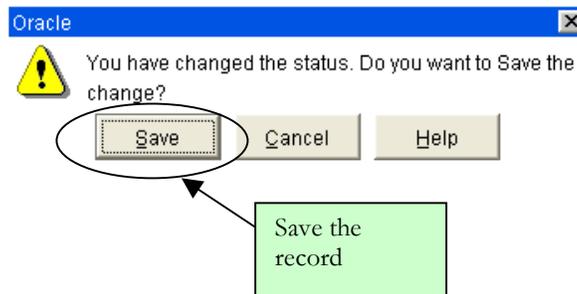
The screenshot displays the Oracle Asset Management software interface. The main window is titled "Change Request 0900982 Asset Change Item New Detail More Data". The left-hand pane contains a "Views" section with several options: "Notes", "Attachments", "Approval Log", "Analysis", "Where Used", "Asset Change (List)", "Asset (New)", "More Data", "Manufacturer Warrant", "Asset (Change)", and "Actions". The "Asset Change (List)" option is circled in red. The main form area contains fields for "Asset", "Transaction Type" (set to "PARENT"), "Description", "Location" (with sub-fields for Basis, Building, Room, Location, Position, Breaker, Latitude, and Longitude), and "Asset Cost" (set to "5005-W300100-"). There are also checkboxes for "Safety", "Environmental", "ISO Related", "Run to Failure", and "Health". A menu bar at the top contains various icons, with the "New Record" icon (a document with a plus sign) circled in red. Two green callout boxes with black text provide instructions: "1. If more assets are to be added to change request: Click the Asset Change (list) link" and "2. Click the 'New Record' icon on the menu bar".

ADDING NON-DEPRECIABLE ASSETS

When all assets have been added to the Change Request, change the status of the request from “Created” to “Pending Approval”.



Synergen will ask you if you want to save changes, click on the “Save” icon.



Section 10

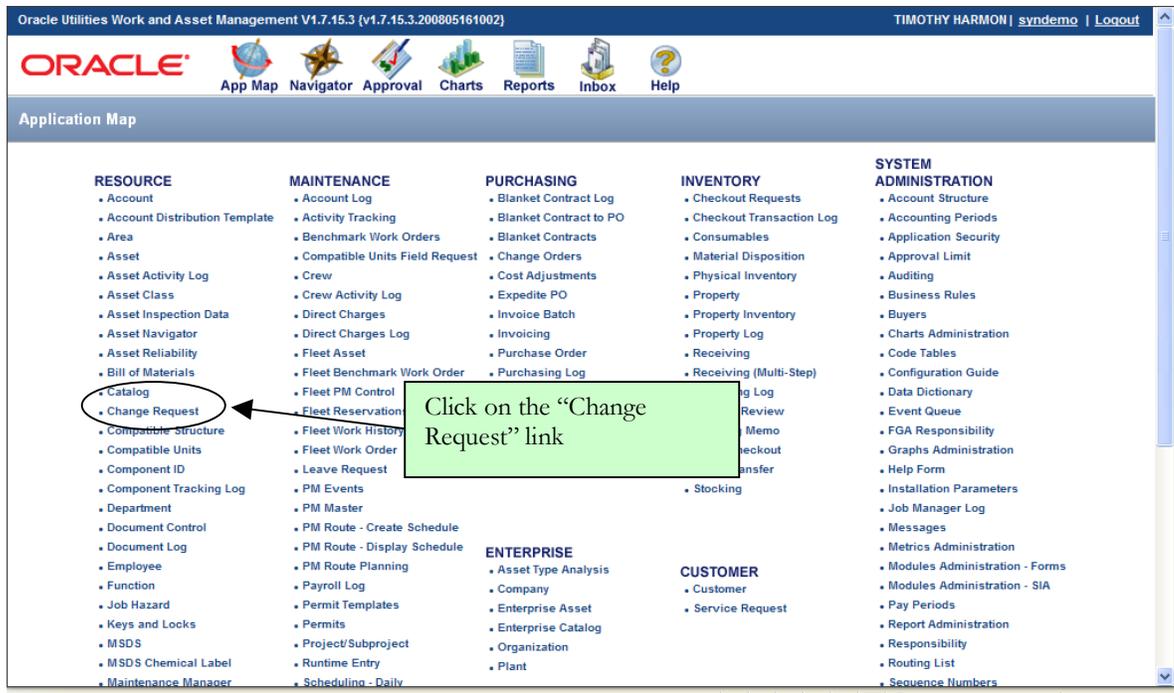
Section 10: Adding a Depreciable Asset

This section outlines the details on how to enter a depreciable asset into Oracle (Synergen).

This section will provide you with step by step instructions on how to add a depreciable asset into Oracle (Synergen). This section is provided as a reference but also outlines standards used by RWRD to ensure consistency between the facilities.

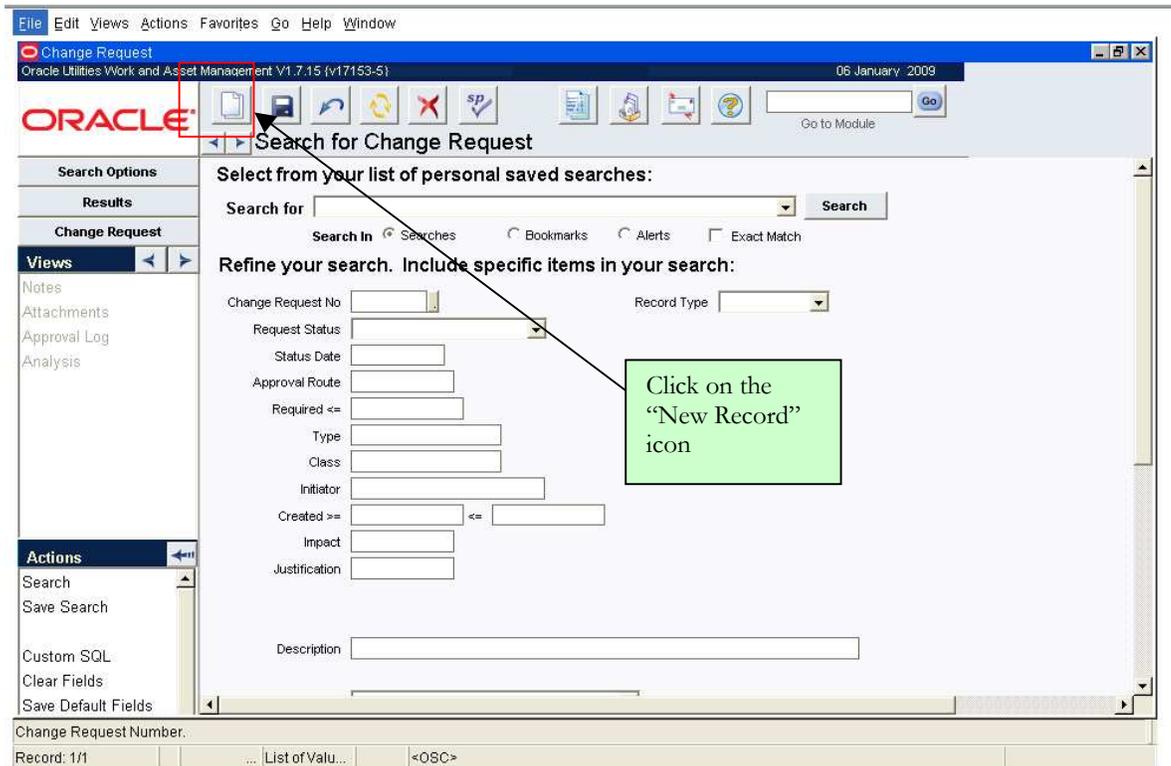


Writing a Change Request for Depreciable Assets



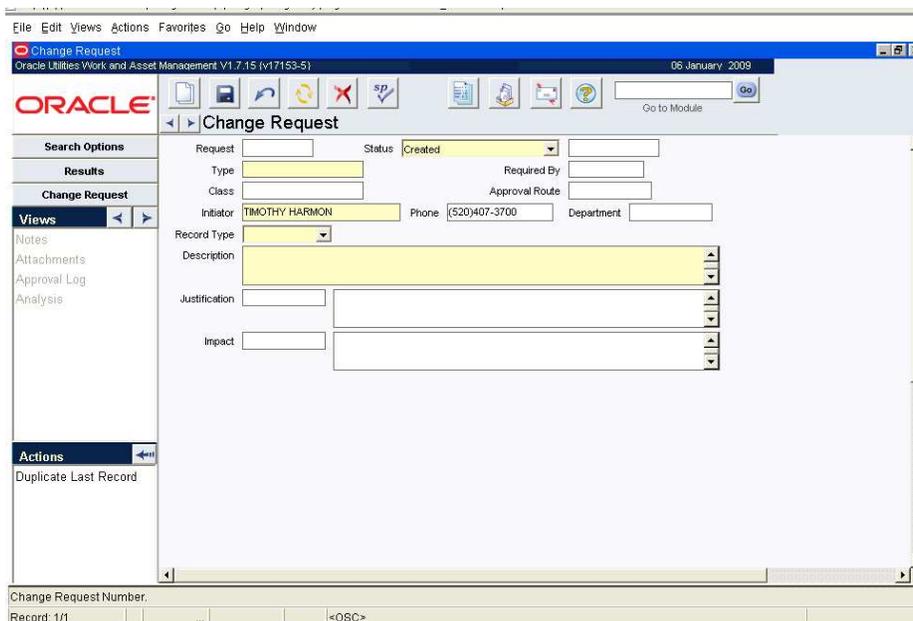
Open the “Change Request” module by clicking on the link in the Application Map or by clicking on the link in your personalized favorites on your home page.

ADDING DEPRECIABLE ASSETS



Create a new Change Request by clicking on the “New Record” icon in the menu bar.

Clicking on the “New Record” icon will open the “Change Request” screen shown below.



ADDING DEPRECIABLE ASSETS

1. Select "ASSET" for Type

2. Select "CREATE ASSET" for Class

3. Select "ASSET" for Record Type

4. Write a short description for the change to include project code and that these are depreciable assets

5. Enter "WWFASSET" in Approval Route

6. Save the record

Next fill in the Change Request as follows:

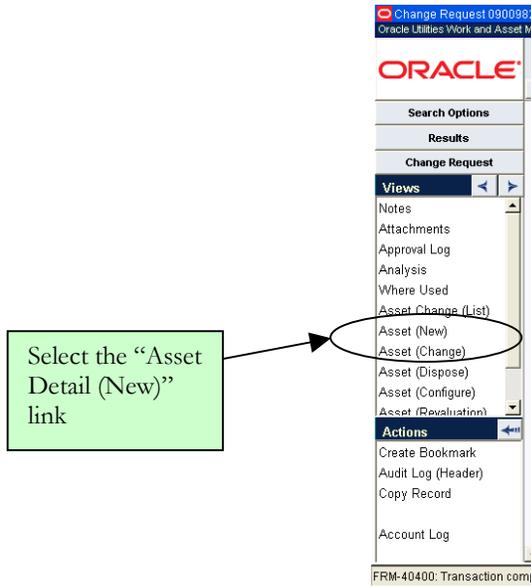
1. In the Type field, select "ASSET".
2. In the Class field, select "CREATE ASSET".
3. In the Record Type field, select "ASSET".
4. Write a short description in the "Description" field; insure that the description includes the project code for ease of searching later. Also, include that these assets are depreciable. This will expedite the approval process. More detail will be entered on other sheets. This just needs to be a short title for the request.
5. In the Approval Route field, enter "WWFASSET".
6. Save the record by clicking on the "Save" icon on the menu bar.

ADDING DEPRECIABLE ASSETS

Note

Multiple depreciable assets can be entered on one Change Request as long as they are from the same project.

Click on the “Asset Detail (New)” link in the Views pane.



Clicking on the “Asset Detail (New)” link will open the “Asset Change Item New Detail” screen shown below.

The screenshot shows the 'Asset Change Item New Detail' screen in the Oracle Utilities Work and Asset Management application. The browser address bar shows the URL: 'http://sppimarcas3.central.pima.gov:8093/synergen/navigator.jsp?tgt=callForms&workflow_id=599870&plant=01'. The page title is 'Change Request 0900982 Asset Change Item New Detail'. The interface includes a top navigation bar with 'File Edit Views Actions Favorites Go Help Window' and a search bar. The main content area is divided into several sections: 'Search Options', 'Results', 'Change Request', 'Views', and 'Actions'. The 'Views' pane is expanded, showing a list of links: 'Notes', 'Attachments', 'Approval Log', 'Analysis', 'Where Used', 'Asset Change (List)', 'Asset (New)', 'Asset (Change)', 'Asset (Dispose)', 'Asset (Configure)', 'Asset (Revaluation)', and 'Account Log'. The 'Asset (New)' link is circled in red. A green callout box with a black border and an arrow points to this link, containing the text 'Select the “Asset Detail (New)” link'. The 'Actions' pane is also visible, listing 'Create Bookmark', 'Audit Log (Header)', 'Copy Record', and 'Account Log'. The main form area contains various input fields for asset details, including 'Update Option' (CREATE NEW ASSET), 'Effective Date', 'Asset', 'Transaction Type', 'Description', 'Asset Type', 'Criticality', 'Parent Asset', 'Asset Class', 'Process', 'Asset Class Type', 'Specification', 'Dept./Area', 'Bom ID', 'Account No.', 'Project', 'Subproject Actual Amount', 'PO No.', 'Ordered Qty', 'Item No.', 'Net Received Qty', 'Invoiced Amount', 'Invoiced Qty', 'Depreciation', 'Property Unit No.', 'Useful Life', 'Method' (Straight Line), 'Acquisition Reading', 'Acquisition Cost', 'Acquisition Date', 'Contributed', and 'In Service Date'. The bottom status bar shows 'FRM-40350: Query caused no records to be retrieved.' and 'Record: 1/1 ... List of Valu... <OSC>'.

ADDING DEPRECIABLE ASSETS

1. Enter Asset Type from Hierarchy

2. Enter an Effective Date

3. Select "CONSTRUCTED" in Transaction Type

4. Enter the description from hierarchy or asset information sheet

Next fill out the Asset Change Item New Detail as follows:

1. Enter the Asset Type from the hierarchy
2. Enter an Effective Date by double clicking in the field and selecting a date from the calendar.
3. In the Transaction Type field, enter "CONSTRUCTED" for this equipment asset.
4. Enter the description from hierarchy or Asset Information Sheet. Verify it follows the proper Naming Convention:

Noun, adjective (plant ID), location, process – plant

Example:

Valve, Return Sludge Isolation (PV1-FS10), Pump Station #10, Secondary – Roger

Smart numbers will be used at all new facilities. The smart number would replace the PV1-FS10 in the parentheses

ADDING DEPRECIABLE ASSETS

5. Enter Asset Type from list

6. Criticality not used

7-8. Enter Parent Asset ID

9. Enter Asset Class Field from list (Equipment, Building...)

10. Asset Class Type will fill in automatically

5. Enter the Asset Type from the list of assets. Choose the one that represents the asset the closest. If nothing on the list is correct contact the System Administrator to add items to Code Table 29.
6. RWRD will not be using the criticality field on the asset record. Criticality will be determined on the Work Order.
7. In the first field of the Parent Asset, enter the Parent Asset type. This should be an “A” due to all virtual assets that have children are listed as “A” types. If the parent asset is not an “A” type, do not associate a child record to that asset.
8. In the second Parent Asset field, click on the drop down menu and select the Parent Asset for the new asset from the hierarchy.
9. For depreciable assets, select the proper item from the list under “Asset Class”. The majority of assets will use “Equipment” or “Building” but other items on the list can be used.
10. Asset Class Type will fill in automatically.

ADDING DEPRECIABLE ASSETS

11. Enter the Specification number following the steps listed below.
12. Enter the BOM ID following the steps listed below.

Oracle Utilities Work and Asset Management V1.7.15 (v17153-5)

Change Request 0900982 Asset Change Item New Detail

Update Option: CREATE NEW ASSET Effective Date: [] Post to Prior Year:

Asset: [] Transaction Type: []

Description: []

Asset Type: [] Criticality: Parent Asset: []

Asset Class: [] Process: []

Asset Class Type: [] Specification: []

Dept./Area: [] Bom ID: []

Account No.: []

Project: [] Subproject Actual Amount: []

PO No.: [] Ordered Qty: .00

Item No.: [] Net Received Qty: .00

Invoiced Amount: [] Invoiced Qty: .00

Depreciation

11. Enter Specification Number as described

12. Enter Bill of Material ID as described

How to enter a specification

1. Double click in the Specification field. This will open the “Search for Specification” screen below.
2. Click on the “New Record” icon on the menu bar.

Oracle Utilities Work and Asset Management V1.7.15 (v17153-5)

Search for Specification

Select from your list of personal saved searches:

Search for: [] Search: []

Search In: Searches Bookmarks Alerts Exact Match

Refine your search. Include specific items in your search:

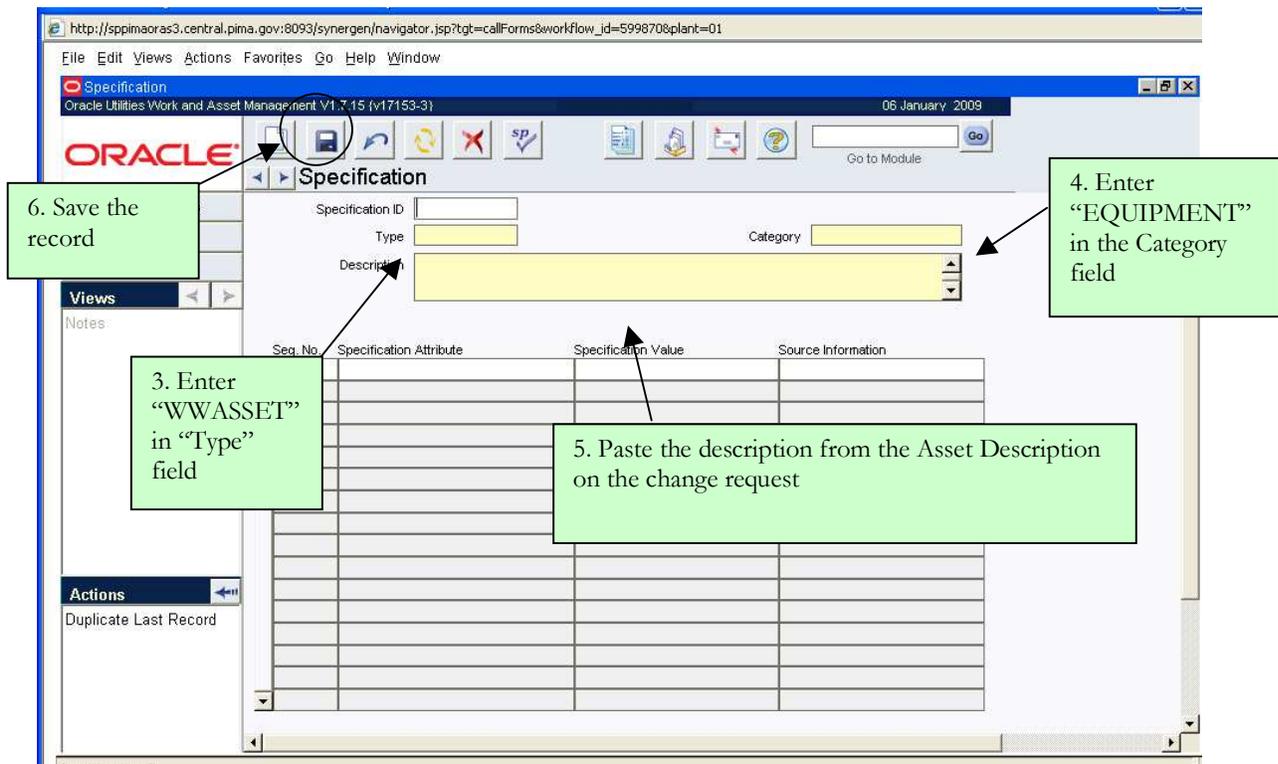
Specification ID: []

2. Click the "New Record" icon

Equipment Specification

For equipment follow the instructions below; for Buildings see the following section on Specification for Buildings.

3. In the Type field, enter “WWASSET”.
4. In the Category field, select “EQUIPMENT”.
5. Paste the description from the Asset Description on the Change Request.
6. Save the record by clicking on the “Save” icon on the menu bar.



ADDING DEPRECIABLE ASSETS

After the record has been saved the screen will appear as shown below

7. Fill in the Specification Values from the spreadsheet provided by the General Contractor. Do not fill in Source Information. You will need to click on the “Save” icon after each line has been entered on the specification sheet. Complete all applicable lines.
8. A Specification ID number will now be assigned to the record. Highlight this number and copy by pressing ctrl+c on the keyboard.
9. Close the Specification by clicking on the “X” on the blue bar with the Specification Number.

7. Save after each line entered

8. Copy the number using ctrl-c

9. Close the record

7. Enter information from spreadsheet

7. DO NOT fill in Source Information

Seq. No.	Specification Attribute	Specification Value	Source Information
1	Method of Acquisition		
2	Source of Funding (i.e. Grants, Bonds, etc)		
3	Purchase Document Number		
4	Serial Number		
5	Model Number		
6	Manufacturer		
7	Stationary or Mobile		
10	Voltage		
15	Amperage		
20	Frequency		
21	Phases		
25	HP		
30	Frame		
35	RPM		
40	GPM		
45	Power Factor		

10. On the Asset Change Request, paste the Specification Number in the Specification Field by using ctrl-v on the keyboard.

ADDING DEPRECIABLE ASSETS

After the record has been saved, the screen will appear as shown below.

5. Fill in the Specification Values from the spreadsheet provided by the General Contractor. Do not fill out the Source Information section. You will need to click on the “Save” icon after each line has been entered on the Specification sheet. Fill in all applicable lines.
6. A Specification ID number will now be assigned to the record. Highlight this number and copy by pressing ctrl+c on the keyboard.
7. Close the Specification by clicking on the “X” on the blue bar with the Specification number.

The screenshot displays the Oracle Utilities Work and Asset Management V17.15 (17153-3) application window. The title bar shows "Specification 0900003225" and the date "07 January 2009". The main form area is titled "Specification 0900003225" and contains the following fields:

- Specification ID: 0900003225
- Type: ASSET
- Description: Pump Station #3, Primary Treatment - Roger

Below these fields is a table with the following columns: Seq. No., Specification Attribute, Specification Value, and Source Information. The table contains 8 rows of attributes:

Seq. No.	Specification Attribute	Specification Value	Source Information
1	Method of Acquisition		
2	Source of Funding (i.e. Grants, Bonds, etc.)		
3	Purchase Document Number		
4	Section		
5	Township		
6	Range		
7	Square Footage		
8	Number of Stories or Levels		

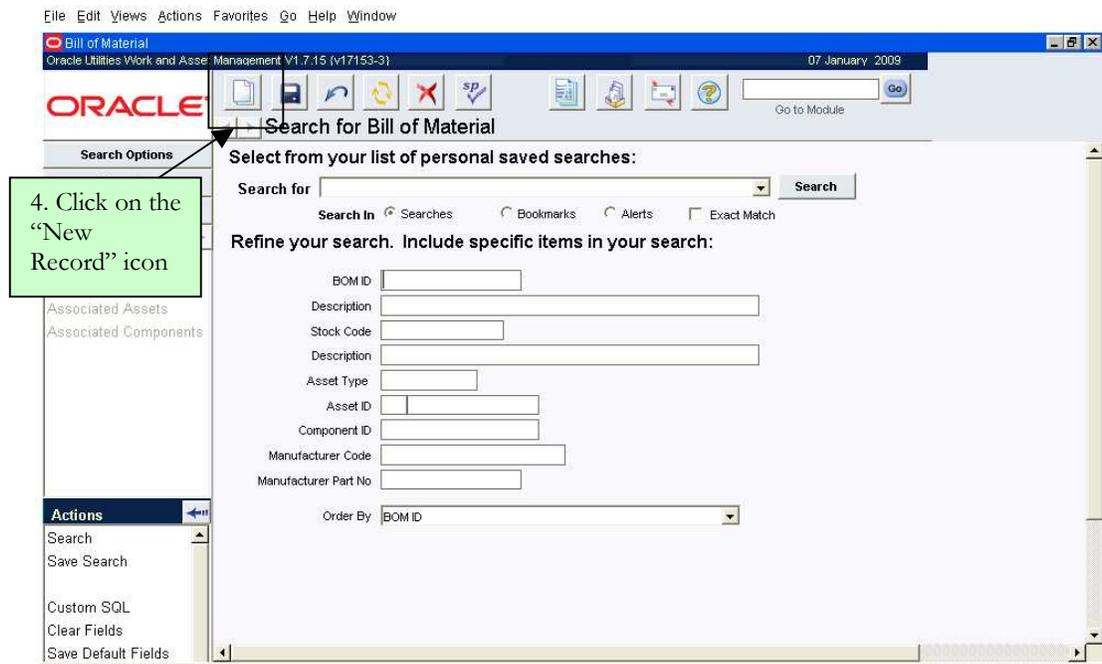
Annotations on the screenshot include:

- A green box labeled "5. Save after each line entered" points to the Save icon in the toolbar.
- A green box labeled "5. Enter information from spreadsheet" points to the Specification Value column in the table.
- A red box labeled "5. DO NOT fill in Source Information" points to the Source Information column in the table.
- A green box labeled "6. Copy the number using ctrl-c" points to the Specification ID field.
- A green box labeled "7. Close the record" points to the X icon in the title bar.

8. On the Asset Change Request, paste the Specification number in the Specification field by pressing ctrl+v on the keyboard.

How to enter a Bill of Material

1. Double click in the Bill of Material Field in the Change Request, this will open the “Search for Bill of Materials” screen below:
2. Search for an existing Bill of Material (BOM) using the Manufacture Code and Manufacture Part No. fields.
3. If a BOM exists, enter the BOM ID number on the Change Request.
4. If a BOM does not exist, click on the “New Record” icon on the menu bar.



ADDING DEPRECIABLE ASSETS

- The BOM ID is auto generated.
- Fill in the Description using the Naming Convention:
WW, Noun, Descriptors, Rating, Manufacturer
Example: WW, Pump, Centrifugal, 250 GPM, Moyno
- Select Asset Type from the drop down list. If required item is not on list contact System Administrator to update Code Table 29.
- Select Manufacturer from drop down list. If required item is not on list contact System Administrator to update Code Table 186.
- Enter the Manufacturer's part number.
- Save the record by clicking on the "Save" icon on the menu bar.
- Attach the BOM to the Asset Record by entering the BOM number on the Asset Record in the BOM field (Ctrl-c to copy; Ctrl-v to paste).

10. Save the record

5. The BOM ID is auto generated

7. Select Asset Type from list

8. Select Manufacturer from list

9. Enter Manufacturer's part number

6. Enter Description per Naming Convention

BOM Item	Type	Seq	Item Description	UOI	Quantity
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			
√		>			

ADDING DEPRECIABLE ASSETS

Finishing the Change Request

1. Verify the Specification and BOM numbers have been entered from previous steps.
2. Enter appropriate Department/Area:

For Ina Road:

Department: "WW TRT INA" Area: "WW INA MNT"

For Roger Road:

Department: "WW TRT ROG" Area: "WW RGR MNT"

For Outlying Facilities:

Department: "WW TRT OLF"

Area:

Avra Valley: "WW AVRA MN"

Corona De Tucson: "WW CDT MN"

Green Valley: "WW GV MN"

Marana: "WW MAR MN"

Mt. Lemon: "WW MTLM MN"

Randolph: "WW RND MNT"

3. Click on the LOV button for Account No. and it will fill in automatically.

The screenshot displays the 'Change Request 0701101 Asset Change Item New Detail' window. The interface includes a menu bar (File, Edit, Views, Actions, Favorites, Go, Help, Window), a toolbar with various icons, and a 'Go to Module' search box. The main form area is titled 'Change Request 0701101 Asset Change Item New Detail' and contains several sections:

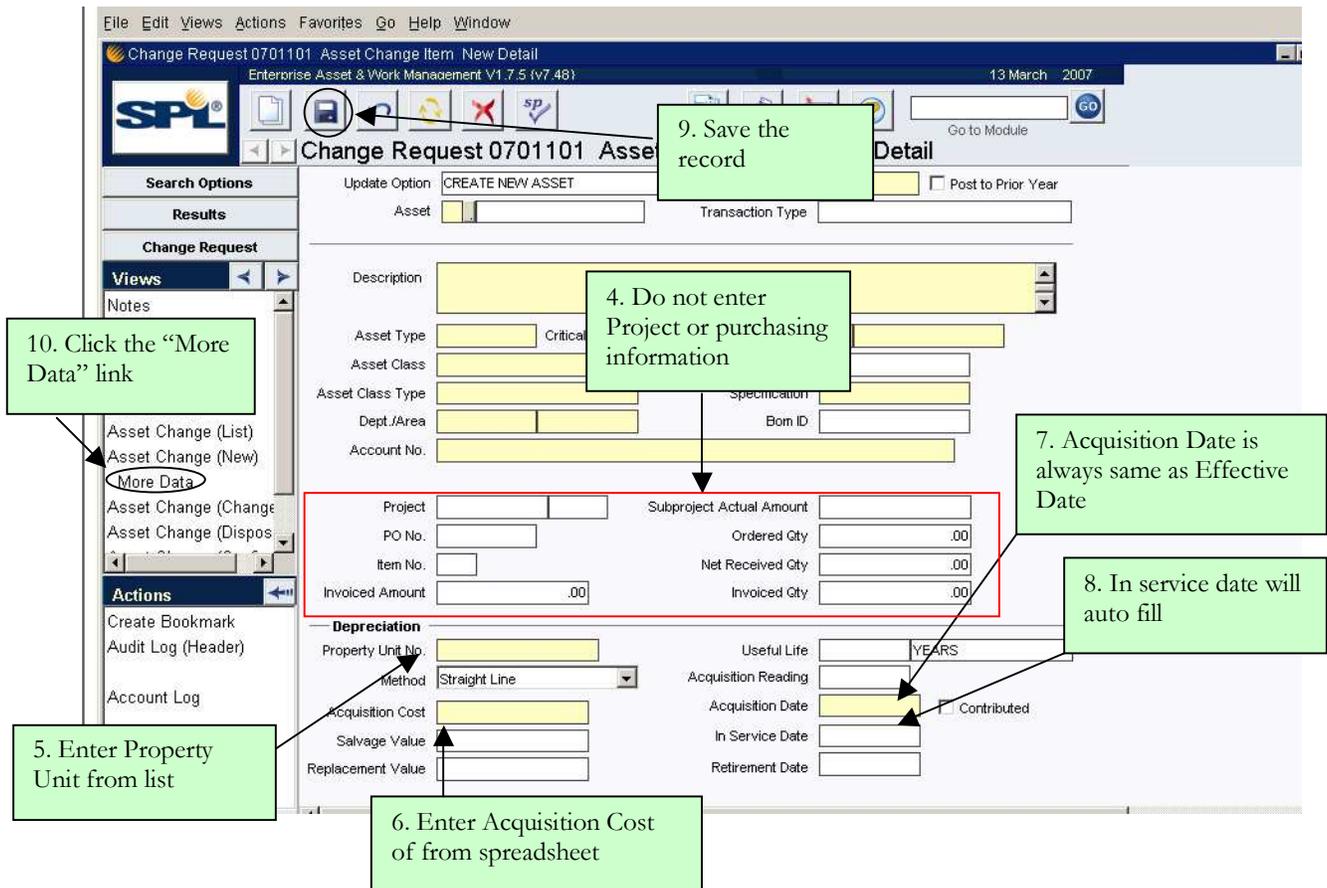
- Update Option:** A dropdown menu set to 'CREATE NEW ASSET'.
- Effective Date:** A date field set to '13 March 2007'.
- Post to Prior Year:** A checkbox.
- Asset:** A dropdown menu.
- Transaction Type:** A dropdown menu.
- Description:** A large text area.
- Asset Type:** A dropdown menu.
- Criticality:** A checkbox.
- Parent Asset:** A dropdown menu.
- Asset Class:** A dropdown menu.
- Process:** A dropdown menu.
- Asset Class Type:** A dropdown menu.
- Specification:** A dropdown menu.
- Dept./Area:** A dropdown menu.
- Bom ID:** A dropdown menu.
- Account No.:** A dropdown menu with a 'LOV' button next to it.
- Project:** A dropdown menu.
- Subproject Actual Amount:** A text field.
- PO No.:** A text field.
- Ordered Qty:** A text field with a value of '.00'.
- Item No.:** A text field.
- Net Received Qty:** A text field with a value of '.00'.
- Invoiced Amount:** A text field with a value of '.00'.
- Invoiced Qty:** A text field with a value of '.00'.
- Depreciation:** A section with a 'Property Unit No.' dropdown and a 'Useful Life' text field with a 'YEARS' label.

Three green callout boxes provide instructions:

- Box 1 (top right):** '1. Verify Specification Number entered' with an arrow pointing to the 'Specification' dropdown.
- Box 2 (middle left):** '2. Fill in Department & Area' with an arrow pointing to the 'Dept./Area' dropdown.
- Box 3 (bottom left):** '3. Account No. will fill in automatically with the LOV button' with an arrow pointing to the 'Account No.' dropdown.

ADDING DEPRECIABLE ASSETS

4. Do not enter any Project or accounting information. The amounts from a single phase of the project or a single Purchase Order will never add up to the actual amount used for depreciation. Entering information here only slows down the approval process and adds confusion.
5. Enter Property Unit from list – this determines the useful life for the depreciation rate.
6. In the Acquisition Cost field, enter the value that was determined for the asset from the spreadsheet provided by the Project Manager.
7. In the Acquisition Date field, enter the same date as the Effective Date.
8. The In Service Date will auto fill.
9. When all fields are completed, click on the “Save” icon on the Menu Bar.
10. Click on the “More Data” link in the Views pane.



ADDING DEPRECIABLE ASSETS

You will now see a window as seen in the screen shot below. The top section (Asset, Transaction Type and Description) will be filled in automatically from the information entered on the last screen.

For asset on a plant site use “Facility” basis as shown below

1. Fill in the Location section by using the “Facility” basis if the asset is on a plant site. If this is a conveyance line or pipeline not on a plant site use the “Address” or “Address with Nodes” basis (see next page).
2. Select Building from list – If this is a new building contact the System Administrator to add the building to code table 25.
3. Fill in the Room field if building has multiple rooms.
4. The Location field is used to narrow the location down if the building covers a large area (i.e. building covers a Pump Station and two Clarifiers; if the asset is at Clarifier #12 then enter “Clarifier #12” in the field).
5. Position is used to show where in the building or room the asset is located (north, south, roof ...).
6. Fill in the Planner code for the appropriate Plant Planner.
 - i. “WWTRP1” is used for Roger Road
 - ii. “WWTIP1” is used for Ina Road
 - iii. “WWTOP1” is used for Outlying Facilities
 - iv. “WWTIPP1” is used for Plant Services

File Edit Views Actions Favorites Go Help Window

Change Request 0900982 Asset Change Item 1 New Detail More Data
Oracle Utilities Work and Asset Management V1.7.15 (v17153-5) 07 January 2009

Change Request 0900982 Asset Change Item 1 New Detail More Data

Asset A Transaction Type PARENT
Description non-depricable asset demo

Location

Basis Facility Point ID
Building
Room
Location
Position
Breaker Breaker Asset ID
Latitude Longitude

W.O. Defaults

Planner
Work Request Route
Backlog Group

Safety Environmental
ISO Related Run to Failure

Depreciation Accounts and Expense Codes

Asset Cost 5005-W300100-

Fill in Location section for facility based on steps 1-5 above)

5. Enter Planner Code

ADDING DEPRECIABLE ASSETS

For asset not on a plant site use “Address” or “Address with Nodes” basis as shown below

1. Fill in the Location section by using the “Address” basis if the asset is not on a plant site. If this is a conveyance line or pipeline not on a plant site that spans between assets use the “Address with Nodes” basis (see next page).
2. Point ID Field is not used.
3. The Address line contains five fields:
 - a. Street Prefix, which will not be used
 - b. Street Number, enter the street number
 - c. Street Suffix, enter the street direction, if any
 - d. Street Name, enter the name of the street
 - e. Street Direction, enter the street direction if any
4. The Suite field can be filled in if it is applicable.
5. Cross Street can be used if helpful to pinpoint Asset’s location.
6. The City/State/Zip fields are to be entered.
7. The Offset and Direction fields may be used to indicate the relative location of the asset and the direction. For example, if the asset is a manhole, it may be 50 yards east of the address entered.
8. Fill in the Planner code for the appropriate Plant Planner.
 - i. “WWTRP1” is used for Roger Road
 - ii. “WWTIP1” is used for Ina Road
 - iii. “WWTOP1” is used for Outlying Facilities
 - iv. “WWTPP1” is used for Plant Services

Fill in Location section for address based on steps 1-7 above)

8. Enter Planner Code

ADDING DEPRECIABLE ASSETS

9. "Address with Nodes" is the same as "Address" above with the following additions.
10. Fill in the Address field by following steps 2-7 above.
11. Enter the asset IDs for the "To" and "From" assets.
12. Fill in the Planner code for the appropriate Plant Planner.
 - i. "WWTRP1" is used for Roger Road
 - ii. "WWTIP1" is used for Ina Road
 - iii. "WWTOP1" is used for Outlying Facilities
 - iv. "WWTPP1" is used for Plant Services

10. Fill in Location section for Address based on steps 2-7 on previous page)

11. Fill in asset IDs on the "To" and "From" lines

12. Enter Planner Code

ADDING DEPRECIABLE ASSETS

1. If additional Assets are entered under this Change Request (i.e. multiple virtual assets for this level of the hierarchy), click on the “Asset Change (List)” link under the Views pane.
2. Click on the “New Record” icon on the menu bar. Enter data as directed in the steps above.

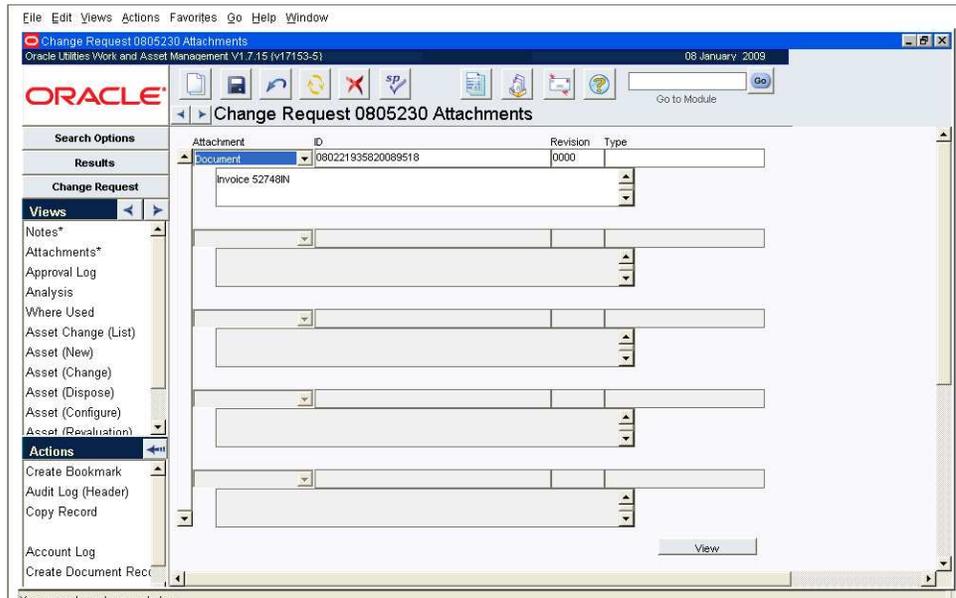
The screenshot displays the Oracle Change Request interface for Change Request 0900982. The interface includes a menu bar at the top with various icons, a search options section, and a main data entry area. The 'Views' pane on the left contains several links, with 'Asset Change (List)' circled in red. A green callout box points to this link with the text: "1. If more assets are to be added to Change Request: Click on the Asset Change (list) link". Another green callout box points to the 'New Record' icon in the menu bar with the text: "2. Click the 'New Record' icon on the menu bar". The main data entry area contains fields for Asset, Description, Location (Basis, Building, Room, Location, Position, Breaker, Latitude, Longitude), and Transaction Type (PARENT). There are also checkboxes for Safety, Environmental, ISO Related, and Run to Failure, and a field for Asset Cost (5005-W300100- 18099).

Copying Attachments from Purchase Order to Change Request

Note

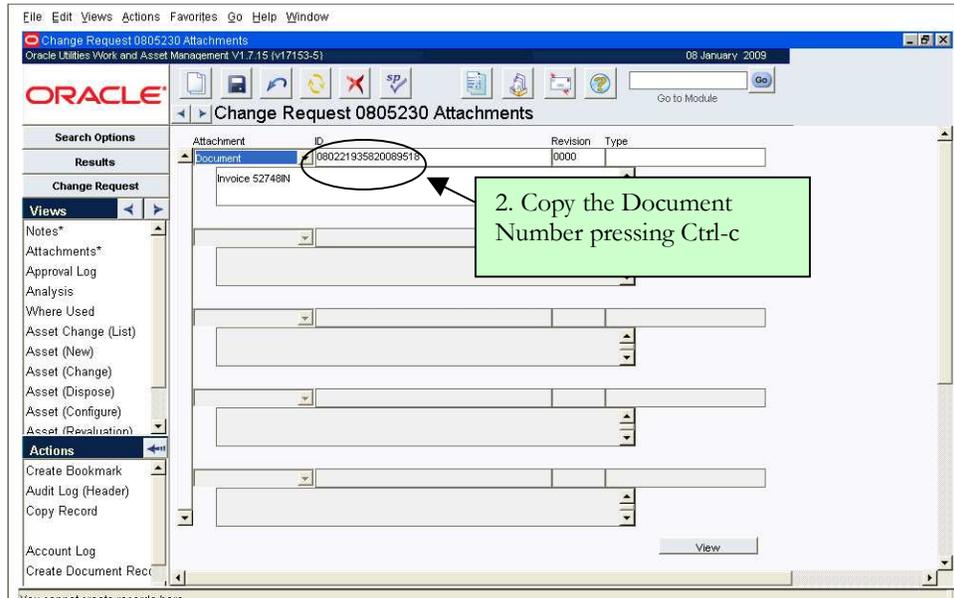
It shall be required that all invoices that are applicable to this asset on to the Change Request are copied. Do not scan the invoices, just copy them from the Purchase Order using the steps listed below.

1. Go to the Synergen record to which the file is attached you wish to copy and click on Attachments under the Views pane on the left side of the screen. When a record in Synergen contains an attachment, there will be an asterisk that appears next to the word Attachments.

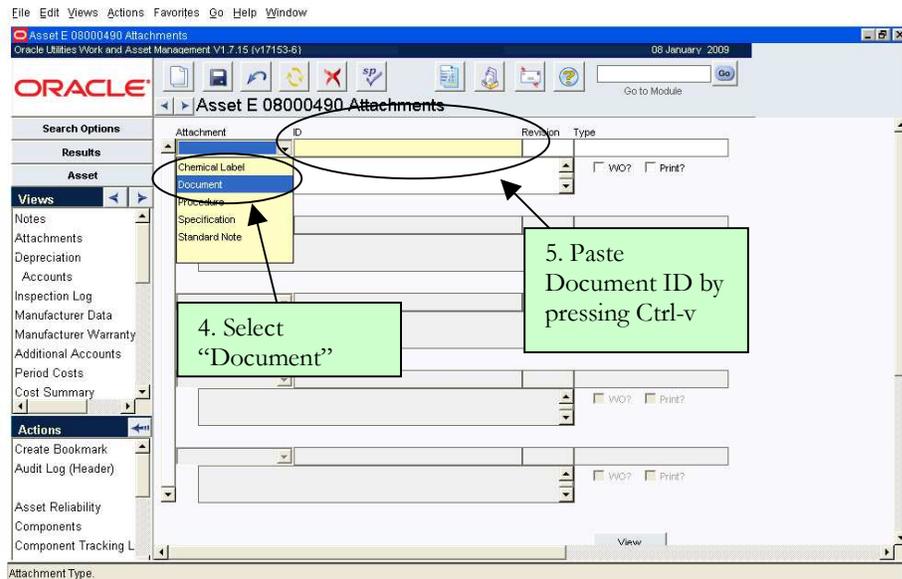


2. Copy the ID Number you wish to copy by highlighting and pressing Ctrl-c.

ADDING DEPRECIABLE ASSETS



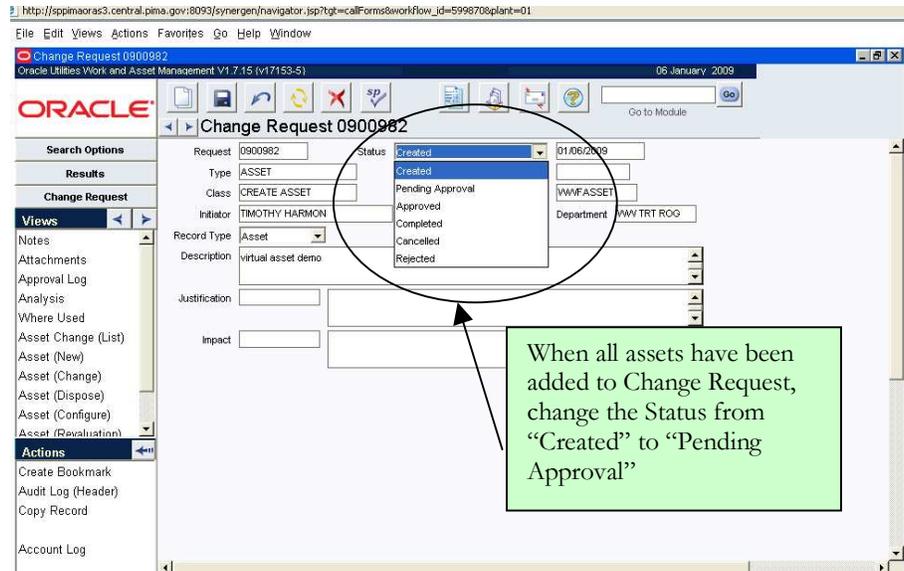
3. Open the attachment view of the asset for which you want to add the attachment.
4. Select “Document” from the menu for attachment type.
5. Paste the Attachment ID into the ID field by selecting the field and pressing Ctrl-v.



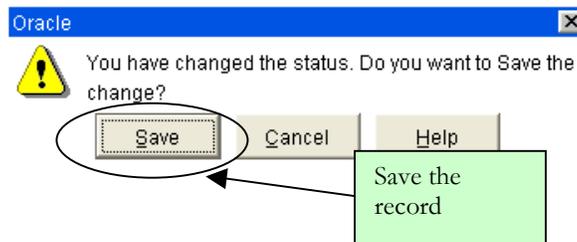
6. Repeat as needed for each attachment required to be copied.

ADDING DEPRECIABLE ASSETS

When all assets have been added to the Change Request, change the Status of the request from “Created” to “Pending Approval”.



Synergen will ask you if you want to save changes; Click on the “Save” icon.



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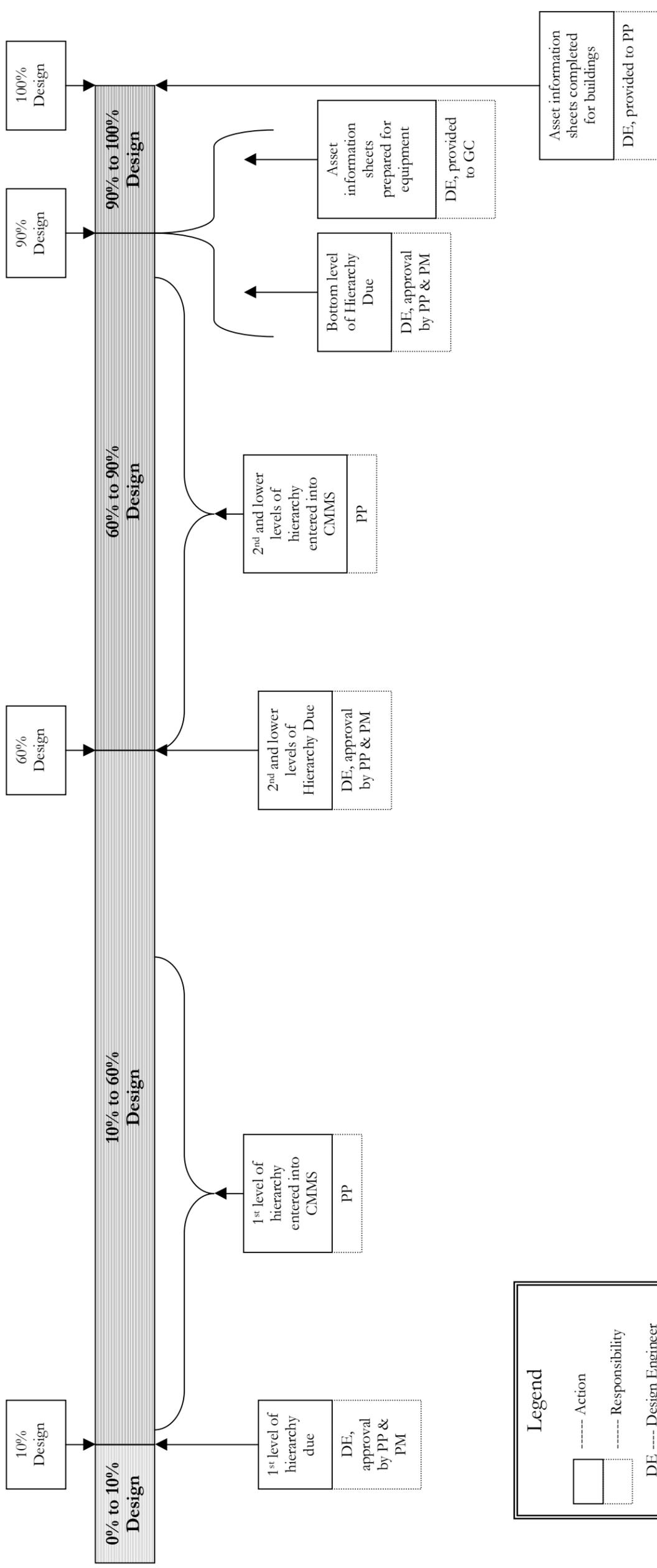
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Appendix #1 – Timeline of Activities

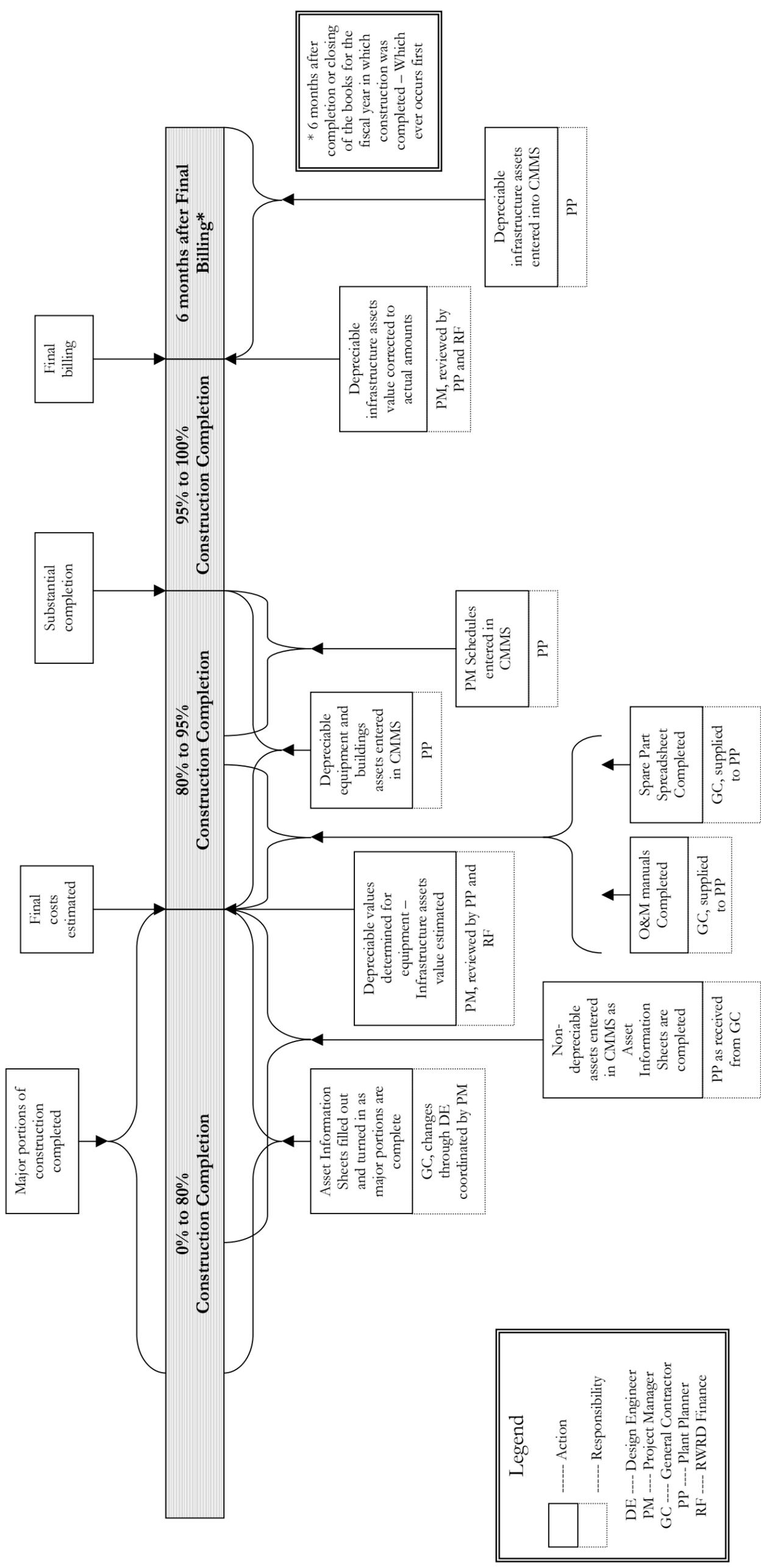
Design Phase Timeline



Legend

- Action
- Responsibility
- DE --- Design Engineer
- PM --- Project Manager
- GC --- General Contractor
- PP --- Plant Planner
- RF --- RWRD Finance

Construction Phase Timeline



Appendix #2 – List of Files on Included Disk

- \Actual_hierarchies\Roger_example.vsd
- \Actual_hierarchies\Roger_example.pdf
- \Actual_hierarchies\Ina_example.vsd
- \Actual_hierarchies\Ina_example.pdf
- \Actual_hierarchies\Arivaca_Junction.vsd
- \Actual_hierarchies\Arivaca_Junction.pdf
- \Actual_hierarchies\Avra_Valley.vsd
- \Actual_hierarchies\Avra_Valley.pdf
- \Actual_hierarchies\Corona_De_Tucson.vsd
- \Actual_hierarchies\Corona_De_Tucson.pdf
- \Actual_hierarchies\Green_Valley.vsd
- \Actual_hierarchies\Green_Valley.pdf
- \Actual_hierarchies\KERP.vsd
- \Actual_hierarchies\KERP.pdf
- \Actual_hierarchies\Marana.vsd
- \Actual_hierarchies\Marana.pdf
- \Actual_hierarchies\Mt_Lemmon.vsd
- \Actual_hierarchies\Mt_Lemmon.pdf
- \Actual_hierarchies\OLF_Plants.vsd
- \Actual_hierarchies\OLF_Plants.pdf
- \Actual_hierarchies\Outlying_Yard.vsd

DISK FILES

- \Actual_hierarchies\Outlying_Yard.pdf
- \Actual_hierarchies\Pima_County_Fairgrounds.vsd
- \Actual_hierarchies\Pima_County_Fairgrounds.pdf
- \Actual_hierarchies\Randolph_Park.vsd
- \Actual_hierarchies\Randolph_Park.pdf
- \Actual_hierarchies\Rillito_Vista.vsd
- \Actual_hierarchies\Rillito_Vista.pdf
- \Templates\Blank_Hierarchy.vsd
- \Templates\Blank_Asset_Info.xls
- \Templates\Depreciable_Value.xls
- \Templates\PM_Sched.doc
- \Templates\Spare_Parts.xls