

**ACCOUNTING**

**PRIMER**

**FOR**

**ENGINEERS**

**Prepared by State Aid Finance**  
**April 2017**

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## **General responsibilities of your Accountant/Office Staff**

The listing below is not inclusive and varies by county. Details and processes should be discussed with your Accountant and documented with internal procedures.

### ***Daily processes***

- Supervise clerical staff
- Timecard verification (employee and equipment) and entry
- Accounts Payable
  - Verification of vendor invoices and statements
  - Entry and posting of purchase information
  - Voucher processing for Engineers approval
- Customer interaction
  - Answer questions from the public, vendors, contractors, etc.
  - Sale of materials, maps, plans to contractors
  - Permit transactions (moving, utility, field access, etc.)
- Process and deliver daily mail

### ***Weekly/Bi-Weekly processes***

- Payroll processing
  - Update and maintain personnel files
  - Interface or data entry to county payroll system
- Accounts Payable
  - Interface or data entry to county financial system
- Construction
  - Bid preparation and advertisement
  - Process contract paperwork, contracts, bonds, insurance verification
  - Contracts Payable
    - Daily/weekly diary forms
    - Partial payment preparation
    - Interface certified work to costing system and interface payment to county financial.
  - Prepare State Aid and Federal Aid Payment request forms
- Enter receipts in costing system for cash and Accounts Receivable (A/R) sales
- Reconcile and prepare deposits and receipt report for county treasurer's office.
- Supervise billings for supplies and services to other departments and government entities.

### ***Monthly processes***

- Accounts Receivable
  - Verify customer costs and process invoices
  - Follow up on past due receivables
  - Calculate and bill contract penalties on past due accounts
- Inventory management
  - Verify additions and withdrawals

- Fuel reports, meter readings
- Monitor unit prices for inventory
- Sales and fuel tax reports preparation
  - Sales and Use Tax, special fuels tax, Power Take Off (PTO) refund, Federal Excise refund
- Budget
  - Manage cash position
  - Prepare revenue and expenditure comparison to budget report for engineer
- Monthly reconciliations
  - Cash to the auditors financial system
  - Account receivables to customer detail
  - Accounts payable to the vendor detail
  - State Aid receivable and allotments
  - Salaries/wages payable to the auditors financial/payroll system
  - Comp time payable
  - State Aid Receivables to State Aid Status Report
  - State Aid Allotments to State Aid Status Report

### ***Annual processes***

- Township mileage reporting
  - Data collection
- Inventory
  - Physical inventory
  - Reconcile physical inventory to costing system inventory
    - Enter variances
- Fixed Assets
  - Calculate depreciation
  - Update equipment (new, sold, traded, disposed)
  - Calculate rental rates for new year
- Manage Infrastructure
  - Add construction costs to county infrastructure
- Verification of year end accruals
  - Taxes receivable, accounts payable, salaries and wages payable, etc.
- Unallocated Costs
  - Spread to appropriate cost centers
- Needs preparation
  - After the Fact Right of Way (ROW)
  - Credit for Local Effort
- Verification and preparation of 1099 forms
- Year end close on costing system
- Budget
  - Assist in budget preparation

### ***Annual reports***

- Annual Summary of Highway Information Report

- Local Highway Finance Report (FHWA 536)
- Annual Report - full version (optional)

## **Expectations**

### ***Monthly***

Monthly reconciliation and closing should occur each month by the 15<sup>th</sup> of the following month.

- Monthly reconciliations
  - Cash to the auditors financial system
  - Account receivables to customer detail
  - Accounts payable to the vendor detail
  - State Aid receivable and allotments
  - Salaries/wages payable to the auditors financial/payroll system
  - Comp time payable
  - State Aid receivables to State Aid Status Report
  - State Aid allotments to State Aid Status Report

Monthly reports can be run to ensure reconciliations by the accountant are up to date. Currently with the Conduent, reports for the current month must be printed prior to the closing process. With Costrite these reports can be run after the closing.

The engineer should request a Balance Sheet (Conduent) or a Trial Balance (Costrite) from the accountant. The engineer should also obtain a Treasurer's Cash Trial Balance (IFS) for the same month from the auditor's office. The cash balance from each report should be equal; this will ensure cash has been reconciled.

Obtain a Status Report for the same month from the State Aid Accounting System (SAAS). Ensure encumbrances on the Status Report are equal to the State Aid Receivables on the Balance Sheet (Conduent) or Trial Balance (Costrite). If they are not in balance, ensure the differences can be reconciled to over/under runs on projects. Also ensure that the Available Balance on the Status Report are equal to the Sate Aid Allotment balances Balance Sheet (Conduent) or Trial Balance (Costrite).

### ***Annual***

Reconciliations should be completed by April 1<sup>st</sup> of the following year.

- Fixed Assets
  - Calculate depreciation
  - Update equipment (new, sold, traded, disposed)
  - Calculate rental rates for new year
- Manage Infrastructure
  - Add construction costs to county infrastructure

- Verification of year end accruals
  - Taxes receivable, accounts payable, salaries & wages payable, etc.
- Unallocated Costs
  - Spread to appropriate cost centers
- Year end close on costing system

### Other Annual

- Inventory
  - Due by December 31<sup>st</sup> of current year.
  - Physical inventory
  - Reconcile physical inventory to costing system inventory
    - Enter variances
- Needs preparation
  - Due by July 1<sup>st</sup> of the following year.
- Verification and preparation of 1099 forms
  - Due by Jan 31<sup>st</sup> of following year
- Budget
  - Assist in budget preparation
    - Process starts in June and a preliminary budget is generally done by the end of August for review by the Board
- Township mileage reporting
  - Data collection
    - Due in November of each year.

### Annual reports

- Annual Summary of Highway Information Report
  - Completed by June 1<sup>st</sup> of the following year.
    - Due in Mn/DOT by August 1<sup>st</sup>
- Local Highway Finance Report (FHWA 536)
  - Due in Mn/DOT by December 31<sup>st</sup> of the following year
- Annual Report - full version (optional)
  - Completed by June 1<sup>st</sup> of the following year

### Useful reports

Monthly or annually, the accountant will be able to provide any one of the reports listed below. Each report can help to answer various questions from the engineer and supervising staff. Sample questions are listed below each report.

#### Fixed Asset, Equipment Cost Detail, Equipment Revenue

- Should a piece of equipment be purchased or leased?
- What does it cost to operate a piece of equipment?
- What equipment rental rates should be charged for reimbursement of services to individuals and other government entities?
  - Are the costs of the equipment being recovered through the rental rates?
  - Do rental rates need to be adjusted?

- Should rental rates be charged by the hour or by the mile?
- Labor cost reports by hours or dollars
- Managing equipment costs
  - Which vehicle is consuming the most fuel?
  - Which vehicle is the most economical?
  - Which is costing more in repairs?
- Utilization of equipment.
  - How much is the equipment being used?
  - Should it be owned or rented if the equipment is not used much?

#### Summary of Routine Maintenance and Summary of Maintenance - by Road/system

- Should cost comparisons be used when a road section is graded or paved?
- What is the cost per mile for maintenance on a road?
- How much money was spent in each county district on road maintenance?
- How much did the last snow storm cost the county?
- Which roads require greater maintenance dollars based on ADT?
- Is a new method of maintenance reducing costs over all for a segment of road?
- Has daily time been posted to the correct road/system?
  
- Trends and historical information
  - Why does it cost more money to do maintenance compared to 5 years ago?
  - What are the contributing factors to increased costs?
- Unallocated costs.
  - Are unallocated costs being spread appropriately to maximize the cost in each road system?
  - Should the costs be spread by labor versus miles, intersection versus miles, etc?

#### Project Cost Analysis, Project Cost Guideline & Project Cost Detail Ledger

- What is the total cost of a project?
- What is the cost of each component of a project? (bridges, approaches, culverts, grading, surfacing, etc.)
- Should a maintenance contract be executed or use county forces for a project?
- Is the contract on track based on percentage of work completed versus expenses incurred?
- What is the total cost of cleaning up after a major weather event? (especially if a state of federal disaster be declared this information is very valuable.)
- Project setup through costing system.

#### Inventory of Supplies and Materials, Inventory Additions, Inventory Withdrawals

- What are the road supply costs in detail?
- How much salt and sand did was used last winter?
- What is the remaining supply of major inventory?
- How many 15” culverts are in stock and what is the reorder point?
- Are the inventory controls adequate?

Cost Account Ledger – Summarized or Detail

- Should the existing facility be improved or build new?
- What was the total cost (labor, equipment and material) to sealcoat a road?

Customer Cost Detail and Customer Cost Analysis

- What are the actual costs for each customer?
- Are customer revenues keeping up with the costs?
- Are the overhead costs being recovered?
- What portion of the dust control costs are recovered through customer sales?

**Hiring a new Accountant**

Review the accountant's job description to make sure it is up-to-date and matches the responsibilities, functionality and education requirements of the position. Consider organizational chart and dynamics of the office to ensure a good professional fit. Talk to neighboring accountant or Accounting Task Force Representative from your district for suggestions. Consider them for participation on an interview panel or for input on interview questions.

**Software**

The majority of counties use two software vendors, Conduent and Computer Professionals Unlimited (CPU-Costrite). For more information about these applications, contact Conduent or Computer Professionals.

**Training**

Training on State Aid processes, accounting procedures and reports is available from State Aid Finance (SAF). The training topics and schedule are tailored to meet your needs. A member of the SAF team is available to assist you or your accountant either on site and/or work via telephone.

Training includes, but is not limited to, an overview of state aid requirements and processes for new accountants, annual reports, accounts payable and receivables, balance sheet accounts, deferred revenues, depreciation, fixed assets, general overview of state aid/cost accounting, inventory, payroll, payments, reconciliations, unallocated costs and year end adjustments. Many data entry forms, worksheets and applications are available from the State Aid Finance website.

A training request form can be downloaded from the State Aid Finance Website at [www.dot.state.mn.us/safinance](http://www.dot.state.mn.us/safinance) . Click on Training Information.

**Internal Operations Manual**

Each county should develop an Internal Operations Manual covering their unique office procedures. State Aid Finance has developed some basic guidelines for processes that are common amongst most counties; these are included in the New Accountants Guide.





**Acronyms**

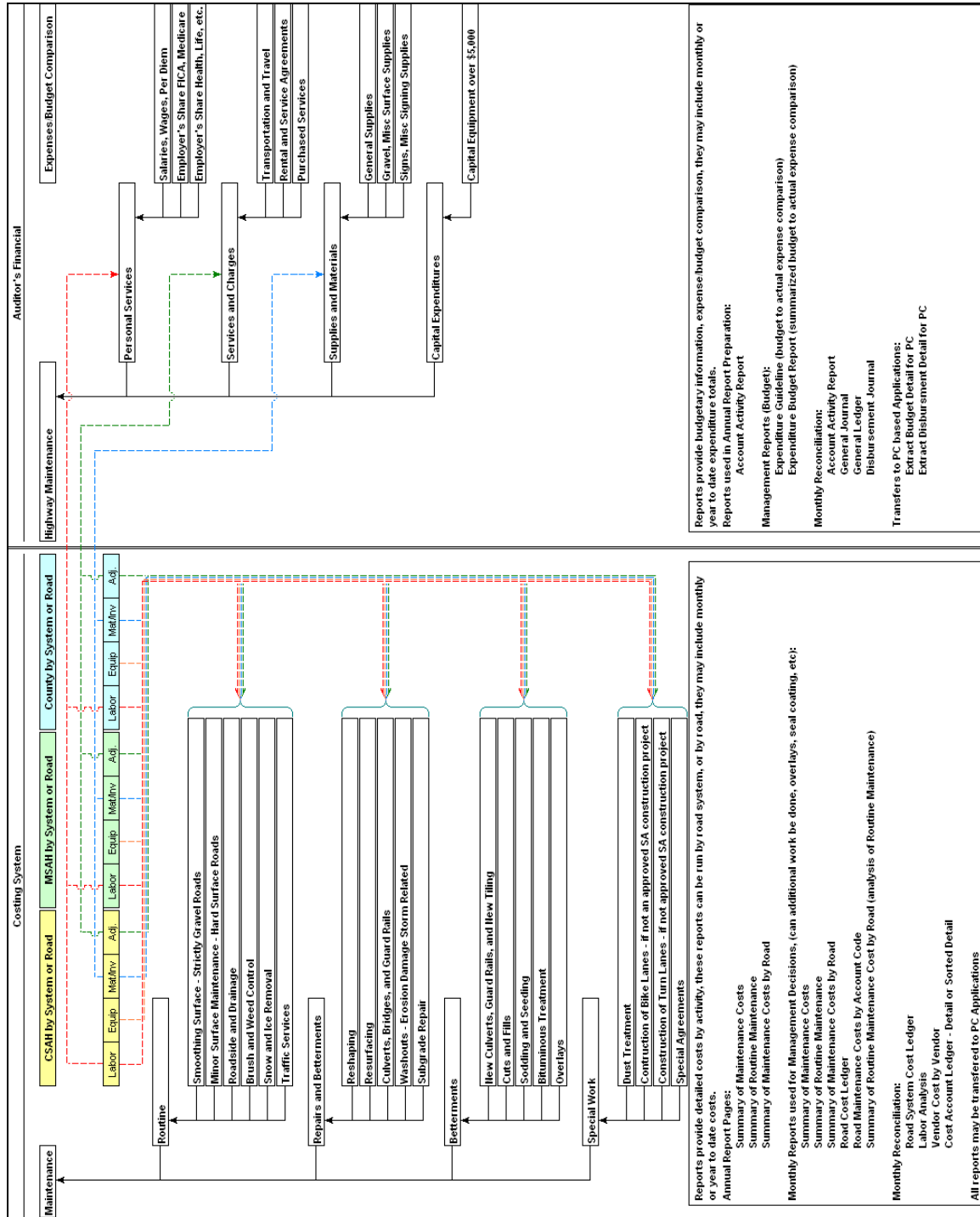
Below is a list of acronyms used in the guide. A complete list of acronyms can be obtained from the SAF website.

A/R	Accounts Receivable
CPU	Computer Professionals Unlimited (Costrite)
FHWA	Federal Highway Administration
IFS	Integrated Financial System
Mn/DOT	Mn Dept. of Transportation
PTO	Power Take-Off
SAF	State Aid Finance

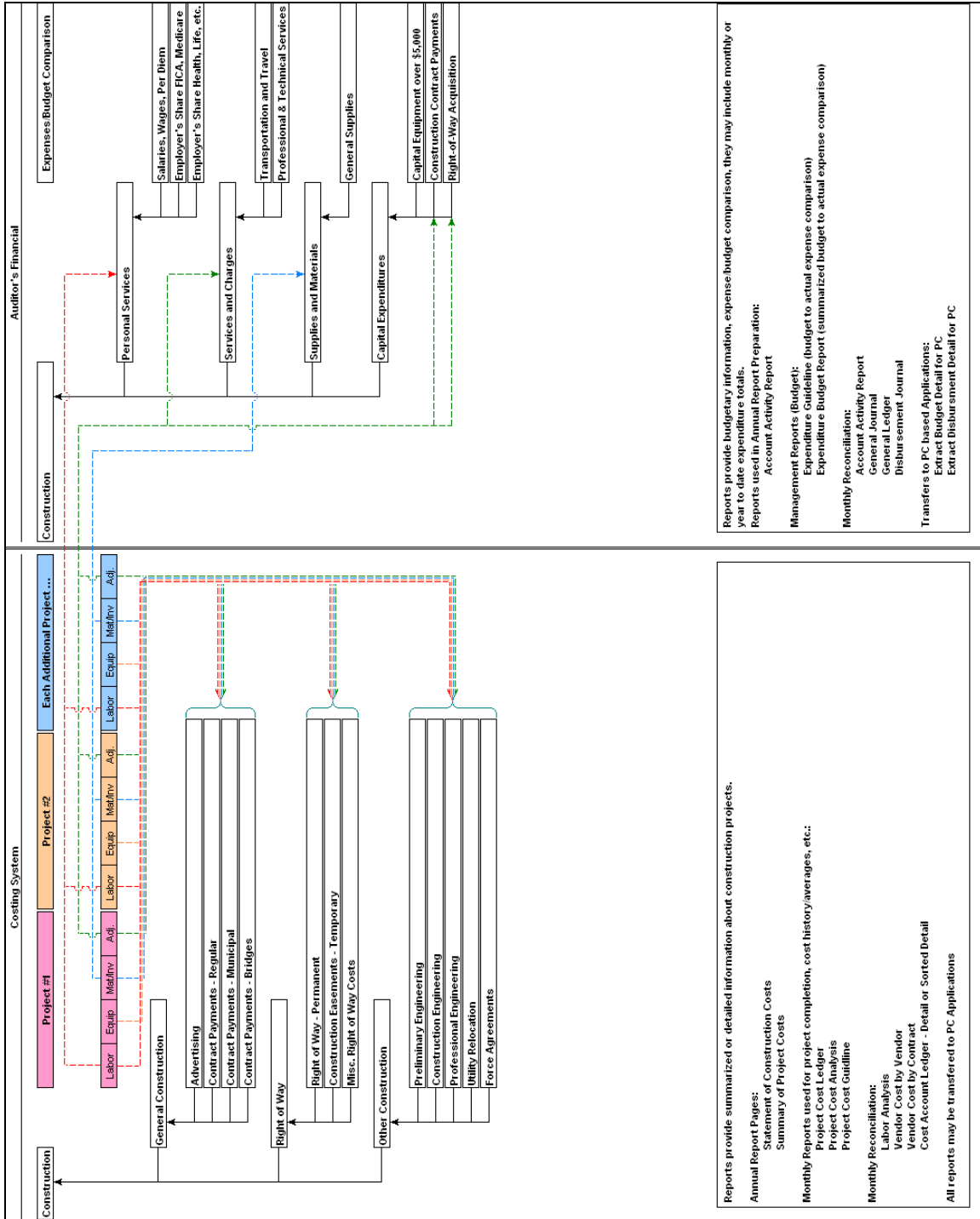
# Appendix

## Cost Accounting vs Financial System – comparison

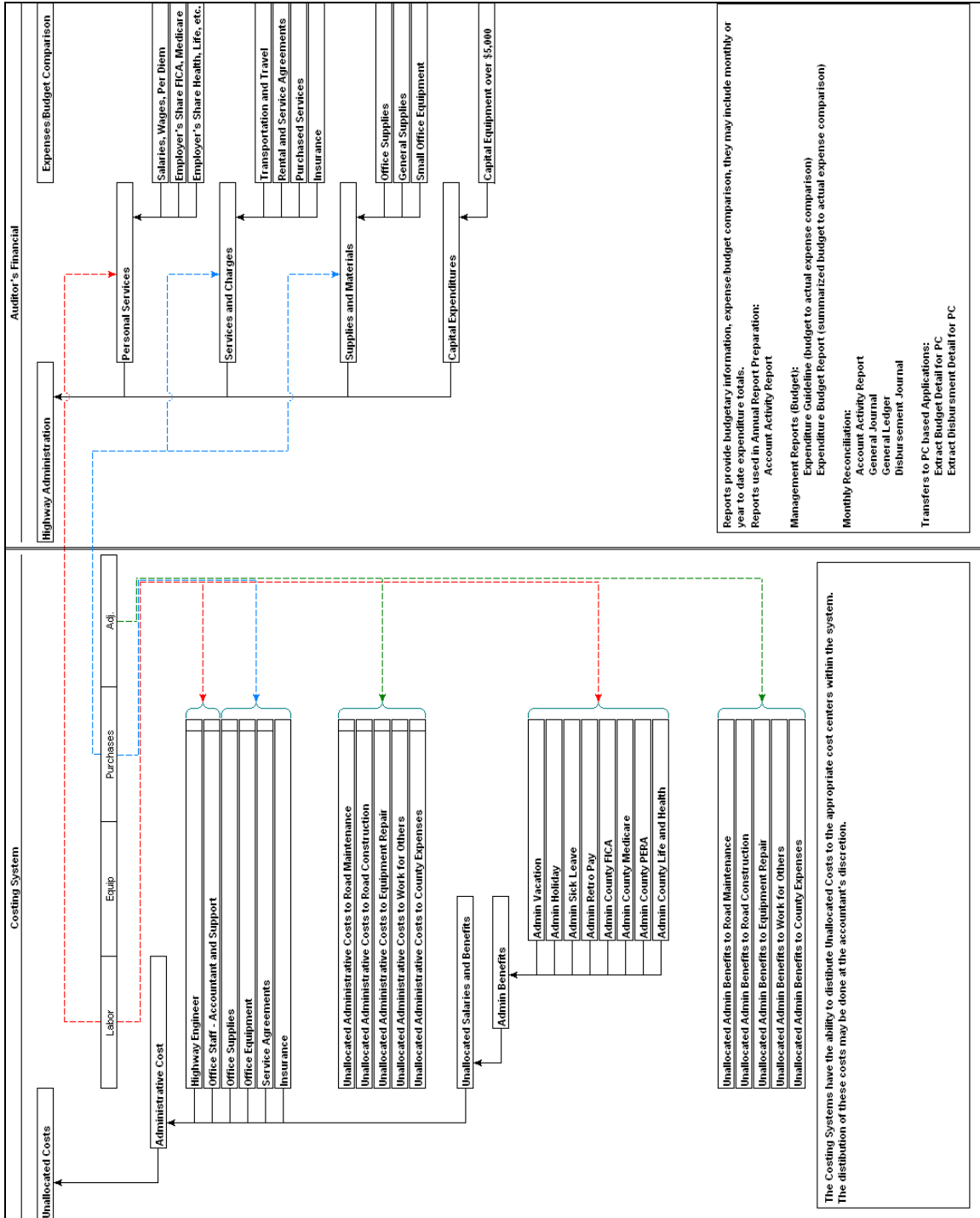
### Road Maintenance



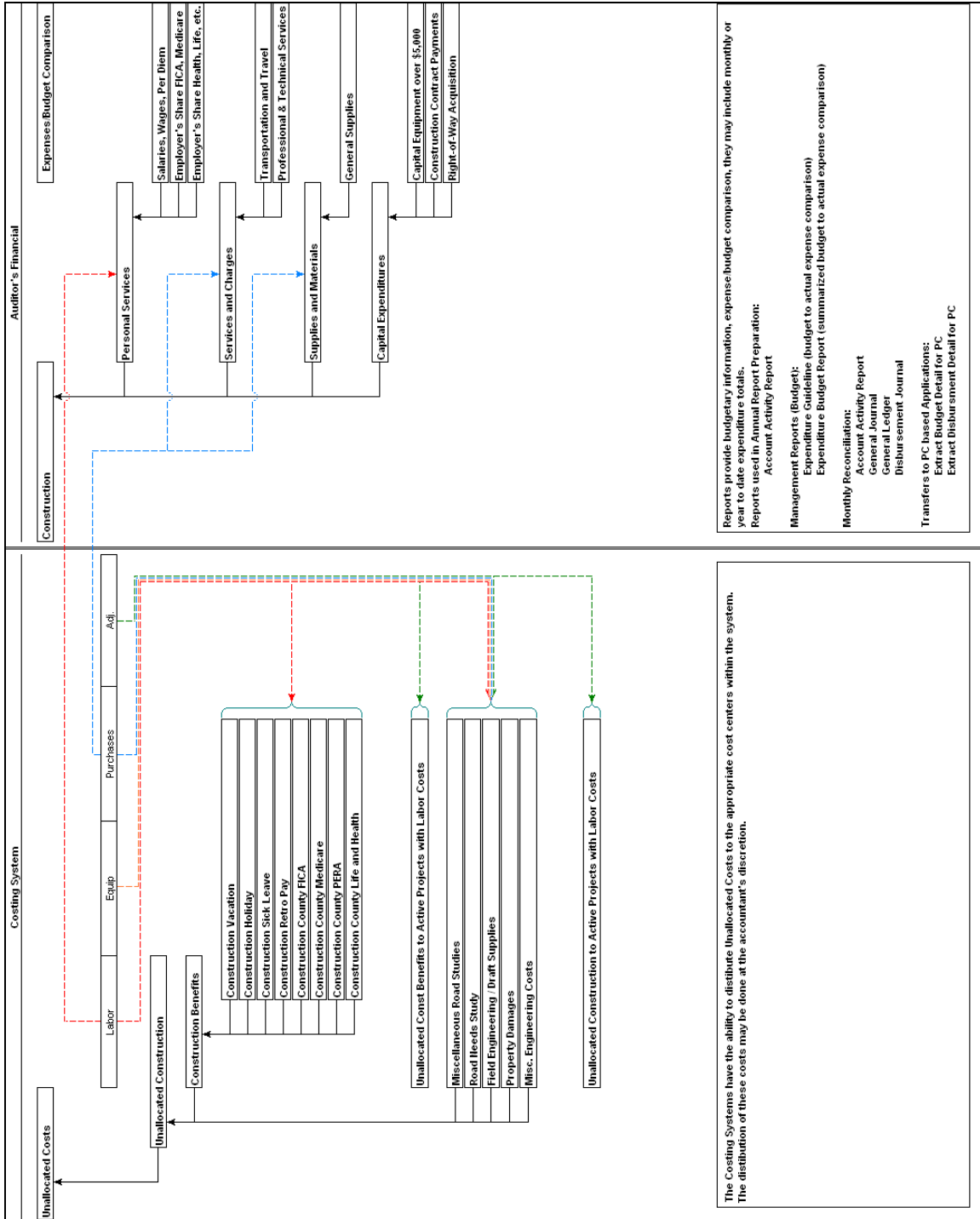
Construction



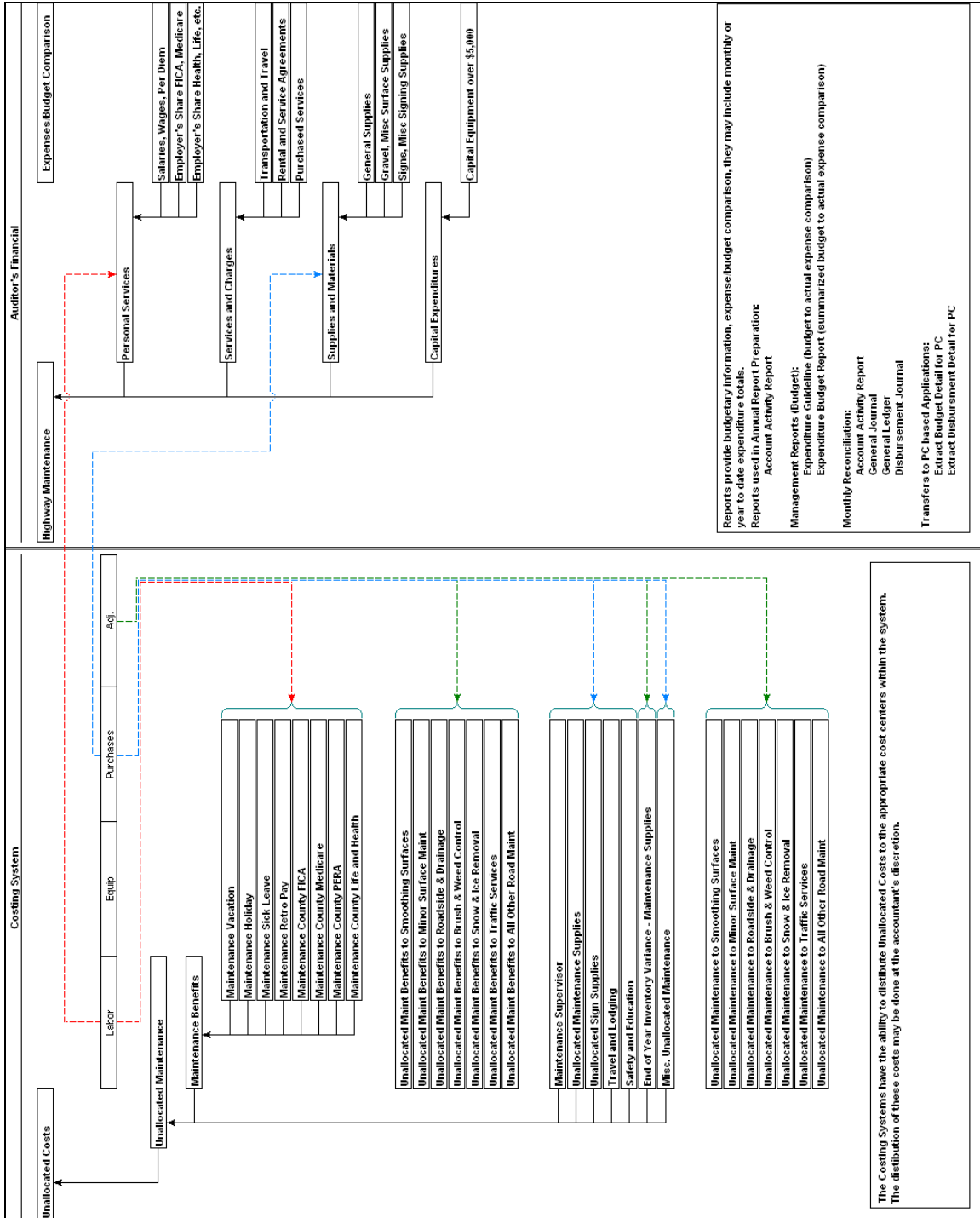
Unallocated Costs – Administration



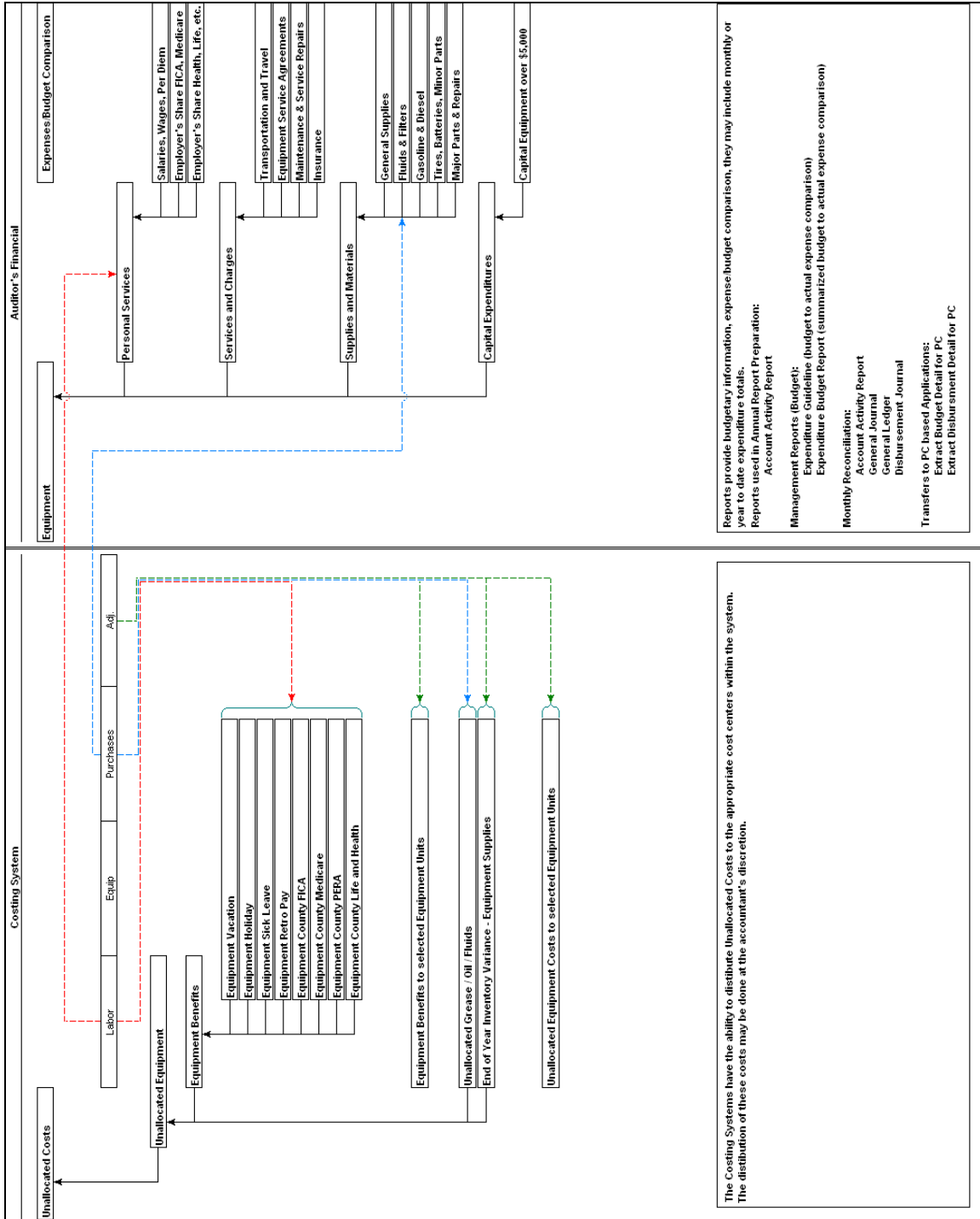
Unallocated Costs – Construction



## Unallocated Costs – Road Maintenance

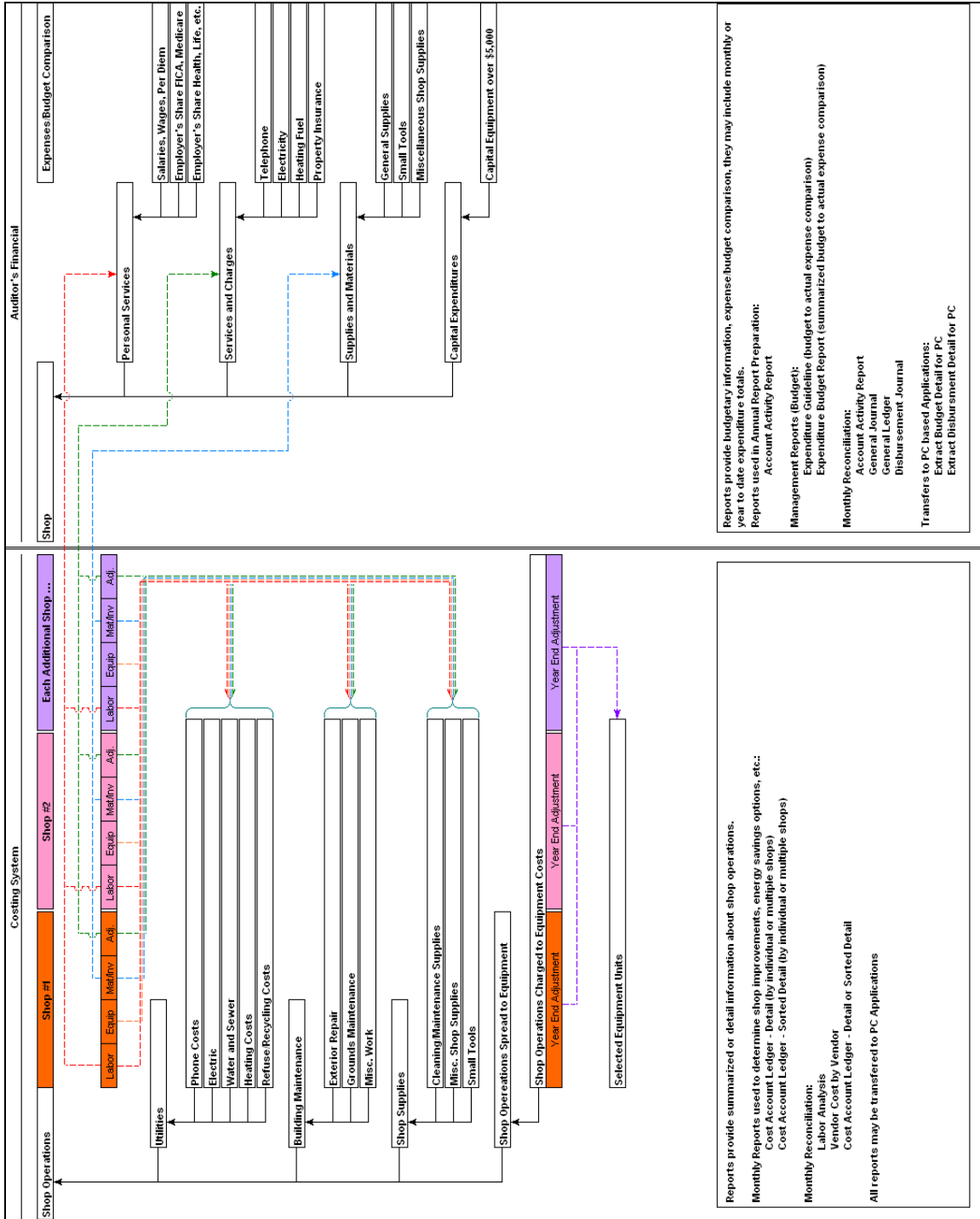


## Unallocated Costs – Equipment Maintenance

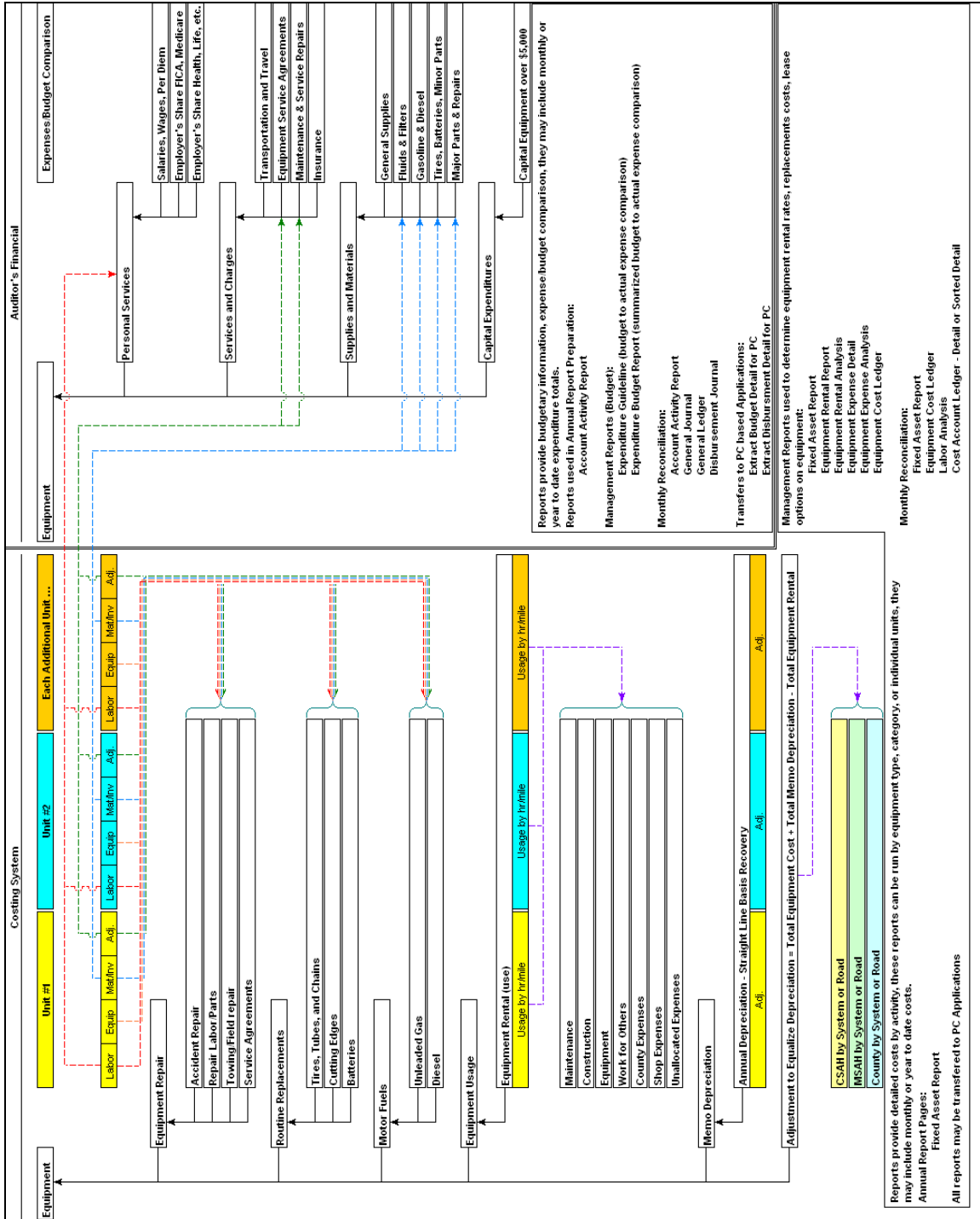




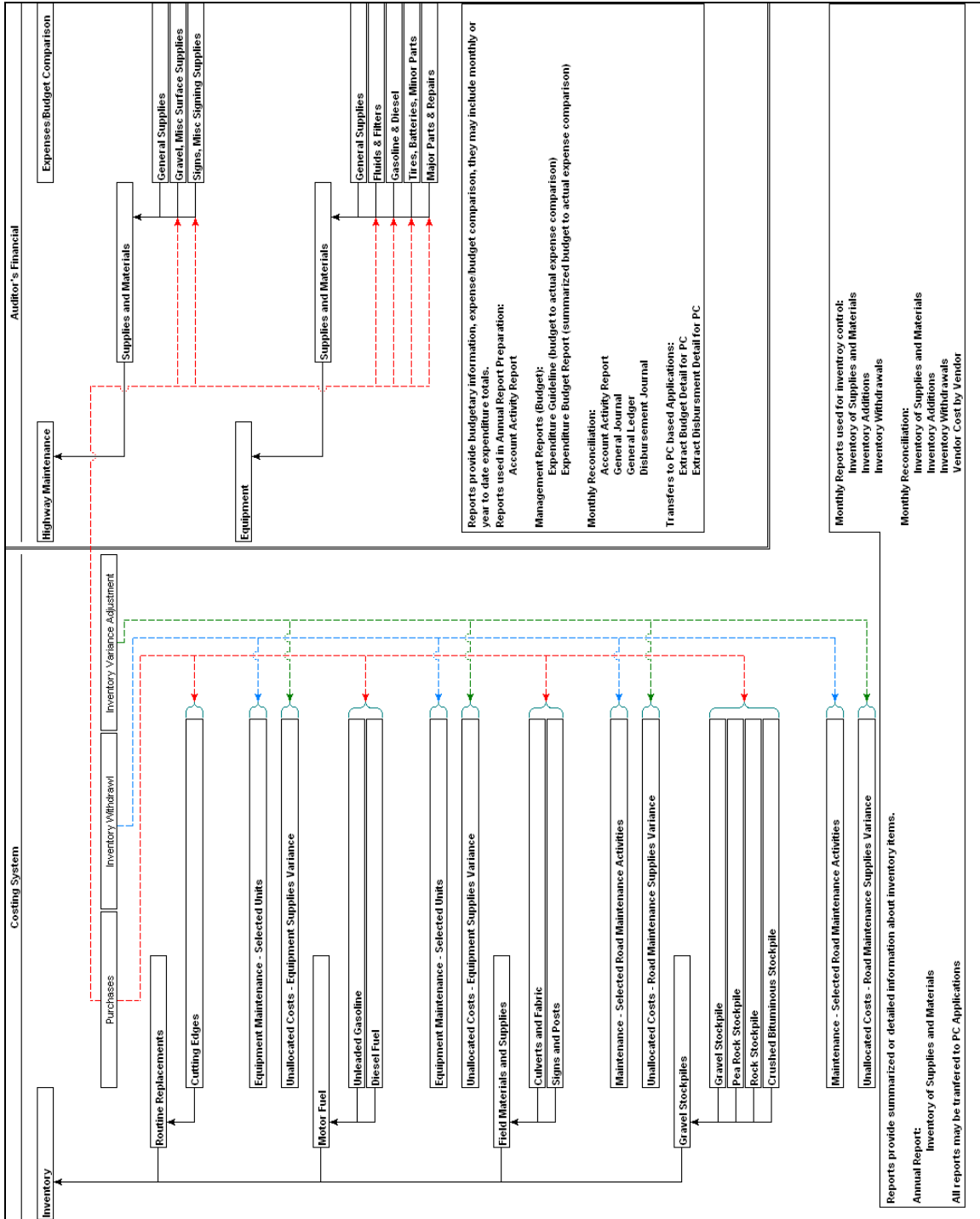
Shop Operations



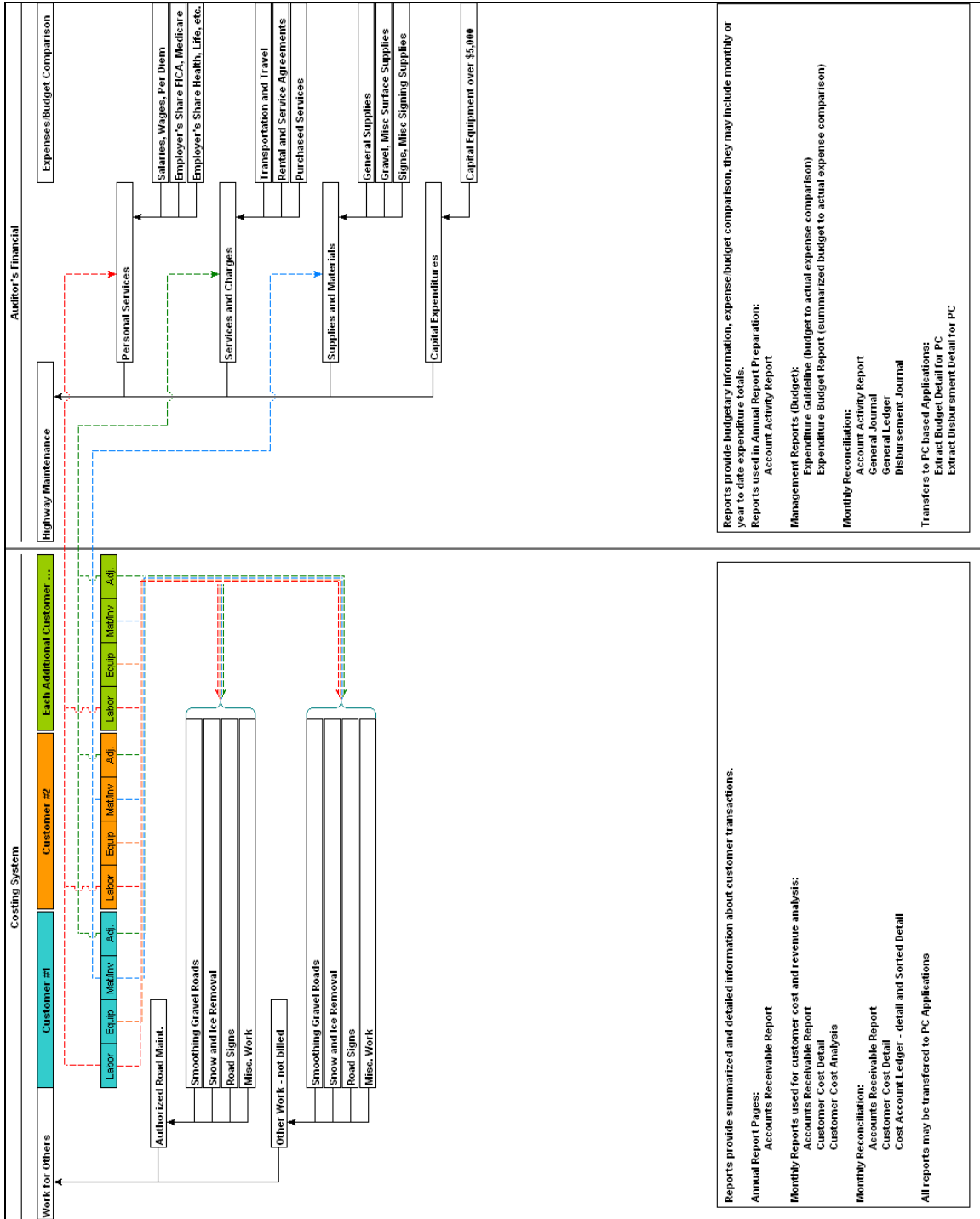
# Equipment Maintenance



Inventory



Work For Others



**Non-Highway Costs**

