FDOT Asset Maintenance Program

- Background and Introduction
- Program Statistics
- Common Questions/Issues
- Typical Performance Measures
- 2004 Audit Discussion
- Bidding and Proposals
- Summary and Conclusions
Lena Highway in Eastern Russia – When it rains, They have a slight Maintenance problem....
Background and Introduction to AM Contracting
Asset Maintenance Contracting

- Asset Maintenance Contracting is innovative, long-term, performance-based contracting encompassing all (or most) maintenance functions required to serve the public and maintain the roadways within specific roadway corridors or entire geographical areas.

- Used to be called Asset Management
Asset Maintenance Contract Types

- Corridor
- Geographical
- Facilities
  - rest areas
  - weigh stations
  - welcome centers
- Bridges
  - fixed
  - movable
Asset Maintenance Contracting

Maintenance functions include planning, management, administration, performance, and inspection of maintenance work.

Primary components of AM Contracts include:

- Incident/Emergency Response & Hurricane/Disaster Preparation and Initial Response
- Public Service (Rest Areas, Road Rangers, Customer Comment Response)
- Conformance with MRP Criteria (Roadway, Roadside, Traffic Services, Drainage, Vegetation/Aesthetics)
- Bridge Inspection, Maintenance, Repair
Typical AM Contracts Include

- All traditional routine/periodic maintenance activities
- Traffic Operations Work Orders
- Highway lighting and call box maintenance
- Customer service complaint resolution
- Inspection of bridges, guardrail, attenuators, & signs
- Permitting issuance and inspection
- Motorist aid service patrols (Road Rangers)
- Roadway Characteristics Inventory (RCI)
- Rest Area/Welcome Center/Weigh Station Maintenance
- Payment of Rest Area, bridge, and Roadway utilities
Key Elements of AM Contracts

- **Performance Based**, not Work Document based
- **Long term contracts**
  - 5 to 10 years with renewals
- **Shared risk**
- **Fixed lump sum monthly payments**
- **Asset Maintenance Contracts** are written to require Contractor to use the most current policies and procedures – this ensures a “dynamic” contract
- **Performance Measures and Assurances**
Performance-Based Contract Expectations and Evaluation

- Maintain road system according to performance measures as outlined in the AM Scope and according to established FDOT policies, procedures, and guidelines.

- Evaluate Contractor in two ways:
  - Compare actual performance to performance measures.
  - Grade Contractor semi-annually through AM Monitoring Plan.
Dynamic Contracts with Up-To-Date Requirements

The AM Contractor must remain in compliance with all relevant Department Procedures, Guides, Handbooks, Florida Administrative Code Rules, Florida Statutes, Department Specifications, Roadway and Traffic Design Standards, MUTCD, Standard Maintenance Special Provisions, Maintenance Activity Standards, Scopes of Services and any changes implemented to these documents within the contract period (Contract Documents).
Dynamic Contracts with Up-To-Date Requirements

Official list of all relevant Contract Documents are maintained on a web site where documents can be added or removed as needed.

Actual Contract Documents are maintained on a variety of different web locations where document content can be edited and changed as needed.
Performance Measures & Assurances

- Annual performance bond
- Pre-determined reductions in payment for failure to meet established performance measures
- Contract default and/or suspension
- Semi-annual Contractor Performance Ratings (AM Monitoring Plan)
- Technical proposals are made part of contract terms
  - quality control plans, staffing, management approach
- Future contracting contingent upon satisfactory performance history
  - technical proposal is part of selection criteria
Asset Maintenance Program Statistics
Asset Maintenance Contract Status

- Early 2004, $484 Million in 17 executed contracts
  - $64 Million annually
- Currently, $700 Million in 23 executed contracts
  - $95 Million annually
- Projected $900 Million in 28 contracts by 2008
  - $118 Million annually
- One active AM Contract is with a county government
Asset Maintenance Program Growth

![Bar chart showing annual lettings and cumulative amount from FY 00/01 to FY 07/08]

- **Annual Lettings**
- **Cumulative Amount**

Legend:
- **Blue** for Annual Lettings
- **Purple** for Cumulative Amount

FY
- 00/01
- 01/02
- 02/03
- 03/04
- 04/05
- 05/06
- 06/07
- 07/08
Percent of Statewide Maintenance Budget for In-house, Traditional & AM Contracts

1994
- In-house: 60%
- Traditional Contract: 40%

2002
- In-house: 62%
- Traditional Contract: 30%
- Asset Maintenance: 8%

2005
- In-house: 57%
- Traditional Contract: 23%
- Asset Maintenance: 20%

2008 goal
- In-house: 40%
- Traditional Contract: 40%
- Asset Maintenance: 20%
<table>
<thead>
<tr>
<th></th>
<th>Non-AM</th>
<th>AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Limited Access</td>
<td>639.0</td>
<td>835.2</td>
</tr>
<tr>
<td>Rural Arterial</td>
<td>4957.9</td>
<td>1029.0</td>
</tr>
<tr>
<td>Urban Limited Access</td>
<td>289.2</td>
<td>295.7</td>
</tr>
<tr>
<td>Urban Arterial</td>
<td>3210.6</td>
<td>435.0</td>
</tr>
<tr>
<td>Roadway Total</td>
<td>9096.7</td>
<td>2594.9</td>
</tr>
<tr>
<td>Number of Rest Areas</td>
<td>16</td>
<td>51</td>
</tr>
</tbody>
</table>

Centerline Miles

Statewide Roadway Maintenance

- Non-AM
- AM
Statewide Bridge Inspections

<table>
<thead>
<tr>
<th></th>
<th>Non-AM</th>
<th>AM</th>
<th>Total Bridges</th>
<th>Non-Movable Deck Area (sf)</th>
<th>Movable Deck Area (sf)</th>
<th>Total Deck Area (sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Movable Bridges</td>
<td>7248</td>
<td>4124</td>
<td>7309</td>
<td>96,032,568</td>
<td>2,404,819</td>
<td>98,437,387</td>
</tr>
<tr>
<td>Movable Bridges</td>
<td>61</td>
<td>90</td>
<td>4214</td>
<td>56,141,340</td>
<td>3,466,191</td>
<td>59,607,531</td>
</tr>
<tr>
<td>Total Bridges</td>
<td></td>
<td></td>
<td>7309</td>
<td>96,032,568</td>
<td>2,404,819</td>
<td>98,437,387</td>
</tr>
</tbody>
</table>
Asset Maintenance
Common Questions
Should we have a core in-house force?

- Issue analyzed over the last decade
- Several factors have influence, including:
  - comparable costs
  - geographic location
  - resource availability
  - work predictability
- Goal is optimizing the mix of in-house and contracted resources to maximize effectiveness & efficiency (performance and cost savings)
Should we have a core in-house force?

**PROS**

- Direct Department contact with citizens & officials sometimes necessary
- In-house force offers an opportunity to train & develop in-house staff for future management
- In-house force gives greater flexibility to alter the planned direction of resources
- In-house force offers the ability to immediately address unplanned events or activities
- Some in-house activities are more efficient and/or cost effective
Should we have a core in-house force?

CONS

- Administrative functions associated with in-house staff are more involved
- In-house resources are more difficult to redirect geographically & functionally
- Variances in work demand cannot be accommodated as easily with State forces (job security)
- Some contracted activities are more efficient and/or cost effective
Should we move to full Asset Maintenance?

- Current program schedule shows a continuing shift toward more AM Contracting - from current annual level of $95M to $118M in 2008

- Corridor, geographical, bridge (both fixed and movable), and facility asset maintenance contracts have shown they can be cost effective and efficient

- Further development of the AM industry is necessary to achieve a strong, long-term program. Until industry expansion occurs, AM expansion beyond published schedule is not recommended
Expansion of AM Program

Pros

- Potential for larger dollar savings
- Reduced maintenance program administration
- Further shared risk
- Wider use of performance based contracting
Expansion of AM Program

Cons

- More difficult to adjust contracting program should funding shortfalls occur
- Less flexibility to adjust resources to immediate unplanned problems or issues
- Industry may struggle to keep up with a significantly increased program
- Potential reduction in Department contract funds for direct contracting with local governments, youth work experience groups, Respect of Florida, etc.
Best Practices / Lessons Learned: Performance Expectations

- Establish clear performance measures in the Contract scope that allow changes to statewide practices updated during the contract period
- Use existing performance evaluation methods wherever possible
- Avoid subjective performance requirements
- Require the Contractor to self evaluate and report performance results (call logs, emergency response)
Best Practices / Lessons Learned: **Communicate**

- Hold regular discussions with the Asset Maintenance Contractor, not just when problems occur
- Partnering concept is now utilized in new AMCs
- Involve Asset Maintenance Contractors in Traffic Incident Management Teams, Law Enforcement coordination, District Emergency Response meetings, Construction acceptance reviews, etc.
- Be a good partner, expect a good partner
Best Practices / Lessons Learned:
Minimize Administration & Optimize Results

- Build on the successes of previous contracts (recent Scope revision)
- Expect (allow) the Asset Maintenance Contractor do his job, don’t micromanage
- Hold Asset Maintenance Contractor responsible for record keeping, storage & retrieval
- Incorporate all active traditional maintenance contracts into new AM Contracts
- Consider further Asset Maintenance Contracting with local governments
Typical Performance Measures
Typical Performance Measure

GUARDRAIL

Deficiency Identification
- Failure to perform timely inspections
- Failure to timely submit Inspection Sheets/Reports
- Failure to make repairs identified in Inspection Reports
- Failure to make temporary safety repairs resulting from incidents
- Failure to make permanent repairs resulting from incidents

Time Allowed/Criteria
- Per Procedure 850-050-003
- Due within 15 days after completion of inspection
- Within 30 days of identification
- Secure with proper MOT before leaving the site
- Repair within 10 calendar days of Incident

Deductions
- $500 /day/inspection
- $100 /day/report
- $500 /day/guardrail
- $1,000 /day/guardrail
- $1,000 /day/guardrail
Typical Performance Measure

Motorist Aid Call Box System

Deficiency Identification

- Failure to perform timely inspections and testing
- Failure to timely repair deficiencies identified by inspection, testing, or highway patrol
- Failure to replace non-repairable call boxes identified by inspection, testing, or highway patrol
- Failure to repair non-critical deficiencies identified by inspection, testing, or highway patrol

Time Allowed/Criteria

- Per Procedure 850-055-035
- Per Procedure 850-055-035
- Within 3 days of identification
- Per Procedure 850-055-035

Deductions

- $100 /day/inspection
- $500 /day/call box
- $500 /day/call box
- $100 /day/call box
Typical Performance Measure

Customer Service Resolution

- **Deficiency Identification**
  - Failure to contact customer
  - Failure to resolve customer service request to the satisfaction of the Department

- **Time Allowed/Criteria**
  - Contact customer within 24 hours
  - Resolve within 2 weeks of customer contact

- **Deduction**
  - $500 per day per customer
  - $500 per day per customer request
Asset Maintenance
2004 Audit
AM Audit Report

- The audit focused on AM Contracting and monitoring processes between July 2002 and July 2004.

- The audit disclosed that AM Contracting was generally performed in accordance with applicable laws, rules, procedures, and good business practices.

- The audit recommended improvements could be made in the contract procurement, amendment, and monitoring processes.

The finding are as follows:
Contract Procurement and Amendments

- **Finding No. 1:** Improvements are needed in Department cost estimation processes to ensure consistency in preparation.

- **Finding No. 2:** Ensure the contractor selection process is free of conflicts of interest by documenting the impartiality of key decision makers.

- **Finding No. 3:** For one AM contract out of five contracts tested, the contract was not timely amended when the scope of services was reduced.
Contract Monitoring

- **Finding No. 4:** Enhance assurance of the accuracy of MRP data and that the appropriate level of contract monitoring occurred.

- **Finding No. 5:** Department and contractor personnel did not always use the latest Rest Area performance measure rating and checklist. As a result, contractors, and in one instance the same contractor, were held to different standards.

- **Finding No. 6:** In some instances, contract performance measures were not applied by District personnel and contractors were not always assessed penalties.
Asset Maintenance Monitoring Plan

- Department developed (and is working on revising) an Asset Maintenance Monitoring Plan (AMMP) for use on each AM Contract
- AMMP does not provide requirements to the Asset Maintenance Contractor nor is it a part of the Contract
- Tool to assist Districts in monitoring / administering their Asset Maintenance Contracts
- Central Office performs annual QARs on Districts by verifying completion of AMMPs
- Task Team developed for revision/update of plan
- Revisions include using the AMMP as a Contractor Grading/Evaluation document
Bidding and Proposals
Bidding Process

- Asset Maintenance Contracts shall be procured under *Chapter 337, F.S.*, and in accordance with the Asset Maintenance Contract Schedule (AM Procedure)
Bidding Process

- When procuring an AM Contract, the District solicits for competitive sealed proposals using an RFP.

- The total maximum point value for each proposal shall be 100 points.
  
  (A) Technical Plan 70 - 60 points
  (B) Price 30 - 40 points
Tech Proposal Requirements

- The Contractor’s Technical Proposal must address the management of all assets located within the project.

- The Contractor’s proposal shall include specific work plans as identified in the RFP.

- Any omission of these required work plans from the proposal will cause the proposal to be declared non-responsive.
Proposal Evaluation

- Proposals graded by proposal selection team consisting of 5 experienced reviewers

- Selection team members will conduct ratings individually, not in a meeting-type environment

- Proposing firms must attain a score of at least 70% on the Management/Technical Plan to be considered responsive, otherwise, the proposal will be declared non-responsive and the price will not be scored or considered
Final Thoughts
Critical Success Factors

- Clearly & comprehensively defined scope
- Standard Scope of Services should be developed and be followed as much as possible to maximize success
- Use established performance measures
- Use current, established procedures and policies
  - including revisions throughout contract period
- Incorporate existing component contracts
- Base Contractor selection on price and technical proposal
  - 70%-60% technical, 30-40% price
- Coordinate scope revisions with industry (Partners)
- Inflation factor added for renewal periods
- Communication & Partnering
FDOT Asset Maintenance Program Summary

- Asset Maintenance participation varies by district
- Asset Maintenance is a critical maintenance resource
- Further development of the Asset Maintenance industry is needed to achieve a strong program, long-term
- In-house forces remain essential
- Districts have succeeded with all Asset Maintenance Contract types: Corridor, Geographic, Facilities, Bridge
- Long term success requires building a constructive relationship with the Asset Maintenance Contractor
- Monitoring Plans must be used to uniformly verify and grade contractor performance
Web Sites

Office of Maintenance
http://www.dot.state.fl.us/statemaintenanceoffice/

AM Request for Proposal
http://infonet.dot.state.fl.us/contractsadministration

AM Scope of Service
http://www.dot.state.fl.us/statemaintenanceoffice/SMSP.htm