

Ex. B1

Focus Area Analysis: Portfolio Planning



Portfolio Planning Citations

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Maintenance Budgeting System

[Budgets](#) | [Reports](#) | [Data](#) | [Admin](#)

| | | | | show metrics | add line item | compare |
|--|----------|------------|--------------|------------------------------|-------------------------------|-------------------------|
| | Baseline | | | Target | | |
| | LOS | Cost \$ | Adj. Cost \$ | LOS | Cost \$ | Adj. Cost \$ |
| <input checked="" type="checkbox"/> Paved Surfaces | A- | 9,052,000 | 16,704,000 | A- ▼ | 9,052,000 | 16,704,000 |
| <input checked="" type="checkbox"/> Roadside | B- | 17,506,000 | 32,307,000 | B- ▼ | 17,506,000 | 32,307,000 |
| <input checked="" type="checkbox"/> Traffic | C+ | 12,365,000 | 22,819,000 | C+ ▼ | 12,365,000 | 22,819,000 |
| <input checked="" type="checkbox"/> Landscape | C | 3,868,000 | 7,138,000 | C ▼ | 3,868,000 | 7,138,000 |
| <input checked="" type="checkbox"/> Vegetation | C | 2,383,000 | 4,397,000 | C ▼ | 2,383,000 | 4,397,000 |
| <input checked="" type="checkbox"/> Rest Areas | A- | 2,118,000 | 3,909,000 | A- ▼ | 2,118,000 | 3,909,000 |
| <input checked="" type="checkbox"/> Winter | | 2,491,000 | 2,491,000 | | 2,491,000 | 2,491,000 |
| <input checked="" type="checkbox"/> Leave | | 5,829,000 | 5,829,000 | | 5,829,000 | 5,829,000 |
| <input checked="" type="checkbox"/> Training | | 2,005,000 | 2,005,000 | | 2,005,000 | 2,005,000 |
| <input checked="" type="checkbox"/> QQE | | 10,920,000 | 10,920,000 | | 10,920,000 | 10,920,000 |
| Central | | 2,858,000 | 2,858,000 | | 2,858,000 | 2,858,000 |
| Baseline Total: | | | 111,377,000 | Total: | | 111,377,000 |

Table 10: Maintenance Activity Baseline Unit Costs

| Maintenance - Statewide Baseline | | | |
|---|----------------|------------------|------------------------|
| | Primary | Secondary | Unit of Measure |
| 2817-Mechanical Asphalt Patching | \$250.32 | \$222.53 | per ton |
| 2900-Grass Mowing | \$63.34 | \$39.41 | per shoulder mile |
| 2912-Mechanical Brush and Tree Control | \$698.81 | \$684.19 | per shoulder mile |
| 3104-Litter Removal | \$279.65 | \$334.91 | per shoulder mile |

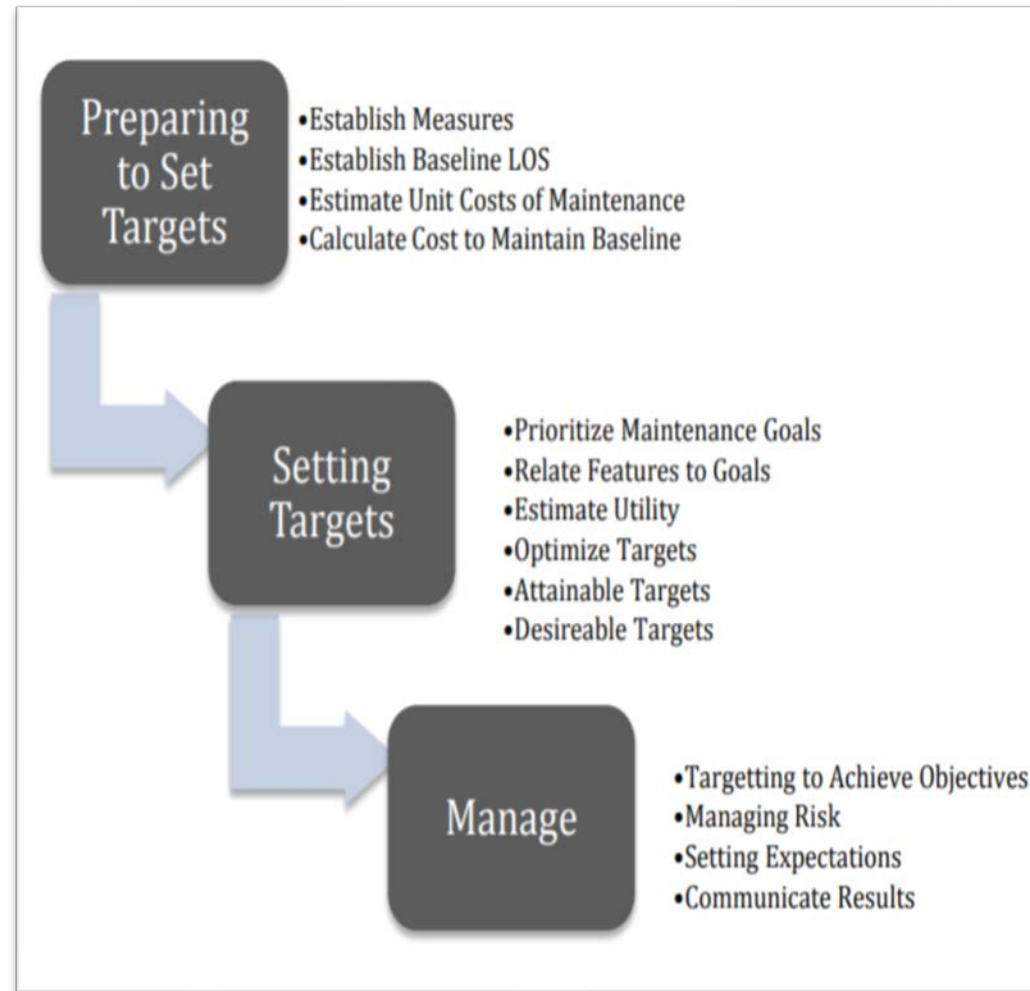
Maintenance Accountability Process Activity Level Targets CY 2018 - Statewide

| Activity | A | B | C | D | F |
|---|----|----|----|----|---|
| Group - 1 Roadway Maintenance and Operations | | | | | |
| 1A3 Shoulder Maintenance | | | ✓⊙ | | |
| 1A4 Sweeping and Cleaning | ⊙ | ✓ | | | |
| Group - 2 Drainage Maintenance and Slope Repair | | | | | |
| 2A1 Ditch Maintenance | | ✓⊙ | | | |
| 2A2 Culvert Maintenance | | | | ✓⊙ | |
| 2A3 Catch Basin and Inlet Maintenance | ✓⊙ | | | | |
| 2A4 Stormwater Facility Maintenance | ✓⊙ | | | | |
| 2A5 Slope Repair | ⊙ | | ✓ | | |
| Group - 3 Roadside and Vegetation Management | | | | | |
| 3A1 Litter Pickup | | | | ✓⊙ | |
| 3A2 Noxious Weed Control | | ⊙ | ✓ | | |
| 3A3 Nuisance Vegetation Control | | | | ✓⊙ | |
| 3A4 Vegetation Obstruction Control | | | ✓⊙ | | |
| 3A5 Landscape Maintenance | | | ✓ | ⊙ | |
| Group - 4 Bridge and Urban Tunnel Maintenance and Operations | | | | | |
| 4A3 Bridge Cleaning | | ✓⊙ | | | |
| 4B1 Special Bridge and Ferry Operation | ✓⊙ | | | | |
| 4B3 Urban Tunnel Systems Operation | | ⊙ | | | |

Key

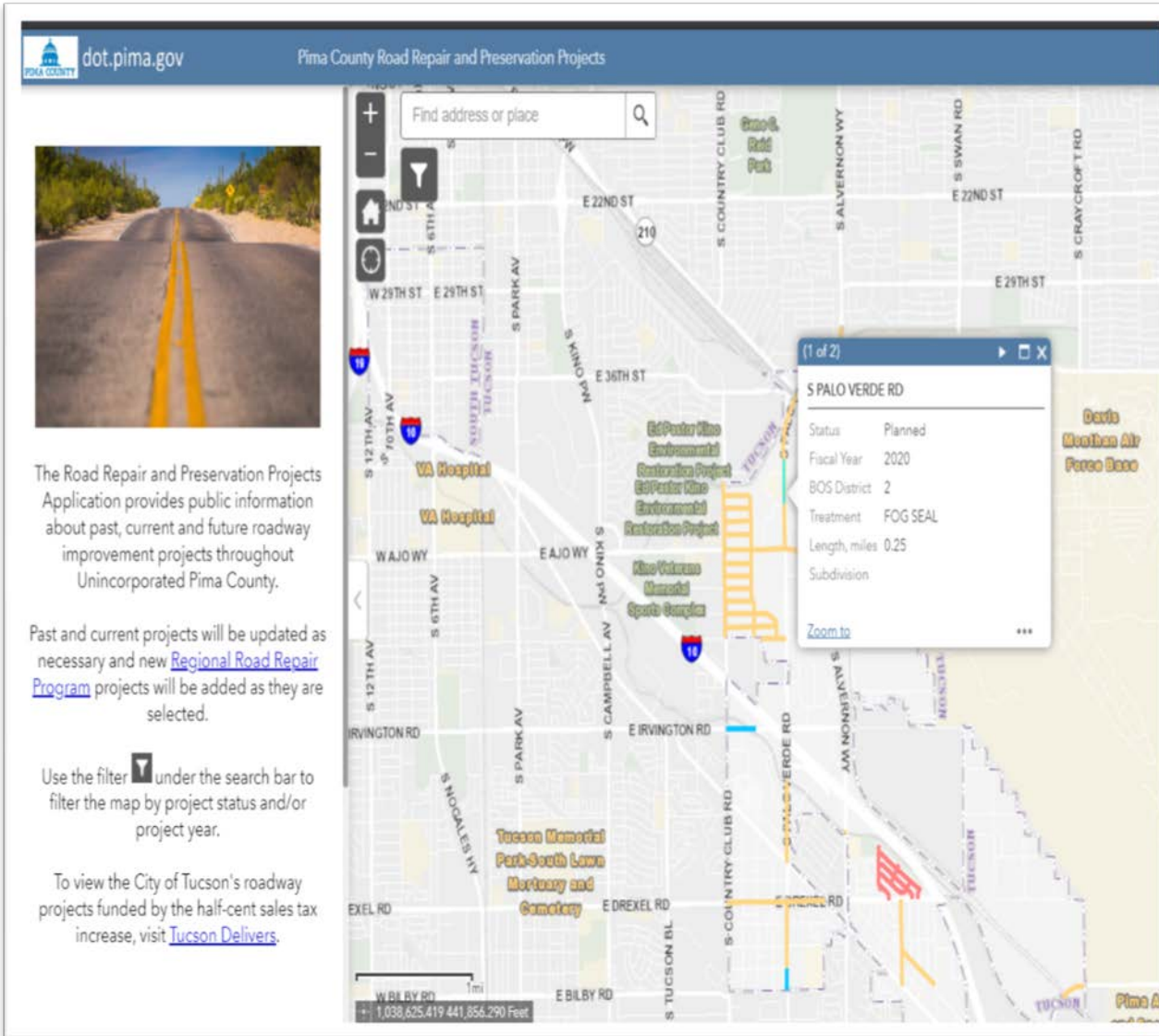
- ⊙ Projected Delivery
- ✓ Service Level Delivered
- ⊙ Missed Target

February 5 2019

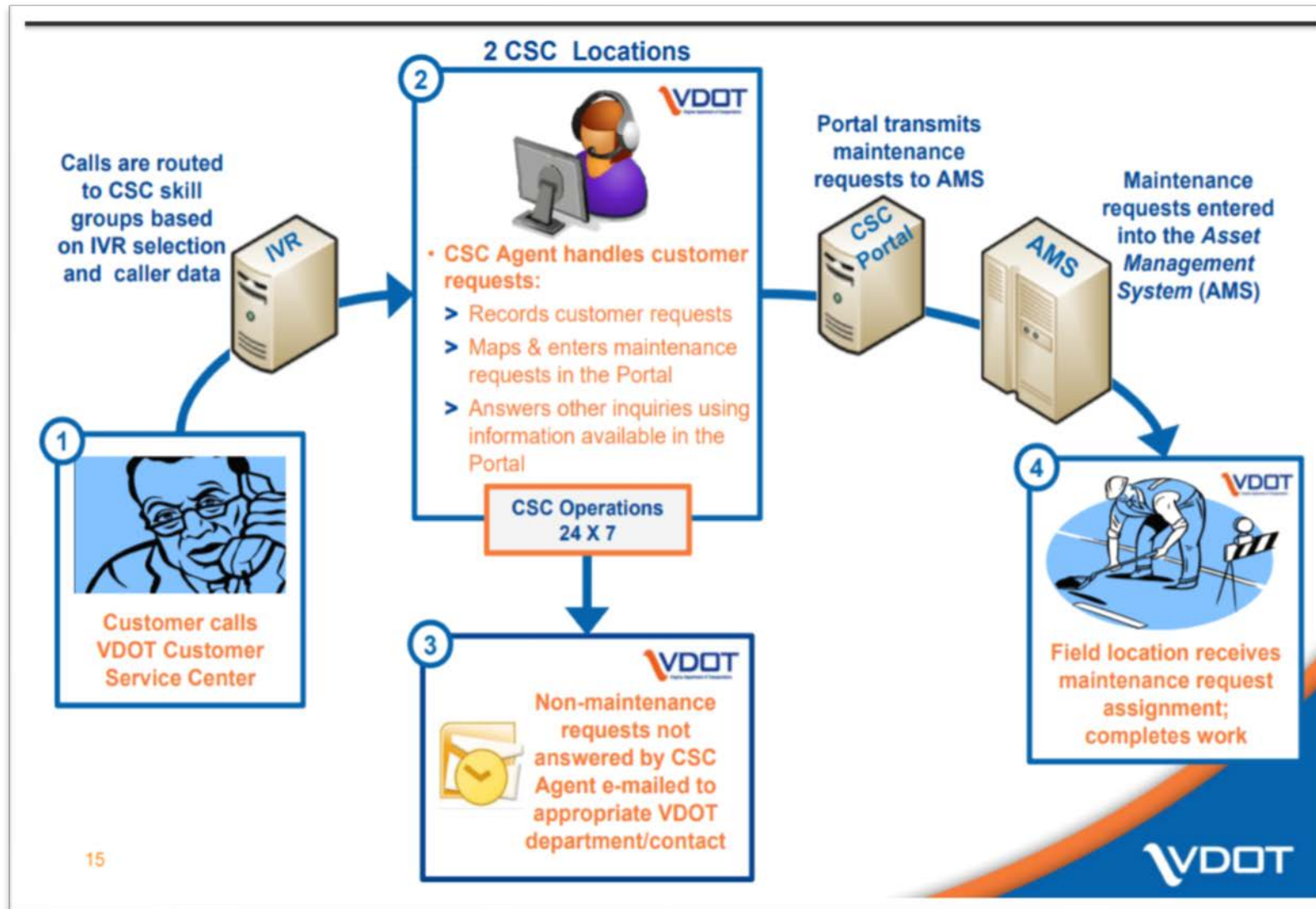


2020 Regional Priority and Recreational Gateway Road List

| Pavement Management Section | Start | End | AADT | District | Miles | PCI | Treatment |
|-----------------------------|---------------------------|---------------------------|--------|----------|-------|-----|------------------------|
| E CHULA VISTA RD | N 1ST AV | N MOONGLOW DR | | 1 | 0.66 | 19 | MILL AND THICK OVERLAY |
| E RIVER RD | END OF ROAD | END OF ROAD | 30,427 | 1 | 0.20 | 78 | FOG SEAL |
| E RIVER RD | S ALVERNON WY | N PONTATOC RD | 11,941 | 1 | 0.28 | 91 | SEAL CRACKS |
| E RIVER RD | N SUTTON LN | S DODGE BL | 11,941 | 1 | 0.12 | 91 | SEAL CRACKS |
| E SKYLINE DR | E CAMINO CIELO | E CHULA VISTA RD | 32,236 | 1 | 0.13 | 77 | SEAL CRACKS |
| E SKYLINE DR | E CHULA VISTA RD | E CALLE LOS ALTOS | 32,236 | 1 | 0.19 | 85 | SEAL CRACKS |
| E SKYLINE DR | E CALLE LOS ALTOS | W ORANGE GROVE RD | 32,236 | 1 | 0.30 | 77 | SEAL CRACKS |
| E SKYLINE DR | W ORANGE GROVE RD | S CAMPBELL AV | 39,844 | 1 | 0.60 | 85 | SEAL CRACKS |
| E SKYLINE DR | S CAMPBELL AV | N TIERRA DE LAS CATALINAS | 34,531 | 1 | 0.26 | 77 | SEAL CRACKS |
| E SKYLINE DR | N TIERRA DE LAS CATALINAS | E SUNRISE DR | 34,531 | 1 | 0.19 | 85 | SEAL CRACKS |
| E SNYDER RD | N VALLE | N HIDDEN VALLEY RD | | 1 | 0.63 | 21 | MILL AND THICK OVERLAY |
| E SUNRISE DR | E SKYLINE DR | N CAMINO ESPLENDORA | 34,531 | 1 | 2.30 | 77 | SEAL CRACKS |
| N ALVERNON WY | END OF ROAD | END OF ROAD | 5,157 | 1 | 0.02 | 64 | MICRO SEAL |
| N CAMINO DE OESTE | END OF ROAD | W MARS ST | 3,430 | 1 | 0.06 | 23 | MILL AND THICK OVERLAY |
| N CAMINO DE OESTE | W MARS ST | W MARGE ST | 3,430 | 1 | 0.15 | 34 | MILL AND THICK OVERLAY |
| N CAMINO DE OESTE | W MASSINGALE RD | N IVORY ROSE DR | 3,430 | 1 | 0.66 | 34 | MILL AND THICK OVERLAY |









Focus Area Analysis: Procurement



Procurement Citations

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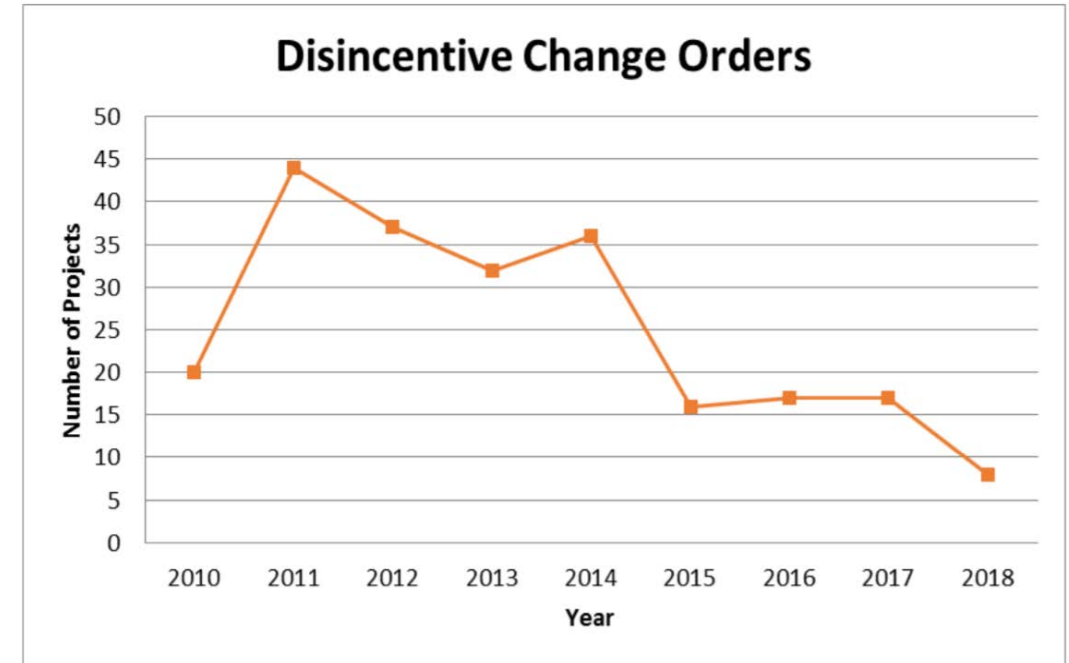
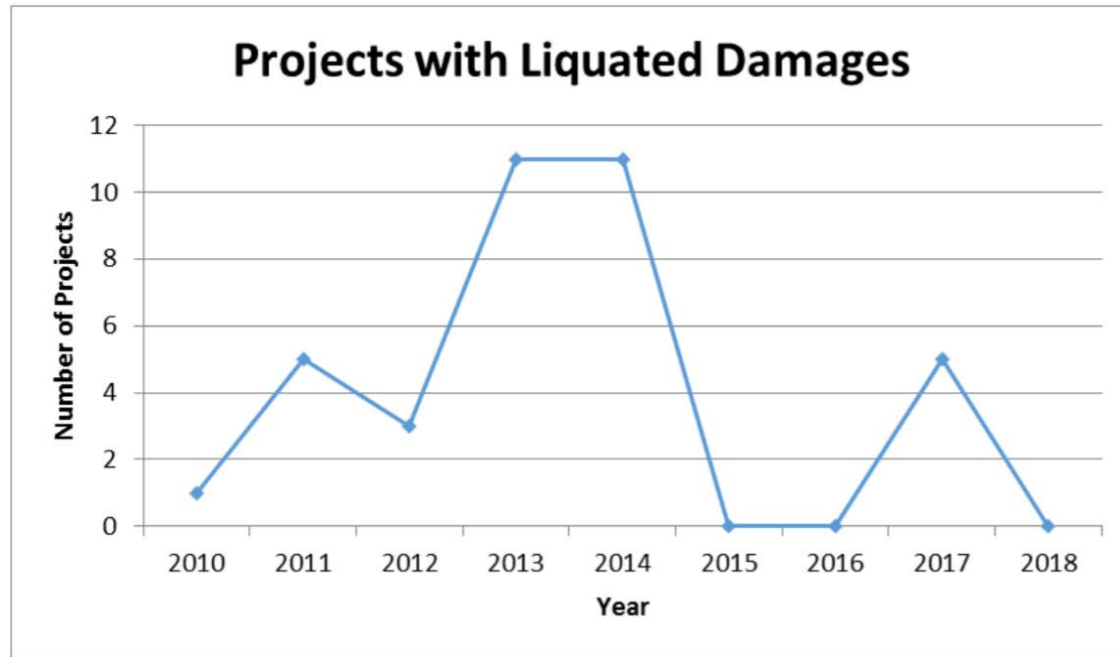
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| • = May apply | | Acceleration Techniques | | | | | | | Procurement/Payment | | | | | | | Delivery Method | | | | | |
|--|-------------------|-------------------------|----------------|---------------------------------|----------------------|---------------------|-----------------------|---------------------------------|-------------------------|------------|--------------------------------|----------|------------------------------|-------------------------|----------------------------|-----------------------------------|--------------|----------------------|----------------------|------------------------------|------|
| | | Lane Rental | A+B Incentives | Accepted for Traffic Incentives | No Excuse Incentives | Standard Incentives | Accelerated Schedules | Interim Completion Date Incent. | Alternate Const Methods | Best Value | Project Specific Qualification | Lump Sum | Performance-Based Incentives | Alternate Pavement Bids | Fixed Price Variable Scope | Indefinite Delivery/Ind. Quantity | Design-Build | Design-Build-Finance | DBF-Operate Maintain | Alternate Technical Concepts | CMGC |
| | Project Objective | | | | | | | | | | | | | | | | | | | | |
| Expedite construction | | • | • | • | • | • | • | • | • | | | | • | | | | • | • | • | • | • |
| Minimize road user delay costs | | • | • | • | • | • | • | • | • | • | | | • | | | | • | • | • | • | • |
| Promote innovation ⁽⁷⁾ | | | | | | | | | • | • | | | • | • | | | • | • | • | • | • |
| Expedite contract award ⁽⁴⁾ | | | | | | | | | | | | | | | | | • | • | • | | • |
| Minimize risk of claims/disputes | | | | | • | | | | | | | | | | | | • | • | • | | • |
| Maximize work within set budget ⁽¹⁾ | | | | | | | | | | | | | | • | • | | | | • | | • |
| Enhance quality ⁽⁶⁾ | | | | | | | | | • | • | | | • | | | | • | • | • | | • |
| Define construction budget early ⁽²⁾ | | | | | | | | | | | | | | | | | | | | | • |
| Reduce design & construction time ⁽⁵⁾ | | | | | | | | | | • | | | | | | | • | • | • | • | • |
| Leverage external funding sources ⁽³⁾ | | | | | | | | | | | | | | | | | | • | • | | |

| Business Unit Name | Budget Reference Code | # of Approved POs | # On Contract | % Approved On Contract |
|--------------------|-----------------------|-------------------|---------------|------------------------|
| DATCP | FY2015 | 20 | 0 | 0.0% |
| | FY2016 | 175 | 96 | 54.9% |
| | FY2017 | 71 | 56 | 77.8% |
| DATCP Total | | 265 | 152 | 56.9% |
| DCF | FY2015 | 0 | 0 | |
| | FY2016 | 330 | 269 | 81.5% |
| | FY2017 | 242 | 216 | 89.3% |
| DCF Total | | 572 | 485 | 84.8% |
| DFI | FY2016 | 49 | 47 | 95.9% |
| | FY2017 | 42 | 40 | 95.2% |
| DFI Total | | 91 | 87 | 95.6% |
| DHS | FY2015 | 119 | 6 | 5.0% |
| | FY2016 | 4664 | 1747 | 37.4% |
| | FY2017 | 1968 | 1069 | 54.2% |
| DHS Total | | 6744 | 2822 | 41.8% |



Focus Area Analysis: Expenditures



Expenditures Citations

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2. Guidehouse analysis of ArDOT Oracle Scope of Work (provided by ArDOT)
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35. ArDOT Staff Minutes (sample provided by ArDOT)
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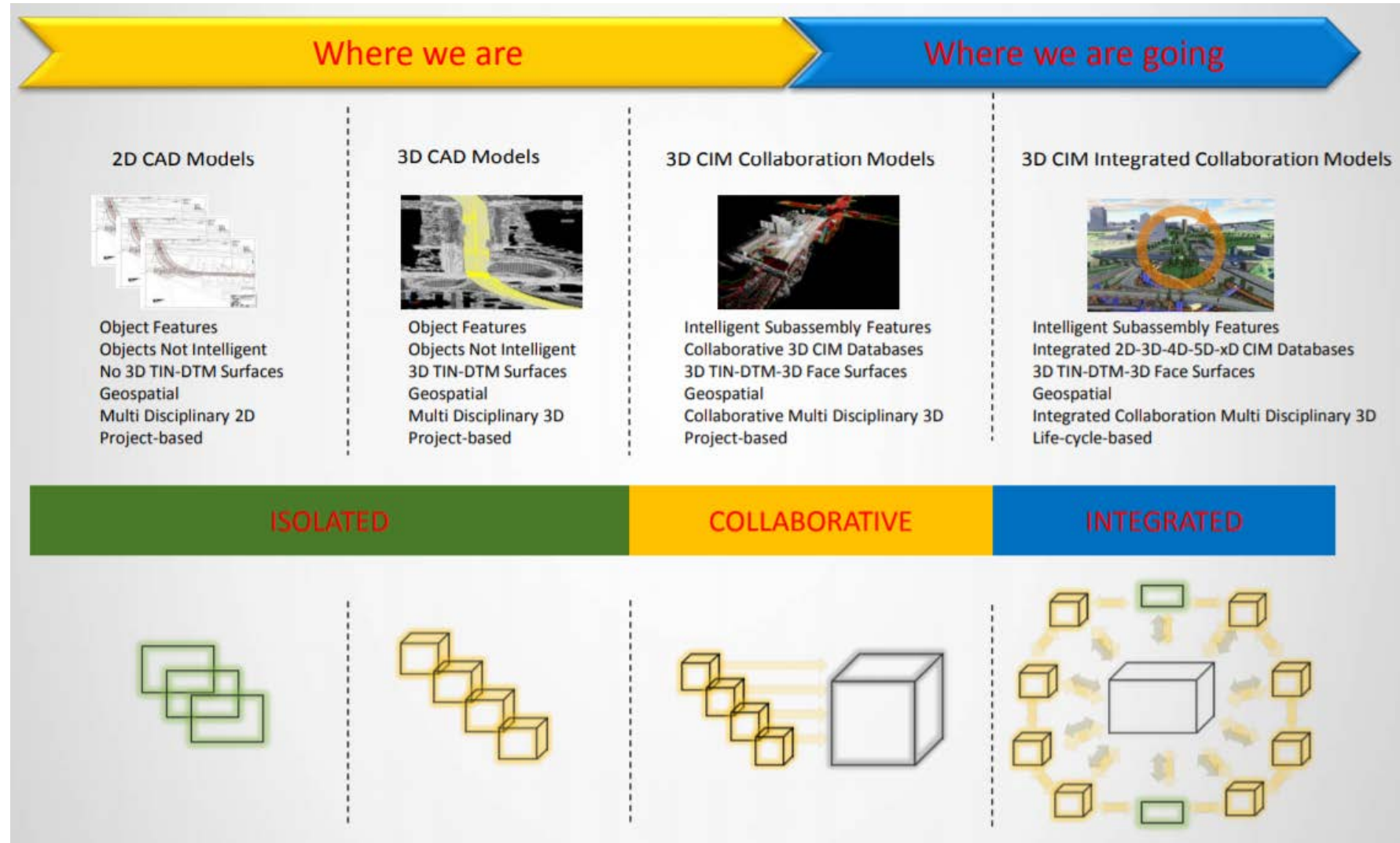
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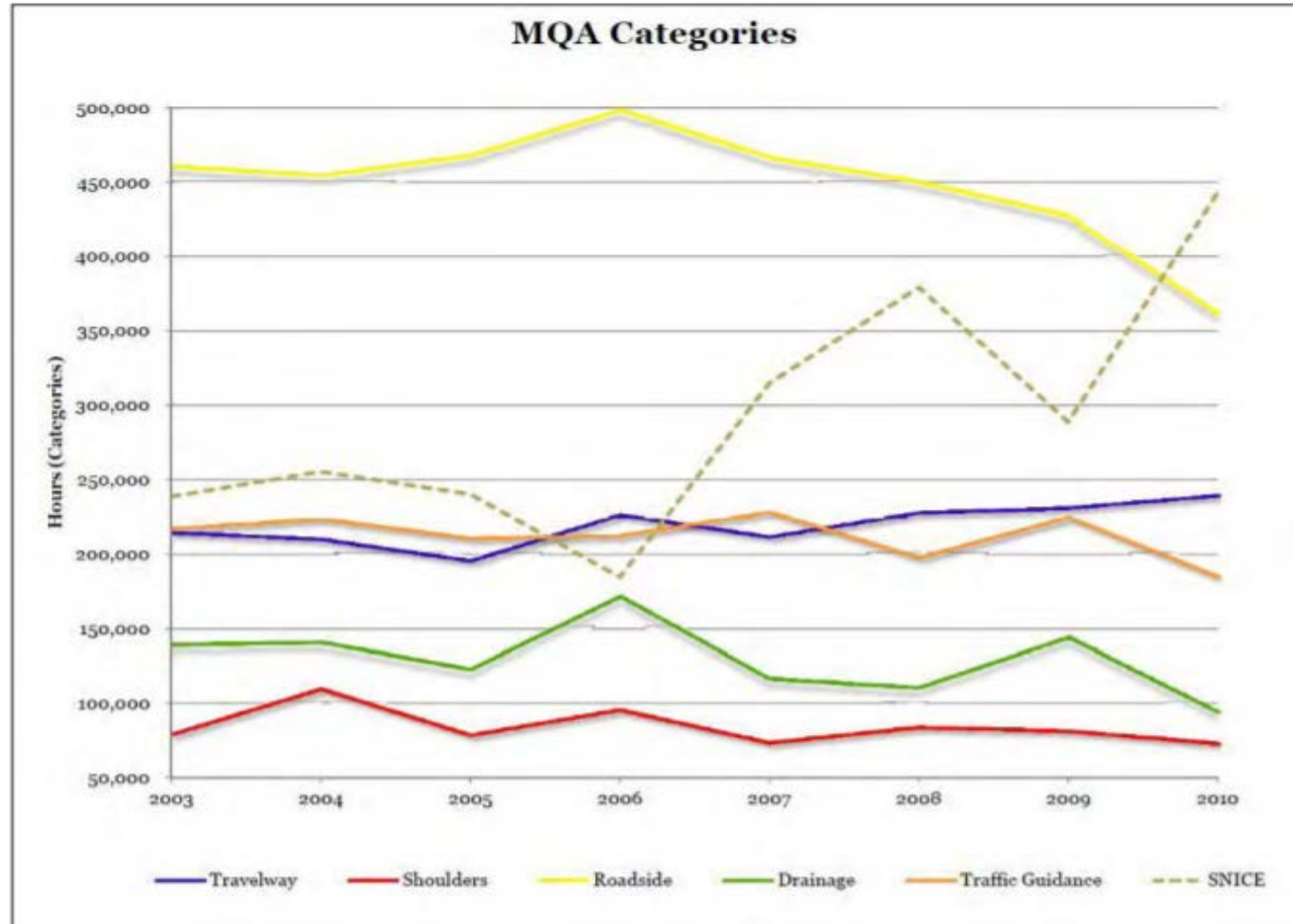
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| State | Project Management Software Used |
|----------------|----------------------------------|
| California | CA PPM |
| Michigan | Planisware |
| Kansas | In-house software |
| Pennsylvania | In-house Oracle database |
| North Carolina | SAP |
| Utah | In-house software |
| Georgia | Oracle Primavera |
| Montana | Planisware |
| New Jersey | Oracle Primavera |
| Virginia | Microsoft Project Server |







Focus Area Analysis: Information Technology



Information Technology Citations

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3. ArDOT Infrastructure Project Summary and Vendor SOW (ArDOT Provided, Guidehouse Analyzed).
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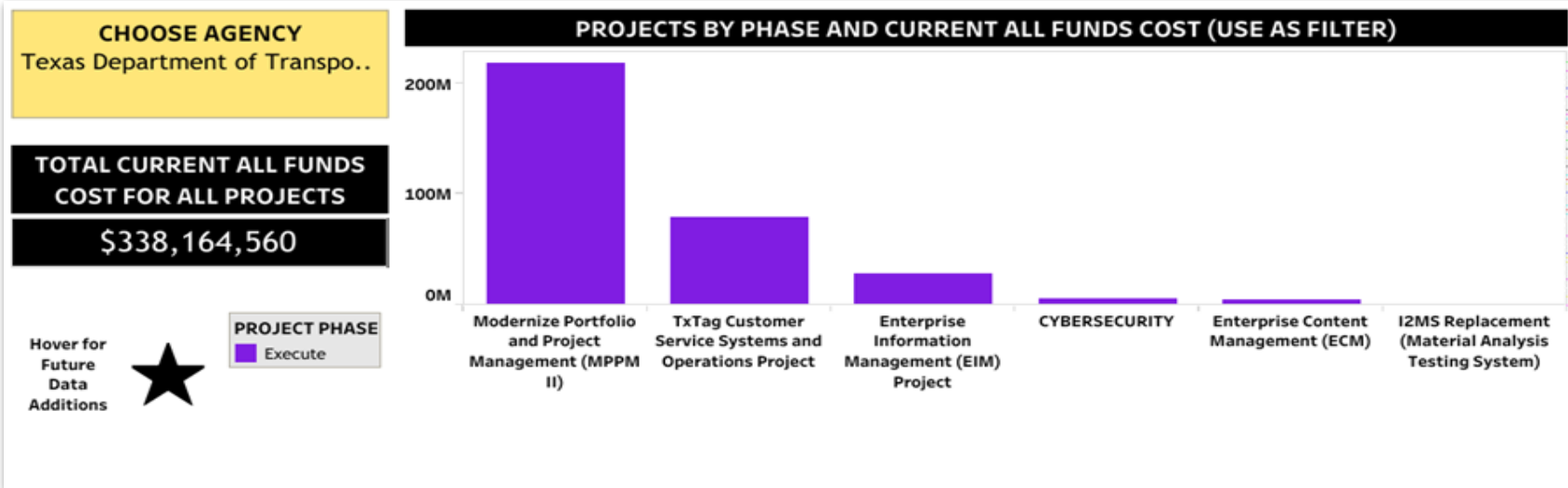
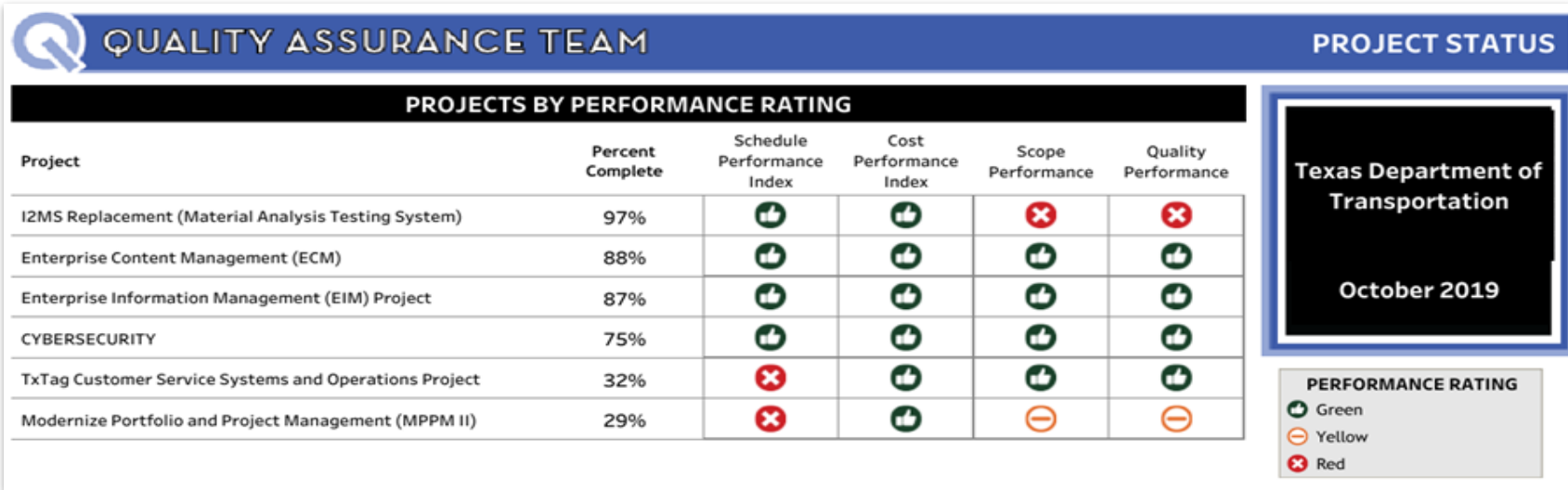
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| | A | B | C | D | E |
|---|------------------------|-------------------|---|--|-------------------------------------|
| 1 | <u>Initiative</u> | <u>FY Started</u> | <u>Completion Date\Anticipated Date</u> | <u>Summary of Initiative with Benefits</u> | <u>Cost Savings</u> |
| 2 | VOIP | 18-19 | On-going/Complete by October 2020 | Creates a common telecommunications system for all of ARDOT. In-house support team provides quicker resolutions to requests and issues versus the delayed support experienced with external providers (hours versus days). Consolidated billing saves the department over \$150k annually. | \$13,600 monthly/\$163,200 annually |
| 3 | Infrastructure Refresh | 19-20 | On-going/Complete by December 2020 | Upgrade Data Center Infrastructure including servers, storage, virtualization platform, and enterprise backup solution for primary and secondary data centers. Department benefits will be: better application performance; enterprise IT stability; lower IT operations with industry best practice solutions and process; efficient monitoring capabilities; DR enhancements; and consistent end user experience. | |
| 4 | ITSM | 18-19 | Planning stage/Complete by July 2020 | Information Technology Service Management solution customized for ArDOT's specific needs. Benefits will include: lower cost for IT operations; ability establish well-defined, repeatable and manageable IT processes; improved efficiencies of IT Help Desk teams; clear expectations on service levels and service availability; improved transparency into IT processes and services; and improved end-user satisfaction. | |

| | | | | | | | | | | | | | | | | | | |
|---|---|------------|------------------------------|----------------|------------------|----------------|--------------|---|------------|--------------|-----------------|---------|---------|-----------|----------|-----|-------------------------------|----------------------|
| 3 | Use this table to document, track, and prioritize projects. | | | | | | | | | | | | Scoring | | | | Supports more strategic goals | Addresses operations |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | Project Name | Project ID | Sponsor | Assigned BA/PM | Project Category | Project Status | Project Size | Dependencies | Date Added | Last Updated | Days in Backlog | Overall | Value | Execution | Comments | IS1 | | |
| 7 | Oracle | P1 | Patrick Patton/Charles Brown | Paulette Rice | Transform | In Progress | Medium | Dependent on Others and Others Depend on it | 15-Oct-18 | 1-Jul-19 | | 98 | 55 | 43 | | | 5 | |
| 8 | STIP | P2 | Jared Wiley | | Transform | Completed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 49 | 22 | 27 | | | 3 | |
| 9 | PCPM | P3 | Jared Wiley | | Transform | Completed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 47 | 26 | 21 | | | 3 | |
| 10 | ArcGIS Web | P4 | John Fleming | | Administrative | Completed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 47 | 17 | 30 | | | 2 | |
| 11 | AashtoWare Project | P5 | | | Transform | In Progress | Small | Others depend on its completion | 1-Jul-19 | 1-Jul-19 | | 59 | 36 | 23 | | | 4 | |
| 12 | Fugro | P6 | Brad McCaleb | | Transform | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 60 | 36 | 24 | | | 4 | |
| 13 | Digital Signage | P7 | Crystal Woods | | Transform | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 46 | 25 | 21 | | | 2 | |
| 14 | Kronos Upgrade | P8 | Crystal Woods | | Administrative | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 59 | 31 | 28 | | | 2 | |
| 15 | Extranet | P9 | Danny Straessle | | Transform | Proposed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 54 | 33 | 21 | | | 3 | |
| 16 | ITS Camera Project | P10 | Joe Hawkins | | Grow | On Hold | Medium | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | 212 | 49 | 24 | 25 | | | 3 | |
| 17 | E-SOJ | P11 | | | Administrative | On Hold | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 43 | 22 | 21 | | | 2 | |
| 18 | Asset Management | P12 | | | Grow | On Hold | Small | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | 212 | 48 | 27 | 21 | | | 3 | |
| 19 | Maintenance Software Package | P13 | Joe Sartini | | Transform | Proposed | Large | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 48 | 28 | 20 | | | 3 | |
| 20 | InspectTech - InspectX | P14 | | | Grow | In Progress | Small | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | | 61 | 27 | 34 | | | 2 | |
| 21 | Tunnel Project | P15 | | | Run | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 63 | 32 | 31 | | | 3 | |
| 22 | Aasis/ARNLD | P16 | Chief Thompson | | Grow | In Progress | Small | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | | 65 | 31 | 34 | | | 3 | |
| 23 | AHP Conference Room | P17 | Chief Thompson | | Grow | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 53 | 17 | 36 | | | 1 | |
| 24 | Rugged Laptops | P18 | Chief Thompson | | Run | Completed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 62 | 23 | 39 | | | 2 | |
| 25 | Citations Upgrade | P19 | Chief Thompson | | Grow | Proposed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 56 | 24 | 32 | | | 3 | |
| 26 | VOIP | P20 | Charles Brown | | Transform | In Progress | Medium | Dependent on Others and Others Depend on it | 1-Jul-19 | 1-Jul-19 | | 85 | 44 | 41 | | | 4 | |
| 27 | VMWare Server | P21 | | | Transform | In Progress | Medium | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 61 | 24 | 37 | | | 3 | |
| 28 | Switch Refresh | P22 | | | Administrative | Completed | Medium | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 67 | 30 | 37 | | | 3 | |
| 29 | Mainframe | P23 | Charles Brown | Paulette Rice | Transform | In Progress | Medium | Dependent on Others and Others Depend on it | 1-Jul-19 | 1-Jul-19 | | 92 | 49 | 43 | | | 4 | |
| 30 | ITSM | P24 | | | Transform | In Progress | Medium | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | | 82 | 40 | 42 | | | 4 | |
| 31 | Sharepoint | P25 | | | Run | In Progress | Medium | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | | 74 | 33 | 41 | | | 4 | |
| 32 | O365 | P26 | | | Transform | Proposed | Medium | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | 212 | 69 | 31 | 38 | | | 2 | |
| 33 | Network Monitoring | P27 | | | Administrative | In Progress | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | | 74 | 35 | 39 | | | 3 | |
| 34 | UPS Redundancy | P28 | | | Grow | Proposed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 59 | 22 | 37 | | | 2 | |
| 35 | Wifi Replacement | P29 | | | Grow | Proposed | Small | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | 212 | 51 | 17 | 34 | | | 3 | |
| 36 | Win7 to Win10 Upgrade | P30 | | | Transform | In Progress | Medium | Dependent on Pre-requisites | 1-Jul-19 | 1-Jul-19 | | 64 | 34 | 30 | | | 2 | |
| 37 | Printer Project | P31 | | | Grow | Proposed | Small | Has no dependencies | 1-Jul-19 | 1-Jul-19 | 212 | 45 | 27 | 18 | | | 2 | |
| 1. Introduction 2. Resource Capacity 3. Settings 4. Project Data 5. Results 6. Prioritization Criteria Menu | | | | | | | | | | | | | | | | | | |

| Measure # | Performance Measure | Target | 4 Previous Quarters | | | | Current Quarter |
|-----------|--|--------|---------------------|-------------------|-------------------|-------------------|-------------------|
| | | | Q3 2017 (Jul-Sep) | Q4 2017 (Oct-Dec) | Q1 2018 (Jan-Mar) | Q2 2018 (Apr-Jun) | Q3 2018 (Jul-Sep) |
| 1 | % of times the server is available for use by the customers(ETS Sites) | ≥99.9% | 99.94% | 99.94% | 99.92% | 99.60% | 99.93% |
| 2 | % of times a router is available for use by the customers | ≥99.7% | 99.79% | 99.81% | 99.76% | 99.55% | 99.75% |
| 3 | % of server instance requests delivered on time | ≥90% | 92.1% | 97.8% | 99.0% | 99.4% | 99.8% |





Focus Area Analysis: Organizational Structure



Organizational Structure Citations

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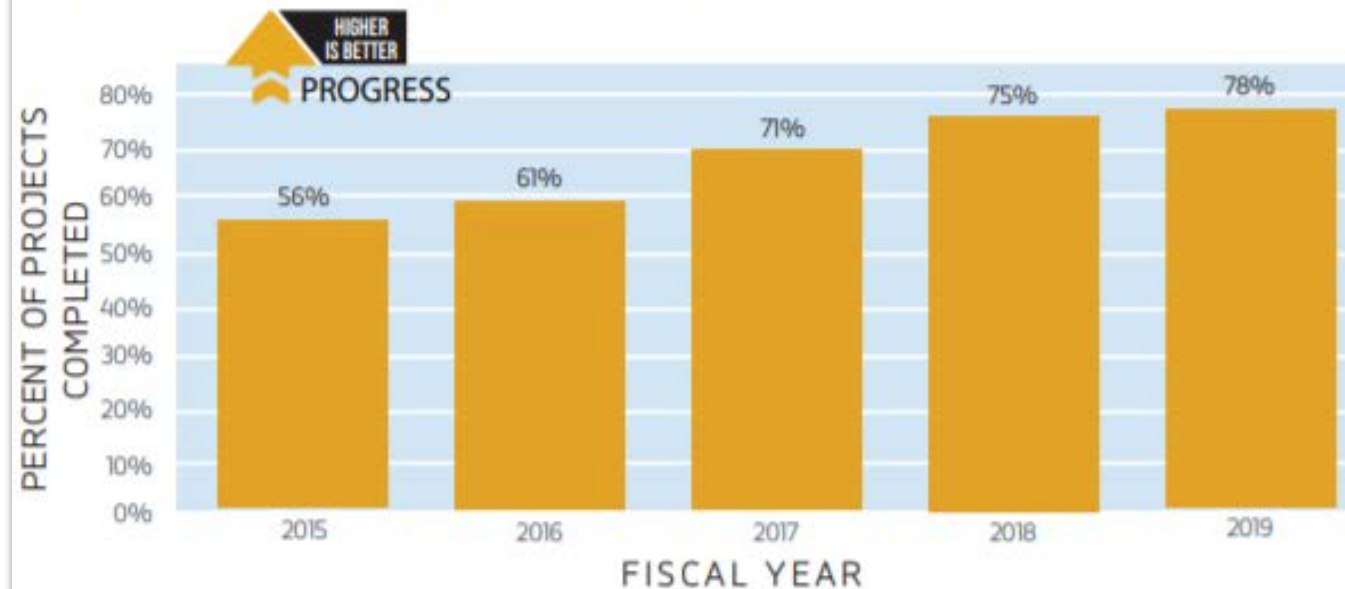
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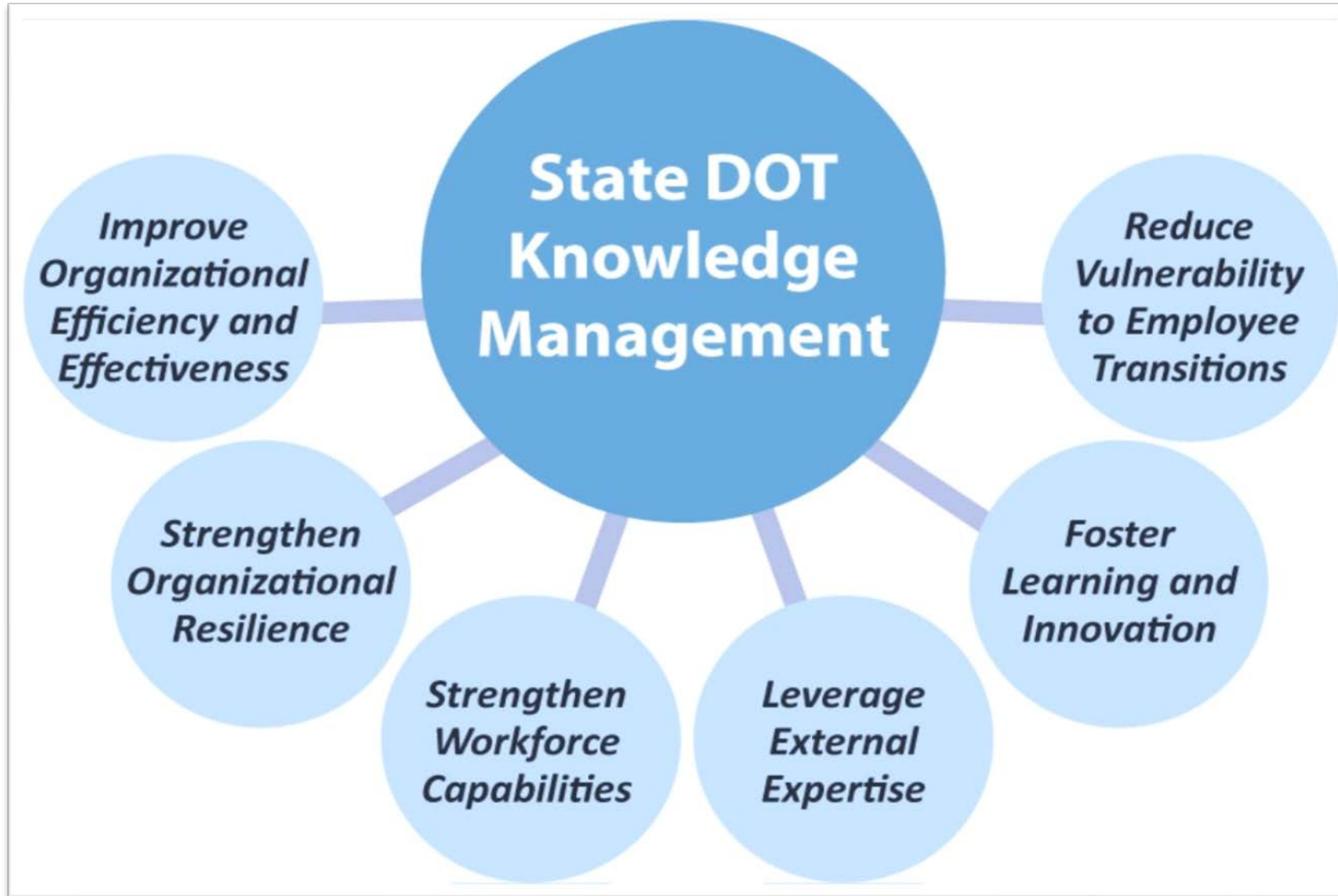
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PERCENT OF PROJECTS COMPLETED BY ORIGINAL CONTRACT DATE

This measure illustrates MDOT's efficiency in managing and delivering contracts and services. It is calculated by assessing contracts completed by their established commitment date or slated project completion date. Project completion is based on when stakeholders are able to receive benefit from the project, such as when a new pedestrian path is opened to the public.







Focus Area Analysis: People Capabilities



People Capabilities Citations

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44. Guidehouse Interview with ArDOT Area Maintenance Supervisor (Rural)
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